

Doctorate Recipients from United States Universities:

Summary Report 2002

Survey of Earned Doctorates

SPONSORED BY THE NATIONAL SCIENCE FOUNDATION, THE NATIONAL INSTITUTES OF HEALTH, THE U.S. DEPARTMENT OF EDUCATION, THE NATIONAL ENDOWMENT FOR THE HUMANITIES, THE U.S. DEPARTMENT OF AGRICULTURE, AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

HIGHLIGHTS

This report presents data on recipients of research doctorates awarded by U.S. universities from July 1, 2001, through June 30, 2002. This information is taken from the 2002 Survey of Earned Doctorates (SED), an annual census of new doctorate recipients.

- The 413 universities in the United States that conferred research doctorates awarded 39,955 doctorates during the 2001-2002 academic year (the eligibility period for the 2002 SED), a decline of 2 percent from the 40,790 doctorates awarded in 2001, and a 6 percent decline from the all-time high of 42,654 in 1998. The 2002 total is the lowest since 1993.
- The number of doctorates awarded by broad field in 2002 was greatest in life sciences, which conferred 8,350 Ph.D.s. The numbers in the other broad areas were 6,611 in social sciences; 6,488 in education; 5,715 in the physical sciences and mathematics (combined); 5,373 in the humanities; 5,073 in engineering; and 2,345 in business and other professional fields.
- Women received 18,124 doctorates, or 45 percent of all doctorates granted in 2002. This is the highest percentage ever for women, continuing a 30-year upward trend. Women earned 48 percent of the doctorates granted in life sciences, 55 percent in social sciences, 50 percent in humanities, 66 percent in education, and 46 percent in business/other professional fields. In the physical sciences and engineering, they constituted 27 percent and 18 percent, respectively.
- In 2002, 51 percent of all doctorates awarded to U.S. citizens went to women, higher than the 49.5 percent in 2001 and marking the first time U.S. women were awarded more doctorates than their male counterparts.
- Almost 19 percent of all doctorates awarded to U.S. citizens in 2002 were earned by U.S. racial/ethnic minority groups. This is the largest percentage ever, and continues a steady upward trend. Among the 25,450 doctorates earned in 2002 by U.S. citizens who identified their race/ethnicity (98 percent of all U.S. citizen doctorates), 1,644 doctorates were earned by African-Americans, 1,364 were earned by Asians, 1,233 were earned by Hispanics, 146 were earned by American Indians, 75 were earned by Hawaiian or other Pacific Islanders, and 268 were earned by non-Hispanic individuals who identified more than one racial background. The broad fields with the largest percentages of minorities were education, in which blacks were the predominant minority group, and engineering, in which Asians were predominant.
- U.S. citizens received 70 percent of all doctorates earned in 2002 by individuals who identified their citizenship status (93 percent of all doctorate recipients identified their citizenship). The People's Republic of China was the country of origin for the largest number of non-U.S. doctorates in 2002, with 2,644, followed by South Korea with 1,187, India with 838, Taiwan with 674, and Canada with 494. The percentage of doctorates earned by U.S. citizens ranged from lows of 39 percent in engineering and 55 percent in the physical sciences, to highs of 90 percent in education and 81 percent in the humanities.
- Median time to degree since receipt of the baccalaureate was 10.2 years in 2002, up from 10.0 years in 2001, but down from 10.3 years in 2000, and 10.4 in 1999. Median time to degree since first enrollment in any graduate program was 7.5 years in 2002, virtually unchanged since 1997.
- Most of the 2002 doctorate recipients (65 percent) received their primary financial support for graduate education from such program- or institution-based sources as university fellowships or teaching and research assistantships. Almost half (49 percent) of the 2002 doctorate recipients reported no educational indebtedness at completion of the doctorate; 19 percent reported cumulative education debt levels of \$30,001 or more.
- Just under 73 percent of the new doctorate recipients had definite postgraduation commitments for employment or continued study when they completed the SED survey. Of those, 69 percent planned to work and 31 percent planned to continue their studies as postdoctorates. For U.S. citizens, 55 percent of those with firm employment commitments noted higher education as their intended work sector. In addition, 18 percent indicated industry or self-employment, and 9 percent had definite plans for government work.

Doctorate Recipients from United States Universities: Summary Report 2002

The Survey of Earned Doctorates is funded by
and conducted under the direction of the following
agencies of the U.S. government:

National Science Foundation
National Institutes of Health
U.S. Department of Education
National Endowment for the Humanities
U.S. Department of Agriculture
National Aeronautics and Space Administration



NATIONAL ENDOWMENT FOR THE
HUMANITIES



Thomas B. Hoffer
Scott Sederstrom
Lance Selfa
Vince Welch
Mary Hess
Shana Brown
Sergio Reyes
Kristy Webber
Isabel Guzman-Barron

NORC at the University of Chicago
Chicago, Illinois
2003

NOTICE

This report is based on data collected in the Survey of Earned Doctorates (SED) conducted for the National Science Foundation (NSF), the National Institutes of Health (NIH), the U.S. Department of Education (USED), the National Endowment for the Humanities (NEH), the U.S. Department of Agriculture (USDA), and the National Aeronautics and Space Administration (NASA), by the National Opinion Research Center (NORC) under NSF Contract No. SRS-9712655. Findings in this publication represent analyses developed by NORC, which have been reviewed, but not necessarily verified, by the participating Federal agencies and do not necessarily reflect the views of the sponsoring agencies.

NSF publications from the Survey of Earned Doctorates and the Doctorate Records File are available free on request (see inside back cover). Standardized tables on baccalaureate origins of Ph.D.s by major field of doctorate and trend tables on citizenship, race/ethnicity, and sex of Ph.D.s by fine field of doctorate are available for a fee. Customized tables can also be prepared at cost. For more information, please contact:

Doctorate Data Project	Phone: (773) 753-7500
National Opinion Research Center	Fax: (773) 753-7886
1155 East 60th Street	E-mail: 4800-sed@norcmail.uchicago.edu
Chicago, IL 60637	

Material in this publication is in the public domain and, with appropriate credit, may be reproduced without permission. Recommended citation:

Hoffer, T.B., S. Sederstrom, L. Selfa, V. Welch, M. Hess, S. Brown, S. Reyes, K. Webber, and I. Guzman-Barron. 2003. *Doctorate Recipients from United States Universities: Summary Report 2002*. Chicago: National Opinion Research Center. (The report gives the results of data collected in the Survey of Earned Doctorates, conducted for six Federal agencies, NSF, NIH, USED, NEH, USDA, and NASA by NORC.)

This report is available on the NORC Web site: <http://www.norc.uchicago.edu/issues/docdata.htm>. Reports on science and engineering doctorates can be found on the National Science Foundation's Web site: <http://www.nsf.gov/sbe/srs/sengdr/start.htm>.

ACKNOWLEDGMENTS

Academic officers at the nation's doctorate-granting universities distribute, collect, and forward SED questionnaires to NORC. The project gratefully acknowledges the support and assistance of graduate deans and their staff, registrars, dissertation secretaries, and other administrators who participate in the SED effort and contribute to its success. The sponsoring Federal agencies and NORC also extend their heartfelt thanks to the 36,349 new research doctorate recipients who took the time to complete and return their copy of the 2002 survey.

The conduct of the SED, the maintenance of the resulting data file, and the publication of this report are funded jointly by the National Science Foundation (NSF), the National Institutes of Health (NIH), the U.S. Department of Education (USED), the National Endowment for the Humanities (NEH), the U.S. Department of Agriculture (USDA), and the National Aeronautics and Space Administration (NASA). Susan Hill (NSF) serves as the lead project officer for the six participating agencies; while Susan Hill was on leave in 2003-2004, Joan Burrelli of NSF assumed the lead project officer responsibilities. The survey's relevance to national policy issues continues to grow, thanks to the involvement and constructive reviews of the design and analysis of the survey by representatives from the six agencies: Walter Schaffer (NIH), Nancy Borkow (USED), Frank Shaw (NEH), Ella Smith (USDA), Malcom Phelps (NASA), and Mary Golladay (NSF). Susan Hill (NSF), Director of the Doctorate Data project, and Joan Burrelli (NSF) provided guidance and direction during the preparation of this report. Comments from additional reviewers -- Mary Frase and Ronald Fecso -- at NSF/SRS are also appreciated. Reviews of the report from Daniel Denecke (the Council of Graduate Schools), Jed Marsh (Princeton University), and Judi Sui (University of California-Berkeley) were invaluable and greatly appreciated.

The authors gratefully acknowledge the contributions of their NORC colleagues who provided valuable counsel, direction, and assistance with various survey responsibilities: Jamie Friedman, Director of Institutional Contacting; Syed Ahsan, Project IT Manager; Sharmia Lashley, Coordinator for the Data Preparation Center; Jie Yin, Project Programmer; Cindy Simko, Research Specialist; Crystal Williams, Data Preparation Supervisor; and the NORC Production Center Staff.

CONTENTS

	Page
HIGHLIGHTS	inside front cover
LIST OF FIGURES	iv
LIST OF TABLES	iv
INTRODUCTION	1
Organization	1
Related Publications.....	2
TRENDS IN DOCTORATE RECIPIENTS	4
Overall Trends and Rates of Change	4
Doctorate-granting Institutions, Doctorates Recipients per Institution, and Geographical Distribution	6
Doctorates by Field of Study.....	8
Doctorates by Sex	12
Doctorates by Race/Ethnicity.....	14
Doctorates by Citizenship	18
Doctorates by Parental Education Background	20
Time to Degree.....	21
FINANCIAL RESOURCES IN SUPPORT OF DOCTORATE RECIPIENTS, INCLUDING INDEBTEDNESS	24
Sources of Financial Support.....	24
Levels of Education-Related Indebtedness	26
POSTGRADUATE PLANS, EMPLOYMENT, AND LOCATION	29
Definite versus Indefinite Plans	29
Career Employment versus Postdoctorates	30
Employment Sectors in the United States.	31
Sources of Financial Support for Postdoctoral Appointments.....	31
Postdoctoral Location of Non-U.S. Citizens.....	32
SPECIAL SECTION: FIRST-GENERATION COLLEGE GRADUATES EARNING RESEARCH DOCTORATES	34
First-Generation College Graduates in the Doctoral Population	34
First-Generation College Graduates in the Doctoral and Other Higher-Education Populations.....	35
Doctoral Fields of Specialization of First-Generation College Graduates	36
Undergraduate Origins of First-Generation College Graduates.....	37
Sources of Support, Educational Debt, and Time to Degree	38
Trends in Representation of First-Generation College Graduates.....	40
Summary and Conclusions.....	41
MAIN DATA TABLES	43
APPENDICES	75
A The Eight Basic Tables, 2002.....	76
B Trend Tables, 1992-2002	109
C Technical Notes.....	117
D Survey of Earned Doctorates Questionnaire, Academic Year 2002	129
E Field Classification and Research Degree Titles	139
NSF PUBLICATIONS FROM THE DOCTORATE DATA PROJECT	inside back cover

LIST OF FIGURES

		Page
Figure 1	Doctorates awarded by U.S. colleges and universities, 1957-2002	5
Figure 2	Annual growth or decline in doctorates awarded by U.S. colleges and universities, 1957-2002	6
Figure 3	Top 20 doctorate granting states, 2002.....	8
Figure 4	Science and engineering doctorates awarded by broad field of study, 1972-2002	10
Figure 5	Humanities, education, and professional/other fields doctorates awarded by broad field of study, 1972-2002	10
Figure 6	Distribution of doctorate recipients by broad field of study, 1972 and 2002 compared	11
Figure 7	Doctorate recipients by sex, 1992-2002	12
Figure 8	Percent of female doctorate recipients by broad field of study, 1972, 1982, 1992, 2002.....	13
Figure 9	Doctorates awarded to racial/ethnic minority U.S. citizens, by race/ethnicity, 1982-2002	15
Figure 10	Percentage of doctorates earned by racial/ethnic minority U.S. citizens, 1982 and 2002.....	15
Figure 11	Percentage of doctorates earned by racial/ethnic minority U.S. citizens, by broad field of study, 2002	16
Figure 12	Percentage of doctorates earned by U.S. citizens, by race/ethnicity and sex, 2002	17
Figure 13	Median number of years to doctorate from baccalaureate award and age at doctorate, 1977-2002	22
Figure 14	Age distribution at doctorate by broad field of study, 2002.....	23
Figure 15	Primary sources of financial support for doctorate recipients, 2002.....	25

LIST OF TABLES

		Page
Table 1	Number of doctorates awarded and annual percentage change in doctorates awarded by U.S. colleges and universities, 1957-2002	44
Table 2	Number of U.S. colleges and universities awarding doctorates and average doctorate recipients per institution, 1962-2002	45
Table 3	Top 20 doctorate-granting institutions by broad field of study, 2002	46
Table 4	Number of doctorate recipients by state, including the District of Columbia and Puerto Rico, 2002.....	48
Table 5	Major field of study of doctorate recipients for selected years, 1972-2002	49
Table 6	Number of doctorate recipients and percent female, by selected subfield of study, 1992 and 2002.....	50
Table 7	Number and percent of doctorate recipients, by sex within broad field of study for selected years, 1972-2002.....	51

LIST OF TABLES (Continued)

	Page
Table 8	Number of U.S. citizen doctorate recipients, by race/ethnicity within broad field of study for selected years, 1982-2002 52
Table 9	Major field of study of U.S. citizen doctorate recipients, by race/ethnicity, 2002 53
Table 10	Doctorate-granting institutions having the largest number of U.S. minority doctorate recipients, 1998–2002 54
Table 11	Citizenship status of doctorate recipients, by broad field of study for selected years, 1972-2002 55
Table 12	Top 30 countries of origin of non-U.S. citizens earning doctorates at U.S. colleges and universities (ranked by number of doctorate recipients), 2002 56
Table 13	Doctorate-granting institutions having the largest number of non-U.S. citizen doctorate recipients (ranked by number of doctorate recipients), 2002 56
Table 14	Parental educational attainment of 2002 doctorate recipients, by selected characteristics 57
Table 15	Median number of years from baccalaureate to doctorate award, by broad field of study for selected years, 1977-2002 58
Table 16	Median number of years from baccalaureate to doctorate award, by demographic group and broad field of study, 2002 59
Table 17	Median age and number of doctorate recipients at different age levels, by field of study and demographic characteristics, 2002 60
Table 18	Primary sources of financial support for doctorate recipients, by broad field of study and demographic group, 2002 61
Table 19	Debt related to the education of the doctorate recipients, by broad field of study, 2002 62
Table 20	Debt related to the education of the doctorate recipients, by demographic group, 2002 63
Table 21	Postgraduation status of doctorate recipients, by broad field of study for selected years, 1982-2002 64
Table 22	Postgraduation status of doctorate recipients, by demographic group for selected years, 1982-2002 64
Table 23	Postgraduation plans of doctorate recipients with definite commitments, by broad field of study for selected years, 1982-2002 65
Table 24	Postgraduation plans of doctorate recipients with definite commitments, by demographic group for selected years, 1982-2002 65
Table 25	Employment sector of doctorate recipients with postgraduation employment commitments in the United States, by demographic group for selected years, 1982-2002 66
Table 26	Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1982-2002 67
Table 27	Postdoctoral location and type of plan of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by broad field of study and visa status, 2002 68

LIST OF TABLES (Continued)

	Page
Table 28	Postdoctoral location of non-U.S. citizen doctorate recipients with postgraduation commitments, by visa status for selected years, 1982-2002 69
Table 29	Parental baccalaureate attainment of doctorate recipients, by broad field of study and selected demographic characteristics, 2002 69
Table 30	Parental baccalaureate attainment of foreign doctorate recipients, by country of citizenship (top 30 countries, ranked by number of doctorate recipients), 2002 70
Table 31	Percentage distribution of doctorate recipients, by broad field of study and parental baccalaureate attainment, 2002 70
Table 32	Percentage distribution of U.S. citizen doctorate recipients, by parental baccalaureate attainment and selected undergraduate institution characteristics, 2002 71
Table 33	Percentage distribution of doctorate recipients on primary source of financial support and level of education debt, and median years in graduate school, by parental baccalaureate attainment, 2002 71
Table 34	Percentage of doctorate recipients reporting own resources as primary source of support and cumulative debt greater than \$30,000, by parental baccalaureate attainment and broad field of study, 2002 72
Table 35	Percentage of U.S. citizen doctorate recipients, reporting cumulative debt greater than \$30,000, by parental baccalaureate attainment, broad field of study, and race/ethnicity, 2002 73
Table 36	Percent of doctorate recipients who were first-generation college graduates, by broad field of study and selected demographic characteristics for selected years, 1977-2002 74

APPENDIX TABLES

Table A-1	Number of doctorate recipients, by sex and subfield, 2002 80
Table A-2	Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002 83
Table A-3	Statistical profile of doctorate recipients, by major field of study, 2002 88
Table A-4	Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2002 94
Table A-5	Doctorate recipients' financial resources in support of doctoral programs, by broad field of study and sex, 2002 96
Table A-6	State of doctoral institution of doctorate recipients, by broad field of study and sex, 2002 97
Table A-7	Institutions granting research doctorates, by major field of study, 2002 98
Table A-8	Top 50 doctorate-granting institutions 106
Table B-1	Number of doctorate recipients, by subfield of study, 1992-2002 108
Table B-2	Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1992-2002 113
Table C-1	Survey response rates 119
Table C-2	Profiles of respondents versus nonrespondents for critical item data, by source or response, 2002 120
Table C-3	Item response rates, 1992-2002 122

DOCTORATE RECIPIENTS FROM UNITED STATES UNIVERSITIES: SUMMARY REPORT 2002

Introduction

Doctorate Recipients from United States Universities: Summary Report 2002 is the thirty-sixth in a series of reports on research doctorates awarded by universities in the United States.¹ The data presented in this report are from the annual Survey of Earned Doctorates (SED), a census of the 39,955 research doctorate recipients who earned their degrees between July 1, 2001, and June 30, 2002. Conducted since 1958, this survey is currently sponsored by six Federal agencies: the National Science Foundation, the National Institutes of Health, the U.S. Department of Education, the National Endowment for the Humanities, the U.S. Department of Agriculture, and the National Aeronautics and Space Administration. The National Opinion Research Center (NORC) is currently the data collection contractor. All survey responses become part of the Doctorate Records File (DRF), a cumulative database on research doctorate recipients from 1920 to 2002. For the 2002 survey, 91 percent of the 39,955 new doctorate recipients completed the SED questionnaire; basic information on nonrespondents was obtained from their degree-granting institutions and public records.² The cumulative DRF now contains a total of 1,476,921 records on individuals completing doctorates over the last 83 years at U.S. institutions.

Organization

Summary Report 2002 begins by reviewing overall trends in research doctorates awarded by U.S. universities. Trends in the numbers and percentages of research doctorates are reported by the broad fields in which research doctorate recipients earn their degrees, as well as by sex, race/ethnicity, and citizenship. Trends in the average amount of time taken to complete the doctorate degree are also reported. Cross-sectional data for the 2002 cohort are presented on the

¹ The Survey of Earned Doctorates collects information on *research* doctorate recipients only. This survey differs from the U.S. Department of Education's Integrated Postsecondary Education Data Survey (IPEDS), which collects the number of doctoral degrees awarded per institution by field of study. For an evaluation of the differences, see National Science Foundation, 1993, *Science and Engineering Doctorates 1960-1991*, NSF 93-301, pp. 2-6, Washington, DC.

² See appendix C for information on response rates for the SED.

sources of financial support during graduate school, and the postgraduation status and plans of doctorate recipients.

The report concludes with a special section focusing on new doctorate recipients who are the first-generation college graduates in their families. The annual *SED Summary Report* has occasionally featured special sections focusing on topics of particular interest, including

- Non-U.S. Citizen Doctorate Recipients (1989 and 1997)
- U.S. Citizen Minority Doctorates (1990)
- U.S. Citizen Female Doctorates (1991)
- Contribution of India, China, Taiwan, and Korea to the Growth of Non-U.S. PhDs (1995)
- Indebtedness of Doctorate Recipients (1998)
- Interstate Migration Patterns of Doctorate Recipients (1999).

Throughout the report, figures highlighting selected trend and cross-sectional data complement the brief narratives of key survey findings. A set of tables following the main text contains the numbers and percentages from which the figures and the numbers cited in the text are drawn. References to these tables are embedded in the text, and a reference at the bottom of each figure indicates the corresponding table number. Basic tables of statistics for the 2002 research doctorate recipients are shown in appendix A, and trend tabulations for the previous ten-year period (1992 to 2002) are presented in appendix B. These basic tables have maintained essentially the same structure for the past several annual volumes of the *Summary Report*, and thus provide a basis for additional trend analyses that researchers can pursue. Appendix C supplies technical notes, including response rates and other information related to tables and figures in the report. Appendix D contains the SED questionnaire for the 2002 academic year. Field of study classifications and research degree titles included in the SED are listed in Appendix E.

Related Publications

The methodology of the SED 2002 survey is described in detail in the annual *Survey of Earned Doctorates Methodology Report*. This report is posted on the National Science Foundation, Division of Science Resources Statistics (SRS) Website (<http://www.nsf.gov/sbe/srs/ssed/sedmeth.htm>). The NSF also publishes an annual volume of tabulations using the SED data, *Science and Engineering Doctorate Awards*, available on the

NSF-SRS Website. Copies of the annual *Summary Report* from previous years are available on the NORC Website (<http://www.norc.uchicago.edu/issues/docdata.htm>).

Trends in Doctorate Recipients

The individual research doctorate recipients³ from U.S. universities are the primary respondents to the Survey of Earned Doctorates. Each year, personnel in graduate schools or other administrative offices of the degree-granting universities distribute the SED questionnaires to these individuals and transmit the rosters and completed questionnaires to the SED data collection contractor (NORC at the University of Chicago has been the contractor since 1997). The lists of new doctorate recipients are carefully checked and edited by the data collection contractor working closely with the universities over the course of the SED eligibility year. Every effort is made to locate all new graduates who did not return a questionnaire to their graduate school and to ask them to complete the form. The graduate schools provide basic information on individual nonrespondents at the end of the data collection cycle. A comprehensive and accurate picture of the universe of new doctorates each year results from this process and the SED data provide a solid basis for charting trends in the numbers and characteristics of this population.

Overall Trends and Rates of Change

During the twelve-month period ending June 30, 2002, U.S. universities awarded 39,955 research doctorate degrees, compared with 40,790 in 2001 and 41,356 in 2000. (See table 1). This was a percentage decrease from 2001 to 2002 of 2.0 percent, and of 6.3 percent from the all-time high of 42,652 in 1998. The number of doctorates awarded in 2002 is the lowest since 1993.

Despite the lack of growth in 2002, the long-term trend in the number of new research doctorates has been one of considerable expansion. Over the last 40 years, the number of doctorates granted by U.S. universities has on average increased by approximately 3.5 percent per year. The expansion has been characterized by two periods of rapid growth followed by

³ Doctorates are reported by academic year (from July 1 of one year through June 30 of the following year) and include *research doctorates* in all fields. Doctoral degrees such as the Ph.D., D.Sc., and research Ed.D. are covered by this survey; professional degrees (e.g., M.D., D.D.S., J.D., Psy.D., and D.Min.) are not. A full list of included degrees can be found in appendix E. For convenience throughout this report, the terms “Ph.D.” or “doctorate” are used to represent any of the research doctoral degrees covered by the survey. Please note that if an individual earned a second research doctorate, the second doctorate is not included in the SED. In 2002, a total of 76 individuals earned second research doctorates.

stability and even slight declines as seen this year. Between 1961 – the year when the number of annual doctorates awarded surpassed 10,000 for the first time – and 1971, the average annual growth rate was nearly 12 percent, such that the number of doctorates awarded each year almost tripled (31,867). The number of doctorate degrees annually awarded during the decade of the 1970s and through the early 1980s remained moderately stable at about 31,000 each year. In 1986, a second period of growth began that persisted until 1998, when 42,652 research doctorates were awarded. Since 1998, the number of doctorates awarded each year has generally declined, reaching a 10-year low in 2002. (See figures 1 and 2.)

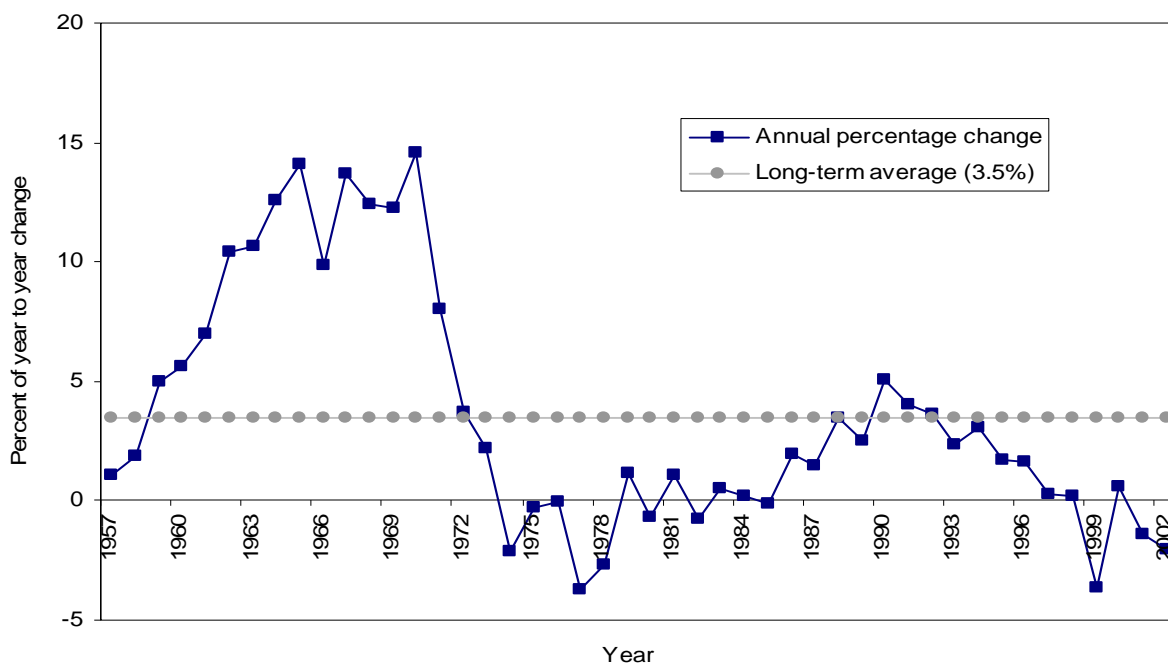
Figure 1. Doctorates awarded by U.S. colleges and universities, 1957-2002



See Table 1.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Figure 2. Annual growth or decline in doctorates awarded by U.S. universities, 1957-2002



See Table 1.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Doctorate-granting Institutions, Doctorate Recipients per Institution, and Geographical Distribution

The SED survey staff monitor closely the universe of research doctorate-granting institutions, including an annual review of all accredited institutions recognized by the U.S. Department of Education in its Integrated Postsecondary Education Data System (IPEDS). The data collection contractor for the SED contacts newly-identified institutions granting one or more of the research doctorates listed in appendix E and includes the institutions in the SED universe as soon as they award a recognized degree. Appendix table A-7 contains the full list of institutions granting research doctorates in the 2002 academic year.

During the 2002 academic year, there were 413 universities in the United States and Puerto Rico that awarded at least one research doctorate, a very slight decline from the all-time high recorded in 2001 (416). (See table 2.) In 2002, the mean number of doctorates awarded per institution was 97, while the median was 38. (See table 2 for the mean and median numbers of doctorates awarded per institution from 1962 to 2002.) As the substantial difference between the

mean and the median indicates, a relatively small number of institutions award a disproportionately large number of doctorates. Just 49 institutions granted 50 percent of all doctorates in 2002. Eighteen institutions accounted for 25 percent of all doctorates granted; 31 institutions for the next 25 percent; 58 universities for the third quartile; and the remaining 306 institutions accounted for the final 25 percent of doctorates.⁴

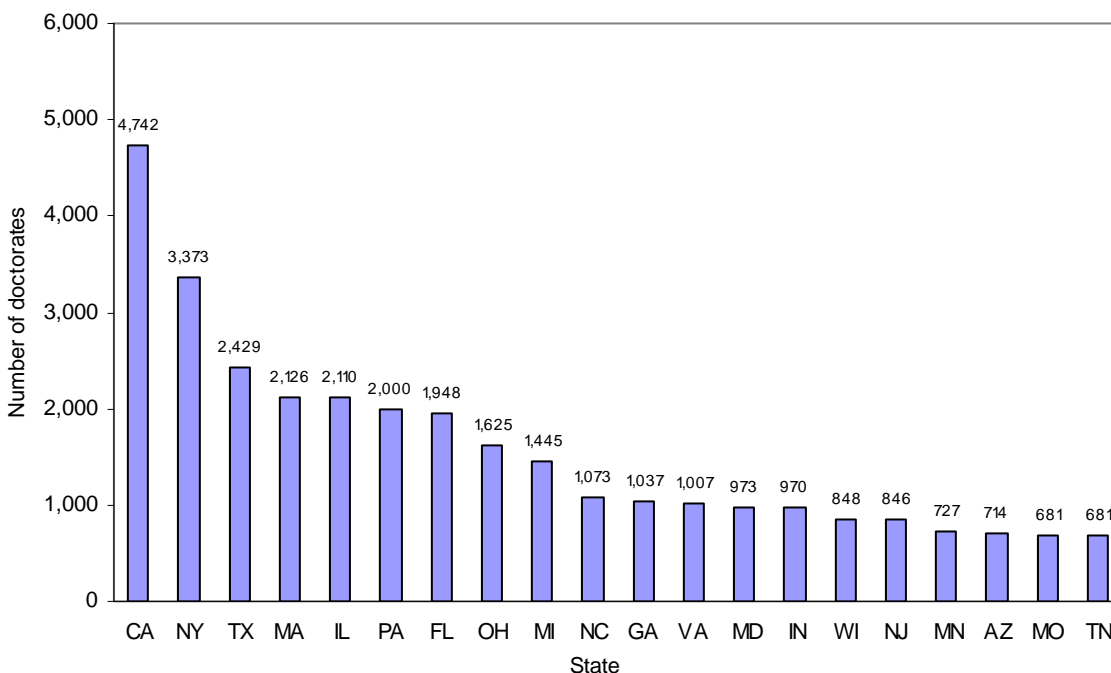
The trend data in table 2 show that the median number of degrees awarded per institution grew rapidly during the 1960s, from 26 in 1962 to 55 in 1970. Following the end of the Vietnam War in 1972, the median number quickly dropped to 42 and has vacillated between 35 and 45 since.

In the 2002 academic year, the University of California-Berkeley granted the largest number of doctorates, 799, or 2 percent of all doctorates awarded in 2002, followed by the University of Wisconsin-Madison (649), University of California-Los Angeles (642), and the University of Texas at Austin (637). In 2001 and 2002, the top 10 institutions granted approximately 16 percent of all doctorates. (See table 3.)

The state-by-state totals in figure 3 and table 4 show that California universities led the nation by awarding 4,742 doctorates, or 12 percent of all doctorates in 2002. New York institutions granted the next highest number of doctorates (3,373), followed by institutions in Texas (2,429), Massachusetts (2,126), Illinois (2,110), Pennsylvania (2,000), Florida (1,948), Ohio (1,625), and Michigan (1,445). These nine states accounted for 55 percent of all doctorates awarded in 2002. (See figure 3 and table 4.)

⁴ Calculations derived from appendix table A-7. See appendix table A-8 for a list of the 50 largest institutions.

Figure 3. Top 20 doctorate-granting states, 2002



See Table 4.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Doctorates by Field of Study

There were 287 fields of specialization into which the SED classified research doctorate degrees in 2002 (these are listed on page 7 of the questionnaire included in appendix D). Since fields of specialization are dynamic entities that reflect the evolving programs of researchers and their constituencies, each year the SED list is assessed in order to identify emerging fields and periodically modified to accommodate changes in the world of doctoral education. The SED is able to collect information on the specialization fields of virtually all the new doctorates each year; coverage in 2002 was attained for all of the 39,955 doctorate recipients.

Consistent with past practice in presenting the SED data, the fields of specialization are grouped into seven broad fields: physical sciences,⁵ engineering, life sciences,⁶ social sciences (including psychology), humanities, education, and a heterogeneous group of professional and

⁵ The physical sciences also include mathematics and computer sciences in this report.

⁶ The life sciences encompass biological, agricultural, and health sciences in this report.

other fields (including business, communications, social work, and theological programs). Appendix tables A-1, A-2, and B-1 contain the numbers of graduates in all fields.

Table 3 lists, for the institutions granting the largest numbers of doctorates, the number of doctorates granted in 2002 in each of the seven broad fields. The University of California-Berkeley awarded the most doctorates in the physical sciences (157) as well as in the social sciences (151) and humanities (141). The Massachusetts Institute of Technology (MIT) granted the most engineering doctorates (214), while the Johns Hopkins University led all universities in the life sciences (187). Nova Southeastern University had the highest total in education (409) as well as in the diverse “professional/other” category (66).

The numbers of doctorates awarded in the seven broad fields were also concentrated in a relatively small number of institutions. While the top 10 degree-granting universities awarded 16 percent of all doctorates in 2002, the concentration was higher in six of the seven broad fields: 19 percent in the physical sciences, 29 percent in engineering, 17 percent in the life sciences, 21 percent in the humanities, 20 percent in education, and 17 percent in the professional/other category. Only in the social sciences was the concentration lower than the overall average (15 percent). (Derived from table 3.)

The overall decrease of 2 percent in doctorates awarded between the 2001 and 2002 academic years was a result of decreases in four of seven broad fields, offsetting smaller percentage increases in the three remaining fields. The physical sciences, humanities, and social sciences showed decreases of 4.3, 3.9, and 3.3 percent, respectively. Engineering registered the largest percentage drop, 7.8 percent. The professional/other fields showed an increase of 4.5 percent while education and life sciences showed smaller increases (2.4 and 0.5 percent respectively). (See appendix table B-1.)

Since 1988, the life sciences has been the largest broad field, with 8,350 doctorates awarded in 2002. Compared to 1997, the number of doctorates awarded in engineering, the physical sciences, and social sciences showed the largest decreases: 17.1 percent, 14.4 percent, and 6.2 percent lower respectively in 2002 than in 1997. (See table 5.) Slightly fewer doctorates were awarded in education (-1.4 percent), professional/other fields (-1.2 percent), and humanities (-1.1 percent), while the total number completing doctorates in the life sciences was essentially unchanged, with 0.3 percent more degrees awarded in 2002 than five years earlier. (See table 5 and figures 4 and 5.)

Figure 4. Science and engineering doctorates awarded by broad field for selected years, 1972-2002

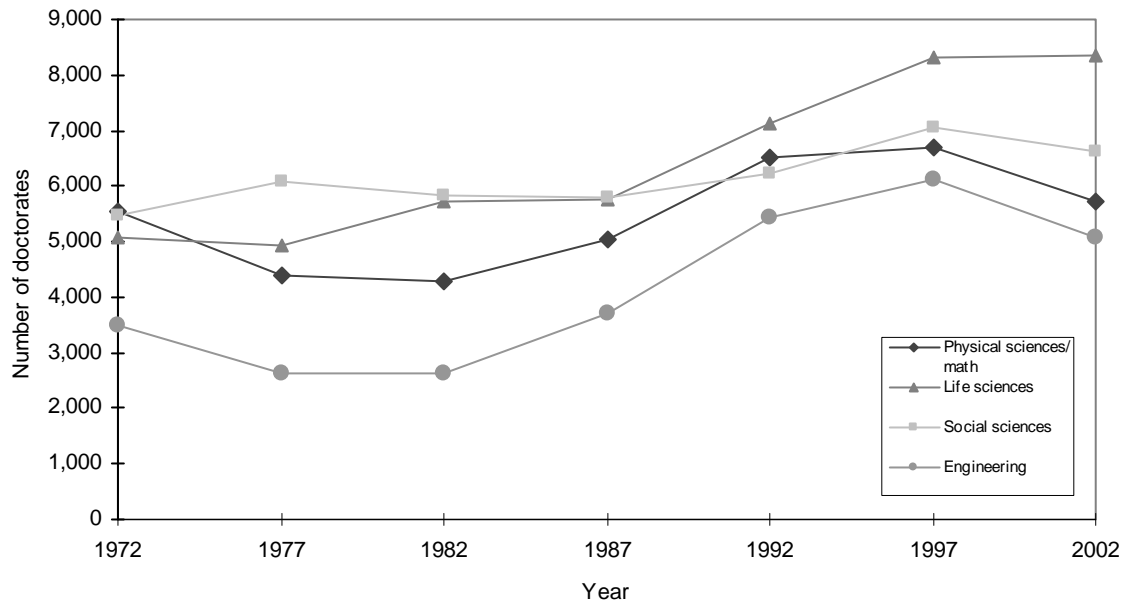
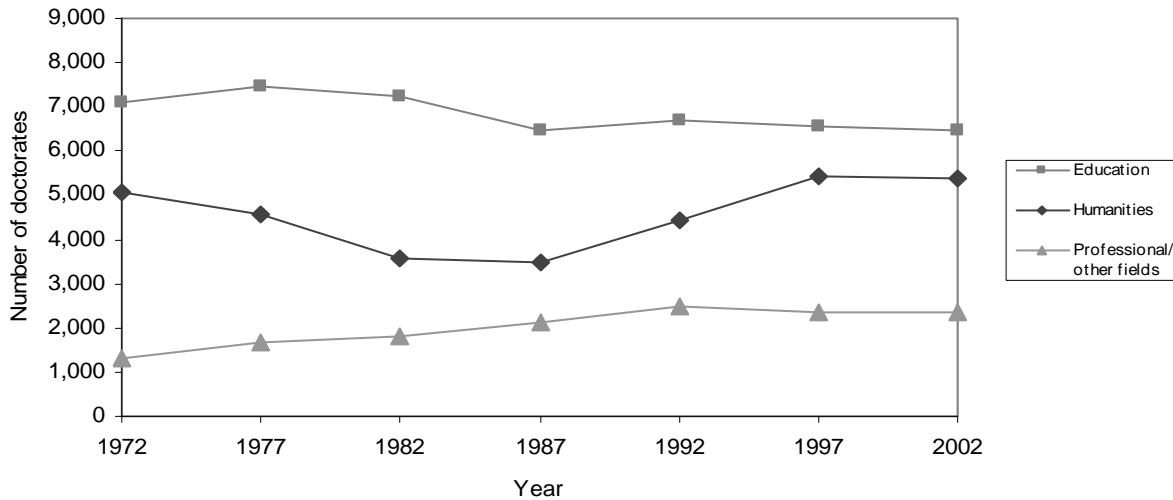


Figure 5. Humanities, education, and professional/other fields doctorates awarded for selected years, 1972-2002



See Table 5.

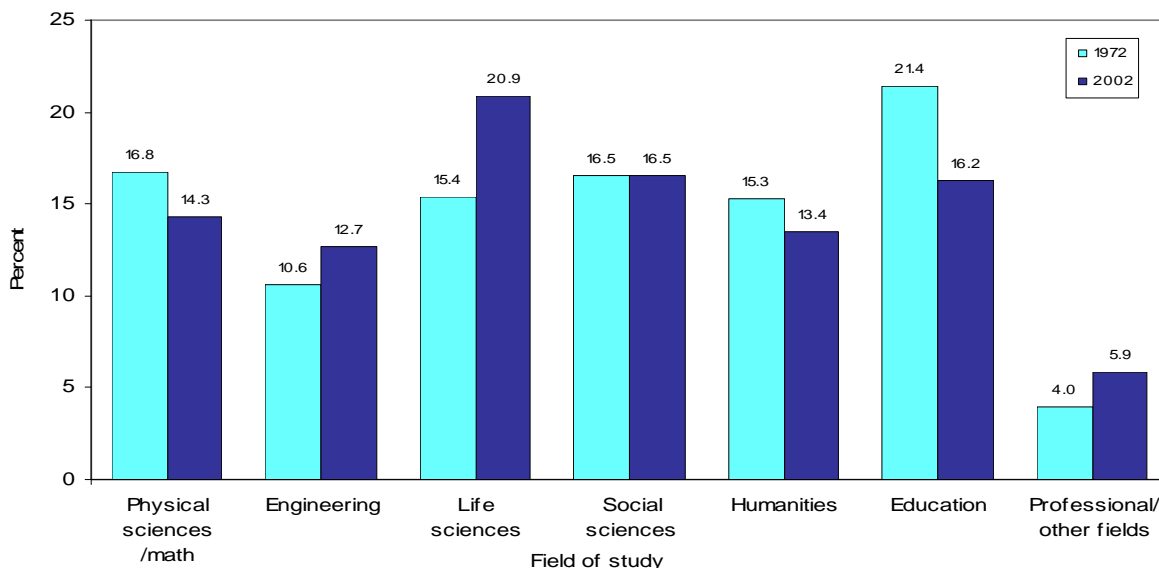
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Physical sciences, life sciences, social sciences, and engineering – the four broad fields that together constitute “science and engineering” (S&E) – represented 64 percent of all

doctorates awarded in 2002. S&E doctorates accounted for close to the same percentage of all doctorates (65 percent) in 1992, but only 59 percent of the total in 1982 and 1972. (See table 5.)

The 30 year comparisons for all seven broad fields are shown in figure 6. The relative shares of graduates in engineering, life sciences, and the professional/other fields were greater in 2002 than in 1972, while the relative shares in physical sciences and mathematics, humanities, and education were smaller in 2002. The relative shares of graduates in social sciences in 1972 and 2002 were about the same. (See figure 6.)

Figure 6. Percentage distribution of doctorate recipients by broad field, 1972 and 2002



See Table 5.

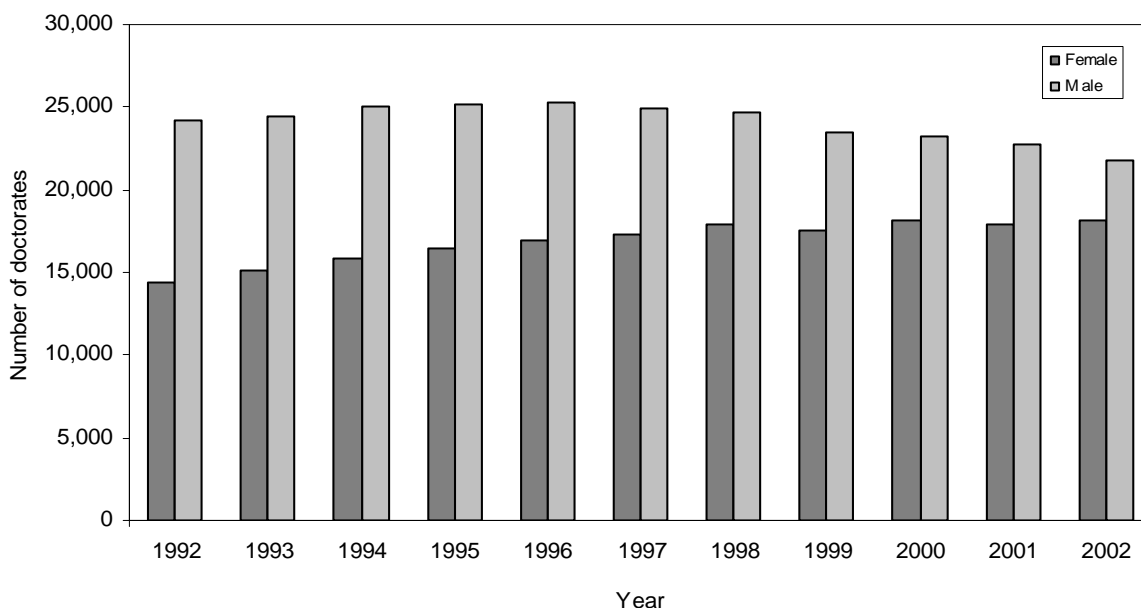
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Thirteen of the 25 specialization subfields included in table 5 experienced declines in the number of doctorates awarded between 2001 and 2002 (see appendix table B-1 for the 2001 totals), while 16 had smaller numbers when compared to 1997 values. The remaining nine subfields had larger absolute numbers of doctorates in 2002 than in 1997. Compared to 1997, only three of the 15 S&E subfields (health sciences, anthropology, and “other social sciences”) showed gains in 2002. (See table 5.)

Doctorates by Sex

The 2.0 percent decrease overall in doctorates awarded between 2001 and 2002 reflects a 4.5 percent decline for males and a 1.1 percent increase for females. The number of doctorates awarded to men fell by 1,026 and increased for women by 189 in 2002 compared to 2001. The net proportional effect is that for 2002, females received 45.4 percent of all doctorates, which is the highest percentage of women ever recorded by the SED, topping the 44 percent in 2001.⁷ This number signifies the seventh consecutive year in which the representation of female doctorate recipients has surpassed 40 percent. Five years ago (1997) females comprised 41 percent of all doctorate recipients; 10 years ago (1992) that percentage was 37 and 25 years ago (1977) it was 25 percent. (See figure 7 and table 7.)

Figure 7. Doctorate recipients by sex, 1992-2002



See Appendix Tables B-2b and B-2c.

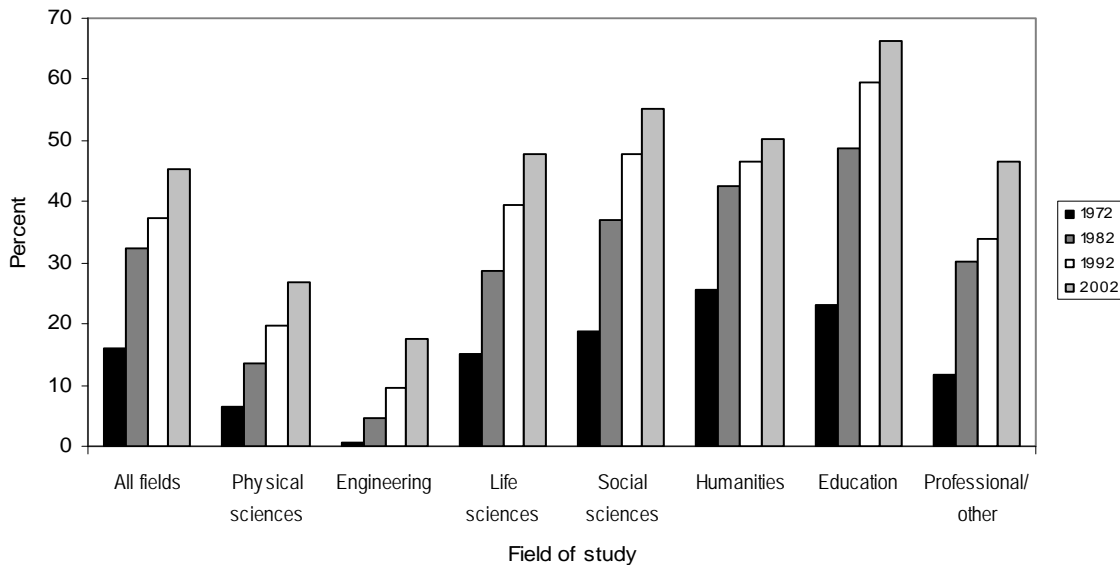
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

With respect to the broad fields of study, the proportion of doctorates earned by women in 2002 was greater than in 2001 in all broad fields except humanities. Women constituted 66 percent of all education doctorates for 2002, the majority in the social sciences (55 percent), and

⁷ For 2002, sex category could not be determined for 71 doctorate recipients; these 71 are not part of these and other percentage calculations.

half in the humanities (50.4 percent, down from 50.6 percent in 2001). In contrast, the representation of females among doctorate recipients in the physical sciences and engineering for 2002 was 27 percent and 18 percent, respectively (figure 8). However, even these percentages represent significant increases over the last 25 years. In 1977, when only 25 percent of all doctorate recipients were women, just 10 percent and 3 percent of the doctorates in the physical sciences and engineering, respectively, were awarded to women. Similar long-term trends are discernible in other broad fields as well: in the life sciences, from 21 percent in 1977 to 48 percent in 2002; from 28 percent to 55 percent in the social sciences over that same period; and from 36 percent in the humanities in 1977 to the current 50 percent. (See figure 8 and table 7.)

Figure 8. Percent of doctorate recipients who are female, by broad field of study, for selected years, 1972-2002



See Table 7.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

In 2002, females constituted 39 percent of S&E doctorate recipients and 57 percent of degrees in non-S&E fields in U.S. universities. With regard to finer field distinctions, of the 25 selected subfields listed in table 6, women were the majority of doctorate recipients in twelve subfields and constituted at least 40 percent of the doctorate population in four additional areas. In five of the 25 subfields, the percentage increase in female doctorate recipients between 1992

and 2002 was over 40 percent (mathematics, computer science, engineering, agricultural sciences, and business and management). (See table 6.)

Doctorates by Race/Ethnicity

Following the new Federal standards established for the 2000 decennial census of the U.S. population, the SED changed the way in which race and ethnicity were requested starting with the 2001 questionnaire. The new format asked respondents to mark all racial categories that apply to them, rather than a single category as had been requested since 1973 when race and ethnicity questions were first added to the SED questionnaire. Additional changes included separating Pacific Islanders from Asians and combining them with Native Hawaiians in a new racial category, and adding a Cuban response option to the Hispanic ethnicity question. A copy of the 2002 questionnaire is included in appendix D.

A total of 4,730 members of U.S. racial/ethnic minority groups⁸ were awarded doctorates, representing 19 percent of the U.S. citizens earning research doctorates in 2002. (See table 8.) This number is higher than in 2001, when 4,624 minority group members earned doctorates; and the 2002 minority percentage is the highest percentage yet recorded in the SED. (See appendix table B-2a.) Blacks earned the most doctorates (1,644) of the five main U.S. minority populations in 2002, followed by Asians (1,364), Hispanics (1,233), American Indians (146), and Hawaiians and other Pacific Islanders (75). (See table 8.) A total of 268 non-Hispanic U.S. citizens reported more than one racial background in the 2002 survey, and are counted here as racial/ethnic minorities, but they and the 75 Hawaiian and other Pacific Islanders are grouped in the “other” category and not shown separately in table 8 or figure 9 because of the lack of trend data.

In 2002, the number of minority doctorate recipients was 22 percent higher than the total in 1997 and 72 percent higher than in 1992. Conversely, there were 11 percent fewer non-Hispanic white doctorate recipients in 2002 compared to 1997, and 10 percent fewer than in 1992. As the numbers in the first panel of table 8 indicate, doctorates awarded to U.S. minority groups generally increased much more in the 1990s than in the 1980s. The twenty-year gains

⁸ As used here, U.S. minority groups include Asians, blacks, Hispanics, American Indians, Native Hawaiians and other Pacific Islanders, and individuals who indicated more than one racial background.

were greater for Asians (200 percent) and Hispanics (130 percent), than for American Indians (90 percent) and blacks (56 percent). (See figures 9 and 10 and table 8.)

Figure 9: Doctorates awarded to racial/ethnic minority U.S. citizens, by race/ethnicity, for selected years, 1982-2002

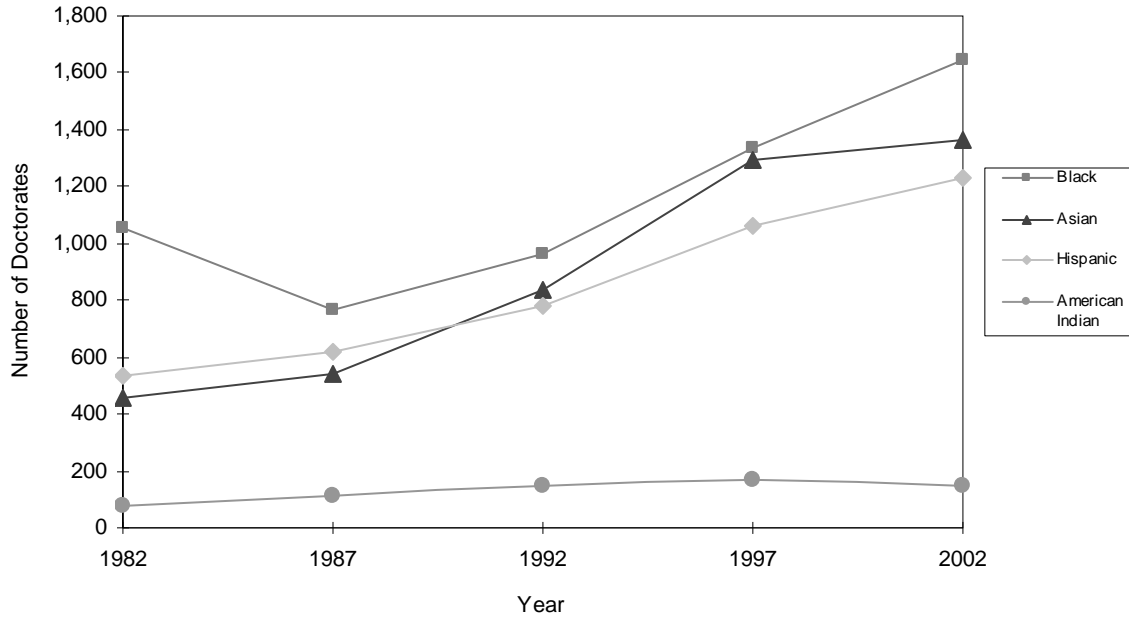
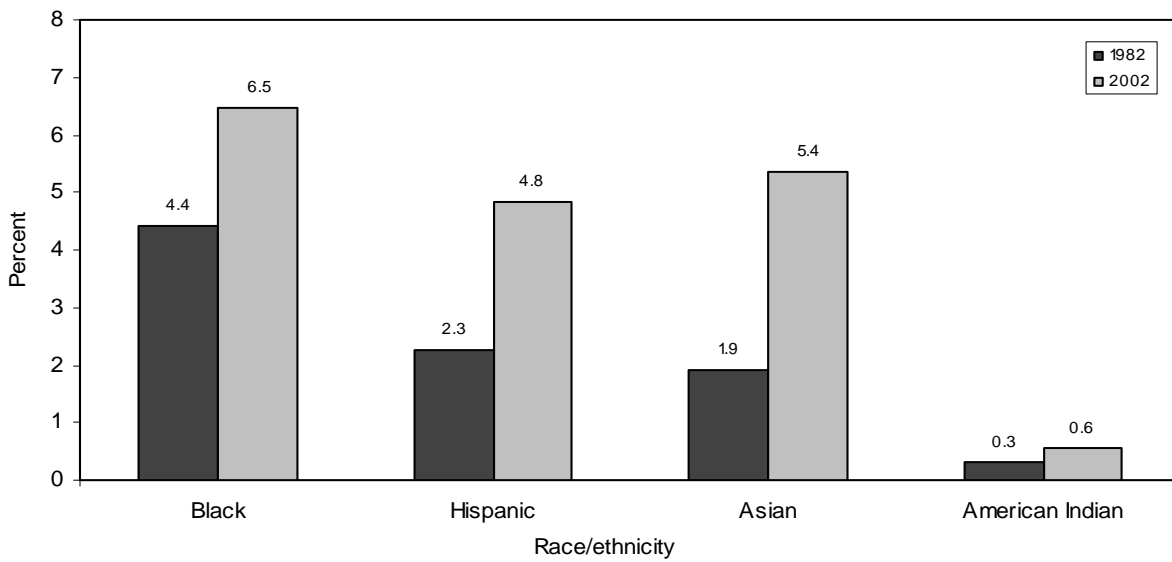


Figure 10. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, 1982 and 2002



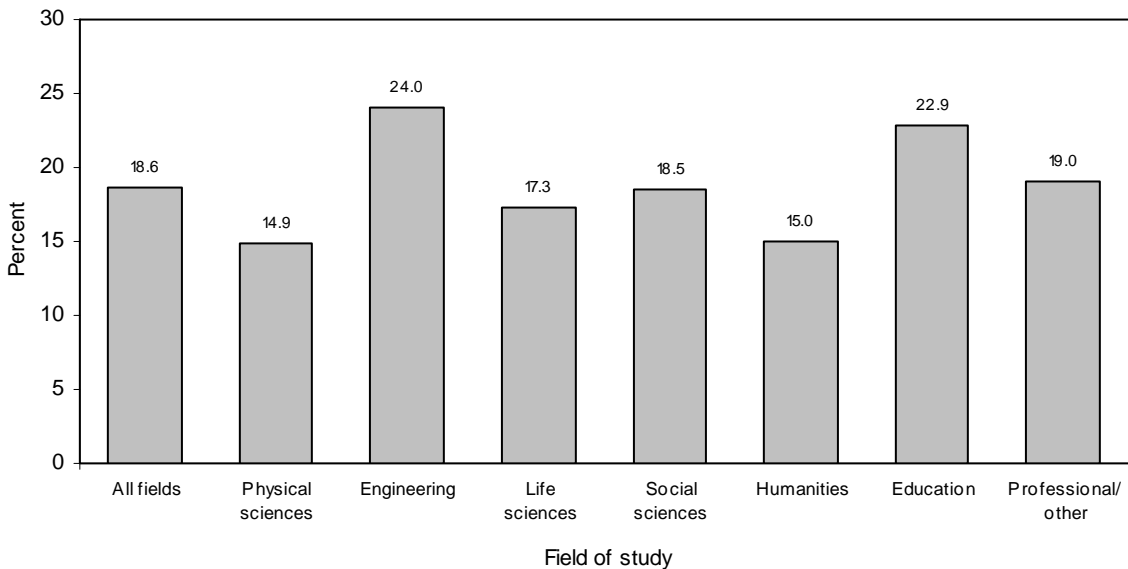
See Table 8.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

The primary U.S. minority groups (Asians, blacks, Hispanics, and American Indians) had their largest presence in the broad fields of engineering (24 percent of U.S. citizens earning doctorates), education (23 percent), and the professional/other fields (19 percent) in 2002. The lowest percentage representations were in physical sciences (15 percent) and humanities (15 percent). (See figure 11).

The proportional representation of the different minority groups varied by broad field. Asians were the largest contingent in physical sciences, engineering, and life sciences, representing over half of all minority group members earning doctorates in those fields during the 2002 academic year. Blacks were the largest minority population in social sciences, education, and professional/other fields. Hispanics were the largest minority population in humanities. This pattern of relative representation is observed for each year shown in table 8, back to 1982, with the exception of 1987, when Hispanics slightly outnumbered blacks as the largest minority group in the social sciences. (See table 9 for the numbers of minority doctorate recipients in each of the 25 subfields in 2002.)

Figure 11. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, by broad field of study, 2002



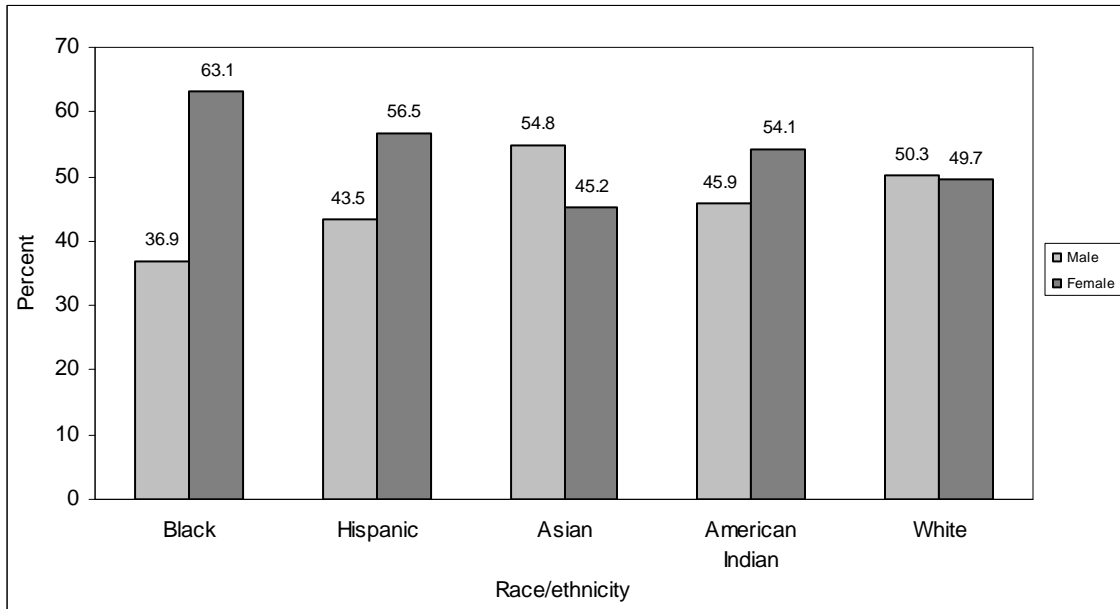
See Table 8.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

The pattern of growth for the aggregate U.S. citizen minority populations generally holds for the separate minority groups within the seven broad fields. The general pattern for minority recipients was one of relatively small increases from 1982 to 1992 followed by moderate increases from 1992 to 2002. One exception is that the number of Asian doctorate recipients in engineering and the physical sciences grew rapidly in the late 1980s and early 1990s, but experienced a slight decrease from 1997 to 2002. (See table 8.)

The balance of male and female doctorate recipients varies between racial/ethnic groups. Among U.S. citizens, of doctorates earned by whites, 50 percent were awarded to women; for blacks, various Hispanic groups, and American Indians, women constituted a majority, earning between 54 percent and 63 percent of doctorates received by persons of those races or ethnicities. Among Asian Americans, women were 45 percent of the total. (See figure 12 and appendix table A-4.)

Figure 12. Percentage of doctorates earned by U.S. citizens, by race/ethnicity and sex, 2002



See Appendix Tables B-2b and B-2c.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Table 10 lists the universities that awarded the largest number of doctorates to members of the four primary U.S. minority groups between 1998 and 2002, and the number granted by each university. Over that five-year interval, three California institutions – UCLA, Berkeley, and Stanford – and two in Massachusetts – Harvard and MIT – awarded a total of 1,202

doctorates to Asian Americans, or 18 percent of all doctorates awarded by U.S. universities to Asian Americans. Nova Southeastern University and Howard University awarded, by far, the most doctorates to blacks (374 and 247, respectively), 8 percent of all the doctorates granted to blacks in this period. In general, the leading institutions awarding doctorates to Hispanics are located in the Southwest, including California, and in Puerto Rico. Oklahoma State University awarded the largest number of doctorates to American Indians.

The concentration of U.S. minority doctorate recipients in certain institutions is noticeably greater than for the doctoral population as a whole. For example, in 2002 the ten universities granting the largest numbers of doctorates conferred 16 percent of all doctorates. However, over the 1998-2002 period, the ten universities that awarded the most doctorates to Asians (table 10) granted 28 percent of all Asian doctorates between 1998 and 2002; for blacks the corresponding figure was 19 percent; for Hispanics it was 24 percent, and for American Indians it was 19 percent. (See table 10.)

Doctorates by Citizenship

Each year, the SED gathers information concerning the U.S. citizenship status and country of citizenship of the new doctorate recipients.⁹ Of the 2002 doctorate recipients with known citizenship status (93 percent of the total), 70 percent were U.S. citizens, 4 percent were non-U.S. citizens with permanent resident visas for the United States (i.e., “green cards”), and 26 percent were non-U.S. citizens in the U.S. on temporary visas. (See table 11.)

The trend for non-U.S. citizens earning doctorates from U.S. institutions is generally one of increasing numbers. This is particularly true for individuals in the U.S. on temporary visas. The five-year snapshots shown in table 11 indicate that the percentage of new doctorates awarded to individuals on temporary visas rose from 9 percent of all doctorate recipients who reported citizenship in 1972 to 14 percent in 1982 and 26 percent in 1992. The growing numbers of doctorates awarded to foreign students on temporary visas has accounted for virtually all of the overall growth in the numbers of doctorate recipients since 1972.

⁹ The percentage of cases with missing data on citizenship status (U.S. versus non-U.S.) and country of citizenship has fluctuated more year to year than other SED variables (see appendix table C-3), and the over-time comparisons are thus subject to some uncertainty.

The number of doctorate recipients with permanent visas has shown more fluctuation over time. The 2002 total of 1,646 represents a drop of 10 percent from 2001, and is the lowest number since 1989. The numbers of doctorate recipients with permanent visas were at historical highs from 1993-1999 (reaching a peak of 4,318 in 1995), and ranged between 1,200 and 2,100 from the late 1960s until the early 1990s. (See table 11.)

U.S. citizens earned over 80 percent of the doctorates awarded in the humanities and education (81 percent and 90 percent, respectively) in 2002. (See table 11.) In absolute numbers, U.S. citizens earned more doctorates in the life sciences than in any of the other broad fields; permanent residents also had their highest total in the life sciences, and engineering was the most popular field for those in the United States on temporary visas.

The trend towards the equal male and female representation in the doctoral cohorts is particularly striking for U.S. citizens. In 2002, 51 percent of all doctorates awarded to U.S. citizens went to women, slightly higher than the 50 percent in 2001. This marks the first time in the SED that the majority of U.S. citizens receiving a doctorate were women. The movement to majority status for U.S. women in 2002 occurred despite the fact that their absolute number decreased slightly compared to the year before. (See appendix tables A-4 and B-2.)

Among permanent residents earning doctorates in 2002, 47 percent were female, and among those doctorate recipients holding temporary visas, 31 percent were female (appendix table A-4). Both of those percentages are, like the figure for U.S. women, all-time highs. (See table B-2; further historical data available from the author.) Women holding temporary visas were more concentrated in the S&E fields of study than female U.S. citizens. While women with temporary visas represented 16.4 percent of all female doctorates in 2002, they earned 21 percent of the doctorates granted to females in the life sciences, 34 percent of the doctorates earned by females in the physical sciences, and 43 percent of the female-earned doctorates in engineering. (Appendix table A-3c).

In 2002, 2,644 doctorate recipients were citizens of the People's Republic of China (PRC)¹⁰, comprising 7 percent of the total number of degrees awarded to individuals who reported citizenship. (See table 12 for a listing of the top 30 countries of origin of non-U.S. citizen doctorate recipients.) The top 15 countries in terms of the number of doctorates awarded to its citizens in 2001 remained the same for 2002, though some changes in rankings occurred

¹⁰ Includes Hong Kong.

within the top 15. The leading five countries (PRC, South Korea, India, Taiwan, and Canada) accounted for 16 percent of all doctorates awarded by U.S. universities to individuals of known citizenship in 2002. Only 7 percent of the total citizenship-known 2002 doctoral cohort were citizens of the next 10 nations listed in table 12, and just 3 percent were citizens of the next 15 nations. Doctoral students who are citizens of one of the 30 nations shown in the table thus accounted for 26 percent of the doctorates awarded in 2002 with country of citizenship reported.

The twenty institutions awarding the largest numbers of doctorates to non-U.S. citizens in 2002 are listed in table 13. For the second consecutive year, the University of Illinois at Urbana-Champaign followed by the Ohio State University awarded the largest numbers of doctorates to non-U.S. citizens.

Doctorates by Parental Education Background

Since 1963, the SED has asked new doctorate recipients to report their fathers' and mothers' levels of educational attainment. In keeping with past editions of the *Summary Report*, the responses are grouped into three categories: high school diploma or less; some college, including earning the baccalaureate; and advanced degree, including the master's, doctorate, or a professional degree. The last section of the *Summary Report* this year is devoted to a more in-depth examination of the new doctorate recipients who reported that neither of their parents earned a baccalaureate.

The 2002 data shown in table 14 indicate that 29 percent of recipients' fathers had only earned a high school diploma or less; the corresponding figure for their mothers was 38 percent. Slightly over one-third (36 percent) of doctorate recipients had a father who had attended college (but may not have earned a baccalaureate degree); 40 percent of the mothers of doctorate recipients in 2002 had some college background, including receiving the bachelor's degree. Finally, the father held an advanced degree for 35 percent of the doctorate recipients, compared with the 22 percent whose mothers had an advanced degree.

Although similar on the whole, parental education backgrounds of male and female 2002 doctorate recipients differed with respect to both fathers' and mothers' educations. Female doctorate recipients were slightly more likely than their male counterparts to have a father and a mother who attended college or who earned an advanced degree.

There is considerable variation in parental education attainment by race/ethnicity, citizenship status, and broad field of study. Among U.S. citizens, Asian doctorate recipients were more likely than members of the other racial/ethnic categories to come from families in which one or both parents had advanced degrees; black, Hispanic, and American Indian recipients' parents were less likely to have gone beyond high school than whites and Asians. Doctorate recipients who were U.S. citizens were more likely than those with either permanent residency status or holding temporary visas to have parents with advanced degrees (and less likely than these two groups to have parents whose formal education did not extend beyond the high school level).

The distributions of parental education by the broad fields in table 14 reflect, in part, the different racial/ethnic and citizenship compositions of the fields. Doctorate recipients in the humanities displayed the highest percentages of both fathers (44 percent) and mothers (28 percent) with advanced degrees. The lowest percentages of advanced degrees by fathers or mothers were within the education doctorate recipients, 23 percent and 13 percent, respectively. These two broad fields are also the least and most represented, correspondingly, with regard to the fraction of parents whose formal education ended at high school or before.

Time to Degree

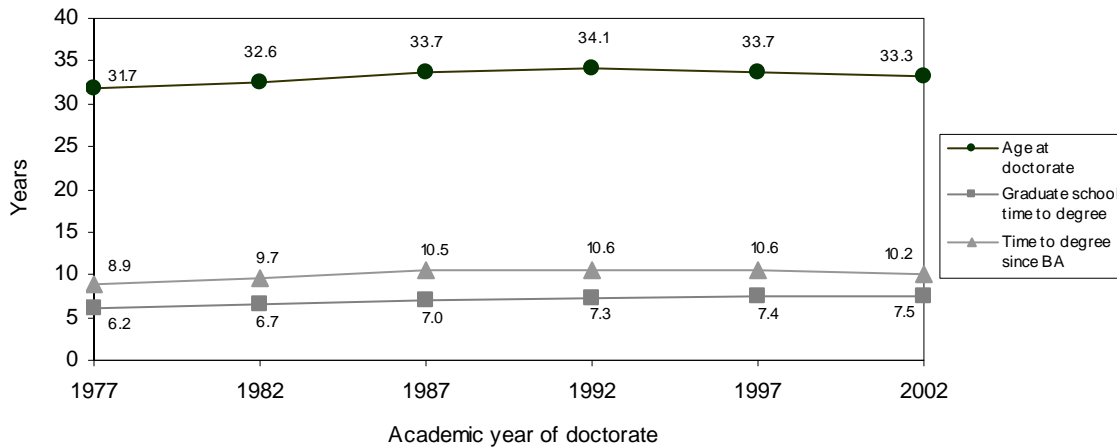
The amount of time needed to complete a doctorate is a key concern for those pursuing the degree, as well as for the faculties and administrations of the degree-granting institutions and national public agencies and private organizations that support doctoral study. Time to degree completion is likely to be affected by a number of factors, including individual preferences, economic constraints, labor markets for new doctorate recipients, cultures of the academic disciplines, and institution-specific program characteristics.

The SED measures time to degree in three different ways: (1) the total time elapsed from completion of the baccalaureate to completion of the doctorate, (2) the total time elapsed while in graduate school to completion of the doctorate, and (3) the age of the doctorate recipients at the time the doctorate is awarded. In this section, the 2002 data and the historical trends for each of these measures are reviewed for the whole population of doctorate recipients and, separately, by broad field and the background variables of sex, race/ethnicity, and citizenship.

For the 2002 doctorate recipients, the median total time span from baccalaureate to doctorate was 10.2 years (table 15), near the time span for 2001. The total time span was shortest in the physical sciences (7.8 years) and longest in education (19.0 years). The broad field of education includes large numbers of individuals who have worked full-time before starting their graduate degree programs, and who even continue to work full-time while earning their doctorates.

The historical data in table 15 show that the 2002 median total time to degree was about five months shorter than in 1997. The long-term trend, however, had been one of increases in length from 1977 to 1997. (See figure 13 and table 15.) From 1997 to 2002, the broad fields of engineering, physical sciences, life sciences, humanities, education, and professional/other fields followed an overall pattern toward shorter times; but median time to degree for the social sciences remained the same from 1997 to 2002.

Figure 13. Median number of years to doctorate from baccalaureate award and age at doctorate for selected years, 1977-2002



See Table 15.

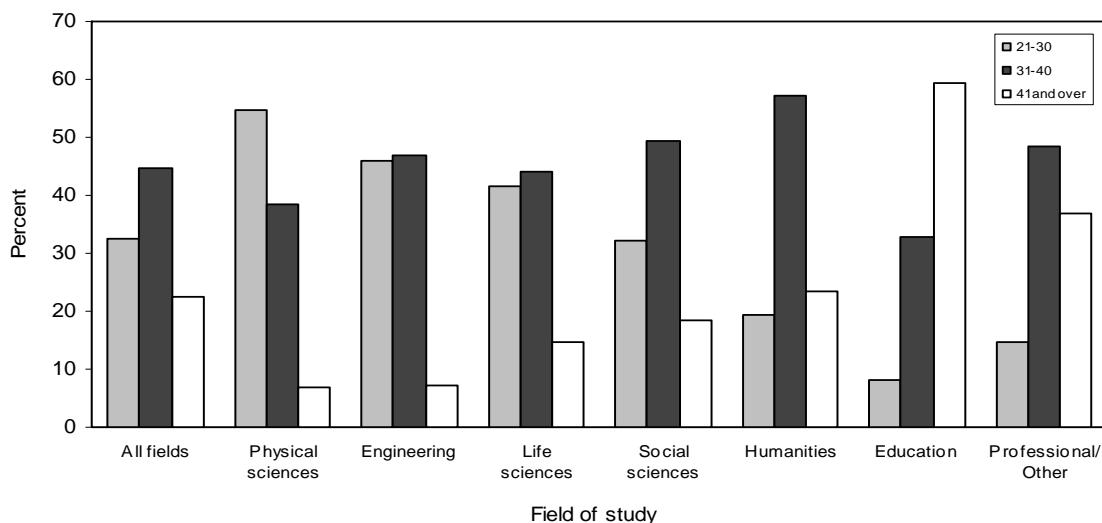
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

The median duration of being in graduate school was 7.5 years for the 2002 doctorates (table 15), also nearly identical to the number for 2001. Graduate-school time to degree was shortest in the physical sciences (6.8 years) and engineering (6.7 years), and longest in the humanities (9.0 years) (table 15). The trend for time spent in graduate school is one of small but continual increases over the 25-year span from 1977 to 2002 in most of the seven broad fields, with some flattening in the past five years. (See figure 13 and table 15.)

The median time to degree indices vary somewhat by sex, citizenship, and race/ethnicity, however these differences are generally reflections of the broad field differences reviewed above (table 16). Across the whole population of new doctorate recipients, females had longer total and graduate-school times to degree than did males, but the sex differences are much smaller, or even reversed, when males and females are compared within specific broad fields (table 16). Similar patterns hold for comparisons of U.S. and non-U.S. citizens, and of the U.S. racial/ethnic groups, that is, the overall time-to-degree differences between the groups diminish or even disappear when comparisons are made within broad fields of study. (See table 16.)

A third measure of time to degree gathered in the SED is age at doctorate. The median ages of the 2002 doctorate recipients are tabulated in appendix tables A-3 by major field of degree and A-4 by citizenship and race/ethnicity. On the whole, the median age at receipt of the doctorate in 2002 was 33.3 years. Again, age at degree varies with field of study. Doctorate recipients in the S&E fields typically earn their degrees while in their early 30s; the median for all 2002 doctorate recipients in the S&E fields was 31.7 years old. In comparison, age at doctorate was 34.7 years in the humanities, 44.2 years in education, and 37.2 years in the professional/other fields category. (See appendix table A-3a and table 17). The modal age spans evident in figure 14 and table 17 reflect this ordering.

Figure 14. Age distribution at doctorate by broad field of study, 2002



See Table 17.

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Financial Resources in Support of Doctorate Recipients, Including Indebtedness

Sources of Financial Support

The SED asks two questions that, taken together, provide information on the financial sources of support utilized by the new doctorate recipients (for the exact formats and wordings, see the copy of the questionnaire in Appendix D). The first question asks respondents to complete a checklist of 13 different potential sources of support, such as fellowships and scholarships, dissertation grants, teaching and research assistantships, and various personal arrangements. The second question asks respondents which of the checked sources was the primary source of support and which was the second most important. Respondents are grouped in terms of their primary sources of support for purposes here. The 13 sources are combined into the seven categories that form the rows in table 18.

Almost two-thirds of the 2002 doctorate recipients received the majority of their support for doctoral study from program- or institution-based sources, such as teaching assistantships, research assistantships/traineeships, and fellowships/dissertation grants (65 percent).¹¹ Less than one-third (28 percent) of all 2002 doctorate recipients reported that their own resources (which include funds from savings, loans, one's spouse and family, and non-academic employment) were the primary sources they utilized to finance their doctoral studies. Foreign government, employer contributions, and "other" sources accounted for the remaining 6 percent of the cases. (See figure 15 and table 18.)

¹¹ The Federal government and other governments tend to be the original sources of these funds.

Figure 15. Primary sources of financial support for doctorate recipients by broad field of study, 2002

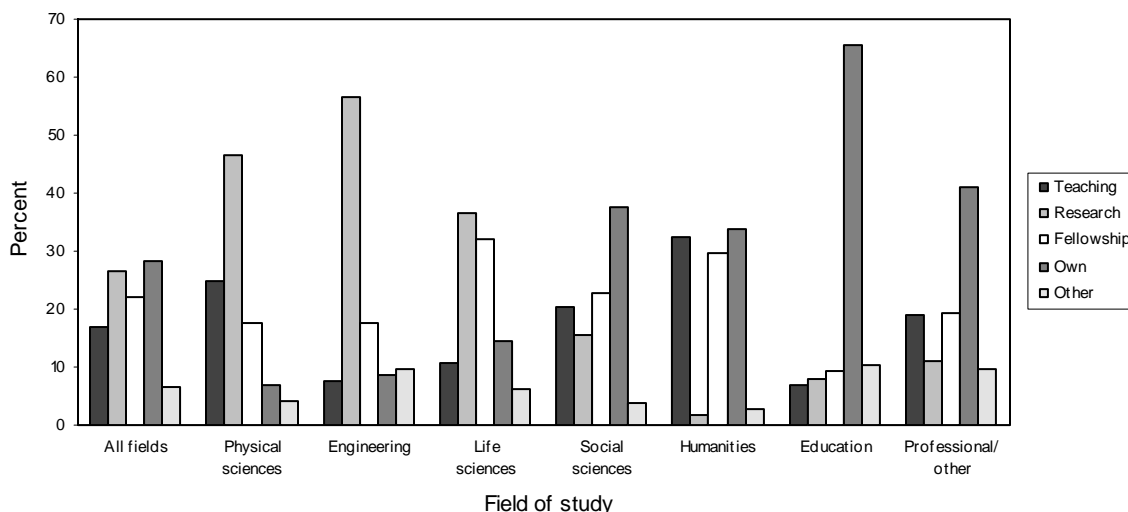


Table 18.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Sources of support differ substantially by field of study. For example, within the physical sciences, a notably higher than average percentage of new doctorate recipients reported teaching/research assistantships or fellowships as primary sources of support (89 percent). Within engineering, 82 percent of the research doctorate recipients in 2002 listed teaching/research assistantships or fellowships as their principal form of support, as did 79 percent of respondents in the life sciences. On the other hand, only 49 percent of doctorate recipients in the professional/other fields and 24 percent of those in the broad field of education reported these categories as the primary sources of financial support for their doctoral program.

Overall, women were more likely to indicate that personal resources were their primary source of support than were men (37 percent versus 22 percent). The gender differences in sources of support are partly a reflection of gender differences in broad fields of specialization, and the field differences in sources of support. Nonetheless, within the broad fields of life sciences, social sciences, education, and professional/other fields, female doctorates were still more likely to depend on their own resources than male doctorates (table 18).

Non-U.S. citizens tend to be more concentrated in fields where the majority of doctoral students receive institution- and/or program-based support. Mirroring this concentration, foreign citizens on permanent or temporary visas reported lower percentages of reliance on their own

resources (20 percent and 9 percent, respectively) than did U.S. citizen respondents (36 percent). The source-of-support differences between U.S. and non-U.S. citizens were smaller within the broad fields of study than overall; however, U.S. citizens were still more likely to rely on their own resources than non-U.S. citizens, especially temporary residents, in all the broad fields (table 18).

Differences in the various modes of financial support are also found among the main racial/ethnic groups. American Indian and black doctorate recipients indicated the greatest reliance on their own resources to finance their doctoral program (45 and 44 percent, respectively), followed in decreasing order by whites (36 percent), Hispanics (34 percent), and Asians (19 percent). (See table 18). Racial/ethnic differences in reliance on own resources also diminish within most of the broad fields of study. However, some substantial racial/ethnic differences within fields are found in terms of use of the different types of program- and institution-based support. In the physical sciences and engineering, Asians and whites were both more likely than blacks and Hispanics to rely on teaching or research assistantships and less likely to have fellowships or dissertation grants as their primary source of support. (See table 18).

Levels of Education-Related Indebtedness

The SED also asked new doctorate recipients to indicate the amount of money they owe that is directly tied to their undergraduate and graduate educations.¹² This is defined as debt related to tuition and fees, living expenses and supplies, and transportation to and from school. Almost half (49 percent) of the respondents in 2002 reported having no graduate or undergraduate education-related debt, while another 19 percent reported cumulative debt of

¹² The response categories, in \$5,000 increments, range from “none” to “\$35,001 or more.” The format of this question was changed in 2001. The new format (relative to the 2000 SED questionnaire) asks for separate undergraduate and graduate levels of debt; the previous several years asked respondents only for the total amount of debt related to their postsecondary education. Also, the highest level of debt in the new form represents an increase of \$5,000 over the old form, which was previously capped at “\$30,001 or more.” In order to combine the undergraduate and graduate debt data into a single cumulative measure, the responses to each item were recoded to the midpoints of the various debt ranges, and the sum of the undergraduate and graduate levels of debt was re-categorized into the discrete ranges, with the cap of “\$35,001 or more” retained for the composite. See the special section on indebtedness in the *Summary Report 1998* for more detail on debt levels and financial support for doctoral education. The report is available on the NORC Website (<http://www.norc.uchicago.edu/issues/docdata.htm>).

\$15,000 or less (table 19). However, 16 percent of all new doctorate recipients reported debt over \$35,000, creating a distinct bulge at the high end of the debt distribution.

Examining the debt distributions within each of the seven broad fields, the graduates most likely to complete their doctorate with no education-related debt were graduates in engineering, the physical sciences, education, the life sciences, and professional/other fields in that order (table 19). Graduates of the broad fields of social science and humanities were more likely to have debt. Debt levels of \$35,000 or more were most common among graduates in social science fields (28 percent), the humanities (20 percent), and professional/other fields (20.6 percent).

Data separating graduate from undergraduate debt are shown in the lower two panels of table 19. These data show, first, that more debt is incurred during graduate school, and second, that the cumulative debt differences among the broad fields of doctoral study largely arise during graduate education. Overall, 74 percent of the 2002 doctoral cohort reported no undergraduate debt and only 1 percent reported undergraduate debt greater than \$35,000. In contrast, 63 percent reported no graduate school debts and 14 percent reported graduate debt greater than \$35,000. The jump in levels of indebtedness between undergraduate and graduate school was particularly large for doctorate recipients in the social sciences, humanities, education, and professional/other broad fields. (See table 19.)

The pattern of debt levels for the study's main demographic groups is shown in table 20. Particularly noteworthy in the cumulative debt tabulations (first panel of the table) is the much higher incidence of blacks, Hispanics, and American Indians sustaining high levels of education-related debt. Over one-third (34 percent) of black doctorate recipients, 29 percent of American Indians, and 25 percent of Hispanics owed over \$35,000; these figures compare to 11 percent of Asians and 17 percent of whites with that level of debt. On the other side of the scale, the racial/ethnic groups with a greater likelihood of having no education-related debt at completion of the doctorate were Asians (55 percent) and whites (44 percent). The lower panels of the table show that most of the racial/ethnic group indebtedness differences were tied to graduate school rather than the undergraduate years. Again, these are likely to be at least in part a function of the racial/ethnic differences in fields of doctorate study, which, as seen in table 19, were also correlated with indebtedness.

Debt differences between the sexes are not large, with new male doctorates about two percent more likely to have no debt than their female counterparts (50 percent versus 48 percent). U.S. citizen doctorate recipients were less likely to have no higher-education-related debt than graduates with permanent or temporary visas (42 percent, versus 64 percent, and 68 percent, respectively), and more likely to have debts totaling over \$35,000 (19 percent, versus 10 percent for both permanent and temporary visa holders). (See table 20.)

Postgraduate Plans, Employment, and Location

The SED questionnaire includes a number of questions about the graduates' immediate plans for work or further study.¹³ The responses provide a useful overview of the number of doctorate recipients planning to enter academic positions, government and industry, and postdoctoral programs of research and further study. Also, information is collected on the main types of work activities – research, teaching, administration, and professional services to individuals – that the graduates anticipate in their new positions.

There are five aspects of postgraduation plans examined in this report. Examined first is whether the new doctorate recipient has a definite commitment for employment or a postdoctoral position. These data are analyzed by broad field of study, sex, citizenship, and race/ethnicity (tables 21 and 22). The second aspect is the distribution of graduates with definite commitments for career employment versus postdoctorate research and study programs. This distribution is also examined separately by broad field of study, sex, citizenship, and race/ethnicity as well as by visa status (tables 23 and 24). The third aspect looked at is the distribution of graduates across employment sectors, broken down by sex, race/ethnicity, and citizenship status (table 25). The final aspects discussed are financial support for postdoctoral study (table 26), and anticipated location of postgraduate commitment (international versus U.S.) for non-U.S. citizens (tables 27 and 28).

Definite versus Indefinite Plans

Over seven in ten (73 percent) of all doctorate recipients in 2002 reported having definite commitments for employment or postdoctoral study or research. This is about the same as in 2001, when 73 percent also reported having definite commitments, and is the highest percentage since 1989.¹⁴ The percentages with definite commitments in 2002 vary little by broad field with

¹³ The items in the postgraduation plans section of the questionnaire are not classified as “critical items” which become the focus of missing data follow-ups. Thus, the response rates to the postgraduation plan items mirror the returns of the actual questionnaire (91 percent in 2002), minus a low, often negligible, rate of item nonresponse. For the 2002 SED cycle, the overall response rate for the first item, asking whether the respondent has definite plans for either career employment or study, was 91 percent.

¹⁴ The annual numbers back to 1977 were assembled from table 21 and the analogous table from each of the previous four volumes of the *Summary Report*.

the noteworthy exception of the humanities, where 65 percent have a definite commitment. (See table 21.)

The percentages of graduates from various demographic groups with definite commitments are shown in table 22. About three percent fewer women than men (71 percent compared to 74 percent) reported having definite plans. U.S. citizens were more likely to have definite commitments (74 percent) than individuals with permanent (65 percent) or temporary visas (71 percent). Among U.S. citizens and permanent residents, whites and American Indians were more likely to have definite plans than blacks, Asians, and Hispanics.

Career Employment versus Postdoctorates

Among the doctoral recipients reporting definite plans, the majority (70 percent) indicated that they plan to enter career employment as opposed to pursuing further study within a postdoctoral research or teaching program (table 23). Nonetheless, the 31 percent planning on a postdoc represents the highest level ever recorded in the SED, edging up slightly from 29 in 2001 and the previous record high of 30 percent in 1999. Plans for postdoctoral study were more common among graduates in the life sciences (60 percent) and the physical sciences (50 percent) than in the other broad fields. Although percentages of new doctorate recipients entering postdoctorate study programs have increased in all of the broad fields since 1982, a slight decrease is evident between 1997 and 2002 in the life sciences (table 23).

Differences among demographic subgroups are shown in table 24. Men were more likely than women to have definite plans for postdoctorate study (33 versus 28 percent). The percentage of men pursuing postdoctoral study increased to a new all-time high in 2002. The percentage of women with definite plans for postdoctoral study in 2002 was slightly below the high point of 28 percent established in 2001. (See table 24 and, in the *Summary Report 2001*, table 25).

Students with temporary visas were more likely than permanent residents and U.S. citizens to pursue postdoctorate studies (the student visa allows the student to remain in the U.S. for two years of additional training after completing the doctorate). Among U.S. citizens and permanent residents, Asian doctorate recipients were more likely than other racial/ethnic subgroups to plan postdoctorates, followed by white and Hispanic recipients. Black and American Indian doctorate recipients were least likely to plan postdoctorates. (See table 24.)

These differences among citizenship and racial/ethnic subgroups reflect the greater number of postdoctorates in the physical and life sciences, and the greater concentrations of non-U.S. citizens and Asian-American students in those fields. (See appendix table A-4.)

Employment Sectors in the United States

The most common employment sector of the 2002 doctorate recipients with definite commitments within the United States was higher education, identified by over half (52 percent) of the 2002 respondent subpopulation. (See table 25.) The next largest group had commitments to industry or some form of self-employment (24 percent) while 7 percent planned to work for U.S. Federal, state, or local government. Sixteen percent of the 2002 doctorate recipients indicated a type of employment that did not correspond to these main sectors, and are grouped into the “other” category in table 25. These were a mix of employment in elementary and secondary education, non-profit organizations not affiliated with universities, foreign governments, and non-governmental organizations. The historical trends show reductions in government employment, coupled with small increases in the higher education and industry/self-employment sectors.

Among 2002 female doctorates, 16 percent had commitments to industry or some form of self-employment, compared to 32 percent of their male counterparts. Women were more likely than men to have commitments to academe (58 percent versus 48 percent). With regard to U.S. racial/ethnic groups, Asians were less likely than others to go into academe (35 percent) and were more likely than all others to go into industry or self-employment (51 percent). The main destination of non-U.S. citizens on temporary visas with definite plans to remain in the United States after graduation was industry or self-employment (53 percent). Permanent residents were most likely to have definite plans for employment in academe (46 percent), and, like those on temporary visas, were more likely than U.S. citizens to take employment in industry or self-employment (40 percent versus 18 percent).

Sources of Financial Support for Postdoctoral Appointments

The SED asked respondents with definite plans for further training or study (i.e., “postdocs”) in the year after graduation to indicate the main source of support for their postdoctoral appointment. In 2002, 42 percent of all postdocs named a college or university as

their main source of funding, followed by 34 percent indicating the U.S. government.¹⁵ Private foundations supported another 6 percent, and other types of nonprofit organizations supported 3 percent. (See table 26.) Over 9 percent indicated some other kind of support than those listed in the questionnaire; inspection of the descriptions written by these respondents reveals that many were planning on support from a foreign government.

Gender differences in sources of postdoctoral support were very small. (See table 26.) A number of differences in sources of support are apparent among U.S. citizens, permanent-visa holders, and temporary-visa holders. As might be expected, U.S. citizens were the most likely to have the U.S. government as their main source of postdoctoral support. But substantial numbers of non-U.S. citizens also received U.S. government support, though the percentages were generally lower in 2002 than in the other years shown in table 26. Non-U.S. citizens with postdoc appointments were more likely than U.S. citizens to have university or college funding as their main source of support.

The racial/ethnic breakdowns in table 26 show that Hispanics were less likely than other groups to have U.S. government funding in 2002, and that Hispanics and blacks were more likely than the other groups to have university or college support. The percentages of each racial/ethnic group reporting private foundation or other nonprofit organization funding differ little, with the notable exception that none of the 14 American Indian postdoctorates in 2002 had either as their main source of support. (See table 26).

Postdoctoral Location of Non-U.S. Citizens

Among non-U.S. citizens with definite plans for work or study, 94 percent of all new doctorate recipients holding permanent visas and 71 percent of temporary visa holders indicated that they will remain in the United States following graduation (table 27). In 2002, chemistry, biology, and computer science were the fields with the highest concentrations of new doctorate recipients with temporary visas staying in the United States (87 percent, 84 percent, and 81 percent, respectively). The lowest concentrations were located in the fields of education (34 percent), social sciences (56 percent) and humanities (57 percent). (See table 27.)

¹⁵ Some college or university support may come from federal funds, and this may not be clear to the SED respondents.

The number of non-U.S. citizens earning research doctorates in the United States has increased over the past twenty years, as has the tendency for those students to remain in the United States following graduation. Table 28 shows the trend of increasing numbers and percentages of new doctorate recipients with temporary visas planning to stay in the United States after receiving their doctorate. In 1982, less than half (45 percent) of those with temporary visas had firm commitments to positions in the United States. A decade later, 59 percent of them had firm commitments to stay in the United States; in 2002, the number had increased to 71 percent.

Special Section: First-Generation College Graduates Earning Research Doctorates

The SED has collected information on the educational attainment of the doctorate recipients' mothers and fathers since 1973. These data provide an interesting view on the social-economic backgrounds of the new doctorate recipients. A subset of particular interest consists of those whose parents did not complete a baccalaureate degree. These students are likely to have faced special challenges in the course of earning the doctorate, for their parents are likely to have lower incomes and perhaps less knowledge to share about how to negotiate college and graduate school. This section focuses on three general issues: (1) the extent to which first-generation college graduates are represented in the overall population and selected subpopulations of the new doctorate recipients, (2) the undergraduate origins of the first-generation college graduates who earned doctorates, and (3) the extent to which the first-generation college graduates face additional financial challenges within doctoral education. The section concludes with a review of the trend data on the variables examined in each of these three issue areas.

First-Generation College Graduates in the Doctoral Population

More than a third (37 percent) of the 2002 doctorate recipients reported that neither of their parents had received a bachelor's degree or higher. (See table 29). While no substantial differences in representation of first-generation college graduates were found among males and females, large differences were apparent among the five primary racial/ethnic groups (U.S. citizens only). Specifically, black (56 percent), Hispanic (51 percent), and American Indian (57 percent) doctorates were much more likely to be first-generation college graduates than their Asian (26 percent) and non-Hispanic white (32 percent) doctorate-earning counterparts. These differences reflect in part the different distributions of the racial/ethnic groups across broad fields of study, but additional tabulations (not presented here) show that the racial/ethnic differences largely remain within the broad fields of study.

As noted earlier in this report, about 30 percent of the new doctorate recipients in 2002 were non-U.S. citizens, and about 90 percent of the non-U.S. citizens earning doctorates were here on temporary visas. The numbers in table 29 show that the doctoral students on temporary

visas were more likely (43 percent) than U.S. citizens (35 percent) and permanent visa holders (39 percent) to come from families where neither parent graduated from college.

The parental education profiles of the doctorate recipients who were citizens of the 30 nations with the largest numbers of 2002 graduates are shown in table 30. Considerable variation in the percentages of first-generation students is evident, ranging from highs of 81 percent of the Saudi Arabian and 78 percent of the Malaysian doctorate recipients, to lows of 2 percent of the Ukrainian, 6 percent of the Russian, and 14 percent of the Indian doctorate recipients. (See table 30.)

First-Generation College Graduates in the Doctoral and Other Higher Education Populations

How does the representation of first-generation college graduates in the 2002 doctoral population compare to the larger population from which the doctorate recipients are drawn? To put this number in some context requires drawing on external sources of information about ostensibly comparable non-doctoral populations. Since the population of new doctorates varies in terms of such key demographic variables as year they started graduate school, college graduation year, high school graduation year, year of birth, and years in United States, comparisons with external data on those populations should be regarded as rough approximations.

One approach is to define comparison populations on the basis of the modal (most frequent) characteristics of the new doctorate population. For example, the modal year for receiving the bachelor's degree for the doctoral class of 2002 was 1994, while the modal year for starting college was 1990 and the modal year of birth was 1970. Data from the 1993 National Center for Education Statistics' survey of new baccalaureate recipients, the Baccalaureate and Beyond Longitudinal Study, provide the closest approximation to the 1994 bachelor's degree cohort. These data show that 51 percent of that population came from families where neither parent completed college.¹⁶ Enlarging the comparative scope to those who first enrolled in any form of postsecondary education institution in 1990, data from the National Center for Education

¹⁶ U.S. Department of Education. National Center for Education Statistics. *Competing Choices: Men's and Women's Paths After Earning a Bachelor's Degree*, NCES 2001-154, by Michael S. Clune, Anne-Marie Nunez, and Susan P. Choy. Project Officer: C. Dennis Carroll. Washington, DC: 2001. The report is available online at <http://nces.ed.gov/pubs2001/2001154.pdf>.

Statistics' Beginning Postsecondary Student Longitudinal Study showed that 66 percent of that population had neither parent with a baccalaureate degree.¹⁷ Compared to the 37 percent of the doctoral population, these statistics suggest that first-generation college matriculators and graduates were less likely to go on to earn the doctorate than were college matriculators and graduates whose parents graduated from college.

A shortcoming of selecting a comparison group on the basis of modal or average characteristics of the doctoral population is that these same characteristics may be affected by parental education levels. That is, if first-generation college graduates typically take more years than average to complete the doctorate, then the actual percentage of the college-graduation class of 1993 who ultimately earn the doctorate would be somewhat higher than 37 percent, and the difference in the composition of the college cohort and the subset that ultimately earns a doctorate would be commensurately less. But the main point, that first-generation college graduates are underrepresented in the most recent population of new doctorates relative to their representation in the college-graduate population would not be changed on that account.

Doctoral Fields of Specialization of First-Generation College Graduates

While first-generation college graduates are underrepresented in the 2002 doctoral cohort compared to the larger populations of bachelor recipients and beginning postsecondary students, those who did complete the doctorate were generally well-represented in all seven broad fields of doctoral study (table 31). Compared to doctorate recipients with higher levels of parental education, the first-generation graduates were over-represented in education (23 percent compared to 14 and 9 percent of the higher-parent education doctorate recipients) and underrepresented in humanities and, to a lesser extent, social sciences and physical sciences. First-generation college graduates were about as likely as those with higher levels of parental education to earn their doctorates in engineering (13 percent) and life sciences (20 percent). (See table 31.)

¹⁷ U.S. Department of Education. National Center for Education Statistics. *First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education*, NCES 98-082, by Anne-Marie Nunez and Stephanie Cuccaro-Alamin. Project Officer: C. Dennis Carroll. Washington, DC: 1998. The report is available online at <http://nces.ed.gov/pubs98/98082.pdf>.

Undergraduate Origins of First-Generation College Graduates

How do the paths to the doctorate followed by first-generation college graduates compare with other students? The SED collects data on the undergraduate institutions attended by the doctorate recipients, and the institutions can be classified in a variety of ways.¹⁸ One variable of interest is community college attendance. One important goal of these institutions is to provide access to higher education for subpopulations lacking the financial resources to attend 4-year colleges and universities, particularly those located outside of commuting distance. Overall, about 10 percent of the 2002 doctorate recipients reported having attended a two-year community college.¹⁹ As table 32 shows, first-generation respondents were more likely than the other groups to report community college attendance at some point in their undergraduate careers (15 percent compared to 10 percent of those with one college-graduate parent, and 5 percent of those with both college-graduate parents).

Another way to classify undergraduate institutions is provided by the widely-used Carnegie system (see <http://www.carnegiefoundation.org/Classification/> for the full taxonomy). The breakdown in table 32 identifies the six Carnegie classes of BA-granting institutions from which almost all of the new doctorate recipients who earned the baccalaureate in the U.S. graduated:

- Doctorate-granting Institutions
 - Doctoral/Research Universities—Extensive: These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the doctorate. In the 2000 Carnegie report, they awarded 50 or more doctoral degrees per year across at least 15 disciplines.
 - Doctoral/Research Universities—Intensive: These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the doctorate. In the 2000 Carnegie report, they awarded at least 10 doctoral degrees per year across three or more disciplines, or at least 20 doctoral degrees per year overall.
- Master's Colleges and Universities (Carnegie classes I and II combined): These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the master's degree. In the 2000 Carnegie report, they awarded 20 or more master's degrees per year.

¹⁸ These tabulations are restricted to the 2002 doctorate recipients who were U.S. citizens, because the information collected on the types of undergraduate institutions is confined to U.S. institutions.

¹⁹ The SED records whether or not each respondent indicates enrollment in a U.S. community college, but does not collect information on how long the individual was enrolled or whether an associate or other two-year degree or certificate was earned.

- Baccalaureate Colleges
 - Baccalaureate Colleges—Liberal Arts: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. In the 2000 Carnegie report, they awarded at least half of their baccalaureate degrees in liberal arts fields.
 - Baccalaureate Colleges—General: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. In the 2000 Carnegie report, they awarded less than half of their baccalaureate degrees in liberal arts fields.
- Other institutions. These include a diverse array of specialized religious and technical institutions that grant baccalaureates.

These breakdowns show that the first-generation college graduate contingent of the 2002 doctorate recipients were much less likely than those with higher parent education backgrounds to earn their bachelor’s degree from an “extensive” doctoral institution or from a liberal arts college. On the other hand, the first-generation graduates were much more likely to have earned their bachelor’s degree from an institution in the category of “master’s college or university.”

Also shown in table 32 is a breakdown, for African-American doctorate recipients only, of whether the doctorate recipient earned a bachelor’s degree from a “historically black college or university” (HBCU), by parent education background. Overall, about 28 percent of the African-American doctorate recipients reported earning their BA/BS degree from an HBCU institution. There is no indication in table 32, however, that African-American first-generation college graduates were substantially more likely to have been HBCU undergraduates than blacks whose parents were college graduates.

Sources of Support, Educational Debt, and Time to Degree

The SED has collected information since 1977 on the new doctorate recipients’ primary sources of financial support and, since 1987, on levels of educational debt. The breakdowns in table 33 show that the 2002 doctorate recipients who were first-generation college graduates were more likely than other graduates to identify their own resources²⁰ as their primary source of support (34 versus 29 and 22 percent). First-generation college graduates were less likely than

²⁰ “Own resources” include funds from savings, loans, one’s spouse and family, and employment other than in a graduate teaching or research assistantship.

other doctorate recipients to count grants and fellowships as their primary source of support (17 versus 20 and 27 percent).

The debt distributions in table 33 indicate that the 2002 first-generation college graduates were very similar to those with one college-graduate parent, but that both of these groups were more likely than those with two college-graduate parents to report high levels of education debt. About 22 percent of the first-generation college graduates reported more than \$30,000 of debt, compared with 21 and 16 percent of those with one college-graduate parent and both college-graduated parents.

Financial constraints may contribute to first-generation college graduates reporting somewhat longer registered time-to-degree totals than the other doctorate recipients. The median number of registered years for the first-generation group was 8.0 years, compared to 7.5 and 7.3 years for the other parent-education groups. (See table 33).

The availability of institutional support, the average level of debt incurred, and median registered time to degree all vary by field of doctoral study. A comparison of the new doctorates in each broad field from the three parental education categories on the source of support, debt, and time-to-degree variables is shown in table 34. These figures show that within all broad fields except for engineering and physical science, first-generation college graduates were more likely than others, particularly those with both parents having a bachelor's degree, to indicate that their primary source of support was their own resources. However, the differences among the three parental education groups within the broad fields were generally less than in the doctorate population as a whole.

The debt differences between the first-generation college graduates and the other parental education groups within most fields were also comparable to the differences in the population as a whole. For example, about 13 percent of the first-generation college graduates in the physical sciences had \$30,001 or more debt, compared to 13 percent of those with one college-graduate parent and 7 percent of the two college-graduate parents group. In education, where first-generation college graduates were most prevalent, the first-generation college graduates were about as likely as those with one or two college-graduate parents to have high education debt.

The median years of registered time-to-degree shown in table 34 show that the overall pattern of first-generation college graduates taking longer to complete the doctorate than non-first generation individuals holds within all of the broad fields of study as well. The time-to-

degree differences between the parental education groups were slightly lower in the S&E fields than overall, and slightly greater in humanities and education.

The percentage of 2002 U.S. citizen doctorate recipients reporting cumulative levels of debt greater than \$30,000 is broken down by parental education, doctoral field of study, and race/ethnicity in table 35.²¹ As was seen in table 20, African-Americans and Hispanics were more likely than Asians and non-Hispanic whites to complete graduate school with high levels of education-related debt. The likelihood of having high debt is also related to field of study and parental education background, and it is interesting to see whether the racial/ethnic differences held within the more fine-grained subpopulations defined by the cross-classification of these variables. The results in table 35 indicate that first-generation black doctorate recipients were more likely than Asians and whites to have high debt levels in all broad fields except the professional/other group. Similar race/ethnic debt disparities were found among those with one BA parent, but the differences were smaller in several broad fields among those with both BA parents.

Trends in Representation of First-Generation College Graduates

The SED has consistently measured and collected most of the variables examined thus far since the mid-1970s. Five-year snapshots of the proportions of selected subpopulation are presented in table 36, beginning with the 1977 doctoral cohort. The first row indicates a consistent decline in the percentage of new doctorates who are first generation college graduates, falling from a high of about 60 percent in 1977 to the current level of about 37 percent. The reason for the decline is at least in part due to the general increase in college graduation in the parent population.

In any case, similar patterns of decline are apparent for all subpopulations shown in table 36, but with some interesting variations within the general pattern. The sex differences in particular show that females were much less likely than males to be first-generation college graduates in 1977 (53 percent of females versus 62 percent of males), and that the difference has diminished to about 2 percent in 1997 and 2002.

²¹ Table 35 is restricted to U.S. citizens because the race/ethnicity classification is not as applicable to non-U.S. citizens. The total numbers in table 35 thus do not match those in table 34, which included U.S. and non-U.S. citizens.

Summary and Conclusions

This section has shown that first-generation college graduates represent a large proportion – 37 percent -- of the 2002 doctorate recipients. While they are particularly well-represented in the field of education, these individuals make up 32-36 percent of new doctorate recipients in each of the broad fields of S&E doctoral programs. African-American, Hispanic, and American Indian doctorate recipients are more likely to be first-generation college graduates than non-Hispanic whites and Asians.

While first-generation college graduates were a substantial fraction of the 2002 cohort of research doctorates, comparisons with larger populations of college graduates and beginning postsecondary students suggest that first-generation students represent a much smaller fraction of the doctorate recipients than they do of college entrants or college graduates.

First-generation college graduates appear to have faced greater challenges in terms of financing doctorate education, reporting higher rates of relying on their own financial resources and incurring higher levels of debt. These individuals also attended graduate school for about a half year longer than their counterparts from more highly-educated parental backgrounds, and may have foregone more income in earning their doctorates.

These indications of lower representation than comparable groups in the larger population, and of greater financial burdens in completing the doctorate, point to the importance of further research on first-generation college graduates' access to and completion of doctoral education. The SED data show that the percentage of first-generation college graduates among the 2002 doctoral cohort was a historic low, continuing a steady pattern of declining representation since at least 1977. This pattern is of course consistent with declines in the proportion of individuals in the general population with neither parent being a college graduate, and the historical SED data can be a useful complement to further efforts to understand the current situation.

MAIN DATA TABLES

TABLE 1. Number of doctorates awarded and annual percentage change in doctorates awarded by U.S. colleges and universities, 1957–2002

Year	Number of doctorate recipients	Annual percentage change from previous year	Year	Number of doctorate recipients	Annual percentage change from previous year
1957	8,611	1.1	1980	31,020	-0.7
1958	8,773	1.9	1981	31,356	1.1
1959	9,213	5.0	1982	31,110	-0.8
1960	9,733	5.6	1983	31,281	0.5
1961	10,413	7.0	1984	31,336	0.2
1962	11,500	10.4	1985	31,296	-0.1
1963	12,728	10.7	1986	31,901	1.9
1964	14,325	12.5	1987	32,370	1.5
1965	16,340	14.1	1988	33,500	3.5
1966	17,949	9.8	1989	34,327	2.5
1967	20,403	13.7	1990	36,068	5.1
1968	22,937	12.4	1991	37,532	4.1
1969	25,743	12.2	1992	38,889	3.6
1970	29,498	14.6	1993	39,800	2.3
1971	31,867	8.0	1994	41,033	3.1
1972	33,041	3.7	1995	41,748	1.7
1973	33,755	2.2	1996	42,436	1.6
1974	33,047	-2.1	1997	42,556	0.3
1975	32,952	-0.3	1998	42,652	0.2
1976	32,946	-0.0	1999	41,098	-3.6
1977	31,716	-3.7	2000	41,356	0.6
1978	30,875	-2.7	2001	40,790	-1.4
1979	31,239	1.2	2002	39,955	-2.0

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 2. Number of U.S. colleges and universities awarding doctorates and average doctorate recipients per institution, 1962–2002

Year	Number of doctorate recipients	Number of institutions	Mean number of doctorate recipients per institution	Median number of doctorate recipients per institution
1962	11,500	174	66	26.0
1963	12,728	185	69	27.0
1964	14,325	195	73	27.0
1965	16,340	204	80	33.0
1966	17,949	215	83	32.0
1967	20,403	219	93	40.0
1968	22,937	229	100	43.0
1969	25,743	231	111	52.0
1970	29,498	240	123	55.0
1971	31,867	260	123	48.5
1972	33,041	267	124	52.0
1973	33,755	286	118	42.0
1974	33,047	292	113	39.5
1975	32,952	292	113	43.5
1976	32,946	294	112	43.5
1977	31,716	304	104	41.0
1978	30,875	311	99	36.0
1979	31,239	311	100	40.0
1980	31,020	320	97	37.0
1981	31,356	323	97	41.0
1982	31,110	328	95	35.0
1983	31,281	332	94	37.0
1984	31,336	331	95	39.0
1985	31,296	337	93	36.0
1986	31,901	340	94	36.0
1987	32,370	349	93	38.0
1988	33,500	351	95	36.0
1989	34,327	356	96	36.0
1990	36,068	354	102	42.5
1991	37,532	364	103	38.5
1992	38,889	367	106	42.0
1993	39,800	372	107	42.5
1994	41,033	374	110	43.0
1995	41,748	382	109	43.0
1996	42,436	390	109	44.0
1997	42,556	383	111	45.0
1998	42,652	388	110	43.5
1999	41,098	396	104	41.5
2000	41,356	408	101	40.0
2001	40,790	416	98	37.0
2002	39,955	413	97	38.0

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 3. Top 20 doctorate-granting institutions by broad field of doctorate, 2002

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
All fields	39,955	Physical sciences ^a	5,715
U. CA Berkeley	799	U. CA Berkeley	157
U. WI-Madison	649	MA Institute of Technology	127
U. CA Los Angeles	642	Stanford U.	118
U. TX at Austin, The	637	U. IL at Urbana-Champaign	114
OH State U.-Main Campus, The	616	U. TX at Austin, The	104
U. MI-Ann Arbor	607	U. WI-Madison	102
U. IL at Urbana-Champaign	603	U. CA Los Angeles	92
U. MN-Twin Cities	565	U. MI-Ann Arbor	90
Harvard U.	552	Harvard U.	87
Nova Southeastern U.	541	U. MD-College Park	87
PA State U.-Main Campus	539	TX A&M U.	82
Stanford U.	526	Purdue U.-Main Campus	81
MA Institute of Technology	501	OH State U.-Main Campus, The	79
TX A&M U.	470	PA State U.-Main Campus	79
U. WA-Seattle Campus	455	U. AZ	76
U. MD-College Park	436	U. WA-Seattle Campus	74
MI State U.	431	U. MN-Twin Cities	73
U. FL	426	CA Institute of Technology	71
U. Southern CA	413	MI State U.	70
Purdue U.-Main Campus	412	U. NC at Chapel Hill	70
Engineering	5,073	Life sciences	8,350
MA Institute of Technology	214	Johns Hopkins U.	187
U. MI-Ann Arbor	173	U. WI-Madison	171
GA Institute of Technology-Main Campus	167	U. CA Los Angeles	146
Stanford U.	156	U. WA-Seattle Campus	144
U. CA Berkeley	148	Harvard U.	142
U. IL at Urbana-Champaign	137	OH State U.-Main Campus, The	142
U. TX at Austin, The	134	Cornell U.-Endowed Colleges	131
Purdue U.-Main Campus	121	U. CA Davis	131
PA State U.-Main Campus	119	U. CA Berkeley	126
TX A&M U.	114	U. NC at Chapel Hill	126
OH State U.-Main Campus, The	92	U. GA	123
U. FL	89	U. MN-Twin Cities	123
VA Polytechnic Institute and State U.	88	PA State U.-Main Campus	120
U. CA Los Angeles	82	U. FL	119
NC State U. at Raleigh	81	U. MI-Ann Arbor	108
U. WA-Seattle Campus	80	U. IL at Urbana-Champaign	104
U. MD-College Park	79	MI State U.	100
U. MN-Twin Cities	79	TX A&M U.	94
Carnegie Mellon U.	78	U. Pittsburgh-Main Campus	91
Rensselaer Polytechnic Institute	78	U. AL at Birmingham	90
		U. AZ	90
Social sciences	6,611	Humanities	5,373
U. CA Berkeley	151	U. CA Berkeley	141
U. CA Los Angeles	98	U. CA Los Angeles	125
Harvard U.	95	New York U.	117
CUNY Graduate School and U. Center	94	Harvard U.	115
MI State U.	90	U. Chicago, The	115
U. Chicago	90	U. WI-Madison	112
OH State U.-Main Campus, The	89	IN U.-Bloomington	111
U. MI-Ann Arbor	89	U. TX at Austin, The	111
New York U.	86	Columbia U. in The City of New York	108
U. MN-Twin Cities	86	U. MI-Ann Arbor	94
U. WI-Madison	84	Yale U.	90
U. MD-College Park	82	OH State U.-Main Campus, The	84
U. TX at Austin, The	80	U. MN-Twin Cities	83
U. IL at Urbana-Champaign	80	U. IL at Urbana-Champaign	78
U. PA	73	Princeton U.	77
U. GA	70	Rutgers U.-New Brunswick	74
PA State U.-Main Campus	69	Stanford U.	74
SUNY at Albany	67	U. Iowa	73
U. NC at Chapel Hill	67	CUNY Graduate School and University Center	69
Columbia U. In The City of New York	64	U. MD-College Park	68
		U. PA	68

^a Includes mathematics and computer sciences

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

TABLE 3. Top 20 doctorate-granting institutions by broad field of doctorate, 2002, continued

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
Education	6,488	Professional/other Fields	2,345
Nova Southeastern U.	409	Nova Southeastern U.	66
Argosy U.-Sarasota Campus	121	U. TX at Austin, The	45
Loyola U. Chicago	113	New York U.	44
Teachers College at Columbia U.	112	U. Southern CA	41
U. Southern CA	103	Argosy U.-Sarasota Campus	36
OH State U.-Main Campus, The	101	U. CA Berkeley	35
U. TX at Austin, The	94	U. MN-Twin Cities	35
PA State U.-Main Campus	91	U. PA	35
U. MN-Twin Cities	86	U. GA	34
U. VA-Main Campus	85	Columbia U. in The City of New York	33
TX A&M U.	83	MA Institute of Technology	33
U. CA Los Angeles	83	Northwestern U.	32
AZ State U.-Main Campus	82	VA Polytechnic Institute and State U.	32
U. GA	81	Fielding Graduate Institute	31
Harvard U.	76	MI State U.	31
U. WI-Madison	76	U. IL at Urbana-Champaign	31
Northern IL U.	73	Harvard U.	30
IN U.-Bloomington	69	IN U.-Bloomington	30
OK State U.-Main Campus	66	OH State U.-Main Campus, The	29
VA Polytechnic Institute and State U.	66	U. NC at Chapel Hill	29

TABLE 4. Number of doctorate recipients by state, including the District of Columbia and Puerto Rico, 2002

Rank	State	Number of doctorate recipients
1.	California	4,742
2.	New York	3,373
3.	Texas	2,429
4.	Massachusetts	2,126
5.	Illinois	2,110
6.	Pennsylvania	2,000
7.	Florida	1,948
8.	Ohio	1,625
9.	Michigan	1,445
10.	North Carolina	1,073
11.	Georgia	1,037
12.	Virginia	1,007
13.	Maryland	973
14.	Indiana	970
15.	Wisconsin	848
16.	New Jersey	846
17.	Minnesota	727
18.	Arizona	714
19.	Missouri	681
19.	Tennessee	681
21.	Colorado	668
22.	Washington	651
23.	Iowa	576
24.	Connecticut	539
25.	Louisiana	528
26.	Alabama	480
27.	District of Columbia	463
28.	South Carolina	417
29.	Kansas	410
30.	Oklahoma	374
31.	Oregon	359
32.	Utah	355
33.	Kentucky	341
34.	Mississippi	334
35.	New Mexico	277
36.	Nebraska	259
37.	Rhode Island	231
38.	Delaware	158
39.	Arkansas	152
40.	West Virginia	147
41.	Puerto Rico	114
42.	Nevada	107
43.	Hawaii	105
44.	New Hampshire	97
45.	Idaho	89
46.	Montana	74
47.	South Dakota	72
48.	Vermont	57
49.	Wyoming	55
50.	North Dakota	54
51.	Maine	38
52.	Alaska	19

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 5. Major field of doctorate recipients for selected years, 1972–2002

Field of study	1972	1977	1982	1987	1992	1997	2002
All fields	33,041	31,716	31,110	32,370	38,889	42,556	39,955
Physical sciences ^a	5,538	4,379	4,291	5,030	6,501	6,679	5,715
Engineering	3,503	2,643	2,646	3,712	5,438	6,118	5,073
Life sciences	5,084	4,923	5,709	5,754	7,115	8,326	8,350
Social sciences	5,467	6,070	5,837	5,790	6,216	7,045	6,611
Humanities	5,055	4,562	3,561	3,500	4,444	5,435	5,373
Education	7,085	7,455	7,251	6,454	6,677	6,580	6,488
Professional/other fields	1,309	1,684	1,815	2,130	2,498	2,373	2,345
Physical sciences							
Physics & astronomy	1,634	1,150	1,014	1,237	1,537	1,599	1,268
Chemistry	2,019	1,571	1,680	1,975	2,213	2,148	1,922
Earth, atmospheric, & marine sciences	604	694	657	628	824	900	797
Mathematics	1,281	964	720	740	1,058	1,123	917
Computer science ^b	----	----	220	450	869	909	811
Engineering	3,503	2,643	2,646	3,712	5,438	6,118	5,073
Life sciences							
Biological sciences	3,600	3,484	3,893	3,839	4,799	5,789	5,680
Health sciences	467	511	686	800	1,112	1,421	1,659
Agricultural sciences	1,017	928	1,130	1,115	1,204	1,116	1,011
Social sciences							
Psychology	2,279	2,990	3,159	3,173	3,263	3,561	3,199
Anthropology	260	385	333	352	320	434	495
Economics	893	837	761	821	910	1,030	903
Political science/international relations	911	710	536	486	589	753	688
Sociology	639	725	568	423	495	577	545
Other social sciences	485	423	480	535	639	690	781
Humanities							
History	1,186	961	692	586	724	966	1,030
English language & literature	1,370	1,076	770	668	903	1,094	968
Foreign language & literature	812	728	490	444	562	652	623
Other humanities	1,687	1,797	1,609	1,802	2,255	2,723	2,752
Education							
Teacher education	663	502	588	447	407	290	262
Teaching fields	1,705	1,439	1,333	1,065	1,008	919	684
Other education	4,717	5,514	5,330	4,942	5,262	5,371	5,542
Professional/other							
Business & management	765	671	685	981	1,248	1,244	1,095
Communications	166	302	265	309	330	332	399
Other professional fields	270	687	841	778	880	773	801
Other fields	108	24	24	62	40	24	50

^a Includes mathematics and computer sciences.

^b Computer sciences first appeared on the survey form in 1978.

Dashes (----) indicate that the field was not on the questionnaire's Specialties List that year.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 6. Number of doctorate recipients and percent female, by selected subfield, 1992 and 2002

Field of study	1992 ^a		2002 ^b		Change in percent to females, 1992-2002
	Number of doctorate recipients	Percent doctorate recipients to females	Number of doctorate recipients	Percent doctorate recipients to females	
All fields	38,670	37.3	39,884	45.4	21.7
Physical sciences	6,456	19.9	5,705	26.9	35.3
Physics & astronomy	1,526	12.2	1,267	16.3	33.4
Chemistry	2,199	26.3	1,921	33.6	27.7
Earth, atmospheric, & marine sciences	818	23.6	795	31.4	33.3
Mathematics	1,046	19.6	914	28.9	47.4
Computer science	867	13.8	808	20.8	50.2
Engineering	5,366	9.4	5,060	17.5	85.9
Life sciences	7,084	39.6	8,345	47.7	20.5
Biological sciences	4,783	38.3	5,679	44.7	16.8
Health sciences	1,104	64.3	1,658	68.2	6.0
Agricultural sciences	1,197	21.8	1,008	30.8	41.0
Social sciences	6,190	47.9	6,599	55.3	15.5
Psychology	3,256	59.2	3,195	66.8	12.9
Anthropology	318	48.7	495	58.4	19.8
Economics	900	21.2	898	27.7	30.7
Political science/international relations	586	28.3	687	41.6	47.0
Sociology	495	49.5	545	61.1	23.4
Other social sciences	635	43.9	779	46.1	4.9
Humanities	4,427	46.6	5,365	50.4	8.1
History	722	34.3	1,029	39.9	16.3
English language & literature	902	57.3	967	58.9	2.8
Foreign language & literature	562	59.4	621	60.4	1.6
Other humanities	2,241	43.0	2,748	49.0	13.9
Education	6,664	59.7	6,476	66.2	11.0
Teacher education	407	69.8	261	69.7	-0.1
Teaching fields	1,006	58.8	680	63.8	8.5
Other education	5,251	59.0	5,535	66.3	12.4
Professional/other	2,483	33.9	2,334	46.4	36.8
Business & management	1,239	24.3	1,089	38.2	57.2
Communications	329	47.7	399	58.6	22.9
Other professional fields	875	41.6	797	50.3	20.9
Other fields	40	50.0	49	65.3	30.6

^a 1992 field total excludes 219 Individuals for whom sex was not reported.

^b 2002 field total excludes 71 Individuals for whom sex was not reported.

See Appendix Table A-1.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 7. Number and percent of doctorate recipients by sex within broad field of study for selected years, 1972–2002

Field of study	1972		1977		1982		1987		1992 ^a		1997 ^b		2002 ^c	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
All fields	33,041	100.0	31,716	100.0	31,110	100.0	32,370	100.0	38,670	100.0	42,197	100.0	39,884	100.0
Male	27,754	84.0	23,858	75.2	21,017	67.6	20,938	64.7	24,234	62.7	24,950	59.1	21,760	54.6
Female	5,287	16.0	7,858	24.8	10,093	32.4	11,432	35.3	14,436	37.3	17,247	40.9	18,124	45.4
Physical sciences ^d	5,538	100.0	4,379	100.0	4,291	100.0	5,030	100.0	6,456	100.0	6,624	100.0	5,705	100.0
Male	5,171	93.4	3,949	90.2	3,715	86.6	4,200	83.5	5,173	80.1	5,150	77.7	4,171	73.1
Female	367	6.6	430	9.8	576	13.4	830	16.5	1,283	19.9	1,474	22.3	1,534	26.9
Engineering	3,503	100.0	2,643	100.0	2,646	100.0	3,712	100.0	5,366	100.0	6,069	100.0	5,060	100.0
Male	3,481	99.4	2,569	97.2	2,522	95.3	3,470	93.5	4,860	90.6	5,319	87.6	4,173	82.5
Female	22	0.6	74	2.8	124	4.7	242	6.5	506	9.4	750	12.4	887	17.5
Life sciences	5,084	100.0	4,923	100.0	5,709	100.0	5,754	100.0	7,084	100.0	8,271	100.0	8,345	100.0
Male	4,311	84.8	3,894	79.1	4,073	71.3	3,724	64.7	4,282	60.4	4,546	55.0	4,366	52.3
Female	773	15.2	1,029	20.9	1,636	28.7	2,030	35.3	2,802	39.6	3,725	45.0	3,979	47.7
Social sciences	5,467	100.0	6,070	100.0	5,837	100.0	5,790	100.0	6,190	100.0	6,975	100.0	6,599	100.0
Male	4,441	81.2	4,346	71.6	3,679	63.0	3,296	56.9	3,226	52.1	3,298	47.3	2,948	44.7
Female	1,026	18.8	1,724	28.4	2,158	37.0	2,494	43.1	2,964	47.9	3,677	52.7	3,651	55.3
Humanities	5,055	100.0	4,562	100.0	3,561	100.0	3,500	100.0	4,427	100.0	5,396	100.0	5,365	100.0
Male	3,755	74.3	2,903	63.6	2,051	57.6	1,929	55.1	2,364	53.4	2,799	51.9	2,663	49.6
Female	1,300	25.7	1,659	36.4	1,510	42.4	1,571	44.9	2,063	46.6	2,597	48.1	2,702	50.4
Education	7,085	100.0	7,455	100.0	7,251	100.0	6,454	100.0	6,664	100.0	6,520	100.0	6,476	100.0
Male	5,439	76.8	4,870	65.3	3,712	51.2	2,897	44.9	2,688	40.3	2,396	36.7	2,188	33.8
Female	1,646	23.2	2,585	34.7	3,539	48.8	3,557	55.1	3,976	59.7	4,124	63.3	4,288	66.2
Prof/other fields	1,309	100.0	1,684	100.0	1,815	100.0	2,130	100.0	2,483	100.0	2,342	100.0	2,334	100.0
Male	1,156	88.3	1,327	78.8	1,265	69.7	1,422	66.8	1,641	66.1	1,443	61.6	1,252	53.6
Female	153	11.7	357	21.2	550	30.3	708	33.2	842	33.9	904	38.6	1,084	46.4

^a Group total for 1992 excludes 219 individuals of unknown sex.

^b Group total for 1997 excludes 359 individuals of unknown sex.

^c Group total for 2002 excludes 71 individuals of unknown sex.

^d Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 8. Number of U.S. citizen doctorate recipients, by race/ethnicity within broad field for selected years, 1982–2002

Field of study by race/ethnicity	1982	1987	1992	1997	2002
All fields	24,435	22,984	26,009	28,160	25,936
Known race/ethnicity	23,835	22,514	25,661	27,074	25,450
Asian ^b	454	541	839	1,296	1,364
Black	1,053	768	966	1,335	1,644
Hispanic	537	617	778	1,063	1,233
American Indian ^c	77	115	149	167	146
White	21,714	20,464	22,903	23,181	20,720
Other ^d	0	9	26	32	343
Physical sciences ^a	3,121	3,093	3,538	3,628	2,997
Known race/ethnicity	3,029	3,000	3,475	3,485	2,941
Asian ^b	81	104	178	242	200
Black	30	29	34	59	94
Hispanic	34	64	88	106	93
American Indian ^c	5	10	17	14	11
White	2,879	2,793	3,155	3,060	2,504
Other ^d	0	0	3	4	39
Engineering	1,172	1,558	2,109	2,739	1,890
Known race/ethnicity	1,125	1,509	2,065	2,625	1,832
Asian ^b	72	135	213	290	248
Black	10	12	32	83	77
Hispanic	23	24	57	82	86
American Indian ^c	3	7	11	17	7
White	1,017	1,331	1,749	2,151	1,392
Other ^d	0	0	3	2	22
Life sciences	4,619	4,242	4,708	5,161	5,328
Known race/ethnicity	4,484	4,154	4,643	5,018	5,244
Asian ^b	112	145	179	313	439
Black	69	78	88	168	187
Hispanic	62	77	114	175	203
American Indian ^c	12	16	19	18	17
White	4,229	3,837	4,241	4,339	4,336
Other ^d	0	1	2	5	62
Social sciences	4,813	4,402	4,672	5,220	4,901
Known race/ethnicity	4,701	4,322	4,609	4,992	4,811
Asian ^b	68	75	97	184	194
Black	194	136	183	255	315
Hispanic	115	146	175	232	281
American Indian ^c	20	22	26	30	32
White	4,304	3,942	4,120	4,282	3,923
Other ^d	0	1	8	9	66
Humanities	3,026	2,733	3,468	4,207	4,139
Known race/ethnicity	2,944	2,676	3,425	4,045	4,057
Asian ^b	29	25	52	116	137
Black	96	73	95	137	165
Hispanic	107	96	107	179	214
American Indian ^c	6	11	19	24	22
White	2,706	2,470	3,149	3,584	3,449
Other ^d	0	1	3	5	70
Education	6,293	5,493	5,852	5,587	5,265
Known race/ethnicity	6,183	5,408	5,806	5,346	5,175
Asian ^b	69	41	80	100	98
Black	581	381	467	527	664
Hispanic	177	185	200	247	309
American Indian ^c	29	41	50	51	46
White	5,327	4,755	5,005	4,414	3,990
Other ^d	0	5	4	7	68
Professional/other fields	1,391	1,463	1,662	1,618	1,416
Known race/ethnicity	1,369	1,445	1,638	1,563	1,390
Asian ^b	23	16	40	51	48
Black	73	59	67	106	142
Hispanic	19	25	37	42	47
American Indian ^c	2	8	7	13	11
White	1,252	1,336	1,484	1,346	1,126
Other ^d	0	1	3	0	16

^a Includes mathematics and computer sciences.

^b Includes Native Hawaiians and other Pacific Islanders through 2000, but excludes them in 2002 per revised OMB guidelines.

^c Includes Alaskan Natives.

^d Includes Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting an Hispanic ethnicity).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 9. Major field of study of U.S. citizen doctorate recipients, by race/ethnicity, 2002

Field of study	Total U.S. citizen doctorate recipients	Number with known race/ethnicity	U.S. citizens					
			Asian ^a	Black	Hispanic	American Indian ^b	White	Other ^c
All fields	25,936	25,450	1,364	1,644	1,233	146	20,720	343
Physical sciences	2,997	2,941	200	94	93	11	2,504	39
Physics & astronomy	628	612	48	18	21	2	513	10
Chemistry	1,134	1,115	73	41	35	5	950	11
Earth, atmospheric, & marine sciences	467	459	10	5	13	0	422	9
Mathematics	411	405	19	13	11	3	352	7
Computer science	357	350	50	17	13	1	267	2
Engineering	1,890	1,832	248	77	86	7	1,392	22
Life sciences	5,328	5,244	439	187	203	17	4,336	62
Biological sciences	3,787	3,723	372	112	157	12	3,023	47
Health sciences	1,118	1,105	55	66	29	3	940	12
Agricultural sciences	423	416	12	9	17	2	373	3
Social sciences	4,901	4,811	194	315	281	32	3,923	66
Psychology	2,719	2,684	104	164	179	15	2,186	36
Anthropology	388	373	10	21	22	6	306	8
Economics	336	328	24	12	12	0	279	1
Political science/international relations	505	498	16	36	27	2	412	5
Sociology	439	430	17	41	21	7	334	10
Other social sciences	514	498	23	41	20	2	406	6
Humanities	4,139	4,057	137	165	214	22	3,449	70
History	864	843	25	40	34	3	732	9
English language & literature	823	808	25	45	28	5	688	17
Foreign language & literature	423	419	13	10	82	2	311	1
Other humanities	2,029	1,987	74	70	70	12	1,718	43
Education	5,265	5,175	98	664	309	46	3,990	68
Teacher education	208	205	4	21	9	3	167	1
Teaching fields	505	495	9	50	20	2	407	7
Other education	4,552	4,475	85	593	280	41	3,416	60
Professional/other	1,416	1,390	48	142	47	11	1,126	16
Business & management	596	584	27	54	21	4	472	6
Communications	278	270	5	30	10	0	219	6
Other professional fields	529	523	16	57	15	7	424	4
Other fields	13	13	0	1	1	0	11	0

^a Does not include Native Hawaiians and other Pacific Islanders.

^b Includes Alaskan Natives.

^c Includes multiple racial responses and Native Hawaiians and other Pacific Islanders.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 10. Doctorate-granting institutions having the largest number of U.S. minority doctorate recipients, 1998–2002

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
Asian ^a		Black	
U. CA Los Angeles	357	Nova Southeastern U.	374
U. CA Berkeley	350	Howard U.	247
Stanford U.	186	U. MI-Ann Arbor	140
Harvard U.	158	U. NC at Chapel Hill	121
MA Institute of Technology	151	OH State U.-Main Campus, The	118
U. MI-Ann Arbor	137	U. MD-College Park	117
U. Southern CA	133	Temple U.	113
U. CA Davis	123	VA Polytechnic Institute and State U.	108
Columbia U. In The City of New York	117	FL State U.	102
U. WA-Seattle Campus	114	Wayne State U.	102
U. IL at Urbana-Champaign	111	Loyola U. Chicago	99
U. PA	109	NC State U. at Raleigh	97
U. CA Irvine	98	Teachers College at Columbia U.	94
Johns Hopkins U.	94	Harvard U.	92
U. CA San Diego	92	U. TX at Austin, The	92
New York U.	91	U. CA Los Angeles	92
Northwestern U.	89	U. IL at Urbana-Champaign	91
U. TX at Austin, The	89	MI State U.	90
U. Chicago, The	83	Clark Atlanta U.	88
U. WI-Madison	77	Argosy U.-Sarasota Campus	87
<i>Top 20 Institutions</i>	<i>2,759</i>	<i>Top 20 Institutions</i>	<i>2,464</i>
<i>Total institutions reported (324)</i>	<i>6,580</i>	<i>Total institutions reported (337)</i>	<i>8,000</i>
Hispanic		American Indian ^b	
U. PR-Rio Piedras Campus	237	OK State U.-Main Campus	31
U. TX at Austin, The	204	Nova Southeastern U.	19
U. CA Berkeley	173	U. OK Norman Campus	19
U. CA Los Angeles	157	U. WA-Seattle Campus	16
Carlos Albizu U.	145	U. TX at Austin, The	15
TX A&M U.	119	U. MN-Twin Cities	15
Harvard U.	106	AZ State U.-Main Campus	13
Stanford U.	101	U. AK Main Campus	13
Inter American U. PR-Metro	98	U. IL at Urbana-Champaign	13
U. WI-Madison	92	Stanford U.	12
Nova Southeastern U.	88	U. CA Berkeley	12
AZ State U.-Main Campus	85	NC State U. at Raleigh	11
U. AZ	80	U. CA Los Angeles	11
U. CA Davis	80	U. FL	11
U. NM-Main Campus	80	U. MD-College Park	11
U. MI-Ann Arbor	79	U. NM-Main Campus	11
U. Southern CA	75	U. ND-Main Campus	11
U. IL at Urbana-Champaign	71	U. WI-Madison	11
CUNY Graduate School and U. Center	70	Cornell U.-Endowed Colleges	10
New York U.	67	Harvard U.	10
		OH State U.-Main Campus, The	10
		U. MO-Columbia	10
<i>Top 20 Institutions</i>	<i>2,207</i>	<i>Top 20 Institutions</i>	<i>295</i>
<i>Total institutions reported (322)</i>	<i>5,928</i>	<i>Total institutions reported (225)</i>	<i>867</i>

^a Includes Native Hawaiians and other Pacific Islanders for 1998-2000, but does not include them for 2001-2002.

^b Includes Alaskan Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 11. Citizenship status of doctorate recipients, by broad field of study for selected years, 1972–2002

Field of study/citizenship	1972	1977	1982	1987	1992	1997	2002
All fields	33,041	31,716	31,110	32,370	38,889	42,556	39,955
U.S. citizen	27,480	26,145	24,435	22,984	26,009	28,160	25,936
Non-U.S., permanent visa	2,093	1,368	1,228	1,578	1,980	2,931	1,646
Non-U.S., temporary visa	2,831	3,448	4,203	5,612	9,953	9,193	9,707
Unknown	637	755	1,244	2,196	947	2,272	2,666
Physical sciences ^a	5,538	4,379	4,291	5,030	6,501	6,679	5,715
U.S. citizen	4,392	3,346	3,121	3,093	3,538	3,628	2,997
Non-U.S., permanent visa	445	268	201	255	355	625	292
Non-U.S., temporary visa	620	676	838	1,368	2,458	2,086	2,151
Unknown	81	89	131	314	150	340	275
Engineering	3,503	2,643	2,646	3,712	5,438	6,118	5,073
U.S. citizen	2,330	1,474	1,172	1,558	2,109	2,739	1,890
Non-U.S., permanent visa	622	326	296	355	411	593	271
Non-U.S., temporary visa	519	773	1,030	1,532	2,743	2,555	2,645
Unknown	32	70	148	267	175	231	267
Life sciences	5,084	4,923	5,709	5,754	7,115	8,326	8,350
U.S. citizen	3,988	3,897	4,619	4,242	4,708	5,161	5,328
Non-U.S., permanent visa	364	242	184	258	352	753	419
Non-U.S., temporary visa	629	672	749	923	1,932	2,040	2,079
Unknown	103	112	157	331	123	372	524
Social sciences	5,467	6,070	5,837	5,790	6,216	7,045	6,611
U.S. citizen	4,640	5,185	4,813	4,402	4,672	5,220	4,901
Non-U.S., permanent visa	252	189	196	248	289	337	228
Non-U.S., temporary visa	459	541	535	654	1,048	999	1,022
Unknown	116	155	293	486	207	489	460
Humanities	5,055	4,562	3,561	3,500	4,444	5,435	5,373
U.S. citizen	4,527	4,054	3,026	2,733	3,468	4,207	4,139
Non-U.S., permanent visa	215	160	139	176	246	328	223
Non-U.S., temporary visa	205	216	226	327	614	616	733
Unknown	108	132	170	264	116	284	278
Education	7,085	7,455	7,251	6,454	6,677	6,580	6,488
U.S. citizen	6,600	6,806	6,293	5,493	5,852	5,587	5,265
Non-U.S., permanent visa	131	108	145	172	165	165	111
Non-U.S., temporary visa	284	380	572	421	553	411	475
Unknown	70	161	241	368	107	417	637
Professional/other fields	1,309	1,684	1,815	2,130	2,498	2,373	2,345
U.S. citizen	1,003	1,383	1,391	1,463	1,662	1,618	1,416
Non-U.S., permanent visa	64	75	67	114	162	130	102
Non-U.S., temporary visa	115	190	253	387	605	486	602
Unknown	127	36	104	166	69	139	225

^a Includes mathematics and computer sciences

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 12. Top 30 countries of origin of non-U.S. citizens earning doctorates at U.S. colleges and universities, (ranked by number of doctorate recipients), 2002

Rank	Country	Number of doctorate recipients
1.	China, People's Republic of ^a	2,644
2.	Korea ^b	1,187
3.	India	838
4.	China, Republic of (Taiwan)	674
5.	Canada	494
6.	Turkey	399
7.	Thailand	396
8.	Germany	255
9.	Japan	237
10.	Russia	230
11.	Great Britain, UK	222
12.	Mexico	221
13.	Brazil	171
14.	Italy	152
15.	Romania	149
16.	France	121
17.	Egypt	114
18.	Spain	113
19.	Saudi Arabia	103
20.	Greece	98
21.	Argentina	94
22.	Yugoslavia	88
23.	Indonesia	76
24.	Israel	73
25.	Venezuela	71
26.	Jordan	68
27.	Malaysia	67
28.	Colombia	66
28.	Ukraine	66
30.	Iran	65

^a Includes Hong Kong.

^b Includes Republic of Korea (South Korea) and Democratic People's Republic of Korea (North Korea).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 13. Doctorate-granting institutions having the largest number of non-U.S. citizen doctorate recipients (ranked by number of non-U.S. citizen doctorate recipients), 2002

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
U. IL at Urbana-Champaign	270	U. CA-Berkeley	198
OH State U.-Main Campus	269	Purdue U.-Main Campus	186
U. MI-Ann Arbor	227	U. MD-College Park	163
TX A&M U.	215	Cornell U.-Endowed Colleges	161
U. TX at Austin, The	215	U. CA-Los Angeles	158
U. WI-Madison	209	U. FL	156
PA State U.-Main Campus	206	Columbia U. in The City of New York	145
MA Institute of Technology	201	U. Southern CA	145
U. MN-Twin Cities	200	Harvard U.	144
Stanford U.	199	Rutgers U.-New Brunswick	143
		<i>Top 20 institutions</i>	<i>3,810</i>
		<i>Total institutions reported (413)</i>	<i>11,353</i>

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 14. Parental educational attainment of doctorate recipients, by selected demographic characteristics, 2002

	Percent high school or less	Percent college	Percent advanced degree	Total percent	Total number
Total					
Father's education	29.3	35.9	34.8	100.0	35,761
Mother's education	38.2	40.4	21.5	100.0	35,855
Sex					
Male					
Father's education	30.2	36.0	33.9	100.0	19,601
Mother's education	40.2	39.5	20.3	100.0	19,640
Female					
Father's education	28.3	35.8	35.9	100.0	16,159
Mother's education	35.7	41.4	22.9	100.0	16,213
Race/ethnicity (U.S. citizens only)					
Asian ^a					
Father's education	19.7	30.0	50.2	100.0	1,328
Mother's education	33.1	41.3	25.6	100.0	1,328
Black					
Father's education	51.6	27.4	21.0	100.0	1,501
Mother's education	45.6	33.2	21.2	100.0	1,530
Hispanic					
Father's education	43.9	29.3	26.8	100.0	1,179
Mother's education	49.8	31.7	18.5	100.0	1,187
American Indian ^b					
Father's education	44.9	34.1	21.0	100.0	138
Mother's education	44.6	36.7	18.7	100.0	139
White					
Father's education	24.7	35.5	39.8	100.0	20,071
Mother's education	30.5	44.3	25.2	100.0	20,099
Citizenship					
U.S. Citizen					
Father's education	27.1	34.4	38.5	100.0	24,914
Mother's education	32.6	42.7	24.8	100.0	24,984
Non-U.S., Permanent visa					
Father's education	31.6	35.9	32.4	100.0	1,572
Mother's education	46.1	36.7	17.2	100.0	1,578
Non-U.S., Temporary visa					
Father's education	35.1	39.8	25.1	100.0	9,252
Mother's education	51.9	34.8	13.3	100.0	9,270
Field of study					
Physical sciences ^c					
Father's education	25.0	37.4	37.6	100.0	5,252
Mother's education	33.8	41.6	24.5	100.0	5,263
Engineering					
Father's education	27.2	43.1	29.7	100.0	4,628
Mother's education	41.7	42.5	15.7	100.0	4,626
Life sciences					
Father's education	27.3	36.5	36.1	100.0	7,583
Mother's education	36.9	41.3	21.8	100.0	7,602
Social sciences					
Father's education	25.5	34.3	40.2	100.0	5,908
Mother's education	33.0	41.1	25.9	100.0	5,933
Humanities					
Father's education	23.4	32.5	44.2	100.0	4,890
Mother's education	30.3	41.4	28.3	100.0	4,907
Education					
Father's education	45.7	31.8	22.5	100.0	5,484
Mother's education	51.2	35.4	13.4	100.0	5,506
Professional/other fields					
Father's education	34.0	36.9	29.2	100.0	2,016
Mother's education	45.2	37.4	17.4	100.0	2,018

^a Does not include Native Hawaiians and other Pacific Islanders.

^b Includes Alaskan Natives.

^c Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 15. Median number of years from baccalaureate to doctorate award, by broad field of study for selected years, 1977–2002

Field of study and time to degree	1977	1982	1987	1992	1997	2002
All fields						
Since BA/BS	8.9	9.7	10.5	10.6	10.6	10.2
Since starting graduate school	6.2	6.7	7.0	7.3	7.4	7.5
Physical sciences ^a						
Since BA/BS	7.0	7.0	7.5	8.2	8.2	7.8
Since starting graduate school	5.9	6.0	6.2	6.7	6.9	6.8
Engineering						
Since BA/BS	7.5	8.0	8.2	8.9	8.8	8.6
Since starting graduate school	5.8	5.9	6.0	6.4	6.6	6.7
Life sciences						
Since BA/BS	7.3	7.7	8.9	9.5	9.3	8.9
Since starting graduate school	5.9	6.1	6.6	7.0	7.0	7.0
Social sciences						
Since BA/BS	8.0	9.2	10.5	10.7	10.0	10.0
Since starting graduate school	6.0	6.9	7.4	7.7	7.5	7.8
Humanities						
Since BA/BS	9.9	11.3	12.1	12.0	11.7	11.5
Since starting graduate school	7.3	8.3	8.6	8.5	8.7	9.0
Education						
Since BA/BS	12.6	13.7	16.2	19.0	20.0	19.0
Since starting graduate school	6.7	7.4	8.2	8.5	8.6	8.5
Professional/other fields						
Since BA/BS	10.7	11.7	12.7	13.6	13.7	13.4
Since starting graduate school	6.3	7.0	7.5	7.8	8.0	8.1

^a Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 16. Median number of years from baccalaureate to doctorate award, by demographic group and broad field of study, 2002

	All fields		Physical sciences ^a		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other	
	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number
Elapsed time from baccalaureate (years)																
All doctorate recipients	10.2	35,483	7.8	5,116	8.6	4,555	8.9	7,454	10.0	5,940	11.5	4,901	19.0	5,528	13.4	1,989
Sex																
Male	9.7	19,381	7.9	3,708	8.7	3,782	8.6	3,865	10.1	2,645	11.6	2,434	17.9	1,872	13.1	1,075
Female	11.0	16,100	7.3	1,408	8.2	773	9.2	3,588	9.9	3,295	11.4	2,467	19.9	3,655	14.0	914
Citizenship																
U.S. citizen	10.6	25,112	7.1	2,923	8.0	1,826	8.5	5,207	10.0	4,779	11.5	4,036	20.0	4,995	15.5	1,346
Non-U.S., permanent visa	10.8	1,485	9.8	258	10.0	244	10.4	381	10.3	215	12.0	199	15.8	96	14.0	92
Non-U.S., temporary visa	9.4	8,818	8.4	1,931	8.8	2,472	9.5	1,849	10.0	936	11.3	655	12.9	428	10.9	547
Race/ethnicity (U.S. citizens only)																
Asian ^b	8.4	1,319	7.1	190	7.6	239	7.8	432	9.1	192	11.0	130	15.2	90	14.2	46
Black	12.8	1,538	7.3	91	9.1	70	9.3	177	10.0	306	11.0	161	19.6	600	16.0	133
Hispanic	10.5	1,187	8.0	93	8.0	85	8.4	197	9.4	271	11.0	209	16.8	287	13.2	45
American Indian ^c	13.6	140	6.3	9	10.3	7	9.3	17	9.8	30	13.1	22	22.3	45	22.0	10
White	10.6	20,205	7.0	2,455	7.9	1,358	8.6	4,252	10.0	3,839	11.6	3,378	20.6	3,842	15.5	1,081
Years in graduate school)																
All doctorate recipients	7.5	33,590	6.8	4,811	6.7	4,413	7.0	6,834	7.8	5,668	9.0	4,698	8.5	5,264	8.1	1,902
Sex																
Male	7.4	18,316	6.9	3,503	6.7	3,662	7.0	3,521	7.9	2,507	9.0	2,319	8.4	1,783	8.1	1,021
Female	7.7	15,273	6.5	1,308	6.5	751	7.1	3,313	7.7	3,161	9.0	2,379	8.5	3,480	8.0	881
Citizenship																
U.S. citizen	7.7	23,833	6.5	2,747	6.5	1,766	7.0	4,800	7.8	4,566	9.0	3,894	8.6	4,762	8.3	1,298
Non-U.S., permanent visa	8.0	1,405	7.4	247	7.4	239	7.9	347	8.4	202	9.1	191	8.8	91	9.3	88
Non-U.S., temporary visa	7.2	8,343	7.1	1,817	6.8	2,406	7.3	1,685	7.5	898	8.7	611	7.5	410	7.6	516
Race/ethnicity (U.S. citizens only)																
Asian ^b	7.1	1,236	6.5	178	6.5	233	7.0	387	7.5	185	8.9	126	7.9	85	8.5	42
Black	8.0	1,443	6.9	83	7.2	69	7.2	160	8.0	286	8.8	156	8.2	560	9.0	129
Hispanic	8.0	1,120	6.9	87	6.6	85	7.1	181	8.0	254	8.7	202	8.7	271	7.9	40
American Indian ^c	8.7	134	6.3	9	6.2	6	7.3	15	8.4	30	10.0	22	9.8	42	11.3	10
White	7.7	19,271	6.5	2,316	6.4	1,309	7.0	3,945	7.7	3,693	9.0	3,268	8.6	3,693	8.2	1,047

^a Includes mathematics and computer sciences.

^b Does not include Native Hawaiians and other Pacific Islanders.

^c Includes Alaskan Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 17. Median age and number of doctorate recipients at different age levels, by field of study and demographic characteristics, 2002

Field of study and demographic characteristics	Median age at doctorate	Age grouping					
		21–25	26–30	31–35	36–40	41–45	Over 45
All fields	33.3	247	11,884	11,292	5,349	3,093	5,308
Broad field							
Physical sciences ^a	30.5	93	2,874	1,514	573	200	175
Engineering	31.4	76	2,129	1,620	624	233	118
Life sciences	31.9	30	3,204	2,464	975	525	611
Social sciences	33.0	28	1,946	2,123	914	495	628
Humanities	34.7	5	975	1,941	973	475	716
Education	44.2	8	456	996	901	872	2,572
Professional/other fields	37.2	7	300	634	389	293	488
Sex							
Male	32.8	164	6,911	6,679	3,167	1,529	1,967
Female	34.1	83	4,973	4,612	2,181	1,564	3,341
Citizenship							
U.S. citizen	33.9	139	8,040	6,831	3,375	2,424	4,872
Permanent visa	34.3	10	361	617	363	142	134
Temporary visa	32.3	98	3,379	3,771	1,570	510	271
Unknown	32.2	0	104	73	41	17	31
Race/Ethnicity (U.S. citizens only)							
Asian ^b	30.9	13	670	365	130	81	90
Black	37.5	4	353	367	229	209	453
Hispanic	34.4	7	341	342	181	143	210
American Indian ^c	42.1	0	20	30	17	19	60
White	33.9	110	6,454	5,508	2,694	1,895	3,928

^a Includes mathematics and computer sciences.

^b Does not include Native Hawaiians and other Pacific Islanders.

^c Includes Alaskan Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 18. Primary sources of financial support for doctorate recipients, by broad field of study and demographic group, 2002 (includes only doctorate recipients who reported primary source of support)

Primary source of support (responses only)	Total ^a	Sex		Citizenship			U.S. citizens and permanent residents				
		Men	Women	U.S. citizen	Permanent resident	Temporary resident	Asian ^b	Black	Hispanic	American Indian ^c	White
All fields	39,955	21,760	18,124	25,936	1,646	9,707	2,108	1,731	1,364	149	21,348
Teaching assistantships	% 16.8	17.0	16.5	16.0	19.7	18.4	12.4	7.3	14.6	11.7	17.4
Research assistantships/traineeships	26.5	32.2	19.7	19.7	33.9	44.0	38.0	9.9	11.9	9.5	20.3
Fellowships/dissertation grants	21.9	21.9	22.0	22.7	23.2	19.5	27.7	33.6	34.6	31.4	20.4
Own resources	28.4	21.8	36.5	36.2	19.5	8.5	18.5	43.9	34.1	44.5	36.3
Foreign government	2.4	2.9	1.7	0.1	1.5	8.7	0.7	0.2	0.4	0.0	0.1
Employer	3.9	4.1	3.6	5.1	2.2	0.9	2.7	4.9	4.4	2.9	5.2
Other	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.2
Physical sciences ^d	5,715	4,171	1,534	2,997	292	2,151	339	101	106	12	2,627
Teaching assistantships	% 24.9	25.0	24.4	22.3	24.3	28.7	18.0	10.8	22.3	10.0	23.5
Research assistantships/traineeships	46.4	47.7	43.0	43.0	51.8	50.6	54.3	22.6	32.0	40.0	44.0
Fellowships/dissertation grants	17.7	16.1	21.8	21.4	14.5	12.7	16.1	48.4	32.0	20.0	19.6
Own resources	7.0	7.0	7.0	10.0	8.0	2.5	8.7	15.1	11.7	20.0	9.7
Foreign government	2.0	1.9	2.1	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.1
Employer	2.1	2.2	1.7	3.2	1.4	0.5	2.8	3.2	1.9	10.0	3.0
Other	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Engineering	5,073	4,173	887	1,890	271	2,645	409	86	96	7	1,474
Teaching assistantships	% 7.5	7.6	7.0	6.0	10.6	8.3	6.8	7.4	5.3	0.0	6.8
Research assistantships/traineeships	56.6	57.7	51.4	42.4	58.1	67.0	58.3	25.9	30.5	50.0	42.8
Fellowships/dissertation grants	17.5	16.1	24.7	27.7	15.9	10.2	21.1	49.4	38.9	33.3	25.2
Own resources	8.5	8.5	8.4	12.8	9.8	5.2	8.1	12.3	9.5	16.7	13.6
Foreign government	4.7	4.8	4.3	0.1	1.6	8.4	0.3	0.0	2.1	0.0	0.2
Employer	5.0	5.2	4.1	11.0	4.1	0.8	5.5	4.9	13.7	0.0	11.4
Other	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Life sciences	8,350	4,366	3,979	5,328	419	2,079	679	206	228	17	4,463
Teaching assistantships	% 10.7	10.8	10.6	10.7	10.1	10.9	6.9	7.5	8.5	6.3	11.4
Research assistantships/traineeships	36.6	40.3	32.6	32.2	43.0	46.9	43.4	19.3	21.7	25.0	32.9
Fellowships/dissertation grants	31.9	32.1	31.8	34.4	29.6	25.8	37.7	49.7	51.9	56.3	31.7
Own resources	14.5	10.3	19.1	18.2	13.4	4.9	10.3	18.7	13.7	6.3	19.2
Foreign government	3.0	3.7	2.3	0.1	1.8	10.9	0.2	0.0	0.5	0.0	0.2
Employer	3.1	2.7	3.6	4.2	2.0	0.5	1.5	4.8	3.8	6.3	4.4
Other	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Social sciences	6,611	2,948	3,651	4,901	228	1,022	265	333	304	34	4,024
Teaching assistantships	% 20.4	22.4	18.7	19.0	27.1	25.6	21.5	8.1	12.1	18.2	20.7
Research assistantships/traineeships	15.5	14.7	16.1	15.1	16.4	17.0	19.5	11.6	8.0	3.0	15.9
Fellowships/dissertation grants	22.6	24.5	21.2	20.9	22.9	31.2	25.9	43.9	38.4	33.3	17.3
Own resources	37.7	33.0	41.4	42.8	30.8	14.3	29.9	33.5	40.8	45.5	43.8
Foreign government	2.0	3.0	1.2	0.1	1.9	11.2	0.8	0.6	0.0	0.0	0.2
Employer	1.7	2.3	1.3	2.0	0.9	0.6	2.4	2.3	0.7	0.0	2.1
Other	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Humanities	5,373	2,663	2,702	4,139	223	733	179	174	253	22	3,572
Teaching assistantships	% 32.4	30.5	34.2	31.8	36.7	34.2	21.3	17.3	36.4	33.3	33.2
Research assistantships/traineeships	1.6	1.1	2.0	1.4	1.9	2.3	2.4	1.8	0.8	0.0	1.4
Fellowships/dissertation grants	29.5	30.6	28.5	28.2	32.4	37.1	39.6	51.8	35.5	38.1	25.8
Own resources	33.9	34.6	33.2	36.7	27.1	18.9	33.7	26.8	25.6	28.6	37.7
Foreign government	1.1	1.0	1.1	0.2	1.4	6.7	3.0	0.0	0.0	0.0	0.1
Employer	1.5	2.0	1.0	1.6	0.5	0.8	0.0	2.4	1.7	0.0	1.7
Other	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Education	6,488	2,188	4,288	5,265	111	475	138	680	323	46	4,028
Teaching assistantships	% 6.8	6.7	6.9	6.0	17.3	13.9	13.0	3.7	4.3	2.4	6.6
Research assistantships/traineeships	7.9	7.2	8.2	6.6	13.3	20.8	12.2	5.7	5.7	0.0	6.9
Fellowships/dissertation grants	9.3	9.5	9.2	8.2	18.4	19.3	14.6	13.7	19.7	19.0	6.2
Own resources	65.5	62.4	67.1	69.1	43.9	29.7	55.3	70.1	63.5	73.8	69.3
Foreign government	1.1	1.4	0.9	0.0	1.0	12.7	0.8	0.0	0.0	0.0	0.0
Employer	9.2	12.5	7.6	9.8	6.1	3.3	4.1	6.5	6.7	4.8	10.8
Other	0.2	0.4	0.2	0.2	0.0	0.2	0.0	0.3	0.0	0.0	0.3
Professional/other fields	2,345	1,251	1,083	1,416	102	602	99	151	54	11	1,160
Teaching assistantships	% 18.8	19.4	18.1	16.1	18.3	25.4	13.2	6.4	13.7	0.0	17.8
Research assistantships/traineeships	11.2	11.7	10.6	7.8	11.8	19.0	8.8	4.3	5.9	11.1	8.4
Fellowships/dissertation grants	19.4	21.0	17.6	17.4	26.9	22.9	26.4	34.0	21.6	33.3	15.1
Own resources	41.0	37.2	45.4	50.1	36.6	20.1	45.1	46.1	39.2	55.6	50.5
Foreign government	3.2	3.8	2.4	0.2	4.3	10.0	3.3	0.7	3.9	0.0	0.1
Employer	6.2	6.7	5.5	8.0	2.2	2.3	3.3	8.5	15.7	0.0	7.7
Other	0.3	0.2	0.3	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.4

^a Total includes 71 doctoral recipients for whom sex was not reported.

^b Does not include Native Hawaiians and other Pacific Islanders.

^c Includes Alaskan Natives. ^d Includes mathematics and computer science.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

TABLE 19. Debt related to the education of the doctorate recipients, by broad field of study, 2002

	Total		Physical sciences ^a		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Cumulative debt																
No debt	17,546	49.5	3,039	58.3	2,886	63.0	3,837	51.2	2,067	35.5	1,937	39.8	2,792	51.0	988	49.4
\$5,000 or less	2,428	6.8	410	7.9	322	7.0	535	7.1	294	5.1	376	7.7	382	7.0	109	5.5
\$5,001-\$10,000	2,333	6.6	368	7.1	259	5.7	541	7.2	392	6.7	369	7.6	301	5.5	103	5.2
\$10,001-\$15,000	1,983	5.6	321	6.2	190	4.1	482	6.4	349	6.0	294	6.0	251	4.6	96	4.8
\$15,001-\$20,000	1,679	4.7	226	4.3	157	3.4	388	5.2	314	5.4	284	5.8	243	4.4	67	3.4
\$20,001-\$25,000	1,428	4.0	178	3.4	146	3.2	334	4.5	256	4.4	249	5.1	183	3.3	82	4.1
\$25,001-\$30,000	1,232	3.5	136	2.6	108	2.4	252	3.4	255	4.4	200	4.1	203	3.7	78	3.9
\$30,001-\$35,000	1,123	3.2	124	2.4	65	1.4	224	3.0	290	5.0	187	3.8	168	3.1	65	3.3
\$35,001 and up	5,698	16.1	409	7.8	446	9.7	903	12.0	1,603	27.5	974	20.0	951	17.4	412	20.6
Total	35,450	100.0	5,211	100.0	4,579	100.0	7,496	100.0	5,820	100.0	4,870	100.0	5,474	100.0	2,000	100.0
Mean	\$12,141		\$8,164		\$8,040		\$10,743		\$18,037		\$14,804		\$12,104		\$13,590	
Graduate debt																
No debt	22,316	63.1	3,860	74.2	3,353	73.4	5,110	68.4	2,882	49.7	2,607	53.6	3,317	60.7	1,187	59.4
\$5,000 or less	1,774	5.0	291	5.6	252	5.5	355	4.8	233	4.0	290	6.0	276	5.1	77	3.9
\$5,001-\$10,000	1,616	4.6	239	4.6	192	4.2	363	4.9	255	4.4	266	5.5	227	4.2	74	3.7
\$10,001-\$15,000	1,189	3.4	134	2.6	112	2.5	263	3.5	202	3.5	204	4.2	205	3.8	69	3.5
\$15,001-\$20,000	1,102	3.1	130	2.5	109	2.4	215	2.9	236	4.1	177	3.6	183	3.4	52	2.6
\$20,001-\$25,000	893	2.5	99	1.9	77	1.7	183	2.4	175	3.0	174	3.6	121	2.2	64	3.2
\$25,001-\$30,000	805	2.3	73	1.4	65	1.4	148	2.0	172	3.0	147	3.0	146	2.7	54	2.7
\$30,001-\$35,000	818	2.3	56	1.1	54	1.2	144	1.9	209	3.6	160	3.3	142	2.6	53	2.7
\$35,001 and up	4,852	13.7	317	6.1	357	7.8	690	9.2	1,439	24.8	837	17.2	845	15.5	367	18.4
Total	35,365	100.0	5,199	100.0	4,571	100.0	7,471	100.0	5,803	100.0	4,862	100.0	5,462	100.0	1,997	100.0
Mean	\$8,524		\$4,696		\$5,259		\$6,613		\$13,540		\$10,883		\$9,373		\$10,481	
Undergraduate debt																
No debt	26,282	74.3	3,838	73.7	3,655	80.0	5,281	70.6	4,017	69.1	3,453	71.2	4,451	81.5	1,587	79.5
\$5,000 or less	2,007	5.7	310	6.0	225	4.9	471	6.3	331	5.7	331	6.8	238	4.4	101	5.1
\$5,001-\$10,000	1,868	5.3	297	5.7	171	3.7	458	6.1	370	6.4	304	6.3	195	3.6	73	3.7
\$10,001-\$15,000	1,617	4.6	273	5.2	152	3.3	385	5.1	372	6.4	237	4.9	135	2.5	63	3.2
\$15,001-\$20,000	1,176	3.3	181	3.5	118	2.6	299	4.0	236	4.1	187	3.9	118	2.2	37	1.9
\$20,001-\$25,000	907	2.6	122	2.3	108	2.4	236	3.2	167	2.9	122	2.5	114	2.1	38	1.9
\$25,001-\$30,000	625	1.8	84	1.6	61	1.3	149	2.0	124	2.1	79	1.6	89	1.6	39	2.0
\$30,001-\$35,000	410	1.2	52	1.0	21	0.5	102	1.4	99	1.7	58	1.2	53	1.0	25	1.3
\$35,001 and up	485	1.4	48	0.9	58	1.3	100	1.3	97	1.7	81	1.7	67	1.2	34	1.7
Total	35,377	100.0	5,205	100.0	4,569	100.0	7,481	100.0	5,813	100.0	4,852	100.0	5,460	100.0	1,997	100.0
Mean	\$3,644		\$3,483		\$2,796		\$4,161		\$4,542		\$3,954		\$2,758		\$3,130	

^a Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 20. Debt related to the education of the doctorate recipients, by demographic group, 2002

Cumulative debt	Sex				Citizenship						Race/ethnicity (U.S. citizens and permanent residents)									
	Male		Female		U.S. citizen		Permanent visa		Temporary visa		Asian ^a		Black		Hispanic		American Indian ^b		White	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No debt	9,798	50.4	7,747	48.4	10,302	41.6	999	64.2	6,207	68.4	1,110	55.3	429	26.6	412	31.5	37	26.4	9,012	44.0
\$5,000 or less	1,410	7.3	1,017	6.4	1,665	6.7	104	6.7	657	7.2	138	6.9	99	6.1	113	8.6	15	10.7	1,354	6.6
\$5,001-\$10,000	1,321	6.8	1,012	6.3	1,780	7.2	89	5.7	462	5.1	137	6.8	92	5.7	96	7.3	14	10.0	1,479	7.2
\$10,001-\$15,000	1,104	5.7	879	5.5	1,648	6.7	60	3.9	274	3.0	115	5.7	92	5.7	99	7.6	7	5.0	1,341	6.5
\$15,001-\$20,000	863	4.4	815	5.1	1,452	5.9	47	3.0	174	1.9	102	5.1	111	6.9	80	6.1	4	2.9	1,164	5.7
\$20,001-\$25,000	817	4.2	611	3.8	1,224	4.9	42	2.7	160	1.8	78	3.9	74	4.6	68	5.2	8	5.7	997	4.9
\$25,001-\$30,000	658	3.4	574	3.6	1,054	4.3	33	2.1	144	1.6	57	2.8	100	6.2	53	4.1	9	6.4	843	4.1
\$30,001-\$35,000	599	3.1	524	3.3	981	4.0	33	2.1	109	1.2	53	2.6	76	4.7	66	5.0	5	3.6	787	3.8
\$35,000 and up	2,869	14.8	2,829	17.7	4,656	18.8	148	9.5	887	9.8	219	10.9	540	33.5	320	24.5	41	29.3	3,528	17.2
Total	19,439	100.0	16,008	100.0	24,762	100.0	1,555	100.0	9,074	100.0	2,009	100.0	1,613	100.0	1,307	100.0	140	100.0	20,505	100.0
Mean	\$11,595		\$12,805		\$14,339		\$7,595		\$6,944		\$9,658		\$21,601		\$17,890		\$19,607		\$13,432	
Graduate debt																				
No debt	12,448	64.2	9,866	61.8	14,477	58.6	1,134	73.0	6,663	73.6	1,410	70.2	668	41.5	665	51.0	56	40.3	12,371	60.5
\$5,000 or less	1,033	5.3	740	4.6	1,176	4.8	72	4.6	523	5.8	96	4.8	79	4.9	89	6.8	17	12.2	941	4.6
\$5,001-\$10,000	929	4.8	687	4.3	1,182	4.8	66	4.2	367	4.1	99	4.9	63	3.9	60	4.6	8	5.8	991	4.8
\$10,001-\$15,000	656	3.4	533	3.3	926	3.7	38	2.4	224	2.5	54	2.7	72	4.5	45	3.4	6	4.3	757	3.7
\$15,001-\$20,000	576	3.0	526	3.3	901	3.6	38	2.4	160	1.8	61	3.0	85	5.3	46	3.5	0	0	712	3.5
\$20,001-\$25,000	518	2.7	375	2.3	731	3.0	28	1.8	132	1.5	36	1.8	50	3.1	46	3.5	4	2.9	604	3.0
\$25,001-\$30,000	423	2.2	382	2.4	649	2.6	31	2.0	125	1.4	41	2.0	64	4.0	35	2.7	7	5.0	517	2.5
\$30,001-\$35,000	428	2.2	390	2.4	681	2.8	22	1.4	115	1.3	28	1.4	57	3.5	49	3.8	3	2.2	549	2.7
\$35,000 and up	2,385	12.3	2,467	15.5	3,971	16.1	125	8.0	750	8.3	183	9.1	472	29.3	270	20.7	38	27.3	3,002	14.7
Total	19,396	100.0	15,966	100.0	24,694	100.0	1,554	100.0	9,059	100.0	2,008	100.0	1,610	100.0	1,305	100.0	139	100.0	20,444	100.0
Mean	\$7,964		\$9,207		\$9,901		\$5,598		\$5,291		\$6,193		\$15,835		\$12,073		\$14,263		\$9,290	
Undergraduate debt																				
No debt	14,334	73.8	11,946	74.8	17,039	68.9	1,322	85.3	7,872	87.0	1,498	74.6	1,033	64.2	789	60.5	88	63.3	14,460	70.7
\$5,000 or less	1,160	6.0	847	5.3	1,525	6.2	61	3.9	420	4.6	109	5.4	108	6.7	103	7.9	8	5.8	1,207	5.9
\$5,001-\$10,000	1,045	5.4	823	5.2	1,593	6.4	55	3.5	218	2.4	102	5.1	98	6.1	107	8.2	13	9.4	1,267	6.2
\$10,001-\$15,000	887	4.6	730	4.6	1,444	5.8	29	1.9	144	1.6	104	5.2	97	6.0	88	6.7	9	6.5	1,131	5.5
\$15,001-\$20,000	653	3.4	522	3.3	1,055	4.3	22	1.4	95	1.0	72	3.6	80	5.0	69	5.3	5	3.6	823	4.0
\$20,001-\$25,000	523	2.7	384	2.4	789	3.2	18	1.2	98	1.1	59	2.9	52	3.2	52	4.0	6	4.3	612	3.0
\$25,001-\$30,000	344	1.8	281	1.8	539	2.2	17	1.1	68	0.8	21	1.0	60	3.7	36	2.8	6	4.3	422	2.1
\$30,001-\$35,000	206	1.1	204	1.3	366	1.5	10	0.6	34	0.4	22	1.1	33	2.0	30	2.3	1	0.7	278	1.4
\$35,000 and up	260	1.3	225	1.4	369	1.5	16	1.0	100	1.1	20	1.0	49	3.0	30	2.3	3	2.2	267	1.3
Total	19,412	100.0	15,962	100.0	24,719	100.0	1,550	100.0	9,049	100.0	2,007	100.0	1,610	100.0	1,304	100.0	139	100.0	20,467	100.0
Mean	\$3,654		\$3,633		\$4,473		\$2,006		\$1,666		\$3,472		\$5,806		\$5,849		\$5,486		\$4,177	

^a Does not include Native Hawaiians and other Pacific Islanders.

^b Includes Alaskan Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 21. Postgraduation status of doctorate recipients, by broad field for selected years, 1982–2002

Year and commitments	All fields	Physical sciences ^a	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
Total								
1982	31,110	4,291	2,646	5,709	5,837	3,561	7,251	1,815
1987	32,370	5,030	3,712	5,754	5,790	3,500	6,454	2,130
1992	38,889	6,501	5,438	7,115	6,216	4,444	6,677	2,498
1997	42,556	6,679	6,118	8,326	7,045	5,435	6,580	2,373
2002	39,955	5,715	5,073	8,350	6,611	5,373	6,488	2,345
Total responses to postgraduation status								
1982	28,730	4,000	2,383	5,335	5,335	3,263	6,760	1,654
1987	29,285	4,545	3,256	5,310	5,160	3,155	5,958	1,901
1992	35,804	5,979	4,920	6,672	5,614	4,157	6,177	2,285
1997	37,864	6,007	5,576	7,547	6,101	4,845	5,699	2,089
2002	35,860	5,262	4,620	7,608	5,925	4,922	5,501	2,022
Percent								
Definite commitments for employment or study								
1982	74.6	79.3	74.2	76.5	71.6	65.8	75.0	82.8
1987	72.9	76.7	68.1	75.8	69.6	66.3	74.2	80.4
1992	69.3	68.4	60.0	74.5	68.2	61.5	75.3	76.5
1997	67.4	69.5	65.3	71.2	64.6	56.3	72.9	73.1
2002	72.5	75.9	69.6	73.7	72.4	64.8	75.0	77.3
Seeking employment or study ^b								
1982	25.4	20.7	25.8	23.5	28.4	34.2	25.0	17.2
1987	27.1	23.3	31.9	24.2	30.4	33.7	25.8	19.6
1992	30.7	31.6	40.0	25.5	31.8	38.5	24.7	23.5
1997	32.6	30.5	34.7	28.8	35.4	43.7	27.1	26.9
2002	27.5	24.1	30.4	26.3	27.6	35.2	25.0	22.7

^a Includes mathematics and computer sciences.^b Percent calculated on those responding to the item on postgraduation status.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 22. Postgraduation status of doctorate recipients, by selected demographic group for selected years, 1982–2002

Year and status	Total	Sex		Citizenship			U.S. citizens & permanent residents				
		Men	Women	U.S. citizens	Permanent visa	Temporary visa	Asian ^a	Black	Hispanic	American Indian ^b	White
Total											
1982	31,110	21,017	10,093	24,435	1,228	4,203	1,006	1,150	615	77	22,177
1987	32,370	20,938	11,432	22,984	1,578	5,612	1,166	907	708	115	21,119
1992 ^c	38,889	24,234	14,436	26,009	1,980	9,953	1,754	1,109	909	149	23,617
1997 ^d	42,556	24,950	17,247	28,160	2,931	9,193	3,109	1,474	1,198	167	23,962
2002 ^e	39,955	21,760	18,124	25,936	1,646	9,707	2,108	1,731	1,364	149	21,348
Total responses to postgraduation status											
1982	28,730	19,363	9,367	23,637	1,164	3,869	945	1,112	598	74	21,670
1987	29,285	18,786	10,499	22,523	1,471	5,231	1,097	881	690	112	20,776
1992	35,804	22,405	13,394	24,877	1,818	9,072	1,619	1,019	843	141	22,732
1997	37,864	22,486	15,360	26,345	2,814	8,649	2,878	1,386	1,091	156	23,006
2002	35,860	19,638	16,219	25,005	1,575	9,236	2,035	1,616	1,306	143	20,718
Percent											
Definite commitments for employment or study ^f											
1982	74.6	76.7	70.3	75.6	64.9	70.9	69.2	72.8	71.9	64.9	75.7
1987	72.9	74.1	70.8	74.7	59.2	69.5	65.5	64.4	69.9	74.1	74.7
1992	69.3	68.6	70.3	73.4	56.1	60.5	60.6	69.6	68.4	70.2	73.4
1997	67.4	68.0	66.6	69.7	59.1	63.2	62.9	66.6	68.4	74.4	69.6
2002	72.5	73.8	70.9	73.6	65.4	70.5	68.2	67.6	71.4	75.5	74.3
Seeking employment or study ^f											
1982	25.4	23.3	29.7	24.4	35.1	29.1	30.8	27.2	28.1	35.1	24.3
1987	27.1	25.9	29.2	25.3	40.8	30.5	34.5	35.6	30.1	25.9	25.3
1992	30.7	31.4	29.7	26.6	43.9	39.5	39.4	30.4	31.6	29.8	26.6
1997	32.6	32.0	33.4	30.3	40.9	36.8	37.1	33.4	31.6	25.6	30.4
2002	27.5	26.2	29.1	26.4	34.6	29.5	31.8	32.4	28.6	24.5	25.7

^a Includes Native Hawaiians and other Pacific Islanders through 2000, but excludes them per revised OMB guidelines.^b Includes Alaskan Natives.^c Total includes 219 doctoral recipients for whom sex was not reported.^d Total includes 359 doctoral recipients for whom sex was not reported.^e Total includes 71 doctoral recipients for whom sex was not reported.^f Percent calculated on those responding to the item on postgraduation status.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 23. Postgraduation plans of doctorate recipients with definite commitments, by broad field for selected years, 1982–2002

Year and commitments	All fields	Physical sciences ^a	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
All definite commitments								
1982	21,429	3,173	1,768	4,080	3,820	2,146	5,072	1,370
1987	21,362	3,488	2,216	4,024	3,593	2,091	4,421	1,529
1992	24,795	4,090	2,953	4,971	3,827	2,555	4,652	1,747
1997	25,533	4,172	3,643	5,370	3,940	2,728	4,153	1,527
2002	25,984	3,993	3,215	5,608	4,289	3,190	4,126	1,563
Definite commitments with responses to type of plans								
1982	21,360	3,166	1,764	4,070	3,812	2,139	5,047	1,362
1987	21,198	3,478	2,201	4,010	3,568	2,066	4,355	1,520
1992	24,635	4,083	2,944	4,961	3,808	2,532	4,565	1,742
1997	24,933	4,119	3,579	5,267	3,855	2,635	3,994	1,484
2002	25,883	3,981	3,206	5,595	4,273	3,176	4,104	1,548
Percent								
Employment								
1982	80.2	65.7	88.5	45.0	87.8	95.1	97.5	98.6
1987	74.2	51.4	80.2	40.5	83.4	93.2	96.1	96.6
1992	72.0	49.0	77.9	37.1	82.2	93.9	96.8	97.0
1997	71.6	53.3	79.3	38.7	78.6	93.1	96.3	97.0
2002	69.5	50.4	75.1	40.3	73.5	89.6	94.4	93.8
Study								
1982	19.8	34.3	11.5	55.0	12.2	4.9	2.5	1.4
1987	25.8	48.6	19.8	59.5	16.6	6.8	3.9	3.4
1992	28.0	51.0	22.1	62.9	17.8	6.1	3.2	3.0
1997	28.4	46.7	20.7	61.3	21.4	6.9	3.7	3.0
2002	30.5	49.6	24.9	59.7	26.5	10.4	5.6	6.2

^a Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 24. Postgraduation plans of doctorate recipients with definite commitments, by demographic group for selected years, 1982–2002

Year and commitment	Sex			Citizenship			U.S. citizens and permanent residents				
	Total	Male	Female	U.S. citizen	Permanent visa	Temporary visa	Asian ^a	Black	Hispanic	American Indian ^b	White
All definite commitments											
1982	21,429	14,847	6,582	17,881	755	2,744	654	809	430	48	16,413
1987	21,362	13,929	7,433	16,818	871	3,633	719	567	482	83	15,511
1992	24,795	15,378	9,412	18,256	1,020	5,489	981	709	577	99	16,692
1997	25,533	15,301	10,225	18,372	1,664	5,463	1,810	923	746	116	16,020
2002	25,984	14,486	11,497	18,414	1,030	6,513	1,387	1,093	932	108	15,392
Definite commitments with responses to type of plans											
1982	21,360	14,799	6,561	17,840	751	2,722	649	803	429	48	16,382
1987	21,198	13,836	7,362	16,704	865	3,591	718	556	477	82	15,412
1992	24,635	15,306	9,324	18,143	999	5,463	974	689	565	99	16,599
1997	24,933	14,971	9,958	17,950	1,623	5,330	1,774	885	724	112	15,669
2002	25,883	14,427	11,455	18,358	1,028	6,472	1,384	1,087	931	108	15,347
Percent											
Employment ^c											
1982	80.2	79.0	82.7	80.5	79.8	78.1	73.5	94.3	86.2	72.9	79.9
1987	74.2	71.9	78.7	76.4	70.2	65.2	66.2	86.3	77.6	79.3	76.3
1992	72.0	69.2	76.7	75.7	69.3	60.6	63.9	83.3	76.6	80.8	75.6
1997	71.6	69.7	74.3	75.1	66.2	61.4	63.0	81.9	77.1	88.4	75.0
2002	69.5	67.1	72.5	72.5	66.9	61.3	60.9	77.1	72.9	82.4	72.8
Study ^c											
1982	19.8	21.0	17.3	19.5	20.2	21.9	26.5	5.7	13.8	27.1	20.1
1987	25.8	28.1	21.3	23.6	29.8	34.8	33.8	13.7	22.4	20.7	23.7
1992	28.0	30.8	23.3	24.3	30.7	39.4	36.1	16.7	23.4	19.2	24.4
1997	28.4	30.3	25.7	24.9	33.8	38.6	37.0	18.1	22.9	11.6	25.0
2002	30.5	32.9	27.5	27.5	33.1	38.7	39.1	22.9	27.1	17.6	27.2

^a Includes Native Hawaiians and other Pacific Islanders through 2000, but excludes them in 2002 per revised OMB guidelines.

^b Includes Alaskan Natives.

^c Percent based on those with definite commitments

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 25. Employment sector of doctorate recipients with definite postgraduation employment commitments in the United States, by demographic group for selected years, 1982–2002

	Total ^a	Sex		Citizenship			U.S. citizens & permanent residents				
		Male	Female	U.S. citizen	Permanent visa	Temporary visa	Asian ^b	Black	Hispanic	American Indian ^c	White
All employment commitments											
1982	15,466	10,316	5,150	14,146	541	746	454	745	359	34	12,884
1987	14,144	8,635	5,509	12,586	509	1,037	419	472	357	65	11,570
1992	15,632	8,910	6,719	13,448	599	1,580	556	563	415	79	12,292
1997	16,018	9,081	6,933	13,180	980	1,843	1,057	716	533	96	11,477
2002	16,176	8,473	7,703	13,026	642	2,495	797	836	664	86	10,932
Employment commitments with responses to sector											
1982	15,338	10,241	5,097	14,058	537	710	450	725	354	33	12,823
1987	13,849	8,463	5,386	12,445	500	893	408	456	351	64	11,459
1992	15,418	8,797	6,618	13,277	586	1,550	542	547	409	78	12,150
1997	15,308	8,691	6,613	12,615	921	1,760	980	680	499	89	11,027
2002	16,106	8,435	7,671	12,982	637	2,475	789	833	661	84	10,899
Percent											
Academe ^d											
1982	49.4	46.0	56.3	49.6	43.9	51.1	33.8	52.8	54.5	45.5	49.6
1987	50.9	48.2	55.0	50.0	54.0	60.6	35.8	51.5	54.1	46.9	50.6
1992	52.4	48.0	58.3	52.1	55.1	54.3	39.1	54.3	59.4	56.4	52.4
1997	47.9	41.4	56.4	51.3	35.4	30.2	31.3	56.9	60.5	44.9	51.0
2002	52.4	47.6	57.8	54.9	46.3	40.8	34.6	52.9	59.6	63.1	55.6
Industry/self-employed ^d											
1982	22.0	26.6	12.7	20.0	47.3	41.0	52.7	8.0	13.6	21.2	20.8
1987	20.6	25.1	13.6	19.2	35.2	32.1	48.5	9.0	13.4	18.8	19.3
1992	21.2	27.2	13.1	18.4	34.8	39.7	44.8	9.7	15.9	12.8	18.4
1997	27.8	36.7	16.1	20.7	53.7	64.5	54.0	11.6	16.6	20.2	21.2
2002	24.2	32.1	15.6	17.9	40.2	53.2	50.6	12.2	14.2	9.5	17.5
Government ^d											
1982	18.0	17.5	18.9	19.3	4.7	2.0	8.9	28.8	22.9	27.3	18.4
1987	17.7	17.4	18.2	19.3	4.6	2.1	10.8	27.9	20.5	25.0	18.7
1992	15.8	14.9	17.0	17.9	4.6	2.0	11.1	24.5	15.6	19.2	17.4
1997	7.6	9.0	5.8	8.7	3.6	1.5	6.0	8.7	6.8	10.1	8.6
2002	7.4	8.4	6.3	8.5	4.9	1.8	7.4	7.1	9.2	8.3	8.5
Other ^d											
1982	10.6	9.8	12.2	11.1	4.1	5.9	4.7	10.3	9.0	6.1	11.2
1987	10.9	9.4	13.2	11.5	6.2	5.2	4.9	11.6	12.0	9.4	11.5
1992	10.6	9.9	11.6	11.6	5.5	4.1	5.0	11.5	9.0	11.5	11.8
1997	16.8	13.0	21.7	19.3	7.3	3.8	8.7	22.8	16.0	24.7	19.2
2002	16.0	11.9	20.4	18.6	8.6	4.1	7.5	27.7	16.9	19.0	18.4

^a Includes doctoral recipients for whom sex is reported.

^b Includes Native Hawaiians and other Pacific Islanders through 2000, but excludes them in 2002 per revised OMB guidelines.

^c Includes Alaskan Natives.

^d Percent based on those with definite commitments.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 26. Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1982–2002

	Sex		Citizenship			U.S. citizens & permanent residents					
	Total ^a	Male	Female	U.S. citizen	Permanent visa	Temporary visa	Asian ^b	Black	Hispanic	American Indian ^c	White
All postgraduate study commitments											
1982	3,887	2,849	1,038	3,272	127	485	151	36	47	9	3,097
1987	4,671	3,350	1,321	3,476	214	972	209	49	75	14	3,261
1992	5,935	4,066	1,867	3,949	250	1,727	292	88	110	15	3,642
1997	6,034	3,838	2,196	3,919	450	1,656	550	130	139	10	3,447
2002	6,652	4,004	2,648	4,328	269	2,049	435	188	204	14	3,621
Postgraduate study commitments with responses to source of support											
1982	3,636	2,661	975	3,049	122	462	144	34	41	9	2,890
1987	4,405	3,164	1,241	3,270	196	930	192	43	70	13	3,071
1992	5,585	3,834	1,749	3,715	233	1,629	272	81	106	12	3,427
1997	6,031	3,836	2,195	3,916	450	1,656	550	130	139	10	3,445
2002	6,609	3,974	2,635	4,304	268	2,031	433	186	204	14	3,601
Percent											
U.S. government ^d											
1982	52.4	51.8	54.1	56.1	44.3	30.3	47.9	55.9	46.3	44.4	56.4
1987	45.2	44.6	47.0	51.9	45.4	22.4	51.6	39.5	40.0	30.8	52.2
1992	39.8	38.9	41.7	48.7	38.6	19.6	36.4	34.6	44.3	41.7	49.5
1997	39.3	38.2	41.2	47.0	36.2	21.7	41.8	39.2	47.5	40.0	46.7
2002	34.0	34.4	33.2	40.1	35.1	20.8	37.4	35.5	32.4	50.0	40.5
College or university ^d											
1982	17.2	18.6	13.4	14.3	23.0	35.1	16.7	17.6	26.8	33.3	14.1
1987	24.6	26.4	20.0	18.6	28.6	44.9	20.8	20.9	25.7	23.1	18.7
1992	29.1	31.3	24.4	21.0	31.3	47.5	34.2	29.6	23.6	33.3	20.3
1997	30.3	32.5	26.6	23.9	33.1	44.9	30.0	31.5	25.9	40.0	23.7
2002	42.2	43.3	40.5	36.5	42.5	54.2	33.7	39.2	40.7	28.6	37.1
Private foundation ^d											
1982	11.4	10.4	14.4	11.9	11.5	8.4	18.8	14.7	7.3	22.2	11.5
1987	11.9	11.1	13.9	11.9	9.7	12.2	10.4	11.6	12.9	23.1	11.9
1992	10.6	9.4	13.3	11.2	13.3	8.9	12.5	13.6	13.2	25.0	11.0
1997	9.9	9.2	11.2	10.0	11.6	9.4	8.7	10.0	7.2	10.0	10.7
2002	6.1	5.4	7.2	6.9	5.2	4.6	6.5	9.1	8.3	0.0	6.7
Nonprofit, other than private foundation ^d											
1982	2.8	3.1	1.9	2.6	4.1	4.1	3.5	0.0	2.4	0.0	2.6
1987	2.6	2.5	2.9	2.4	2.6	3.2	1.6	4.7	2.9	0.0	2.4
1992	2.6	2.6	2.6	1.9	0.4	4.5	1.5	2.5	1.9	0.0	1.8
1997	3.1	3.0	3.2	2.6	3.1	4.2	2.7	2.3	2.9	0.0	2.7
2002	3.2	2.7	3.8	2.7	3.0	4.1	3.5	5.4	4.4	0.0	2.5
Other ^d											
1982	8.6	8.8	8.1	7.9	5.7	13.4	5.6	8.8	7.3	0.0	7.9
1987	8.7	8.8	8.5	8.4	5.6	10.2	6.8	11.6	8.6	0.0	8.5
1992	11.0	11.2	10.8	10.8	9.9	11.8	8.8	11.1	9.4	0.0	11.0
1997	8.4	8.9	7.7	7.9	4.9	10.8	6.4	10.0	10.8	10.0	7.3
2002	9.3	9.7	8.7	8.7	9.0	10.4	12.5	8.1	8.8	21.4	8.2
Unknown ^d											
1982	7.6	7.4	8.1	7.2	11.5	8.7	7.6	2.9	9.8	0.0	7.4
1987	6.9	6.7	7.7	6.8	8.2	7.1	8.9	11.6	10.0	23.1	6.4
1992	6.8	6.7	7.2	6.4	6.4	7.8	6.6	8.6	7.5	0.0	6.3
1997	8.9	8.2	10.1	8.6	11.1	8.9	10.4	6.9	5.8	0.0	8.9
2002	5.3	4.5	6.5	5.0	5.2	5.8	6.5	2.7	5.4	0.0	5.1

^a Includes doctoral recipients for whom sex is reported.

^b Includes Native Hawaiians and other Pacific Islanders through 2000, but excludes them in 2002 per revised OMB guidelines.

^c Includes Alaskan Natives.

^d Percent based on those with definite commitments

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 27. Postdoctoral location and type of plan of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by broad field and visa status, 2002

Field of study	Permanent visa					Temporary visa				
	Number of responses	U.S. location		Foreign location		Number of responses	U.S. location		Foreign location	
		Employment percent	Study percent	Employment percent	Study percent		Employment percent	Study percent	Employment percent	Study percent
All fields	1,026	62.6	31.8	4.3	1.2	6,474	38.5	32.2	22.4	6.2
Physical sciences ^a	190	60.5	37.4	1.6	0.5	1,559	34.4	46.2	10.1	8.9
Physics & astronomy	40	52.5	45.0	0.0	2.5	355	19.7	61.1	6.5	12.7
Chemistry	62	43.5	54.8	1.6	0.0	457	31.5	55.8	7.4	4.8
Earth, atmospheric, & marine sciences	21	61.9	33.3	4.8	0.0	170	29.4	42.4	15.9	11.8
Mathematics	24	75.0	20.8	4.2	0.0	322	36.0	39.4	12.4	11.8
Computer science	43	83.7	16.3	0.0	0.0	255	61.6	19.6	12.9	5.1
Engineering	165	77.6	18.2	3.6	0.6	1,695	53.0	25.0	18.1	3.7
Life sciences	278	35.6	61.5	1.8	1.1	1,427	16.7	55.3	20.5	7.1
Biological sciences	210	29.0	69.0	1.4	0.5	901	13.8	70.5	8.9	6.5
Health sciences	48	64.6	31.3	2.1	2.1	224	29.0	22.8	42.0	5.8
Agricultural sciences	20	35.0	55.0	5.0	5.0	302	16.6	34.1	39.1	9.9
Social sciences	139	69.1	20.1	9.4	0.7	717	41.6	14.2	37.4	6.0
Psychology	44	50.0	40.9	9.1	0.0	105	35.2	38.1	22.9	3.8
Anthropology	8	50.0	37.5	0.0	12.5	38	18.4	26.3	34.2	21.1
Economics	33	81.8	6.1	12.1	0.0	347	47.3	6.6	41.2	3.2
Political science/international relations	14	78.6	7.1	14.3	0.0	65	26.2	15.4	47.7	10.8
Sociology	14	78.6	14.3	0.0	0.0	37	45.9	10.8	32.4	10.8
Other social sciences	26	80.8	7.7	11.5	0.0	125	44.8	12.0	36.0	7.2
Humanities	131	80.9	12.2	4.6	2.3	410	50.7	6.3	37.1	4.6
History	18	83.3	11.1	0.0	5.6	50	54.0	4.0	34.0	4.0
English language & literature	18	66.7	27.8	0.0	5.6	35	42.9	2.9	45.7	8.6
Foreign language & literature	37	86.5	10.8	2.7	0.0	83	68.7	9.6	16.9	3.6
Other humanities	58	81.0	8.6	8.6	1.7	242	45.0	6.2	43.4	4.5
Education	63	79.4	11.1	6.3	1.6	245	29.0	4.5	53.5	10.6
Teacher education	2	50.0	50.0	0.0	0.0	9	33.3	0.0	55.6	11.1
Teaching fields	9	66.7	11.1	22.2	0.0	54	29.6	1.9	57.4	9.3
Other education	52	82.7	9.6	3.8	1.9	182	28.6	5.5	52.2	11.0
Professional/other fields	60	80.0	5.0	11.7	3.3	421	58.0	3.6	34.2	3.1
Business & management	27	100.0	0.0	0.0	0.0	264	71.2	3.0	23.5	0.8
Communications	13	76.9	7.7	15.4	0.0	48	43.8	4.2	43.8	6.3
Other professional fields	20	55.0	10.0	25.0	10.0	108	31.5	4.6	56.5	7.4
Other fields	0	0.0	0.0	0.0	0.0	1	100.0	0.0	0.0	0.0

^a Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

TABLE 28. Postdoctoral location of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by visa status for selected years, 1982–2002

Year and commitment	All non-U.S. citizens	Permanent visa	Temporary visa
All definite commitments			
1982	3,499	755	2,744
1987	4,504	871	3,633
1992	6,509	1,020	5,489
1997	7,127	1,664	5,463
2002	7,543	1,030	6,513
Definite commitments with response to location			
1982	3,499	755	2,744
1987	4,504	871	3,633
1992	6,509	1,020	5,489
1997	7,127	1,664	5,463
2002	7,500	1,026	6,474
Percent			
U.S. location			
1982	54.5	91.0	44.5
1987	63.1	86.0	57.6
1992	63.8	87.5	59.4
1997	72.6	92.7	66.5
2002	74.3	94.4	71.1
Foreign location			
1982	45.5	9.0	55.5
1987	36.9	14.0	42.4
1992	36.2	12.5	40.6
1997	27.4	7.3	33.5
2002	25.7	5.6	28.9

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 29. Parental baccalaureate attainment of doctorate recipients by selected demographic characteristics, 2002

Demographic characteristics	Parental education			Total percent	Total number
	Neither with BA	One with BA	Both with BA		
Total	36.8	23.7	39.4	100.0	35,720
Sex					
Male	37.9	23.2	38.9	100.0	19,576
Female	35.6	24.4	40.0	100.0	16,143
Race/ethnicity (U.S. citizens only)					
Asian ^a	25.5	22.1	52.4	100.0	1,328
Black	56.3	20.0	23.7	100.0	1,496
Hispanic	51.2	22.7	26.1	100.0	1,178
American Indian ^b	56.5	17.4	26.1	100.0	138
White	32.4	24.6	43.0	100.0	20,051
Citizenship					
U.S. citizen	34.5	24.0	41.5	100.0	24,888
Non-U.S., permanent visa	38.9	23.6	37.6	100.0	1,570
Non-U.S., temporary visa	42.9	23.1	34.0	100.0	9,239

^a Does not include Native Hawaiians and other Pacific Islanders.

^b Includes Alaskan Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 30. Parental baccalaureate attainment of foreign doctorate recipients, by country of citizenship (top 30 countries, ranked by number of doctorate recipients), 2002

Rank	Country	Number of doctorate recipients	Total percent	Parental education		
				Percent neither with BA	Percent one with BA	Percent both with BA
1.	China, Peoples Republic of ^a	2,644	100.0	47.8	19.2	33.0
2.	Korea ^b	1,187	100.0	41.6	28.3	30.1
3.	India	838	100.0	13.8	26.6	59.6
4.	China, Republic of (Taiwan)	674	100.0	54.4	28.0	17.6
5.	Canada	494	100.0	38.2	22.2	39.7
6.	Turkey	399	100.0	54.9	19.3	25.9
7.	Thailand	396	100.0	57.7	14.3	28.1
8.	Germany	255	100.0	35.9	21.4	42.7
9.	Japan	237	100.0	36.3	30.9	32.7
10.	Russia	230	100.0	5.6	10.7	83.7
11.	Great Britain, UK	222	100.0	40.0	24.1	35.9
12.	Mexico	221	100.0	43.2	31.5	25.4
13.	Brazil	171	100.0	31.7	30.5	37.8
14.	Italy	152	100.0	48.0	21.3	30.7
15.	Romania	149	100.0	23.6	20.1	56.3
16.	France	121	100.0	41.5	26.3	32.2
17.	Egypt	114	100.0	21.0	21.9	57.1
18.	Spain	113	100.0	44.1	28.8	27.0
19.	Saudi Arabia	103	100.0	80.9	16.0	3.2
20.	Greece	98	100.0	42.7	20.8	36.5
21.	Argentina	94	100.0	35.6	30.0	34.4
22.	Yugoslavia	88	100.0	32.1	23.8	44.0
23.	Indonesia	76	100.0	56.0	25.3	18.7
24.	Israel	73	100.0	34.7	23.6	41.7
25.	Venezuela	71	100.0	37.1	32.9	30.0
26.	Jordan	68	100.0	54.8	33.9	11.3
27.	Malaysia	67	100.0	78.1	9.4	12.5
28.	Colombia	66	100.0	39.4	40.9	19.7
28.	Ukraine	66	100.0	1.5	7.7	90.8
30.	Iran	65	100.0	41.7	38.3	20.0

^a Includes Hong Kong.

^b Includes Republic of Korea (South Korea) and Democratic People's Republic of Korea (North Korea).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 31. Percentage distribution of doctorate recipients, by broad field of study and parental baccalaureate attainment, 2002

Field of study	Total	Parental education		
		Neither with BA	One with BA	Both with BA
Total	35,720	13,162	8,474	14,084
	Percent			
Broad field of study				
Physical sciences ^a	14.7	12.6	14.1	17.0
Engineering	12.9	12.6	13.4	12.9
Life sciences	21.2	20.1	21.6	22.0
Social sciences	16.5	14.7	16.9	18.0
Humanities	13.7	10.5	13.7	16.5
Education	15.3	23.0	14.4	8.8
Professional/other fields	5.6	6.5	5.8	4.7
Percent total	100.0	100.0	100.0	100.0

^a Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 32. Percentage distribution of U.S. citizen doctorate recipients, by parental baccalaureate attainment and selected undergraduate institution characteristics, 2002

	Total	Parental education		
		Neither with BA	One with BA	Both with BA
Attended community college	9.7	14.9	10.2	5.0
Did not attend community college	90.3	85.1	89.8	95.0
Total percent	100.0	100.0	100.0	100.0
Total number	24,888	8,582	5,969	10,337
Baccalaureate Carnegie class				
Doctoral/research-extensive	51.9	42.5	52.8	59.0
Doctoral/research-intensive	9.3	11.6	9.4	7.3
Master's college/university	21.2	31.7	20.6	12.9
Baccalaureate college-liberal arts	12.8	7.6	12.2	17.5
Baccalaureate college-general	3.4	4.8	3.3	2.3
Other baccalaureate-granting institutions	1.5	1.9	1.7	0.9
Total percent	100.0	100.0	100.0	100.0
Total number	23,953	8,190	5,781	9,982
Baccalaureate HBCU classification (African-American doctorate recipients only)				
Historically Black College/University	27.7	29.1	24.7	27.0
Non-HBCU college/university	72.3	70.9	75.3	73.0
Total percent	100.0	100.0	100.0	100.0
Total number	1,496	842	299	355

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 33. Percentage distribution of parental baccalaureate attainment, by primary source of support, level of debt, and median time to degree for 2002 doctorate recipients

Source of support and debt level	Parental education			Total doctorate recipients
	Neither with BA	One with BA	Both with BA	
Number	13,162	8,474	14,084	35,720
	Percent			
Primary source of support	100.0	100.0	100.0	100.0
Teaching assistantship	14.9	17.4	18.2	16.8
Research assistantship	24.2	26.6	28.8	26.6
Grant/fellowship	17.3	20.3	27.2	21.9
Own resources	34.4	29.4	22.2	28.4
Other	9.2	6.4	3.7	6.3
Cumulative debt	100.0	100.0	100.0	100.0
\$0-\$5,000	55.1	54.0	58.8	56.3
\$5,001-\$15,000	11.3	12.0	13.1	12.2
\$15,001-\$30,000	11.8	13.3	12.1	12.3
\$30,001 or more	21.8	20.7	16.0	19.2
Registered time-to-degree				
Median in years	8.0	7.5	7.3	7.5

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 34. Percentage of doctorate recipients reporting own resources as primary source of support and cumulative debt greater than \$30,000, by parental baccalaureate attainment and broad field of study, 2002

Field of study, source of support, and debt	Parental education			Field of study, source of support, and debt	Parental education		
	Neither with BA	One with BA	Both with BA		Neither with BA	One with BA	Both with BA
All fields				Social sciences			
Primary source of support				Primary source of support			
Own resources	34.4	29.4	22.2	Own resources	41.8	39.5	33.5
Cumulative debt				Cumulative debt			
\$30,001 or more	21.8	20.7	16.0	\$30,001 or more	37.3	35.5	27.1
Registered time-to-degree:				Registered time-to-degree:			
Median years	8.0	7.5	7.3	Median years	8.1	7.9	7.5
Physical sciences ^a				Humanities			
Primary source of support				Primary source of support			
Own resources	7.9	7.9	5.9	Own resources	37.4	37.0	30.4
Cumulative debt				Cumulative debt			
\$30,001 or more	12.9	12.8	7.1	\$30,001 or more	27.9	25.9	20.2
Registered time-to-degree:				Registered time-to-degree:			
Median years	7.2	6.9	6.6	Median years	9.4	9.0	8.5
Engineering				Education			
Primary source of support				Primary source of support			
Own resources	8.4	10.1	7.5	Own resources	68.5	65.1	59.0
Cumulative debt				Cumulative debt			
\$30,001 or more	13.3	10.9	9.6	\$30,001 or more	20.5	21.3	19.3
Registered time-to-degree:				Registered time-to-degree:			
Median years	7.0	6.8	6.4	Median years	8.8	8.0	8.0
Life sciences				Professional/other fields			
Primary source of support				Primary source of support			
Own resources	17.9	15.4	11.0	Own resources	45.5	43.0	33.5
Cumulative debt				Cumulative debt			
\$30,001 or more	18.1	15.9	11.8	\$30,001 or more	26.2	22.8	21.0
Registered time-to-degree:				Registered time-to-degree:			
Median years	7.4	7.0	6.9	Median years	8.4	8.0	7.7

^a Includes mathematics and computer science.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 35. Percentage of U.S. citizen doctorate recipients reporting cumulative debt greater than \$30,000, by parental baccalaureate attainment, broad field of study, and race/ethnicity, 2002

Field of study, source of support, and debt	Parental education			Field of study, source of support, and debt	Parental education		
	Neither with BA	One with BA	Both with BA		Neither with BA	One with BA	Both with BA
All fields				Social sciences			
Total	26.3	24.7	18.7	Total	44.6	39.8	29.6
Asian ^a	20.5	20.8	13.7	Total	34.1	31.0	27.8
Black	41.1	39.8	30.5	Asian ^a	57.7	50.8	37.6
Hispanic	34.4	29.7	25.3	Black	48.5	34.8	38.8
American Indian ^b	36.8	33.3	27.8	Hispanic	52.4	50.0	42.9
White	23.5	23.7	18.2	American Indian ^b	42.4	40.1	28.7
Physical sciences ^c				Humanities			
Total	18.8	15.9	9.1	Total	31.6	30.0	22.0
Asian ^a	6.6	15.4	4.9	Asian ^a	33.3	14.8	20.5
Black	27.3	31.8	25.0	Black	50.0	48.7	23.4
Hispanic	13.3	14.3	7.7	Hispanic	32.7	34.0	30.5
American Indian ^b	42.9	0.0	33.3	American Indian ^b	45.5	100.0	62.5
White	20.2	15.8	9.0	White	29.3	28.8	22.0
Engineering				Education			
Total	12.5	12.7	9.0	Total	20.6	22.0	19.8
Asian ^a	9.7	18.2	5.9	Asian ^a	28.3	41.7	29.2
Black	14.3	19.0	9.5	Black	37.7	42.1	33.7
Hispanic	21.2	15.8	8.8	Hispanic	32.8	35.1	28.9
American Indian ^b	33.3	0.0	0.0	American Indian ^b	20.8	18.2	12.5
White	11.5	11.2	9.8	White	15.5	18.1	17.1
Life sciences				Professional/other fields			
Total	21.8	18.1	13.5	Total	30.4	26.7	25.3
Asian ^a	18.3	16.1	10.3	Asian ^a	54.5	23.1	29.2
Black	37.9	32.4	16.7	Black	40.5	25.0	48.1
Hispanic	27.2	14.3	23.7	Hispanic	48.0	63.6	25.0
American Indian ^b	25.0	40.0	0.0	American Indian ^b	33.3	50.0	0.0
White	20.2	18.0	13.5	White	26.8	25.5	23.8

^a Does not include Native Hawaiians and other Pacific Islanders.

^b Includes Alaskan Natives.

^c Includes mathematics and computer science

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Table 36. Percent of doctorate recipients who were first-generation college graduates, by broad field of study and selected demographic characteristics, for selected years, 1977-2002

Field of study and demographic characteristics	1977	1982	1987	1992	1997	2002
Total	59.5	55.3	50.9	46.7	40.3	36.8
Broad field of study						
Physical sciences ^a	55.1	49.6	43.4	42.1	34.5	31.6
Engineering	55.2	51.8	48.0	43.8	35.8	36.0
Life sciences	58.1	51.4	46.5	43.7	38.8	34.9
Social sciences	54.8	50.1	48.7	43.8	37.0	32.7
Humanities	51.8	48.5	45.7	39.0	34.9	28.4
Education	72.1	68.8	65.6	63.5	58.7	55.2
Professional/other fields	63.5	60.7	54.3	50.3	46.1	42.2
Sex						
Male	61.8	57.2	52.1	48.1	41.1	37.9
Female	52.7	51.3	48.7	44.4	39.0	35.6
Race/ethnicity (U.S. citizens only)						
Asian ^b	49.5	49.3	44.2	38.2	30.1	25.5
Black	77.9	72.4	71.2	68.0	61.5	56.3
Hispanic	70.1	65.4	61.0	52.6	51.2	51.2
American Indian ^c	73.3	71.8	71.2	63.8	54.2	56.5
White	58.3	52.8	47.8	42.9	36.5	32.4
Citizenship						
U.S. citizen	59.2	53.8	48.8	43.9	37.9	34.5
Non-U.S., permanent visa	56.6	54.8	55.4	50.5	43.6	38.9
Non-U.S., temporary visa	63.4	64.9	58.7	53.5	46.5	42.9
Attended community college	73.3	68.2	65.4	61.2	55.1	53.2
Baccalaureate institutions Carnegie class						
Doctoral/research	56.7	51.4	45.3	40.6	34.0	30.6
Master's college/university	73.2	69.4	65.8	60.6	55.3	51.1
Baccalaureate college	49.4	43.8	39.5	34.7	29.0	25.9
Other	67.9	57.0	58.6	54.7	43.3	43.6
Cumulative debt ^d						
\$0-\$5,000	---	---	---	47.0	39.6	36.0
\$5,001-\$15,000	---	---	---	43.2	37.0	34.1
\$15,001-\$30,000	---	---	---	48.1	41.2	35.3
\$30,001 or more	---	---	---	52.3	47.9	41.7
Registered time-to-degree						
Median in years	6.3	6.8	7.2	7.5	7.8	8.0

^a Includes mathematics and computer sciences.

^b Does not include Native Hawaiians and other Pacific Islanders.

^c Includes Alaskan Natives.

^d Debt level information was not collected in a consistent way prior to 1992.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

APPENDICES

APPENDIX A: THE EIGHT BASIC TABLES, 2002

Appendix A includes the following eight tables:

- A-1 Number of doctorate recipients, by sex and subfield, 2002
- A-2 Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002
- A-3 Statistical profile of doctorate recipients, by major field, 2002
- A-4 Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2002
- A-5 Sources of graduate school support for doctorate recipients, by broad field and sex, 2002
- A-6 State of doctoral institution of doctorate recipients, by broad field and sex, 2002
- A-7 Institutions granting doctorates, by major field, 2002
- A-8 Top 50 doctorate granting institutions, 2002

TABLE A-1 and TABLE A-2: Tables A-1 and A-2 display data for the most recent year by subfield of doctorate. Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates (SED). The “general” field categories—e.g., “chemistry, general”—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The “other” field categories—e.g., “chemistry, other”—include individuals whose specified doctoral discipline was not among the specialty fields listed.

Table A-1 presents data by doctoral specialty and sex. Table A-2 displays doctoral specialty by citizenship and race/ethnicity. For a detailed description of the racial/ethnic variable, see the explanatory note for Table A-4.

TABLE A-3: Table A-3 is composed of three two-page tables. The first table (A-3a) includes data on *all* research doctorate recipients from the most recent year; the other two tables (A-3b and A-3c) present the same data by sex. Field groupings may differ from those in reports published by Federal sponsors of the SED. Terms requiring definition are as follows:

- *Percentage with Master’s*: The percentage of doctorate recipients in a field who received a master's degree in any field before earning the doctorate.
- *Median Age at Doctorate*: One-half of the respondents received the doctorate at or before this age. A recipient’s age is obtained by subtracting the month/year of birth from the month/year of doctorate (see note on next page).

— *Median Time Lapse*: “Total Time” refers to the total calendar time elapsed between the month/year of baccalaureate and the month/year of doctorate. “Registered Time” refers to the actual time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate.

— *Postgraduation Plans*: Each year's doctorate recipients provide information on post-graduation employment or study plans in response to items B1 through B9 on the survey form. Since the questionnaire is filled out around the time the doctorate is awarded, a recipient's plans are subject to change. However, comparisons with the longitudinal Survey of Doctorate Recipients (SDR) have shown SED data to be a reasonable indicator of actual employment status in the year following the doctorate, although results vary by sector. (The SDR is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and, until 1995, humanities fields.)

In Table A-3 the postgraduation plans of doctorate recipients are grouped as follows: “Postdoctoral Study Plans” (fellowship, research internship, traineeship, other), “Planned Employment after Doctorate” (educational institution, industry, etc.), and “Postdoctoral Plans Unknown.” These categories include recipients who were still negotiating or seeking positions at the time of survey completion, as well as those whose plans were definite. The sum of these lines equals 100 percent for each column, with allowance for rounding. The postdoctoral study row is further subdivided by type of study or appointment (fellowships, research associateships, traineeships, and other study). The percentages in these subdivisions sum to the percent of respondents in the given column who reported plans for postdoctoral study. The employment row is similarly subdivided by type of employer. The percentages for these rows add to percentage of respondents in the given column who planned employment. The category for educational institutions includes elementary and secondary schools as well as colleges and universities, and the category for government includes military service.

The four lines of data beginning with “Definite Postdoctoral Study” distinguish between individuals who had definite postgraduation plans at the time of survey completion (item B1: “Am returning to, or continuing in, predoctoral employment” or “Have signed contract or made definite commitment”) and those who were still seeking employment or postdoctoral study (item B1: “Am negotiating with one or more specific organizations,” “Am seeking position but have no specific prospects,” or “Other”). These four lines, when added to the prior line, “Postdoctoral Plans Unknown,” total 100 percent with allowance for rounding. The two lines “Definite Postdoctoral Study” and “Seeking Postdoctoral Study” add to give the percentage for “Postdoctoral Study Plans”; the two lines “Definite Employment” and “Seeking Employment” add to give the percentage for “Planned Employment After Doctorate.”

Percentages showing the distribution of doctorate recipients by postdoctoral work activity and region of employment are based only on the number of recipients who had *definite employment commitments* at the time they completed the questionnaire. These percentages exclude recipients who planned postdoctoral study (as described above) and recipients who were still *seeking* employment at the time they completed the questionnaire. (Note that the rows on

specific postdoctoral study and employment plans discussed earlier include individuals whose plans were *not definite*.)

The U.S. regions of employment shown in Table A-3 include the following states and territories:

<i>New England:</i>	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
<i>Middle Atlantic:</i>	New Jersey, New York, Pennsylvania
<i>East North Central:</i>	Illinois, Indiana, Michigan, Ohio, Wisconsin
<i>West North Central:</i>	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
<i>South Atlantic:</i>	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
<i>East South Central:</i>	Alabama, Kentucky, Mississippi, Tennessee
<i>West South Central:</i>	Arkansas, Louisiana, Oklahoma, Texas
<i>Mountain:</i>	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
<i>Pacific & Insular:</i>	Alaska, California, Hawaii, Oregon, Washington, American Samoa, Guam, Puerto Rico, Trust Territory, Virgin Islands

TABLE A-4: Table A-4 contains data by race/ethnicity and citizenship for selected variables included in Tables A-3 and A-5. Field groupings may differ from those in reports published by Federal sponsors of the SED.

The racial/ethnic question has undergone several revisions over the years. In 2001, it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in Federally sponsored surveys.

In the section of “Doctoral Program Support” a recipient counts in more than one category if support was received from multiple sources. Because a student counts more than once for sources of support, the vertical percentages sum to more than 100 percent. See the explanatory note on Appendix Table A-5 for further detail. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

The other sections in Table A-4 correspond to many of those in Appendix Table A-3. The reader is referred to the explanatory note on Table A-3 for additional information.

TABLE A-5: Table A-5 displays data reported in item A11 on financial resources used in support of the respondent's doctoral program, by broad field and sex of recipient. Field groupings may differ from those in reports published by Federal sponsors of the SED.

A recipient counts in more than one category in Table A-5 if more than one financial resource was reported. Because a student counts once for each of his/her financial resources, the vertical percentages sum to more than 100 percent. (Data on the *primary* financial resources for doctorate recipients are presented in the body of the report.)

TABLE A-6: Table A-6 shows, by broad field and sex, the number of persons receiving a research doctorate in the most recent year from institutions in each of the 50 states, the District of Columbia, and Puerto Rico. Field groupings may differ from those in reports published by Federal sponsors of the SED. See Appendix E of the Summary Report for a description of field groupings as reported in this table; see the questionnaire's Specialties List in Appendix D of the Summary Report for the names and codes of the subfields included.

TABLE A-7: Table A-7 displays data by doctorate-granting institution and major field. It includes all institutions in the United States (the 50 states, the District of Columbia, and Puerto Rico) that awarded research doctoral degrees in the most recent year. Field groupings may differ from those in reports published by Federal sponsors of the SED and from departmental designations at institutions.

TABLE A-8: Table A-8 presents the 50 doctorate granting institutions which conferred the greatest number of doctorates in AY 2002. The number of doctorate degrees granted is also shown for each ranked institution.

Appendix Table A-1. Number of doctorate recipients, by sex and subfield, 2002

Field of study	Number of doctorates			Field of study	Number of doctorates		
	Total ^a	Men	Women		Total ^a	Men	Women
TOTAL ALL FIELDS	39,955	21,760	18,124	ENGINEERING	5,073	4,173	887
PHYSICAL SCIENCES	5,715	4,171	1,534	Aerospace, Aeronautic., Astronautic.	208	184	24
MATHEMATICS	917	650	264	Agricultural	50	41	9
Applied Mathematics	225	162	62	Bioengineering & Biomedical	246	177	69
Algebra	65	50	15	Ceramic Sciences	13	12	1
Analysis & Functional Analysis	74	54	20	Chemical	607	457	150
Geometry	52	40	12	Civil	539	442	96
Logic	14	9	5	Communications	21	17	4
Number Theory	26	21	5	Computer	164	148	16
Mathematical Statistics	167	105	62	Electrical, Electronics	1,208	1,059	143
Topology	39	29	10	Engineering Mechanics	56	48	8
Computing Theory & Practice	11	9	2	Engineering Physics	16	13	3
Operations Research	19	10	9	Engineering Science	31	23	8
Mathematics, General	133	99	32	Environmental Health Engineering	87	63	24
Mathematics, Other	92	62	30	Industrial/Manufacturing	229	161	67
COMPUTER SCIENCE	811	640	168	Materials Science	363	286	77
Computer Science	677	549	125	Mechanical	773	683	88
Information Sciences & Systems	79	52	27	Metallurgical	19	17	1
Computer/Info Science, Other	55	39	16	Mining & Mineral	8	8	0
PHYSICS & ASTRONOMY	1,268	1,061	206	Nuclear	64	51	13
Astronomy	54	41	13	Ocean	23	20	3
Astrophysics	90	75	15	Operations Research	66	53	13
Acoustics	18	17	1	Petroleum	45	33	10
Chemical & Atomic/Molecular	81	70	11	Polymer/Plastics	53	37	16
Elementary Particles	156	127	28	Systems	45	36	9
Fluids	15	13	2	Engineering, General	19	13	6
Nuclear	74	58	16	Engineering, Other	120	91	29
Optics	107	88	19	LIFE SCIENCES	8,350	4,366	3,979
Plasma & High-Temperature	29	26	3	BIOLOGICAL SCIENCES	5,680	3,140	2,539
Polymer	22	16	6	Biochemistry	781	488	293
Solid State & Low-Temperature	298	250	48	Biomedical Sciences	217	108	109
Physics, General	178	154	24	Biophysics	151	117	34
Physics, Other	146	126	20	Biotechnology Research	13	8	5
CHEMISTRY	1,922	1,275	646	Bacteriology	12	5	7
Analytical	301	187	114	Plant Genetics	57	29	28
Inorganic	246	160	86	Plant Pathology	24	9	15
Nuclear	9	6	3	Plant Physiology	43	24	19
Organic	523	379	144	Botany, Other	84	45	39
Medicinal/Pharmaceutical	99	60	39	Anatomy	21	13	8
Physical	302	200	102	Biometrics and Biostatistics	81	35	46
Polymer	101	67	34	Cell Biology	303	142	161
Theoretical	48	31	17	Ecology	311	177	134
Chemistry, General	207	145	61	Developmental Biology/Embryology	94	60	34
Chemistry, Other	86	40	46	Endocrinology	14	8	6
EARTH, ATMOS., & MARINE SCI.	797	545	250	Entomology	113	80	33
Atmospheric Physics & Chemistry	39	24	15	Biological Immunology	276	130	145
Atmospheric Dynamics	13	10	3	Molecular Biology	617	349	268
Meteorology	15	13	2	Microbiology	383	205	178
Atmos. Sci./Meteorology, General	27	21	6	Neuroscience	490	288	202
Atmos. Sci./Meteorology, Other	23	18	5	Nutritional Sciences	141	34	107
Geology	131	101	30	Parasitology	17	11	6
Geochemistry	70	48	22	Toxicology	122	57	65
Geophysics & Seismology	91	67	24	Human & Animal Genetics	223	115	108
Paleontology	22	16	6	Human & Animal Pathology	115	52	63
Mineralogy, Petrology	13	9	4	Human & Animal Pharmacology	267	153	114
Stratigraphy, Sedimentation	7	5	2	Human & Animal Physiology	206	123	83
Geomorphology & Glacial Geology	16	10	6	Zoology, Other	122	76	46
Geological & Related Sci., General	12	9	3	Biological Sciences, General	185	89	96
Geological & Related Sci., Other	30	16	14	Biological Sciences, Other	197	110	87
Environmental Science	109	68	39	HEALTH SCIENCES	1,659	528	1,130
Hydrology & Water Resources	35	25	10	Speech-Lang. Pathology & Audiology	100	20	80
Oceanography	86	53	33	Environmental Health	51	25	26
Marine Sciences	41	24	17	Health Systems/Services Admin.	55	29	26
Misc. Physical Sciences, Other	17	8	9	Public Health	217	68	149
				Epidemiology	199	74	125
				Exercise Physiology/Sci., Kinesiology	148	85	63

Appendix Table A-1. Number of doctorate recipients, by sex and subfield, 2002, continued

Field of study	Number of doctorates			Field of study	Number of doctorates		
	Total ^a	Men	Women		Total ^a	Men	Women
Nursing	437	23	414	Social	181	75	105
Pharmacy	161	85	76	Psychology, General	150	59	90
Rehabilitation/Therapeutic Services	73	23	50	Psychology, Other	152	45	107
Veterinary Medicine	56	34	21	HUMANITIES	5,373	2,663	2,702
Health Sciences, General	38	15	23	GENERAL HUMANITIES	3,612	1,955	1,652
Health Sciences, Other	124	47	77	History, American	421	243	178
AGRICULTURAL SCIENCES	1,011	698	310	History, Asian	67	39	28
Agricultural Economics	119	86	32	History, European	232	142	90
Agricultural Business & Management	1	1	0	History/Philosophy of Sci. & Tech.	46	35	11
Animal Breeding & Genetics	14	12	2	History, General	82	50	31
Animal Nutrition	49	32	17	History, Other	182	109	73
Dairy Science	7	5	2	Classics	57	37	20
Poultry Science	10	5	5	Comparative Literature	175	69	105
Fisheries Science & Management	53	40	13	Linguistics	195	80	114
Animal Sciences, Other	70	48	22	Speech & Rhetorical Studies	137	69	68
Agronomy & Crop Science	73	54	19	Letters, General	33	11	22
Plant Breeding & Genetics	59	47	12	Letters, Other	81	39	42
Plant Pathology	53	31	22	American Studies	97	41	56
Plant Sciences, Other	26	15	11	Archaeology	27	12	15
Food Engineering	7	3	4	Art History/Criticism/Conservation	217	53	164
Food Sciences, Other	129	73	56	Music	763	392	369
Soil Chemistry/Microbiology	29	21	8	Philosophy	360	269	91
Soil Sciences, Other	54	37	16	Religion	348	230	118
Horticulture Science	46	33	13	Drama/Theater Arts	92	35	57
Forest Biology	19	12	7	LANGUAGE & LITERATURE	1,591	643	945
Forest Engineering	3	3	0	American Literature	365	162	203
Forest Management	14	12	2	English Literature	520	195	325
Wood Sci. & Pulp/Paper Tech.	29	27	2	English Language	83	40	42
Conservation/Renewable Nat. Res.	27	15	12	French	121	43	78
Forestry & Related Sci., Other	56	39	16	German	68	30	38
Wildlife/Range Management	37	28	9	Italian	23	7	16
Agricultural Sciences, General	4	2	2	Spanish	243	79	162
Agricultural Sciences, Other	23	17	6	Russian	26	10	16
SOCIAL SCIENCES & PSYCHOLOGY	6,611	2,948	3,651	Slavic	19	8	11
SOCIAL SCIENCES	3,412	1,888	1,516	Chinese	22	13	9
Anthropology	495	206	289	Japanese	15	5	10
Area Studies	25	11	14	Hebrew	8	8	0
Criminology	55	26	29	Arabic	5	4	1
Demography/Population Studies	20	8	12	Other Language & Literature	73	39	34
Economics	889	637	247	OTHER HUMANITIES	170	65	105
Econometrics	14	12	2	Humanities, General	19	8	11
Geography	197	132	64	Humanities, Other	151	57	94
International Relations/Affairs	82	48	34	EDUCATION	6,488	2,188	4,288
Political Science and Government	606	353	252	RESEARCH & ADMINISTRATION	5,368	1,809	3,553
Public Policy Analysis	146	72	73	Curriculum & Instruction	987	273	713
Sociology	545	212	333	Educational Admin. & Supervision	791	307	483
Statistics	54	31	23	Educational Leadership	1,548	573	975
Urban Affairs/Studies	92	57	35	Educ./Instruct. Media Design	171	62	109
Social Sciences, General	33	16	17	Educ. Stat./Research Methods	67	27	40
Social Sciences, Other	159	67	92	Educ. Assess., Test., & Meas.	31	12	19
PSYCHOLOGY	3,199	1,060	2,135	Educational Psychology	301	89	212
Clinical	1,212	363	847	School Psychology	169	43	126
Cognitive & Psycholinguistics	121	53	68	Social/Phil. Found. Of Educ.	126	46	80
Comparative	2	1	1	Special Education	213	51	162
Counseling	469	148	321	Counseling Educ./Couns. & Guidance	256	75	179
Developmental and Child	173	30	143	Higher Educ./Evaluation & Research	446	172	273
Human/Indv. & Family Development	137	43	94	Pre-elementary/Early Childhood	50	9	41
Experimental	112	49	63	Elementary Education	52	11	41
Educational	54	16	38	Secondary Education	22	7	14
Family & Marriage Counseling	67	32	35	Adult & Continuing Education	138	52	86
Industrial & Organizational	154	69	85	TEACHING FIELDS	684	246	434
Personality	17	5	12	Agricultural Education	28	13	15
Physiological/Psychobiology	87	37	50	Art Education	30	8	22
Psychometrics	9	7	2	Business Education	12	5	7
Quantitative	13	7	6				
School	89	21	68				

Appendix Table A-1. Number of doctorate recipients, by sex and subfield, 2002, continued

Number of doctorates				Number of doctorates			
Field of study	Total ^a	Men	Women	Field of study	Total ^a	Men	Women
English Education	53	12	41	Mgmt. Info. Sys./Bus. Data Proc.	89	67	22
Foreign Languages Education	41	13	28	Marketing Management & Research	132	77	55
Health Education	38	10	28	Operations Research	36	25	10
Home Economics Education	9	0	8	Organizational Behavior	173	77	94
Technical/Industrial Arts Education	7	5	2	Bus. Mgmt./Admin. Serv., General	33	21	12
Mathematics Education	88	32	56	Bus. Mgmt./Admin. Serv., Other	46	29	17
Music Education	80	38	42	COMMUNICATIONS	399	165	234
Nursing Education	7	0	7	Communications Research	64	28	36
Physical Education and Coaching	73	41	31	Mass Communications	156	71	85
Reading Education	66	9	57	Communications Theory	43	15	28
Science Education	61	22	39	Communications, General	70	22	48
Social Science Education	10	5	5	Communications, Other	66	29	37
Technical Education	23	11	11	OTHER PROFESSIONAL FIELDS	801	396	401
Trade & Industrial Education	5	4	1	Architectural/Environmental Design	67	42	25
Teacher Ed./Spec. Acad. & Voc., Other	53	18	34	Home Economics	24	2	22
OTHER EDUCATION	436	133	301	Law	50	30	20
Education, General	158	44	112	Library Science	32	13	17
Education, Other	278	89	189	Parks/Recreation/Leisure/Fitness	51	29	22
PROFESSIONAL/OTHER FIELDS	2,345	1,251	1,083	Public Administration	104	68	35
BUSINESS AND MANAGEMENT	1,095	673	416	Social Work	237	67	170
Accounting	110	54	56	Theology/Religious Education	173	117	55
Banking/Financial Support Services	76	60	16	Professional Fields, General	7	4	3
Business Admin. & Management	339	216	121	Professional Fields, Other	56	24	32
Business/Managerial Economics	38	33	5	OTHER FIELDS	50	17	32
International Business	23	14	8				

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

^a Totals include doctorate recipients whose gender was unknown (total is 71).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002

Field of study	U.S. citizens and non-U.S. with permanent visas ^a										
	Total doctorate recipients ^b	Non-U.S. citizens temp. visas	Total	American Indian ^c	Asian ^d	Black/African-American	White	Puerto Rican	Mexican American	Other Hispanic	Other/unknown race ^e
TOTAL ALL FIELDS	39,955	9,707	27,582	149	2,108	1,731	21,348	342	411	611	882
PHYSICAL SCIENCES	5,715	2,151	3,289	12	339	101	2,627	31	26	49	104
MATHEMATICS	917	439	442	3	28	14	369	3	2	7	16
Applied Mathematics	225	124	98	1	10	5	75	1	0	3	3
Algebra	65	28	36	0	1	0	31	1	0	1	2
Analysis & Functional Analysis	74	40	34	0	2	0	31	0	0	0	1
Geometry	52	25	27	0	0	1	24	0	1	0	1
Logic	14	4	10	0	0	1	9	0	0	0	0
Number Theory	26	9	16	0	2	0	13	0	1	0	0
Mathematical Statistics	167	90	73	0	4	2	62	0	0	1	4
Topology	39	19	20	0	0	0	18	0	0	1	1
Computing Theory & Practice	11	5	6	0	1	0	5	0	0	0	0
Operations Research	19	7	11	1	2	0	8	0	0	0	0
Mathematics, General	133	54	57	0	3	3	47	1	0	0	3
Mathematics, Other	92	34	54	1	3	2	46	0	0	1	1
COMPUTER SCIENCE	811	348	421	2	86	17	291	4	3	7	11
Computer Science	677	298	350	1	77	11	240	4	3	5	9
Information Sciences & Systems	79	33	34	1	5	4	22	0	0	1	1
Computer/Info Science, Other	55	17	37	0	4	2	29	0	0	1	1
PHYSICS & ASTRONOMY	1,268	514	695	2	73	20	547	9	9	8	27
Astronomy	54	10	41	0	4	1	31	1	1	2	1
Astrophysics	90	21	68	0	9	0	56	0	0	0	3
Acoustics	18	7	11	0	1	0	8	0	0	0	2
Chemical & Atomic/Molecular	81	31	50	0	7	4	36	0	1	0	2
Elementary Particles	156	77	74	0	12	1	54	2	2	2	1
Fluids	15	7	8	0	0	0	8	0	0	0	0
Nuclear	74	26	48	0	1	1	44	1	1	0	0
Optics	107	57	47	0	4	0	40	0	0	1	2
Plasma & High-Temperature	29	6	23	0	2	0	20	0	0	0	1
Polymer	22	12	10	1	0	1	8	0	0	0	0
Solid State & Low-Temperature	298	146	151	0	15	7	115	2	1	2	9
Physics, General	178	52	85	1	11	2	64	2	2	0	3
Physics, Other	146	62	79	0	7	3	63	1	1	1	3
CHEMISTRY	1,922	595	1,227	5	122	44	985	11	7	20	33
Analytical	301	84	214	2	14	7	179	4	1	5	2
Inorganic	246	74	168	1	8	4	147	1	1	2	4
Nuclear	9	1	7	0	1	0	6	0	0	0	0
Organic	523	186	330	1	42	17	256	1	0	4	9
Medicinal/Pharmaceutical	99	34	62	1	9	2	48	0	0	1	1
Physical	302	88	213	0	18	2	179	2	3	3	6
Polymer	101	53	47	0	7	3	35	0	1	0	1
Theoretical	48	16	32	0	5	1	22	0	0	2	2
Chemistry, General	207	35	94	0	11	2	70	3	0	2	6
Chemistry, Other	86	24	60	0	7	6	43	0	1	1	2
EARTH, ATMOS., & MARINE SCI.	797	255	504	0	30	6	435	4	5	7	17
Atmospheric Physics & Chemistry	39	15	23	0	2	1	18	0	1	1	0
Atmospheric Dynamics	13	10	3	0	0	0	3	0	0	0	0
Meteorology	15	4	11	0	1	0	10	0	0	0	0
Atmos. Sci./Meteorology, General	27	9	16	0	0	0	15	0	0	0	1
Atmos. Sci./Meteorology, Other	23	7	15	0	2	0	13	0	0	0	0
Geology	131	35	92	0	4	1	82	0	0	2	3
Geochemistry	70	14	52	0	5	0	43	0	1	1	2
Geophysics & Seismology	91	55	35	0	0	1	31	0	0	0	3
Paleontology	22	7	15	0	0	0	15	0	0	0	0
Mineralogy, Petrology	13	4	8	0	0	0	8	0	0	0	0
Stratigraphy, Sedimentation	7	2	5	0	0	0	4	0	0	0	1
Geomorphology & Glacial Geology	16	1	15	0	0	0	15	0	0	0	0
Geological & Related Sci., General	12	4	4	0	0	1	3	0	0	0	0
Geological & Related Sci., Other	30	12	18	0	1	0	13	0	0	1	3
Environmental Science	109	32	68	0	6	1	58	1	1	0	1
Hydrology & Water Resources	35	11	22	0	1	0	20	0	0	1	0
Oceanography	86	24	56	0	4	0	48	1	1	1	1
Marine Sciences	41	4	34	0	4	1	24	2	1	0	2
Misc. Physical Sciences, Other	17	5	12	0	0	0	12	0	0	0	0

Appendix Table A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002, continued

Field of study	Total doctorate recipients ^b	Non-U.S. citizens temp. visas	U.S. citizens and non-U.S. with permanent visas ^a								
			Total	American Indian ^c	Asian ^d	Black/African-American	White	Puerto Rican	Mexican American	Other Hispanic	Other/unknown race ^e
ENGINEERING	5,073	2,645	2,161	7	409	86	1,474	26	17	53	89
Aerospace, Aeronautic., Astronautic.	208	106	91	0	11	2	73	0	1	2	2
Agricultural	50	31	16	1	1	0	13	0	0	1	0
Bioengineering & Biomedical	246	52	185	1	36	10	129	0	2	3	4
Ceramic Sciences	13	8	5	0	0	1	3	0	0	1	0
Chemical	607	266	308	2	63	9	205	8	3	5	13
Civil	539	304	204	0	21	13	155	1	0	5	9
Communications	21	19	2	0	0	1	1	0	0	0	0
Computer	164	111	51	0	12	4	29	0	1	2	3
Electrical & Electronics	1,208	692	453	0	119	11	276	7	3	17	20
Engineering Mechanics	56	31	21	0	7	1	12	0	0	0	1
Engineering Physics	16	6	10	0	0	0	8	1	0	0	1
Engineering Science	31	13	16	0	1	2	11	0	0	1	1
Environmental Health Engineering	87	45	41	0	8	0	28	0	1	1	3
Industrial/Manufacturing	229	133	81	1	10	4	56	3	0	3	4
Materials Science	363	176	164	1	33	4	115	2	1	2	6
Mechanical	773	417	322	1	63	16	215	3	3	6	15
Metallurgical	19	12	4	0	0	0	3	0	0	1	0
Mining & Mineral	8	7	1	0	0	0	1	0	0	0	0
Nuclear	64	31	31	0	3	0	23	0	1	3	1
Ocean	23	12	9	0	0	0	9	0	0	0	0
Operations Research	66	33	29	0	1	1	26	0	0	0	1
Petroleum	45	27	10	0	2	1	7	0	0	0	0
Polymer/Plastics	53	32	18	0	5	2	11	0	0	0	0
Systems	45	17	26	0	6	1	17	0	0	0	2
Engineering, General	19	6	9	0	1	1	7	0	0	0	0
Engineering, Other	120	58	54	0	6	2	41	1	1	0	3
LIFE SCIENCES	8,350	2,079	5,747	17	679	206	4,463	71	65	92	154
BIOLOGICAL SCIENCES	5,680	1,286	4,102	12	560	122	3,114	55	51	72	116
Biochemistry	781	212	522	2	83	15	389	6	3	8	16
Biomedical Sciences	217	54	149	0	19	9	110	3	2	4	2
Biophysics	151	39	104	0	17	4	78	0	2	2	1
Biotechnology Research	13	8	4	0	1	0	3	0	0	0	0
Bacteriology	12	2	10	0	2	1	5	2	0	0	0
Plant Genetics	57	26	30	0	0	0	28	1	0	1	0
Plant Pathology	24	11	13	0	2	0	11	0	0	0	0
Plant Physiology	43	18	23	0	0	0	22	1	0	0	0
Botany, Other	84	16	63	0	3	2	53	1	2	2	0
Anatomy	21	6	14	0	2	0	11	0	0	0	1
Biometrics and Biostatistics	81	34	36	0	11	0	24	0	0	0	1
Cell Biology	303	61	230	0	43	7	167	2	1	3	7
Ecology	311	38	262	0	5	1	244	1	1	3	7
Developmental Biology/Embryology	94	22	71	0	10	2	57	0	0	0	2
Endocrinology	14	4	9	0	2	0	6	0	0	0	1
Entomology	113	33	71	0	5	1	61	0	0	3	1
Biological Immunology	276	49	213	0	47	5	147	7	1	1	5
Molecular Biology	617	145	452	0	74	15	327	4	6	9	17
Microbiology	383	94	267	0	28	9	206	9	6	2	7
Neuroscience	490	92	372	3	68	9	259	3	9	9	12
Nutritional Sciences	141	47	86	0	13	6	61	0	2	2	2
Parasitology	17	4	13	0	0	0	12	0	0	0	1
Toxicology	122	27	95	1	11	7	71	1	1	1	2
Human & Animal Genetics	223	39	169	0	18	3	136	1	1	5	5
Human & Animal Pathology	115	23	87	0	16	2	65	2	1	0	1
Human & Animal Pharmacology	267	56	199	0	25	11	148	1	2	5	7
Human & Animal Physiology	206	47	151	0	21	8	110	1	2	3	6
Zoology, Other	122	14	99	2	1	1	87	0	3	3	2
Biological Sciences, General	185	22	137	0	18	2	99	6	4	3	5
Biological Sciences, Other	197	43	151	4	15	2	117	3	2	3	5
HEALTH SCIENCES	1,659	322	1,186	3	91	71	963	9	8	15	26
Speech-Lang. Pathology & Audiology	100	9	87	0	5	8	72	1	0	0	1
Environmental Health	51	10	29	0	5	2	20	1	0	1	0
Health Systems/Services Admin.	55	8	39	0	0	8	29	1	0	0	1
Public Health	217	37	161	0	17	12	121	0	3	3	5
Epidemiology	199	39	146	1	18	8	110	0	1	3	5
Exercise Physiology/Sci., Kinesiology	148	20	117	0	3	2	105	1	3	1	2

Appendix Table A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002, continued

Field of study	Total doctorate recipients ^b	U.S. citizens and non-U.S. with permanent visas ^a									
		Non-U.S. citizens temp. visas	Total	American Indian ^c	Asian ^d	Black/African-American	White	Puerto Rican	Mexican American	Other Hispanic	Other/unknown race ^e
Nursing	437	51	357	2	15	17	313	2	0	1	7
Pharmacy	161	82	62	0	22	5	31	1	0	1	2
Rehabilitation/Therapeutic Services	73	6	60	0	0	3	55	0	0	2	0
Veterinary Medicine	56	31	19	0	1	2	14	0	0	2	0
Health Sciences, General	38	7	28	0	2	1	24	0	1	0	0
Health Sciences, Other	124	22	81	0	3	3	69	2	0	1	3
AGRICULTURAL SCIENCES	1,011	471	459	2	28	13	386	7	6	5	12
Agricultural Economics	119	71	38	0	5	1	28	0	1	0	3
Agricultural Business & Management	1	0	1	0	0	0	1	0	0	0	0
Animal Breeding & Genetics	14	11	3	0	0	0	2	1	0	0	0
Animal Nutrition	49	21	27	0	0	1	24	1	0	0	1
Dairy Science	7	4	3	0	0	0	3	0	0	0	0
Poultry Science	10	6	4	0	1	1	1	1	0	0	0
Animal Sciences, Other	53	14	37	1	2	0	33	0	0	1	0
Fisheries Science & Management	70	28	36	0	0	0	35	0	0	0	1
Agronomy & Crop Science	73	25	27	0	1	1	25	0	0	0	0
Plant Breeding & Genetics	59	35	24	0	2	1	20	0	0	0	1
Plant Pathology	53	23	26	0	5	1	20	0	0	0	0
Plant Sciences, Other	26	13	10	0	1	0	8	0	1	0	0
Food Engineering	7	6	1	0	0	0	1	0	0	0	0
Food Sciences, Other	129	82	38	0	5	2	29	0	1	0	1
Soil Chemistry/Microbiology	29	10	19	0	1	0	17	0	1	0	0
Soil Sciences, Other	54	25	24	1	0	1	21	1	0	0	0
Horticulture Science	46	19	24	0	1	0	21	1	1	0	0
Forest Biology	19	9	10	0	2	0	8	0	0	0	0
Forest Engineering	3	2	1	0	0	0	1	0	0	0	0
Forest Management	14	9	4	0	0	0	3	0	0	0	1
Wood Sci. & Pulp/Paper Tech.	29	19	6	0	1	1	4	0	0	0	0
Conservation/Renewable Nat. Res.	27	4	22	0	1	1	20	0	0	0	0
Forestry & Related Sci., Other	56	17	31	0	0	0	27	0	0	2	2
Wildlife/Range Management	37	6	30	0	0	0	25	0	1	2	2
Agricultural Sciences, General	4	1	2	0	0	0	2	0	0	0	0
Agricultural Sciences, Other	23	11	11	0	0	2	7	2	0	0	0
SOCIAL SCIENCES & PSYCHOLOGY	6,611	1,022	5,129	34	265	333	4,024	70	83	151	169
SOCIAL SCIENCES	3,412	870	2,339	19	146	161	1,798	21	32	67	95
Anthropology	495	65	409	7	14	24	314	4	6	15	25
Area Studies	25	8	15	0	0	2	9	0	1	2	1
Criminology	55	1	50	0	0	4	44	0	0	0	2
Demography/Population Studies	20	5	15	0	4	3	8	0	0	0	0
Economics	889	449	381	0	49	12	296	2	1	12	9
Econometrics	14	9	5	0	2	0	3	0	0	0	0
Geography	197	39	132	1	6	4	113	0	0	2	6
International Relations/Affairs	82	26	51	0	2	3	43	0	0	2	1
Political Science and Government	606	87	479	2	19	33	383	7	8	13	14
Public Policy Analysis	146	19	116	0	8	13	87	0	0	3	5
Sociology	545	64	460	7	25	43	340	3	11	11	20
Statistics	54	32	16	0	4	0	11	1	0	0	0
Urban Affairs/Studies	92	32	56	1	3	5	35	1	2	1	8
Social Sciences, General	33	3	29	0	2	7	19	0	0	1	0
Social Sciences, Other	159	31	125	1	8	8	93	3	3	5	4
PSYCHOLOGY	3,199	152	2,790	15	119	172	2,226	49	51	84	74
Clinical	1,212	23	1,071	5	51	68	850	20	17	36	24
Cognitive & Psycholinguistics	121	18	97	0	8	2	80	0	3	3	1
Comparative	2	0	1	0	0	0	1	0	0	0	0
Counseling	469	14	448	5	21	44	336	9	8	13	12
Developmental and Child	173	9	159	0	8	7	124	1	9	3	7
Human/Individual & Family Development	137	17	115	0	4	7	94	0	2	4	4
Experimental	112	12	97	1	2	1	87	1	1	2	2
Educational	54	4	37	1	3	2	30	0	1	0	0
Family & Marriage Counseling	67	8	53	0	0	1	49	0	0	1	2
Industrial & Organizational	154	5	144	0	6	9	117	0	2	6	4
Personality	17	1	15	0	1	3	10	0	0	0	1
Physiological/Psychobiology	87	4	81	1	2	6	66	1	1	1	3
Psychometrics	9	2	7	0	0	0	6	0	0	1	0
Quantitative	13	3	10	0	0	1	9	0	0	0	0
School	89	1	86	0	2	5	75	0	2	1	1

Appendix Table A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002, continued

Field of study	Total doctorate recipients ^b	Non-U.S. citizens temp. visas	U.S. citizens and non-U.S. with permanent visas ^a								
			Total	American Indian ^c	Asian ^d	Black/African-American	White	Puerto Rican	Mexican American	Other Hispanic	Other/unknown race ^e
Social	181	12	153	1	4	8	123	5	4	5	3
Psychology, General	150	9	82	0	3	6	55	8	0	4	6
Psychology, Other	152	10	134	1	4	2	114	4	1	4	4
HUMANITIES	5,373	733	4,362	22	179	174	3,572	55	67	131	162
GENERAL HUMANITIES	3,612	508	2,903	14	125	103	2,436	29	38	46	112
History, American	421	11	404	1	14	28	348	1	3	2	7
History, Asian	67	20	47	1	12	0	31	1	0	0	2
History, European	232	16	214	0	2	0	197	0	1	2	12
History/Philosophy of Sci. & Tech.	46	5	39	0	0	0	37	0	0	1	1
History, General	82	6	35	0	1	2	30	0	0	0	2
History, Other	182	25	154	1	0	11	112	5	11	8	6
Classics	57	7	49	0	1	0	45	0	0	0	3
Comparative Literature	175	38	127	0	9	4	96	2	3	6	7
Linguistics	195	74	109	0	10	3	85	3	0	4	4
Speech & Rhetorical Studies	137	10	126	1	2	4	113	2	1	1	2
Letters, General	33	0	25	0	2	0	22	0	0	0	1
Letters, Other	81	10	66	2	0	3	56	0	1	3	1
American Studies	97	2	88	2	2	11	65	1	1	1	5
Archeology	27	6	21	0	0	0	19	0	0	0	2
Art History/Criticism/Conservation	217	21	186	0	10	3	154	5	2	2	10
Music	763	164	546	1	33	16	447	6	7	9	27
Philosophy	360	54	285	1	7	2	254	1	6	3	11
Religion	348	34	300	2	20	14	253	1	1	3	6
Drama/Theater Arts	92	5	82	2	0	2	72	1	1	1	3
LANGUAGE & LITERATURE	1,591	198	1,327	7	46	59	1,038	25	29	80	43
American Literature	365	18	338	3	11	28	270	3	6	7	10
English Literature	520	56	455	2	16	17	390	1	5	6	18
English Language	83	5	56	0	1	2	45	0	1	0	7
French	121	16	102	1	3	6	89	0	0	0	3
German	68	11	53	0	2	1	50	0	0	0	0
Italian	23	10	13	0	1	0	10	1	0	1	0
Spanish	243	45	191	1	0	4	89	17	17	61	2
Russian	26	5	20	0	0	0	20	0	0	0	0
Slavic	19	4	14	0	0	1	12	1	0	0	0
Chinese	22	6	15	0	4	0	11	0	0	0	0
Japanese	15	5	10	0	4	0	5	0	0	0	1
Hebrew	8	1	7	0	0	0	7	0	0	0	0
Arabic	5	3	2	0	0	0	2	0	0	0	0
Other Language & Literature	73	13	51	0	4	0	38	2	0	5	2
OTHER HUMANITIES	170	27	132	1	8	12	98	1	0	5	7
Humanities, General	19	3	13	0	0	1	12	0	0	0	0
Humanities, Other	151	24	119	1	8	11	86	1	0	5	7
EDUCATION	6,488	475	5,376	46	138	680	4,028	79	140	104	161
RESEARCH & ADMINISTRATION	5,368	333	4,559	41	111	589	3,404	70	123	91	130
Curriculum & Instruction	987	81	832	5	21	103	621	21	20	14	27
Educational Admin. & Supervision	791	29	686	10	12	100	499	19	15	10	21
Educational Leadership	1,548	27	1,360	13	16	219	1,002	3	47	32	28
Educ./Instruct. Media Design	171	33	113	4	2	8	95	0	2	1	1
Educ. Stat./Research Methods	67	10	55	0	7	4	36	1	4	2	1
Educ. Assess., Test., & Meas.	31	11	17	0	2	3	10	0	0	2	0
Educational Psychology	301	30	254	0	11	22	191	2	7	4	17
School Psychology	169	6	145	0	4	10	118	4	4	3	2
Social/Phil. Found. of Educ.	126	16	108	0	10	11	73	1	7	1	5
Special Education	213	24	179	1	5	12	146	6	2	2	5
Counseling Educ./Couns. & Guidance	256	12	210	2	5	26	160	6	2	2	7
Higher Educ./Evaluation & Research	446	31	388	3	12	48	286	5	9	13	12
Pre-elementary/Early Childhood	50	9	31	0	2	4	24	0	0	1	0
Elementary Education	52	4	44	1	0	4	36	1	1	1	0
Secondary Education	22	1	20	1	1	1	15	0	1	1	0
Adult & Continuing Education	138	9	117	1	1	14	92	1	2	2	4
TEACHING FIELDS	684	105	523	2	21	50	412	6	6	9	17
Agricultural Education	28	6	22	0	0	2	18	0	1	0	1
Art Education	30	6	22	0	2	1	16	0	0	0	3

Appendix Table A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield, 2002, continued

Field of study	Total doctorate recipients ^b	Non-U.S. citizens temp. visas	U.S. citizens and non-U.S. with permanent visas ^a								
			Total	American Indian ^c	Asian ^d	Black/African-American	White	Puerto Rican	Mexican American	Other Hispanic	Other/unknown race ^e
Business Education	12	4	8	0	1	1	6	0	0	0	0
English Education	53	4	46	0	4	4	35	0	0	2	1
Foreign Languages Education	41	25	15	0	1	2	10	1	0	0	1
Health Education	38	2	29	0	0	5	23	1	0	0	0
Home Economics Education	9	0	8	0	0	1	7	0	0	0	0
Technical/Industrial Arts Education	7	2	5	0	1	1	2	0	0	1	0
Mathematics Education	88	11	69	0	3	11	53	1	0	1	0
Music Education	80	15	64	0	3	3	53	1	0	2	2
Nursing Education	7	0	7	0	1	0	6	0	0	0	0
Physical Education and Coaching	73	5	63	0	2	2	53	1	2	1	2
Reading Education	66	6	54	0	0	4	47	0	1	1	1
Science Education	61	3	57	1	2	4	46	1	0	0	3
Social Science Education	10	3	7	1	0	1	5	0	0	0	0
Technical Education	23	5	12	0	0	3	8	0	0	1	0
Trade & Industrial Education	5	0	4	0	0	0	3	0	0	0	1
Teacher Ed./Spec. Acad. & Voc., Other	53	8	31	0	1	5	21	0	2	0	2
OTHER EDUCATION	436	37	294	3	6	41	212	3	11	4	14
Education, General	158	17	75	1	1	10	55	1	2	0	5
Education, Other	278	20	219	2	5	31	157	2	9	4	9
PROFESSIONAL/OTHER FIELDS	2,345	602	1,518	11	99	151	1,160	10	13	31	43
BUSINESS AND MANAGEMENT	1,095	340	636	4	49	58	483	7	5	11	19
Accounting	110	26	83	0	6	6	68	0	1	0	2
Banking/Financial Support Services	76	42	30	1	7	1	21	0	0	0	0
Business Admin. & Management	339	94	188	1	12	18	144	4	0	4	5
Business/Managerial Economics	38	16	22	0	3	1	17	0	0	1	0
International Business	23	9	8	0	0	2	3	1	0	0	2
Mgmt. Info. Sys./Bus. Data Proc.	89	41	44	0	8	3	31	1	0	1	0
Marketing Management & Research	132	51	80	1	7	7	59	1	3	1	1
Operations Research	36	17	13	0	0	0	11	0	0	1	1
Organizational Behavior	173	19	124	1	2	14	97	0	1	3	6
Bus. Mgmt./Admin. Serv., General	33	8	15	0	0	2	13	0	0	0	0
Bus. Mgmt./Admin. Serv., Other	46	17	29	0	4	4	19	0	0	0	2
COMMUNICATIONS	399	77	300	0	13	32	229	1	4	7	14
Communications Research	64	14	42	0	2	5	31	0	0	1	3
Mass Communications	156	35	113	0	6	10	85	1	1	4	6
Communications Theory	43	3	40	0	1	4	31	0	0	1	3
Communications, General	70	14	52	0	3	4	43	0	0	0	2
Communications, Other	66	11	53	0	1	9	39	0	3	1	0
OTHER PROFESSIONAL FIELDS	801	177	568	7	37	60	436	2	4	12	10
Architectural Environmental Design	67	38	28	0	5	1	20	0	1	1	0
Home Economics	24	10	13	0	0	0	13	0	0	0	0
Law	50	26	15	1	0	0	14	0	0	0	0
Library Science	32	7	23	1	0	5	16	0	0	0	1
Parks/Recreation/Leisure/Fitness	51	16	31	0	0	1	29	0	0	0	1
Public Administration	104	11	83	1	4	12	62	0	1	2	1
Social Work	237	15	199	2	7	24	155	2	0	3	6
Theology/Religious Education	173	39	129	1	20	10	90	0	1	6	1
Professional Fields, General	7	2	5	0	0	2	3	0	0	0	0
Professional Fields, Other	56	13	42	1	1	5	34	0	1	0	0
OTHER FIELDS	50	8	14	0	0	1	12	0	0	1	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

^a Persons reporting an Hispanic ethnicity, whether singly or in combination with another race/ethnicity, are included in the respondent-selected Hispanic ethnicity category.

^b Includes 2,663 individuals who did not report their citizenship at time of doctorate. See the "Important Notice" for discussion of item response rate issues.

^c Includes Alaskan Natives.

^d Does not include Native Hawaiians and other Pacific Islanders.

^e Includes Native Hawaiians and other Pacific Islanders, respondents choosing multiple races (excluding those selecting an Hispanic ethnicity), and respondents with unknown race/ethnicity.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-3a. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all doctorates

Characteristics		2002 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES ^a	ENGINEERING	Biochemistry	Other Biosciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics	Anthropology & sociology
Number in field		39,955	1,268	1,922	797	917	811	5,715	5,073	781	4,899	1,659	1,011	8,350	3,199	903	1,040
Men	%	54.5	83.7	66.3	68.4	70.9	78.9	73.0	82.3	62.5	54.1	31.8	69.0	52.3	33.1	71.9	40.2
Women		45.4	16.2	33.6	31.4	28.8	20.7	26.8	17.5	37.5	45.8	68.1	30.7	47.7	66.7	27.6	59.8
Unknown ^b		0.2	0.1	0.1	0.3	0.3	0.4	0.2	0.3	0.0	0.0	0.1	0.3	0.1	0.1	0.6	0.0
U.S. citizenship	%	64.9	49.5	59.0	58.6	44.8	44.0	52.5	37.3	61.2	67.5	67.4	41.8	63.8	85.0	37.2	79.5
Non-U.S., permanent visa		4.1	5.3	4.8	4.6	3.4	7.9	5.1	5.3	5.6	5.5	4.1	3.6	5.0	2.2	5.5	4.0
Non-U.S., temporary visa		24.3	40.5	31.0	32.0	47.9	42.9	37.6	52.1	27.1	21.9	19.4	46.6	24.9	4.8	50.7	12.4
Unknown		6.7	4.7	5.2	4.8	3.9	5.2	4.8	5.3	6.0	5.0	9.1	8.0	6.3	8.0	6.5	4.0
Never married	%	26.2	38.3	34.8	25.6	40.9	31.6	34.8	31.7	34.7	30.7	19.7	21.9	27.8	26.8	32.4	26.0
Married		52.1	44.2	48.9	54.8	43.7	53.9	48.5	54.3	48.9	50.4	56.5	59.7	52.6	47.9	48.6	48.3
Separated, divorced		5.4	3.1	2.5	3.1	2.7	2.5	2.7	2.3	2.7	4.1	6.3	4.6	4.5	5.9	3.4	6.8
Marriage-like relationship		5.7	5.9	5.5	9.2	5.8	3.3	5.8	3.0	5.8	7.1	4.0	3.5	5.9	7.3	5.5	12.2
Widowed		0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.1	0.2	0.2	0.1	0.3
Unknown		10.3	8.3	8.3	7.2	6.9	8.6	7.9	8.7	7.9	7.5	12.8	10.2	8.9	11.8	9.9	6.4
Median age at doctorate	Yrs	33.3	30.4	29.2	33.1	30.3	32.1	30.5	31.4	30.0	31.1	38.1	34.3	31.9	32.1	31.7	34.6
Bachelor's in same field as doctorate	%	52.4	69.8	73.5	46.3	70.0	40.8	63.7	74.1	27.9	51.9	42.2	49.0	47.4	64.1	54.9	44.8
Percent with masters	%	72.6	63.8	39.2	74.4	72.5	81.8	60.9	81.1	30.1	40.2	79.3	81.7	52.0	76.1	74.0	83.5
Median time lapse from BA to doctorate																	
Total time	Yrs	10.2	7.8	6.5	9.9	7.6	9.4	7.8	8.6	7.4	8.2	14.2	10.7	8.9	9.2	9.0	11.3
Registered time		7.5	7.0	6.0	7.7	6.8	7.7	6.8	6.7	6.5	7.0	8.0	7.2	7.0	7.3	7.0	8.9
Postdoctoral study plans	%	26.8	58.0	45.7	47.6	38.2	17.8	43.5	24.1	73.1	64.0	19.5	36.0	52.6	31.9	8.5	21.1
Fellowship		53.6	37.6	52.3	43.8	58.6	20.8	45.7	32.0	65.0	61.6	65.1	33.2	59.9	75.6	51.9	63.5
Research assoc.		35.7	58.6	43.6	52.8	38.6	71.5	50.3	58.0	26.8	27.8	25.6	58.2	30.0	14.6	36.4	24.2
Traineeship		3.8	2.3	1.0	1.1	1.1	3.5	1.6	4.9	2.1	3.1	4.0	3.8	3.1	6.4	3.9	4.1
Other study		6.8	1.5	3.1	2.4	1.7	4.2	2.4	5.1	6.1	7.6	5.2	4.7	7.0	3.4	7.8	8.2
Planned employment after doctorate	%	62.4	33.6	45.3	45.5	54.4	73.0	48.1	66.7	18.4	28.2	67.5	53.0	38.1	55.9	80.2	72.2
Educ. institution ^c		36.3	8.7	9.0	16.1	33.7	31.7	17.1	13.8	5.5	10.8	39.3	25.6	17.7	24.9	44.7	51.4
Industry/business		15.4	18.8	31.9	15.6	14.9	34.4	24.4	43.9	11.7	10.9	10.8	12.9	11.2	13.1	14.7	5.6
Government		4.5	3.2	1.8	8.4	3.4	3.8	3.6	6.1	0.6	3.2	8.3	8.5	4.6	6.6	12.8	3.8
Nonprofit		3.3	0.6	0.8	2.8	1.3	1.0	1.1	1.1	0.3	1.3	6.1	3.0	2.3	7.5	3.4	6.0
Other & unknown		3.0	2.3	1.8	2.8	1.1	2.1	2.0	1.8	0.4	2.1	3.0	3.1	2.3	3.8	4.4	5.4
Postdoctoral plans unknown	%	10.8	8.4	9.0	6.9	7.4	9.2	8.4	9.1	8.5	7.8	13.0	11.0	9.3	12.2	11.3	6.7
Definite postdoctoral study	%	19.8	45.6	37.8	34.8	31.0	13.3	34.5	15.7	57.6	49.3	14.5	23.0	40.0	24.8	6.6	14.0
Seeking postdoctoral study		7.1	12.4	7.9	12.8	7.2	4.4	9.0	8.4	15.5	14.7	5.0	13.0	12.6	7.1	1.9	7.0
Definite employment		45.0	22.7	33.4	32.5	41.5	54.0	35.1	47.5	12.4	18.1	54.1	36.9	27.0	39.0	65.0	47.9
Seeking employment		17.4	10.9	11.9	13.0	12.9	19.0	13.0	19.3	6.0	10.1	13.4	16.1	11.1	16.9	15.2	24.3
Employment commitments after doctorate ^d		17,984	288	641	259	381	438	2,007	2,408	97	887	897	373	2,254	1,247	587	498
Primary activity																	
R & D	%	31.9	58.4	69.4	47.8	39.5	63.3	58.0	71.2	43.3	45.5	31.9	51.3	40.9	22.3	54.6	31.0
Teaching		39.6	23.4	16.5	22.5	52.1	25.2	26.9	12.2	25.6	26.6	43.4	28.2	33.6	21.7	28.1	52.6
Administration		13.1	1.8	1.9	4.4	1.4	3.3	2.4	2.4	4.4	4.6	10.0	6.8	7.1	6.1	2.1	6.7
Prof. services		12.8	10.6	10.2	20.5	5.8	5.6	9.7	11.2	26.7	18.7	12.7	10.8	15.3	48.1	12.0	7.3
Other		2.6	5.8	1.9	4.8	1.4	2.6	2.9	3.0	0.0	4.6	2.0	2.8	3.1	1.8	3.1	2.5
Secondary activity																	
R & D	%	33.0	25.2	16.2	29.7	45.8	27.3	27.3	17.0	23.3	31.2	37.2	30.5	33.2	27.9	34.2	47.6
Teaching		19.8	7.7	6.8	18.5	15.9	25.4	14.2	16.0	7.8	14.6	18.9	24.8	17.7	20.3	35.1	24.3
Administration		13.8	14.6	24.3	14.1	7.7	10.8	15.5	18.5	15.6	20.0	16.8	16.5	17.9	17.1	11.2	10.0
Prof. services		12.1	11.3	12.6	12.0	9.6	8.2	10.8	14.6	8.9	10.1	16.1	11.7	12.7	12.4	7.3	6.7
Other		3.4	7.3	2.8	5.6	1.1	3.3	3.6	4.0	2.2	3.3	2.3	2.3	2.7	3.8	1.9	1.7
No secondary activity		17.9	33.9	37.3	20.1	20.0	24.9	28.6	29.9	42.2	20.9	8.8	14.2	15.8	18.5	10.3	9.8
Activity(ies) unknown	%	3.8	4.9	3.7	3.9	4.2	3.0	3.8	3.2	7.2	7.1	3.7	5.9	5.5	3.8	2.4	3.4
Region of employment after doctorate																	
New England	%	6.7	10.4	12.0	3.5	9.2	5.5	8.7	7.1	16.5	9.6	6.7	4.3	7.9	6.2	8.2	9.2
Middle Atlantic		14.3	15.3	18.4	13.1	20.2	19.9	17.9	12.8	13.4	15.7	14.8	7.8	13.9	16.0	10.9	16.1
East North Central		13.5	9.0	13.6	7.7	12.1	9.4	11.0	12.0	10.3	13.2	11.3	7.0	11.3	14.8	9.5	14.1
West North Central		6.2	4.5	5.1	2.7	5.5	3.9	4.5	3.2	2.1	4.3	7.7	9.1	6.3	7.8	4.3	7.6
South Atlantic		17.0	13.5	13.1	15.8	17.1	17.1	15.1	11.8	14.4	15.9	17.9	12.6	16.1	17.5	22.5	14.7
East South Central		4.2	3.5	1.6	3.5	3.4	2.3	2.6	2.2	1.0	3.8	5.6	3.2	4.3	4.5	3.1	2.6
West South Central		8.4	6.3	4.4	16.6	5.0	5.5	6.6	8.7	7.2	6.3	9.4	4.3	7.2	8.2	3.2	7.2
Mountain		5.1	4.9	5.8	8.5	4.2	3.4	5.2	5.2	1.0	4.8	4.5	5.9	4.7	5.7	2.0	4.2
Pacific & Insular		14.5	22.9	18.7	16.2	11.3	25.1	19.0	22.5	23.7	16.1	10.6	11.5	13.5	15.3	9.4	17.3
Foreign		9.6	9.0	6.2	12.4	11.0	8.0	8.7	13.7	8.2	9.7	11.1	33.0	14.1	3.5	26.6	7.0
Region unknown		0.5	0.7	1.1	0.0	1.0	0.0	0.6	0.7	2.1	0.6	0.4	1.3	0.7	0.6	0.3	0.0

^a Physical sciences includes mathematics and computer sciences. ^b Includes 71 respondents not reporting gender.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-3a. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all doctorates, continued

Characteristics		Political sci./ Internat'l Rel.	Other social sciences	SOCIAL SCI. INCL.	PSYCHOLOGY TOTAL	SCIENCES & ENGINEERING	History	American literature	English lang. & literature	Foreign lang. & literature	Other Humanities	HUMANITIES	EDUCATION	Business & management	Other professional fields	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
Number in field		688	781	6,611	25,749	1,030	365	603	623	2,752	5,373	6,488	1,095	1,200	2,345	14,206	
Men	%	58.3	53.8	44.6	60.8	60.0	44.4	39.0	39.5	50.9	49.6	33.7	61.5	46.8	53.3	43.0	
Women		41.6	46.0	55.2	39.0	39.9	55.6	60.9	60.2	48.9	50.3	66.1	38.0	52.9	46.2	56.8	
Unknown ^b		0.1	0.3	0.2	0.2	0.1	0.0	0.2	0.3	0.1	0.1	0.2	0.5	0.3	0.5	0.2	
U.S. Citizenship	%	73.4	65.8	74.1	58.7	83.9	91.2	81.3	67.9	73.8	77.0	81.2	54.4	67.3	60.4	76.2	
Non-U.S., permanent visa		3.6	5.1	3.4	4.7	2.8	1.4	3.5	8.8	4.1	4.2	1.7	3.7	5.1	4.3	3.1	
Non-U.S., temporary visa		16.4	21.8	15.5	30.7	8.1	4.9	10.1	19.1	16.4	13.6	7.3	31.1	21.2	25.7	12.7	
Unknown		6.5	7.3	7.0	5.9	5.2	2.5	5.1	4.2	5.7	5.2	9.8	10.9	6.5	9.6	8.0	
Never married	%	29.2	23.9	27.4	30.0	26.8	24.1	25.5	28.3	26.9	26.7	13.1	20.5	20.3	20.0	19.4	
Married		48.7	51.9	48.6	51.0	54.0	53.7	47.3	48.6	48.5	49.8	57.6	54.6	55.8	54.3	54.1	
Separated, divorced		5.7	7.0	5.8	4.0	4.2	6.3	8.3	6.4	6.2	6.1	9.8	5.9	7.8	6.9	7.9	
Marriage-like relationship		6.4	6.1	7.6	5.8	7.4	11.8	9.1	10.4	7.6	8.3	3.5	2.3	5.9	4.1	5.4	
Widowed		0.3	0.5	0.2	0.2	0.5	0.5	0.5	0.2	0.5	0.5	0.7	0.5	0.4	0.5	0.6	
Unknown		9.7	10.5	10.3	9.0	7.2	3.6	9.3	6.1	10.3	8.7	15.2	16.3	9.8	14.2	12.6	
Median age at doctorate	Yrs	33.9	35.7	33.0	31.7	34.7	33.8	34.3	34.7	35.0	34.7	44.2	35.7	39.0	37.2	38.3	
Bachelor's in same field as doctorate	%	54.5	20.1	53.6	57.9	56.5	100.0	100.0	47.5	52.4	61.2	30.6	35.0	30.5	31.9	42.4	
Percent with masters	%	76.9	86.9	78.3	66.5	83.6	87.9	84.7	86.7	81.8	83.5	84.5	75.4	89.2	81.3	83.6	
Median time lapse from BA to doctorate																	
Total time	Yrs	11.0	11.8	10.0	8.8	11.8	11.0	11.4	10.9	11.7	11.5	19.0	12.4	14.7	13.4	14.0	
Registered time		8.6	8.3	7.8	7.0	9.0	8.7	9.0	8.9	9.0	9.0	8.5	7.7	8.6	8.1	8.6	
Postdoctoral study plans	%	13.2	14.3	23.0	37.4	13.1	11.8	7.8	9.8	9.1	10.0	6.1	4.1	9.6	6.9	7.7	
Fellowship		62.6	47.3	69.8	54.3	68.9	62.8	70.2	50.8	59.4	62.0	32.3	33.3	41.7	39.1	47.9	
Research assoc.		22.0	34.8	19.0	37.1	11.9	9.3	8.5	11.5	16.7	13.6	33.1	42.2	33.9	36.6	24.1	
Traineeship		2.2	7.1	5.7	3.4	3.0	4.7	4.3	11.5	6.4	5.8	11.8	4.4	5.2	5.0	7.8	
Other study		13.2	10.7	5.5	5.3	16.3	23.3	17.0	26.2	17.5	18.6	22.8	20.0	19.1	19.3	20.2	
Planned employment after doctorate	%	76.2	74.9	66.1	53.2	78.3	83.0	81.8	83.9	79.9	80.5	78.2	79.5	80.0	78.5	79.1	
Educ. institution ^c		53.1	43.8	36.9	21.7	60.2	72.1	69.0	71.6	60.6	63.5	63.2	63.4	56.1	58.7	62.6	
Industry/business		7.1	12.2	11.4	20.6	5.7	4.4	4.0	4.5	7.7	6.3	4.6	10.0	7.4	8.5	5.9	
Government		7.1	7.4	7.2	5.3	4.3	0.8	1.2	0.6	1.0	1.6	3.8	2.4	5.1	3.8	2.9	
Nonprofit		3.3	6.9	6.2	2.8	3.4	0.5	1.7	1.8	5.6	4.0	4.0	1.9	8.2	5.1	4.2	
Other & unknown		5.5	4.6	4.4	2.7	4.7	5.2	6.0	5.5	5.0	5.1	2.7	1.7	3.3	2.5	3.5	
Postdoctoral plans unknown	%	10.6	10.8	10.9	9.4	8.6	5.2	10.4	6.3	11.0	9.5	15.6	16.4	10.4	14.7	13.2	
Definite postdoctoral study	%	9.2	8.7	17.1	28.1	8.6	8.2	5.0	6.6	5.1	6.2	3.5	2.7	5.5	4.1	4.6	
Seeking postdoctoral study		4.1	5.6	5.9	9.3	4.5	3.6	2.8	3.2	4.0	3.8	2.6	1.4	4.1	2.8	3.1	
Definite employment		52.6	57.4	47.5	38.1	52.9	53.4	52.1	56.5	52.3	52.9	59.7	66.8	59.4	61.9	57.5	
Seeking employment		23.5	17.5	18.6	15.1	25.3	29.6	29.7	27.4	27.6	27.5	18.5	12.7	20.6	16.5	21.6	
Employment commitments after doctorate ^d		362	448	3,142	9,811	545	195	314	352	1,439	2,845	3,876	731	713	1,452	8,173	
Primary activity																	
R & D	%	27.5	34.5	32.1	49.1	10.0	5.9	5.3	8.2	9.1	8.5	7.0	42.0	15.0	28.4	11.4	
Teaching		53.5	40.1	34.1	27.1	73.8	82.7	85.4	84.4	75.1	77.7	39.2	44.2	56.9	50.6	54.6	
Administration		9.3	10.0	6.4	4.7	6.2	5.4	2.0	3.2	5.5	4.9	41.2	6.0	13.3	9.6	23.0	
Prof. services		7.1	12.6	25.0	16.3	5.8	3.8	3.6	1.5	5.9	4.9	11.3	5.8	12.3	9.0	8.7	
Other		2.5	2.8	2.4	2.8	4.2	2.2	3.6	2.6	4.4	3.9	1.2	2.0	2.6	2.3	2.3	
Secondary activity																	
R & D	%	50.7	42.0	36.8	29.1	58.2	51.9	56.3	65.6	48.2	53.4	24.6	38.0	46.2	42.0	37.6	
Teaching		25.8	23.3	24.8	18.9	12.5	9.7	7.0	9.7	13.0	11.6	23.4	44.7	20.6	32.7	21.0	
Administration		4.8	9.6	12.4	15.8	9.2	11.4	12.9	10.6	13.0	11.8	12.3	5.7	11.7	8.8	11.5	
Prof. services		6.5	10.0	9.5	11.8	5.6	5.4	6.0	3.2	8.2	6.6	18.3	6.0	10.4	8.2	12.5	
Other		1.4	3.7	2.8	3.2	1.7	3.2	3.3	1.5	7.3	4.8	3.3	1.3	2.9	2.1	3.6	
No secondary activity		10.8	11.4	13.7	21.2	12.7	18.4	14.6	9.4	10.4	11.7	18.2	4.4	8.2	6.3	13.8	
Activity(ies) unknown	%	2.5	4.2	3.4	3.9	4.8	5.1	3.8	3.4	4.7	4.5	3.4	3.8	2.8	3.3	3.7	
Region of employment after doctorate																	
New England	%	8.8	6.5	7.4	7.7	9.7	9.2	6.1	7.4	6.5	7.3	4.2	5.9	4.9	5.4	5.5	
Middle Atlantic		11.9	14.1	14.3	14.6	16.7	17.9	19.1	16.2	16.3	16.8	12.0	13.3	13.2	13.2	13.9	
East North Central		13.5	10.9	13.0	11.9	14.1	10.3	17.5	16.2	15.3	15.1	15.9	13.8	15.6	14.7	15.4	
West North Central		6.9	4.9	6.6	5.3	5.1	6.2	5.7	8.2	7.3	6.7	8.3	5.5	5.6	5.5	7.3	
South Atlantic		23.5	23.4	19.5	15.9	15.4	15.9	15.3	17.9	14.2	15.1	20.5	20.0	16.4	18.4	18.3	
East South Central		3.9	4.0	3.8	3.3	4.0	7.2	6.1	3.7	4.2	4.5	6.4	4.5	4.3	4.4	5.4	
West South Central		5.2	7.6	6.7	7.3	10.5	7.7	9.6	8.2	8.9	9.1	10.5	9.4	9.7	9.5	9.8	
Mountain		3.9	5.1	4.5	4.9	5.3	5.1	4.8	2.3	4.5	4.5	6.3	5.6	4.2	4.9	5.4	
Pacific & Insular		10.5	10.9	13.3	16.8	13.2	15.4	11.8	13.1	11.6	12.4	11.3	11.5	12.1	11.8	11.7	
Foreign		11.3	12.5	10.6	11.8	5.7	5.1	3.8	6.5	10.6	8.0	4.3	10.3	13.9	12.1	7.0	
Region unknown		0.6	0.0	0.4	0.6	0.2	0.0	0.3	0.3	0.5	0.4	0.3	0.3	0.1	0.2	0.3	

^c Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

^d Includes only recipients with definite employment plans.

Appendix Table A-3b. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all men

Characteristics	2002 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES ^a	ENGINEERING	Biochemistry	Other Biosciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics	Anthropology & sociology	
Number in field	21,760	1,061	1,275	545	650	640	4,171	4,173	488	2,652	528	698	4,366	1,060	649	418	
Men as percent of total doctorates	%	54.5	83.7	66.3	68.4	70.9	78.9	73.0	82.3	62.5	54.1	31.8	69.0	52.3	33.1	71.9	40.2
U.S. citizenship	%	58.9	49.9	58.9	52.5	44.5	43.6	51.2	36.6	61.5	66.2	59.1	39.3	60.5	83.8	37.0	77.5
Non-U.S., permanent visa		4.0	5.0	4.5	4.6	2.9	7.0	4.8	4.7	4.1	4.2	4.7	3.2	4.1	2.5	4.2	4.8
Non-U.S., temporary visa		31.0	40.4	31.0	37.4	48.8	44.7	39.1	54.1	28.5	23.9	26.1	49.3	28.7	5.6	53.6	13.6
Unknown		6.1	4.7	5.7	5.5	3.8	4.7	5.0	4.6	5.9	5.7	10.0	8.3	6.7	8.2	5.2	4.1
Never married	%	27.0	38.3	33.9	22.0	40.3	34.1	34.5	31.4	33.2	29.4	17.0	19.1	26.7	25.9	33.9	27.5
Married		54.8	44.4	48.8	60.2	44.9	53.9	49.3	55.9	50.2	52.8	59.8	63.9	55.1	51.5	50.4	49.0
Separated, divorced		3.5	3.1	2.1	2.6	2.6	2.2	2.5	1.8	2.9	3.1	3.2	3.7	3.2	3.4	2.9	4.1
Marriage-like relationship		5.0	5.8	6.0	7.3	4.8	3.0	5.5	2.9	5.7	6.6	4.5	2.7	5.6	6.3	5.1	11.2
Widowed		0.1	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2
Unknown		9.6	8.1	9.2	7.9	7.4	6.9	8.1	7.9	8.0	8.1	15.3	10.5	9.3	12.7	7.7	7.9
Median age at doctorate	Yrs	32.8	30.6	29.4	33.7	30.4	32.1	30.7	31.6	30.3	31.3	35.2	34.5	31.9	32.6	31.9	35.0
Bachelor's in same field as doctorate	%	54.5	70.2	72.2	47.7	69.1	41.4	63.3	75.7	30.1	49.9	29.2	51.4	45.4	62.5	58.2	42.6
Percent with masters	%	71.7	62.8	39.3	76.3	72.3	81.6	61.7	82.1	32.2	41.6	73.1	83.4	51.0	75.1	75.8	82.3
Median time lapse from BA to doctorate																	
Total time	Yrs	9.7	7.9	6.6	10.5	7.8	9.4	7.9	8.7	7.5	8.2	12.0	11.1	8.6	9.3	9.0	11.7
Registered time		7.4	7.0	6.0	7.9	6.9	7.8	6.9	6.7	6.5	7.0	7.6	7.3	7.0	7.6	7.0	9.2
Postdoctoral study plans	%	29.4	58.0	47.5	46.2	39.5	19.8	44.5	24.1	74.4	65.2	21.0	37.4	56.5	29.2	7.9	19.6
Fellowship		49.9	36.6	54.0	41.3	58.0	22.0	44.9	31.0	68.0	60.0	63.1	34.1	58.6	75.2	47.1	63.4
Research assoc.		39.5	59.7	42.3	55.6	38.5	69.3	51.2	58.7	24.5	27.2	23.4	57.1	29.8	16.5	43.1	22.0
Traineeship		3.8	2.4	0.8	1.2	1.6	3.9	1.7	4.9	1.9	3.5	4.5	3.4	3.3	6.5	3.9	2.4
Other Study		6.8	1.3	2.8	2.0	1.9	4.7	2.2	5.5	5.5	9.2	9.0	5.4	8.3	1.9	5.9	12.2
Planned employment after doctorate	%	60.5	33.8	42.8	45.7	52.8	71.7	46.9	67.4	17.8	26.5	63.8	51.3	34.0	58.0	83.4	72.7
Educ. institution ^b		31.5	8.2	8.0	15.4	30.3	29.4	15.8	13.2	4.1	10.6	35.6	25.1	15.2	25.3	46.7	51.4
Industry/business		19.2	19.9	31.8	16.9	16.2	36.4	25.1	45.0	12.3	10.2	14.8	11.6	11.2	15.9	15.9	6.7
Government		5.0	3.2	1.1	8.8	3.5	3.8	3.4	6.6	0.8	3.5	8.1	9.7	4.7	7.8	13.6	3.1
Nonprofit		2.6	0.7	0.7	1.7	1.5	0.3	0.9	0.9	0.2	0.9	3.6	2.6	1.4	6.6	3.4	6.2
Other & unknown		2.2	1.9	1.2	2.9	1.2	1.9	1.7	1.7	0.4	1.4	1.7	2.3	1.5	2.4	3.9	5.3
Postdoctoral plans unknown	%	10.1	8.2	9.7	8.1	7.7	8.4	8.6	8.5	7.8	8.2	15.2	11.3	9.5	12.7	8.8	7.7
Definite postdoctoral study	%	21.8	45.6	39.5	33.2	31.7	15.0	35.3	15.8	60.2	51.8	15.3	22.8	43.7	22.7	6.5	13.2
Seeking postdoctoral study		7.6	12.3	7.9	13.0	7.8	4.8	9.2	8.3	14.1	13.5	5.7	14.6	12.8	6.5	1.4	6.5
Definite employment		44.5	23.4	32.9	33.6	39.5	54.2	34.9	48.0	11.9	17.9	53.2	37.5	24.7	44.6	68.1	46.4
Seeking employment		16.0	10.5	10.0	12.1	13.2	17.5	12.0	19.4	5.9	8.6	10.6	13.8	9.4	13.4	15.3	26.3
Employment commitments after doctorate ^c		9,682	248	419	183	257	347	1,454	2,005	58	476	281	262	1,077	473	442	194
Primary activity																	
R & D	%	39.7	59.8	73.5	52.3	42.4	66.4	61.3	72.4	54.5	47.8	38.5	51.0	46.5	23.1	55.3	30.6
Teaching		35.1	21.4	14.0	19.0	48.2	21.1	23.6	11.5	16.4	25.6	37.7	28.0	28.9	21.4	27.2	53.8
Administration		10.6	1.3	1.8	5.2	1.2	2.7	2.2	2.2	1.8	5.0	7.5	8.2	6.3	5.9	2.6	3.8
Prof. services		11.8	11.5	9.5	18.4	6.5	7.1	9.9	10.6	27.3	18.3	12.8	10.7	15.5	48.0	12.1	9.1
Other		2.8	6.0	1.3	5.2	1.6	2.7	3.0	3.3	0.0	3.2	3.4	2.1	2.8	1.5	2.8	2.7
Secondary activity																	
R & D	%	31.1	23.9	13.5	28.2	41.6	24.7	24.8	16.1	16.4	30.7	34.7	32.1	31.3	26.7	33.5	45.7
Teaching		20.5	7.7	7.3	23.0	16.3	25.9	15.4	16.1	9.1	16.5	24.9	25.1	20.4	22.2	36.3	23.7
Administration		14.8	15.4	27.0	11.5	9.4	12.8	16.6	19.6	20.0	18.1	17.0	16.5	17.5	18.1	11.6	11.8
Prof. services		11.7	10.7	13.0	12.1	10.6	8.6	11.0	15.1	10.9	12.1	12.5	12.8	12.3	12.3	6.5	7.5
Other		3.4	7.7	2.8	4.6	1.6	3.3	3.7	3.9	0.0	3.4	3.4	2.5	3.0	3.5	2.1	1.1
No secondary activity		18.4	34.6	36.5	20.7	20.4	24.7	28.5	29.1	43.6	19.2	7.5	11.1	15.5	17.2	10.0	10.2
Activity(ies) unknown	%	4.1	5.6	4.5	4.9	4.7	3.2	4.5	3.5	5.2	8.2	5.7	7.3	7.1	4.0	2.7	4.1
Region of employment after doctorate																	
New England	%	6.8	10.1	14.3	2.7	7.8	5.8	8.9	7.1	15.5	10.3	5.0	2.7	7.3	4.9	6.8	11.3
Middle Atlantic		13.7	14.9	17.2	12.6	23.7	19.3	17.9	12.9	17.2	13.2	15.7	7.3	12.6	14.8	11.3	14.9
East North Central		12.5	8.9	11.2	7.7	9.7	10.1	9.8	11.3	6.9	14.5	10.3	6.9	11.1	14.4	9.0	11.9
West North Central		5.9	4.4	6.0	2.7	5.8	4.0	4.8	3.3	1.7	4.0	7.1	11.1	6.4	8.9	4.3	8.2
South Atlantic		15.9	12.9	12.4	14.2	16.3	16.1	14.3	11.7	13.8	13.2	18.5	12.2	14.4	17.3	21.9	17.0
East South Central		4.0	3.6	1.4	4.4	3.1	2.6	2.8	2.4	0.0	3.2	5.7	3.8	3.8	5.7	3.4	3.6
West South Central		8.2	5.6	5.7	18.0	3.5	5.2	6.7	8.4	8.6	6.3	8.2	3.8	6.3	9.9	3.6	6.7
Mountain		5.0	5.2	6.9	8.2	4.7	3.2	5.5	5.4	1.7	4.8	3.6	5.7	4.5	5.9	0.7	3.1
Pacific & Insular		15.5	24.2	17.7	16.4	13.2	25.9	19.8	22.6	22.4	17.6	13.2	9.2	14.7	12.7	9.3	16.0
Foreign		12.0	9.3	6.0	13.1	10.9	7.8	8.7	14.2	8.6	12.2	11.7	35.5	17.5	5.1	29.4	7.2
Region Unknown		0.5	0.8	1.2	0.0	1.2	0.0	0.7	0.7	3.4	0.6	1.1	1.9	1.2	0.4	0.2	0.0

^a Physical sciences includes mathematics and computer sciences.^b Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.^c Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-3b. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all men, continued

Characteristics		Political sci./ Internat'l Rel.	Other social sciences	SOCIAL SCI. INCL. PSYCHOLOGY	TOTAL SCIENCES & ENGINEERING	History	American literature	English lang. & literature	Foreign lang. & literature	Other Humanities	HUMANITIES	EDUCATION	Business & management	Other professional fields	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
Number in field		401	420	2,948	15,658	618	162	235	246	1,402	2,663	2,188	673	561	1,251	6,102
Men as percent of total doctorates	%	58.3	53.8	44.6	60.8	60.0	44.4	39.0	39.5	50.9	49.6	33.7	61.5	46.8	53.3	43.0
U.S. citizenship	%	70.3	59.0	67.2	52.9	85.8	91.4	82.6	69.9	74.3	78.3	80.3	51.6	61.9	55.9	74.4
Non-U.S., permanent visa		3.2	4.8	3.6	4.3	1.8	0.6	3.4	8.5	4.0	3.6	1.6	3.6	5.5	4.5	3.1
Non-U.S., temporary visa		19.2	27.6	22.3	37.1	7.3	4.9	8.9	19.5	15.9	13.0	8.8	36.7	25.3	31.7	15.3
Unknown		7.2	8.6	6.9	5.7	5.2	3.1	5.1	2.0	5.8	5.1	9.2	8.2	7.3	8.0	7.2
Never married	%	25.9	21.4	27.3	30.1	27.0	21.0	22.6	27.6	24.7	25.1	11.7	20.2	17.6	18.8	19.0
Married		52.9	57.4	51.9	53.2	57.0	52.5	48.9	52.0	53.4	53.6	64.2	61.8	61.3	61.1	58.9
Separated, divorced		4.7	5.2	3.8	2.8	3.4	6.8	8.1	6.1	4.9	5.0	5.8	4.3	5.2	4.6	5.2
Marriage-like relationship		6.0	4.0	6.4	5.0	5.3	14.8	8.1	9.3	7.2	7.5	3.3	1.3	4.1	2.6	5.0
Widowed		0.0	0.2	0.1	0.1	0.2	0.6	0.9	0.4	0.1	0.2	0.1	0.1	0.4	0.2	0.2
Unknown		10.5	11.7	10.5	8.8	7.1	4.3	11.5	4.5	9.8	8.5	14.8	12.2	11.4	12.7	11.6
Median age at doctorate	Yrs	34.2	35.7	33.4	31.7	35.0	33.9	35.0	35.4	35.1	35.0	42.8	35.5	38.8	36.8	37.4
Bachelor's in same field as doctorate	%	54.9	21.9	51.9	59.5	59.2	100.0	100.0	41.1	53.2	60.5	24.5	33.9	28.7	31.1	41.5
Percent with masters	%	76.6	86.0	78.0	67.2	85.0	85.8	83.4	84.6	79.7	82.1	85.3	79.2	87.5	82.0	83.2
Median time lapse from BA to doctorate																
Total time	Yrs	11.0	11.9	10.1	8.7	11.8	11.3	11.4	11.0	11.7	11.6	17.9	12.3	14.3	13.1	13.3
Registered time		8.6	8.3	7.9	7.0	9.0	8.3	8.8	9.0	9.0	9.0	8.4	7.8	8.7	8.1	8.6
Postdoctoral study plans	%	14.2	13.8	18.9	37.6	12.9	12.3	7.7	11.4	9.8	10.6	6.6	4.8	9.4	6.8	8.4
Fellowship		59.6	44.8	66.1	50.3	61.3	60.0	77.8	42.9	54.7	57.2	30.3	28.1	41.5	36.5	46.2
Research assoc.		26.3	31.0	22.2	40.8	15.0	0.0	11.1	17.9	16.8	14.8	36.6	46.9	35.8	40.0	25.1
Traineeship		1.8	12.1	5.7	3.3	3.8	0.0	5.6	7.1	9.5	6.7	14.5	6.3	7.5	7.1	9.0
Other Study		12.3	12.1	5.9	5.7	20.0	40.0	5.6	32.1	19.0	21.2	18.6	18.8	15.1	16.5	19.7
Planned employment after doctorate	%	75.3	74.8	70.4	53.2	78.5	81.5	80.4	82.1	79.4	79.6	78.0	82.5	78.3	79.8	79.1
Educ. institution ^c		52.4	43.1	39.9	19.5	61.0	73.5	69.8	70.7	61.5	63.7	62.8	65.2	53.5	59.4	62.5
Industry/business		8.0	12.1	13.0	24.3	5.3	3.7	3.8	5.3	6.8	5.9	4.9	11.3	7.3	9.4	6.2
Government		7.7	9.0	8.6	5.6	5.2	1.2	1.3	0.8	1.2	2.1	4.4	2.7	6.1	4.2	3.3
Nonprofit		1.7	6.4	5.2	1.9	2.9	0.0	1.7	1.6	6.3	4.3	3.8	1.8	10.0	5.4	4.4
Other & unknown		5.5	4.0	3.8	2.0	4.0	3.1	3.8	3.7	3.6	3.7	2.1	1.5	1.4	1.4	2.7
Postdoctoral plans unknown	%	10.5	11.4	10.7	9.2	8.6	6.2	11.9	6.5	10.8	9.7	15.4	12.8	12.3	13.4	12.5
Definite postdoctoral study	%	10.0	8.6	14.0	28.4	8.3	6.2	6.0	6.9	5.1	6.1	3.7	3.0	5.5	4.1	4.8
Seeking postdoctoral study		4.2	5.2	4.9	9.2	4.7	6.2	1.7	4.5	4.7	4.5	2.9	1.8	3.9	2.7	3.6
Definite employment		50.4	57.9	52.7	38.9	52.9	46.9	51.1	55.7	54.2	53.3	61.9	70.9	60.1	65.3	58.9
Seeking employment		24.9	16.9	17.7	14.3	25.6	34.6	29.4	26.4	25.2	26.3	16.0	11.6	18.2	14.5	20.2
Employment commitments after doctorate ^d		202	243	1,554	6,090	327	76	120	137	760	1,420	1,355	477	337	817	3,592
Primary activity																
R & D	%	27.4	34.1	35.6	55.8	9.4	5.6	4.3	9.6	8.8	8.4	5.9	45.1	11.4	30.8	12.6
Teaching		54.8	39.7	34.3	23.3	73.3	87.5	88.9	83.7	74.7	77.2	36.3	40.3	58.3	47.9	55.1
Administration		8.1	12.5	6.0	3.9	6.2	2.8	1.7	3.0	4.9	4.6	47.0	6.3	16.2	10.5	21.9
Prof. services		6.6	11.2	21.7	14.2	6.8	2.8	2.6	2.2	7.5	6.2	9.2	5.5	11.4	8.1	7.7
Other		3.0	2.6	2.4	2.9	4.2	1.4	2.6	1.5	4.1	3.6	1.6	2.8	2.7	2.8	2.7
Secondary activity																
R & D	%	49.7	41.8	36.4	26.0	57.0	48.6	61.5	68.9	48.4	53.5	25.4	35.2	45.6	39.6	39.7
Teaching		22.8	24.1	26.8	19.4	12.7	6.9	5.1	8.9	14.4	12.3	25.0	47.7	18.3	35.3	22.3
Administration		7.1	9.5	12.7	16.7	10.4	16.7	14.5	11.9	13.8	13.1	11.6	5.7	14.4	9.3	11.6
Prof. services		6.1	12.9	9.3	12.2	5.5	9.7	6.0	0.7	7.4	6.3	17.6	6.1	10.2	7.8	10.9
Other		2.0	2.2	2.4	3.3	1.3	1.4	0.9	2.2	6.7	4.3	3.1	1.3	4.2	2.6	3.5
No secondary activity		12.2	9.5	12.4	22.3	13.0	16.7	12.0	7.4	9.3	10.6	17.2	3.9	7.2	5.3	11.9
Activity(ies) unknown	%	2.5	4.5	3.5	4.4	6.1	5.3	2.5	1.5	3.8	4.1	3.7	4.2	1.2	2.9	3.7
Region of employment after doctorate																
New England	%	9.4	5.8	6.9	7.6	9.2	9.2	6.7	2.9	6.1	6.7	4.8	5.2	4.5	4.9	5.6
Middle Atlantic		9.4	12.3	12.7	14.0	15.6	18.4	16.7	16.8	13.4	14.8	12.5	11.7	12.8	12.1	13.3
East North Central		12.4	10.3	11.6	11.0	14.7	11.8	15.8	17.5	15.4	15.3	15.5	14.3	13.1	13.8	15.0
West North Central		8.4	2.9	6.5	5.0	6.1	5.3	5.0	8.8	7.8	7.1	9.2	5.0	4.7	4.9	7.4
South Atlantic		24.3	23.0	20.4	15.0	14.1	17.1	14.2	17.5	14.9	15.0	18.7	21.2	17.2	19.6	17.4
East South Central		4.0	5.8	4.6	3.3	4.9	5.3	9.2	5.1	4.2	4.9	5.5	4.4	5.3	4.8	5.1
West South Central		5.9	8.6	7.0	7.3	10.1	5.3	10.0	5.8	10.5	9.6	9.9	9.9	9.5	9.7	9.7
Mountain		3.5	4.5	3.5	4.8	4.9	5.3	5.8	1.5	4.2	4.3	6.9	5.2	3.0	4.3	5.3
Pacific & Insular		7.9	9.9	11.1	17.6	14.1	15.8	12.5	15.3	11.8	13.0	11.1	11.7	11.6	11.8	12.0
Foreign		13.9	16.9	15.3	13.7	6.1	6.6	4.2	8.8	11.4	9.1	5.7	11.1	18.4	14.1	8.9
Region Unknown		1.0	0.0	0.3	0.7	0.3	0.0	0.0	0.0	0.3	0.2	0.3	0.2	0.0	0.1	0.2

Appendix Table A-3c. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all women

Characteristics	2002 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES ^a	ENGINEERING	Biochemistry	Other Biosciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics	Anthropology & sociology	
Number in field	18,124	206	646	250	264	168	1,534	887	293	2,246	1,130	310	3,979	2,135	249	622	
Women as percent of total doctorates	%	45.4	16.2	33.6	31.4	28.8	20.7	26.8	17.5	37.5	45.8	68.1	30.7	47.7	66.7	27.6	59.8
U.S. citizenship	%	72.4	48.1	59.4	72.4	46.2	46.4	56.3	41.0	60.8	69.1	71.3	47.7	67.5	85.8	38.6	80.9
Non-U.S., permanent visa		4.3	6.8	5.6	4.8	4.5	11.3	6.1	8.6	8.2	7.1	3.8	4.5	6.1	2.1	9.2	3.5
Non-U.S., temporary visa		16.4	40.8	31.0	20.4	45.8	36.9	33.8	43.4	24.9	19.6	16.3	41.0	20.7	4.4	44.2	11.6
Unknown		7.0	4.4	4.0	2.4	3.4	5.4	3.8	7.0	6.1	4.1	8.6	5.8	7.8	8.0	4.0	4.0
Never married	%	25.4	38.8	36.5	33.6	42.8	22.6	35.9	33.5	37.2	32.2	21.0	28.1	29.1	27.3	29.3	24.9
Married		49.1	43.2	49.1	43.6	41.3	54.8	46.7	47.5	46.8	47.7	55.0	51.0	50.0	46.2	45.0	47.7
Separated, divorced		7.8	2.9	3.3	4.4	3.0	3.6	3.4	4.5	2.4	5.3	7.8	6.8	5.9	7.2	4.8	8.7
Marriage-like relationship		6.5	6.3	4.6	13.2	8.3	4.8	6.9	3.6	5.8	7.8	3.8	5.2	6.3	7.8	6.8	12.9
Widowed		0.6	0.0	0.2	0.4	0.0	0.6	0.2	0.1	0.0	0.2	0.8	0.0	0.3	0.2	0.4	0.3
Unknown		10.7	8.7	6.3	4.8	4.5	13.7	6.9	10.8	7.8	6.8	11.6	9.0	8.4	11.2	13.7	5.5
Median age at doctoral	Yrs	34.1	29.7	28.8	31.7	30.2	31.8	29.8	30.7	29.7	30.8	40.8	33.7	32.0	31.8	31.3	34.5
Bachelor's in same field as doctorate	%	50.1	68.0	76.2	43.6	73.1	39.3	65.2	67.3	24.2	54.3	48.3	43.9	49.6	65.1	47.4	46.3
Percent with masters	%	73.8	69.4	39.0	70.8	73.9	83.3	59.1	77.3	26.6	38.6	82.2	78.7	53.2	76.7	70.7	84.2
Median time lapse from BA to doctorate																	
Total time	Yrs	11.0	7.4	6.4	9.0	7.4	9.7	7.3	8.2	7.2	8.1	16.0	10.1	9.2	9.1	9.0	11.1
Registered time		7.7	6.7	5.9	7.4	6.6	7.3	6.5	6.5	6.3	6.9	8.1	7.1	7.1	7.3	7.2	8.7
Postdoctoral study plans	%	23.9	58.3	42.4	50.8	35.2	10.1	41.1	24.9	71.0	62.6	18.8	33.2	48.5	33.3	10.4	22.0
Fellowship		59.0	42.5	48.5	48.8	60.2	11.8	48.2	36.7	59.6	63.5	66.2	31.1	61.6	75.8	61.5	63.5
Research assoc.		30.2	53.3	46.4	47.2	38.7	88.2	47.9	54.8	30.8	28.4	26.8	61.2	30.2	13.8	23.1	25.5
Traineeship		3.9	1.7	1.5	0.8	0.0	0.0	1.1	5.0	2.4	2.6	3.8	4.9	2.9	6.3	3.8	5.1
Other study		6.9	2.5	3.6	3.1	1.1	0.0	2.9	3.6	7.2	5.5	3.3	2.9	5.3	4.1	11.5	5.8
Planned employment after doctorate	%	64.9	32.5	50.2	45.6	59.1	78.6	51.7	64.5	19.5	30.2	69.3	57.1	42.6	54.9	73.5	71.9
Educ. institution ^d		42.1	11.2	11.0	17.6	42.4	41.1	20.8	16.5	7.8	11.0	41.1	26.8	20.6	24.7	40.6	51.4
Industry/business		10.8	13.1	32.2	12.8	12.1	27.4	22.5	39.5	10.6	11.7	9.0	15.8	11.2	11.7	12.0	4.8
Government		3.9	3.4	3.1	7.6	3.0	4.2	4.0	4.2	0.3	2.8	8.3	5.8	4.4	6.0	11.2	4.3
Nonprofit		4.2	0.5	0.9	5.2	0.8	3.6	1.8	1.8	0.3	1.7	7.3	3.9	3.4	7.9	3.6	5.8
Other & unknown		3.9	4.4	2.9	2.4	0.8	2.4	2.6	2.6	0.3	3.0	3.6	4.8	3.1	4.5	6.0	5.5
Postdoctoral plans unknown	%	11.2	9.2	7.4	3.6	5.7	11.3	7.2	10.6	9.6	7.2	11.9	9.7	8.9	11.8	16.1	6.1
Definite postdoctoral study	%	17.4	45.6	34.5	38.4	29.5	7.1	32.8	15.8	53.2	46.5	14.2	23.9	36.0	25.9	7.2	14.6
Seeking postdoctoral study		6.5	12.6	7.9	12.4	5.7	3.0	8.3	9.1	17.7	16.1	4.7	9.4	12.4	7.4	3.2	7.4
Definite employment		46	19	34	30	47	54	36	45	13	18	55	36	30	36	58	49
Seeking employment		19.1	13.1	15.8	15.2	12.1	24.4	15.6	19.1	6.1	11.9	14.8	21.3	13.0	18.6	15.3	23.0
Employment commitments after doctorate ^c		8,301	40	222	76	124	91	553	403	39	411	616	111	1,177	774	145	304
Primary activity																	
R & D	%	22.9	50.0	61.8	37.3	33.3	51.7	49.5	65.4	25.7	42.9	29.0	51.9	35.9	21.7	52.4	31.2
Teaching		44.8	35.0	21.2	30.7	60.0	40.4	35.3	15.7	40.0	27.6	45.9	28.7	37.8	21.9	30.8	51.9
Administration		15.9	5.0	2.3	2.7	1.7	5.6	3.0	3.3	8.6	4.1	11.0	3.7	7.9	6.2	0.7	8.5
Prof. services		14.1	5.0	11.5	25.3	4.2	0.0	9.4	13.6	25.7	19.1	12.7	11.1	15.1	48.2	11.9	6.1
Other		2.3	5.0	3.2	4.0	0.8	2.2	2.8	2.0	0.0	6.2	1.3	4.6	3.3	2.0	4.2	2.4
Secondary activity																	
R & D	%	35.2	32.5	21.2	33.3	54.2	37.1	33.6	21.7	34.3	31.8	38.2	26.9	34.8	28.6	36.4	48.8
Teaching		19.0	7.5	6.0	8.0	15.0	23.6	11.3	15.7	5.7	12.4	16.2	24.1	15.3	19.1	31.5	24.7
Administration		12.7	10.0	19.4	20.0	4.2	3.4	12.8	13.1	8.6	22.2	16.7	16.7	18.3	16.5	9.8	8.8
Prof. services		12.5	15.0	12.0	12.0	7.5	6.7	10.4	11.9	5.7	7.8	17.7	9.3	13.1	12.5	9.8	6.1
Other		3.4	5.0	2.8	8.0	0.0	3.4	3.1	4.3	5.7	3.1	1.8	1.9	2.4	4.0	1.4	2.0
No secondary activity		17.2	30.0	38.7	18.7	19.2	25.8	28.8	33.3	40.0	22.7	9.3	21.3	16.0	19.3	11.2	9.5
Activity(ies) unknown	%	3.5	0.0	2.3	1.3	3.2	2.2	2.2	1.7	10.3	5.8	2.8	2.7	4.1	3.7	1.4	3.0
Region of employment after doctorate																	
New England	%	6.6	12.5	7.7	5.3	12.1	4.4	8.1	6.7	17.9	8.8	7.5	8.1	8.3	7.0	12.4	7.9
Middle Atlantic		14.9	17.5	20.7	14.5	12.9	22.0	18.1	12.4	7.7	18.5	14.4	9.0	15.1	16.7	9.7	16.8
East North Central		14.7	10.0	18.0	7.9	16.9	6.6	13.9	15.4	15.4	11.7	11.7	7.2	11.4	15.1	11.0	15.5
West North Central		6.5	5.0	3.6	2.6	4.8	3.3	3.8	2.7	2.6	4.6	8.0	4.5	6.3	7.1	4.1	7.2
South Atlantic		18.3	17.5	14.4	19.7	18.5	20.9	17.4	12.4	15.4	19.0	17.7	13.5	17.7	17.6	24.1	13.2
East South Central		4.5	2.5	1.8	1.3	4.0	1.1	2.2	1.2	2.6	4.6	5.5	1.8	4.8	3.7	2.1	2.0
West South Central		8.7	10.0	1.8	13.2	8.1	6.6	6.1	10.2	5.1	6.3	9.9	5.4	8.1	7.1	2.1	7.6
Mountain		5.3	2.5	3.6	9.2	3.2	4.4	4.3	4.5	0.0	4.9	4.9	6.3	4.8	5.6	6.2	4.9
Pacific & Insular		13.3	15.0	20.7	15.8	7.3	22.0	16.8	22.3	25.6	14.4	9.4	17.1	12.4	16.9	9.7	18.1
Foreign		6.8	7.5	6.8	10.5	11.3	8.8	8.7	11.4	7.7	6.8	10.9	27.0	10.9	2.6	17.9	6.9
Region unknown		0.4	0.0	0.9	0.0	0.8	0.0	0.5	0.7	0.0	0.5	0.2	0.0	0.3	0.6	0.7	0.0

^a Physical sciences includes mathematics and computer sciences.

^b Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

^c Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-3c. Statistical profile of doctorate recipients, by major field of study, 2002 - Total all women, continued

Characteristics		Political sci./ Internat'l Rel.	Other social sciences	SOCIAL SCI. INCL. PSYCHOLOGY	TOTAL SCIENCES & ENGINEERING	History	American literature	English lang. & literature	Foreign lang. & literature	Other Humanities	HUMANITIES	EDUCATION	Business & management	Other professional fields	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
Number in field		286	359	3,651	10,051	411	203	367	375	1,346	2,702	4,288	416	635	1,083	8,073
Women as percent of total doctorates	%	41.6	46.0	55.2	39.0	39.9	55.6	60.9	60.2	48.9	50.3	66.1	38.0	52.9	46.2	56.8
U.S. citizenship	%	78.0	74.1	80.0	68.0	81.3	91.1	80.7	66.9	73.5	76.0	81.8	59.9	72.4	66.2	77.8
Non-U.S., permanent visa		4.2	5.6	3.3	5.3	4.4	2.0	3.5	9.1	4.2	4.7	1.7	3.8	4.7	4.2	3.1
Non-U.S., temporary visa		12.6	15.0	10.0	20.8	9.2	4.9	10.9	18.9	16.9	14.3	6.6	22.4	17.6	19.0	10.8
Unknown		5.2	5.3	6.7	5.9	5.1	2.0	4.9	5.1	5.4	5.0	9.9	13.9	5.2	10.5	8.3
Never married	%	33.9	27.0	27.5	29.9	26.5	26.6	27.5	28.8	29.3	28.3	13.8	21.2	22.7	21.5	19.7
Married		43.0	45.7	46.1	47.8	49.6	54.7	46.3	46.7	43.5	46.1	54.3	43.8	51.3	47.1	50.6
Separated, divorced		7.0	9.2	7.5	6.0	5.4	5.9	8.4	6.7	7.6	7.1	11.9	8.7	10.2	9.6	10.0
Marriage-like relationship		7.0	8.6	8.6	7.0	10.5	9.4	9.8	11.2	8.0	9.2	3.7	3.8	7.6	5.9	5.8
Widowed		0.7	0.8	0.4	0.3	1.0	0.5	0.3	0.0	1.0	0.7	1.0	1.0	0.5	0.7	0.9
Unknown		8.4	8.6	9.9	9.0	7.1	3.0	7.6	6.7	10.5	8.5	15.2	21.6	7.7	15.1	13.0
Median age at doctoral	Yrs	33.7	35.7	32.7	31.7	34.3	33.8	34.1	34.0	34.8	34.4	45.2	36.4	39.3	37.9	39.3
Bachelor's in same field as doctorate	%	54.2	18.1	55.2	55.6	52.6	100.0	100.0	52.0	51.7	62.1	33.8	37.3	32.3	33.2	43.2
Percent with masters	%	77.6	88.6	78.8	65.5	81.8	89.7	85.8	88.3	84.2	85.0	84.3	70.2	91.2	81.2	84.1
Median time lapse from BA to doctorate																
Total time	Yrs	10.8	11.3	9.9	9.0	11.9	11.0	11.4	10.7	11.8	11.4	19.9	13.0	15.2	14.0	15.0
Registered time		8.6	8.2	7.7	7.2	9.2	9.0	9.0	8.8	9.0	9.0	8.5	7.6	8.5	8.0	8.6
Postdoctoral study plans	%	11.9	15.0	26.4	37.3	13.4	11.3	7.9	8.8	8.5	9.4	5.9	3.1	9.8	7.0	7.2
Fellowship		67.6	50.0	72.0	60.6	80.0	65.2	65.5	57.6	64.9	67.3	33.5	46.2	41.9	42.1	49.3
Research assoc.		14.7	38.9	17.1	31.3	7.3	17.4	6.9	6.1	16.7	12.2	31.1	30.8	32.3	32.9	23.1
Traineeship		2.9	1.9	5.7	3.4	1.8	8.7	3.4	15.2	2.6	4.7	10.2	0.0	3.2	2.6	6.8
Other study		14.7	9.3	5.2	4.8	10.9	8.7	24.1	21.2	15.8	15.7	25.2	23.1	22.6	22.4	20.7
Planned employment after doctorate	%	77.6	75.5	62.9	53.3	78.1	84.2	82.8	85.6	80.7	81.5	78.5	75.7	82.0	77.7	79.4
Educ. institution ^c		54.2	44.8	34.6	25.4	59.1	70.9	68.7	72.5	59.8	63.5	63.6	61.3	58.7	58.4	62.9
Industry/business		5.9	12.3	10.2	15.0	6.3	4.9	4.1	4.0	8.8	6.8	4.4	8.2	7.6	7.6	5.6
Government		6.3	5.6	6.1	4.9	2.9	0.5	1.1	0.5	0.7	1.1	3.5	1.9	4.3	3.3	2.6
Nonprofit		5.6	7.5	7.0	4.3	4.1	1.0	1.6	1.9	5.0	3.7	4.1	2.2	6.6	4.7	4.0
Other & unknown		5.6	5.3	4.9	3.7	5.6	6.9	7.4	6.7	6.4	6.5	3.0	2.2	4.9	3.7	4.2
Postdoctoral plans unknown	%	10.5	9.5	10.8	9.5	8.5	4.4	9.3	5.6	10.8	9.1	15.6	21.2	8.2	15.2	13.3
Definite postdoctoral study	%	8.0	8.9	19.6	27.8	9.2	9.9	4.4	6.4	5.2	6.2	3.4	2.4	5.5	4.2	4.5
Seeking postdoctoral study		3.8	6.1	6.7	9.5	4.1	1.5	3.5	2.4	3.3	3.2	2.5	0.7	4.3	2.9	2.8
Definite employment		56	57	43	37	53	59	53	57	50	53	59	61	59	59	57
Seeking employment		21.7	18.4	19.4	16.3	25.1	25.6	30.0	28.3	30.2	28.8	19.8	14.7	22.8	19.1	22.7
Employment commitments after doctorate ^d		160	205	1,588	3,721	218	119	194	215	679	1,425	2,520	254	376	635	4,580
Primary activity																
R & D	%	27.6	35.0	28.7	38.1	10.8	6.2	5.9	7.3	9.5	8.6	7.7	36.2	18.3	25.4	10.4
Teaching		51.9	40.6	33.9	33.3	74.5	79.6	83.2	84.9	75.7	78.2	40.8	51.6	55.6	54.2	54.2
Administration		10.9	7.1	6.7	6.1	6.1	7.1	2.2	3.4	6.1	5.2	38.2	5.3	10.6	8.5	23.9
Prof. services		7.7	14.2	28.3	19.7	4.2	4.4	4.3	1.0	4.1	3.7	12.4	6.5	13.1	10.3	9.4
Other		1.9	3.0	2.4	2.7	4.2	2.7	4.3	3.4	4.7	4.2	1.0	0.4	2.5	1.6	2.1
Secondary activity																
R & D	%	51.9	42.1	37.3	34.3	59.9	54.0	53.0	63.4	47.9	53.3	24.1	43.1	46.7	45.0	36.0
Teaching		29.5	22.3	22.8	17.9	12.3	11.5	8.1	10.2	11.4	10.9	22.5	39.0	22.8	29.3	19.9
Administration		1.9	9.6	12.0	14.2	7.5	8.0	11.9	9.8	12.0	10.6	12.7	5.7	9.2	8.0	11.4
Prof. services		7.1	6.6	9.7	11.1	5.7	2.7	5.9	4.9	9.0	6.9	18.7	5.7	10.6	8.7	13.7
Other		0.6	5.6	3.3	3.1	2.4	4.4	4.9	1.0	8.0	5.3	3.4	1.2	1.7	1.5	3.7
No secondary activity		9.0	13.7	14.9	19.4	12.3	19.5	16.2	10.7	11.7	12.9	18.7	5.3	9.2	7.5	15.4
Activity(ies) unknown	%	2.5	3.9	3.3	3.2	2.8	5.0	4.6	4.7	5.6	4.8	3.2	3.1	4.3	3.8	3.8
Region of employment after doctorate																
New England	%	8.1	7.3	7.8	7.9	10.6	9.2	5.7	10.2	6.9	8.0	3.9	7.1	5.3	6.0	5.5
Middle Atlantic		15.0	16.1	15.8	15.6	18.3	17.6	20.6	15.8	19.6	18.8	11.8	16.1	13.6	14.5	14.3
East North Central		15.0	11.7	14.4	13.5	13.3	9.2	18.6	15.3	15.2	14.9	16.2	13.0	17.8	15.7	15.7
West North Central		5.0	7.3	6.7	5.7	3.7	6.7	6.2	7.9	6.8	6.4	7.8	6.3	6.4	6.3	7.2
South Atlantic		22.5	23.9	18.6	17.5	17.4	15.1	16.0	18.1	13.5	15.3	21.6	17.7	15.7	16.9	19.0
East South Central		3.8	2.0	3.0	3.3	2.8	8.4	4.1	2.8	4.3	4.1	6.8	4.7	3.5	3.9	5.6
West South Central		4.4	6.3	6.4	7.3	11.0	9.2	9.3	9.8	7.1	8.6	10.8	8.7	9.8	9.3	9.9
Mountain		4.4	5.9	5.4	5.0	6.0	5.0	4.1	2.8	4.9	4.6	5.9	6.3	5.3	5.7	5.5
Pacific & Insular		13.8	12.2	15.6	15.5	11.9	15.1	11.3	11.6	11.3	11.8	11.4	11.0	12.5	12.0	11.6
Foreign		8.1	7.3	6.0	8.5	5.0	4.2	3.6	5.1	9.7	7.0	3.6	8.7	9.8	9.4	5.5
Region unknown		0.0	0.0	0.4	0.4	0.0	0.0	0.5	0.5	0.7	0.5	0.3	0.4	0.3	0.3	0.3

Appendix Table A-4. Statistical profile of doctorate recipients by race/ethnicity and citizenship, 2002

Characteristics		Total ^a				American Indian ^b				Asian ^c				Black/African-American			
		Total	Non-U.S.			Total	Non-U.S.			Total	Non-U.S.			Total	Non-U.S.		
			U.S.	Perm	Temp		U.S.	Perm	Temp		U.S.	Perm	Temp		U.S.	Perm	Temp
Total Number		39,955	25,936	1,646	9,707	154	146	3	5	7,864	1,364	744	5,724	2,009	1,644	87	256
Male	%	54.6	49.4	52.7	69.4	46.8	45.9	66.7	60.0	65.3	54.8	50.1	69.8	42.3	36.9	70.1	69.1
Female		45.4	50.6	47.3	30.6	53.2	54.1	33.3	40.0	34.7	45.2	49.9	30.2	57.7	63.1	29.9	30.9
Field of study																	
Physical sciences ^d	%	14.3	11.6	17.7	22.2	8.4	7.5	33.3	20.0	19.6	14.7	18.7	20.9	6.6	5.7	8.0	12.1
Engineering		12.7	7.3	16.5	27.2	4.5	4.8	0.0	0.0	28.7	18.2	21.6	32.2	5.8	4.7	10.3	11.7
Life sciences		20.9	20.5	25.5	21.4	11.0	11.6	0.0	0.0	25.2	32.2	32.3	22.7	13.9	11.4	21.8	28.1
Social sciences		16.5	18.9	13.9	10.5	22.7	21.9	66.7	20.0	9.3	14.2	9.5	8.1	18.4	19.2	20.7	12.9
Humanities		13.4	16.0	13.5	7.6	14.9	15.1	0.0	20.0	5.6	10.0	5.6	4.6	10.0	10.0	10.3	10.5
Education		16.2	20.3	6.7	4.9	30.5	31.5	0.0	20.0	5.4	7.2	5.4	4.9	37.0	40.4	18.4	18.4
Professional/other ^e		5.9	5.5	6.2	6.2	7.8	7.5	0.0	20.0	6.1	3.5	6.9	6.6	8.4	8.6	10.3	6.3
Median age at doctorate	Yrs	33.3	33.9	34.3	32.3	42.0	42.1	44.1	41.5	32.3	30.9	33.9	32.4	37.9	37.5	38.5	39.2
Median time lapse from BA to doctorate																	
Total time	Yrs	10.2	10.6	10.8	9.4	13.5	13.6	13.0	12.9	9.7	8.4	11.3	9.8	12.7	12.8	14.0	12.2
Registered time		7.5	7.7	8.0	7.2	8.8	8.7	13.0	9.9	7.4	7.1	8.6	7.4	8.0	8.0	8.3	7.3
Doctoral program support ^f																	
Teaching assistantships	%	16.8	16.0	19.7	18.4	12.0	10.4	100.0	20.0	15.8	11.4	14.3	17.0	9.1	7.0	12.9	21.3
Research assistantships/traineeships		26.5	19.7	33.9	44.0	9.9	9.6	0.0	20.0	47.3	33.9	45.8	50.7	12.8	9.4	18.8	31.9
Fellowships/dissertation grants		21.9	22.7	23.2	19.5	31.0	31.9	0.0	20.0	18.7	30.6	22.3	15.4	33.5	33.9	28.2	32.3
Own resources		28.4	36.2	19.5	8.5	43.7	45.2	0.0	20.0	12.0	20.6	14.4	9.7	39.4	44.4	34.1	9.8
Foreign government		2.4	0.1	1.5	8.7	0.7	0.0	0.0	20.0	4.9	0.4	1.2	6.5	0.7	0.1	2.4	4.3
Employer		3.9	5.1	2.2	0.9	2.8	3.0	0.0	0.0	1.2	3.1	2.0	0.7	4.3	5.0	3.5	0.0
Other		0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.4
Postdoctoral Plans																	
Postdoctoral study plans	%	26.8	25.4	32.8	36.9	19.5	17.8	33.3	60.0	37.7	38.6	34.0	38.2	23.4	21.3	35.6	34.8
Postdoctoral employment plans	%	62.4	70.4	62.6	57.8	76.0	77.4	66.7	40.0	57.9	58.4	61.2	57.7	68.6	71.6	59.8	58.6
Educ. institution ^g		36.3	43.4	28.9	28.2	51.3	51.4	66.7	40.0	24.2	23.2	21.0	25.0	46.6	49.9	29.9	35.5
Industry/business		15.4	13.6	23.7	22.9	9.7	10.3	0.0	0.0	26.9	24.5	32.5	26.9	9.3	9.5	11.5	7.8
Government		4.5	5.5	3.0	3.3	7.1	7.5	0.0	0.0	3.1	4.3	2.6	2.9	5.1	5.0	2.3	7.4
Nonprofit		3.3	4.3	3.3	1.5	3.9	4.1	0.0	0.0	1.9	3.4	2.7	1.4	4.3	4.0	9.2	4.7
Other/unknown		3.0	3.6	3.7	1.9	3.9	4.1	0.0	0.0	1.8	3.0	2.4	1.4	3.3	3.2	6.9	3.1
Postdoctoral plans unknown	%	10.8	4.2	4.6	5.3	4.5	4.8	0.0	0.0	4.4	3.1	4.8	4.2	8.0	7.1	4.6	6.6
Definite postdoctoral study	%	19.8	19.5	20.7	25.8	13.6	12.3	33.3	40.0	25.9	28.4	20.7	26.1	14.8	14.1	19.5	18.8
Seeking postdoctoral study		7.1	5.9	12.2	11.1	5.8	5.5	0.0	20.0	11.8	10.2	13.3	12.1	8.6	7.2	16.1	16.0
Definite employment		45.0	51.3	41.8	40.9	59.1	59.6	66.7	40.0	39.6	39.5	40.9	39.7	46.9	49.3	32.2	41.0
Seeking employment		17.4	19.1	20.8	16.9	16.9	17.8	0.0	0.0	18.3	18.8	20.3	18.0	21.7	22.3	27.6	17.6
Employment location after doctorate ^h																	
U.S.	%	89.9	97.9	93.3	62.8	95.6	96.6	100.0	50.0	75.3	95.2	93.4	68.1	94.5	99.8	100.0	52.4
Foreign		9.6	1.7	6.4	36.5	4.4	3.4	0.0	50.0	24.3	4.3	6.6	31.4	5.3	0.1	0.0	46.7
Unknown		0.5	0.4	0.3	0.6	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.5	0.2	0.1	0.0	1.0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

^a Totals include 71 individuals who did not report their gender and 2,663 individuals who did not report their citizenship at time of doctorate.^b Includes Alaskan Native.^c Does not include Native Hawaiians and other Pacific Islanders.^d Includes Native Hawaiians and other Pacific Islanders, respondents choosing multiple races (excluding those selecting an Hispanic ethnicity), and respondents with unknown race/ethnicity.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-4. Statistical profile of doctorate recipients by race/ethnicity and citizenship, 2002, continued

Characteristics		White				Puerto Rican	Mexican American				Other Hispanic				Other/Unknown Race ^d			
		Total	Non-U.S.			Total	Total	Non-U.S.			Total	Non-U.S.			Total	Non-U.S.		
			U.S.	Perm	Temp			U.S.	Perm	Temp		U.S.	Perm	Temp		U.S.	Perm	Temp
Total Number		24,239	20,720	628	2,670	342	461	398	13	47	1,217	493	118	599	802	579	28	187
Male	%	52.6	50.3	54.5	69.0	43.3	46.2	42.5	61.5	72.3	55.5	44.4	44.9	66.8	55.7	49.4	64.3	73.8
Female		47.4	49.7	45.5	31.0	56.7	53.8	57.5	38.5	27.7	44.5	55.6	55.1	33.2	44.3	50.6	35.7	26.2
Field of study																		
Physical sciences ^d	%	14.0	12.1	19.6	27.6	9.1	7.2	6.5	0.0	14.9	11.9	7.3	11.0	15.9	15.0	12.4	17.9	21.9
Engineering		8.6	6.7	13.1	21.0	7.6	6.5	4.0	7.7	25.5	13.6	8.9	7.6	18.7	10.3	7.9	7.1	18.7
Life sciences		20.4	20.9	20.2	17.4	20.8	16.7	15.8	15.4	25.5	21.8	14.0	19.5	28.4	17.7	18.5	14.3	15.5
Social sciences		18.2	18.9	16.1	12.8	20.5	20.2	20.6	7.7	19.1	21.4	26.2	18.6	18.2	16.8	18.3	17.9	12.3
Humanities		16.2	16.6	19.6	11.6	16.1	15.0	15.6	38.5	2.1	16.7	19.7	28.8	12.0	19.0	19.0	32.1	17.1
Education		17.2	19.3	6.1	3.6	23.1	30.6	34.4	23.1	2.1	10.3	18.9	9.3	3.5	15.7	18.5	7.1	8.0
Professional/other ^e		5.5	5.4	5.4	5.9	2.9	3.9	3.0	7.7	10.6	4.4	5.1	5.1	3.3	5.5	5.4	3.6	6.4
Median age at doctorate	Yrs	33.4	33.9	33.8	31.4	34.1	34.0	33.7	44.0	34.6	35.2	35.2	35.3	35.1	33.7	34.1	34.7	33.0
Median time lapse from BA to doctorate																		
Total time	Yrs	10.2	10.6	9.9	8.2	10.9	10.2	10.0	15.2	11.0	10.5	10.6	10.3	10.5	10.2	10.3	10.8	9.6
Registered time		7.6	7.7	7.4	6.8	8.3	7.6	7.6	9.6	7.3	7.4	8.0	7.8	7.0	7.7	7.9	7.3	7.3
Doctoral program support ^f																		
Teaching assistantships	%	17.9	17.3	23.7	21.8	10.3	11.9	11.4	30.8	11.1	18.3	15.3	33.0	17.7	15.6	16.1	18.2	13.3
Research assistantships/traineeships		22.3	20.1	27.3	38.4	12.2	10.8	9.6	7.7	22.2	15.7	12.3	17.4	18.2	21.0	19.0	22.7	28.7
Fellowships/dissertation grants		20.7	20.3	23.2	23.4	35.0	37.5	38.6	38.5	28.9	30.3	34.4	20.9	28.8	30.3	28.7	36.4	34.0
Own resources		33.1	36.8	22.2	6.6	35.6	34.8	38.9	23.1	2.2	18.3	32.2	22.6	6.4	26.1	32.0	18.2	6.7
Foreign government		1.1	0.1	1.3	8.6	0.0	3.4	0.0	0.0	33.3	13.9	0.2	3.5	26.9	3.9	0.2	4.5	16.7
Employer		4.7	5.3	2.2	1.0	6.9	1.6	1.6	0.0	2.2	3.5	5.7	2.6	1.9	3.0	3.8	0.0	0.7
Other		0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0
Postdoctoral Plans																		
Postdoctoral study plans	%	26.4	25.0	32.2	38.2	22.2	28.4	27.9	46.2	29.8	28.1	26.2	28.0	29.9	26.7	26.1	35.7	28.3
Postdoctoral employment plans	%	69.1	71.4	64.3	58.5	71.9	69.6	70.9	53.8	68.1	68.0	68.0	69.5	68.3	62.5	67.0	53.6	50.3
Educ. institution ^g		42.4	44.4	35.0	31.9	44.4	50.5	50.8	38.5	55.3	41.0	40.4	42.4	41.7	37.7	40.6	32.1	30.5
Industry/business		14.1	13.4	18.2	19.9	11.4	7.8	7.5	7.7	10.6	13.4	13.6	12.7	13.5	13.2	13.0	10.7	13.4
Government		5.1	5.5	3.2	3.0	8.5	4.1	4.5	0.0	2.1	6.7	5.7	6.8	7.5	5.0	5.9	0.0	3.2
Nonprofit		4.0	4.4	2.9	1.3	5.0	4.1	4.5	7.7	0.0	3.5	4.3	5.9	2.3	2.5	3.1	3.6	0.5
Other/unknown		3.5	3.7	5.1	2.5	2.6	3.0	3.5	0.0	0.0	3.4	4.1	1.7	3.2	4.1	4.5	7.1	2.7
Postdoctoral plans unknown	%	4.4	3.6	3.5	3.3	5.8	2.0	1.3	0.0	2.1	3.9	5.9	2.5	1.8	10.8	6.9	10.7	21.4
Definite postdoctoral study	%	20.3	19.5	22.0	28.4	16.7	20.8	20.4	30.8	23.4	19.4	18.7	15.3	20.9	20.9	20.7	21.4	22.5
Seeking postdoctoral study		6.1	5.5	10.2	9.9	5.6	7.6	7.5	15.4	6.4	8.7	7.5	12.7	9.0	5.7	5.4	14.3	5.9
Definite employment		50.9	52.6	43.8	43.0	53.2	50.8	50.5	38.5	59.6	49.3	47.5	48.3	51.4	42.5	45.3	25.0	37.4
Seeking employment		18.3	18.8	20.5	15.5	18.7	18.9	20.4	15.4	8.5	18.7	20.5	21.2	16.9	20.0	21.8	28.6	12.8
Employment location after doctorate ^h																		
U.S.	%	94.5	97.9	92.7	62.4	99.5	90.6	98.5	100.0	32.1	66.8	97.4	91.2	39.0	83.3	96.2	85.7	37.1
Foreign		5.1	1.7	6.9	37.1	0.5	8.5	1.0	0.0	64.3	32.8	2.1	8.8	60.7	14.7	2.3	0.0	62.9
Unknown		0.4	0.4	0.4	0.5	0.0	0.9	0.5	0.0	3.6	0.3	0.4	0.0	0.3	2.1	1.5	14.3	0.0

^e Includes mathematics and computer sciences.

^f In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages can sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the Summary Report.)

^g Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

^h Includes only recipients with definite employment plans.

Appendix Table A-5. Doctorate recipients' financial resources in support of doctoral programs, by broad field of study and sex, 2002

Financial Resource		Total		Physical sciences ^a		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Unduplicated total ^b	N	19,757	16,272	3,853	1,442	3,861	804	3,973	3,653	2,655	3,295	2,442	2,491	1,873	3,654	1,100	933
Loans (from any source)	N	6,166	6,284	793	307	550	125	1,076	970	1,310	1,888	1,275	1,232	745	1,409	417	353
	V ^c	31.2%	38.6%	20.6%	21.3%	14.2%	15.5%	27.1%	26.6%	49.3%	57.3%	52.2%	49.5%	39.8%	38.6%	37.9%	37.8%
	H ^c	100.0%	100.0%	12.9%	4.9%	8.9%	2.0%	17.5%	15.4%	21.2%	30.0%	20.7%	19.6%	12.1%	22.4%	6.8%	5.6%
Foreign (non-U.S.) support	N	1,856	939	270	89	503	88	334	209	300	166	229	216	80	103	140	68
	V	9.4%	5.8%	7.0%	6.2%	13.0%	10.9%	8.4%	5.7%	11.3%	5.0%	9.4%	8.7%	4.3%	2.8%	12.7%	7.3%
	H	100.0%	100.0%	14.5%	9.5%	27.1%	9.4%	18.0%	22.3%	16.2%	17.7%	12.3%	23.0%	4.3%	11.0%	7.5%	7.2%
Fellowship, scholarship	N	10,836	9,255	2,091	897	1,761	451	2,434	2,329	1,615	1,983	1,795	1,837	530	1,258	610	500
	V	54.8%	56.9%	54.3%	62.2%	45.6%	56.1%	61.3%	63.8%	60.8%	60.2%	73.5%	73.7%	28.3%	34.4%	55.5%	53.6%
	H	100.0%	100.0%	19.3%	9.7%	16.3%	4.9%	22.5%	25.2%	14.9%	21.4%	16.6%	19.8%	4.9%	13.6%	5.6%	5.4%
Dissertation grant	N	3,021	3,400	306	155	249	58	577	669	706	999	811	934	161	389	211	196
	V	15.3%	20.9%	7.9%	10.7%	6.4%	7.2%	14.5%	18.3%	26.6%	30.3%	33.2%	37.5%	8.6%	10.6%	19.2%	21.0%
	H	100.0%	100.0%	10.1%	4.6%	8.2%	1.7%	19.1%	19.7%	23.4%	29.4%	26.8%	27.5%	5.3%	11.4%	7.0%	5.8%
Teaching assistant	N	11,761	9,086	3,072	1,184	1,892	419	1,775	1,633	1,935	2,263	1,971	2,051	438	964	678	572
	V	59.5%	55.8%	79.7%	82.1%	49.0%	52.1%	44.7%	44.7%	72.9%	68.7%	80.7%	82.3%	23.4%	26.4%	61.6%	61.3%
	H	100.0%	100.0%	26.1%	13.0%	16.1%	4.6%	15.1%	18.0%	16.5%	24.9%	16.8%	22.6%	3.7%	10.6%	5.8%	6.3%
Research assistant	N	12,106	7,910	3,190	1,192	3,214	661	2,566	2,122	1,537	1,893	686	742	369	857	544	443
	V	61.3%	48.6%	82.8%	82.7%	83.2%	82.2%	64.6%	58.1%	57.9%	57.5%	28.1%	29.8%	19.7%	23.5%	49.5%	47.5%
	H	100.0%	100.0%	26.4%	15.1%	26.5%	8.4%	21.2%	26.8%	12.7%	23.9%	5.7%	9.4%	3.0%	10.8%	4.5%	5.6%
Traineeship	N	994	1,129	102	46	83	25	519	545	168	370	38	32	62	98	22	13
	V	5.0%	6.9%	2.6%	3.2%	2.1%	3.1%	13.1%	14.9%	6.3%	11.2%	1.6%	1.3%	3.3%	2.7%	2.0%	1.4%
	H	100.0%	100.0%	10.3%	4.1%	8.4%	2.2%	52.2%	48.3%	16.9%	32.8%	3.8%	2.8%	6.2%	8.7%	2.2%	1.2%
Internship or residency	N	1,367	1,655	238	93	338	79	92	81	465	1,012	56	71	132	274	46	45
	V	6.9%	10.2%	6.2%	6.4%	8.8%	9.8%	2.3%	2.2%	17.5%	30.7%	2.3%	2.9%	7.0%	7.5%	4.2%	4.8%
	H	100.0%	100.0%	17.4%	5.6%	24.7%	4.8%	6.7%	4.9%	34.0%	61.1%	4.1%	4.3%	9.7%	16.6%	3.4%	2.7%
Personal savings	N	9,525	8,789	1,365	490	1,419	259	1,545	1,546	1,622	1,920	1,503	1,431	1,335	2,538	736	605
	V	48.2%	54.0%	35.4%	34.0%	36.8%	32.2%	38.9%	42.3%	61.1%	58.3%	61.5%	57.4%	71.3%	69.5%	66.9%	64.8%
	H	100.0%	100.0%	14.3%	5.6%	14.9%	2.9%	16.2%	17.6%	17.0%	21.8%	15.8%	16.3%	14.0%	28.9%	7.7%	6.9%
Other personal earnings during graduate school	N	7,419	8,032	795	256	711	147	950	1,098	1,470	1,913	1,638	1,562	1,280	2,547	575	509
	V	37.6%	49.4%	20.6%	17.8%	18.4%	18.3%	23.9%	30.1%	55.4%	58.1%	67.1%	62.7%	68.3%	69.7%	52.3%	54.6%
	H	100.0%	100.0%	10.7%	3.2%	9.6%	1.8%	12.8%	13.7%	19.8%	23.8%	22.1%	19.4%	17.3%	31.7%	7.8%	6.3%
Family earnings or savings ^d	N	6,928	7,663	949	425	965	227	1,277	1,423	1,177	1,820	1,255	1,353	812	1,930	493	485
	V	35.1%	47.1%	24.6%	29.5%	25.0%	28.2%	32.1%	39.0%	44.3%	55.2%	51.4%	54.3%	43.4%	52.8%	44.8%	52.0%
	H	100.0%	100.0%	13.7%	5.5%	13.9%	3.0%	18.4%	18.6%	17.0%	23.8%	18.1%	17.7%	11.7%	25.2%	7.1%	6.3%
Employer reimbursement/ assistance	N	2,251	2,071	253	76	415	68	307	417	252	256	211	147	625	955	188	152
	V	11.4%	12.7%	6.6%	5.3%	10.7%	8.5%	7.7%	11.4%	9.5%	7.8%	8.6%	5.9%	33.4%	26.1%	17.1%	16.3%
	H	100.0%	100.0%	11.2%	3.7%	18.4%	3.3%	13.6%	20.1%	11.2%	12.4%	9.4%	7.1%	27.8%	46.1%	8.4%	7.3%
Other	N	72	80	6	3	4	5	15	20	8	13	14	6	13	23	12	10
	V	0.4%	0.5%	0.2%	0.2%	0.1%	0.6%	0.4%	0.5%	0.3%	0.4%	0.6%	0.2%	0.7%	0.6%	1.1%	1.1%
	H	100.0%	100.0%	8.3%	3.8%	5.6%	6.3%	20.8%	25.0%	11.1%	16.3%	19.4%	7.5%	18.1%	28.8%	16.7%	12.5%

NOTE: In this table a recipient counts once in each source category from which he or she received support. Because students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the Summary Report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. The table excludes 71 individuals for whom gender was not reported.

^a Includes mathematics and computer sciences.

^b The 3,989 doctorate recipients who did not report sources of support are omitted from this total. Percentages are based only on known responses.

^c V denotes vertical percentage; H denotes horizontal percentage.

^d This category includes spouses and significant others.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-6. State of doctoral institution of doctorate recipients, by broad field of study and sex, 2002

State	Total ^a		Physical sciences ^b		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
U.S. total ^c	21,760	18,124	4,171	1,534	4,173	887	4,366	3,979	2,948	3,651	2,663	2,702	2,188	4,288	1,251	1,083
Alabama	258	219	48	15	62	5	68	70	20	42	10	13	26	62	24	12
Alaska	12	7	4	3	0	1	8	3	0	0	0	0	0	0	0	0
Arizona	390	324	78	29	72	11	62	55	46	60	62	49	43	100	27	20
Arkansas	74	78	11	3	9	2	18	28	5	2	9	3	18	37	4	3
California	2,597	2,137	600	221	562	125	448	404	370	556	286	349	208	367	123	115
Colorado	362	306	100	40	83	23	58	75	43	59	31	34	32	57	15	18
Connecticut	316	223	68	17	26	9	83	57	51	44	55	62	14	29	19	5
Delaware	97	61	23	8	28	6	9	3	13	9	8	12	16	23	0	0
District of Columbia	213	247	29	19	26	11	26	38	49	80	38	35	16	42	29	22
Florida	935	1,006	144	52	157	30	123	124	76	118	69	63	268	538	98	81
Georgia	540	494	95	35	132	39	94	110	66	92	56	72	55	127	42	19
Hawaii	59	46	14	5	3	1	14	6	13	13	14	13	0	8	1	0
Idaho	55	34	7	4	6	2	19	5	6	3	4	1	13	19	0	0
Illinois	1,164	945	210	74	215	38	182	158	192	189	165	156	122	267	78	63
Indiana	584	386	125	32	121	20	86	60	73	80	96	106	52	68	31	20
Iowa	348	223	57	20	77	13	94	60	27	41	48	30	35	50	10	9
Kansas	223	187	35	19	36	5	66	34	41	45	17	21	26	55	2	8
Kentucky	197	144	25	8	23	5	50	49	25	16	27	20	22	32	25	14
Louisiana	283	245	38	22	31	9	80	50	52	37	38	45	22	63	22	19
Maine	23	15	4	1	5	0	8	7	2	4	1	0	3	3	0	0
Maryland	540	430	98	28	103	23	162	178	81	82	68	65	16	44	12	10
Massachusetts	1,243	880	289	96	263	57	227	206	185	194	146	136	63	134	70	57
Michigan	794	648	147	66	218	43	115	144	118	156	99	94	53	110	44	35
Minnesota	367	355	53	20	60	21	85	74	51	71	35	49	50	91	33	29
Mississippi	159	174	12	4	7	3	43	19	22	31	20	11	39	91	16	15
Missouri	379	302	64	27	54	16	88	80	55	57	41	31	52	73	25	18
Montana	45	29	14	3	3	0	18	12	1	6	0	1	8	7	1	0
Nebraska	140	118	14	7	12	2	45	33	23	24	15	12	21	32	10	8
Nevada	54	53	11	4	10	3	7	12	7	10	8	6	9	17	2	1
New Hampshire	61	36	23	3	12	4	16	14	4	8	4	3	2	4	0	0
New Jersey	468	378	102	46	104	33	76	66	54	47	85	113	26	50	21	23
New Mexico	151	123	48	11	22	9	20	14	18	27	10	27	24	25	9	10
New York	1,716	1,652	317	117	258	43	340	361	308	439	299	342	94	244	100	106
North Carolina	609	463	108	56	110	19	172	138	65	86	85	55	47	87	22	22
North Dakota	33	21	8	1	3	0	16	7	2	9	4	0	0	4	0	0
Ohio	893	732	141	72	223	41	179	157	98	125	103	106	108	181	41	50
Oklahoma	204	169	22	11	37	7	45	22	31	31	20	13	31	64	18	21
Oregon	189	169	32	12	20	5	68	58	17	32	18	14	20	40	14	8
Pennsylvania	1,123	873	225	65	245	45	204	201	143	169	128	154	107	190	71	49
Puerto Rico	42	72	9	5	0	0	7	9	9	19	5	5	12	34	0	0
Rhode Island	142	89	49	19	12	3	20	24	25	14	31	24	1	3	4	2
South Carolina	215	202	33	15	45	14	54	69	24	20	24	21	23	50	12	13
South Dakota	43	29	5	0	2	0	15	1	6	7	0	1	15	20	0	0
Tennessee	319	362	46	15	52	10	59	84	52	65	47	31	47	133	16	24
Texas	1,350	1,078	249	94	298	50	280	274	148	168	148	148	148	273	79	71
Utah	217	138	52	16	37	8	59	40	39	33	8	11	19	17	3	13
Vermont	24	33	2	2	5	2	12	12	3	11	0	3	2	3	0	0
Virginia	555	448	108	37	114	29	84	84	81	79	43	41	80	150	45	28
Washington	360	287	70	19	79	23	105	94	38	59	31	35	20	36	17	21
West Virginia	86	61	9	2	17	3	20	11	10	12	12	7	18	25	0	1
Wisconsin	476	371	84	32	72	15	122	80	58	67	92	59	32	98	16	20
Wyoming	33	22	12	2	2	1	7	5	2	3	0	0	10	11	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

^a Totals exclude doctorate recipients whose gender was unknown (total is 71).^b Includes mathematics and computer sciences.^c Includes the 50 states, District of Columbia, and Puerto Rico.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Appendix Table A-7. Institutions granting doctorates, by major field, 2002

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
All U.S. institutions	39,955	1,268	1,922	797	1,728	5,073	5,680	1,659	1,011	3,199	3,412	1,030	365	603	3,375	6,488	2,343
ALABAMA	480	13	26	7	18	68	87	35	17	41	21	7	1	3	12	88	36
Auburn U. Main Campus	143	3	11	0	4	21	14	1	16	18	3	7	1	0	0	32	12
U.S. Sports Academy	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
U. AL	157	1	8	3	6	22	9	3	1	16	13	0	0	3	12	36	24
U. AL at Birmingham	130	1	6	0	4	7	60	30	0	7	5	0	0	0	0	10	0
U. AL in Huntsville	34	8	1	3	4	18	0	0	0	0	0	0	0	0	0	0	0
U. South AL	13	0	0	1	0	0	4	1	0	0	0	0	0	0	0	7	0
ALASKA	19	0	1	6	0	1	7	0	4	0	0	0	0	0	0	0	0
U. AK Fairbanks	19	0	1	6	0	1	7	0	4	0	0	0	0	0	0	0	0
ARIZONA	714	28	32	31	16	83	84	15	18	43	63	29	2	9	71	143	47
AZ State U.-Main Campus	307	7	9	4	11	46	17	4	0	28	23	18	2	5	25	82	26
Northern AZ U.	39	0	0	0	0	0	3	0	3	0	6	2	0	0	2	23	0
U. AZ	368	21	23	27	5	37	64	11	15	15	34	9	0	4	44	38	21
ARKANSAS	152	4	6	2	2	11	27	8	11	3	4	6	2	2	2	55	7
U. AR at Little Rock	31	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	0
U. AR for Medical Sciences	16	0	0	0	0	0	15	1	0	0	0	0	0	0	0	0	0
U. AR Main Campus	105	4	6	2	2	10	12	7	11	3	4	6	2	2	2	25	7
CALIFORNIA	4,742	178	275	121	247	687	668	130	54	482	447	138	38	47	412	577	241
Alliant International U.	54	0	0	0	0	0	0	0	0	51	0	0	0	0	0	0	3
Azusa Pacific U.	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Biola U.	14	0	0	0	0	0	0	0	0	7	0	0	0	0	0	4	3
CA Institute of Integral Studies	34	0	0	0	0	0	0	0	0	13	0	0	0	0	2	0	19
CA Institute of Technology	140	23	18	16	14	40	24	0	0	1	4	0	0	0	0	0	0
CA School of Professional Psychology-Alameda	44	0	0	0	0	0	0	0	0	43	0	0	0	0	1	0	0
CA School of Professional Psychology-Fresno	30	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0
CA School of Professional Psychology-San Diego	72	0	0	0	1	0	0	0	0	46	1	0	0	0	0	15	9
Claremont Graduate U.	94	0	0	0	8	2	1	0	0	10	23	4	3	3	21	13	6
Claremont School of Theology	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Fielding Graduate Institute	114	0	0	0	0	0	0	1	0	44	2	0	0	0	1	35	31
Fuller Theological Seminary in CA	52	0	0	0	0	0	0	0	0	17	5	0	0	0	11	0	19
Graduate Theological Union	25	0	0	0	0	0	0	0	0	0	0	1	0	0	18	0	6
La Sierra U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Loma Linda U.	30	0	0	2	0	0	15	5	0	8	0	0	0	0	0	0	0
Naval Postgraduate School	17	2	0	3	2	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Graduate School of Psychology	42	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0
Pepperdine U.	50	0	0	0	0	0	0	0	0	1	0	0	0	0	0	42	7
RAND Graduate School of Policy Studies	4	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1
San Diego State U.	34	0	3	0	0	0	2	5	0	12	2	0	0	0	0	10	0
Santa Clara U.	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Saybrook Graduate School & Research Ctr.	20	0	0	0	0	0	0	0	0	19	1	0	0	0	0	0	0
Scripps Research Institute	23	0	11	0	0	0	12	0	0	0	0	0	0	0	0	0	0
Stanford U.	526	27	22	21	48	156	72	3	0	11	44	17	4	5	48	28	20
Wright Institute, The	8	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0
U. CA Berkeley	799	27	63	17	50	148	75	26	25	23	128	29	8	8	96	41	35
U. CA Davis	347	12	34	6	16	53	96	10	25	14	20	6	4	9	23	16	3
U. CA Irvine	175	3	33	2	10	31	34	3	0	5	22	6	3	4	13	2	4
U. CA Los Angeles	642	23	28	12	29	82	112	34	0	25	73	39	1	4	81	83	16
U. CA Riverside	116	3	9	1	4	0	31	0	3	11	17	8	5	5	10	9	0
U. CA San Diego	251	18	15	17	15	47	63	1	0	8	30	11	2	3	15	1	5
U. CA San Francisco	87	0	3	0	1	10	57	13	0	0	3	0	0	0	0	0	0
U. CA Santa Barbara	197	14	8	7	15	46	21	0	0	9	18	6	1	3	22	20	7
U. CA Santa Cruz	114	17	9	17	10	8	19	1	1	4	12	4	3	1	8	0	0
U. La Verne	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	1
U. San Diego	24	0	0	0	0	0	0	10	0	0	0	0	0	0	0	14	0
U. San Francisco	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	1
U. Southern CA	413	9	18	0	24	53	34	18	0	19	39	7	4	2	42	103	41
U. of the Pacific	32	0	1	0	0	0	0	0	0	1	0	0	0	0	0	30	0

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
COLORADO	668	23	45	44	28	106	89	27	17	40	62	7	3	9	46	89	33
CO School of Mines	53	2	3	15	0	31	0	0	0	0	2	0	0	0	0	0	0
CO State U.	148	4	12	14	7	21	36	3	17	13	7	0	0	0	0	12	2
CO Technical U.	10	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	7
U. CO at Boulder	256	17	22	15	14	51	25	0	0	12	34	7	2	2	31	12	12
U. CO at Colorado Springs	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
U. CO at Denver	39	0	0	0	2	1	0	4	0	1	8	0	0	0	0	21	2
U. CO Health Sciences Ctr.	41	0	0	0	0	0	28	13	0	0	0	0	0	0	0	0	0
U. Denver	56	0	4	0	0	0	0	0	0	8	11	0	1	7	5	12	8
U. Northern CO	63	0	4	0	2	0	0	7	0	6	0	0	0	0	10	32	2
CONNECTICUT	539	28	37	9	11	35	121	14	5	31	64	32	8	8	69	43	24
U. CT	221	6	14	1	5	21	40	8	4	20	20	9	4	2	11	43	13
U. New Haven	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Wesleyan U.	13	2	2	0	1	0	7	0	0	0	0	0	0	0	1	0	0
Yale U.	301	20	21	8	5	14	74	6	1	11	44	23	4	6	57	0	7
DELAWARE	158	6	4	9	12	34	7	2	3	12	10	5	8	2	5	39	0
U. DE	138	6	4	9	12	34	7	2	3	12	10	5	8	2	5	19	0
Wilmington Coll	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
DISTRICT OF COLUMBIA	463	8	19	1	20	37	56	8	0	53	78	25	1	4	43	58	52
American U.	53	2	3	0	2	0	1	0	0	9	20	1	0	0	0	14	1
Catholic U. America	73	0	1	0	0	5	3	7	0	8	7	2	0	1	26	4	9
Gallaudet U.	7	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	0
George Washington U.	178	5	3	1	13	30	19	0	0	19	17	7	1	3	5	31	24
Georgetown U.	74	0	7	0	0	1	26	0	0	1	18	11	0	0	9	0	1
Howard U.	78	1	5	0	5	1	7	1	0	14	16	4	0	0	3	4	17
FLORIDA	1,948	43	47	35	72	188	136	82	29	125	69	15	9	15	93	808	182
Argosy U.-Sarasota Campus	158	0	0	0	0	0	0	1	0	0	0	0	0	0	0	121	36
Barry U.	20	0	0	0	0	0	0	0	0	3	0	0	0	0	0	14	3
FL Agricultural & Mechanical U.	14	0	0	0	0	1	0	9	0	0	0	0	0	0	0	4	0
FL Atlantic U.-Boca Raton	38	0	0	0	0	9	3	0	0	3	0	0	0	0	0	14	9
FL Institute of Technology-Melbourne	27	0	1	3	6	12	3	0	0	0	0	0	0	0	0	2	0
FL International U.	50	0	1	3	1	6	4	1	0	9	7	0	0	0	2	10	6
FL State U.	253	13	4	9	7	8	21	5	0	27	17	9	5	5	39	58	26
Lynn U.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4
Nova Southeastern U.	541	0	0	0	29	0	0	12	0	14	4	0	0	0	7	409	66
U. West FL, The	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
U. Central FL	125	12	0	0	6	38	1	1	0	4	0	0	0	0	0	63	0
U. FL	426	15	31	5	17	89	63	28	28	27	29	4	2	4	20	47	17
U. Miami	109	2	2	6	2	4	25	4	1	18	7	2	1	4	21	10	0
U. South FL	160	1	8	9	4	21	16	21	0	20	5	0	1	2	4	33	15
GEORGIA	1,037	20	66	11	33	171	135	36	34	87	71	30	11	15	72	184	61
Clark Atlanta U.	26	0	3	0	0	0	1	0	0	1	8	0	0	0	2	11	0
Emory U.	174	1	19	0	3	0	40	2	0	11	19	15	4	4	43	11	2
GA Institute of Technology-Main Campus	256	15	21	6	21	167	5	0	0	7	1	2	0	0	0	0	11
GA Southern U.	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
GA State U.	126	2	3	0	2	0	5	7	0	30	11	5	3	2	2	40	14
Institute of Paper Science & Technology	3	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0
Medical C. GA	16	0	0	0	0	0	14	2	0	0	0	0	0	0	0	0	0
Mercer U.	3	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Morehouse School of Medicine	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
U. GA	390	2	19	5	6	4	67	24	32	38	32	8	4	9	25	81	34
Valdosta State U.	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
HAWAII	105	6	2	8	3	4	16	1	3	7	19	3	0	1	23	8	1
U. HI at Manoa	105	6	2	8	3	4	16	1	3	7	19	3	0	1	23	8	1
IDAHO	89	2	5	2	2	8	14	2	8	5	4	1	1	1	2	32	0
ID State U.	31	1	0	0	0	2	8	1	0	5	2	0	1	1	2	8	0
U. ID	58	1	5	2	2	6	6	1	8	0	2	1	0	0	0	24	0
ILLINOIS	2,110	73	112	14	85	254	245	61	34	179	202	50	15	33	223	389	141
Benedictine U.	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	6
Chicago Theological Seminary	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
DePaul U.	23	0	0	0	0	0	0	0	0	18	0	0	0	0	2	3	0
Finch U. Health Science-Chicago Medical School	28	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	0
Garrett Evangelical Theological Seminary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
IL Institute of Technology	70	2	1	0	10	22	9	0	0	20	0	1	0	0	0	0	5
IL State U.	51	0	0	0	0	0	2	0	0	4	0	1	1	0	2	41	0
Institute for Clinical Social Work	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7
Loyola U. Chicago	204	0	8	0	0	0	28	8	0	23	8	2	2	3	6	113	3
Lutheran School of Theology at Chicago	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
National-Louis U.	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Northern IL U.	126	0	6	1	7	0	6	0	1	11	8	2	3	5	2	73	1
Northwestern U.	299	7	23	0	9	71	38	5	0	13	38	5	2	2	45	9	32
Roosevelt U.	14	0	0	0	0	0	0	0	0	1	0	0	0	0	0	13	0
Rush U.	15	0	0	0	0	0	5	8	0	1	0	0	0	0	0	1	0
Southern IL U.-Carbondale	126	0	3	0	2	3	14	6	0	18	13	2	1	4	11	26	23
U. Chicago, The	333	21	17	6	12	0	41	0	0	14	76	22	2	7	84	12	19
U. IL at Chicago	176	7	19	2	7	21	24	27	0	9	10	5	2	6	9	19	9
U. IL at Springfield	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
U. IL at Urbana-Champaign	603	36	35	5	38	137	64	7	33	33	47	10	2	6	60	59	31
INDIANA	970	28	74	15	40	141	87	28	31	66	87	35	12	29	126	120	51
Ball State U.	38	0	0	0	0	0	2	1	0	13	0	0	3	1	5	13	0
IN State U.	38	0	0	0	0	0	4	0	0	11	2	0	0	0	0	21	0
IN U.-Bloomington	365	12	21	8	13	1	34	11	0	15	40	21	2	10	78	69	30
IN U.-Purdue U.-Indianapolis	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Purdue U.-Main Campus	412	10	47	4	20	121	32	14	31	22	25	6	7	11	25	17	20
U. of Notre Dame	115	6	6	3	7	19	15	0	0	5	20	8	0	7	18	0	1
IOWA	576	13	30	8	28	90	82	42	30	28	40	18	3	11	48	86	19
Drake U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
IA State U.	238	8	21	0	12	55	37	5	30	15	15	3	0	0	2	31	4
Maharishi U. of Management	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
U. IA	320	5	9	8	16	31	45	37	0	13	25	15	3	11	44	44	14
U. Northern IA	12	0	0	0	0	4	0	0	0	0	0	0	0	0	0	7	1
KANSAS	410	12	22	3	17	41	59	12	29	55	31	11	2	2	23	81	10
KS State U.	152	9	5	1	6	14	27	2	29	11	11	3	0	0	0	31	3
U. KS Main Campus	223	3	16	2	5	10	32	10	0	39	20	8	2	2	23	44	7
Wichita State U.	35	0	1	0	6	17	0	0	0	5	0	0	0	0	0	6	0
KENTUCKY	341	8	13	1	11	28	72	16	11	20	21	8	4	4	31	54	39
Asbury Theological Seminary	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
Southern Baptist Theological Seminary	22	0	0	0	0	0	0	0	0	1	0	1	0	0	5	4	11
Spalding U.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
U. KY	215	8	12	1	11	16	42	13	11	11	19	7	4	3	16	23	18
U. Louisville	87	0	1	0	0	12	30	3	0	8	2	0	0	1	8	17	5
LOUISIANA	528	7	23	11	19	40	76	29	25	35	54	10	9	11	53	85	41
Grambling State U.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
LA State U. & Ag & Mech & Hebert Laws Ctr.	222	7	9	8	9	20	18	6	25	17	24	1	5	6	27	29	11
LA State U.-Health Sciences Ctr.	22	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
LA State U.-Shreveport	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0
LA Tech U.	21	0	0	0	1	6	0	0	0	1	1	0	0	0	1	4	7
New Orleans Baptist Theological Seminary	21	0	0	0	0	0	0	0	0	5	0	1	0	0	9	0	6
Southern U. & A & M C.	6	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0
Tulane U. LA	122	0	8	2	2	10	30	10	0	7	17	8	3	2	8	0	15
U. LA at Lafayette	28	0	0	0	7	3	6	0	0	0	0	0	1	3	8	0	0
U. LA at Monroe	12	0	0	0	0	0	1	2	0	4	0	0	0	0	0	5	0
U. New Orleans	54	0	6	1	0	1	0	0	0	1	10	0	0	0	0	33	2
MAINE	38	2	1	2	0	5	12	1	2	6	0	1	0	0	0	6	0
U. ME	38	2	1	2	0	5	12	1	2	6	0	1	0	0	0	6	0
MARYLAND	973	24	21	17	66	126	201	127	12	45	118	28	8	8	90	60	22
Baltimore Hebrew U.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
Johns Hopkins U.	359	6	10	4	6	39	109	78	0	3	48	20	1	4	25	5	1
Loyola C.	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Morgan State U.	14	0	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0
Peabody Institute of Johns Hopkins U.	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0
Uniformed Services U. of the Health Sci	14	0	0	0	0	0	7	4	0	3	0	0	0	0	0	0	0
U. MD-Baltimore	81	0	3	0	0	0	43	30	0	0	0	0	0	0	0	0	5
U. MD-Baltimore County	50	0	2	1	9	6	6	0	0	11	14	0	0	0	1	0	0
U. MD-College Park	436	18	6	12	51	79	36	15	11	27	55	8	7	4	49	43	15
U. MD-Eastern Shore	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
MASSACHUSETTS	2,126	111	125	39	110	321	323	93	17	101	278	58	18	23	183	198	128
American International C.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Boston C.	114	1	6	1	0	0	4	6	0	19	20	4	0	0	14	22	17
Boston U.	245	11	8	5	13	18	50	15	0	19	24	0	3	1	37	28	13
Brandeis U.	102	1	7	0	9	0	19	4	0	2	34	11	4	2	8	0	1
Clark U.	26	3	2	0	0	0	1	0	0	5	13	1	0	0	1	0	0
Harvard U.	552	37	31	3	16	7	101	41	0	6	89	33	7	4	71	76	30
MA C. of Pharmacy & Health Science	2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MA Institute of Technology	501	36	29	25	37	214	55	10	0	8	38	2	0	0	13	1	33
New England Conservatory of Music	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
Northeastern U.	50	1	10	0	2	15	2	0	0	4	10	2	0	0	0	0	4
Simmons C.	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Smith C.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Springfield C.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Suffolk U.	9	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
Tufts U.	96	7	2	2	3	7	38	0	0	10	12	1	1	6	5	1	1
U. MA Medical School Worcester	16	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0
U. MA-Amherst	288	11	22	2	22	32	29	9	17	14	30	4	3	10	26	42	15
U. MA-Boston	29	0	0	1	4	0	1	2	0	4	7	0	0	0	0	10	0
U. MA-Lowell	43	3	5	0	3	9	3	6	0	1	1	0	0	0	0	12	0
Worcester Polytechnic Institute	25	0	2	0	1	19	3	0	0	0	0	0	0	0	0	0	0
MICHIGAN	1,445	41	81	23	68	262	170	55	34	137	137	37	7	24	127	163	79
Andrews U.	29	0	0	0	0	0	0	0	0	5	0	0	0	0	5	13	6
Calvin C.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Central MI U.	8	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0
Eastern MI U.	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
MI State U.	431	20	25	2	23	25	54	14	32	41	49	13	3	13	38	48	31
MI Technological U.	42	2	5	4	0	19	5	0	1	0	0	0	0	1	4	0	1
Oakland U.	20	0	1	0	1	11	2	0	0	0	0	0	0	0	0	5	0
U. Detroit Mercy	15	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0
U. MI-Ann Arbor	607	16	30	16	28	173	74	33	1	24	65	22	2	6	64	25	28
Wayne State U.	225	2	20	0	10	33	35	8	0	27	14	1	1	2	10	52	10
Western MI U.	60	1	0	1	3	1	0	0	0	20	9	1	1	2	4	14	3
MINNESOTA	727	15	23	12	24	83	82	52	25	69	53	11	2	7	66	141	62
Hamline U.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Luther Seminary	6	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2
Mayo Graduate School	22	0	0	0	0	3	19	0	0	0	0	0	0	0	0	0	0
Saint Marys U. MN	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
U. MN-Twin Cities	565	15	23	12	23	79	63	35	25	38	48	10	2	7	64	86	35
U. of St. Thomas	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Walden U.	105	0	0	0	1	1	0	17	0	30	5	0	0	0	0	27	24
MISSISSIPPI	334	1	13	0	2	10	33	8	21	36	17	9	8	3	11	130	32
Delta State U.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Jackson State U.	27	0	0	0	0	0	0	0	0	1	2	0	0	0	0	21	3
MS State U.	96	0	0	0	0	6	10	0	21	7	12	3	0	0	0	26	11
U. MS Main Campus	84	1	5	0	0	3	6	1	0	8	1	4	5	1	6	31	12
U. MS Medical Ctr.	13	0	0	0	0	0	9	4	0	0	0	0	0	0	0	0	0
U. Southern MS	111	0	8	0	2	1	8	3	0	20	2	2	3	2	5	49	6
MISSOURI	681	19	44	9	19	70	113	35	20	62	50	4	11	11	46	125	43
Concordia Seminary	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Saint Louis U.-Main Campus	110	0	0	2	0	0	10	10	0	18	7	2	2	2	9	40	8
U. MO-Columbia	249	3	13	1	10	17	33	11	20	18	21	1	5	2	10	58	26
U. MO-Kansas City	61	2	5	0	1	0	7	9	0	8	7	0	0	1	10	11	0

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
U. MO-Rolla	45	6	7	0	2	29	0	0	0	1	0	0	0	0	0	0	0
U. MO-St. Louis	43	0	7	0	0	0	6	5	0	8	4	0	0	0	0	13	0
Washington U. in St. Louis	171	8	12	6	6	24	57	0	0	9	11	1	4	6	17	3	7
MONTANA	74	4	5	2	6	3	26	0	4	7	0	0	0	0	1	15	1
MT State U.-Bozeman	36	4	2	0	2	3	14	0	3	0	0	0	0	0	0	8	0
U. MT-Missoula, The	38	0	3	2	4	0	12	0	1	7	0	0	0	0	1	7	1
NEBRASKA	259	7	10	0	4	14	40	12	26	31	17	5	4	4	14	53	18
Creighton U.	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
U. NE at Lincoln	211	7	9	0	4	14	18	3	26	30	12	5	4	4	14	44	17
U. NE at Omaha	15	0	0	0	0	0	0	0	0	0	5	0	0	0	0	9	1
U. NE Medical Ctr.	25	0	1	0	0	0	14	9	0	1	0	0	0	0	0	0	0
NEVADA	107	3	5	7	0	13	15	4	0	13	4	2	3	6	3	26	3
U. Nevada-Las Vegas	35	1	0	0	0	1	5	0	0	0	3	1	2	1	0	19	2
U. Nevada-Reno	72	2	5	7	0	12	10	4	0	13	1	1	1	5	3	7	1
NEW HAMPSHIRE	97	4	10	6	6	16	26	2	2	5	7	3	1	1	2	6	0
Antioch New England Graduate School-NH	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Dartmouth C.	40	2	7	2	5	7	13	2	0	2	0	0	0	0	0	0	0
U. New Hampshire-Main Campus	55	2	3	3	1	9	13	0	2	3	6	3	1	1	2	6	0
NEW JERSEY	846	36	27	26	59	137	120	10	12	39	62	32	11	26	129	76	44
Drew U.	44	0	0	0	0	0	0	0	0	0	0	3	5	5	26	0	5
Fairleigh Dickinson U.-All Campuses	7	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
NJ Institute of Technology	52	6	0	3	9	30	2	0	0	0	0	0	0	0	0	0	2
Princeton Theological Seminary	19	0	0	0	0	0	0	0	0	0	0	2	0	0	6	0	11
Princeton U.	232	19	14	7	26	38	22	0	3	26	10	4	8	8	55	0	0
Rutgers U.-New Brunswick	336	10	8	15	21	52	51	4	12	9	30	17	2	13	42	36	14
Rutgers U.-Newark	36	0	2	0	1	0	10	6	0	1	5	0	0	0	0	0	11
Seton Hall U.	63	0	3	0	0	0	0	0	0	19	1	0	0	0	0	40	0
Stevens Institute of Technology	23	1	0	1	2	17	1	0	0	0	0	0	0	0	0	0	1
U. of Medicine & Dentistry of NJ	34	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0
NEW MEXICO	277	25	8	10	16	33	21	3	10	25	20	4	3	8	22	50	18
NM Institute of Mining & Technology	14	4	1	4	0	4	0	0	0	0	0	0	0	0	0	0	1
NM State U.-Main Campus	76	9	3	0	5	14	5	0	10	7	0	0	0	0	4	13	6
U. NM-Main Campus	187	12	4	6	11	15	16	3	0	18	20	4	3	8	18	37	12
NEW YORK	3,373	113	126	59	136	302	545	109	48	359	390	121	43	70	408	338	205
Adelphi U.	37	0	0	0	0	0	0	4	0	30	1	0	0	0	0	0	2
Albany Medical C.	5	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0
Clarkson U.	22	0	5	0	0	16	1	0	0	0	0	0	0	0	0	0	0
Columbia U. in the City of New York	380	16	17	18	17	32	57	18	0	4	60	42	5	15	46	0	33
Cornell U.-Endowed Colls	382	26	17	2	18	61	85	6	40	7	52	4	6	6	24	13	15
CUNY Graduate School & U. Ctr.	269	10	11	6	12	9	26	13	0	42	52	4	6	5	54	3	16
Fordham U.	116	0	0	0	0	0	0	0	0	34	14	2	1	2	12	41	10
Hofstra U.	29	0	0	0	0	0	0	0	0	9	0	0	0	0	0	20	0
Jewish Theological Seminary of America	9	0	0	0	0	0	0	0	0	0	0	4	0	0	2	2	1
Juilliard School, The	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0
Long Island U.-Brooklyn Campus	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0
Mount Sinai School of Medicine	35	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0
New School U.	70	0	0	0	0	0	0	0	0	26	33	0	0	0	10	0	1
NY Medical C.	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
New York U.	382	4	7	0	14	0	47	26	0	37	49	22	7	13	75	37	44
Pace U.-New York	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Polytechnic U.	21	1	3	0	2	15	0	0	0	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Institute	115	4	7	2	10	78	3	0	0	0	4	1	0	0	1	0	5
Rochester Institute of Technology	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Rockefeller U.	30	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0
St. Johns U.-New York	56	0	3	0	0	0	1	2	0	11	0	6	0	4	1	28	0
SUNY at Albany	159	4	5	5	6	1	14	4	0	37	30	4	1	0	17	13	18
SUNY at Binghamton	113	0	8	3	9	5	4	2	0	11	29	7	3	8	15	7	2
SUNY at Buffalo	232	4	18	3	7	39	28	13	0	13	16	4	9	10	30	28	10
SUNY at Stony Brook	219	25	9	10	25	19	45	1	0	13	8	10	3	4	46	1	0
SUNY C. of Environmental Science & Forestry	26	0	2	2	0	3	9	0	8	0	0	0	0	0	0	1	1

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
SUNY Health Science Ctr. at Brooklyn	13	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0
SUNY- Upstate Medical U.	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0
Syracuse U.	131	5	7	3	7	14	6	3	0	12	25	3	1	1	7	23	14
Teachers C. at Columbia U.	179	0	0	0	1	0	5	9	0	37	4	2	0	0	6	112	3
Union Theological Seminary U. Rochester	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Weill Cornell Medical C.	183	13	7	3	8	10	35	7	0	11	13	6	1	2	52	8	7
Yeshiva U.	33	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0
	60	1	0	0	0	0	38	0	0	15	0	0	0	0	0	1	5
NORTH CAROLINA	1,073	25	62	13	64	129	209	60	42	65	86	21	11	17	91	134	44
Appalachian State U.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Duke U.	203	3	12	1	10	21	66	0	1	8	24	7	4	5	34	0	7
East Carolina U.	13	0	0	0	0	0	9	0	0	0	0	0	0	0	0	4	0
Fayetteville State U.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
NC Agricultural & Technical State U.	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
NC State U. at Raleigh	299	12	9	8	29	81	44	0	41	16	16	0	0	0	0	39	4
Reformed Theological Seminary	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Southeastern Baptist Theological Seminary	7	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2
U. NC at Chapel Hill	388	7	37	4	22	10	69	57	0	23	44	14	3	10	37	22	29
U. NC at Charlotte	34	0	0	0	3	6	2	0	0	0	0	0	0	0	0	23	0
U. NC at Greensboro	81	0	0	0	0	0	2	3	0	18	1	0	4	2	15	35	1
Wake Forest U.	25	3	4	0	0	1	17	0	0	0	0	0	0	0	0	0	0
NORTH DAKOTA	54	1	4	0	4	3	13	0	10	11	0	1	0	3	0	4	0
ND State U.-Main Campus	24	0	4	0	4	1	5	0	10	0	0	0	0	0	0	0	0
U. ND-Main Campus	30	1	0	0	0	2	8	0	0	11	0	1	0	3	0	4	0
OHIO	1,625	59	99	21	34	264	228	75	33	130	93	42	17	19	131	289	91
Air Force Institute of Technology	18	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0
Bowling Green State U.-Main Campus	72	0	1	0	2	0	7	0	0	13	3	2	0	1	24	15	4
Case Western Reserve U.	166	4	16	1	1	46	36	14	0	7	9	1	2	2	3	1	23
Cleveland State U.	29	0	5	0	0	5	2	1	0	1	0	0	0	0	0	12	3
Hebrew Union C.-Jewish Institute of Religion	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Kent State U.-Main Campus	128	13	5	2	10	0	14	0	0	23	10	1	4	4	7	28	7
Medical C. OH	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0
Miami U.-Oxford	52	0	3	2	0	0	6	0	0	10	3	7	2	3	2	14	0
OH State U., The-Main Campus	616	20	32	15	12	92	78	31	33	38	51	22	3	5	54	101	29
OH U.-Main Campus	108	8	7	0	2	6	11	2	0	8	0	1	2	1	6	38	16
U. Akron Main Campus	80	4	16	0	0	21	2	0	0	15	3	2	0	0	0	17	0
U. Cincinnati-Main Campus	213	4	12	1	2	42	45	20	0	6	14	2	3	1	29	24	8
U. Dayton	41	2	0	0	0	18	4	0	0	0	0	0	0	0	0	17	0
U. Toledo	73	3	2	0	4	15	4	7	0	9	0	4	1	2	0	21	1
Wright State U.-Main Campus	8	0	0	0	1	2	5	0	0	0	0	0	0	0	0	0	0
Youngstown State U.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
OKLAHOMA	374	6	6	16	5	44	35	12	20	33	29	4	1	10	18	96	39
OK State U.-Main Campus	187	4	4	2	1	16	17	5	20	19	10	3	0	2	2	66	16
U. OK Norman Campus	169	2	2	12	4	21	18	7	0	11	19	1	1	2	16	30	23
U. Tulsa	18	0	0	2	0	7	0	0	0	3	0	0	0	6	0	0	0
OREGON	359	8	13	6	18	25	68	17	41	18	31	1	2	3	26	60	22
OR Graduate Inst of Science & Engineering-OHSU	12	0	0	0	1	8	3	0	0	0	0	0	0	0	0	0	0
OR Health & Science U.	25	0	0	0	0	0	19	6	0	0	0	0	0	0	0	0	0
OR State U.	156	2	9	4	7	14	32	11	41	3	8	0	0	0	0	20	5
Portland State U.	35	1	0	2	2	3	3	0	0	1	7	0	0	0	0	6	10
U. OR	131	5	4	0	8	0	11	0	0	14	16	1	2	3	26	34	7
PENNSYLVANIA	2,000	58	100	21	111	292	252	117	36	136	176	54	21	48	159	298	121
Bryn Mawr C.	21	0	0	0	2	0	1	0	0	5	0	1	0	0	9	0	3
Carnegie Mellon U.	173	7	13	0	34	78	4	0	0	2	9	4	0	0	5	1	16
Drexel U.	43	1	6	0	3	18	3	0	0	1	0	0	0	0	0	5	6
Duquesne U.	28	0	2	0	0	0	1	3	0	9	0	0	0	4	5	0	4
Indiana U. PA-Main Campus	53	0	0	0	0	0	0	0	0	1	6	0	8	16	7	15	0
Lehigh U.	78	3	4	2	4	25	9	0	0	4	3	5	1	10	1	7	0

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
Marywood U.	5	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	1
MCP Hahnemann U.	33	1	0	0	0	0	12	5	0	15	0	0	0	0	0	0	0
PA State U.-Main Campus	539	22	29	12	16	119	62	22	36	31	38	4	8	6	26	91	17
Temple U.	236	1	3	0	10	1	23	14	0	38	24	14	2	2	30	53	21
Thomas Jefferson U.	21	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0
U. PA	379	11	21	3	23	18	69	17	0	8	65	17	1	5	45	41	35
U. Pittsburgh-Main Campus	335	12	19	4	19	33	46	45	0	22	30	8	1	5	25	50	16
U. of the Sciences in Philadelphia	5	0	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Villanova U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Westminster Theological Seminary	5	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2
Widener U.-Main Campus	42	0	0	0	0	0	0	10	0	0	0	0	0	0	0	32	0
PUERTO RICO	114	2	7	5	0	0	15	0	1	28	0	4	2	0	4	46	0
Carlos Albizu U.	21	0	0	0	0	0	0	0	0	18	0	0	0	0	3	0	0
Inter American U. PR-Metro	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
U. PR-Mayaguez	6	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0
U. PR-Medical Sciences Campus	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
U. PR-Rio Piedras Campus	58	2	7	0	0	0	9	0	0	10	0	4	2	0	1	23	0
RHODE ISLAND	231	14	15	15	24	15	29	12	3	12	27	13	3	7	32	4	6
Brown U.	148	12	10	3	20	5	23	1	0	5	26	12	1	5	25	0	0
Providence C.	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Salve Regina U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
U. RI	78	2	5	12	4	10	6	11	3	7	1	0	2	2	3	4	6
SOUTH CAROLINA	417	4	25	9	10	59	73	36	14	25	19	7	9	5	24	73	25
Clemson U.	116	1	7	1	0	35	25	1	14	6	2	0	0	0	1	14	9
Medical U. SC	28	0	1	0	1	0	26	0	0	0	0	0	0	0	0	0	0
SC State U.	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0
U. SC at Columbia	252	3	17	8	9	24	22	35	0	19	17	7	9	5	23	38	16
SOUTH DAKOTA	72	1	2	2	0	2	8	0	8	8	5	0	1	0	0	35	0
SD School of Mines & Technology	5	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
SD State U.	18	0	2	0	0	0	3	0	8	0	5	0	0	0	0	0	0
U. SD	49	0	0	0	0	0	5	0	0	8	0	0	1	0	0	35	0
TENNESSEE	681	17	21	8	15	62	91	42	10	76	41	12	9	12	45	180	40
East TN State U.	35	0	0	0	0	0	2	0	0	0	0	0	0	0	0	33	0
Meharry Medical C.	10	0	0	0	0	0	9	0	0	1	0	0	0	0	0	0	0
Mid-America Baptist Seminary	8	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Middle TN State U.	25	0	1	0	0	0	1	0	0	0	2	1	2	4	2	12	0
TN State U.	52	0	0	0	0	0	0	0	0	11	2	0	0	0	0	37	2
TN Technological U.	7	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0
U. TN, The	238	6	11	5	4	22	25	15	10	33	22	4	4	4	7	45	21
U. TN Health Science Ctr., The	36	0	1	0	0	0	16	19	0	0	0	0	0	0	0	0	0
U. Memphis	81	0	2	0	4	3	1	4	0	22	2	3	0	0	6	27	7
Vanderbilt U.	189	11	6	1	7	32	37	4	0	9	13	4	3	4	26	26	6
TEXAS	2,429	79	93	54	117	348	377	120	57	166	151	38	22	37	199	421	150
Baylor C. of Medicine	36	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0
Baylor U.	55	1	1	1	5	0	2	12	0	1	2	0	3	2	5	20	0
Dallas Theological Seminary	13	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	6
Lamar U.-Beaumont	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
Rice U.	105	7	9	3	11	25	16	0	0	1	12	3	1	2	15	0	0
Sam Houston State U.	6	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Southern Methodist U.	37	2	1	2	5	11	2	0	0	2	9	0	0	0	3	0	0
Southwest TX State U.	8	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
Southwestern Baptist Theological Seminary	25	0	0	0	0	0	0	0	0	2	0	0	0	0	12	2	9
St. Mary's U.	9	0	0	0	0	0	0	0	0	6	0	0	0	0	0	3	0
Stephen F. Austin State U.	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
TX A & M U.	470	13	27	18	24	114	57	2	35	18	29	7	5	6	4	83	28
TX A & M U.-Commerce	32	0	0	0	0	0	0	0	0	1	0	0	0	0	1	30	0
TX A & M U.-Corpus Christi	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
TX A & M U.-Kingsville	13	0	0	0	0	0	0	0	3	0	0	0	0	0	0	10	0
TX Christian U.	13	0	1	0	0	0	1	0	0	2	0	2	1	4	2	0	0
TX Southern U.	23	0	1	1	0	0	5	0	0	0	0	0	0	0	0	16	0
TX Tech U.	142	4	6	1	5	10	12	0	16	18	5	1	1	5	21	23	14
TX Tech U. Health Sciences Ctr.	7	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0

Appendix Table A-7. Institutions granting doctorates, by major field, 2002, continued

	2002 Total	Physics & Astronomy	Chemistry	Earth, Atmos., & Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	American Literature	English Lang. & Lit.	Other Humanities	Education	Professional/ Other Fields
TX Woman's U.	87	0	0	0	0	0	5	37	0	16	6	0	0	0	5	12	6
U. TX at Arlington, The	71	0	2	0	9	21	3	0	0	6	4	2	0	0	4	0	20
U. TX at Austin, The	637	34	31	11	28	134	44	25	0	36	44	11	3	11	86	94	45
U. TX at Dallas, The	63	5	4	3	9	4	5	2	0	5	9	3	3	0	8	0	3
U. TX at El Paso, The	27	0	0	8	0	4	0	0	0	3	0	0	0	0	0	11	1
U. TX Health Science Ctr, The	83	0	0	1	0	0	52	29	0	0	0	0	0	0	0	1	0
U. TX Health Science-San Antonio, The	34	1	0	1	0	0	27	5	0	0	0	0	0	0	0	0	0
U. TX Medical Branch-Galveston, The	40	0	0	0	0	0	32	6	0	0	0	0	0	0	2	0	0
U. TX Southwest Medical Ctr.-Dallas, The	49	0	0	0	0	1	39	0	0	9	0	0	0	0	0	0	0
U. TX-Pan American, The	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1
U. Dallas	3	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0
U. Houston-University Park	157	7	6	4	9	21	9	1	0	22	7	3	2	3	6	47	10
U. North TX	154	5	4	0	12	2	14	0	0	18	9	6	3	3	18	53	7
U. North TX-Health Sci Ctr. at Ft. Worth	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0
UTAH	355	11	32	7	18	45	71	19	9	50	22	4	0	4	11	36	16
Brigham Young U.	64	2	7	0	2	10	7	5	0	21	3	0	0	0	0	7	0
U. UT	221	5	24	7	13	28	49	14	0	17	12	4	0	4	11	17	16
UT State U.	70	4	1	0	3	7	15	0	9	12	7	0	0	0	0	12	0
VERMONT	57	0	2	0	2	7	19	0	5	14	0	0	0	0	3	5	0
Middlebury C.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
U. VT & State Agricultural C.	54	0	2	0	2	7	19	0	5	14	0	0	0	0	0	5	0
VIRGINIA	1,007	27	36	34	49	144	104	35	29	75	86	28	6	11	39	231	73
C. of William and Mary	56	6	0	10	4	1	1	0	1	0	0	5	0	0	6	22	0
George Mason U.	130	0	0	7	19	8	3	8	0	19	32	0	0	0	1	31	2
Hampton U.	5	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Norfolk State U.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Old Dominion U.	59	4	0	5	3	9	10	3	0	3	5	0	0	0	0	10	7
Regent U.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8
Union Theological Seminary & Presbyterian School	9	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	3
U. VA-Main Campus	319	9	15	5	8	36	40	8	0	13	34	20	6	11	24	85	5
VA Commonwealth U.	108	1	10	0	3	2	31	9	0	11	9	0	0	0	1	17	14
VA Polytechnic Institute & State U.	310	3	11	7	12	88	19	6	28	29	6	3	0	0	0	66	32
WASHINGTON	651	20	23	17	30	102	127	32	41	37	62	17	3	8	38	56	38
Gonzaga U.	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3
Seattle Pacific U.	11	0	0	0	0	0	0	0	0	10	0	0	0	0	0	1	0
Seattle U.	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
U. WA-Seattle Campus	455	17	16	14	27	80	99	28	17	13	48	9	3	6	36	20	22
WA State U.	162	3	7	3	3	22	28	4	24	14	14	8	0	2	2	15	13
WEST VIRGINIA	147	3	3	0	5	20	17	4	10	19	3	11	1	2	5	43	1
Marshall U.	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
WV U.	143	3	3	0	5	20	13	4	10	19	3	11	1	2	5	43	1
WISCONSIN	848	26	35	14	41	87	140	19	43	46	79	28	9	20	94	130	37
Cardinal Stritch U.	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	1
Marquette U.	59	0	3	0	0	6	5	0	0	12	0	3	2	4	19	4	1
Medical C. WI	16	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0
U. WI-Madison	649	23	28	14	37	76	113	15	43	21	63	25	4	11	72	76	28
U. WI-Milwaukee	86	3	4	0	4	5	6	4	0	13	16	0	3	5	3	13	7
WYOMING	55	2	6	5	1	3	9	0	3	3	2	0	0	0	0	21	0
U. WY	55	2	6	5	1	3	9	0	3	3	2	0	0	0	0	21	0

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table A-8. Top 50 doctorate-granting institutions, 2002

Rank	Institution	Number
1.	U. CA Berkeley	799
2.	U. WI-Madison	649
3.	U. CA Los Angeles	642
4.	U. TX at Austin, The	637
5.	OH State U.-Main Campus	616
6.	U. MI-Ann Arbor	607
7.	U. IL at Urbana-Champaign	603
8.	U. MN-Twin Cities	565
9.	Harvard U.	552
10.	Nova Southeastern U.	541
11.	PA State U.-Main Campus	539
12.	Stanford U.	526
13.	MA Institute of Technology	501
14.	TX A & M U.	470
15.	U. WA-Seattle Campus	455
16.	U. MD-College Park	436
17.	MI State U.	431
18.	U. FL	426
19.	U. Southern CA	413
20.	Purdue U.-Main Campus	412
21.	U. GA	390
22.	U. NC at Chapel Hill	388
23.	Cornell U.-Endowed Colleges	382
23.	New York U.	382
25.	Columbia U. in The City of New York	380
26.	U. PA	379
27.	U. AZ	368
28.	Indiana U.-Bloomington	365
29.	Johns Hopkins U.	359
30.	U. CA Davis	347
31.	Rutgers U.-New Brunswick	336
32.	U. Pittsburgh-Main Campus	335
33.	U. Chicago, The	333
34.	U. IA	320
35.	U. VA-Main Campus	319
36.	VA Polytechnic Institute and State U.	310
37.	AZ State U.-Main Campus	307
38.	Yale U	301
39.	Northwestern U.	299
39.	NC State U. at Raleigh	299
41.	U. MA-Amherst	288
42.	CUNY Graduate School and University Center	269
43.	U. CO at Boulder	256
44.	GA Institute of Technology-Main Campus	256
45.	FL State U.	253
46.	U. SC at Columbia	252
47.	U. CA San Diego	251
48.	U. MO-Columbia	249
49.	Boston U.	245
50.	IA State U.	238
50.	U. TN	238

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

APPENDIX B: Trend Tables, 1992-2002

Appendix B includes the following two tables:

B-1: Number of doctorate recipients, by subfield, 1992-2002

B-2: Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1992-2002

TABLE B-1: Table B-1 presents data for the most recent decade by subfield of doctorate. In general, the subfields correspond to the fields on the questionnaire’s Specialties List located in the questionnaire at the back of the Summary Report; some subfields, however, do not appear on the current Specialties List because they are no longer included in the survey taxonomy. A dash (—) in a column indicates that the field was not on the Specialties List for that year.

Field groupings in this table may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates (SED); see inside the back cover of the Summary Report for a description of field groupings as reported in these tables. The “general” field categories—for example, “chemistry, general”—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The “other” field categories—for example, “chemistry, other”—include individuals whose specified doctoral discipline was not among the specialty fields.

The eight tables in Appendix A present additional information on the most recent cohort of research doctorate recipients by field of doctorate.

TABLE B-2: Table B-2 displays, by sex and citizenship, data on the race/ethnicity of doctorate recipients for 1992-2002. Table B-2 contains three panels, each displayed on a separate page. The first panel includes all doctorates; the others disaggregate the data by sex.

Since 1982, respondents have been asked to first indicate whether or not they are Hispanic, and then check one or more of the various racial group categories: American Indian or Alaska Native (indicating Tribal Affiliation since 2001), Asian, Native Hawaiians and Pacific Islanders, black, or white. In Table B-2, *doctorate recipients who reported Hispanic heritage, regardless of racial designation, are counted as Hispanic*. The remaining survey respondents are then counted in their respective racial groups or as "Other/Unknown" (which includes only those who did not indicate a specific race/ethnicity through 2000, and also includes those choosing "Multiple Race" or “Native Hawaiians and Pacific Islanders” since 2001).

Appendix Table B-1. Number of doctorate recipients, by subfield, 1992-2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
TOTAL ALL FIELDS ^a	38,889	39,800	41,033	41,748	42,436	42,556	42,652	41,098	41,356	40,790	39,955
PHYSICAL SCIENCES	6,501	6,496	6,822	6,808	6,675	6,679	6,743	6,322	6,074	5,969	5,715
MATHEMATICS	1,058	1,146	1,118	1,190	1,122	1,123	1,177	1,083	1,050	1,007	917
Applied Mathematics	213	188	206	211	230	242	265	252	238	214	225
Algebra	69	84	78	82	78	78	75	84	82	68	65
Analysis & Functional Analysis	105	105	107	99	100	103	130	86	81	91	74
Geometry	45	44	35	45	72	70	54	65	59	40	52
Logic	28	19	29	35	16	23	16	23	19	24	14
Number Theory	25	42	37	35	42	46	46	50	40	35	26
Mathematical Statistics	217	228	205	205	178	181	204	174	195	198	167
Topology	58	54	38	51	55	62	65	65	50	54	39
Computing Theory & Practice	12	18	16	14	18	14	18	14	17	11	11
Operations Research	22	37	26	36	21	20	17	21	19	14	19
Mathematics, General	209	276	269	305	233	153	163	116	151	155	133
Mathematics, Other	55	51	72	72	79	131	124	133	99	103	92
COMPUTER SCIENCE	869	880	903	997	920	909	927	855	859	826	811
Computer Science	791	825	833	913	836	828	821	741	721	688	677
Information Sciences & Systems	78	55	70	84	84	81	106	114	138	81	79
Computer/Info Science, Other	-----	-----	-----	-----	-----	-----	-----	-----	-----	57	55
PHYSICS AND ASTRONOMY	1,537	1,544	1,692	1,652	1,677	1,599	1,585	1,430	1,389	1,378	1,268
Astronomy	55	76	66	89	84	71	91	59	78	89	54
Astrophysics	79	69	78	84	108	127	116	100	107	97	90
Acoustics	18	27	20	18	19	19	18	16	10	10	18
Chem. & Atomic/Molecular	85	95	140	110	129	106	100	100	110	81	81
Elementary Particles	153	170	176	183	176	170	173	169	147	121	156
Fluids	17	19	12	18	21	24	26	23	10	8	15
Nuclear	86	82	90	91	87	106	92	77	74	80	74
Optics	94	96	104	98	129	123	105	98	117	107	107
Plasma & High-Temperature	65	62	79	46	48	39	55	49	38	39	29
Polymer	17	29	29	23	33	19	24	28	21	18	22
Solid State & Low-Temperature	408	336	388	371	364	328	314	307	279	295	298
Physics, General	297	340	343	355	323	255	190	202	224	206	178
Physics, Other	163	143	167	166	156	212	281	202	174	227	146
CHEMISTRY	2,213	2,137	2,257	2,162	2,149	2,148	2,216	2,132	1,989	1,980	1,922
Analytical	304	286	334	317	346	350	383	333	326	334	301
Inorganic	267	237	262	258	249	279	287	279	221	280	246
Nuclear	7	8	10	5	5	8	6	10	9	4	9
Organic	512	518	544	483	507	567	598	563	525	522	523
Medicinal/Pharmaceutical	69	99	102	96	96	105	114	131	107	115	99
Physical	398	336	334	338	300	334	279	310	270	285	302
Polymer	83	107	117	116	121	110	122	95	107	107	101
Theoretical	59	53	52	40	57	48	41	56	52	40	48
Chemistry, General	449	431	447	458	396	261	285	196	262	201	207
Chemistry, Other	65	62	55	51	72	86	101	159	110	92	86
EARTH, ATMOS., & MARINE SCI.	824	789	852	807	807	900	838	822	787	778	797
Atmospheric Physics & Chemistry	36	13	27	27	22	45	38	43	39	33	39
Atmospheric Dynamics	23	23	27	16	21	25	24	17	17	17	13
Meteorology	28	34	32	25	35	28	25	22	34	20	15
Atmos. Sci./Meteorology, General	27	22	37	44	33	36	22	32	36	34	27
Atmos. Sci./Meteorology, Other	6	7	6	18	14	15	16	10	17	12	23
Geology	166	197	194	186	162	165	171	157	124	115	131
Geochemistry	62	50	59	42	49	49	58	55	49	41	70
Geophysics & Seismology	108	101	106	93	101	108	106	100	70	88	91
Paleontology	25	21	17	20	14	23	23	15	31	16	22
Mineralogy, Petrology	29	9	21	19	23	19	14	14	5	15	13
Stratigraphy, Sedimentation	23	28	27	16	12	23	24	17	13	13	7
Geomorphology & Glacial Geology	12	16	13	11	11	26	20	18	14	10	16
Geological & Related Sci., General	18	15	18	21	27	16	13	9	20	16	12
Geological & Related Sci., Other	31	17	24	22	22	17	40	35	18	34	30
Environmental Science	57	68	61	81	83	96	73	99	94	118	109
Hydrology & Water Resources	29	25	30	24	31	43	35	32	43	45	35
Oceanography	82	98	91	83	107	114	94	100	99	85	86
Marine Sciences	32	27	34	32	27	30	18	30	35	36	41
Misc. Physical Sci., Other	30	18	28	27	13	22	24	17	29	30	17

Appendix Table B-1. Number of doctorate recipients, by subfield, 1992-2002, continued

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ENGINEERING	5,438	5,698	5,821	6,008	6,309	6,118	5,926	5,332	5,319	5,501	5,073
Aerospace, Aeronautic. & Astronautic.	234	228	230	252	287	273	242	207	214	203	208
Agricultural	84	86	89	73	104	79	74	59	60	52	50
Bioeng. & Biomedical	147	171	173	189	220	211	208	245	252	232	246
Ceramic Sciences	42	42	39	39	41	39	24	33	22	17	13
Chemical	607	624	630	602	681	662	669	576	618	633	607
Civil	540	563	601	572	600	593	587	506	479	500	539
Communications	30	22	33	29	32	33	40	39	42	47	21
Computer	175	167	202	189	208	227	210	203	172	186	164
Electrical, Electronics	1,278	1,354	1,438	1,513	1,501	1,461	1,346	1,236	1,328	1,343	1,208
Engineering Mechanics	132	128	132	108	105	93	86	68	57	75	56
Engineering Physics	25	21	17	17	37	24	15	28	26	22	16
Engineering Science	51	55	46	56	52	45	49	49	34	53	31
Environmental Health Engineering	54	61	82	84	98	63	63	78	76	94	87
Ind./Manufacturing	196	236	228	284	259	246	229	212	176	205	229
Materials Science	365	416	433	476	472	483	482	393	404	448	363
Mechanical	855	902	883	917	947	930	937	787	806	878	773
Metallurgical	78	77	67	73	61	60	59	43	25	32	19
Mining & Mineral	26	24	23	19	31	33	21	18	10	10	8
Nuclear	120	108	85	105	113	103	96	76	98	75	64
Ocean	21	24	29	21	26	34	29	16	18	28	23
Operations Research	56	56	47	48	74	74	62	67	51	55	66
Petroleum	54	52	42	48	52	51	48	45	44	37	45
Polymer/Plastics	64	61	53	58	65	54	59	53	62	57	53
Systems	37	57	51	47	47	49	68	42	34	47	45
Engineering, General	64	47	39	60	60	51	29	40	42	25	19
Engineering, Other	103	116	129	129	136	147	194	213	169	147	120
LIFE SCIENCES	7,115	7,395	7,738	7,917	8,253	8,326	8,540	8,106	8,531	8,311	8,350
BIOLOGICAL SCIENCES	4,799	5,092	5,202	5,376	5,723	5,789	5,846	5,582	5,854	5,687	5,680
Biochemistry	715	846	804	824	794	832	800	760	776	727	781
Biomedical Sciences	-----	-----	-----	93	141	158	183	176	155	155	217
Biophysics	125	103	123	155	142	147	166	173	164	162	151
Biotechnology Research	-----	8	14	4	6	11	12	19	14	9	13
Bacteriology	13	14	18	13	16	13	13	13	15	17	12
Plant Genetics	33	41	30	35	41	30	40	31	35	31	57
Plant Pathology	32	41	40	32	38	33	18	36	25	31	24
Plant Physiology	68	48	70	55	73	47	61	54	39	45	43
Botany, Other	107	105	117	102	105	91	113	67	92	75	84
Anatomy	75	76	66	64	47	50	35	33	39	29	21
Biometrics & Biostatistics	63	74	72	67	80	84	75	76	92	90	81
Cell Biology	188	231	237	236	233	251	300	281	337	315	303
Ecology	180	177	201	203	245	255	293	273	296	337	311
Developmental Biology/Embryology	48	57	62	64	96	115	127	108	111	107	94
Endocrinology	27	16	26	20	24	17	30	19	20	18	14
Entomology	139	114	123	121	136	123	138	114	137	89	113
Biological Immunology	181	169	161	190	238	214	245	223	239	266	276
Molecular Biology	527	582	598	617	651	775	736	716	707	709	617
Microbiology	377	433	423	426	444	410	383	383	382	396	383
Neuroscience	238	276	284	308	404	437	413	431	495	485	490
Nutritional Sciences	132	134	147	136	142	124	139	102	150	135	141
Parasitology	17	17	22	14	22	17	15	13	19	22	17
Toxicology	105	100	120	126	138	180	155	114	123	133	122
Human & Animal Genetics	142	172	203	202	212	217	197	216	228	197	223
Human & Animal Pathology	114	130	128	109	135	106	90	120	106	116	115
Human & Animal Pharmacology	279	274	259	278	316	300	255	254	267	257	267
Human & Animal Physiology	266	271	289	262	275	227	258	244	241	215	206
Zoology, Other	134	114	117	145	100	97	111	126	133	103	122
Biological Sciences, General	315	305	288	348	291	209	217	182	200	195	185
Biological Sciences, Other	159	164	160	127	138	219	228	225	217	221	197
HEALTH SCIENCES	1,112	1,197	1,296	1,329	1,324	1,421	1,500	1,407	1,591	1,620	1,659
Speech-Lang. Pathology & Audiology	82	98	95	106	94	88	95	86	106	92	100
Environmental Health	44	38	51	51	58	67	54	69	52	56	51
Health Systems/Services Admin.	-----	35	53	62	60	66	62	62	59	51	55
Public Health	157	153	142	152	156	138	156	173	207	215	217
Epidemiology	108	120	168	153	149	151	165	179	191	168	199
Exercise Physiology/Sci., Kinesiology	-----	-----	87	118	105	105	129	104	130	152	148
Nursing	338	373	336	354	354	420	399	353	414	363	437
Pharmacy	160	146	148	144	145	142	156	137	164	148	161

Appendix Table B-1. Number of doctorate recipients, by subfield, 1992-2002, continued

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Rehabilitation/Therapeutic Services	25	36	43	20	26	34	35	26	40	118	73
Veterinary Medicine	63	61	56	55	65	47	49	49	50	60	56
Health Sciences, General	30	38	41	35	22	45	17	32	49	35	38
Health Sciences, Other	105	99	76	79	90	118	183	137	129	162	124
AGRICULTURAL SCIENCES	1,204	1,106	1,240	1,212	1,206	1,116	1,194	1,117	1,086	1,004	1,011
Agricultural Economics	141	137	162	173	169	133	155	149	138	154	119
Agricultural Business & Management	0	1	0	3	2	1	2	2	5	3	1
Animal Breeding & Genetics	23	18	17	19	12	24	18	21	22	16	14
Animal Nutrition	41	52	58	50	54	55	45	47	45	45	49
Dairy Science	14	11	11	14	9	14	10	12	9	2	7
Poultry Science	22	16	21	11	11	9	11	8	9	11	10
Fisheries Science & Management	26	38	48	49	46	45	30	38	43	44	53
Animal Sciences, Other	97	74	86	85	90	62	60	70	73	71	70
Agronomy & Crop Science	123	104	143	114	110	77	97	106	70	75	73
Plant Breeding & Genetics	82	68	81	72	63	67	69	44	68	37	59
Plant Pathology	63	58	55	52	90	65	66	66	63	51	53
Plant Sciences, Other	29	28	24	30	21	20	37	38	29	23	26
Food Distribution	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----
Food Engineering	14	9	16	7	7	11	13	7	10	13	7
Food Sciences, Other	151	141	152	135	142	175	153	137	142	128	129
Soil Chemistry/Microbiology	24	26	21	27	29	32	27	29	26	23	29
Soil Sciences, Other	63	59	69	72	78	56	74	67	64	55	54
Horticulture Science	65	62	65	67	73	44	60	66	55	37	46
Forest Biology	29	18	20	24	19	22	20	14	22	27	19
Forest Engineering	2	3	0	4	0	13	2	1	3	0	3
Forest Management	16	17	17	20	22	21	27	17	13	13	14
Wood Sci. & Pulp/Paper Tech.	21	20	26	26	18	25	25	21	11	20	29
Conserv./Renewable Nat. Res.	9	13	21	24	13	17	25	25	19	32	27
Forestry & Related Sci., Other	62	55	59	71	55	50	69	50	54	48	56
Wildlife/Range Mgt	55	54	52	50	64	50	56	44	56	40	37
Agricultural Sciences, General	9	10	4	6	5	10	8	8	10	2	4
Agricultural Sciences, Other	23	14	11	7	4	18	35	30	27	34	23
SOCIAL SCIENCES & PSYCHOLOGY	6,216	6,545	6,613	6,635	6,823	7,045	7,074	7,046	7,110	6,835	6,611
SOCIAL SCIENCES	2,953	3,125	3,234	3,206	3,328	3,484	3,398	3,373	3,492	3,391	3,412
Anthropology	320	342	384	375	397	434	425	463	446	410	495
Area Studies	33	36	34	27	28	10	14	11	14	19	25
Criminology	37	39	41	44	60	49	55	51	66	62	55
Demography/Population Studies	17	22	23	15	11	24	30	28	19	12	20
Economics	885	906	913	952	979	999	976	911	933	914	889
Econometrics	25	24	26	27	29	31	25	15	15	13	14
Geography	111	137	146	150	165	149	154	144	197	186	197
International Relations/Affairs	76	102	112	73	99	88	96	119	77	91	82
Political Science & Government	513	507	589	599	622	665	662	655	669	658	606
Public Policy Analysis	107	98	94	94	104	127	97	125	137	139	146
Sociology	495	513	525	540	517	577	549	544	616	565	545
Statistics	29	48	46	48	48	56	61	72	60	49	54
Urban Affairs/Studies	86	123	132	103	108	92	77	57	79	80	92
Social Sciences, General	33	32	21	35	26	26	30	25	38	25	33
Social Sciences, Other	186	196	148	124	135	157	147	153	126	168	159
PSYCHOLOGY	3,263	3,420	3,379	3,429	3,495	3,561	3,676	3,673	3,618	3,444	3,199
Clinical	1,309	1,373	1,285	1,290	1,327	1,258	1,344	1,444	1,353	1,262	1,212
Cognitive & Psycholinguistics	101	104	129	104	128	166	113	143	140	141	121
Comparative	2	5	8	4	3	6	6	11	7	5	2
Counseling	507	488	497	471	465	488	448	460	475	482	469
Developmental and Child	170	202	179	152	188	215	267	193	203	193	173
Human/Individual & Family Develop.	-----	-----	129	150	151	126	119	135	148	137	137
Experimental	154	143	139	151	128	146	149	139	133	134	112
Educational	91	91	69	74	92	61	61	64	97	48	54
Family & Marriage Counseling	-----	-----	-----	57	51	64	51	56	54	45	67
Industrial & Organizational	138	159	137	155	162	187	189	159	188	173	154
Personality	17	22	19	16	24	26	25	16	23	11	17
Physiological/Psychobiology	55	85	93	92	80	77	92	87	89	92	87
Psychometrics	5	9	5	10	11	11	9	15	13	2	9
Quantitative	10	16	17	13	19	17	15	14	8	10	13
School	88	95	84	91	82	84	106	121	99	109	89
Social	139	125	153	155	170	181	186	176	207	198	181
Psychology, General	295	306	280	306	281	318	300	236	239	225	150
Psychology, Other	182	197	156	138	133	130	196	204	142	177	152

Appendix Table B-1. Number of doctorate recipients, by subfield, 1992-2002, continued

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
HUMANITIES	4,444	4,481	4,742	5,062	5,115	5,435	5,514	5,459	5,637	5,593	5,373
GENERAL HUMANITIES	2,879	2,852	3,101	3,208	3,366	3,564	3,612	3,656	3,754	3,802	3,612
History, American	277	269	310	344	355	373	408	418	443	425	421
History, Asian	-----	-----	-----	43	54	54	70	68	51	51	67
History, European	176	162	180	185	187	245	230	235	243	246	232
History/Philosophy of Sci. & Tech.	28	37	27	41	37	36	44	50	42	40	46
History, General	102	116	140	148	101	82	86	75	102	75	82
History, Other	141	142	144	128	123	176	152	164	180	190	182
Classics	58	61	84	62	72	53	85	77	64	55	57
Comparative Literature	163	153	163	191	164	181	164	166	189	203	175
Linguistics	266	214	221	201	230	244	220	251	230	229	195
Speech & Rhetorical Studies	98	111	142	139	155	138	169	150	143	126	137
Letters, General	18	18	22	43	28	23	22	19	55	34	33
Letters, Other	38	37	25	34	61	60	82	82	93	94	81
American Studies	81	101	88	94	115	84	100	98	113	127	97
Archeology	33	38	34	35	21	35	34	26	36	40	27
Art History/Criticism/Conservation	154	158	182	181	177	188	221	188	228	223	217
Music	641	613	683	713	697	727	696	767	748	786	763
Philosophy	279	274	302	298	369	446	410	389	364	412	360
Religion	231	257	252	248	317	303	327	334	348	342	348
Drama/Theater Arts	95	91	102	80	103	116	92	99	82	104	92
LANGUAGE AND LITERATURE	1,465	1,523	1,537	1,718	1,618	1,746	1,721	1,648	1,711	1,597	1,591
American Literature	291	293	296	327	314	408	389	372	460	385	365
English Language & Literature	612	655	647	752	699	686	689	650	610	592	603
French	124	137	129	151	142	150	137	148	143	141	121
German	96	105	67	93	88	82	106	90	83	84	68
Italian	20	19	32	35	24	23	33	20	16	16	23
Spanish	179	178	212	209	196	249	207	201	218	233	243
Russian	28	28	38	28	37	39	43	25	29	27	26
Slavic	15	13	10	16	11	9	15	17	14	12	19
Chinese	20	21	25	20	29	23	19	27	21	16	22
Japanese	12	11	12	7	10	19	11	10	18	17	15
Hebrew	20	15	10	11	12	7	8	4	11	6	8
Arabic	12	10	4	8	6	4	9	12	15	6	5
Other Language & Literature	36	38	55	61	50	47	55	72	73	62	73
OTHER HUMANITIES	100	106	104	136	131	125	181	155	172	194	170
Humanities, General	21	30	32	25	39	25	23	24	40	29	19
Humanities, Other	79	76	72	111	92	100	158	131	132	165	151
EDUCATION	6,677	6,689	6,711	6,650	6,785	6,580	6,573	6,547	6,429	6,336	6,488
RESEARCH & ADMINISTRATION	4,894	4,997	4,929	4,942	5,235	5,039	4,993	5,066	4,950	4,991	5,368
Curriculum & Instruction	900	856	819	896	899	918	885	993	966	884	987
Educational Admin. and Supervision	1,290	1,340	1,207	1,086	1,172	1,020	952	895	813	838	791
Educational Leadership	694	783	793	890	993	1,033	1,116	1,149	1,214	1,225	1,548
Educ./Instruct. Media Design	62	96	112	121	107	92	91	123	138	140	171
Educ. Stat./Research Methods	61	64	68	63	76	58	56	57	55	65	67
Educ. Assess., Test., & Meas.	45	23	28	19	32	30	35	39	45	44	31
Educational Psychology	346	290	311	297	309	359	327	298	278	281	301
School Psychology	88	86	97	71	114	118	112	108	137	123	169
Social/Phil. Found. of Educ.	101	109	140	130	125	138	129	125	135	141	126
Special Education	260	277	241	254	278	270	247	262	259	229	213
Counseling Educ./Couns. & Guidance	259	288	284	268	278	207	270	260	212	211	256
Higher Educ./ Evaluation & Research	381	357	428	457	481	506	431	465	438	515	446
Pre-elementary/Early Childhood	98	97	91	70	81	43	54	49	34	49	50
Elementary Education	73	65	71	61	46	56	62	59	53	55	52
Secondary Education	28	33	24	24	34	27	54	31	23	22	22
Adult & Continuing Education	208	233	215	235	210	164	172	153	150	169	138
TEACHING FIELDS	1,008	943	960	924	864	919	954	892	822	721	684
Agricultural Education	43	54	52	35	32	38	25	38	22	22	28
Art Education	46	38	33	39	41	30	46	47	31	31	30
Business Education	16	27	25	21	20	26	31	45	37	19	12
English Education	61	53	56	60	57	62	53	64	44	56	53
Foreign Languages Education	50	48	54	60	45	47	73	62	43	47	41
Health Education	98	83	97	99	90	58	70	58	71	65	38
Home Economics Education	12	14	11	15	13	13	8	10	14	8	9
Technical/Industrial Arts Education	11	16	20	15	11	19	30	21	21	16	7

Appendix Table B-1. Number of doctorate recipients, by subfield, 1992-2002, continued

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Mathematics Education	62	69	74	92	100	93	115	101	90	80	88
Music Education	96	80	89	96	91	101	93	79	78	62	80
Nursing Education	29	19	24	18	23	21	14	22	11	5	7
Physical Education & Coaching	167	161	139	104	101	109	109	115	83	80	73
Reading Education	121	95	97	85	66	70	76	68	89	72	66
Science Education	73	73	85	73	96	77	109	58	60	72	61
Social Science Education	19	9	10	14	12	26	15	9	35	12	10
Technical Education	35	21	30	20	24	32	18	27	20	10	23
Trade & Industrial Education	11	24	24	13	12	16	14	14	12	7	5
Teacher Ed./Spec. Acad. & Voc., Other	58	59	40	65	30	81	55	54	61	57	53
OTHER EDUCATION	775	749	822	784	686	622	626	589	657	624	436
Education, General	443	411	484	429	353	336	235	197	253	256	158
Education, Other	332	338	338	355	333	286	391	392	404	368	278
PROFESSIONAL/OTHER FIELDS	2,498	2,496	2,586	2,668	2,476	2,373	2,282	2,286	2,256	2,245	2,345
BUSINESS AND MANAGEMENT	1,248	1,281	1,283	1,329	1,277	1,244	1,172	1,107	1,064	1,053	1,095
Accounting	180	183	179	168	156	150	154	154	110	115	110
Banking/Financial Support Services	172	170	134	163	114	69	83	74	72	66	76
Business Admin. & Management	241	324	319	341	393	426	348	315	322	348	339
Business/Managerial Economics	21	33	40	37	38	48	57	42	52	50	38
International Business	-----	-----	22	23	36	39	33	34	32	29	23
Mgmt. Inf. Sys./Business Data Proc.	103	102	117	111	95	100	86	83	85	98	89
Marketing Mgmt. & Research	139	166	167	153	153	153	142	127	141	113	132
Operations Research	67	63	54	60	64	45	57	52	61	40	36
Organizational Behavior	81	73	102	100	108	122	103	100	98	118	173
Bus. Mgmt./Admin. Serv., General	112	87	87	92	67	28	38	49	36	20	33
Bus. Mgmt./Admin. Serv., Other	132	80	62	81	53	64	71	77	55	56	46
COMMUNICATIONS	330	321	371	381	389	332	373	379	389	389	399
Communications Research	45	33	40	40	60	51	52	50	53	60	64
Mass Communications	85	117	156	121	137	117	142	153	154	153	156
Communication Theory	47	41	45	53	37	40	48	47	39	40	43
Communications, General	76	69	68	78	81	74	62	69	77	78	70
Communications, Other	77	61	62	89	74	50	69	60	66	58	66
OTHER PROFESSIONAL FIELDS	880	867	891	932	771	773	721	768	797	801	801
Architectural Environmental Design	60	54	67	55	61	66	52	65	60	66	67
Home Economics	58	57	31	31	28	36	18	23	23	20	24
Law	20	29	33	38	24	27	31	37	41	34	50
Library Science	51	70	42	47	49	40	34	39	45	40	32
Parks/Recreation/Leisure/Fitness	0	44	37	54	29	24	38	29	45	41	51
Public Administration	108	117	135	128	103	95	104	117	103	96	104
Social Work	248	237	272	303	256	247	235	224	257	260	237
Theology/Religious Education	292	243	262	273	213	178	158	162	171	194	173
Professional Fields, General	1	1	1	1	2	4	0	9	3	8	7
Professional Fields, Other	42	15	11	2	6	56	51	63	49	42	56
OTHER FIELDS	40	27	41	26	39	24	16	32	6	2	50

NOTE: Dashes (-----) indicate that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

^a Includes respondents missing data for doctoral field: 5 in 1997; 7 in 1998; 1 in 1999; 5 in 2000; 1 in 2001; 2 in 2002.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table B-2a. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1992-2002 - Total all doctorates

	Year of doctorate										
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total all doctorates ^a	38,889	39,800	41,033	41,748	42,436	42,556	42,652	41,098	41,356	40,790	39,955
U.S. citizens	26,009	26,449	27,149	27,742	27,775	28,160	28,457	27,986	27,966	27,021	25,936
Permanent visas	1,980	2,259	3,747	4,317	3,765	2,931	2,702	2,308	1,957	1,836	1,646
Temporary visas	9,953	9,932	9,403	8,814	9,617	9,193	9,496	9,058	9,652	9,824	9,707
Unknown citizenship	947	1,158	732	872	1,278	2,272	1,997	1,746	1,781	2,109	2,663
Total Known race/ethnicity	37,204	38,297	39,847	40,347	40,706	38,911	39,392	38,684	38,779	38,047	36,685
U.S. citizens	25,661	26,221	26,900	27,447	27,445	27,074	27,541	27,527	27,411	26,547	25,450
Permanent visas	1,906	2,225	3,700	4,275	3,732	2,868	2,614	2,269	1,899	1,802	1,600
Temporary visas	9,537	9,677	9,115	8,549	9,379	8,852	9,089	8,800	9,361	9,498	9,350
Unknown citizenship	100	174	132	76	149	117	148	88	108	200	285
American Indian ^b	152	121	146	148	188	167	190	214	169	164	154
U.S. citizens	149	120	143	148	185	167	189	214	169	149	146
Permanent visas ^c	0	0	0	0	1	0	0	0	0	2	3
Temporary visas ^c	2	1	3	0	2	0	0	0	0	12	5
Unknown citizenship	1	0	0	0	0	0	1	0	0	1	0
Asian ^d	8,280	8,659	9,352	9,693	9,802	9,006	8,563	7,993	8,052	8,102	7,864
U.S. citizens	839	876	937	1,129	1,066	1,296	1,155	1,304	1,363	1,394	1,364
Permanent visas	915	1,126	2,596	3,168	2,608	1,813	1,552	1,191	910	776	744
Temporary visas	6,505	6,604	5,796	5,375	6,095	5,865	5,826	5,469	5,756	5,910	5,724
Unknown citizenship	21	53	23	21	33	32	30	29	23	22	32
Black/ African-American	1,427	1,610	1,681	1,807	1,825	1,760	1,914	2,051	2,094	2,008	2,009
U.S. citizens	966	1,109	1,099	1,293	1,305	1,335	1,486	1,629	1,629	1,612	1,644
Permanent visas	143	169	178	168	141	139	119	133	119	117	87
Temporary visas	311	319	389	335	363	276	297	281	334	265	256
Unknown citizenship	7	13	15	11	16	10	12	8	12	14	22
Hispanic ^e	1,402	1,430	1,534	1,544	1,632	1,694	1,879	1,899	1,962	1,904	2,020
U.S. citizens	778	833	884	922	957	1,063	1,205	1,184	1,180	1,126	1,233
Permanent visas	131	139	146	142	156	135	122	140	128	144	131
Temporary visas	482	454	502	472	513	484	543	561	648	619	646
Unknown citizenship	11	4	2	8	6	12	9	14	6	15	10
White	25,912	26,434	27,085	27,081	27,158	26,250	26,786	26,413	26,374	25,454	24,239
U.S. citizens	22,903	23,245	23,795	23,891	23,847	23,181	23,454	23,094	22,956	21,923	20,720
Permanent visas	714	791	779	795	823	781	819	801	741	752	628
Temporary visas	2,235	2,294	2,419	2,359	2,394	2,225	2,417	2,481	2,610	2,650	2,670
Unknown citizenship	60	104	92	36	93	63	96	37	67	129	221
Other/unknown race/ethnicity ^f	1,716	1,546	1,235	1,475	1,831	3,679	3,320	2,528	2,705	3,158	3,669
U.S. citizens	374	266	291	359	415	1,118	968	561	669	817	829
Permanent visas	77	34	48	44	36	63	90	43	59	45	53
Temporary visas	418	260	294	273	250	343	413	266	304	368	406
Unknown citizenship	847	984	600	796	1,130	2,155	1,849	1,658	1,673	1,928	2,378

^a Total includes doctorate recipients whose gender was unknown.^b Includes Alaskan Natives.^c In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.^d Includes Native Hawaiians/Other Pacific Islanders through 2000, but excludes them in 2001 per revised OMB guidelines issued for 2001.^e Persons reporting an Hispanic ethnicity, whether singly or in combination with another race/ethnicity, are included in the respondent-selected Hispanic ethnicity category.^f Includes only those with unknown race/ethnicity through 2000. In 2001 this category was expanded to include Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting a Hispanic ethnicity).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table B-2b. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1992-2002 - Total men

	Year of doctorate										
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total all doctorates ^a	24,234	24,384	25,058	25,161	25,285	24,950	24,639	23,436	23,166	22,786	21,760
U.S. citizens	14,517	14,513	14,733	14,965	14,720	15,049	14,873	14,514	14,152	13,632	12,823
Permanent visas	1,290	1,468	2,636	2,907	2,483	1,834	1,665	1,379	1,142	999	867
Temporary visas	7,946	7,835	7,304	6,844	7,392	6,974	7,007	6,631	6,843	7,022	6,736
Unknown citizenship	481	567	384	442	689	1,093	1,094	912	1,029	1,133	1,332
Total known race/ethnicity	23,171	23,538	24,327	24,308	24,274	23,017	22,728	22,068	21,621	21,241	20,022
U.S. citizens	14,265	14,346	14,567	14,759	14,498	14,439	14,332	14,222	13,823	13,348	12,532
Permanent visas	1,236	1,444	2,602	2,881	2,461	1,795	1,605	1,352	1,103	978	841
Temporary visas	7,606	7,642	7,093	6,632	7,215	6,717	6,714	6,445	6,641	6,794	6,486
Unknown citizenship	64	106	65	36	99	66	77	49	54	121	163
American Indian ^b	82	61	74	80	102	79	104	96	76	78	72
U.S. citizens	82	60	71	80	101	79	104	96	76	67	67
Permanent visas ^c	0	0	0	0	0	0	0	0	0	2	2
Temporary visas ^c	0	1	3	0	1	0	0	0	0	8	3
Unknown citizenship	0	0	0	0	0	0	0	0	0	1	0
Asian ^d	6,414	6,596	7,052	7,095	7,197	6,425	6,027	5,526	5,344	5,425	5,136
U.S. citizens	529	543	582	662	603	742	641	764	740	746	747
Permanent visas	603	732	1,877	2,197	1,787	1,142	985	711	502	424	373
Temporary visas	5,264	5,282	4,575	4,221	4,783	4,522	4,385	4,030	4,086	4,238	3,997
Unknown citizenship	18	39	18	15	24	19	16	21	16	17	19
Black/African-American	768	839	888	877	929	857	821	909	880	864	849
U.S. citizens	394	441	410	487	531	528	525	609	560	589	606
Permanent visas	122	138	142	125	107	108	86	91	82	84	61
Temporary visas	246	250	329	260	285	212	203	204	233	186	177
Unknown citizenship	6	10	7	5	6	9	7	5	5	5	5
Hispanic ^e	860	874	866	914	935	980	1,060	991	1,070	1,017	1,036
U.S. citizens	410	423	438	463	480	543	610	510	546	498	536
Permanent visas	72	94	80	79	87	81	72	69	63	71	61
Temporary visas	371	356	346	369	364	350	375	405	459	443	434
Unknown citizenship	7	1	2	3	4	6	3	7	2	5	5
White	15,031	15,146	15,420	15,307	15,063	14,660	14,683	14,496	14,193	13,651	12,745
U.S. citizens	12,837	12,859	13,042	13,037	12,744	12,532	12,423	12,200	11,850	11,286	10,428
Permanent visas	437	480	503	479	480	464	461	478	455	393	342
Temporary visas	1,724	1,751	1,837	1,778	1,774	1,632	1,748	1,802	1,857	1,890	1,841
Unknown citizenship	33	56	38	13	64	32	51	16	31	82	134
Other/unknown race/ethnicity ^f	1,079	868	758	888	1,059	1,949	1,944	1,418	1,603	1,751	1,922
U.S. citizens	265	187	190	236	261	625	570	335	380	446	439
Permanent visas	56	24	34	27	22	39	61	30	40	25	28
Temporary visas	341	195	214	216	185	258	296	190	208	257	284
Unknown citizenship	417	461	319	406	591	1,027	1,017	863	975	1,023	1,169

^a Total includes doctorate recipients whose gender was unknown.

^b Includes Alaskan Natives.

^c In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

^d Includes Native Hawaiians/Other Pacific Islanders through 2000, but excludes them in 2001 per revised OMB guidelines issued for 2001.

^e Persons reporting an Hispanic ethnicity, whether singly or in combination with another race/ethnicity, are included in the respondent-selected Hispanic ethnicity category.

^f Includes only those with unknown race/ethnicity through 2000. In 2001 this category was expanded to include Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting a Hispanic ethnicity).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix Table B-2c. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1992-2002 - Total women

	Year of doctorate										
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total all doctorates ^a	14,436	15,121	15,821	16,417	16,956	17,247	17,849	17,485	18,121	17,935	18,124
U.S. citizens	11,491	11,931	12,413	12,775	13,055	13,077	13,570	13,472	13,811	13,389	13,112
Permanent visas	687	788	1,110	1,409	1,282	1,096	1,021	929	813	837	779
Temporary visas	1,990	2,069	2,077	1,953	2,214	2,204	2,469	2,423	2,808	2,801	2,965
Unknown citizenship	268	332	220	280	405	870	789	661	689	908	1,267
Total known race/ethnicity	14,020	14,740	15,506	16,031	16,427	15,881	16,639	16,615	17,156	16,806	16,662
U.S. citizens	11,396	11,873	12,330	12,688	12,947	12,632	13,206	13,305	13,587	13,199	12,917
Permanent visas	669	779	1,097	1,393	1,271	1,072	1,001	917	796	824	759
Temporary visas	1,921	2,022	2,015	1,911	2,160	2,126	2,362	2,354	2,720	2,704	2,864
Unknown citizenship	34	66	64	39	49	51	70	39	53	79	122
American Indian ^b	70	60	72	68	86	88	86	118	93	86	82
U.S. citizens	67	60	72	68	84	88	85	118	93	82	79
Permanent visas ^c	0	0	0	0	1	0	0	0	0	0	1
Temporary visas ^c	2	0	0	0	1	0	0	0	0	4	2
Unknown citizenship	1	0	0	0	0	0	1	0	0	0	0
Asian ^d	1,855	2,049	2,291	2,591	2,600	2,574	2,520	2,466	2,708	2,677	2,728
U.S. citizens	310	332	354	467	463	553	513	540	623	648	617
Permanent visas	311	392	718	970	821	671	560	480	408	352	371
Temporary visas	1,231	1,312	1,216	1,148	1,308	1,337	1,434	1,438	1,670	1,672	1,727
Unknown citizenship	3	13	3	6	8	13	13	8	7	5	13
Black/African-American	659	769	791	930	896	903	1,091	1,142	1,214	1,144	1,160
U.S. citizens	572	668	689	806	774	807	961	1,020	1,069	1,023	1,038
Permanent visas	21	31	36	43	34	31	32	42	37	33	26
Temporary visas	65	68	59	75	78	64	93	77	101	79	79
Unknown citizenship	1	2	7	6	10	1	5	3	7	9	17
Hispanic ^e	542	555	668	630	697	714	817	908	891	887	984
U.S. citizens	368	410	446	459	477	520	594	674	633	628	697
Permanent visas	59	45	66	63	69	54	50	71	65	73	70
Temporary visas	111	97	156	103	149	134	167	156	189	176	212
Unknown citizenship	4	3	0	5	2	6	6	7	4	10	5
White	10,879	11,286	11,662	11,773	12,095	11,584	12,098	11,917	12,180	11,803	11,493
U.S. citizens	10,066	10,385	10,751	10,854	11,103	10,647	11,030	10,894	11,106	10,637	10,291
Permanent visas	277	311	276	316	343	316	358	323	286	359	286
Temporary visas	511	542	581	581	620	590	665	679	753	760	829
Unknown citizenship	25	48	54	22	29	31	45	21	35	47	87
Other/unknown race/ethnicity ^f	431	402	337	425	582	1,384	1,237	934	1,035	1,338	1,677
U.S. citizens	108	76	101	121	154	462	387	226	287	371	390
Permanent visas	19	9	14	17	14	24	21	13	17	20	25
Temporary visas	70	50	65	46	58	79	110	73	95	110	116
Unknown citizenship	234	266	156	241	356	819	719	622	636	837	1,145

^a Total includes doctorate recipients whose gender was unknown.

^b Includes Alaskan Natives.

^c In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

^d Includes Native Hawaiians/Other Pacific Islanders through 2000, but excludes them in 2001 per revised OMB guidelines issued for 2001.

^e Persons reporting an Hispanic ethnicity, whether singly or in combination with another race/ethnicity, are included in the respondent-selected Hispanic ethnicity category.

^f Includes only those with unknown race/ethnicity through 2000. In 2001 this category was expanded to include Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting a Hispanic ethnicity).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Appendix C: Technical Notes

Appendix C includes the following three tables:

- C-1. Survey response rates
- C-2. Profiles of respondents versus nonrespondents for critical item data, by source of response, 2002
- C-3. Item response rates, 1992-2002

Survey Overview

The Survey of Earned Doctorates (SED) is designed to obtain data on the number and characteristics of individuals receiving research doctoral degrees from U.S. institutions. The results of the survey are used to assess trends in doctorate production. This information is vital for educational and labor force planners within the Federal Government and in academia. The survey has been completed by individuals receiving research doctorates since 1958. The graduate schools are responsible for submitting completed forms and sending them to be compiled in the Doctorate Records File (DRF).

Key variables of the survey include:

- Academic institution attended
- Citizenship status at graduation
- Country of birth
- Country of citizenship
- Date of birth
- Disability status
- Educational attainment of parents
- Educational history after high school
- Field of degree specialty (N= 285)
- Field of employment
- Field of science and engineering
- Level of degree
- Marital status
- Number of dependents
- Place of birth
- Postgraduate plans
- Primary type of financial support
- Race and Hispanic ethnicity (by subgroup)
- Sex
- Type of academic institution that conferred degrees

Type of employment planned
Type of financial support (e.g., fellowship, research assistantship, etc.)
Type of institutional control (public versus private)
Work activity planned after doctoral degree

A complete questionnaire is contained in appendix D.

Data Collection

The population eligible for the 2002 survey consisted of all individuals who received a research doctorate (only first doctorates are included) from a U.S. academic institution in the 12-month period ending on June 30, 2002. The total universe consisted of 39,955 persons in more than 400 institutions that confer research doctorates awards in 2002.

Survey instruments were mailed to institutional coordinators in the graduate schools who distributed the survey forms to individuals receiving a research doctorate. The institutional coordinators also collected the forms and returned them to the contractor for editing/processing. Follow-up of missing critical items and forms is also conducted.

Since the survey collects a complete college education history, coding of institutions is very important. Because about 30 percent of doctorate recipients from U.S. universities are from foreign countries, a coding manual for foreign institutions of higher education was developed by the U.S. Department of Education, entitled "Mapping the World of Education: The Comparative Database System" (three volumes).

The survey was conducted by the National Research Council of the National Academy of Sciences under contract to the National Science Foundation until 1997; the National Opinion Research Center (Chicago, Illinois) currently conducts the survey under contract.

Survey Response Rates

Of the 39,955 new research doctorates granted in 2002, 91 percent of degree recipients returned their completed survey instruments. Limited records (containing field of study, doctorate institution and sex) for nonrespondents are constructed based on information collected from administrative lists of the university -- commencement programs, graduation lists, and other similar public records. Nonresponse was concentrated in certain institutions; graduates from 10 institutions accounted for 30 percent of the total nonrespondents.

Appendix Table C-1. Survey response rates ^a

Year	Self-report rate	Year	Self-report rate
1967	97.3	1985	94.8
1968	97.6	1986	93.5
1969	96.6	1987	93.1
1970	98.1	1988	92.9
1971	97.5	1989	92.3
1972	97.3	1990	93.6
1973	97.5	1991	94.6
1974	94.2	1992	95.1
1975	97.3	1993	94.7
1976	97.2	1994	94.6
1977	96.6	1995	94.1
1978	96.3	1996	92.9
1979	96.4	1997	91.5
1980	96.2	1998	91.9
1981	95.7	1999	91.9
1982	95.3	2000	92.3
1983	95.5	2001	92.5
1984	95.1	2002	91.0

^a The rates for 1967-2001 reflect late responses. The rate for 2002 may increase slightly in the next year if additional questionnaires are received after survey closure.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

The percentage of doctorate recipients completing the survey form is referred to as the “self-report” rate. The remaining doctorate recipients have either “skeletal” records containing only doctoral institution, degree date, field of degree, and gender, or “institution provided” records including the skeletal information above as well as information provided by the institution in “missing information rosters (MIRs)” where available.

Wherever possible this report includes data from all Ph.D. records whether complete or skeletal; thus the reported total number of doctorate recipients for 2002 (39,955) includes both respondents and non-respondents. It should also be noted that, in keeping with the practice of earlier data collection cycles, counts for previous years were corrected by the addition of data from surveys received after the close of data collection for a given year.

A Comparison of Self-Reported and Institution-Supplied Data

TABLE C-2: Table C-2 presents the results of a chi-square test comparing respondent-completed cases and nonresponding cases where institutions supplied data on critical items. The profile of nonrespondents is significantly different from the profile of respondents in five of the eight critical item variables. Nonrespondents appear to be slightly older than respondents. Nonrespondents are more likely to be non-white. These findings should be considered suggestive only, as there is a high proportion of missing data from institutions on citizenship status, bachelor's institution, year of bachelor's degree and postgraduation location.

Appendix Table C-2. Profiles of respondents versus nonrespondents for critical item data, by source of response, 2002

Critical item (variable name)	Respondents (self-report)	Nonrespondents (institution-provided)	Difference
Year of Birth*			
Missing data	1.2	12.6	
Before 1970	58.3	65.6	-7.3
1970 and later	41.7	34.4	7.3
Sex			
Missing data	0.0	0.5	
Male	54.8	54.9	-.1
Female	45.2	45.1	.1
Citizenship Status			
Missing data	.5	24.2	
U.S. citizen	69.6	66.3	3.3
Permanent resident	4.4	4.7	-.3
Temporary resident	25.9	29.1	-3.2
Country of Citizenship (for non-U.S. citizens only)*			
Country reported	99.7	76.0	23.7
Country not reported	0.3	24.0	-23.7
Race/Ethnicity* (U.S. citizens & perm residents only)			
Missing data	0.8	8.3	
American Indian ^a	0.5	0.8	-.3
Asian ^b	7.7	7.6	.1
Black	6.2	12.9	-6.7
Hispanic ^c	5.0	5.7	-.7
White	78.5	68.2	10.3
Other ^d	2.2	4.9	-2.7
Bachelor's Institution			
Missing data	2.3	42.2	
U.S.	72.6	70.1	0.5
Non-U.S.	27.4	39.9	-0.5
Year of Bachelor's Degree*			
Missing data	2.6	39.3	
Before 1992	50.1	55.8	-5.7
1992-after	49.2	44.2	5.7
Postgraduation location			
Missing data	1.6	60.0	
U.S.	90.1	91.1	-1.0
Non-U.S.	9.9	8.9	1.0

*Significant at .05 level, chi-square test performed on non-missing data.

Note: Missing data percentages calculated from all data, missing and non-missing. All other percentages calculated on non-missing data.

^a Includes Alaskan Natives.

^b Does not include Native Hawaiians and other Pacific Islanders.

^c Persons reporting an Hispanic ethnicity, whether singly or in combination with another race/ethnicity, are included in the respondent-selected Hispanic ethnicity category.

^d Includes Native Hawaiians and other Pacific Islanders, respondents choosing multiple races (excluding those selecting an Hispanic ethnicity), and respondents with unknown race/ethnicity.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Item Response Rates

Item nonresponse rates in 2002 for the main SED demographic variables ranged from 0.2 percent for sex to 9.0 percent for postgraduation location. No imputation was performed for missing data items.

<u>Key variable</u>	<u>Item response rate</u>
Sex	99.8
Citizenship	93.3
Race/ethnicity	92.8
Country of citizenship	93.0
Postgraduation location	91.0

TABLE C-3: Table C-3 on the following pages shows the response rates for each item in the Survey of Earned Doctorates for 1992 through 2002. The numbers and percentages shown in the tables and figures in the body of the summary report are based only on the number of research doctorate recipients who responded to the applicable survey items. For cross-tabulations, the response rate for a given tabulation will be no greater than the lowest response rate for the items involved in the tabulation.

Appendix Table C-3. Item response rates, 1992-2002

Variable name	Field	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
AMERIND	American Indian/Alaska Native race indicator	94.9	95.4	96.2	95.6	94.8	90.2	90.8	92.4	92.4	93.7	91.7
ASIAN	Asian race indicator	94.9	95.4	96.2	95.6	94.8	90.2	90.8	92.4	92.4	93.7	91.7
BAFIELD	B.A. field	92.3	91.9	91.6	90.9	89.3	82.8	84.2	84.5	86.5	86.9	85.6
BAINST	B.A. Institution	97.4	97.5	97.9	97.4	96.5	89.5	91.2	92.5	91.1	92.9	91.7
BAMONTH	Month of B.A.	90.7	90.3	90.2	90.0	88.6	82.2	82.9	83.6	85.0	85.2	84.1
BAYEAR	Year of B.A.	96.9	96.8	97.4	97.1	96.4	88.6	90.6	92.3	90.4	92.4	91.1
BIRTHMO	Month of birth	97.7	97.3	98.1	97.5	96.7	92.7	92.9	95.0	95.2	94.3	92.9
BIRTHPL	Place of birth	95.1	94.8	94.9	94.5	93.1	90.6	90.9	91.2	91.4	91.4	90.1
BIRTHYR	Year of birth	97.7	97.4	98.2	97.5	96.8	92.9	92.7	95.0	95.2	94.5	93.1
BLACK	Black race indicator	94.9	95.4	96.2	95.6	94.8	90.2	90.8	92.4	92.4	93.7	91.7
CEPLACE	Place of college entry	92.7	92.8	92.3	92.1	90.6	82.5	90.4	90.6	89.8	92.0	92.2
CEYEAR	Year of college entry	92.1	91.7	91.5	91.3	89.2	82.7	88.7	89.1	87.2	89.4	87.5
CITIZ	Type of citizenship	97.6	97.1	98.2	97.9	97.0	94.7	95.3	95.7	95.7	94.8	93.3
CNTRYCIT	Country of citizenship	97.1	96.7	98.0	97.7	96.7	92.6	93.7	94.7	95.0	94.5	93.0
DEBTIND	Debt level indicator	93.3	92.8	92.8	92.3	91.3	89.3	89.7	90.6	91.0	90.7	89.4
DEPENDS	Number of dependents	89.7	89.8	89.7	89.4	89.5	88.3	88.7	89.1	89.3	89.5	88.8
DEPEND5	Number of dependents - ages 5 or younger	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.2
DEPEND18	Number of dependents - ages 6-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.2
DEPEND19	Number of dependents - ages 19 and older	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.2
EDFATHER	Father's education	93.0	92.7	92.7	92.3	91.5	89.5	89.8	90.4	90.8	90.8	89.5
EDMOTHER	Mother's education	93.0	92.6	92.5	92.2	91.7	89.7	90.0	90.7	91.0	91.0	89.7
GDEBTLVL	Graduate debt level	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.5
GEYEAR	Year of graduate entry	89.5	88.6	88.2	87.4	85.7	77.4	81.4	84.8	83.6	84.3	83.2
HANDICAP	Handicapped status	93.9	93.6	93.7	93.3	91.8	90.1	90.1	90.3	90.8	90.8	89.6
HAWAIIAN	Native Hawaiian/Pacific Islander race indicator	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	91.1
HISPANIC	Hispanic origin indicator	96.7	96.8	97.7	97.2	96.5	93.1	93.6	95.1	94.8	92.1	91.2
HISPORIG	Hispanic origin specified	94.3	92.7	98.4	98.1	97.2	94.9	94.8	90.8	97.4	97.6	96.9
HSPLACE	Place of high school	94.4	94.0	93.9	93.5	92.2	90.2	90.8	91.4	91.8	90.9	89.9
JRCOLL	Junior college indicator	92.7	92.9	92.5	92.4	90.6	91.5	91.9	91.8	92.2	92.0	90.7
MAFIELD	Masters field	76.9	76.1	76.1	75.3	74.6	68.8	70.4	70.7	71.2	71.2	70.4
MAINST	Masters institution	79.0	86.2	86.9	86.3	87.3	79.0	80.7	80.5	75.9	82.4	82.0
MAMONTH	Month of masters	73.4	80.0	80.3	79.8	81.0	73.3	75.3	75.8	71.2	77.3	77.3
MARITAL	Marital status	91.9	91.5	91.5	91.0	91.7	89.3	90.2	90.8	91.1	91.0	89.7
MAYEAR	Year of masters	77.7	84.7	85.1	84.7	85.6	77.8	80.4	79.5	74.9	81.1	81.1
PDEMPLOY	Post doc employer type	92.8	92.5	92.6	92.0	91.4	88.0	89.2	89.3	90.7	90.2	89.2
PDLOC	Postgraduation location	94.4	93.8	94.6	94.2	92.7	83.7	89.6	92.0	92.3	92.4	91.0
PDOCPLAN	Postgraduation plans	92.7	92.4	92.4	91.9	91.3	87.1	88.0	89.3	90.7	90.2	89.2
PDOCSTAT	Postgraduation status	92.1	91.8	91.7	91.0	91.0	89.0	89.7	90.4	91.1	91.0	89.8
PDSTDSUP	Postdoctoral study support	92.7	92.4	92.4	91.9	91.3	87.7	88.5	89.5	90.9	90.5	89.2
PDUSFOR	Postgraduation location: U.S. or foreign	94.4	93.8	94.6	94.2	92.7	83.7	89.6	92.0	92.3	92.4	91.0
PDWK1ED	Edited primary work activity	92.7	92.4	92.4	91.9	91.3	88.0	89.1	89.4	90.7	90.2	89.2
PDWK2ED	Edited secondary work activity	92.7	92.4	92.4	91.9	91.3	87.9	89.0	89.3	90.7	90.2	89.2
PDWKPRIM	Primary work activity	92.7	92.4	92.4	91.9	91.3	88.1	89.3	89.4	90.7	90.2	89.2
PDWKSEC	Secondary work activity	92.7	92.4	92.4	91.9	91.3	87.9	89.0	89.3	90.7	90.2	89.2
PHDCY	Calendar year of Ph.D.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDDISS	Dissertation field	NA	92.7	93.3	92.4	92.2	89.2	90.1	90.9	91.4	91.4	90.2
PHDENTRY	First year entry PHDINST after B.A.	NA	86.9	86.7	86.5	85.6	79.0	83.7	85.9	85.2	85.2	83.5
PHDFIELD	Ph.D. field	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDFY	Fiscal year of Ph.D.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDINST	Doctoral institution	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDMONTH	Month of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Appendix Table C-3. Item response rates, 1992-2002, continued

Variable name	Field	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
PHDTYPE1	Type of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDTYPE2	Applied research doctorate type	100.0	100.0	100.0	100.0	100.0	74.0	100.0	94.4	94.7	100.0	100.0
QUESTYR	Year questionnaire filled out	95.1	94.7	94.5	94.1	92.9	91.5	91.9	91.9	92.2	92.2	91.0
RACE	Edited race/ethnic code	96.7	96.8	97.7	97.2	96.5	93.1	93.6	95.1	94.8	94.1	92.8
RACEOTH	Other/multiple race indicator	94.9	95.4	96.2	95.6	94.8	90.2	90.8	92.4	92.1	NA	NA
REGTTD	Registered time to degree	88.9	87.8	87.5	86.7	84.9	76.8	80.6	84.1	82.9	83.4	82.7
SEX	Sex of student	99.4	99.3	99.6	99.6	99.5	99.2	99.6	99.6	99.8	99.8	99.8
SRCE1ED	Edited primary source of support	69.7	66.2	72.4	74.9	88.0	87.8	88.6	89.9	90.2	90.1	88.4
SRCEPRIM	Primary source support	69.7	66.2	72.4	74.9	88.0	87.8	88.7	89.9	90.2	90.1	88.4
TOTTTD	Total time to degree	96.0	95.7	96.2	95.5	94.7	88.2	90.1	91.7	90.1	91.9	90.4
TUITREMS	Tuition remission - full or partial	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86.4
UDEBTLVL	Undergraduate debt level	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.5
WHITE	White race indicator	94.9	95.4	96.2	95.6	94.8	90.2	90.8	92.4	92.4	93.7	91.7
YRSCOURS	Years of coursework	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.1
YRSDISST	Years preparing dissertation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.3
YRSGRAD	Years from graduate entry to doctorate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.1

NOTE: NA = not available.

1. For the purposes of this analysis, "response rate" is the percent of cases providing data on the item divided by the universe of doctorate recipients eligible to answer that item. On most items, the full universe of doctorate recipients establishes the universe of eligible respondents. However, on a number of items, only a subset of the full universe is eligible to answer the item. Variables DEPEND5, DEPEND18, DEPEND19, GDEBTLVL, PHDDISS2, UDEBTLVL, YRSCOURS, YRSDISST and YRSGRAD appeared for the first time on the 2001 survey form. Because about 15 percent of AY 2001 respondents submitted data on earlier versions of the survey form, response rates for these variables are not reported. Response rates for these variables are reported in 2002 and later because the entire universe had the opportunity to provide data for these questions.
2. The time-to-degree measures (REGTTD and TOTTTD) result from the Doctorate Data Project's calculation of these figures from six variables measuring durations spent inside and outside of educational institutions between bachelor's degree receipt and doctorate receipt. The time-to-degree measures are presented here because they are more meaningful summaries of valid data than the response rates of the individual component variables used to calculate them.
3. The items DEPENDS and DEBTLVL are not collected on current SED survey forms. They are calculated from other current variables and presented here so as to illustrate trends with earlier years in which these items were asked. The response rate for the variable CENTRYCIT counts as respondents all doctorate recipients who reported being U.S. citizens and non-citizens who also provided their country of citizenship.
4. Each survey round incorporates data from questionnaires submitted after previous years' data collection periods are closed. For that reason, response rates reported here will differ slightly from response rates reported in earlier Doctorate Data Project publications. Changes in response rates are generally greatest in the year directly previous to the current survey round (in this case, AY 2001).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Derived Variables

The following derived variables deserve further explanation.

Postdoctoral Plans to Stay in the United States

Starting in 1997, the planned postdoctoral location of doctorate recipients was coded in a new variable called PDLOC using FIPS codes for U.S. states and territories and countries. Values of PDLOC of less than '100' indicate a postdoctoral location in the United States. Values between '100' and '555' indicate a non-U.S. location. A value of '-1' on PDLOC indicates a respondent refusal to provide data.

Also beginning in 1997, a dichotomous variable, PDUSFOR, was created to index whether the planned postdoctoral location reported by the respondent was in the United States or in a foreign location, with 1 = U.S. and 2 = Non-U.S. Data in PDUSFOR and PDLOC can be slightly different because PDUSFOR will capture a respondent's report of postgraduation location (in the U.S. or outside the U.S.) even if the respondent does not indicate a specific state or country.

Firm Postdoctoral Plans

Postdoctoral plans are coded using the values of PDOCSTAT, which indicate that the doctorate recipient's postdoctoral plans were definite at the time the survey was completed. That is, codes 0, 1, or A on PDOCSTAT indicate that the respondent had definite postdoctoral plans, whereas codes 2, 3, and 4 indicate that the respondent was still seeking to determine postdoctoral placement.

The following is the SAS code used to derive FIRMPLAN from PDOCSTAT :

```
if PDOCSTAT in ("0","1","A") then FIRMPLAN=1; /* Definite */  
if PDOCSTAT in ("2","3","4") FIRMPLAN=2; /* Seeking */  
if PDOCSTAT eq " " then FIRMPLAN=.;
```

Firm Plans to Stay in the United States

This variable is derived from PDUSFOR and FIRMPLAN. A respondent is coded as having firm plans to stay in the United States if the reported postdoctoral location was in the United States and the reported postdoctoral plans were coded "definite."

The following is the SAS code that creates the variable PDUSFOR from USPLAN and FIRMPLAN as described above.

```
FIRMUS=2;  
if (USPLAN eq 1 and FIRMPLAN eq 1) then FIRMUS=1;  
if USPLAN eq . or FIRMPLAN eq . then FIRMUS=.;
```

Time to Doctorate

Total time to degree (TTD): TTD measures the total elapsed time between the baccalaureate and the doctorate (including time not enrolled in school). TTD can be computed only for individuals whose baccalaureate year is known. Baccalaureate year is often obtained from commencement programs or doctorate institutions when not reported by the recipient. *Months are now included in the computation (see note below).*

Registered time to degree (RTD): RTD gauges the time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate. Enrollment may include years of attendance not related to a recipient's doctoral program. RTD can only be computed for individuals who provided all years of college attendance after the baccalaureate. *Months are now included in the computation (see note below).*

Note about medians: The method of computing medians, beginning with *Summary Report 1994*, is as follows. Months (of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, month values are assigned to the mid-point of the range of days, with a leap year factor included (i.e. assignment to a value of 181.25). (However, medians are not computed for years prior to 1969 because doctorate month is unavailable for all doctorate recipients.) Medians presented in previous summary reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results. While differences are small (usually one- or two-tenths of a year), readers should consider these differences when comparing medians presented in the report with those in earlier reports.

Race and Hispanic Ethnicity

Beginning in 2001, a new set of questionnaire items was used to collect information about citizenship. Just as in the past, respondents have been asked to first indicate whether or not they are Hispanic, and then check one or more of the various racial group categories (e.g., American Indian, indicating Tribal Affiliation, Asian (including Native Hawaiians and Pacific Islanders through the year 2000), black, or white). *Doctorate recipients who reported Hispanic heritage, regardless of racial designation, are counted as Hispanic in this report.* The remaining survey respondents are then counted in their respective racial groups or as "Other/Unknown" (which includes only those who did not indicate a specific race/ethnicity through 2000, and also includes those choosing "Multiple Race" in 2001 and 2002). (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as American Indian in this report.)

Citizenship

As in the past, the variable CITIZ is used to identify non-U.S. citizens for whom visa status was unknown. The new code frame for the data introduced in the year 2000 was as follows:

Code	Citizenship Category
0	U.S. Native
1	U.S. Naturalized Citizen
2	Non-U.S. Immigrant (Permanent Resident)
3	Non-U.S. Non-immigrant (Temporary Resident)
4	Non-U.S., Visa Status Unknown
Blank	Missing/Citizenship Unknown

Beginning in 2000, a logical assignment to code 4 was made if all follow-up attempts for missing citizenship were unsuccessful. The assignment was made for 1997-2002 records if three out of four variables – BIRTHPL, HSPLACE, CEPLACE, PDLOC – were non-U.S. locations. For the purposes of the tabulations in this report, code 4 was combined with code 3. This is consistent with what was done in previous rounds and seems well justified by an examination of the data. However, the existence of this new code will allow the data user to exclude the cases for which visa status is unknown if desired. One should keep in mind that the number of cases in this group (code 4) is not sufficient to warrant analysis as a separate group.

To match the numbers in this report, use the following code before analyzing citizenship:

```
/*RECODE CITIZ 4 */
IF (CITIZ eq '4') THEN CITIZ='3';
```

Debt

This item indexing debt was changed in AY 2001 to allow the identification of debt due to undergraduate education separately from that due to graduate education (see item A9). The resulting variables identify nine ranges of debt for each referent (undergraduate or graduate). To estimate overall debt, we took the midpoint of the chosen range for undergraduate and for graduate debt. These two values were summed to yield a total debt amount. These amounts were then assigned to the appropriate range as shown below:

Cumulative Debt

No Debt
\$5,000 OR LESS
\$5,001-\$10,000
\$10,001-\$15,000
\$15,001-\$20,000
\$20,001-\$25,000
\$25,001-\$30,000
\$30,001-\$35,000
\$35,001 and up

Availability of Data

The survey has collected information on doctoral recipients annually since 1957. More limited information is contained on the SED data file for research doctorate recipients from 1920-1956.

The data from this survey are published annually in Detailed Statistical Tables in the series Science and Engineering Doctorate Awards, available on the SRS Web site at (www.nsf.gov/sbe/srs/ssed/ssedmeth.htm). These reports focus on science and engineering fields of study. (The list of how fields of study are grouped for this report is shown at the end of the Technical Notes.) Companion data from this survey for earlier years (1960-1991) were published in Detailed Statistical Tables in the report *Science and Engineering Doctorates: 1960-91* (NSF 93-301). This report is out of print, but tables from it are available on request.

Information from the survey is also included in the report series *Science and Engineering Degrees*; in *Science and Engineering Indicators*; in *Women, Minorities, and Persons With Disabilities in Science and Engineering*; in *Foreign Participation in U.S. Academic Science and Engineering*; and in special occasional publications such as *Undergraduate Origins of Recent Science and Engineering Doctorate Recipients*.

Results are also included in a publication series on ALL fields of study -- *Doctorate Recipients from United States Universities: Summary Report*; this interagency report is sponsored by the Federal agencies that support the Survey of Earned Doctorates (six in 2002). The report is available on the Web at: www.norc.uchicago.edu/issues/docdata.htm.

Selected summary data from this survey are available on the NSF-SRS Web site and in the NSF-SRS WebCASPAR database by institution. Access to restricted data for researchers interested in analyzing microdata can be arranged through a licensing agreement.

A complete methodology report for the 2002 SED is available upon request from NSF-SRS. A complete list of methodological research concerning the Survey of Earned Doctorates is also available upon request from NSF-SRS.

Additional information about this survey can be obtained by contacting:

Joan S. Burrelli, Ph.D.
Science Resources Analyst
Division of Science Resources Studies
National Science Foundation
4201 Wilson Boulevard, Room 965 S
Arlington, VA 22230
Phone: (703) 292-7793
E-mail: jburrell@nsf.gov

Or

Tom Hoffer
Doctorate Data Project
NORC at the University of Chicago
1155 E. 60th Street
Chicago, IL 60637
Phone: (773) 256-6097
E-mail: hoffer-tom@norc.net

APPENDIX D

Survey of Earned Doctorates Questionnaire Academic Year 2002

Please print your name in full:

First Name	Middle Name	Last Name	Suffix (e.g., Jr.)
-------------------	--------------------	------------------	---------------------------

Cross reference: Birth name or former name legally changed

Name of Doctoral Institution	City or Branch	Date Degree Granted (mm/yyyy)
-------------------------------------	-----------------------	--------------------------------------

Survey of Earned Doctorates

July 1, 2001, to June 30, 2002

Conducted by

The National Opinion Research Center at the University of Chicago

for

The National Science Foundation

The National Institutes of Health

The U.S. Department of Education

The National Endowment for the Humanities

The U.S. Department of Agriculture

The National Aeronautics and Space Administration

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. ALL INFORMATION YOU PROVIDE WILL BE TREATED AS CONFIDENTIAL and used only for research or statistical purposes by your doctoral institution, the survey sponsors, their contractors, and collaborating researchers for the purpose of analyzing data, preparing scientific reports and articles, and selecting samples for a limited number of carefully defined follow-up studies. 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. Your Social Security number is also solicited under the NSF Act of 1950, as amended; providing it is also voluntary. It is used for survey quality control, program evaluation, and for matching with other databases.

The time needed to complete this form varies according to individual circumstances, but the average time is estimated to be 20 minutes. If you have comments regarding this time estimate, you may write to the National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230, Attention: NSF Reports Clearance Officer.

INSTRUCTIONS

Thank you for taking the time to complete this questionnaire. Directions are provided for each question. Because not all questions will apply to everyone, you may be asked to skip certain questions.

- If you have not already done so, please print your name on the front cover.
- Please print all responses; you may use either a pen or pencil.
- When answering questions that require marking a box, please use an "X."
- If you need to change an answer, please make sure that your old answer is either completely erased or clearly crossed out.
- On page 7 (inside the back cover) is a Specialties List for classifying your field(s) of specialization in questions A2 and A8.

PART A - Education

A1. What is the title of your dissertation?

- Please mark (X) this box if the title below refers to a performance, project report, or a musical or literary composition required instead of a dissertation.

Title

A2. Using the Specialties List (page 7), please write the name and number of the primary field of your dissertation research.

Name of Field
 Number of Field

If you had a secondary field for your dissertation research, list the name and number.

Name of Field
 Number of Field

A3. Please name the department (or interdisciplinary committee, center, institute, etc.) of the university that supervised your doctoral program.

- Mark (X) box if none

Department/Committee/Center/Institute/Program

A4. Please name the school or college within the university that supervised your doctoral program.

- Mark (X) box if not applicable

School or College within University

A5. Which of the following were sources of support during graduate school?

Mark (X) Yes or No for each

	Yes	No
a. Fellowship, scholarship	1 <input type="checkbox"/>	2 <input type="checkbox"/>
b. Dissertation grant	1 <input type="checkbox"/>	2 <input type="checkbox"/>
c. Teaching assistantship	1 <input type="checkbox"/>	2 <input type="checkbox"/>
d. Research assistantship	1 <input type="checkbox"/>	2 <input type="checkbox"/>
e. Traineeship	1 <input type="checkbox"/>	2 <input type="checkbox"/>
f. Internship or residency	1 <input type="checkbox"/>	2 <input type="checkbox"/>
g. Loans (from any source)	1 <input type="checkbox"/>	2 <input type="checkbox"/>
h. Foreign (non-U.S.) support	1 <input type="checkbox"/>	2 <input type="checkbox"/>
i. Personal savings	1 <input type="checkbox"/>	2 <input type="checkbox"/>
j. Personal earnings during graduate school (other than sources listed above)	1 <input type="checkbox"/>	2 <input type="checkbox"/>
k. Spouse's, partner's, or family earnings or savings	1 <input type="checkbox"/>	2 <input type="checkbox"/>
l. Employer reimbursement/assistance	1 <input type="checkbox"/>	2 <input type="checkbox"/>
m. Other - Specify	1 <input type="checkbox"/>	2 <input type="checkbox"/>

A6. Which TWO sources listed in A5 provided the most support?

Enter letters of primary and secondary sources

1. _____ Primary source of support
 Mark (X) if no primary source
2. _____ Secondary source of support
 Mark (X) if no secondary source

A7. If you received full or partial tuition remission for your doctoral studies, was it:

- 0 I did not receive any tuition remission
- 1 for less than 1/3 of tuition
- 2 between 1/3 and 2/3 of tuition
- 3 more than 2/3 of tuition

A9. When you receive your doctoral degree, how much money will you owe that is directly related to your undergraduate and graduate education?

Mark (X) one in each column

Undergraduate	Graduate
0 <input type="checkbox"/> None	0 <input type="checkbox"/> None
1 <input type="checkbox"/> \$5,000 or less	1 <input type="checkbox"/> \$5,000 or less
2 <input type="checkbox"/> \$5,001 - \$10,000	2 <input type="checkbox"/> \$5,001 - \$10,000
3 <input type="checkbox"/> \$10,001 - \$15,000	3 <input type="checkbox"/> \$10,001 - \$15,000
4 <input type="checkbox"/> \$15,001 - \$20,000	4 <input type="checkbox"/> \$15,001 - \$20,000
5 <input type="checkbox"/> \$20,001 - \$25,000	5 <input type="checkbox"/> \$20,001 - \$25,000
6 <input type="checkbox"/> \$25,001 - \$30,000	6 <input type="checkbox"/> \$25,001 - \$30,000
7 <input type="checkbox"/> \$30,001 - \$35,000	7 <input type="checkbox"/> \$30,001 - \$35,000
8 <input type="checkbox"/> \$35,001 - or more	8 <input type="checkbox"/> \$35,001 - or more

A10. How many years were there between the date you first entered graduate school in any program or capacity and the date your doctorate was granted?

Years Round to whole years

A11. How many years were you taking courses or preparing for exams required for or related to your doctoral degree?

Years Round to whole years

A12. How many years did you spend on your dissertation (non-course related preparation or research, writing and defense)?

Years Round to whole years

PART B - Postgraduation Plans

B1. How definite are your immediate (within the next year) postgraduate plans?

Mark (X) one

- 0 Am returning to, or continuing in, predoctoral employment → GO TO B2
- 1 Have signed contract or made definite commitment for other work or study → GO TO B2
- 2 Am negotiating with one or more specific organizations → SKIP TO B3
- 3 Am seeking position but have no specific prospects → SKIP TO B3
- 4 Other - Specify

B2. Please name the organization and geographic location where you will work or study.

Name → SKIP TO B4

City State Country
(if U.S.) (if not U.S.)

B3. In what state or country do you intend to live after graduation (within the next year)?

0 in U.S. → State

1 not in U.S. → Country

B4. What best describes your immediate (within the next year) postgraduate plans?

Mark (X) one

Further Training or Study

- 0 Postdoctoral fellowship → GO TO B5
- 1 Postdoctoral research associateship
- 2 Traineeship
- 3 Other study - Specify

Career Employment

- 4 Employment (other than 0, 1, 2, 3) → SKIP TO B6
- 5 Military service
- 6 Other - Specify

B5. What will be the main source of financial support for your postdoctoral study/research within the next year?

Mark (X) one

- 0 U.S. Government → SKIP TO C1
- 1 Industry/Business
- 2 College or university
- 3 Private foundation
- 4 Nonprofit, other than private foundation
- 5 Other - Specify
- 6 Unknown

B6. For what type of employer will you be working within the next year?

Mark (X) one

EDUCATION

- a. U.S. 4-year college or university other than medical school
- b. U.S. medical school (including university-affiliated hospital or medical center)
- c. U.S. junior or community college or technical institute
- d. Preschool, elementary, or secondary school in the U.S.
- e. Foreign educational institution

GOVERNMENT

- f. Foreign government
- g. U.S. federal government
- h. U.S. state government
- i. U.S. local government

PRIVATE SECTOR

- j. Nonprofit organization
- k. Industry or business
- l. Self-employed

OTHER

- m. Other - Specify

B7. From the list below, please indicate what your primary and secondary work activities will be by entering the numbers of your selections in the appropriate boxes:

Enter numbers from below:

- a. Primary Activity
- b. Secondary Activity

- 0 Research and development
- 1 Teaching
- 2 Administration
- 3 Professional services to individuals
- 4 Other - Specify

PART C - Background Information

C1. Are you -

- 1 Male
- 2 Female

C2. What is your marital status?

Mark (X) one

- 1 Married
- 2 Living in a marriage-like relationship
- 3 Widowed
- 4 Separated/divorced
- 5 Never married

C3. Not including yourself (or your spouse/partner), how many dependents do you have - that is, how many others receive at least one half of their support from you?

Mark (X) box if none

	Number
5 years of age or younger	<input style="width: 30px; height: 15px;" type="text"/>
6 to 18 years	<input style="width: 30px; height: 15px;" type="text"/>
19 years or older	<input style="width: 30px; height: 15px;" type="text"/>

C4. What is the highest educational attainment of your mother and father?

Mark (X) one for each parent

	a. Mother	b. Father
Less than high school/secondary school	1 <input style="width: 15px; height: 15px;" type="text"/>	1 <input style="width: 15px; height: 15px;" type="text"/>
High-school/secondary-school graduate	2 <input style="width: 15px; height: 15px;" type="text"/>	2 <input style="width: 15px; height: 15px;" type="text"/>
Some college	3 <input style="width: 15px; height: 15px;" type="text"/>	3 <input style="width: 15px; height: 15px;" type="text"/>
Bachelor's degree	4 <input style="width: 15px; height: 15px;" type="text"/>	4 <input style="width: 15px; height: 15px;" type="text"/>
Master's degree	5 <input style="width: 15px; height: 15px;" type="text"/>	5 <input style="width: 15px; height: 15px;" type="text"/>
Professional degree	6 <input style="width: 15px; height: 15px;" type="text"/>	6 <input style="width: 15px; height: 15px;" type="text"/>
Doctoral degree	7 <input style="width: 15px; height: 15px;" type="text"/>	7 <input style="width: 15px; height: 15px;" type="text"/>

C5. What is your place of birth?

State (if U.S.)

OR

Country (if not U.S.)

C6. What is your date of birth?

Month Day Year

C7. What is your citizenship status?

Mark (X) one

U.S. Citizen:

- 0 Native Born → **SKIP TO C9**
- 1 Naturalized → **SKIP TO C9**

Non-U.S. Citizen:

- 2 With a Permanent U.S. Resident Visa ("Green Card") → **GO TO C8**
- 3 With a Temporary U.S. Visa → **GO TO C8**

C8. (IF A NON-U.S. CITIZEN) Of which country are you a citizen?

(Specify country of present citizenship)

C9. In what state or country was the high school/secondary school that you last attended?

State (if U.S.)

OR

Country (if not U.S.)

C10. Are you a person with a disability?

1 Yes → **GO TO C11**

2 No → **SKIP TO C12**

C11. (IF YES) Which of the following categories describes your disability(ies)?

Mark (X) one or more

- a. Blind/Visually Impaired
- b. Deaf/Hard of Hearing
- c. Physical/Orthopedic Disability
- d. Learning/Cognitive Disability
- e. Vocal/Speech Disability
- f. Other - Specify

C12. Are you Hispanic (or Latino)?

1 Yes → **GO to C13**

2 No → **SKIP to C14**

C13. (IF YES TO C12) Which of the following describes your Hispanic origin or descent?

- 1 Mexican American or Chicano
- 2 Puerto Rican
- 3 Cuban
- 4 Other Hispanic - Specify

C14. What is your racial background?

Mark (X) one or more

a. American Indian or Alaska Native

Specify tribal affiliation(s)

- b. Native Hawaiian or other Pacific Islander
- c. Asian
- d. Black or African-American
- e. White

C15. Please fill in your U.S. Social Security number.

C16. In case we need to clarify some of the information you have provided, please list an E-mail address, website address (if applicable), and telephone numbers where you can be reached.

E-mail address

Website address

Daytime telephone

Evening telephone

C17. Please provide your address and the name and address of a person through which you could always be reached.

Current Address

Number Street

City State Country Zip or Postal Code

Contact Person

Name

Number Street

City State Country Zip or Postal Code

Phone Number (including area or country code)

E-mail Address

C18. Please sign and date.

Signature

Date

Mark (X) box if you would like a summary of the results of this survey (available as funding permits).

Results of the Survey of Earned Doctorates can be found on the National Science Foundation's World Wide Web page at <http://www.nsf.gov/sbe/srs/ssed/start.htm>

Please use the back cover to make any additional comments you may have about this survey.

Thank you for completing the questionnaire. Please return it to the GRADUATE DEAN for forwarding to Survey of Earned Doctorates, NORC at the University of Chicago, 1 N. State Street, Floor 16, Chicago, IL 60602. If you have questions or concerns about the survey, you may contact us by e-mail at 4800-sed@noremail.uchicago.edu or phone at 1-800-248-8649.

To the Doctorate Recipient:

Congratulations on earning a doctoral degree! This is an important accomplishment for you. Your accomplishment is also significant for both this nation and others, as the new knowledge generated by research doctorates enhances the quality of life in this country and throughout the world. Because of the importance of persons earning research doctorates, several Federal agencies—listed on the cover—sponsor this Survey of Earned Doctorates.

The basic purpose of this survey is to gather objective data about doctoral graduates. These data are important in improving graduate education both at your home institution and beyond. Often, decisions made by governmental and private agencies to develop new programs, or to support present ones, are based in part on the data developed from this survey. If you have any comments about the survey, please provide them in the space below.

On behalf of the sponsoring Federal agencies, I thank you for your participation in this survey.

Best wishes,

Dr. Lynda Carlson
National Science Foundation

Comments About This Survey

Please return this questionnaire to your GRADUATE DEAN for forwarding to Survey of Earned Doctorates, NORC at the University of Chicago, 1 N. State Street, Floor 16, Chicago, IL 60602. If you have questions or concerns about the survey, you may contact us by e-mail at 4800-sed@norcmail.uchicago.edu or phone at 1-800-248-8649.

Case ID						Instit. Code:						Grad Date:						Main Disp.:					
PROCESSING																							
Receipt						Editing						CADE											
Initials			Date			Initials			Date			Initials			Date								
Ver. Adjust						Retrieval						Updates											
Initials			Date			Initials			Date			Initials			Date								

APPENDIX E

Field Classification and Research Degree Titles

APPENDIX E: Field Classification and Research Degree Titles

The appendix tables present data according to the following field classifications. Appendix Tables A-1 and A-2 and Appendix Table B-1 display all subfields that are on the survey Specialties List. Appendix Tables A-4, A-5, and A-6 show data by seven broad fields only. Appendix Tables A-3 and A-7 include the additional field groupings indicated below.

SCIENCES

Physical Sciences (400-599)

Physics and Astronomy (500 -505, 560-579)
 Chemistry (520-539)
 Earth, Atmospheric, and Marine Sciences
 (510-519, 540-559, 590-599)
 Mathematics (420-499)
 Computer Sciences (400410) } Combined in Table A -7

Engineering (300-399)

Life Sciences (000-299)

Biological Sciences (100 -199)
 Biochemistry (100)
 Other Biological Sciences (103 -199)
 Health Sciences (200-299)
 Agricultural Sciences (000 -099)

Social Sciences (600-699)

Psychology (600-649)
 Economics and Econometrics (666, 668)
 Anthropology and Sociology (650, 686)
 Political Science and International Relations
 (674,678) } Combined in Table A -7
 Other Social Sciences
 (652-662, 670, 672, 682, 690-699)

NONSCIENCES

Humanities (700-799)

History (700-719)
 English and American Language
 and Literature (732 -734)
 Foreign Languages and Literature
 (740-769)
 Other Humanities
 (720-729, 736-739, 770-799) } Combined in Table A -7

Education (800-899)

Professional and Other Fields (900-999)

Business and Management (900 -939)
 Other Professional Fields (940 -989)
 Other Fields (999)

NOTE: Doctorate recipients indicate their fields of specialty. Their choices may differ from departmental names.

TITLES OF RESEARCH DEGREES INCLUDED IN THE SURVEY OF EARNED DOCTORATES

DA/DAT	Doctor of Arts/Arts in Teaching	DMM	Doctor of Music Ministry
DArch	Doctor of Architecture	DMSc	Doctor of Medical Science
DAS	Doctor of Applied Science	DNSc	Doctor of Nursing Science
DBA	Doctor of Business Administration	DPA	Doctor of Public Administration
DChem	Doctor of Chemistry	DPE	Doctor of Physical Education
DCJ	Doctor of Criminal Justice	DPH	Doctor of Public Health
DCL	Doctor of Comparative Law/Civil Law	DPS	Doctor of Professional Studies
DCrim	Doctor of Criminology	DrDES	Doctor of Design
DED	Doctor of Environmental Design	DRec/DR	Doctor of Recreation
DEng	Doctor of Engineering	DSc/ScD	Doctor of Science
DEnv	Doctor of Environment	DScD	Doctor of Science in Dentistry
DESc/ScDE	Doctor of Engineering Science	DScH	Doctor of Science and Hygiene
DF	Doctor of Forestry	DScVM	Doctor of Science in Veterinary Medicine
DFA	Doctor of Fine Arts	DSM	Doctor of Sacred Music
DGS	Doctor of Geological Science	DSSc	Doctor of Social Science
DHL	Doctor of Hebrew Literature/Letters	DSW	Doctor of Social Work
DHS	Doctor of Health and Safety	EdD	Doctor of Education
DHS	Doctor of Hebrew Studies	JCD	Doctor of Canon Law
DIT	Doctor of Industrial Technology	JSD	Doctor of Juristic Science
DLS	Doctor of Library Science	LScD	Doctor of Science of Law
DM	Doctor of Music	PhD	Doctor of Philosophy
DMA	Doctor of Musical Arts	RhD	Doctor of Rehabilitation
DME	Doctor of Musical Education	SJD	Doctor of Juridical Science
DML	Doctor of Modern Languages	ThD	Doctor of Theology

NSF Publications from the Doctorate Data Project

<i>InfoBriefs</i>	<i>InfoBriefs</i>	<i>Reports</i>
Healthy Economy Yields Even Lower Unemployment Rate for Doctoral Scientists and Engineers	Interstate Migration Patterns of Recent Science and Engineering Doctorate Recipients	Gender Differences in the Careers of Academic Scientists and Engineers: A Literature Review
Declines in U.S. Doctorate Awards in Physics and Engineering	Employment Preferences and Outcomes of Recent Science and Engineering Doctorate Holders in the Labor Market	Science and Engineering Doctorate Awards: 2001
Despite Increases, Women and Minorities Still Underrepresented in Undergraduate Science and Engineering Education	Academic Employment of Recent Science and Engineering Doctorate Holders	Characteristics of Doctoral Scientists and Engineers in the U.S.: 2001
Doctoral Awards Increase in S&E Overall, But Computer Science Declines for First Time	What's Happening in the Labor Market for Recent Science and Engineering Ph.D. Recipients?	Trend Tables on Doctoral Scientists and Engineers in the U.S.: 1993-97 (Web only)
Employment of Scientists and Engineers Reaches 3.2 Million in 1995	Is the Gender Gap in Unemployment Disappearing?	Older Doctoral Scientists and Engineers: Selected Labor Force Characteristics
How Large is the U.S. S&E Workforce?	Employment Preferences and Outcomes of Recent Science and Engineering Doctorate Holders in the Labor Market	Science and Engineering State Profiles 2000
<p style="text-align: center;"><i>Data sources and publications sources:</i></p> <p><i>These publications contain data from 1) the annual Survey of Earned Doctorates(a universe survey on the education of research doctorates) or 2) the biennial Survey of Doctorate Recipients (a longitudinal sample survey of workforce characteristics).</i></p> <p><i>Complete electronic information on these surveys and publications may be obtained on the web at:</i></p> <p><i>www.nsf.gov/sbe/stats.htm.</i></p> <p><i>Written reports may be ordered online (www.nsf.gov/home/orderpub.htm) or by calling 301-947-2722.</i></p> <p><i>For further information, please contact Joan Burrelli, Acting Director, Doctorate Data Project, jburrell@nsf.gov.</i></p>	International Mobility of Scientists and Engineers to the United States – Brain Drain or Brain Circulation	Doctoral Scientists and Engineers in the U.S.: 2001 Profile Tables
	What is the Debt Burden of New Science and Engineering Ph.D.'s?	Modes of Financial Support in the Graduate Education of S&E Doctorate Recipients
	Are Forms of Financial Support and Employment Choices of Recent Science and Engineering Ph.D.'s Related?	Statistical Profiles of Foreign Doctoral Recipients in Science and Engineering: Plans to Stay in the United States
	Does the Educational Debt Burden of Science and Engineering Doctorates Differ by Race/Ethnicity and Sex?	Women, Minorities, and Persons with Disabilities in Science and Engineering: 2002
	Degrees and Occupations in Engineering: How Do They Diverge?	Science and Engineering Degrees: 1966-2000
	Has the Use of Postdocs Changed?	Science and Engineering Degrees, by Race/Ethnicity of Recipients: 1991-2000
	How Much Does the U.S. Rely on Immigrant Engineers?	SESTAT: A Tool for Studying Scientists and Engineers in the United States

