

DATA BRIEF

More Than 10.3 Million U.S. Residents Have Science or Engineering Degrees

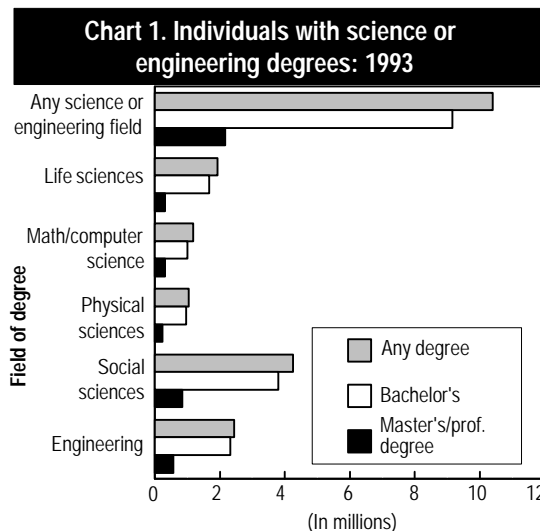
by Mark C. Regets

Individuals with bachelor's or master's degrees in science or engineering earn more than their counterparts in other fields.

More than 10.3 million U.S. residents in 1993 had at least one college degree in a science or engineering (S&E) field. Individuals with bachelor's or master's degrees in science or engineering earn more than those with bachelor's or master's degrees in non-S&E fields. This Data Brief presents these and other selected statistics on bachelor's and master's degree scientists and engineers from data just released from the 1993 National Survey of College Graduates (NSCG). The NSCG is a National Science Foundation followup survey of the education and labor market experiences of 215,000 individuals under age 76 who held a bachelor's degree or higher in any field at the time of the 1990 census. Tables and micro records from the NSCG will be available soon on the Division of Science Resources Studies' World Wide Web site (<http://www.nsf.gov/sbe/srs/stats.htm>) or on a public-use computer file on tape available from NSF.

Chart 1 shows the number of individuals holding science or engineering degrees for various degree levels and fields. Since many individuals have more than one degree in science or engineering, the totals across degree levels or across fields of degree are higher than the total number of individuals holding any science or engineering degree. Whereas 10.3 million individuals have some degree in science or engineering, 9.2 million have a bachelor's degree in an S&E field, and 2.3 million have a master's or professional degree in such a field. These numbers are likely to underestimate total S&E degrees since the NSCG excludes those with no college degree prior to April 1990. Of approximately 29.0 million total college graduates, 4.2 million individuals have a degree in social science, 4.0 million in natural science, and 2.5 million in engineering.

Although fewer than half of individuals with S&E bachelor's or master's degrees work as



NOTE: The 1993 National Survey of College Graduates excludes degrees earned after April 1990

SOURCE: NSF/SRS, National Survey of College Graduates, 1993

scientists or engineers (bachelor's: 28.6 percent, master's: 59.3 percent), many more work in jobs they say are related to the field of their highest degree. Table 1 shows the occupational distribution of individuals categorized by the

Table 1. Percent distribution of S&E bachelor's and master's degree holders by occupational characteristics: 1993

Field of high degree	Same field	Other S&E	Closely related non-S&E	Somewhat related non-S&E	Unrelated non-S&E
Bachelor's					
Engineering.....	52.8	5.9	8.7	13.2	19.4
Life sciences.....	10.0	7.1	25.6	20.8	37.0
Math/computer science.....	35.3	3.9	12.9	16.5	31.4
Physical sciences....	22.1	17.7	20.8	22.3	25.2
Social sciences.....	1.5	4.2	32.1	27.4	34.9
Masters/professional degree					
Engineering.....	57.8	10.5	5.3	10.8	15.6
Life sciences.....	28.4	8.3	11.3	12.7	39.3
Math/computer sciences.....	44.8	7.2	5.2	13.0	29.8
Physical sciences....	43.2	18.5	9.3	9.0	20.0
Social sciences.....	19.3	4.0	13.1	16.9	46.7

SOURCE: NSF/SRS, National Survey of College Graduates, 1993

Electronic Dissemination

SRS data are available through the World Wide Web (<http://www.nsf.gov/sbe/srs/stats.htm>) and also through STIS, NSF's online Science and Technology Information System, described in NSF flyer 95-64, "Getting NSF Information and Publications." For a paper copy of the flyer, call 703-306-1130. For an electronic copy of the *STIS User's Guide*, send an e-mail with the phrase "get NSF9410.TXT" to stisserv@nsf.gov. For NSF's Telephonic Device for the Deaf, dial 703-306-0090.

field and level of their highest degree. Only 29.6 percent of those with S&E bachelor's degrees and 31.5 percent of S&E master's degrees work in non-S&E jobs unrelated to their highest degree.

The median annual salary of those with bachelor's degrees in science and engineering is 17.6 percent greater than the median salary of those with bachelor's degrees in non-S&E fields (table 2). At the master's/professional degree level, the S&E advantage in median salary is 6.1 percent—lower in part because of the inclusion of medical doctors in the non-S&E category at this educational level. The highest median salaries are in engineering (bachelor's: \$51,000, master's: \$58,200) and the lowest in the social sciences (bachelor's: \$35,400, master's: \$40,000) and life sciences (bachelor's: \$36,000, master's: \$40,000).

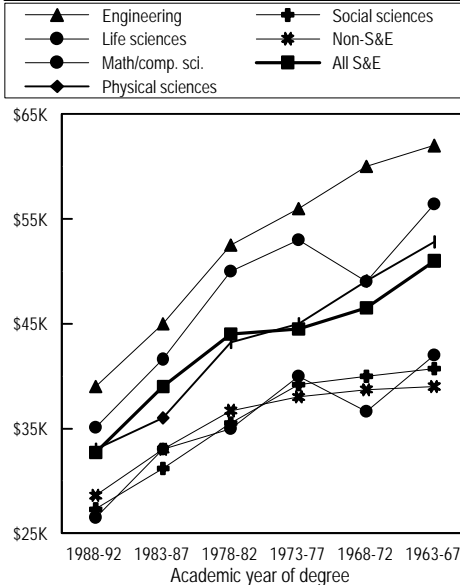
The salary advantage for S&E bachelor's degree graduates increases over the course of a career. Chart 2 shows median salaries for bachelor's degree graduates by field of degree and graduation year. For 1988-92 graduates, there is a 12.3-percent salary advantage for S&E graduates over non-S&E (\$32,700 to \$28,600). This advantage grows to 30.8 percent for 1963-67 graduates (\$51,000 to

Table 2. Distribution of annual salaries of bachelor's and master's degree recipients, by field and level of highest degree, as of April 1993

Percentile	All S&E	Engineering	Life sciences	Math/computer science	Physical science	Social science	Non-S&E
Bachelor's							
25th percentile.....	\$30,000	\$40,000	\$27,000	\$33,000	\$32,000	\$26,000	\$26,000
Median.....	42,000	51,000	36,000	44,100	43,700	35,400	35,700
75th percentile.....	57,200	65,000	48,000	57,600	60,000	50,000	52,000
Master's/professional degree							
25th percentile.....	\$35,500	\$46,200	\$30,000	\$41,000	\$37,000	\$30,000	\$33,000
Median.....	48,800	58,200	40,000	52,200	50,300	40,000	46,000
75th percentile.....	65,000	72,000	51,700	70,000	69,800	54,000	68,400

SOURCE: NSF/SRS, National Survey of College Graduates, 1993

Chart 2. 1993 median bachelor's degree salaries, by year and field of degree



SOURCE: NSF/SRS, National Survey of College Graduates, 1993

\$39,000) after 26 to 30 years in the labor market. Again, the lowest S&E salaries are in the social and life sciences. For master's/professional degree graduates, the salary advantages over non-S&E graduates are more constant, rising to only 8.8 percent 26 to 30 years after graduation.

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