

Science & Engineering Doctorate Awards Are at an All-Time High

by Susan T. Hill

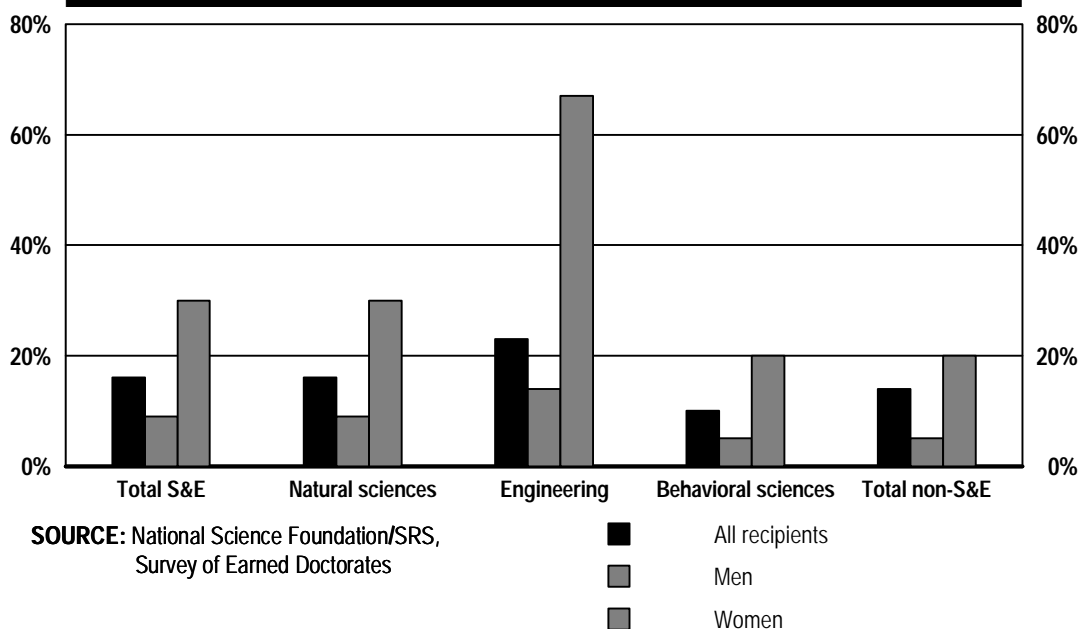
Women and minorities accounted for most of the increase among U.S. citizens earning S&E doctorates.

In 1995, doctorate awards in science and engineering fields reached the highest level ever. Of 41,610 research doctorates that were awarded in academic year 1995 by U.S. universities, 26,515 (almost two-thirds) were in science and engineering (S&E) fields. Doctorate awards in S&E fields increased faster than awards in non-S&E fields in the last 5 years. Among broad S&E fields, an exceptionally large percentage increase occurred in engineering (chart 1, below).

1990, whereas the number of American Indians increased slightly.¹ Still, women and minorities are underrepresented among S&E doctorates. The number of white males earning S&E doctorates was about the same as in 1990.

Growth in the number of S&E doctorate awards was fueled more by non-U.S. citizens on permanent visas than by U.S. citizens. The number of S&E doctorate awards increased from about 22,865 to 26,515 from 1990 to

Chart 1. Percent change from 1990 to 1995 in science and engineering (S&E) and non-S&E doctorate awards, by broad field and sex of recipient



The number of women earning S&E doctorates between 1990 and 1995 increased 30 percent, compared with only 9 percent for men.

Among U.S. citizens, the number of Asians, Blacks, and Hispanics earning S&E doctorates in 1995 was significantly higher than in

1995. Of this increase of 3,650 recipients, U.S. citizens accounted for 25 percent, while non-U.S. citizens with temporary visas accounted for 12 percent and non-U.S. citizens

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.

¹ For more detailed information on doctorate awards by race/ethnicity, see *Selected Data on Science and Engineering Doctorate Awards: 1995*, Selected Data Tables, National Science Foundation/SRS, (96-303).

on permanent visas accounted for 63 percent. (See table 1). Most of the increase among non-U.S. citizens with permanent visas was persons from the People's Republic of China.

The data presented in this data brief were obtained from the Survey of Earned Doctorates. Research doctorate recipients respond to the survey at the time they complete the requirements for their degree. More detailed data are in the SRS report entitled *Selected Data on Science and Engineering Doctorate Awards: 1995*.

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Table 1. Science and engineering (S&E) and non-S&E doctorate awards, by broad field and citizenship status, 1995

Broad field	All recipients	U.S. citizens	Non-U.S. citizens, permanent visas	Non-U.S. citizens, temporary visas	Citizenship unknown
Total awards.....	41,610	27,603	4,307	8,806	894
Total S&E.....	26,515	15,460	3,501*	6,992	562
Natural sciences 1/.....	13,212	7,633	2,107	3,249	223
Behavioral sciences 2/...	7,296	5,445	440	1,220	191
Engineering.....	6,007	2,382	954	2,523	148
Total non-S&E.....	15,095	12,143	806	1,814	332
Health.....	1,331	938	107	245	41
Education.....	6,546	5,680	215	501	150
Humanities.....	4,690	3,745	308	549	88
Professional/other.....	2,528	1,780	176	519	53

NOTE: These numbers are subject to minor revisions because late respondents will be included. Field classifications are those of NSF and may differ slightly from other sources.

*Of the 3,501 non-US citizens with permanent visas, 2,167 were from the People's Republic of China.

1/ Natural sciences are the physical, earth/atmospheric/oceanographic, mathematics, computer, biological, and agricultural sciences.

2/ Behavioral sciences are the social sciences and psychology.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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