Doctorate Recipients from United States Universities:

Summary Report 2004

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, 2003, through June 30, 2004. This information is taken from the 2004 Survey of Earned Doctorates (SED), an annual census of new doctorate recipients.

- The 419 universities in the United States that conferred research doctorates awarded 42,155 doctorates during the 2003-2004 academic year (the eligibility period for the 2004 SED), an increase of 3.4 percent from the 40,770 doctorates awarded in 2003, and the highest number since the all-time high of 42,647 in 1998.

- The number of doctorates awarded by broad field in 2004 was greatest in life sciences, which conferred 8,819 Ph.D.s. The numbers in the other broad areas were 6,795 in social sciences; 6,635 in education; 6,049 in physical sciences and mathematics (combined); 5,776 in engineering; 5,467 in humanities; and 2,614 in business and other professional fields.

- Women received 19,098 doctorates, or 45 percent of all doctorates granted in 2004. This is very similar to last year's percentage for women. Women earned 50 percent of the doctorates granted in life sciences, 55 percent in social sciences, 52 percent in humanities, 66 percent in education, and 46 percent in business/other professional fields. In physical sciences and engineering, they constituted 27 percent and 18 percent, respectively.

- In 2004, 51 percent of all doctorates awarded to U.S. citizens went to women, the same percentage as 2003, marking the third consecutive year U.S. women were awarded more doctorates than their male counterparts.

- Twenty percent of all doctorates awarded to U.S. citizens in 2004 were earned by U.S. racial/ethnic minority groups. This is the largest percentage ever, and continues a steady upward trend. Among the 25,811 doctorates earned in 2004 by U.S. citizens who identified their race/ethnicity (98 percent of all U.S. citizen doctorates), 1,869 doctorates were earned by blacks, 1,449 were earned by Asians, 1,177 were earned by Hispanics, 129 were earned by American Indians, 59 were earned by Hawaiian or other Pacific Islanders, and 383 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 67 percent of all doctorates earned in 2004 by individuals who identified their citizenship status (94 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 2004, with 3,209, followed by Korea with 1,448, India with 1,007, Taiwan with 703, and Canada with 601. The percentage of doctorates earned by U.S. citizens ranged from lows of 35 percent in engineering and 52 percent in physical sciences, to highs of 88 percent in education and 79 percent in humanities.

- Median time to degree since receipt of the baccalaureate was 10.0 years in 2004, and has shown little change over the past 25 years. Median time to degree since first enrollment in any graduate program was 8.0 years in 2004.

- Most of the 2004 doctorate recipients (69 percent) received their primary financial support for graduate education from such program- or institution-based sources as university fellowships or teaching and research assistantships. Exactly half of the 2004 doctorate recipients reported no educational indebtedness at completion of the doctorate; 11 percent reported cumulative education debt levels of $50,001 or more.

- Seventy percent of the new doctorate recipients had definite postgraduation commitments for employment or continued study when they completed the SED survey. Of those, 65 percent planned to work and 35 percent planned to continue their studies as postdoctoral scholars. For the graduates with firm commitments to work in the U.S., 57 percent planned to work in higher education, while 19 percent planned to work in industry or be self-employed, and 8 percent had definite plans for government work.

Doctorate Recipients from United States Universities: Summary Report 2004

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National Endowment for the Humanities
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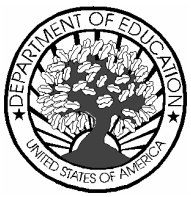
National Aeronautics and Space Administration



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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 at the University of Chicago, 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 upon request (see inside back cover). Standardized trend tables on citizenship, race/ethnicity, sex, and citizenship group of Ph.D.s by fine field of doctorate are available for a fee. Customized tables – such as Institution Datasets and Association Profiles compiled for professional societies – can also be prepared at cost. For more information, please contact:

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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/statistics/doctorates.

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DOCTORATE RECIPIENTS FROM UNITED STATES UNIVERSITIES: SUMMARY REPORT 2004

Introduction

Doctorate Recipients from United States Universities: Summary Report 2004 is the thirty-eighth 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 42,155 research doctorate recipients who earned their degrees between July 1, 2003, and June 30, 2004. Conducted since 1958, this survey is 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. Records on all doctorate recipients from 1920 to 1957 were collected from universities in the early years of the SED and have been added to the cumulative survey data. The National Opinion Research Center at the University of Chicago (NORC) is the current data collection contractor and has been since 1997. All survey responses become part of the Doctorate Records File (DRF), a cumulative database on research doctorate recipients from 1920 to 2004. For the 2004 survey, 91 percent of the 42,155 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 1,559,901 records on individuals completing doctorates over the last 85 years at U.S. institutions.

Organization

Summary Report 2004 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,

[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.

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 2004 cohort are presented on the sources of financial support during graduate school, and the postgraduation status and plans of doctorate recipients.

The *Summary Report* this year does not include a special topical section such as has been featured occasionally in prior years, but has added a new table (table 18) and accompanying text on the numbers of doctorate recipients reporting disabilities. The SED has collected these data since 1985, though trend comparisons are complicated somewhat by changes in question wording. Only the 2004 data are presented in the current report but the trend data will be compiled for future reports. Another new table this year (table 32) assembles data on recent trends in non-U.S. citizens' decisions to stay in the U.S. or leave, with a special focus on whether any changes might map to the events of September 11, 2001 and their aftermath.

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 charts 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 2004 research doctorate recipients are shown in appendix A, and trend tabulations for the previous ten-year period (1994 to 2004) 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 2004 academic year. Field of study classifications and research degree titles included in the SED are listed in Appendix E.

Related Publications

The NSF publishes an annual volume of tabulations using the SED data, *Science and Engineering Doctorate Awards* (http://www.nsf.gov/statistics/doctorates). Two noteworthy new reports on the doctoral population were produced in 2005. A comprehensive statistical report funded by the SED federal sponsors, *U.S. Doctorates in the 20th Century*, was prepared by Lori

Thurgood, SRI, and will be available on the NSF website when released. Another report released in 2005 was based on the first year of a new annual Canadian SED. The report, *Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients,* used data collected from the 2003-2004 Canadian Survey of Earned Doctorates by Statistics Canada.

Copies of the annual *Summary Report* from recent years are available on the NORC Website (http://www.norc.uchicago.edu/issues/docdata.htm). Past *Summary Reports* have included special sections focusing on:

- 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. Ph.D.s (1995)
- Indebtedness of Doctorate Recipients (1998)
- Interstate Migration Patterns of Doctorate Recipients (1999)
- First-Generation College Graduates Earning Research Doctorates (2002)
- Baccalaureate-Institution Origins of Recent (1999-2003) Research Doctorate Recipients (2003).

The methodology of the SED 2004 survey is described in detail in the annual *Survey of Earned Doctorates Methodology Report,* which is available upon request from:

Doctorate Data Project
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Chicago, IL 60637
Attention: Thomas Hoffer

Trends in Doctorate Recipients

The individual research doctorate recipients[3] 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. 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, 2004, U.S. universities awarded 42,155 research doctorate degrees, compared with 40,770 in 2003 and 39,989 in 2002. (See table 1.) This was a percentage increase from 2003 to 2004 of 3.4 percent, and very near the all-time high of 42,647 in 1998.

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 stability and a few slight declines. Between 1961 – the year when the number of annual doctorates awarded surpassed

[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. Research doctoral programs are oriented toward preparing students to make original contributions to knowledge in a field and typically entail writing a dissertation. 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. This is the second year that individuals who had also earned research doctorates in previous years are included in the SED. In 2004, a total of 99 individuals earned a second research doctorate, up from 92 in 2003.

10,000 for the first time – and 1971, the average annual growth rate was nearly 12 percent, such that the number of doctorates awarded almost tripled (31,867) during that 10-year period. 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 42,647 research doctorates were awarded. Since 1998, the number of doctorates awarded each year has generally declined, reaching a low point in 2002 but showing increases in 2003 and 2004. (See figures 1 and 2.)

Figure 1. Doctorates awarded by U.S. colleges and universities, 1957-2004

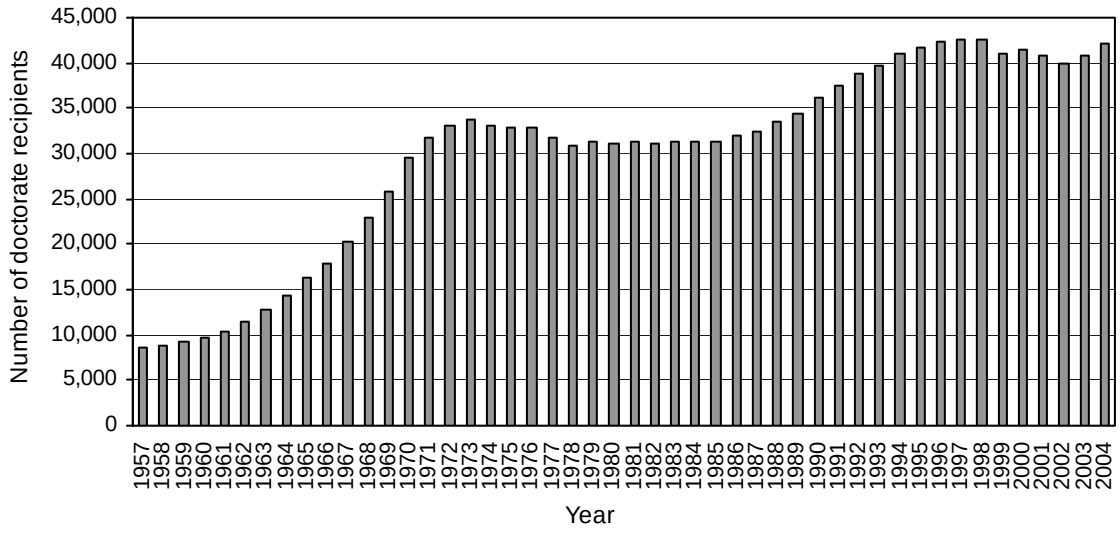
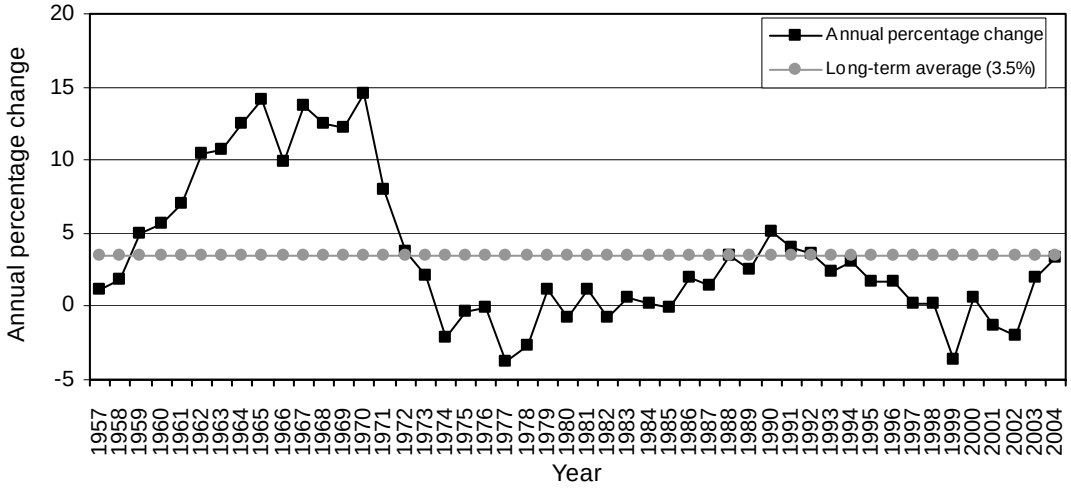


Figure 2. Annual growth or decline in doctorates awarded by U.S. colleges and universities, 1957-2004



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-8 contains the full list of institutions granting research doctorates in the 2004 academic year.

During the 2004 academic year, there were 419 universities in the United States and Puerto Rico that awarded at least one research doctorate, slightly less than the all-time high recorded in 2003 (423). (See table 2.) In 2004, the mean number of doctorates awarded per institution was 101, while the median was 39. (See table 2 for the mean and median numbers of doctorates awarded per institution from 1964 to 2004.) 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 2004. Eighteen institutions accounted for 25 percent of all doctorates granted; 31 institutions for the next 25 percent; 56 universities for the third quartile; and the remaining 314 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 27 in 1964 to 55 in 1970. Following the end of the Vietnam War in 1972 and the enrollment boosts that accompanied the availability of student deferments from military service, the median number quickly dropped to 42 and has vacillated between 35 and 45 since.

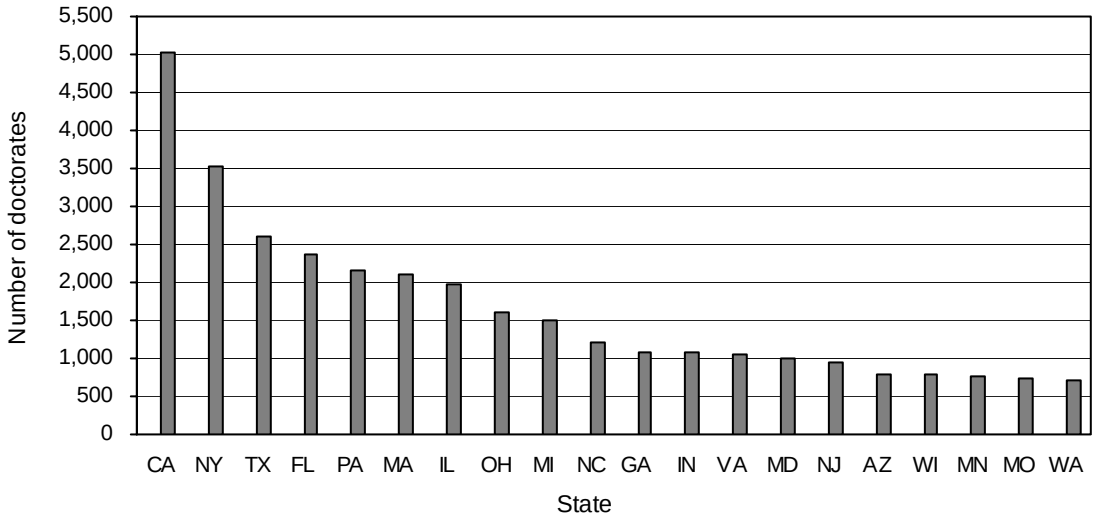
In the 2004 academic year, the University of California-Berkeley granted the largest number of doctorates, 769, or 1.8 percent of all doctorates awarded in 2004, followed by the University of Texas-Austin (702), the University of California-Los Angeles (664), the University of Michigan-Ann Arbor (658), and Nova Southeastern University (645). In 2004 (as was also the case in 2003), the top 10 institutions granted approximately 15 percent of all doctorates. (See

[4] Calculations derived from appendix table A-8. See appendix table A-9 for a list of the 50 largest institutions.

table 3; appendix table A-8 contains the complete list of institutions and their numbers of doctorate recipients by field of study.)

The state-by-state totals in figure 3 and table 4 show that California universities led the nation by awarding 5,037 doctorates, or 12 percent of all doctorates in 2004. New York institutions granted the next highest number (3,533), followed by institutions in Texas (2,617), Florida (2,378), Pennsylvania (2,154), Massachusetts (2,116), Illinois (1,970), Ohio (1,602), and Michigan (1,494). These nine states accounted for 54 percent of all doctorates awarded in 2004. (See figure 3 and table 4.)

Figure 3. Doctorates granted - top 20 states, 2004



See Table 4.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Doctorates by Field of Study

There were 279 fields of specialization into which the SED classified research doctorate degrees in 2004 (these are listed on page 7 of the questionnaire included in appendix D). Because fields of specialization are dynamic entities that reflect the evolving programs of researchers and their constituencies, the SED list is assessed each year in order to identify emerging fields and periodically modified to accommodate changes in the world of doctoral education. The SED has been able to collect information on the specialization fields of virtually all the new doctorates each year; coverage in 2004 was attained for all of the 42,155 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 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.

The institutions granting the largest numbers of doctorates in each of the seven broad fields in 2004 are listed in table 3. The University of California-Berkeley awarded the most doctorates in physical sciences (151), social sciences (125), and humanities (138). Georgia Institute of Technology granted the most engineering doctorates (229), while the Johns Hopkins University led all universities in life sciences (190). Nova Southeastern University had the highest total in education (426) as well as in the diverse "professional/other fields" category (107).

The numbers of doctorates awarded in the seven broad fields were also concentrated in a relatively small number of institutions. While the top ten degree-granting universities awarded 15 percent of all doctorates in 2004, the concentration was higher in six of the seven broad fields: 18 percent in physical sciences, 27 percent in engineering, 19 percent in life sciences, 21 percent in humanities, 21 percent in education, and 19 percent in professional/other fields. The concentration was slightly lower than the overall average in social sciences (14 percent). (Derived from table 3.)

The overall increase of 3.4 percent in doctorates awarded between the 2003 and 2004 academic years was a result of increases in all of the broad fields. Professional/other fields and engineering showed the largest increase (12.8 percent and 9.4 percent respectively). Physical sciences, life sciences, humanities, and social sciences showed smaller increases (3.8 percent, 3.6 percent, 1.3 percent, and 1.0 percent, respectively). The numbers in education remained nearly identical, increasing by .05 percent. (See appendix table B-1.)

Since 1989, life sciences has been the largest broad field, with 8,819 doctorates awarded in 2004. Over the last five years, the number of doctorates awarded in professional/other fields, engineering, and life sciences showed the largest increases: 14.3 percent, 8.4 percent, and 7.5 percent higher respectively in 2004 than in 1999. (See table 5.) Slightly more doctorates were

[5] Physical sciences also include mathematics and computer sciences in this report.
[6] Life sciences encompass biological, agricultural, and health sciences in this report.

awarded in education (1.4 percent) and humanities (0.1 percent), while the total number completing doctorates in social sciences and physical sciences was slightly lower, with 3.5 percent and 2.8 percent fewer degrees awarded respectively in 2004 than five years earlier. (See table 5 and figures 4 and 5.)

Figure 4. Science and engineering doctorates awarded, by broad field of study for selected years, 1974-2004

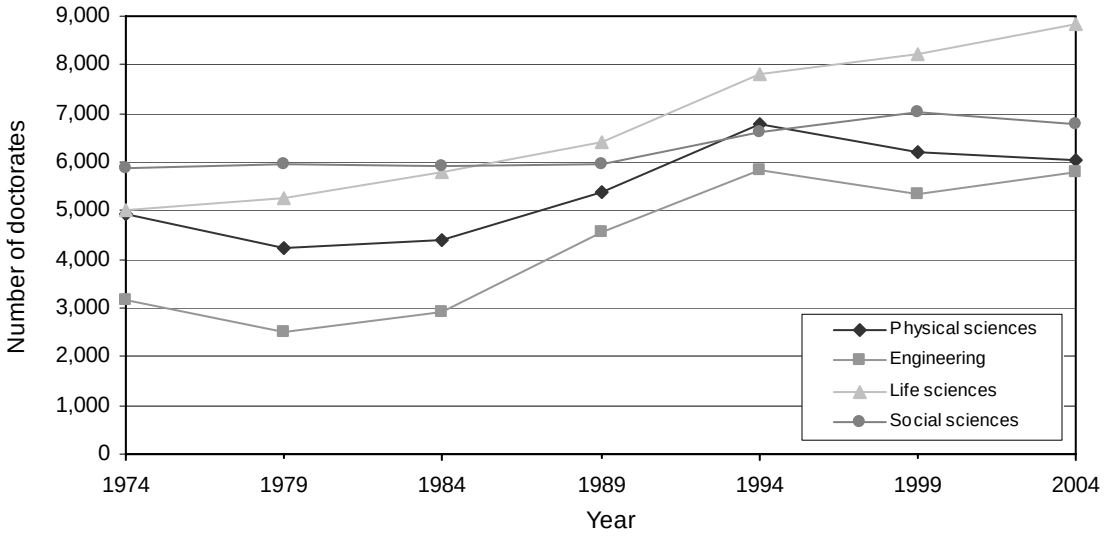
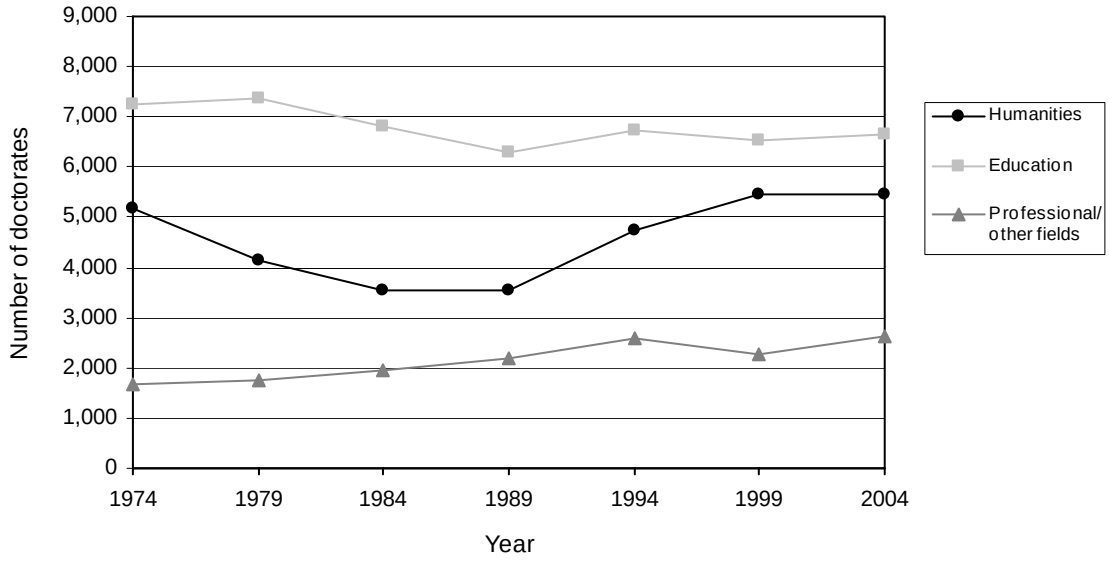


Figure 5. Humanities, education, and professional/other fields doctorates awarded for selected years, 1974-2004

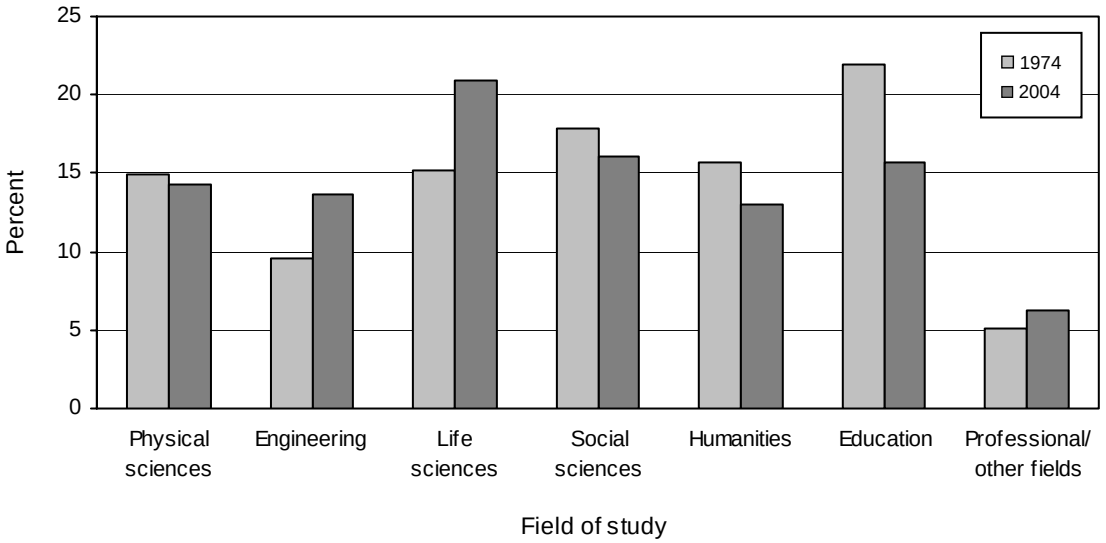


See Table 5.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Physical sciences, life sciences, social sciences, and engineering – the four broad fields that together constitute "science and engineering" (S&E) – represented 65 percent of all doctorates awarded in 2004. S&E doctorates accounted for close to the same percentage of all doctorates (66 percent) in 1994, but only 61 percent of the total in 1984 and 57 percent in 1974. (See table 5.)

The 30 year comparisons for all seven broad fields are shown in figure 6. The relative shares of graduates in engineering and life sciences were greater in 2004 than in 1974, while the relative shares in humanities, education, and social sciences were smaller in 2004. The relative shares of graduates in physical sciences and professional/other fields in 1974 and 2004 were about the same. (See figure 6.)

Figure 6. Percentage distribution of doctorate recipients, by broad field of study, 1974 and 2004



See Table 5.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

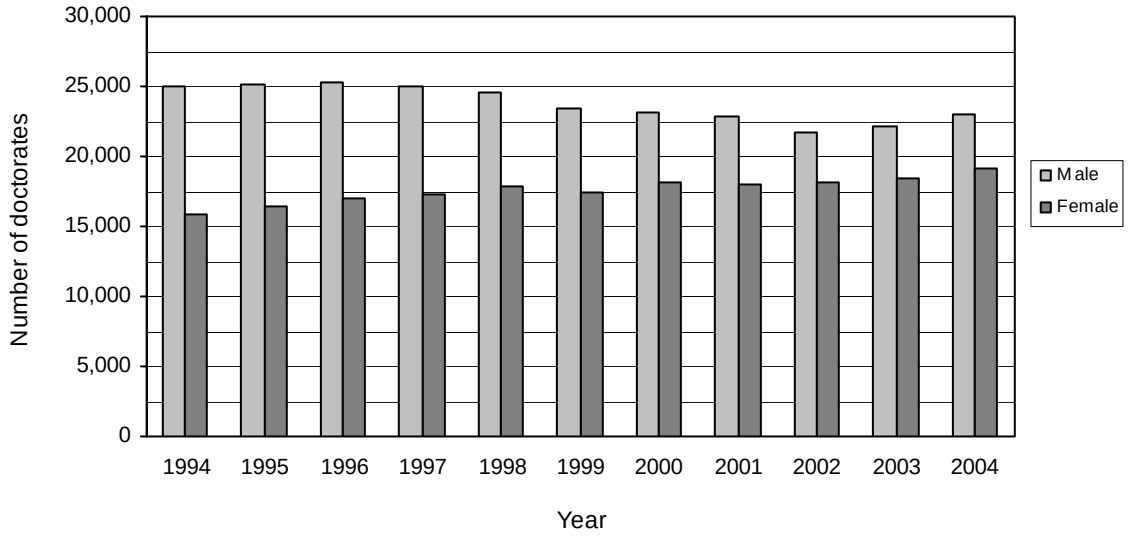
The numbers of doctorate recipients in the largest subfields within the seven broad fields are also shown in table 5. The main field of growth since 1974 within physical sciences was computer sciences, rising from none in 1974 and 210 in 1979 to 949 doctorate recipients in 2004. In the broad field of life sciences, the numbers of new doctorate recipients in biological sciences and health sciences increased rapidly from 1974 to 2004. Social science subfields other than psychology generally showed modest if any growth over the 30 year period. In the non-S&E

fields, the largest growth in humanities subfields has been in the "other humanities" grouping and thus outside the traditional areas of history, letters, and foreign languages and literature. The detailed field totals in appendix table B-1 indicate that, over the past decade, humanities fields with increasing numbers of doctorate recipients include music, religion/ religious studies, and art history/criticism/ conservation. (See table 5 and appendix table B-1.)

Doctorates by Sex

The 3.4 percent increase overall in doctorates awarded between 2003 and 2004 reflected increases in the numbers earned by both males and females. The number of doctorates awarded to men rose by 775 and increased for women by 688 in 2004 compared to 2003. The net proportional effect is that for 2004, females received 45.4 percent of all doctorates, which is virtually unchanged from 2003.[7] This number signifies the ninth consecutive year in which the representation of female doctorate recipients has surpassed 40 percent (appendix tables B-2a, B-2b, and B-2c). Five years ago (1999) females comprised 43 percent of all doctorate recipients; 10 years ago (1994) they comprised 39 percent, and 30 years ago (1974) 20 percent. (See figure 7 and table 7.)

Figure 7. Doctorate recipients, by sex, 1994-2004

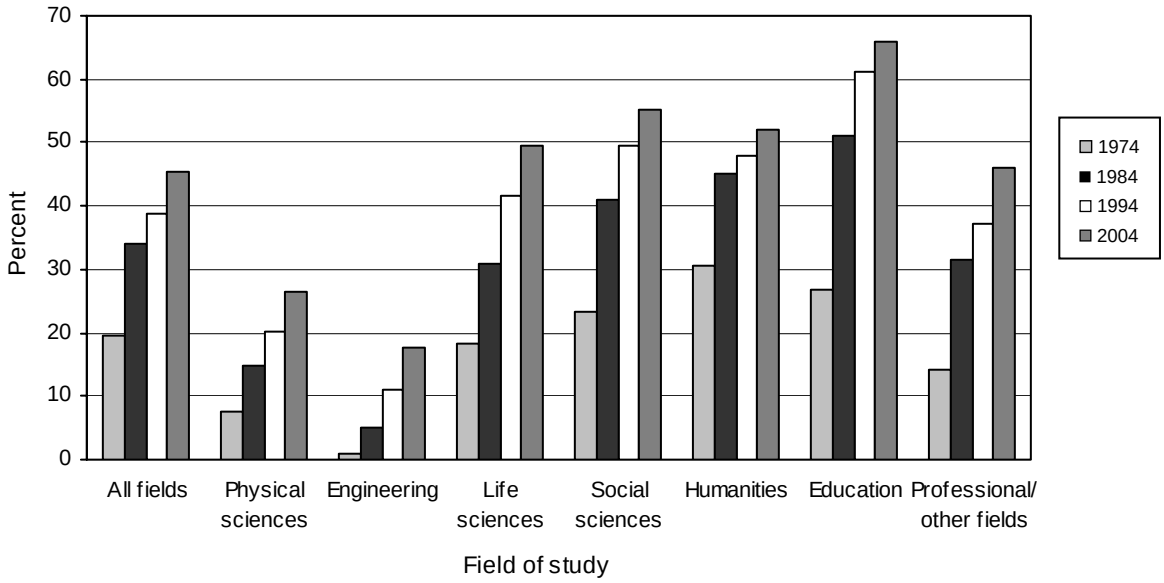


See Appendix Tables B-2b and B-2c.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

[7] For 2004, sex category could not be determined for 81 doctorate recipients; these 81 are not part of this and other gender percentage calculations.

The proportion of doctorates earned by women has also grown steadily within all of the broad fields of study. Women constituted 66 percent of all education doctorate recipients for 2004, the majority in social sciences (55 percent) and humanities (52 percent), and half of those in life sciences (50 percent). In contrast, the representation of females among doctorate recipients in physical sciences and engineering for 2004 was 27 percent and 18 percent, respectively (figure 8). However, even these percentages represent significant increases over the last 30 years. In 1974, when only 20 percent of all doctorate recipients were women, just 8 percent and 1 percent of the doctorates in physical sciences and engineering, respectively, were awarded to women. Similar long-term trends are discernible in other broad fields as well: in life sciences, from 18 percent in 1974 to 50 percent in 2004; from 24 percent to 55 percent in social sciences over that same period; and from 31 percent in humanities in 1974 to the current 52 percent. (See figure 8 and table 7.)

Figure 8. Percent of doctorate recipients who are female, by broad field of study, for selected years, 1974-2004



See Table 7.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

In 2004, females constituted 39 percent of S&E doctorate recipients and 57 percent of those in non-S&E fields in U.S. universities. With regard to finer field distinctions shown in table 6, the representation of women grew the most from 1994 to 2004 in earth, atmospheric, and

marine sciences (68.4 percent gain); agricultural sciences (65.0 percent gain); physics and astronomy (43.4 percent gain); computer science (35.6 percent gain); and mathematics (34.0 percent gain). (See table 6.)

Doctorates by Race/Ethnicity

A total of 5,066 members of U.S. racial/ethnic minority groups[8] were awarded doctorates, representing 20 percent of the U.S. citizens earning research doctorates in 2004. (See table 8.) This number is higher than in 2003, when 4,901 minority group members earned doctorates; and the 2004 minority percentage is the highest percentage yet recorded in the SED. (See appendix table B-2a.) Blacks earned the most doctorates (1,869) of the five main U.S. minority populations in 2004, followed by Asians (1,449), Hispanics (1,177), American Indians/ Alaska Natives[9] (129), and Hawaiians and other Pacific Islanders (59). (See table 8.) A total of 383 non-Hispanic U.S. citizens reported more than one racial background in the 2004 survey, and are counted here as racial/ethnic minorities, but they and the 59 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.[10]

In 2004, the number of minority doctorate recipients was 14 percent higher than the total in 1999 and 63 percent higher than in 1994. Conversely, there were 10 percent fewer non-Hispanic white doctorate recipients in 2004 compared to 1999, and 13 percent fewer than in 1994. 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 percentage increases were greater for Asians (183 percent) and Hispanics (120 percent), than for blacks (96 percent) and American Indians (74 percent). (See figures 9 and 10 and table 8.)

[8] As used here, U.S. minority groups include Asians, blacks, Hispanics, American Indians/ Alaska Natives, Native Hawaiians and other Pacific Islanders, and individuals who indicated more than one racial background. Only U.S. citizens are included in the U.S. minority groups.

[9] American Indians/ Alaska Natives are referred to as American Indians hereafter in the text of this report.

[10] Following the 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 1974 when race and ethnicity questions were first added to the SED questionnaire. Additional changes included separating Pacific Islanders from Asians and creating a new category, Native Hawaiians and other Pacific Islanders and adding a Cuban response option to the Hispanic ethnicity question. A copy of the 2004 questionnaire is included in appendix D.

Figure 9: Doctorates awarded to racial/ethnic minority U.S. citizens, by race/ethnicity, for selected years, 1984-2004

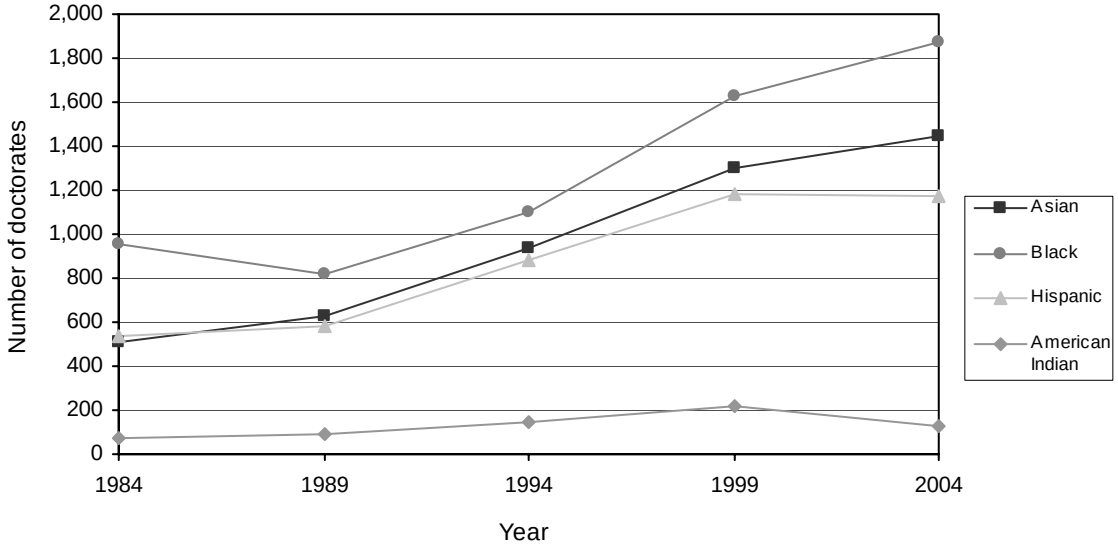
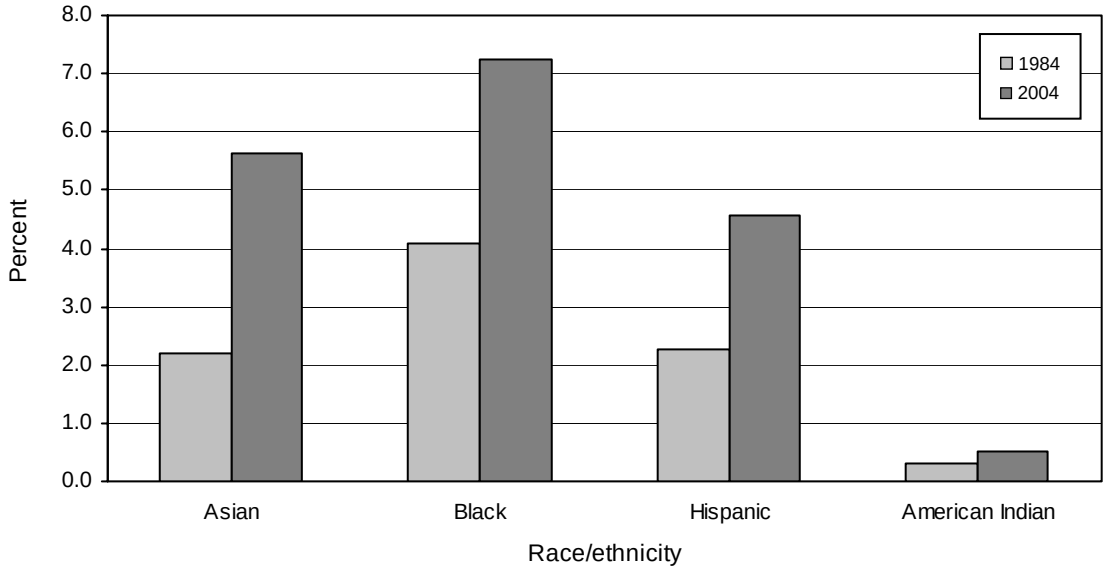


Figure 10. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, 1984 and 2004

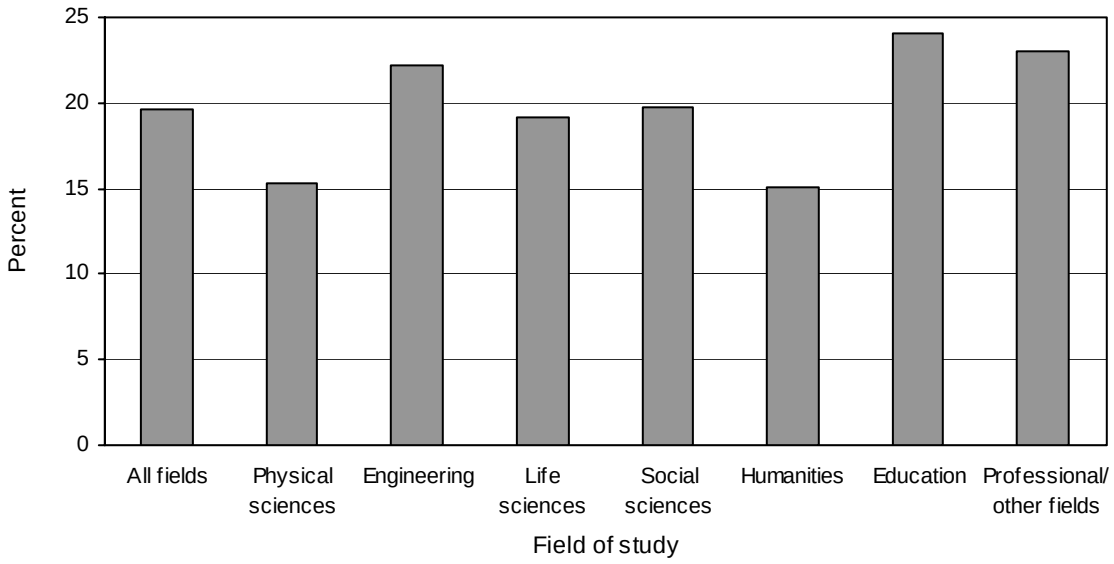


See Table 8.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

U.S. minority group members had their largest presence in the broad fields of education (24 percent of U.S. citizens earning doctorates), professional/other fields (23 percent), and engineering (22 percent) in 2004. 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; they represented over half of all minority group members earning doctorates in engineering during the 2004 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 1984. (See table 9 for the numbers of minority doctorate recipients in each of the 25 subfields in 2004.)

Figure 11. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, by broad field of study, 2004



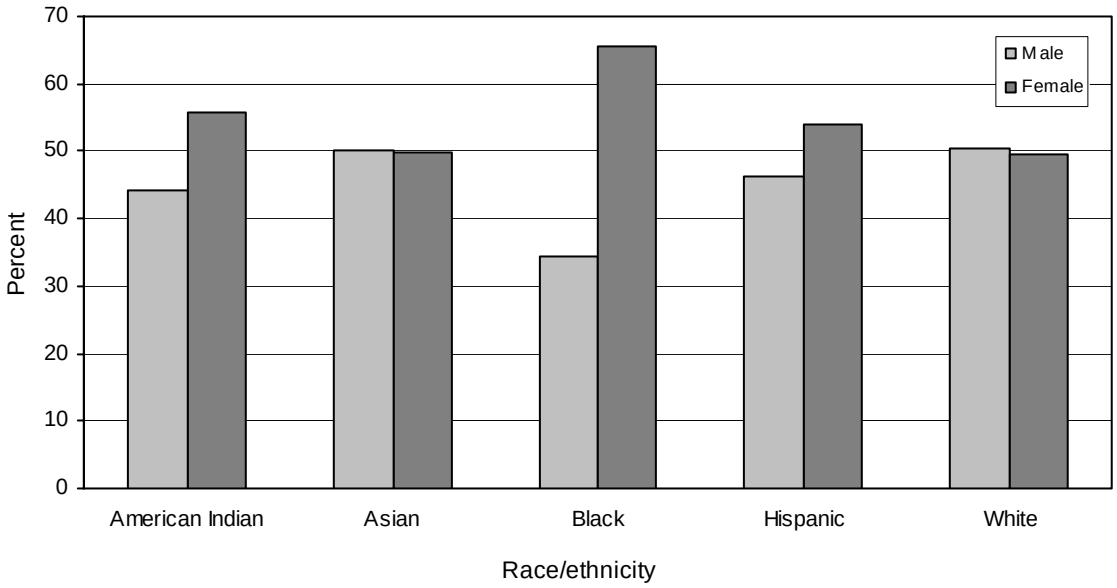
See Table 8.
Source: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates

The pattern of growth for the aggregate U.S. citizen minority populations also held for most of the separate minority groups within most of the seven broad fields of study from 1984 to 2004. The general pattern for minority recipients had been one of relatively small increases from 1984 to 1994 followed by moderate increases from 1994 to 1999. In 2004, there were some notable exceptions to the trend of increases. One exception is that the number of American

Indian doctorate recipients fell in every broad field category in 2004.[11] Also, the number of Hispanic doctorate recipients dropped in education and social sciences and stayed the same in physical sciences from 1999 to 2004. (See table 8).

The balance of male and female doctorate recipients varies between racial/ethnic groups. Among U.S. citizens, 50 percent of doctorates earned by whites were awarded to women; for blacks, various Hispanic groups, and American Indians, women constituted a majority, earning between 51 percent and 66 percent of doctorates received by persons of those races or ethnicities. Among Asians, women were 50 percent of the total. This is the first year where Asian women earned as many doctorates as their male counterparts. (See figure 12 and appendix table A-4.)

Figure 12. Sex distribution of doctorates earned by U.S. citizens, by race/ethnicity, 2004



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 2000 and 2004, and the number granted by each university. Over that five-year interval, four California institutions – UCLA, Berkeley,

[11] The decline in the number of doctorate recipients identifying themselves as American Indians on the SED questionnaire may be related in part to the introduction in 2001 of the multi-race category in the questionnaire. Of the 383 non-Hispanic U.S. citizen respondents indicating more than one race, 180 selected American Indian/ Alaska Native as one of their races. However, there were declines in the number of American Indian doctorate recipients both before (1999-2000) and after (2002-2004) the introduction of the revised item; see appendix table B-2a.

Stanford, and USC – and two in Massachusetts – Harvard and MIT – awarded a total of 1,512 doctorates to Asians, or 22 percent of all doctorates awarded by U.S. universities to Asians. Nova Southeastern University and Howard University awarded, by far, the most doctorates to blacks (465 and 263, respectively), 9 percent of all the doctorates granted to blacks over this five-year period. The leading institutions awarding doctorates to Hispanics were the University of Puerto Rico-Rio Piedras, UC-Berkeley, the University of Texas-Austin, and UCLA. Oklahoma State University awarded the largest number of doctorates (27) 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 2004 the ten universities granting the largest numbers of doctorates conferred 15 percent of all doctorates. However, over the 2000-2004 period, the ten universities that awarded the most doctorates to Asians (table 10) granted 29 percent of all Asian doctorates; for blacks the corresponding figure was 20 percent; for Hispanics it was 22 percent, and for American Indians it was 22 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. Of the 2004 doctorate recipients with known citizenship status (94 percent of the total), 67 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 29 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 11 percent of all doctorate recipients who reported citizenship in 1974 to 29 percent in 2004. 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 1974.

The number of doctorate recipients with permanent visas has shown more fluctuation over time. The 2004 total of 1,528 represents a drop of 6 percent from 2003, and has dropped back near the 1989 (1,626) numbers. The numbers of doctorate recipients with permanent visas

were at historical highs from 1994-1999 (reaching a peak of 4,317 in 1995)[12], and ranged between 1,200 and 2,100 from 1974 until the early 1990s. (See table 11.)

U.S. citizens earned more than three fourths of the doctorates awarded in humanities and education (79 percent and 88 percent of those reporting citizenship status, respectively) in 2004. (See table 11.) In absolute numbers, U.S. citizens earned more doctorates in life sciences than in any of the other broad fields; permanent residents had their highest total in life sciences, and engineering was the most popular field for those in the United States on temporary visas, followed by physical sciences.

The trend towards equal male and female representation in the doctoral cohorts is particularly striking for U.S. citizens. In 2004, 51 percent of all doctorates awarded to U.S. citizens went to women. This marks the third consecutive year in which the majority of U.S. citizens receiving a research doctorate were women. (See appendix table B-2.)

Among permanent residents earning doctorates in 2004, 51 percent were female, and among those doctorate recipients holding temporary visas, 32 percent were female (appendix table A-4). Both of those percentages are, like the figure for U.S. women, near all-time highs. (See appendix 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 19 percent of all female doctorate recipients in 2004, they earned 23 percent of the doctorates granted to females in life sciences, 39 percent of the doctorates earned by females in physical sciences, and 49 percent of the female-earned doctorates in engineering. (See appendix table A-3c.)

In 2004, 3,209 doctorate recipients were citizens of the People's Republic of China (PRC) [13], comprising 8 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 2004 were the same as in 2003, though some changes in rankings occurred within the top 15. The leading five countries (PRC, Korea, India, Taiwan, and Canada)

[12] The large increase in doctorate recipients with permanent visas in the 1990s was primarily a consequence of the Chinese Student Protection Act of 1992. This bill made thousands of students from the People's Republic of China who were enrolled in U.S. universities in 1989 at the time of the Tiananmen Square incident eligible to apply for permanent residency in 1993. The numbers of Chinese students with permanent visas dropped in 1996 and 1997 as the number of students eligible for permanent residency under the act declined.

[13] Includes Hong Kong.

accounted for 18 percent of all doctorates awarded by U.S. universities to individuals of known citizenship in 2004. Only 6 percent of the total citizenship-known 2004 doctoral cohort were citizens of the next 10 nations listed in table 12, and just 4 percent were citizens of the next 15 nations. Doctorate recipients who were citizens of one of the 30 nations shown in the table thus accounted for 28 percent of the doctorates awarded in 2004 with country of citizenship reported.

The twenty institutions awarding the largest numbers of doctorates to non-U.S. citizens in 2004 are listed in table 13. The University of Texas-Austin awarded the largest number 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.[14]

The 2004 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 37 percent. Slightly over one-third (37 percent) of doctorate recipients had a father who had attended college (but may not have earned a baccalaureate degree); 42 percent of the mothers of doctorate recipients in 2004 had some college background, including receiving the bachelor's degree. At the upper end of the parental education range, the father held an advanced degree for 34 percent of the doctorate recipients, compared with the 21 percent whose mothers had an advanced degree.

Parental education backgrounds of male and female 2004 doctorate recipients differed little 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

[14] The *Summary Report 2002* included a special section on first-generation college graduates earning research doctorates which relied on the respondents' reports of their parents' educations.

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 humanities displayed the highest percentages of both fathers (42 percent) and mothers (27 percent) with advanced degrees. The lowest percentages of advanced degrees by fathers or mothers were reported by doctorate recipients in the broad field of education (24 percent and 14 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.

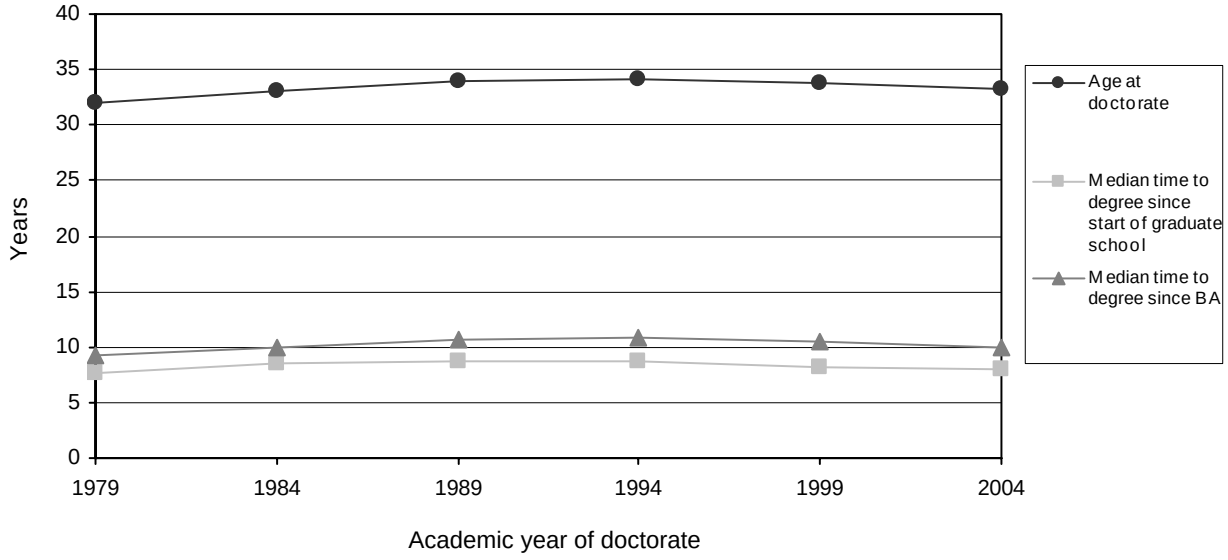
The SED measures time to degree in three different ways: (1) the total time elapsed from completion of the baccalaureate to completion of the doctorate, (2) the total time elapsed while in graduate school to completion of the doctorate, and (3) the age of the doctorate recipients at the time the doctorate is awarded. In this section, the 2004 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 2004 doctorate recipients, the median total time span from baccalaureate to doctorate was 10.0 years (table 15). The total time span was shortest in physical sciences (7.8

years) and longest in education (17.7 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 2004 median total time to degree was about four months shorter than in 1999. The long-term trend, however, had been one of increases in length from 1979 to 1994. (See figure 13 and table 15.) From 1999 to 2004, all the broad fields showed at least slightly shorter times, except for humanities where the time remained the same.

Figure 13. Median number of years to doctorate from baccalaureate award and from graduate school entry, and age at doctorate for selected years, 1979-2004



See Table 15.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

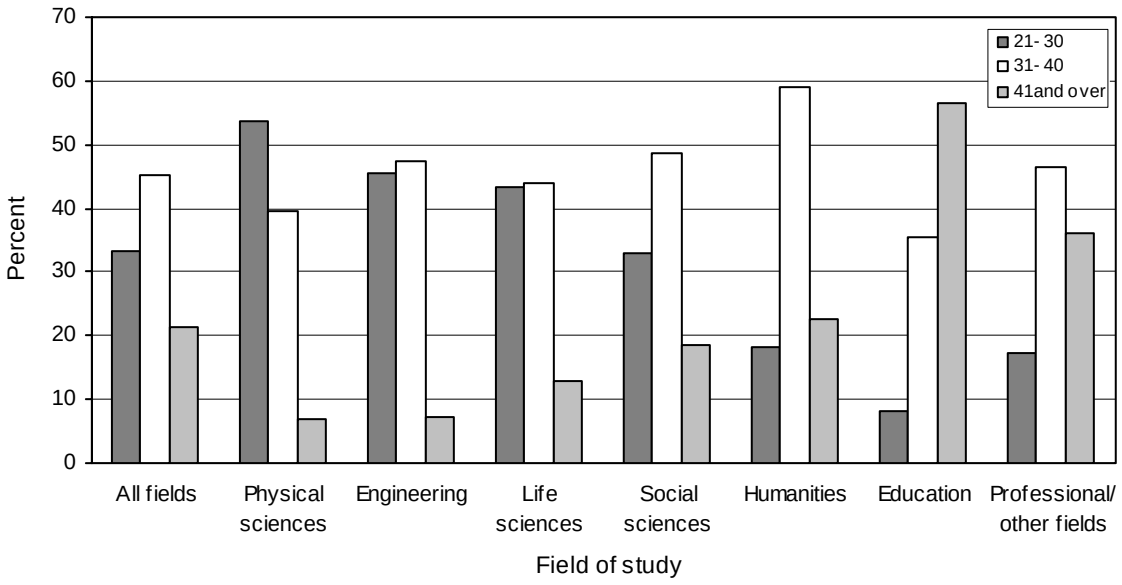
The median duration between starting and completing graduate school was 8.0 years for the 2004 doctorates (table 15). Graduate-school time to degree was shortest in physical sciences (6.7 years) and life sciences (7.0 years), and longest in education (12.7 years) (table 15). The trend for time spent in graduate school is one of small but continual increases over the span from 1979 to 1994 and then declines in most of the seven broad fields. (See 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 tend to be much

smaller, or are 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 2004 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 2004 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 2004 doctorate recipients in the S&E fields was 31.7 years old. In comparison, age at doctorate was 35.0 years in humanities, 43.1 years in education, and 37.0 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, 2004



See Table 17.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Doctorate Recipients with Disabilities

Since 1985, the SED has included questions asking whether the doctorate recipient has a physical or other kind of disability. The question format used in 2004 (see items C10 and C11 in

Appendix D) has been in place since 2001, and asks respondents to indicate all applicable response options. Among the 2004 doctorate recipients, a total of 635 individuals (about 1.5 percent of the doctoral cohort) indicated having one or more disabilities. The most frequently reported disabilities were physical or orthopedic (n=244), followed by learning or cognitive disabilities (n=162). Doctorate recipients with disabilities were more likely to earn their degrees in non-S&E fields of study (51 percent) compared with persons who reported no disabilities (35 percent of all doctorate recipients earned their doctorates in non-S&E fields). (See table 18).

The demographic breaks shown in table 18 indicate that women reported a disability more often than men, and that the gender difference was particularly large for those with a physical or orthopedic disability. U.S. citizens were more likely to report one or more disability than non-U.S. citizens.

Financial Resources in Support of Doctorate Recipients, Including Indebtedness

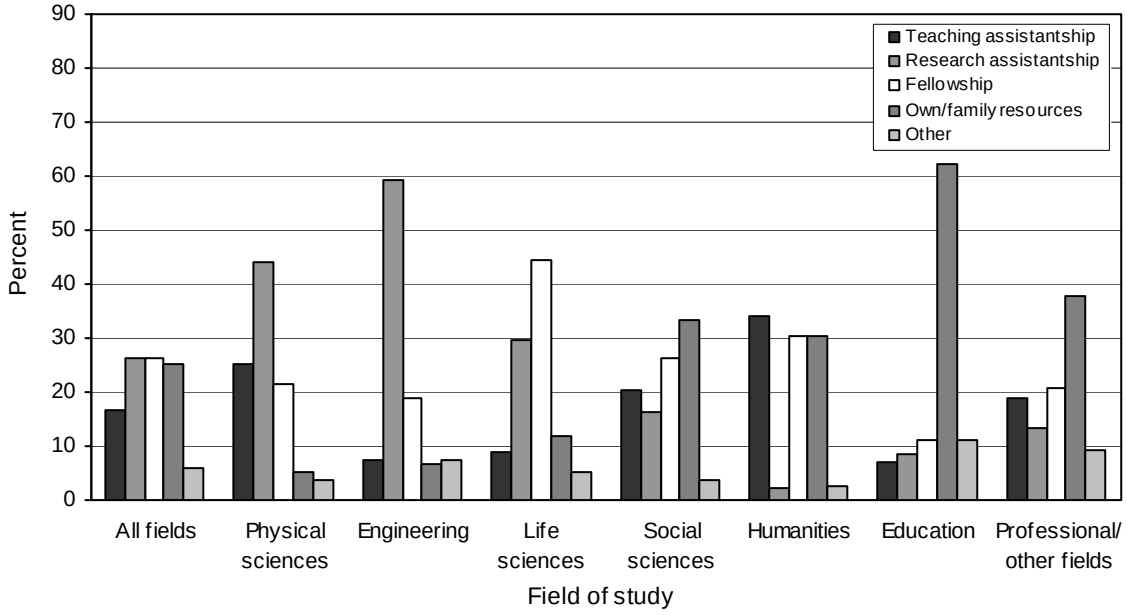
Sources of Financial Support

The SED asks two questions that, taken together, provide information on the financial sources of support utilized by the new doctorate recipients during graduate school (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 14 different potential sources of support, such as fellowships and scholarships, 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 14 sources are combined into the seven categories that form the rows in table 19.

Over two-thirds (69 percent) of the 2004 doctorate recipients reported the primary source of support during graduate school as program- or institution-based sources, such as teaching assistantships, research assistantships/traineeships, and fellowships/dissertation grants.[15] One in four (25 percent) of all 2004 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 graduate studies. Foreign governments, employer contributions, and other sources accounted for the remaining 6 percent of the cases. (See figure 15 and table 19.)

[15] Private foundations, U.S. government agencies, and state governments tend to be the original sources of these funds.

Figure 15. Primary source of financial support for doctorate recipients, by broad field of study, 2004



See Table 19.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Sources of support differ substantially by field of study. For example, within physical sciences, a notably higher than average percentage of new doctorate recipients reported teaching/ research assistantships or fellowships as the primary source of support (91 percent). Within engineering, 86 percent of the research doctorate recipients in 2004 listed teaching/research assistantships or fellowships as their principal form of support, as did 83 percent of respondents in life sciences. On the other hand, only 53 percent of doctorate recipients in professional/other fields and 27 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 (32 percent versus 19 percent). The gender differences in sources of support are in large part a reflection of gender differences in broad fields of specialization, and the field differences in sources of support. (See table 19).

Non-U.S. citizens tended 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 (19 percent and 7 percent, respectively) than did U.S. citizen respondents (33 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 generally still more likely to rely on their own resources than non-U.S. citizens, especially temporary visa holders, in all the broad fields (table 19).

Differences in the various modes of financial support were found among the main racial/ethnic groups.[16] American Indian and black doctorate recipients indicated the greatest reliance on their own resources to finance their doctoral program (48 percent and 44 percent, respectively), followed in decreasing order by whites and Hispanics (33 percent for both), and Asians (18 percent). (See table 19.) Racial/ethnic differences in reliance on own resources also diminished within most of the broad fields of study. However, some substantial racial/ethnic differences within fields were found in terms of use of the different types of program- and institution-based support. In physical sciences and engineering, Asians and whites were both more likely than blacks and Hispanics to rely on research assistantships and less likely to have fellowships or grants as their primary source of support. (See table 19.)

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.[17] This is defined as debt related to tuition and fees, living expenses and supplies, and transportation to and from school. Exactly half of the respondents in 2004 reported having no graduate or undergraduate education-related debt, while another 22 percent reported cumulative debt of $20,000 or less (table 20). However, 11 percent of all new doctorate recipients reported debt over $50,000, creating a bulge at the high end of the debt distribution.

[16] The tables in this section of the report include U.S. citizens and permanent residents in the counts for racial/ethnic groups and the numbers accordingly differ from those in the "Trends in Doctorate Recipients" section, which included only U.S. citizens.

[17] The response categories used in the 2004 SED questionnaire were ordered in $10,000 increments, ranging from "no debt" to "$50,001 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.)

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, physical sciences, professional/other studies, education, and life sciences in that order (table 20). Graduates of the broad fields of social science and humanities were more likely to have debt. Debt levels of $50,000 or more were most common among graduates in social science fields (19 percent), professional/other fields (15 percent), and education (13 percent).

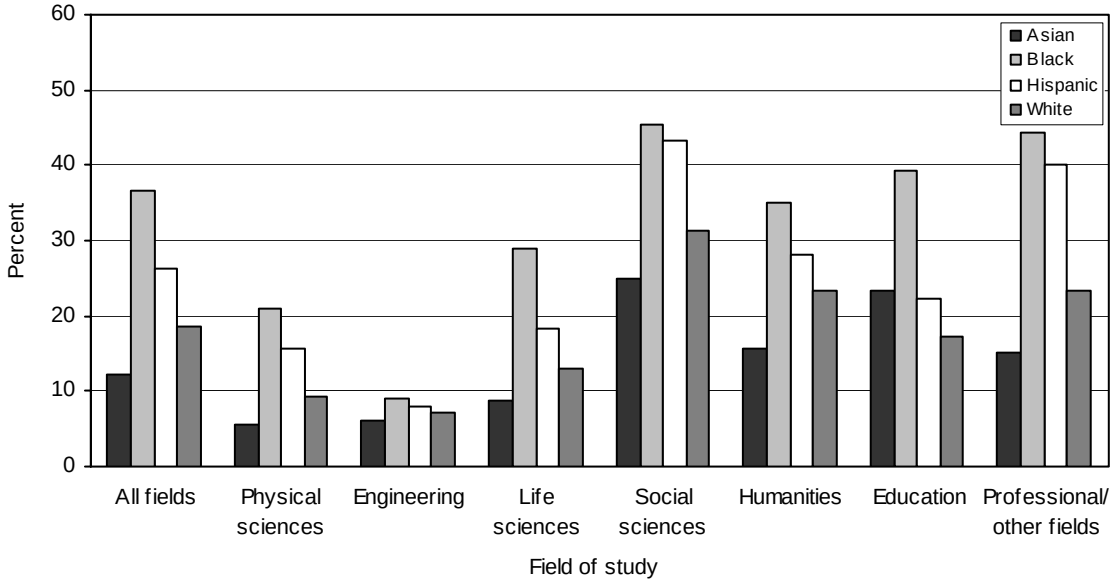
Data separating graduate from undergraduate debt are shown in the lower two panels of table 20. These data show, first, more debt from graduate school was reported, and second, that the cumulative debt differences among the broad fields of doctoral study largely arise during graduate education. Overall, 72 percent of the 2004 doctoral cohort reported no remaining undergraduate debt and only 1 percent reported remaining undergraduate debt greater than $50,000. In contrast, 66 percent reported no graduate school debt and 9 percent reported graduate debt greater than $50,000. The difference in levels of existing indebtedness between undergraduate and graduate school was particularly large for doctorate recipients in social sciences, humanities, education, and professional/other broad fields. (See table 20.)

The pattern of debt levels for the study's main demographic groups is shown in table 21. Debt differences between the sexes were not large, with new male doctorates about three percentage points more likely to have no debt than their female counterparts (51.4 percent versus 48.5 percent). U.S. citizen doctorate recipients were less likely to have no higher-education-related debt than graduates with permanent or temporary visas (41 percent, versus 64 percent, and 70 percent, respectively), and more likely to have debts totaling over $50,000 (13 percent, versus 6 percent for both permanent and temporary visa holders). (See table 21.)

Particularly noteworthy in the cumulative debt tabulations (first panel of table 21) is the much higher incidence of blacks, Hispanics, and American Indians sustaining high levels of education-related debt. Over one-fourth (28 percent) of black doctorate recipients, 18 percent of Hispanics, and 14 percent of American Indians owed over $50,000; these figures compare to 7 percent of Asians and 12 percent of whites with that level of debt. Similarly, Asians (53 percent) and whites (43 percent) were more likely to have no education-related debt at completion of the doctorate. The lower panels of the table show that most of the racial/ethnic group indebtedness differences were graduate school debt rather than undergraduate debt.

The racial/ethnic group graduate debt differences 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 20, were also associated with indebtedness. A preliminary assessment of this possibility is provided in table 22 and figure 16, which shows the percentages of each racial/ethnic group with graduate debt greater than $30,000 separately for each broad field of doctoral study. Comparing black doctorate recipients with their white and Asian counterparts, it is clear that blacks in all broad fields except engineering were much more likely to complete graduate school with high levels of debt. Hispanic doctorate recipients were also more likely than whites and Asians to incur high levels of graduate school debt, but the differences are smaller than for blacks in most broad fields. (See figure 16 and table 22.)

Figure 16. Percentage of doctorate recipients with levels of graduate school debt greater than $30,000, by broad field of study and race-ethnicity (U.S. citizens and permanent residents only), 2004



See Table 22.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates

Postgraduation Plans, Employment, and Location

The SED questionnaire includes a number of questions about the graduates' immediate plans for work or further study.[18] 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. The 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 23 and 24). 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 25 and 26). The third aspect examined is the distribution of graduates across U.S.-based employment sectors, broken down by broad field of study (table 27), sex, race/ethnicity, and citizenship status (table 28). The final aspects discussed are financial support for postdoctoral study (table 29) and anticipated location of postgraduate commitment (international versus U.S.) for non-U.S. citizens (tables 30 and 31).

Definite versus Indefinite Plans

Seven in ten (70 percent) of all doctorate recipients in 2004 reported having definite commitments for employment or postdoctoral study or research. As defined here, a definite commitment is indicated either by a respondent reporting that (a) he or she was returning to, or continuing in, predoctoral employment; or (b) he or she had signed a contract or made a definite commitment for other work or study. An indefinite plan is defined as a respondent who (c) was negotiating with one or more specific organizations, (d) was seeking a position but had no

[18] 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 2004), minus a low, often negligible, rate of item nonresponse. For the 2004 SED cycle, the overall response rate for the first item, asking whether the respondent has definite plans for either career employment or study, was 89 percent.

specific prospects yet, (e) did not plan to work or study or (f) some other situation, usually described as "have not made a plan yet." Of the 30 percent with indefinite plans, over a quarter (27 percent) indicated they were in category (c), 68 percent were still seeking a position, and 3 percent were not seeking one. (See survey question B3 in the 2004 questionnaire included in appendix D for the item wording.)

The 70 percent with definite plans is slightly less than in 2003, when 71 percent reported having definite commitments. The percentages with definite commitments in 2004 vary little by broad field with the noteworthy exception of humanities and engineering, where about 63 percent have a definite commitment. (See table 23.)

The percentages of graduates from various demographic groups with definite commitments are shown in table 24. About 2 percent fewer women than men (71 percent compared to 69 percent) reported having definite plans. U.S. citizens were more likely to have definite commitments (72 percent) than individuals with permanent (63 percent) or temporary visas (66 percent). Among U.S. citizens and permanent residents, whites were more likely than Hispanics, blacks, Asians, and American Indians to have definite plans.[19]

Career Employment versus Postdoctorates

Among the doctoral recipients reporting definite plans, the majority (65 percent) indicated that they planned to enter career employment as opposed to pursuing further study within a postdoctoral research or teaching program (table 25). Nonetheless, the 35 percent planning on a postdoc represents the highest level ever recorded in the SED, edging up slightly from 33 percent in 2003. Plans for postdoctoral study were more common among graduates in life sciences (67 percent) and physical sciences (56 percent) than in the other broad fields. Compared to 1984, the percentages of new doctorate recipients entering postdoctorate study programs have increased in all of the broad fields.

Differences among demographic subgroups are shown in table 26. Men were more likely than women to have definite plans for postdoctorate study (38 versus 32 percent). The percentages of men and women with definite plans for postdoctoral study increased to all-time highs in 2004. (See table 26 and, in the *Summary Report 2003*, table 25).

[19] The tables in this section of the report include U.S. citizens and permanent residents in the counts for racial/ethnic groups and the numbers accordingly differ from those in the "Trends in Doctorate Recipients" section, which included only U.S. citizens.

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 Hispanic and non-Hispanic white recipients. Black and American Indian doctorate recipients were least likely to plan postdoctorates. (See table 26.) These differences among citizenship and racial/ethnic subgroups reflect the greater number of postdoctorates in physical and life sciences, and the greater concentrations of non-U.S. citizens and U.S. citizen Asian students in those fields. (See appendix table A-4.)

Employment Sectors in the United States

The most common employment sector of the 2004 doctorate recipients with definite employment commitments within the United States was higher education, identified by over half (57 percent) of the 2004 respondent subpopulation. (See the total column in table 27.) The next largest group had commitments to industry or some form of self-employment (19 percent) while 8 percent planned to work for U.S. federal, state, or local government. Seventeen percent of the 2004 doctorate recipients indicated a type of employment that did not correspond to these main sectors, and are grouped into the "other" category in tables 27 and 28. These were a mix of employment in public and private elementary and secondary schools or school systems, non-profit organizations not affiliated with universities, foreign governments, and non-governmental organizations. The historical trend indicated in the five-year intervals back to 1984 shows reductions in government employment, coupled with small increases in the higher education sector, increasing noticeably between 1999 and 2004 (49 to 57 percent). The late 1990s (the 1999 time point in table 27) was the main exception to the growth in higher education, reflecting a surge in industry- and self-employment during the boom economy of those years.

The relative shares of doctorate recipients in the main employment sectors varied by broad field of doctorate (table 27). The proportion employed in academe in 2004 was highest among humanities doctorate recipients (84 percent) and lowest among the engineering doctorate recipients (22 percent). The proportion employed in industry or self-employed in 2004 ranged from highs of 62 percent of the engineering doctorate recipients and 42 percent of physical science graduates, to lows of 4 percent of humanities and education doctorate recipients.

Humanities doctorate recipients were particularly unlikely to have work commitments in government (2 percent). The percentage of doctorate recipients classified as having "other" work commitments was by far the greatest among education graduates (42 percent), reflecting the high rates at which these individuals are employed in elementary and secondary schools or school systems.

The distribution of graduates across the U.S. employment sectors is broken down by sex, citizenship status, and race/ethnicity in table 28. As has been noted in connection with demographic group differences on other variables in this report, at least some part of the group differences in employment sectors are reflections of demographic differences in doctoral fields of study and the different early career patterns of those specializations. Among 2004 female doctorate recipients, 12 percent had commitments to industry or some form of self-employment, compared to 26 percent of their male counterparts. Women were more likely than men to have commitments to academe (61 percent versus 52 percent); again, this reflects the relatively high concentration of women earning their doctorates in humanities, social sciences, life sciences, and education.

Non-U.S. citizens on temporary visas with definite plans to remain in the United States after graduation were less likely than U.S. citizens to have work commitments in academe (53 percent versus 57 percent). Reflecting their concentration in the broad fields of physical sciences and engineering, temporary visa holders were much more likely than U.S. citizens to have employment in industry or self-employment (40 versus 14 percent). Permanent residents were more likely to have definite plans for employment in academe than U.S. citizens (59 percent versus 57 percent), and, like those on temporary visas, were more likely than U.S. citizens to take employment in industry or self-employment (29 percent versus 14 percent). (See table 28.)

With regard to U.S. racial/ethnic groups, Asians were less likely than others to go into academe (46 percent) and were more likely than all others to go into industry or self-employment (36 percent). Blacks were least likely to have work commitments in industry or self-employment (8 percent), were more likely than most others to have commitments subsumed in the "other" category (29 percent), save for American Indians (30 percent). This latter pattern reflects the high representation of blacks in the broad field of education and the high rate of employment of those doctorate recipients by elementary and secondary schools or school systems. (See table 28.)

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 2004, 46 percent of all postdocs named a college or university as their main source of funding, followed by 33 percent indicating the U.S. government.[20] Private foundations supported another 6 percent, and other types of nonprofit organizations supported 3 percent. (See table 29.) About 8 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 29.) Similarly, the racial/ethnic breakdowns in table 29 show little difference in the funding sources for Asians, blacks, Hispanics, and whites. However, 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, especially permanent residents, also received U.S. government support, though the percentages were generally lower in 2004 than in the other years shown in table 29. 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.

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 70 percent of temporary visa holders indicated that they would remain in the United States following graduation (table 30). In 2004, chemistry, biological sciences, and physics and astronomy were the fields with the highest concentrations of new doctorate recipients with temporary visas staying in the United States (88 percent, 85 percent, and 78 percent, respectively). The lowest concentrations were located in the broad

[20] Some college or university support may derive from federal funds, and this may not be clear to the SED respondents.

fields of education (36 percent), social sciences (53 percent) and humanities (55 percent). (See table 30.)

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 31 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 1984, less than half (49 percent) of those with temporary visas had firm commitments to positions in the United States. A decade later, 52 percent of them had firm commitments to stay in the United States; in 2004, the number had increased to 69 percent.

The imposition of travel restrictions and other constraints on non-U.S. citizens studying in the U.S. in the wake of the terrorist attacks on September 11, 2001 have raised concerns among many involved in doctoral education that the numbers of non-U.S. citizens pursuing doctorates in the U.S. and staying in the U.S. after earning the doctorate may decline.[21] There is not evidence yet of declining numbers of non-U.S. citizens pursuing doctorates in the United States. As is evident in Appendix table B-2a, the number of doctorates earned by individuals holding temporary residency visas reached all-time highs in 2003 and again in 2004. But since the median time from starting graduate school to completing the doctorate is about eight years, declining numbers of non-U.S. citizens earning doctorates may not be apparent until the end of this decade.

With respect to non-U.S. citizens planning to stay in the U.S. after earning the doctorate, table 32 indicates that the percentage of foreign graduates intending to stay from the three academic years prior to 9/11 was almost identical to the percentage intending to stay since 9/11 (69 percent in both periods). However, when the six years are viewed as a series of individual years, it is apparent that the percentage saying they would stay was higher in 2001 than in either 1999 or 2000. Then in each succeeding year, 2002, 2003, and 2004, the percentage saying they would stay was slightly lower. The percentage staying was 3 percent lower in 2004 than it was 2001 and there is thus some evidence of a change in the direction of the trend after 2001.

[21] *Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States,* Committee on Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States, Board on Higher Education and Workforce, National Research Council, National Academies of Science, National Academies Press, Washington, DC, 2005.

Disaggregating the foreign graduates by country of citizenship and geographical region of citizenship, table 32 shows that this general pattern of increasing intentions to stay in the U.S. through 2001 followed by slight declines in each year after held in most regions and for most countries within the regions.

MAIN DATA TABLES

TABLE 1. Number of doctorates awarded and annual percentage change in doctorates awarded by U.S. colleges and universities, 1957–2004

Year	Number of doctorate recipients	Percent change from previous year
1957	8,611	1.1
1958	8,773	1.9
1959	9,213	5.0
1960	9,733	5.6
1961	10,413	7.0
1962	11,500	10.4
1963	12,728	10.7
1964	14,325	12.5
1965	16,340	14.1
1966	17,949	9.8
1967	20,403	13.7
1968	22,937	12.4
1969	25,743	12.2
1970	29,498	14.6
1971	31,867	8.0
1972	33,041	3.7
1973	33,755	2.2
1974	33,047	-2.1
1975	32,952	-0.3
1976	32,946	0.0
1977	31,716	-3.7
1978	30,875	-2.7
1979	31,239	1.2
1980	31,020	-0.7
1981	31,356	1.1
1982	31,110	-0.8
1983	31,281	0.5
1984	31,336	0.2
1985	31,296	-0.1
1986	31,901	1.9
1987	32,370	1.5
1988	33,500	3.5
1989	34,327	2.5
1990	36,068	5.1
1991	37,531	4.1
1992	38,887	3.6
1993	39,800	2.3
1994	41,035	3.1
1995	41,750	1.7
1996	42,439	1.7
1997	42,541	0.2
1998	42,647	0.2
1999	41,092	-3.6
2000	41,365	0.7
2001	40,824	-1.3
2002	39,989	-2.0
2003	40,770	2.0
2004	42,155	3.4

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, 1964–2004

Year	Number of doctorate recipients	Number of institutions	Mean number of doctorate recipients per institution	Median number of doctorate recipients per institution
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	37,531	364	103	38.5
1992	38,887	367	106	42.0
1993	39,800	372	107	42.5
1994	41,035	374	110	43.0
1995	41,750	382	109	43.0
1996	42,439	390	109	44.0
1997	42,541	383	111	45.0
1998	42,647	388	110	43.5
1999	41,092	396	104	41.5
2000	41,365	408	101	40.5
2001	40,824	417	98	37.0
2002	39,989	415	96	38.0
2003	40,770	423	96	36.0
2004	42,155	419	101	39.0

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

TABLE 3. Top 20 doctorate-granting institutions, by broad field of study, 2004

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
All fields	42,155	Physical sciences	6,049
U. CA, Berkeley	769	U. CA, Berkeley	151
U. TX-Austin	702	MA Institute of Technology	146
U. CA, Los Angeles	664	Stanford U.	122
U. MI	658	U. IL-Urbana-Champaign	105
Nova Southeastern U.	645	U. TX-Austin	102
U. WI-Madison	627	U. WA	101
Stanford U.	591	U. MI	99
PA State U., The	580	U. CA, Los Angeles	97
Harvard U.	579	U. WI-Madison	93
U. IL-Urbana-Champaign	574	U. AZ	92
U. MN	565	CA Institute of Technology	90
OH State U., The	560	U. MD	90
U. FL	522	PA State U., The	86
U. WA	506	U. MN	86
TX A&M U.	492	Harvard U.	81
U. MD	481	Cornell U.	79
U. Southern CA	477	Purdue U.	79
MA Institute of Technology	467	U. CA, San Diego	79
Purdue U.	448	U. NC Chapel Hill	78
MI State U.	422	Princeton U.	76
Engineering	5,776	Life sciences	8,819
GA Institute of Technology	229	Johns Hopkins U.	190
Stanford U.	199	Harvard U.	184
MA Institute of Technology	183	U. FL	178
U. MI	170	OH State U., The	168
U. TX-Austin	160	U. WI-Madison	168
U. CA, Berkeley	138	U. CA, Davis	166
Purdue U.	133	U. CA, Los Angeles	162
U. IL-Urbana-Champaign	129	U. MI	151
TX A&M U.	127	U. MN	147
PA State U., The	119	U. CA, Berkeley	141
U. FL	114	U. NC Chapel Hill	140
U. WI-Madison	98	U. WA	135
U. CA, Los Angeles	94	PA State U., The	128
Northwestern U.	93	TX A&M U.	123
U. MD	93	U. GA	122
VA Polytechnic Institute and State U.	93	Cornell U.	118
Cornell U.	86	MI State U.	110
NC State U.	84	U. IL-Urbana-Champaign	99
U. WA	84	U. Pittsburgh	99
U. MN	81	U. TX-Health Science Ctr.-Houston	96

TABLE 3. Top 20 doctorate-granting institutions, by broad field of study, 2004

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
Social sciences	6,795	Humanities	5,467
U. CA, Berkeley	125	U. CA, Berkeley	138
Harvard U.	115	U. CA, Los Angeles	136
U. Chicago, The	98	U. TX-Austin	120
Graduate School & U. Ctr., CUNY	96	IN U.	113
U. TX-Austin	90	Graduate School & U. Ctr., CUNY	109
U. MI	89	NY U.	106
Columbia U.	88	Harvard U.	105
U. CA, Los Angeles	88	Columbia U.	104
NY U.	81	U. WI-Madison	102
U. MD	80	U. Chicago, The	100
U. MN	80	Yale U.	96
U. WI-Madison	78	U. IL-Urbana-Champaign	92
MI State U.	77	Rutgers U.	84
PA State U., The	76	U. MD	84
Stanford U.	73	U. MI	79
SUNY U. Albany	71	U. MN	79
Nova Southeastern U.	70	U. PA	79
Cornell U.	66	U. Southern CA	79
George Mason U.	65	U. WA	76
U. CA, San Diego	65	OH State U., The	75
Education	6,635	Professional/other fields	2,614
Nova Southeastern U.	426	Nova Southeastern U.	107
U. Sarasota	151	U. Sarasota	64
Teachers C., Columbia U.	131	U. TX-Austin	53
U. GA	121	U. Southern CA	46
U. TX-Austin	118	U. IL-Urbana-Champaign	39
U. Southern CA	104	AZ State U.	38
PA State U., The	92	U. PA	37
IN U.	85	FL State U.	36
U. VA	81	Harvard U.	36
OH State U., The	76	NY U.	36
OK State U.	70	U. MI	36
U. AZ	67	George Washington U.	35
TX A&M U.	66	OH State U., The	35
U. CA, Los Angeles	62	PA State U., The	34
FL State U.	61	TX A&M U.	34
Northern IL U.	61	Columbia U.	33
U. MN	60	Northwestern U.	33
U. PA	60	U. CA, Berkeley	32
Loyola U. Chicago	59	U. MN	32
U. IA	59	U. WI-Madison	31

NOTE: Two or more institutions with the same number of doctorate recipients are listed in alphabetical order.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 4. Number of doctorate recipients, by state of awarding institution, including the District of Columbia and Puerto Rico, 2004

Rank	State	Number of doctorate recipients
1	California	5,037
2	New York	3,533
3	Texas	2,617
4	Florida	2,378
5	Pennsylvania	2,154
6	Massachusetts	2,116
7	Illinois	1,970
8	Ohio	1,602
9	Michigan	1,494
10	North Carolina	1,203
11	Georgia	1,076
12	Indiana	1,071
13	Virginia	1,040
14	Maryland	1,004
15	New Jersey	943
16	Arizona	793
17	Wisconsin	784
18	Minnesota	755
19	Missouri	726
20	Washington	722
21	Colorado	713
22	Tennessee	690
23	Connecticut	613
24	Louisiana	582
25	Iowa	555
26	District of Columbia	515
27	Alabama	484
28	Kansas	432
29	Oregon	407
30	Kentucky	397
31	South Carolina	393
32	Oklahoma	367
33	Mississippi	357
34	Utah	343
35	New Mexico	288
36	Nebraska	287
37	Rhode Island	238
38	Delaware	199
39	West Virginia	173
40	Arkansas	158
41	Hawaii	128
42	Nevada	125
43	Idaho	116
44	New Hampshire	106
45	South Dakota	89
46	Montana	79
47	North Dakota	73
48	Puerto Rico	71
49	Vermont	55
[50	Maine	42
50	Wyoming	42
52	Alaska	20

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 5. Major field of study of doctorate recipients for selected years, 1974–2004

Field of study [a]	1974	1979	1984	1989	1994	1999	2004
All fields	33,047	31,239	31,336	34,327	41,035	41,092	42,155
Physical sciences [b]	4,923	4,246	4,407	5,387	6,761	6,224	6,049
Engineering	3,147	2,490	2,912	4,543	5,821	5,330	5,776
Life sciences	5,017	5,276	5,803	6,410	7,799	8,205	8,819
Social sciences	5,882	5,961	5,929	5,961	6,615	7,041	6,795
Humanities	5,170	4,141	3,536	3,552	4,742	5,459	5,467
Education	7,241	7,385	6,808	6,281	6,711	6,546	6,635
Professional/other fields	1,667	1,740	1,941	2,193	2,586	2,287	2,614
Physical sciences							
Physics & astronomy	1,339	1,108	1,080	1,274	1,692	1,430	1,351
Chemistry	1,797	1,566	1,765	1,970	2,257	2,132	1,987
Earth, atmospheric, & marine sciences	576	593	569	672	791	723	687
Mathematics	1,211	769	698	859	1,118	1,083	1,075
Computer sciences [c]	-----	210	295	612	903	856	949
Engineering	3,147	2,490	2,912	4,543	5,821	5,330	5,776
Life sciences							
Biological sciences	3,484	3,646	3,880	4,116	5,202	5,582	5,937
Health sciences	476	568	722	974	1,296	1,407	1,730
Agricultural sciences	1,057	1,062	1,201	1,320	1,301	1,216	1,152
Social sciences							
Psychology	2,598	3,091	3,257	3,208	3,379	3,668	3,336
Anthropology	379	383	335	325	384	463	529
Economics	851	802	793	898	940	926	960
Political science/international relations	909	603	514	524	701	774	685
Sociology	645	632	515	436	525	544	579
Other social sciences	500	450	515	570	686	666	706
Humanities							
History	1,186	829	617	538	801	1,010	975
English language & literature	1,369	909	733	720	943	1,022	933
Foreign language & literature	887	646	492	432	594	626	586
Other humanities	1,728	1,757	1,694	1,862	2,404	2,801	2,973
Education							
Teacher education	658	492	431	451	401	292	269
Teaching fields	1,479	1,411	1,170	970	960	892	757
Other education	5,104	5,482	5,207	4,860	5,350	5,362	5,609
Professional/other							
Business & management	796	715	869	1,067	1,283	1,108	1,264
Communications	311	285	255	306	371	379	450
Other professional fields	474	717	802	766	891	768	897
Other fields	86	23	15	54	41	32	3

[a] Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

[b] Includes mathematics and computer sciences.

[c] 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 major field of study, 1994 and 2004

Field of study [a]	1994 [b]		2004 [c]		Percentage change earned by females, 1994-2004 [d]
	Number of doctorate recipients	Percent of doctorates to females	Number of doctorate recipients	Percent of doctorates to females	
All fields	40,881	38.7	42,074	45.4	17.3
Physical sciences	6,727	20.2	6,037	26.5	30.9
Physics & astronomy	1,683	11.9	1,350	17.0	43.4
Chemistry	2,246	27.8	1,981	31.8	14.1
Earth, atmospheric, & marine sciences	784	20.7	687	34.8	68.4
Mathematics	1,115	21.2	1,075	28.4	34.0
Computer sciences	899	15.2	944	20.7	35.6
Engineering	5,785	11.0	5,764	17.6	60.3
Life sciences	7,770	41.8	8,799	49.5	18.5
Biological/biomedical sciences	5,184	40.7	5,928	46.3	13.9
Health sciences	1,287	65.5	1,724	68.4	4.5
Agricultural sciences/natural resources	1,299	22.6	1,147	37.2	65.0
Social sciences	6,587	49.6	6,782	55.2	11.1
Psychology	3,374	62.3	3,331	67.4	8.2
Anthropology	384	54.2	529	55.2	1.9
Economics	933	24.5	958	29.4	19.9
Political science/international relations	696	28.3	684	34.2	20.9
Sociology	521	52.0	576	58.7	12.8
Other social sciences	679	38.7	704	49.7	28.4
Humanities	4,731	47.8	5,461	51.9	8.5
History	800	36.9	974	41.6	12.8
English language & literature	943	56.7	933	60.9	7.3
Foreign language & literature	591	63.8	586	62.5	-2.1
Other humanities	2,397	44.1	2,968	50.4	14.3
Education	6,702	61.0	6,627	65.8	7.8
Teacher education	401	71.6	269	73.6	2.8
Teaching fields	958	55.3	757	65.1	17.7
Other education	5,343	61.3	5,601	65.5	7.0
Professional/other	2,579	37.2	2,604	45.9	23.4
Business mgt./Administrative services	1,278	28.6	1,258	36.1	26.4
Communications	370	50.3	450	58.9	17.1
Other professional fields	891	44.2	893	53.3	20.5
Other fields	40	37.5	3	33.3	-11.1

[a] Major field study definitions are detailed in appendix C in the section on "Derived Variables."

[b] 1994 field total excludes 154 individuals for whom sex was not reported.

[c] 2004 field total excludes 81 individuals for whom sex was not reported.

[d] Change in percent to females computed as (2004 percent - 1994 percent) / 1994 percent.

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, 1974–200

Field of study and sex	1974		1979		1984		1989		1994 [a]		1999 [b]		2004 [c]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fields	33,047	100.0	31,239	100.0	31,336	100.0	34,327	100.0	40,881	100.0	40,914	100.0	42,074	100.0
Male	26,594	80.5	22,302	71.4	20,637	65.9	21,814	63.5	25,059	61.3	23,434	57.3	22,976	54.6
Female	6,453	19.5	8,937	28.6	10,699	34.1	12,513	36.5	15,822	38.7	17,480	42.7	19,098	45.4
Physical sciences [d]	4,923	100.0	4,246	100.0	4,407	100.0	5,387	100.0	6,727	100.0	6,196	100.0	6,037	100.0
Male	4,545	92.3	3,757	88.5	3,759	85.3	4,377	81.3	5,367	79.8	4,752	76.7	4,439	73.5
Female	378	7.7	489	11.5	648	14.7	1,010	18.7	1,360	20.2	1,444	23.3	1,598	26.5
Engineering	3,147	100.0	2,490	100.0	2,912	100.0	4,543	100.0	5,785	100.0	5,292	100.0	5,764	100.0
Male	3,114	99.0	2,428	97.5	2,761	94.8	4,168	91.7	5,150	89.0	4,504	85.1	4,750	82.4
Female	33	1.0	62	2.5	151	5.2	375	8.3	635	11.0	788	14.9	1,014	17.6
Life sciences	5,017	100.0	5,276	100.0	5,803	100.0	6,410	100.0	7,770	100.0	8,174	100.0	8,799	100.0
Male	4,105	81.8	3,998	75.8	4,001	68.9	3,966	61.9	4,525	58.2	4,531	55.4	4,445	50.5
Female	912	18.2	1,278	24.2	1,802	31.1	2,444	38.1	3,245	41.8	3,643	44.6	4,354	49.5
Social sciences	5,882	100.0	5,961	100.0	5,929	100.0	5,961	100.0	6,587	100.0	7,019	100.0	6,782	100.0
Male	4,501	76.5	3,969	66.6	3,503	59.1	3,265	54.8	3,318	50.4	3,193	45.5	3,041	44.8
Female	1,381	23.5	1,992	33.4	2,426	40.9	2,696	45.2	3,269	49.6	3,826	54.5	3,741	55.2
Humanities	5,170	100.0	4,141	100.0	3,536	100.0	3,552	100.0	4,731	100.0	5,427	100.0	5,461	100.0
Male	3,594	69.5	2,549	61.6	1,947	55.1	1,939	54.6	2,468	52.2	2,775	51.1	2,627	48.1
Female	1,576	30.5	1,592	38.4	1,589	44.9	1,613	45.4	2,263	47.8	2,652	48.9	2,834	51.9
Education	7,241	100.0	7,385	100.0	6,808	100.0	6,281	100.0	6,702	100.0	6,529	100.0	6,627	100.0
Male	5,302	73.2	4,277	57.9	3,337	49.0	2,671	42.5	2,612	39.0	2,334	35.7	2,266	34.2
Female	1,939	26.8	3,108	42.1	3,471	51.0	3,610	57.5	4,090	61.0	4,195	64.3	4,361	65.8
Professional/other fields	1,667	100.0	1,740	100.0	1,941	100.0	2,193	100.0	2,579	100.0	2,277	100.0	2,604	100.0
Male	1,433	86.0	1,324	76.1	1,329	68.5	1,428	65.1	1,619	62.8	1,345	59.1	1,408	54.1
Female	234	14.0	416	23.9	612	31.5	765	34.9	960	37.2	932	40.9	1,196	45.9

[a] Group total for 1994 excludes 154 individuals for whom sex was not reported.

[b] Group total for 1999 excludes 178 individuals for whom sex was not reported.

[c] Group total for 2004 excludes 81 individuals for whom sex was not reported.

[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 and broad field of study, for selected years, 1984–2004

Field of study and race/ethnicity	1984	1989	1994	1999	2004
All fields	24,045	23,402	27,150	27,986	26,431
Known race/ethnicity	23,456	23,028	26,901	27,527	25,811
Asian [b]	512	626	937	1,304	1,449
Black	955	822	1,099	1,630	1,869
Hispanic	534	582	884	1,184	1,177
American Indian [c]	74	94	143	214	129
White	21,365	20,892	23,796	23,093	20,745
Other [d]	16	12	42	102	442
Physical sciences [a]	3,131	3,233	3,635	3,470	3,006
Known race/ethnicity	3,026	3,149	3,601	3,397	2,903
Asian [b]	106	117	177	210	202
Black	35	35	52	92	77
Hispanic	53	70	99	99	99
American Indian [c]	7	18	10	17	11
White	2,825	2,908	3,259	2,972	2,458
Other [d]	0	1	4	7	56
Engineering	1,239	1,864	2,215	2,486	1,941
Known race/ethnicity	1,194	1,822	2,188	2,428	1,872
Asian [b]	95	173	200	263	229
Black	12	24	43	85	84
Hispanic	22	33	49	71	73
American Indian [c]	3	7	6	12	5
White	1,062	1,583	1,887	1,990	1,457
Other [d]	0	2	3	7	24
Life sciences	4,569	4,534	4,954	5,136	5,719
Known race/ethnicity	4,449	4,453	4,905	5,058	5,600
Asian [b]	133	138	244	355	457
Black	75	77	119	178	257
Hispanic	54	82	147	205	233
American Indian [c]	12	12	24	27	21
White	4,174	4,142	4,366	4,275	4,528
Other [d]	1	2	5	18	104
Social sciences	4,787	4,307	4,992	5,428	4,881
Known race/ethnicity	4,686	4,251	4,941	5,352	4,775
Asian [b]	67	70	130	189	230
Black	195	170	200	307	337
Hispanic	127	130	176	292	258
American Indian [c]	10	18	27	59	21
White	4,285	3,860	4,401	4,481	3,835
Other [d]	2	3	7	24	94
Humanities	2,965	2,724	3,715	4,284	4,090
Known race/ethnicity	2,886	2,668	3,681	4,201	3,988
Asian [b]	28	40	66	122	149
Black	94	72	102	166	170
Hispanic	98	84	138	174	198
American Indian [c]	5	7	23	25	15
White	2,656	2,462	3,342	3,692	3,385
Other [d]	5	3	10	22	71

TABLE 8. Number of U.S. citizen doctorate recipients, by race/ethnicity and broad field of study, for selected years, 1984–2004

Field of study and race/ethnicity	1984	1989	1994	1999	2004
Education	5,917	5,246	5,867	5,636	5,305
Known race/ethnicity	5,822	5,206	5,824	5,567	5,218
Asian [b]	60	57	80	100	113
Black	487	390	486	661	772
Hispanic	146	158	226	289	261
American Indian [c]	33	25	37	58	46
White	5,089	4,575	4,986	4,438	3,962
Other [d]	7	1	9	21	64
Professional/other fields	1,437	1,494	1,772	1,546	1,489
Known race/ethnicity	1,393	1,479	1,761	1,524	1,455
Asian [b]	23	31	40	65	69
Black	57	54	97	141	172
Hispanic	34	25	49	54	55
American Indian [c]	4	7	16	16	10
White	1,274	1,362	1,555	1,245	1,120
Other [d]	1	0	4	3	29

[a] Includes mathematics and computer sciences.

[b] Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them thereafter.

[c] Includes Alaska Natives.

[d] Includes 59 Native Hawaiians and other Pacific Islanders and 383 respondents choosing multiple races (excluding those selecting an Hispanic ethnicity) in 2004; prior to 2001, this category included only non-Hispanic respondents choosing multiple races.

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, 2004

Field of study [a]	Total U.S. citizen doctorate recipients	Number with known race/ethnicity	U.S. citizens					
			Asian [b]	Black	Hispanic	American Indian [c]	White	Other [d]
All fields	26,431	25,811	1,449	1,869	1,177	129	20,745	442
Physical sciences	3,006	2,903	202	77	99	11	2,458	56
Physics & astronomy	628	598	41	9	18	1	516	13
Chemistry	1,110	1,078	84	39	38	4	894	19
Earth, atmospheric, & marine sciences	415	398	6	6	10	4	364	8
Mathematics	455	441	29	8	21	0	375	8
Computer sciences	398	388	42	15	12	2	309	8
Engineering	1,941	1,872	229	84	73	5	1,457	24
Life sciences	5,719	5,600	457	257	233	21	4,528	104
Biological sciences	3,955	3,878	379	136	174	14	3,100	75
Health sciences	1,198	1,176	63	101	44	3	943	22
Agricultural sciences	566	546	15	20	15	4	485	7
Social sciences	4,881	4,775	230	337	258	21	3,835	94
Psychology	2,725	2,674	135	202	162	13	2,110	52
Anthropology	423	408	16	14	30	2	334	12
Economics	316	308	25	18	8	0	254	3
Political science/international relations	499	489	24	28	23	0	409	5
Sociology	440	437	21	34	25	2	345	10
Other social sciences	478	459	9	41	10	4	383	12
Humanities	4,090	3,988	149	170	198	15	3,385	71
History	827	799	23	49	31	3	677	16
English language & literature	793	780	27	49	23	3	663	15
Foreign language & literature	370	360	9	7	67	1	273	3
Other humanities	2,100	2,049	90	65	77	8	1,772	37
Education	5,305	5,218	113	772	261	46	3,962	64
Teacher education	211	208	2	37	11	1	153	4
Teaching fields	561	556	14	58	17	3	456	8
Other education	4,533	4,454	97	677	233	42	3,353	52
Professional/other	1,489	1,455	69	172	55	10	1,120	29
Business & management	602	585	33	67	25	5	441	14
Communications	308	301	11	26	7	2	249	6
Other professional fields	578	569	25	79	23	3	430	9
Other fields	1	0	0	0	0	0	0	0

[a] Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

[b] Does not include Native Hawaiians and other Pacific Islanders.

[c] Includes Alaska 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, 2004 Survey of Earned Doctorates.

TABLE 10. Doctorate-granting institutions having the largest number of U.S. citizen minority doctorate recipients, 2000–2004

Institution	Number of doctorate recipients
Asian [a]	
U. CA, Los Angeles	386
U. CA, Berkeley	358
Stanford U.	240
Harvard U.	207
MA Institute of Technology	161
U. Southern CA	160
U. MI	146
U. CA, Davis	133
Columbia U.	126
U. PA	116
U. WA	112
U. IL-Urbana-Champaign	110
U. CA, San Diego	104
Johns Hopkins U.	102
U. CA, Irvine	98
U. TX-Austin	94
Northwestern U.	88
U. Chicago, The	80
U. WI-Madison	79
Cornell U.	78
NY U.	78
Top 21 Institutions	*3,056*
Total institutions reported (328)	*6,926*
Hispanic	
U. PR-Rio Piedras	195
U. CA, Berkeley	172
U. TX-Austin	165
U. CA, Los Angeles	157
TX A&M U.	120
Nova Southeastern U.	117
Stanford U.	110
Harvard U.	108
U. AZ	102
U. MI	90
U. WI-Madison	87
U. Southern CA	85
AZ State U.	82
U. CA, Davis	82
Carlos Albizu U.: San Juan campus	81
U. NM	81
Graduate School & U. Ctr., CUNY	75
U. CA, San Diego	70
U. IL-Urbana-Champaign	69
U. CA, Santa Barbara	67
Top 20 Institutions	*2,115*
Total institutions reported (327)	*5,999*

Institution	Number of doctorate recipients
Black	
Nova Southeastern U.	465
Howard U.	263
U. MI	146
U. Sarasota	137
U. MD	120
OH State U., The	117
Wayne State U.	115
U. NC Chapel Hill	113
Loyola U. Chicago	109
Walden U.	108
Temple U.	105
Harvard U.	102
Teachers C., Columbia U.	100
Jackson State U.	98
U. TX-Austin	95
NC State U.	94
MI State U.	93
U. CA, Berkeley	91
U. IL-Urbana-Champaign	91
FL State U.	89
Top 20 Institutions	*2,651*
Total institutions reported (348)	*8,486*
American Indian [b]	
OK State U.	27
Nova Southeastern U.	19
U. OK	18
U. TX-Austin	17
U. CA, Berkeley	15
Fielding Graduate Institute	14
U. NM	14
U. WI-Madison	12
AZ State U.	11
TX A&M U.	11
Stanford U.	10
U. FL	10
U. ND	10
U. AZ	9
U. CA, Santa Barbara	9
U. IL-Urbana-Champaign	9
U. MN	9
Cornell U.	8
Harvard U.	8
U. CA, Los Angeles	8
U. MO-Columbia	8
U. MO-Kansas City	8
U. WA	8
Top 23 Institutions	*272*
Total institutions reported (210)	*727*

NOTE: Two or more institutions with the same number of doctorate recipients are listed in alphabetical order.

[a] Does not include Native Hawaiians and other Pacific Islanders.

[b] Includes Alaska 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, 1974–2004

Field/citizenship	1974	1979	1984	1989	1994	1999	2004
All fields							
Total	33,047	31,239	31,336	34,327	41,035	41,092	42,155
U.S. citizen	26,380	25,474	24,045	23,402	27,150	27,986	26,431
Non-U.S., permanent resident	1,826	1,320	1,224	1,626	3,748	2,308	1,528
Non-U.S., temporary visa holder	3,395	3,617	4,888	6,686	9,422	9,057	11,585
Unknown	1,446	828	1,179	2,613	715	1,741	2,611
Physical sciences [a]							
Total	4,923	4,246	4,407	5,387	6,761	6,224	6,049
U.S. citizen	3,630	3,243	3,094	3,180	3,595	3,407	3,006
Non-U.S., permanent resident	374	257	195	265	963	427	244
Non-U.S., temporary visa holder	743	670	997	1,531	2,086	2,116	2,553
Unknown	176	76	121	411	117	274	246
Engineering							
Total	3,147	2,490	2,912	4,543	5,821	5,330	5,776
U.S. citizen	1,757	1,293	1,239	1,864	2,215	2,486	1,941
Non-U.S., permanent resident	515	322	274	365	838	403	241
Non-U.S., temporary visa holder	710	818	1,283	1,948	2,653	2,192	3,302
Unknown	165	57	116	366	115	249	292
Life sciences							
Total	5,017	5,276	5,803	6,410	7,799	8,205	8,819
U.S. citizen	3,739	4,243	4,606	4,587	4,994	5,199	5,719
Non-U.S., permanent resident	321	213	195	268	875	609	344
Non-U.S., temporary visa holder	739	691	829	1,168	1,849	2,136	2,301
Unknown	218	129	173	387	81	261	455
Social sciences							
Total	5,882	5,961	5,929	5,961	6,615	7,041	6,795
U.S. citizen	4,869	5,076	4,787	4,307	4,992	5,428	4,881
Non-U.S., permanent resident	213	181	194	227	393	260	211
Non-U.S., temporary visa holder	527	511	646	832	1,050	968	1,187
Unknown	273	193	302	595	180	385	516
Humanities							
Total	5,170	4,141	3,536	3,552	4,742	5,459	5,467
U.S. citizen	4,524	3,653	2,965	2,724	3,715	4,284	4,090
Non-U.S., permanent resident	224	157	145	210	316	311	274
Non-U.S., temporary visa holder	219	203	258	351	631	637	841
Unknown	203	128	168	267	80	227	262
Education							
Total	7,241	7,385	6,808	6,281	6,711	6,546	6,635
U.S. citizen	6,568	6,572	5,917	5,246	5,867	5,636	5,305
Non-U.S., permanent resident	102	117	130	164	199	178	112
Non-U.S., temporary visa holder	303	485	547	458	537	517	627
Unknown	268	211	214	413	108	215	591
Professional/other fields							
Total	1,667	1,740	1,941	2,193	2,586	2,287	2,614
U.S. citizen	1,293	1,394	1,437	1,494	1,772	1,546	1,489
Non-U.S., permanent resident	77	73	91	127	164	120	102
Non-U.S., temporary visa holder	154	239	328	398	616	491	774
Unknown	143	34	85	174	34	130	249

[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), 2004

Rank	Country	Number of doctorate recipients
1	China, People's Republic of [a]	3,209
2	Korea [b]	1,448
3	India	1,007
4	China, Republic of (Taiwan)	703
5	Canada	601
6	Turkey	430
7	Thailand	363
8	Japan	278
9	Germany	249
10	Mexico	231
11	Russia	221
12	Italy	193
13	Brazil	189
14	Great Britain, United Kingdom	185
15	Romania	183
16	Egypt	149
17	Saudi Arabia	132
18	France	128
19	Greece	119
20	Argentina	115
20	Jordan	115
22	Spain	114
23	Israel	113
24	Colombia	89
25	Venezuela	87
26	Bulgaria	82
27	Indonesia	78
28	Malaysia	76
29	Kenya	68
30	Iran	63
	Top 30 countries of origin	*11,018*
	*Total non-U.S. citizens (159 countries)**	*13,000*

[a] Includes Hong Kong.

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

* Excludes cases with unknown country of origin.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 13. Doctorate-granting institutions having the largest number of non-U.S. citizen doctorate recipients (ordered by number of doctorate recipients), 2004

Institution	Number of doctorate recipients	Institution	Number of doctorate recipients
U. TX-Austin	286	U. CA, Berkeley	207
U. IL-Urbana-Champaign	266	U. WI-Madison	204
OH State U., The	249	Stanford U.	202
PA State U., The	244	U. MD	198
TX A&M U.	243	U. Southern CA	188
Purdue U.	233	Cornell U.	183
U. CA, Los Angeles	224	MA Institute of Technology	175
U. MI	224	Columbia U.	169
U. FL	222	GA Institute of Technology	167
U. MN	215	MI State U.	165
		Top 20 institutions	*4,264*
		Total institutions reported (419)	*13,113*

NOTE: Two or more institutions with the same number of doctorate recipients are listed in alphabetical order.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 14. Parental educational attainment of doctorate recipients, by selected demographic characteristics, 2004

Demographic characteristic	Total percent	Parental education			Total number
		High school or less	Some college [a]	Advanced degree	
Total					
Father's education [b]	100.0	28.6	37.1	34.3	37,439
Mother's education [c]	100.0	36.9	41.8	21.3	37,549
Sex					
Male					
Father's education	100.0	29.5	36.9	33.6	20,448
Mother's education	100.0	39.0	40.9	20.1	20,479
Female					
Father's education	100.0	27.5	37.4	35.1	16,991
Mother's education	100.0	34.4	42.8	22.8	17,070
Race/ethnicity (U.S. citizens only)					
Asian [d]					
Father's education	100.0	19.5	31.7	48.8	1,401
Mother's education	100.0	31.1	41.7	27.1	1,400
Black					
Father's education	100.0	50.5	29.1	20.5	1,682
Mother's education	100.0	43.9	35.4	20.7	1,716
Hispanic					
Father's education	100.0	41.6	31.2	27.2	1,131
Mother's education	100.0	49.3	33.0	17.7	1,136
American Indian [e]					
Father's education	100.0	49.6	29.1	21.4	117
Mother's education	100.0	49.2	38.1	12.7	118
White					
Father's education	100.0	24.0	36.0	40.1	19,952
Mother's education	100.0	29.3	45.3	25.5	20,025
Citizenship					
U.S. Citizen					
Father's education	100.0	26.4	35.0	38.7	25,129
Mother's education	100.0	31.3	43.8	24.9	25,245
Non-U.S., permanent visa					
Father's education	100.0	30.7	36.9	32.4	1,435
Mother's education	100.0	44.7	37.3	18.0	1,437
Non-U.S., temporary visa					
Father's education	100.0	33.5	42.2	24.3	10,845
Mother's education	100.0	48.9	37.6	13.5	10,837
Broad field of study					
Physical sciences [f]					
Father's education	100.0	26.1	38.1	35.8	5,536
Mother's education	100.0	35.1	41.7	23.2	5,551
Engineering					
Father's education	100.0	26.6	44.4	29.0	5,251
Mother's education	100.0	39.8	43.6	16.6	5,244
Life sciences					
Father's education	100.0	25.5	37.8	36.7	7,948
Mother's education	100.0	33.3	44.1	22.6	7,972
Social sciences					
Father's education	100.0	25.6	34.4	40.0	5,926
Mother's education	100.0	31.6	42.5	25.9	5,949

TABLE 14. Parental educational attainment of doctorate recipients, by selected demographic characteristics, 2004

Demographic characteristic	Total percent	Parental education			Total number
		High school or less	Some college [a]	Advanced degree	
Humanities					
Father's education	100.0	23.6	34.6	41.8	4,951
Mother's education	100.0	30.7	42.1	27.2	4,973
Education					
Father's education	100.0	43.5	32.6	24.0	5,633
Mother's education	100.0	49.4	36.4	14.2	5,670
Professional/other fields					
Father's education	100.0	32.4	39.6	28.1	2,194
Mother's education	100.0	44.0	40.0	16.0	2,190

[a] Includes those who have earned a bachelor's but not an advanced degree.

[b] Total count excludes 276 (0.7%) cases who reported 'not applicable' for father's education.

[c] Total count exlcudes 216 (0.6%) cases who reported 'not applicable' for mothers education.

[d] Does not include Native Hawaiians and other Pacific Islanders.

[e] Includes Alaska Natives.

[f] Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 15. Median number of years from baccalaureate to doctorate award, by broad field of study for selected years, 1979–2004

Field of study and time to degree	1979	1984	1989	1994	1999	2004
All fields						
Since baccalaureate	9.2	10.0	10.6	10.8	10.4	10.0
Since starting graduate school	7.7	8.5	8.7	8.7	8.2	8.0
Physical sciences [a]						
Since baccalaureate	6.8	7.3	7.4	8.4	7.9	7.8
Since starting graduate school	6.0	6.2	6.5	7.2	6.7	6.7
Engineering						
Since baccalaureate	7.6	8.0	8.3	9.0	8.7	8.4
Since starting graduate school	6.2	6.7	6.7	7.2	7.2	7.2
Life sciences						
Since baccalaureate	7.4	8.3	9.3	9.5	9.0	8.7
Since starting graduate school	6.2	7.0	7.7	7.7	7.3	7.0
Social sciences						
Since baccalaureate	8.5	9.8	10.5	10.4	9.9	9.8
Since starting graduate school	7.2	8.2	8.7	8.7	7.9	7.9
Humanities						
Since baccalaureate	10.3	11.6	12.6	12.0	11.7	11.7
Since starting graduate school	9.2	10.2	10.7	9.9	9.7	9.7
Education						
Since baccalaureate	12.9	14.8	17.3	19.7	19.8	17.7
Since starting graduate school	10.5	12.2	14.2	15.9	14.7	12.7
Professional/other fields						
Since baccalaureate	10.9	12.3	13.3	13.5	14.0	13.0
Since starting graduate school	8.9	10.2	10.7	10.7	10.7	10.0

[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 selected demographic group and broad field of study, 2004

Time to degree and demographic characteristics	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	10.0	36,565	7.8	5,325	8.4	5,080	8.7	7,726	9.8	5,914	11.7	4,856	17.7	5,498	13.0	2,166
Sex																
Male	9.5	19,937	7.9	3,918	8.5	4,183	8.6	3,853	10.0	2,619	11.5	2,341	17.2	1,874	12.7	1,149
Female	10.7	16,627	7.6	1,407	7.9	897	8.9	3,872	9.7	3,295	11.9	2,515	18.0	3,624	13.6	1,017
Citizenship																
U.S. citizen	10.4	24,820	7.0	2,854	7.6	1,845	8.3	5,410	10.0	4,605	11.9	3,887	18.6	4,844	15.6	1,375
Non-U.S., permanent resident	10.8	1,341	9.4	209	9.2	214	10.2	300	11.0	182	11.8	240	14.1	102	13.3	94
Non-U.S., temporary visa holder	9.2	10,287	8.5	2,252	8.7	3,017	9.4	2,006	9.5	1,053	10.9	723	12.8	546	10.0	690
Race/ethnicity (U.S. citizens only)																
Asian [b]	8.7	1,355	7.0	185	8.0	212	8.0	423	8.9	217	11.4	143	15.2	107	13.0	68
Black	12.3	1,659	7.7	72	8.3	76	9.0	234	10.8	312	10.8	154	18.0	658	15.4	153
Hispanic	10.2	1,099	7.5	94	7.3	72	8.0	218	9.6	241	11.3	183	16.7	241	16.9	50
American Indian [c]	13.4	122	7.9	11	----	----	9.6	21	10.0	19	9.5	14	19.8	42	----	----
White	10.5	19,773	7.0	2,367	7.5	1,406	8.3	4,344	10.0	3,659	12.0	3,260	19.0	3,690	16.0	1,047
Years in graduate school																
All doctorate recipients	8.0	36,493	6.7	5,404	7.2	5,099	7.0	7,745	7.9	5,782	9.7	4,813	12.7	5,520	10.0	2,130
Sex																
Male	7.7	19,935	6.7	3,972	7.2	4,195	6.9	3,851	8.0	2,594	9.3	2,315	12.7	1,885	9.8	1,123
Female	8.6	16,558	6.4	1,432	6.7	904	7.0	3,894	7.7	3,188	9.7	2,498	12.7	3,635	10.2	1,007
Citizenship																
U.S. citizen	8.3	24,577	6.2	2,835	6.7	1,834	6.7	5,338	7.9	4,525	9.7	3,825	13.3	4,862	11.7	1,358
Non-U.S., permanent resident	8.7	1,385	7.7	216	8.0	223	8.5	310	8.7	192	9.7	251	10.3	101	10.3	92
Non-U.S., temporary visa holder	7.7	10,519	7.2	2,351	7.3	3,041	7.7	2,094	7.7	1,062	8.7	736	8.8	556	8.0	679
Race/ethnicity (U.S. citizens only)																
Asian [b]	7.2	1,356	6.3	194	7.0	213	6.7	425	7.2	212	9.3	141	10.7	107	8.9	64
Black	9.9	1,681	7.0	70	7.5	75	7.7	235	9.0	305	8.7	163	12.4	682	11.0	151
Hispanic	8.5	1,112	6.6	94	6.7	73	6.7	216	8.0	241	9.2	189	12.3	249	12.3	50
American Indian [c]	9.9	111	6.7	10	----	----	6.6	17	8.9	20	7.9	13	13.8	38	----	----
White	8.3	19,530	6.2	2,342	6.6	1,393	6.7	4,278	7.9	3,605	9.7	3,185	13.7	3,685	11.7	1,042

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Inlcudes mathematics and computer sciences.

[b] Does not include Native Hawaiians and other Pacific Islanders.

[c] Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 17. Median age and number of doctorate recipients at different age levels, by field of study and demographic characteristics, 2004

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	288	12,646	12,253	5,391	2,981	5,347
Broad field of study							
Physical sciences [a]	30.6	90	2,960	1,699	552	219	174
Engineering	31.4	77	2,391	1,973	587	237	153
Life sciences	31.7	59	3,479	2,633	961	449	606
Social sciences	33.1	34	2,032	2,158	888	454	706
Humanities	35.0	8	929	1,993	1,031	471	688
Education	43.1	9	464	1,150	944	873	2,463
Professional/other fields	37.0	11	391	647	428	278	557
Sex							
Male	32.8	182	7,285	7,197	3,075	1,489	2,056
Female	33.9	106	5,360	5,056	2,316	1,491	3,291
Citizenship							
U.S. citizen	33.8	166	8,215	7,005	3,355	2,257	4,836
Permanent resident	34.6	9	323	557	334	135	133
Temporary visa holder	32.2	107	4,025	4,611	1,670	551	320
Unknown	34.3	6	83	80	32	38	58
Race/ethnicity (U.S. citizens only)							
Asian [b]	31.3	18	654	418	152	82	102
Black	37.3	9	370	460	228	206	543
Hispanic	34.0	7	323	352	166	113	195
American Indian [c]	44.8	----	18	23	16	12	57
White	33.8	127	6,531	5,509	2,685	1,772	3,784

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Includes mathematics and computer sciences.

[b] Does not include Native Hawaiians and other Pacific Islanders.

[c] Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 18. Percent of doctorate recipients indicating one or more disabilities, by selected demographic characteristics, 2004

	One or more disabilities of any type		Blind/visually impaired		Physical/ orthopedic disability		Deaf/ hard of hearing		Learning/ cognitive disability		Vocal/speech disability		Other/ unspecified disability	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	635	1.5	57	0.1	244	0.6	91	0.2	162	0.4	20	0.0	102	0.2
Field of study														
Physical sciences[a]	53	0.9	----	----	15	0.2	9	0.1	15	0.2	----	----	----	----
Engineering	30	0.5	----	----	11	0.2	----	----	11	0.2	----	----	----	----
Life sciences	95	1.1	7	0.1	32	0.4	18	0.2	36	0.4	----	----	7	0.1
Social sciences	131	1.9	13	0.2	50	0.7	13	0.2	38	0.6	6	0.1	18	0.3
Humanities	105	1.9	10	0.2	43	0.8	12	0.2	21	0.4	----	----	23	0.4
Education	161	2.4	15	0.2	62	0.9	31	0.5	32	0.5	----	----	32	0.5
Professional/other fields	60	2.3	----	----	31	1.2	----	----	9	0.3	----	----	15	0.6
Sex														
Male	291	1.3	33	0.1	97	0.4	45	0.2	79	0.3	12	0.1	41	0.2
Female	344	1.8	24	0.1	147	0.8	46	0.2	83	0.4	8	0.0	61	0.3
Citizenship														
U.S. citizens	565	2.1	----	----	215	0.8	73	0.3	155	0.6	14	0.1	94	0.4
Non-U.S. citizens	69	0.5	----	----	29	0.2	18	0.1	7	0.1	----	----	7	0.1

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

NOTE: Individual doctorate recipients could report more than one disability.

[a] Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 19. Primary source of financial support for doctorate recipients, by broad field of study and demographic group, 2004[a]

Primary source of support and broad field of study	Total[b]	Sex		Citizenship			U.S citizens and permanent residents				
		Male	Female	U.S. citizen	Permanent resident	Temporary visa holder	Asian[c]	Black	Hispanic	American Indian[d]	White
All fields	37,403	20,460	16,941	25,056	1,429	10,769	1,970	1,806	1,228	120	20,479
Teaching assistantships	16.6	17.1	16.0	15.5	21.0	18.5	13.4	7.1	13.1	5.8	17.0
Research assistantships/traineeships	26.1	31.5	19.6	17.3	28.5	46.3	28.7	9.4	11.3	11.7	18.0
Fellowships/dissertation grants	26.3	25.7	27.1	28.8	26.4	20.7	35.9	33.2	38.5	30.0	26.8
Own resources	25.1	19.2	32.1	33.2	19.0	6.9	18.1	44.0	32.7	48.3	32.8
Foreign government	2.1	2.7	1.4	0.1	2.0	6.9	0.7	0.1	0.6	0.0	0.1
Employer	3.7	3.7	3.6	5.0	3.1	0.6	3.0	6.1	3.8	----	5.2
Other	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.0	----	0.1
Physical sciences[e]	5,540	4,067	1,472	2,894	226	2,390	291	82	106	10	2,488
Teaching assistantships	25.3	25.0	26.4	21.6	29.6	29.5	23.4	18.3	21.7	----	22.3
Research assistantships/traineeships	44.2	45.5	40.5	38.3	43.4	51.4	41.2	15.9	26.4	----	39.4
Fellowships/dissertation grants	21.3	19.8	25.5	28.3	15.9	13.3	26.1	43.9	40.6	----	26.8
Own resources	5.4	5.5	5.1	8.3	8.8	1.5	7.2	15.9	5.7	----	8.1
Foreign government	1.8	2.0	1.4	0.1	----	4.1	0.0	0.0	----	----	0.1
Employer	1.8	2.1	1.1	3.2	----	0.1	2.1	----	----	----	3.2
Other	0.1	0.1	0.1	0.1	----	0.1	0.0	----	----	----	0.1
Engineering	5,246	4,325	921	1,873	226	3,116	340	89	87	6	1,494
Teaching assistantships	7.4	7.8	5.8	5.0	7.5	8.8	5.0	----	6.9	----	5.3
Research assistantships/traineeships	59.4	60.6	53.7	39.5	60.6	71.4	58.5	24.7	27.6	----	40.3
Fellowships/dissertation grants	19.0	17.1	28.2	34.8	11.9	10.1	19.7	48.3	44.8	----	33.1
Own resources	6.6	6.8	5.8	11.1	10.2	3.6	8.5	10.1	10.3	----	11.8
Foreign government	3.5	3.6	3.1	0.1	----	5.6	----	----	----	----	0.3
Employer	4.0	4.2	3.4	9.5	7.5	0.5	7.9	13.5	8.0	----	9.1
Other	0.1	0.1	0.0	0.2	----	0.0	----	----	----	----	0.1
Life sciences	7,940	3,957	3,982	5,447	326	2,145	591	256	243	19	4,478
Teaching assistantships	8.9	9.7	8.1	8.7	9.8	9.3	6.3	5.5	3.7	----	9.6
Research assistantships/traineeships	29.5	30.8	28.3	22.5	34.7	46.7	29.1	15.6	15.6	----	23.3
Fellowships/dissertation grants	44.5	45.2	43.9	49.9	43.9	31.3	54.8	55.5	64.2	57.9	47.4
Own resources	11.8	9.1	14.5	15.2	8.3	3.7	7.6	18.0	14.4	----	15.7
Foreign government	2.3	2.8	1.8	0.0	----	8.3	----	0.0	----	----	0.1
Employer	2.8	2.2	3.3	3.6	2.5	0.6	2.0	5.5	----	----	3.8
Other	0.1	0.1	0.2	0.1	----	0.1	----	0.0	----	----	0.1
Social sciences	5,924	2,663	3,261	4,603	196	1,097	277	323	265	18	3,760
Teaching assistantships	20.5	23.3	18.2	18.9	25.5	26.2	17.3	8.4	12.5	----	20.8
Research assistantships/traineeships	16.2	14.0	18.0	15.4	14.3	19.1	16.6	9.6	10.9	----	16.3
Fellowships/dissertation grants	26.5	28.5	24.7	24.6	29.6	33.9	33.9	42.1	37.4	27.8	21.7
Own resources	33.2	29.0	36.6	38.9	25.5	10.8	28.5	37.8	37.7	61.1	39.1

TABLE 19. Primary sources of financial support for doctorate recipients, by broad field of study and demographic group, 2004[a]

Primary source of support by broad field of study	Total[b]	Sex		Citizenship			U.S citizens and permanent residents				
		Male	Female	U.S. citizen	Permanent resident	Temporary visa holders	Asian[c]	Black	Hispanic	American Indian[d]	White
Foreign government	1.9	----	----	----	3.6	9.1	2.2	----	----	----	----
Employer	1.7	2.1	1.3	1.9	----	----	1.4	1.9	----	----	2.0
Other	0.1	----	----	----	----	----	0.0	----	----	----	----
Humanities	4,941	2,383	2,558	3,912	257	759	217	177	215	14	3,404
Teaching assistantships	34.2	33.3	35.0	33.7	40.1	35.0	27.2	18.1	33.5	----	35.7
Research assistantships/traineeships	2.4	2.3	2.4	2.0	----	4.0	----	----	----	----	2.1
Fellowships/dissertation grants	30.2	30.6	29.9	29.5	26.1	35.6	41.0	52.0	33.5	42.9	26.6
Own resources	30.4	30.5	30.4	33.1	27.6	17.5	28.6	26.0	29.3	----	33.7
Foreign government	1.3	----	1.2	----	----	7.5	----	----	----	----	----
Employer	1.3	1.6	1.1	----	----	----	----	----	----	----	1.6
Other	0.1	----	0.0	----	----	----	----	----	----	----	----
Education	5,618	1,903	3,715	4,944	106	549	151	712	253	44	3,769
Teaching assistantships	6.9	7.0	6.8	5.9	15.1	14.4	11.3	2.4	3.6	----	6.8
Research assistantships/traineeships	8.7	8.7	8.7	7.1	11.3	22.2	7.3	6.7	5.1	----	7.5
Fellowships/dissertation grants	11.0	10.3	11.3	10.2	16.0	16.6	15.2	14.7	19.8	18.2	8.5
Own resources	62.2	59.3	63.7	65.9	50.0	31.1	60.9	68.1	62.8	68.2	65.2
Foreign government	1.4	----	----	----	----	13.7	----	----	0.0	----	----
Employer	9.7	12.1	8.5	10.7	5.7	----	4.0	7.7	8.7	----	11.9
Other	0.1	----	----	----	----	----	----	----	0.0	----	----
Professional/other fields	2,194	1,162	1,032	1,383	92	713	103	167	59	9	1,086
Teaching assistantships	18.8	17.9	19.8	15.5	16.3	25.2	17.5	12.0	15.3	----	15.7
Research assistantships/traineeships	13.4	14.0	12.8	8.2	14.1	23.6	14.6	6.6	----	----	8.5
Fellowships/dissertation grants	20.9	20.5	21.4	16.9	31.5	27.3	33.0	26.9	23.7	----	15.2
Own resources	37.7	36.7	39.0	50.5	30.4	13.9	28.2	44.3	49.2	----	51.7
Foreign government	3.0	----	----	----	----	8.3	----	0.0	----	----	----
Employer	5.8	7.1	4.4	8.3	----	----	----	10.2	----	----	8.2
Other	0.4	----	----	----	----	----	----	0.0	----	----	----

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Includes only doctorate recipients who reported a primary source of support.

[b] Total includes 2 doctoral recipients for whom sex and source of support are not reported, 149 missing citizenship information, and 882 U.S. citizens and permanent residents with missing race/ethnicity (n=170) or racial/ ethnic identifications other than those listed here (n=712).

[c] Does not include Native Hawaiians and other Pacific Islanders.

[d] Includes Alaska Natives.

[e] Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 20. Education-related debt of doctorate recipients, by broad field of study, 2004

Debt level	Total		Physical sciences [a]		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
Cumulative debt																
Mean	$15,020		$9,955		$9,308		$13,669		$22,634		$18,233		$15,914		$16,160	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No debt	18,878	50.1	3,301	59.1	3,418	65.2	3,997	50.0	2,124	35.6	1,996	40.1	2,878	50.4	1,164	52.5
$10,000 or less	4,532	12.0	761	13.6	612	11.7	1,036	13.0	630	10.6	664	13.3	623	10.9	206	9.3
$10,001-$20,000	3,636	9.6	550	9.9	342	6.5	917	11.5	610	10.2	555	11.2	482	8.4	180	8.1
$20,001-$30,000	2,535	6.7	293	5.2	256	4.9	603	7.5	515	8.6	437	8.8	316	5.5	115	5.2
$30,001-$40,000	2,516	6.7	223	4.0	196	3.7	491	6.1	601	10.1	446	9.0	423	7.4	136	6.1
$40,001-$50,000	1,529	4.1	151	2.7	101	1.9	306	3.8	372	6.2	251	5.0	252	4.4	96	4.3
$50,000 and up	4,070	10.8	304	5.4	320	6.1	649	8.1	1,114	18.7	627	12.6	734	12.9	322	14.5
Total	37,696	100.0	5,583	100.0	5,245	100.0	7,999	100.0	5,966	100.0	4,976	100.0	5,708	100.0	2,219	100.0
Graduate debt																
Mean	$10,092		$5,255		$5,691		$7,958		$16,399		$12,755		$12,006		$12,516	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No debt	24,702	65.7	4,310	77.4	3,977	76.0	5,595	70.2	3,075	51.7	2,834	57.1	3,522	62.0	1,389	62.7
$10,000 or less	3,042	8.1	469	8.4	459	8.8	632	7.9	447	7.5	454	9.1	439	7.7	142	6.4
$10,001-$20,000	2,015	5.4	204	3.7	213	4.1	433	5.4	373	6.3	356	7.2	319	5.6	117	5.3
$20,001-$30,000	1,580	4.2	150	2.7	146	2.8	314	3.9	361	6.1	277	5.6	240	4.2	92	4.2
$30,001-$40,000	2,013	5.4	163	2.9	143	2.7	376	4.7	510	8.6	349	7.0	349	6.1	123	5.6
$40,001-$50,000	930	2.5	66	1.2	64	1.2	153	1.9	225	3.8	169	3.4	178	3.1	75	3.4
$50,000 and up	3,312	8.8	208	3.7	232	4.4	471	5.9	959	16.1	527	10.6	637	11.2	278	12.5
Total	37,594	100.0	5,570	100.0	5,234	100.0	7,974	100.0	5,950	100.0	4,966	100.0	5,684	100.0	2,216	100.0
Undergraduate debt																
Mean	$4,965		$4,721		$3,633		$5,748		$6,289		$5,520		$3,968		$3,671	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No debt	27,165	72.2	4,001	71.8	4,160	79.4	5,388	67.5	3,936	66.1	3,396	68.5	4,516	79.3	1,768	79.9
$10,000 or less	3,656	9.7	565	10.1	416	7.9	853	10.7	667	11.2	583	11.8	411	7.2	161	7.3
$10,001-$20,000	3,149	8.4	525	9.4	276	5.3	859	10.8	597	10.0	444	8.9	319	5.6	129	5.8
$20,001-$30,000	1,760	4.7	252	4.5	191	3.6	449	5.6	363	6.1	266	5.4	175	3.1	64	2.9
$30,001-$40,000	1,080	2.9	136	2.4	118	2.3	255	3.2	224	3.8	153	3.1	143	2.5	51	2.3
$40,001-$50,000	502	1.3	62	1.1	38	0.7	121	1.5	104	1.7	74	1.5	83	1.5	20	0.9
$50,000 and up	307	0.8	32	0.6	40	0.8	57	0.7	65	1.1	45	0.9	48	0.8	20	0.9
Total	37,619	100.0	5,573	100.0	5,239	100.0	7,982	100.0	5,956	100.0	4,961	100.0	5,695	100.0	2,213	100.0

[a] Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 21. Education-related debt of doctorate recipients, by demographic group, 2004

	Sex				Citizenship						Race/ethnicity (U.S. citizens and permanent residents)									
Debt level	Male		Female		U.S. citizen		Permanent resident		Temporary visa holder		Asian [a]		Black		Hispanic		American Indian [b]		White	
Cumulative debt																				
Mean	$14,227		$15,974		$18,384		$9,184		$7,947		$13,009		$28,814		$22,607		$23,347		$17,054	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	10,594	51.4	8,283	48.5	10,328	40.9	935	64.4	7,553	69.6	1,058	53.3	475	25.8	397	31.6	28	23.1	8,932	43.3
$10,000 or less	2,564	12.4	1,968	11.5	3,046	12.1	166	11.4	1,305	12.0	224	11.3	189	10.3	172	13.7	18	14.9	2,519	12.2
$10,001-$20,000	1,989	9.7	1,647	9.6	2,975	11.8	108	7.4	537	4.9	228	11.5	177	9.6	155	12.3	18	14.9	2,401	11.6
$20,001-$30,000	1,353	6.6	1,182	6.9	2,163	8.6	67	4.6	299	2.8	144	7.3	160	8.7	122	9.7	13	10.7	1,700	8.2
$30,001-$40,000	1,295	6.3	1,221	7.1	2,128	8.4	53	3.7	329	3.0	105	5.3	192	10.4	111	8.8	20	16.5	1,680	8.1
$40,001-$50,000	789	3.8	740	4.3	1,328	5.3	35	2.4	162	1.5	81	4.1	136	7.4	78	6.2	7	5.8	1,017	4.9
$50,000 and up	2,025	9.8	2,044	12.0	3,292	13.0	88	6.1	667	6.1	146	7.4	509	27.7	223	17.7	17	14.0	2,377	11.5
Total	20,609	100.0	17,085	100.0	25,260	100.0	1,452	100.0	10,852	100.0	1,986	100.0	1,838	100.0	1,258	100.0	121	100.0	20,626	100.0
Graduate debt																				
Mean	$9,239		$11,120		$12,088		$6,283		$5,929		$7,805		$21,046		$15,239		$14,876		$11,116	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	13,833	67.3	10,868	63.8	15,334	60.9	1,082	74.6	8,204	75.7	1,423	71.7	797	43.4	666	53.1	55	45.5	12,930	62.9
$10,000 or less	1,737	8.5	1,305	7.7	1,962	7.8	119	8.2	952	8.8	130	6.6	133	7.2	109	8.7	17	14.0	1,630	7.9
$10,001-$20,000	1,083	5.3	932	5.5	1,510	6.0	69	4.8	428	4.0	104	5.2	117	6.4	86	6.9	11	9.1	1,196	5.8
$20,001-$30,000	827	4.0	753	4.4	1,261	5.0	46	3.2	269	2.5	84	4.2	115	6.3	64	5.1	----	----	994	4.8
$30,001-$40,000	999	4.9	1,014	6.0	1,647	6.5	39	2.7	320	3.0	81	4.1	140	7.6	97	7.7	19	15.7	1,297	6.3
$40,001-$50,000	476	2.3	453	2.7	775	3.1	26	1.8	127	1.2	57	2.9	89	4.9	48	3.8	----	----	583	2.8
$50,000 and up	1,598	7.8	1,714	10.1	2,688	10.7	69	4.8	535	4.9	105	5.3	444	24.2	184	14.7	13	10.7	1,926	9.4
Total	20,553	100.0	17,039	100.0	25,177	100.0	1,450	100.0	10,835	100.0	1,984	100.0	1,835	100.0	1,254	100.0	121	100.0	20,556	100.0
Undergraduate debt																				
Mean	$5,023		$4,895		$6,348		$2,922		$2,031		$5,219		$7,823		$7,440		$8,542		$5,987	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	14,803	72.0	12,361	72.5	16,435	65.2	1,207	83.5	9,422	87.0	1,385	69.8	1,125	61.4	736	58.7	71	59.2	13,750	66.8
$10,000 or less	1,998	9.7	1,658	9.7	2,837	11.3	95	6.6	715	6.6	203	10.2	224	12.2	185	14.8	15	12.5	2,224	10.8
$10,001-$20,000	1,749	8.5	1,399	8.2	2,779	11.0	58	4.0	301	2.8	202	10.2	187	10.2	151	12.0	12	10.0	2,187	10.6
$20,001-$30,000	994	4.8	766	4.5	1,557	6.2	44	3.0	156	1.4	97	4.9	113	6.2	83	6.6	9	7.5	1,231	6.0
$30,001-$40,000	579	2.8	501	2.9	928	3.7	20	1.4	128	1.2	59	3.0	101	5.5	56	4.5	----	----	691	3.4
$40,001-$50,000	265	1.3	237	1.4	442	1.8	13	0.9	47	0.4	22	1.1	51	2.8	26	2.1	7	5.8	335	1.6
$50,000 and up	183	0.9	124	0.7	234	0.9	9	0.6	62	0.6	15	0.8	32	1.7	17	1.4	----	----	169	0.8
Total	20,571	100.0	17,046	100.0	25,212	100.0	1,446	100.0	10,831	100.0	1,983	100.0	1,833	100.0	1,254	100.0	120	100.0	20,587	100.0

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Does not include Native Hawaiians and other Pacific Islanders.

[b] Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 22. Percentage of doctorate recipients with levels of graduate school debt greater than $30,000, by broad field of study and race/ethnicity (U.S. citizens and permanent residents only), 2004

Broad field of study	Total		Asian [a]		Black		Hispanic		American Indian [b]		White		Other [c]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fields	26,184	23.9	1,984	12.2	1,835	36.7	1,254	26.2	121	27.3	20,556	18.5	434	22.4
Physical sciences [d]	3,043	14.4	291	5.5	86	20.9	109	15.6	10	-----	2,490	9.4	57	15.8
Engineering	2,038	21.5	344	6.1	89	9.0	87	8.0	6	-----	1,488	7.1	24	-----
Life sciences	5,714	17.5	599	8.7	259	29.0	247	18.2	19	31.6	4,488	12.9	102	14.7
Social sciences	4,760	35.6	277	24.9	329	45.3	264	43.2	19	42.1	3,780	31.2	91	33.0
Humanities	4,113	25.4	218	15.6	180	35.0	223	28.3	14	-----	3,408	23.2	70	24.3
Education	5,046	23.1	150	23.3	723	39.4	264	22.3	44	22.7	3,803	17.3	62	19.4
Professional/other fields	1,470	32.4	105	15.2	169	44.4	60	40.0	9	-----	1,099	23.4	28	46.4

NOTE: Cell percentages are based on the number of cases listed in the adjacent cell.

----- = Cell value suppressed to protect confidentiality of doctorate recipients

[a] Does not include Native Hawaiians and other Pacific Islanders.

[b] Includes Alaska Natives.

[c] Includes Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting an Hispanic ethnicity) in 2004.

[d] Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 23. Postgraduation status of doctorate recipients by broad field of study for selected years, 1984–2004

Year and commitments	All fields	Physical sciences [a]	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
Total								
1984	31,336	4,407	2,912	5,803	5,929	3,536	6,808	1,941
1989	34,327	5,387	4,543	6,410	5,961	3,552	6,281	2,193
1994	41,035	6,761	5,821	7,799	6,615	4,742	6,711	2,586
1999	41,092	6,224	5,330	8,205	7,041	5,459	6,546	2,287
2004	42,155	6,049	5,776	8,819	6,795	5,467	6,635	2,614
Total responses to postgraduation status								
1984	28,408	4,038	2,553	5,249	5,314	3,178	6,334	1,742
1989	30,766	4,826	3,956	5,866	5,235	3,215	5,715	1,953
1994	37,641	6,253	5,288	7,202	6,018	4,428	6,078	2,374
1999	37,174	5,687	4,858	7,594	6,261	4,975	5,792	2,007
2004	37,612	5,562	5,245	7,992	5,945	4,975	5,678	2,215
	Percent							
Definite commitments for employment or study [b]								
1984	73.2	77.2	71.8	75.6	69.4	62.7	74.9	82.7
1989	74.2	77.1	67.6	78.0	72.0	67.7	75.7	80.6
1994	66.3	64.8	55.9	71.5	66.5	58.3	73.3	73.7
1999	69.9	72.9	67.6	72.4	67.7	60.6	74.1	75.5
2004	69.9	71.4	63.4	71.1	71.2	63.5	74.4	76.0
Seeking employment or study [b, c]								
1984	26.8	22.8	28.2	24.4	30.6	37.3	25.1	17.3
1989	25.8	22.9	32.4	22.0	28.0	32.3	24.3	19.4
1994	33.7	35.2	44.1	28.5	33.5	41.7	26.7	26.3
1999	30.1	27.1	32.4	27.6	32.3	39.4	25.9	24.5
2004	30.1	28.6	36.6	28.9	28.8	36.5	25.6	24.0

[a] Includes mathematics and computer sciences.

[b] Percent calculated on those responding to the item on postgraduation status.

[c] Includes respondents who indicated 'other' in all years and respondents who indicated 'do not plan to work or study' in 2004.

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

TABLE 24. Postgraduation status of doctorate recipients, by selected demographic groups for selected years, 1984–2004

Year and status	Total	Sex		Citizenship			U.S. citizens & permanent residents				
		Men	Women	U.S. citizens	Permanent resident	Temporary visa holder	Asian [a]	Black	Hispanic	American Indian [b]	White
Total											
1984	31,336	20,637	10,699	24,045	1,224	4,888	1,019	1,057	605	74	21,879
1989	34,327	21,814	12,513	23,402	1,626	6,686	1,261	963	694	94	21,568
1994 [c]	41,035	25,059	15,822	27,150	3,748	9,422	3,534	1,277	1,030	143	24,575
1999 [d]	41,092	23,434	17,480	27,986	2,308	9,057	2,495	1,763	1,324	214	23,894
2004 [e]	42,155	22,976	19,098	26,431	1,528	11,585	2,054	1,971	1,297	131	21,395
Total responses to postgraduation status											
1984	28,408	18,614	9,794	22,912	1,143	4,330	943	996	579	67	21,072
1989	30,766	19,383	11,383	22,936	1,529	6,275	1,183	924	669	91	21,198
1994	37,641	23,068	14,566	25,646	3,406	8,583	3,212	1,169	963	134	23,356
1999	37,174	21,359	15,812	26,510	2,185	8,415	2,363	1,610	1,164	197	22,863
2004	37,612	20,550	17,061	25,226	1,435	10,880	1,976	1,817	1,247	121	20,612
	Percent										
Definite commitments for employment or study [f]											
1984	73.2	75.1	69.5	74.6	60.0	69.0	65.4	68.3	67.2	65.7	74.8
1989	74.2	74.7	73.2	76.8	62.0	67.5	67.8	70.3	73.7	73.6	76.7
1994	66.3	65.0	68.3	70.7	53.2	58.1	55.6	68.3	69.5	70.9	70.5
1999	69.9	71.0	68.5	71.4	64.9	66.8	66.4	66.6	68.6	64.0	72.0
2004	69.9	70.6	69.0	72.0	63.3	65.9	65.0	66.9	69.6	71.1	72.8
Seeking employment or study [f, g]											
1984	26.8	24.9	30.5	25.4	40.0	31.0	34.6	31.7	32.8	34.3	25.2
1989	25.8	25.3	26.8	23.2	38.0	32.5	32.2	29.7	26.3	26.4	23.3
1994	33.7	35.0	31.7	29.3	46.8	41.9	44.4	31.7	30.5	29.1	29.5
1999	30.1	29.0	31.5	28.6	35.1	33.2	33.6	33.4	31.4	36.0	28.0
2004	30.1	29.4	31.0	28.0	36.7	34.1	35.0	33.1	30.4	28.9	27.2

[a] Includes Native Hawaiians/other Pacific Islanders through 1999, but excludes them in 2004.

[b] Includes Alaska Natives.

[c] Group total for 1994 includes 154 doctoral recipients for whom sex was not reported.

[d] Group total for 1999 includes 178 doctoral recipients for whom sex was not reported.

[e] Total includes 81 doctoral recipients for whom sex was not reported, 2,611 missing citizenship information, and 1,111 U.S. citizens and permanent residents with missing race/ethnicity (n=327) or racial/ ethnic identifications other than those listed here (n=784).

[f] Percent calculated on those responding to the item on postgraduation status.

[g] Includes respondents who indicated 'other' in all years and respondents who indicated 'do not plan to work or study' in 2004.

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

TABLE 25. Postgraduation plans of doctorate recipients with definite commitments, by broad field of study for selected years, 1984–2004

Year and commitments	All fields	Physical sciences [a]	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
All definite commitments								
1984	20,789	3,117	1,833	3,970	3,689	1,994	4,746	1,440
1989	22,815	3,719	2,675	4,574	3,768	2,176	4,329	1,574
1994	24,946	4,051	2,957	5,147	4,001	2,582	4,458	1,750
1999	25,990	4,145	3,286	5,500	4,236	3,014	4,293	1,516
2004	26,280	3,972	3,326	5,684	4,234	3,159	4,222	1,683
Definite commitments with responses to type of plans								
1984	20,736	3,108	1,825	3,963	3,681	1,984	4,735	1,440
1989	22,699	3,706	2,667	4,562	3,753	2,151	4,296	1,564
1994	24,781	4,044	2,946	5,127	3,968	2,548	4,412	1,736
1999	25,761	4,126	3,270	5,460	4,206	2,973	4,223	1,503
2004	25,587	3,901	3,248	5,519	4,133	3,055	4,093	1,638
	Percent							
Employment [b]								
1984	78.2	59.3	84.9	42.9	86.5	95.5	97.7	98.3
1989	74.1	52.2	80.0	41.7	84.0	94.3	96.6	97.2
1994	70.6	48.5	75.8	36.0	80.0	92.9	96.3	96.3
1999	69.9	53.2	77.5	36.6	74.0	91.3	94.9	95.4
2004	64.7	43.8	63.7	33.0	69.3	88.4	94.0	94.7
Study [b]								
1984	21.8	40.7	15.1	57.1	13.5	4.5	2.3	1.7
1989	25.9	47.8	20.0	58.3	16.0	5.7	3.4	2.8
1994	29.4	51.5	24.2	64.0	20.0	7.1	3.7	3.7
1999	30.1	46.8	22.5	63.4	26.0	8.7	5.1	4.6
2004	35.3	56.2	36.3	67.0	30.7	11.6	6.0	5.3

[a] Includes mathematics and computer sciences.

[b] Percentages are based on the number reporting definite commitments with responses to type of plan (employment or study).

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

TABLE 26. Postgraduation plans of doctorate recipients with definite commitments, by demographic group for selected years, 1984–2004

Year and commitment	Total	Sex		Citizenship			U.S. citizens and permanent residents				
		Male	Female	U.S. citizen	Permanent resident	Temporary visa holder	Asian [a]	Black	Hispanic	American Indian [b]	White
All definite commitments											
1984	20,789	13,980	6,809	17,098	686	2,989	617	680	389	44	15,765
1989	22,815	14,482	8,333	17,611	948	4,238	802	650	493	67	16,251
1994	24,946	15,001	9,942	18,140	1,811	4,990	1,786	799	669	95	16,473
1999	25,990	15,157	10,831	18,924	1,419	5,620	1,570	1,072	799	126	16,454
2004	26,280	14,499	11,780	18,153	908	7,174	1,284	1,215	868	86	15,005
Definite commitments with responses to type of plans											
1984	20,736	13,938	6,798	17,069	683	2,968	617	675	388	43	15,740
1989	22,699	14,414	8,285	17,532	940	4,209	800	640	487	67	16,188
1994	24,781	14,912	9,866	18,027	1,800	4,949	1,778	790	659	94	16,378
1999	25,761	15,047	10,713	18,764	1,406	5,573	1,558	1,061	791	125	16,319
2004	25,587	14,106	11,480	17,667	879	7,003	1,232	1,171	838	81	14,643
	Percent										
Employment [c]											
1984	78.2	76.3	82.0	78.7	78.8	75.2	72.4	92.9	84.8	----	78.2
1989	74.1	71.7	78.2	76.6	72.7	64.1	66.6	88.8	74.5	80.6	76.5
1994	70.6	68.2	74.4	74.3	54.9	63.0	51.1	82.3	73.6	74.5	74.5
1999	69.9	68.0	72.5	73.1	63.3	60.6	59.8	81.4	73.6	76.0	73.0
2004	64.7	62.1	67.9	68.8	63.5	54.5	56.3	76.7	66.1	79.0	69.1
Study [c]											
1984	21.8	23.7	18.0	21.3	21.2	24.8	27.6	7.1	15.2	----	21.8
1989	25.9	28.3	21.8	23.4	27.3	35.9	33.4	11.3	25.5	19.4	23.5
1994	29.4	31.8	25.6	25.7	45.1	37.0	48.9	17.7	26.4	25.5	25.5
1999	30.1	32.0	27.5	26.9	36.7	39.4	40.2	18.6	26.4	24.0	27.0
2004	35.3	37.9	32.1	31.2	36.5	45.5	43.7	23.3	33.9	21.0	30.9

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Includes Native Hawaiians/other Pacific Islanders through 1999, but excludes them in 2004.

[b] Includes Alaska Natives.

[c] Percent based on those with definite commitments and type of plan.

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

TABLE 27. Employment sector of doctorate recipients with definite postgraduation employment commitments in the U.S., by broad field of study for selected years, 1984–2004

Year and commitment	Total	Physical sciences [a]	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
All employment commitments								
1984	14,625	1,695	1,298	1,371	2,931	1,751	4,336	1,243
1989	15,176	1,771	1,777	1,562	2,872	1,871	3,940	1,383
1994	15,142	1,673	1,713	1,440	2,771	2,140	3,992	1,413
1999	16,257	2,004	2,262	1,680	2,803	2,472	3,785	1,251
2004	14,669	1,523	1,696	1,550	2,497	2,459	3,625	1,319
Employment commitments with responses to sector								
1984	14,431	1,686	1,294	1,360	2,879	1,728	4,255	1,229
1989	14,989	1,765	1,760	1,543	2,822	1,848	3,881	1,370
1994	14,899	1,648	1,697	1,413	2,717	2,115	3,912	1,397
1999	16,122	1,992	2,255	1,658	2,787	2,452	3,743	1,235
2004	14,570	1,514	1,677	1,538	2,482	2,453	3,597	1,309
	Percent [b]							
Academe								
1984	49.7	38.0	32.0	50.2	47.0	78.3	42.8	74.1
1989	52.0	41.3	30.2	51.7	49.6	81.1	45.7	77.6
1994	52.1	39.8	19.8	50.1	53.0	85.3	45.2	74.9
1999	49.2	33.1	14.2	48.1	51.0	82.5	47.8	74.5
2004	56.5	44.6	22.4	52.8	60.2	84.2	50.5	76.2
Industry/self-employed								
1984	19.9	48.6	52.2	26.8	17.5	6.3	6.6	9.1
1989	21.4	47.6	56.0	25.5	17.5	5.5	7.0	8.7
1994	21.5	48.2	65.2	25.4	16.7	4.4	6.4	9.9
1999	27.8	56.3	74.4	30.2	20.7	6.6	7.0	14.2
2004	18.9	42.2	62.1	23.5	13.9	4.0	3.8	10.3
Government								
1984	11.6	11.9	14.1	16.5	15.0	4.1	11.6	5.9
1989	10.2	9.5	12.0	15.2	14.8	2.8	10.0	4.2
1994	8.7	9.1	13.0	15.1	12.6	2.2	6.6	5.4
1999	7.6	7.7	9.5	12.8	12.0	2.1	5.3	4.5
2004	7.5	8.1	11.0	14.4	11.2	2.3	4.1	5.9
Other [c]								
1984	18.8	1.5	1.7	6.5	20.4	11.4	39.0	10.8
1989	16.4	1.6	1.8	7.6	18.1	10.6	37.3	9.6
1994	17.7	2.9	2.1	9.3	17.8	8.1	41.8	9.8
1999	15.5	2.8	1.9	8.8	16.3	8.8	39.9	6.8
2004	17.1	5.1	4.5	9.2	14.7	9.5	41.6	7.6

[a] Includes mathematics and computer sciences.

[b] Percent based on those with definite employment commitments and sector.

[c] "Other" is mainly composed of elementary and secondary schools and non-profit organizations.

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

TABLE 28. Employment sector of doctorate recipients with definite postgraduation employment commitments in the U.S., by selected demographic groups for selected years, 1984–2004

		Sex		Citizenship			U.S. citizens & permanent residents				
Commitments	Total	Male	Female	U.S. citizen	Permanent resident	Temporary visa holder	Asian [c]	Black	Hispanic	American Indian [d]	White
All employment commitments											
1984	14,625	9,319	5,306	13,282	503	825	430	614	323	39	12,179
1989	15,176	8,978	6,198	13,267	583	1,312	502	550	351	54	12,197
1994 [a]	15,142	8,345	6,795	13,081	842	1,217	817	640	464	70	11,867
1999	16,257	9,026	7,231	13,427	802	2,018	868	847	560	90	11,646
2004 [b]	14,669	7,550	7,118	11,866	522	2,262	643	887	542	64	9,865
Employment commitments with responses to sector											
1984	14,431	9,228	5,203	13,129	493	794	423	599	317	38	12,056
1989	14,989	8,888	6,101	13,128	570	1,278	494	536	343	54	12,077
1994 [a]	14,899	8,232	6,665	12,878	825	1,194	801	626	452	69	11,691
1999	16,122	8,968	7,154	13,310	795	2,007	858	834	551	89	11,560
2004 [b]	14,570	7,494	7,075	11,794	520	2,238	639	874	535	63	9,817
						Percent [e]					
Academe											
1984	49.7	46.7	55.1	48.8	51.9	63.6	36.6	51.8	56.2	50.0	49.0
1989	52.0	48.4	57.2	50.8	58.2	60.9	39.1	57.3	54.8	38.9	51.2
1994	52.1	46.4	59.1	52.8	45.8	48.9	38.0	55.4	59.5	68.1	52.7
1999	49.2	43.6	56.2	51.7	44.0	34.5	35.3	56.2	59.2	53.9	51.7
2004	56.5	52.2	61.1	57.1	59.0	52.6	46.3	53.4	62.8	52.4	58.0
Industry/self-employed											
1984	19.9	23.7	13.0	18.7	35.5	28.6	44.9	8.2	12.9	----	19.2
1989	21.4	26.7	13.7	20.0	33.2	30.3	45.3	8.4	16.3	29.6	20.1
1994	21.5	28.7	12.5	18.0	44.2	42.6	49.4	7.3	11.9	14.5	18.6
1999	27.8	36.3	17.1	21.9	44.4	60.0	50.3	12.2	17.6	13.5	22.2
2004	18.9	25.9	11.5	14.4	29.4	39.9	36.2	8.4	15.0	----	14.2
Government											
1984	11.6	12.7	9.7	12.4	4.3	3.1	11.3	13.7	14.8	----	12.0
1989	10.2	10.9	9.1	11.1	2.5	4.5	7.3	13.1	12.2	13.0	10.7
1994	8.7	9.9	7.3	9.6	4.6	2.0	6.2	9.6	8.8	----	9.5
1999	7.6	8.4	6.5	8.8	3.0	1.5	5.8	7.8	8.3	9.0	8.7
2004	7.5	8.5	6.4	8.7	4.0	2.0	6.9	9.5	7.7	----	8.4
Other [f]											
1984	18.8	16.9	22.2	20.0	8.3	4.7	7.1	26.4	16.1	26.3	19.8
1989	16.4	14.0	20.0	18.0	6.1	4.3	8.3	21.3	16.6	18.5	17.9
1994	17.7	15.0	21.1	19.6	5.3	6.4	6.4	27.6	19.7	----	19.2
1999	15.5	11.7	20.1	17.6	8.6	4.0	8.5	23.7	14.9	23.6	17.4
2004	17.1	13.4	21.0	19.7	7.5	5.4	10.6	28.7	14.6	30.2	19.4

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Total for 1994 includes 2 respondents not reporting sex.

[b] Total for 2004 includes 1 respondent not reporting sex.

[c] Includes Native Hawaiians/other Pacific Islanders through 1999, but excludes them in 2004.

[d] Includes Alaska Natives.

[e] Percent based on those with definite employment commitments and sector.

[f] "Other" is mainly composed of elementary and secondary schools and non-profit organizations.

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

TABLE 29. Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1984–2004

Commitments	Total	Sex		Citizenship			U.S. citizens & permanent residents				
		Male	Female	U.S. citizen	Permanent resident	Temporary visa holder	Asian [c]	Black	Hispanic	American Indian [d]	White
All postgraduate study commitments											
1984	4,343	3,177	1,166	3,529	134	679	165	44	56	----	3,318
1989	5,278	3,662	1,616	3,803	206	1,266	231	59	111	13	3,525
1994 [a]	6,289	4,102	2,186	4,121	684	1,483	743	102	137	18	3,757
1999 [b]	6,737	4,200	2,536	4,486	432	1,814	534	157	182	22	3,943
2004	7,281	4,331	2,950	4,576	236	2,458	431	198	224	10	3,792
Postgraduate study commitments with responses to source of support											
1984	4,091	2,992	1,099	3,315	122	653	150	41	53	----	3,121
1989	4,980	3,466	1,514	3,569	192	1,216	216	58	103	13	3,307
1994	5,960	3,889	2,071	3,902	652	1,405	703	91	130	16	3,569
1999 [b]	6,584	4,105	2,478	4,384	421	1,774	514	146	180	20	3,869
2004	7,163	4,250	2,913	4,509	231	2,412	424	194	216	10	3,741
	Percent										
U.S. government [e]											
1984	50.2	50.2	50.2	54.8	48.4	27.6	50.7	43.9	60.4	----	55.0
1989	42.3	41.5	44.3	49.4	40.1	22.0	42.6	41.4	36.9	46.2	49.8
1994	40.1	39.2	41.9	48.4	35.6	19.2	37.3	46.2	51.5	50.0	48.2
1999	37.9	37.8	38.1	44.7	36.6	21.7	37.7	42.5	45.6	55.0	44.8
2004	32.8	33.1	32.4	39.7	35.9	19.9	34.0	32.5	36.6	----	40.7
College or university [e]											
1984	18.9	20.0	16.0	14.4	26.2	40.3	23.3	26.8	13.2	----	14.3
1989	26.1	28.0	21.8	20.0	22.9	44.5	24.5	25.9	25.2	----	19.6
1994	29.9	32.2	25.7	22.9	37.0	46.2	33.9	29.7	23.8	----	23.2
1999	32.2	34.3	28.9	26.8	34.2	45.4	33.3	30.1	28.3	35.0	26.5
2004	46.0	47.7	43.6	39.5	48.5	57.9	42.2	48.5	44.9	----	38.8
Private foundation [e]											
1984	12.0	11.9	12.2	12.2	10.7	11.2	13.3	----	5.7	----	12.2
1989	11.4	11.0	12.4	11.5	11.5	11.3	14.4	----	12.6	----	11.4
1994	10.4	9.0	13.0	10.4	8.6	11.4	9.4	13.2	10.0	----	10.3
1999	10.0	9.1	11.4	9.9	8.1	10.6	9.5	7.5	----	----	10.0
2004	5.7	5.3	6.4	6.5	3.5	4.6	5.9	3.6	4.2	----	6.6
Nonprofit, other than private foundation [e]											
1984	2.7	2.1	4.2	2.7	2.5	2.8	----	----	5.7	----	2.6
1989	2.8	2.5	3.6	2.3	4.2	3.9	4.2	----	3.9	----	2.3
1994	2.8	2.8	2.9	2.3	2.6	4.4	3.1	----	3.1	----	2.2
1999	3.2	2.9	3.8	2.7	3.8	4.3	3.9	4.1	1.7	----	2.7
2004	3.0	2.5	3.7	2.7	3.0	3.6	3.1	3.6	3.7	----	2.6
Other [e]											
1984	7.9	7.9	8.2	8.0	3.3	8.4	----	----	9.4	----	8.0
1989	9.5	9.6	9.1	9.1	12.0	10.1	6.5	12.1	11.7	----	9.2
1994	10.1	10.5	9.4	9.7	8.1	12.2	8.5	----	6.2	----	9.8
1999	8.9	8.5	9.5	8.6	7.8	9.6	5.8	11.0	8.9	----	8.8
2004	7.9	7.5	8.4	7.1	5.2	9.5	9.2	4.6	6.0	----	7.0

TABLE 29. Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1984–2004

Commitments	Total	Sex		Citizenship			U.S. citizens & permanent residents				
		Male	Female	U.S. citizen	Permanent resident	Temporary visa holder	Asian [c]	Black	Hispanic	American Indian [d]	White
Unknown [e]											
1984	8.3	8.0	9.2	8.0	9.0	9.8	5.3	17.1	5.7	----	7.9
1989	7.9	7.4	8.9	7.7	9.4	8.2	7.9	----	9.7	----	7.7
1994	6.6	6.4	7.0	6.3	8.1	6.6	7.8	----	5.4	----	6.3
1999	7.8	7.4	8.4	7.3	9.5	8.3	9.7	4.8	8.3	----	7.2
2004	4.6	4.0	5.4	4.6	3.9	4.6	5.7	7.2	4.6	----	4.2

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Total for 1994 includes 1 respondent not reporting sex.

[b] Total for 1999 includes 1 respondent not reporting sex.

[c] Includes Native Hawaiians/other Pacific Islanders through 1999, but excludes them in 2004.

[d] Includes Alaska Natives.

[e] Percent based on those with definite commitments for postdoctoral study or training.

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

TABLE 30. Postdoctoral location and type of plan of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by major field of study and visa residency status, 2004

Field of study [a]	Permanent residents [b]					Temporary visa holders [b]				
		U.S. location		Foreign location			U.S. location		Foreign location	
	Number of responses	Employment percent	Study percent	Employment percent	Study percent	Number of responses	Employment percent	Study percent	Employment percent	Study percent
All fields	878	59.5	34.1	4.0	2.5	6,992	32.4	37.2	22.2	8.2
Physical sciences	138	47.8	46.4	---	---	1,669	28.5	50.3	9.8	11.4
Physics & astronomy	27	29.6	55.6	---	---	414	13.8	64.5	4.3	17.4
Chemistry	39	43.6	51.3	---	---	453	17.2	71.1	4.2	7.5
Earth, atmospheric, & marine sciences	14	35.7	57.1	---	---	139	17.3	47.5	19.4	15.8
Mathematics	28	46.4	50.0	---	---	376	41.5	35.6	9.8	13.0
Computer sciences	30	76.7	23.3	---	---	287	55.7	17.8	22.0	4.5
Engineering	136	71.3	25.0	---	---	1,818	39.5	36.2	19.2	5.0
Life sciences	211	26.1	69.7	---	---	1,448	12.7	62.8	16.3	8.2
Biological sciences	147	13.6	83.0	---	---	962	7.6	77.5	7.4	7.5
Health sciences	43	69.8	27.9	---	---	212	30.7	25.5	35.4	8.5
Agricultural sciences	21	23.8	61.9	---	---	274	16.8	39.8	32.8	10.6
Social sciences	124	67.7	22.6	---	---	760	39.6	13.2	37.6	9.6
Psychology	40	50.0	45.0	---	---	110	22.7	39.1	21.8	16.4
Anthropology	10	70.0	10.0	---	---	30	---	---	33.3	30.0
Economics	29	75.9	10.3	---	---	388	47.2	5.4	42.8	4.6
Political science/international relations	17	88.2	5.9	---	---	74	33.8	13.5	40.5	12.2
Sociology	9	66.7	11.1	---	---	68	38.2	11.8	35.3	14.7
Other social sciences	19	73.7	21.1	---	---	90	40.0	14.4	35.6	10.0
Humanities	144	84.0	11.8	---	---	450	42.9	12.4	35.6	9.1
History	20	75.0	15.0	---	---	52	25.0	21.2	40.4	13.5
English language & literature	9	100.0	0.0	---	---	36	50.0	---	33.3	---
Foreign language & literature	35	85.7	14.3	---	---	89	68.5	---	19.1	---
Other humanities	80	83.8	11.3	---	---	273	37.0	12.8	40.3	9.9
Education	61	77.0	8.2	---	---	325	28.0	7.7	50.5	13.8
Teacher education	4.0	75.0	25.0	---	---	16	50.0	---	43.8	---
Teaching fields	10	80.0	0.0	---	---	77	29.9	---	49.4	---
Other education	47	76.6	8.5	---	---	232	25.9	9.1	51.3	13.8
Professional/other fields	64	81.3	---	---	---	522	57.3	2.9	36.6	3.3
Business & management	36	88.9	---	---	---	351	63.5	1.1	32.8	2.6
Communications	10	70.0	---	---	---	71	60.6	---	29.6	---
Other professional fields	18	72.2	---	---	---	100	33.0	---	55.0	---

----- = Cell value suppressed to protect confidentiality of doctorate recipients

[a] Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

[b] Percentages are based on the number of non-U.S. citizens reporting definite commitments with responses to type of plan (employment or study) and location (U.S. or foreign).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

TABLE 31. Postdoctoral location of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by visa residency status for selected years, 1984–2004

Year and location	All non-U.S. citizens	Permanent resident	Temporary visa holder
		Number	
All definite commitments			
1984	3,675	686	2,989
1989	5,186	948	4,238
1994	6,801	1,811	4,990
1999	7,039	1,419	5,620
2004	8,082	908	7,174
Definite commitments with response to location			
1984	3,675	686	2,989
1989	5,186	948	4,238
1994	6,801	1,811	4,990
1999	7,004	1,410	5,594
2004	8,064	905	7,159
		Percent	
U.S. location [a]			
1984	57.1	94.0	48.6
1989	66.5	87.2	61.8
1994	62.2	89.7	52.2
1999	74.0	92.0	69.4
2004	72.0	93.5	69.2
Foreign location [a]			
1984	42.9	6.0	51.4
1989	33.5	12.8	38.2
1994	37.8	10.3	47.8
1999	26.0	8.0	30.6
2004	28.0	6.5	30.8

[a] Percent based on those with definite commitments with response to location.

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

TABLE 32. Percentage of non-U.S.-citizen doctorate recipients intending to stay in the United States after doctorate receipt, by country of citizenship, 1999-2004

Place of origin	Total, 1999-2001		Total, 2002-2004		1999		2000		2001		2002		2003		2004	
	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.
All non-U.S. citizens	34,649	69.1	36,736	69.3	11,365	67.8	11,613	67.6	11,671	71.7	11,377	70.7	12,246	69.0	13,113	68.4
East/South Asia	18,822	74.6	19,880	74.7	6,227	73.5	6,300	73.7	6,295	76.6	6,127	76.4	6,582	73.3	7,171	74.5
China[a]	7,821	90.8	8,644	90.7	2,519	89.4	2,618	90.5	2,684	92.3	2,651	92.5	2,784	90.8	3,209	89.2
Taiwan	2,728	57.3	2,104	53.4	1,001	55.0	950	56.1	777	61.8	674	60.4	727	51.0	703	49.1
Japan	779	51.5	811	55.9	241	49.4	302	49.7	236	55.9	237	56.5	296	57.4	278	53.6
South Korea	3,294	59.0	3,945	64.5	1,040	55.1	1,063	58.4	1,191	62.8	1,189	66.3	1,308	62.3	1,448	65.1
India	3,065	88.2	2,756	87.7	1,107	87.9	1,000	87.2	958	89.6	839	90.6	910	86.0	1,007	86.8
Other	1,135	29.5	1,620	28.8	319	33.2	367	27.0	449	29.0	537	25.9	557	28.2	526	32.3
West Asia	2,917	57.5	3,317	55.5	908	55.8	966	54.3	1,043	61.7	1,011	58.6	1,117	56.2	1,189	52.2
Iran	300	89.0	198	88.9	104	88.5	88	89.8	108	88.9	65	89.2	70	85.7	63	----
Israel	200	58.5	279	65.9	61	57.4	67	49.3	72	68.1	74	67.6	92	68.5	113	62.8
Jordan	259	57.1	279	51.3	89	56.2	83	57.8	87	57.5	68	61.8	96	52.1	115	44.3
Saudi Arabia	263	8.4	351	7.7	85	----	90	8.9	88	11.4	104	----	115	7.8	132	9.8
Turkey	919	55.3	1,274	55.7	230	53.5	331	49.2	358	62.0	397	58.2	447	57.0	430	52.1
Other	976	62.9	936	64.2	339	59.9	307	63.2	330	65.8	303	68.0	297	64.3	336	60.7
Pacifica/Austrailasia	709	52.9	686	59.8	242	51.2	247	52.6	220	55.0	236	58.5	224	57.6	226	63.3
Australia	218	59.2	195	68.2	79	62.0	72	48.6	67	67.2	64	65.6	69	66.7	62	72.6
Indonesia	197	38.6	210	51.4	64	32.8	76	40.8	57	42.1	76	51.3	56	50.0	78	52.6
New Zealand	113	57.5	115	55.7	35	51.4	34	64.7	44	56.8	36	58.3	40	47.5	39	61.5
Other	181	58.0	166	63.3	64	56.3	65	64.6	52	51.9	60	60.0	59	61.0	47	70.2
Africa	1,515	62.5	1,500	63.0	492	59.8	537	56.8	486	71.6	450	63.8	483	64.4	567	61.2
Egypt	260	58.5	393	62.1	76	52.6	92	56.5	92	65.2	114	58.8	130	63.1	149	63.8
Nigeria	145	79.3	92	79.3	60	83.3	45	73.3	40	80.0	27	----	31	71.0	34	73.5
South Africa	200	61.0	131	48.9	60	65.0	62	51.6	78	65.4	43	53.5	40	52.5	48	41.7
Other	910	61.3	884	63.8	296	55.7	338	55.6	276	74.3	266	64.3	282	66.0	336	61.6
Europe	6,001	72.6	6,286	73.1	1,956	72.3	1,938	71.2	2,107	74.3	2,019	74.8	2,080	74.0	2,187	70.6
Bulgaria	179	87.7	196	86.2	62	85.5	59	91.5	58	86.2	54	92.6	60	83.3	82	84.1
Greece	337	70.0	316	65.2	121	74.4	101	69.3	115	66.1	98	64.3	99	66.7	119	64.7
Romania	350	86.9	478	86.4	104	80.8	119	84.0	127	94.5	150	84.7	145	88.3	183	86.3
United Kingdom	611	76.1	580	76.6	218	75.7	185	69.2	208	82.7	223	81.2	172	75.0	185	72.4
Germany	873	66.7	772	67.5	273	66.3	291	65.3	309	68.3	255	65.5	268	69.8	249	67.1
Italy	361	62.0	506	65.4	102	63.7	112	63.4	147	59.9	153	67.3	160	56.9	193	71.0
France	354	72.6	363	68.3	111	65.8	122	73.8	121	77.7	122	64.8	113	70.8	128	69.5
Spain	332	62.0	365	64.7	105	57.1	108	62.0	119	66.4	113	66.4	138	68.8	114	57.9
Russia	720	85.0	707	83.9	231	84.8	234	83.8	255	86.3	230	88.3	256	85.2	221	77.8
Other	1,884	69.9	2,003	71.5	629	71.1	607	68.0	648	70.4	621	74.4	669	74.1	713	66.6

TABLE 32. Percentage of non-U.S.-citizen doctorate recipients intending to stay in the United States after doctorate receipt, by country of citizenship, 1999-2004

Place of origin	Total, 1999-2001		Total, 2002-2004		1999		2000		2001		2002		2003		2004	
	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.	Number non-U.S. citizens	Percent staying in U.S.
North/South America	4,330	55.1	4,597	56.8	1,401	51.6	1,534	54.4	1,395	59.2	1,389	56.6	1,567	57.1	1,641	56.7
Canada	1,508	64.2	1,635	62.7	486	62.8	525	63.6	497	66.2	495	65.1	539	62.5	601	60.9
Mexico	698	39.8	711	48.1	206	32.5	248	37.1	244	48.8	221	45.7	259	50.2	231	48.1
Argentina	248	62.5	309	68.9	68	58.8	99	63.6	81	64.2	94	72.3	100	71.0	115	64.3
Brazil	564	36.0	520	41.5	215	32.6	178	38.2	171	38.0	170	40.6	161	40.4	189	43.4
Chile	132	54.5	193	40.4	47	59.6	48	52.1	37	51.4	53	28.3	81	48.1	59	40.7
Colombia	214	57.5	264	56.8	66	48.5	74	52.7	74	70.3	66	62.1	109	51.4	89	59.6
Peru	110	67.3	126	73.0	39	66.7	35	60.0	36	75.0	47	72.3	43	74.4	36	72.2
Other	856	59.7	839	59.1	274	56.6	327	59.0	255	63.9	243	56.0	275	60.0	321	60.7
Country unknown	316	36.4	428	43.0	127	47.2	78	29.5	111	28.8	132	27.3	183	62.8	113	29.2

----- = Cell value suppressed to protect confidentiality of doctorate recipients

NOTES: Data include foreign doctorate recipients who were either permanent residents or temporary visa holders and who indicated whether they intended to stay in the U.S. after graduation.

[a] Includes Hong Kong.

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

APPENDICES

APPENDIX A: The Nine Basic Tables, 2004

Appendix A includes the following nine tables:

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 four-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. "Time since starting graduate school" refers to the elapsed calendar time between the month/year of starting at the first post-baccalaureate institution and the month/year of the doctorate.

— *Postgraduation Plans:* Each year's doctorate recipients provide information on post-graduation employment or study plans in response to items B1 through B8 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 field of study. (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: "Definite postdoctoral study", "Definite employment", "Seeking employment or study", and "Other/Unknown." "Definite postdoctoral study" includes recipients who indicated that they had definite plans at the time of survey completion (item B3: "Returning to, or continuing in, predoctoral employment" or "Have signed contract or made definite commitment for other work or study") and that their plans were for further training or study (item B4: "Postdoctoral fellowship", "Postdoctoral research assistantship", "Traineeship", "Intern, clinical residency", or "Other study"). "Definite employment" includes recipients who indicated that they had definite plans at the time of survey completion and their plans were for employment (item B4: "Employment", "Military service", or "Other employment"). "Seeking employment or study" includes recipients who indicated that they were still seeking or negotiating a position at the time of survey completion (item B3: "Negotiating with one or more specific organizations," "Seeking position but have no specific prospects,"). "Other/unknown" includes recipients who did not plan to work or study at the time of survey completion and recipients who indicated "Other" in item B3. 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, internships, and other study). The percentages in these subdivisions sum to the percent of respondents in the given column who reported definite 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 had definite employment commitments at the time of survey completion. 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 percentages in these columns are based on recipients who indicated that they had definite postgraduation plans and responded to the nature of those plans (i.e., postdoctoral study or employment).

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 with definite commitments for postdoctoral study (as described above) and recipients who were still *seeking* employment or study at the time they completed the questionnaire.

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

New England:	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Middle Atlantic:	New Jersey, New York, Pennsylvania
East North Central:	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central:	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South Atlantic:	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
East South Central:	Alabama, Kentucky, Mississippi, Tennessee
West South Central:	Arkansas, Louisiana, Oklahoma, Texas
Mountain:	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific & Insular:	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 of study 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. From that year on, the question allowed respondents to choose more than one option for their race.

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 A5 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 he or she reported more than one financial resource. 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 displays data reported in item A5 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.

The value listed in the "all fields" column reflects the number of respondents that indicated the particular financial resource as a source of support of the doctoral program. Percentages reflect the distribution of respondents indicating each type of financial resource by broad field.

TABLE A-7: Table A-7 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-8: Table A-8 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-9: Table A-9 presents the 50 doctorate granting institutions which conferred the greatest number of doctorates in AY 2004. 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 of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
TOTAL ALL FIELDS	42,155	22,976	19,098
PHYSICAL SCIENCES	6,049	4,439	1,598
MATHEMATICS	1,075	770	305
Applied mathematics	264	203	61
Algebra	97	69	28
Analysis & functional analysis	99	71	28
Geometry	95	66	29
Logic	15	13	2
Number theory	39	34	5
Mathematical statistics	226	148	78
Topology	52	33	19
Computing theory & practice	10	7	3
Operations research	23	17	6
General	82	60	22
Other	73	49	24
COMPUTER & INFORMATION SCIENCES	949	749	195
Computer science	768	630	134
Information science & systems	106	64	42
Computer & information science, other	75	55	19
ASTRONOMY	165	119	46
Astronomy	68	44	24
Astrophysics	97	75	22
ATMOSPHERIC SCI. & METEOROLOGY	126	80	46
Atmospheric physics & chemistry	29	14	15
Atmospheric dynamics	33	17	16
Meteorology	22	17	5
Atmospheric science/meteorology, general	24	17	7
Atmospheric science/meteorology, other	18	15	3
CHEMISTRY	1,987	1,352	629
Analytical	322	203	119
Inorganic	241	161	80
Organic	539	398	141
Medicinal/pharmaceutical	112	64	48
Physical	264	183	81
Polymer	115	75	40
Theoretical	54	38	16
Chemistry, general	198	140	55
Chemistry, other	142	90	49
GEOLOGICAL & EARTH SCIENCES	371	251	120
Geology	98	73	25
Geochemistry	38	20	18
Geophysics & seismology	87	61	26
Paleontology	25	13	12
Mineralogy & petrology	17	13	4
Stratigraphy & sedimentation	19	14	5
Geomorphology & glacial geology	22	14	8
Geological & related sciences, general	23	17	6
Geological & related sciences, other	42	26	16
PHYSICS	1,186	1,001	184
Acoustics	17	16	1
Chemical & atomic/molecular	82	71	11
Elementary particle	163	143	20
Biophysyics	55	47	8
Nuclear	74	62	12
Optics	119	98	21

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
Plasma & high-temperature	37	33	4
Polymer	18	17	1
Solid state & low-temperature	276	235	41
Applied physics	72	65	7
Physics, general	142	113	29
Physics, other	131	101	29
OCEAN/MARINE SCIENCES	190	117	73
Hydrology & water resources	49	37	12
Oceanography	67	46	21
Marine sciences	59	30	29
Ocean/marine, other	15	4	11
ENGINEERING	5,776	4,750	1,014
Aerospace, aeronautical & astronaut engineering	201	177	24
Agricultural engineering	60	46	14
Bioengineering & biomedical engineering	369	258	111
Ceramic sciences engineering	14	13	1
Chemical engineering	635	485	150
Civil engineering	547	461	85
Communications engineering	34	31	3
Computer engineering	227	197	30
Electrical & electronics engineering	1,388	1,193	189
Engineering mechanics	98	87	11
Engineering physics	28	20	7
Engineering science	61	46	15
Environmental health engineering	128	80	47
Industrial & manufacturing engineering	217	174	42
Materials science engineering	473	389	84
Mechanical engineering	755	671	84
Metallurgical engineering	22	17	5
Mining & mineral engineering	9	7	2
Nuclear engineering	59	48	11
Ocean engineering	21	18	3
Operations research engineering	72	61	11
Petroleum engineering	34	28	5
Polymer & plastics engineering	54	36	18
Systems engineering	58	47	11
Engineering, general	29	23	6
Engineering, other	183	137	45
LIFE SCIENCES	8,819	4,445	4,354
AGRICULTURAL SCIENCES/NATURAL RESOURCES	1,152	720	427
Agricultural economics	106	76	29
Animal breeding & genetics	12	5	7
Animal nutrition	47	40	7
Poultry science	21	13	8
Animal sciences, other	76	50	26
Agronomy & crop science	63	51	11
Plant breeding & genetics	36	24	12
Plant pathology	55	30	24
Plant sciences, other	36	20	16
Food engineering	95	53	42
Food sciences, other	74	31	43
Soil chemistry/microbiology	20	7	13
Soil sciences, other	53	38	15
Horticulture science	45	33	12
Fisheries science & management	37	26	11
Forest biology	36	30	6

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
Forest management	27	19	8
Wood science & pulp/paper technology	19	11	8
Conservation/renewable natural resources	45	19	26
Forestry & related science, other	34	23	10
Wildlife/range management	40	26	14
Environmental science	132	67	64
Agricultural science, general	6	5	1
Agricultural science, other	37	23	14
BIOLOGICAL/BIOMEDICAL SCIENCES	5,937	3,181	2,747
Biochemistry	702	406	295
Biomedical sciences	184	87	97
Biophysics	130	83	47
Biotechnology research	26	15	11
Bacteriology	15	10	5
Plant genetics	54	33	21
Plant pathology	26	12	14
Plant physiology	25	17	8
Botany, other	134	69	65
Anatomy	13	9	4
Biometrics & biostatistics	100	49	50
Cell biology	292	165	127
Ecology	366	206	159
Developmental biology/embryology	141	70	71
Endocrinology	22	11	11
Entomology	108	77	30
Biological immunology	344	177	167
Molecular biology	724	364	359
Microbiology	391	194	197
Neuroscience	584	324	259
Nutritional sciences	133	31	102
Parasitology	20	10	10
Toxicology	107	59	48
Genetics, human & animal	256	139	117
Pathology, human & animal	98	51	46
Pharmacology, human & animal	285	140	145
Physiology, human & animal	205	120	85
Zoology, other	96	61	35
Biological sciences, general	190	103	87
Biological sciences, other	166	89	75
HEALTH SCIENCES	1,730	544	1,180
Speech-Language pathology & audiology	95	24	71
Environmental health	57	27	28
Environmental toxicology	27	16	11
Health systems/service administration	66	33	32
Public health	258	67	190
Epidemiology	217	71	145
Exercise physiology/science, kinesiology	163	92	70
Nursing	394	18	376
Pharmacy	164	83	81
Rehabilitation/therapeutic services	76	23	53
Veterinary medicine	54	31	23
Health sciences, general	33	10	23
Health sciences, other	126	49	77
SOCIAL SCIENCES AND PSYCHOLOGY	6,795	3,041	3,741
PSYCHOLOGY	3,336	1,086	2,245
Clinical	1,221	352	868

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
Cognitive & psycholinguistics	144	68	76
Comparative	6	2	4
Counseling	511	160	351
Developmental & child	186	26	160
Human/individual & family development	144	51	92
Experimental	88	43	45
Educational	74	21	53
Family & marriage counseling	31	12	19
Industrial & organizational	158	73	85
Personality	18	8	10
Physiological/psychobiology	83	35	48
Quantitative	29	15	14
School	87	14	73
Social	163	54	109
Psychology, general	226	96	128
Psychology, other	167	56	110
SOCIAL SCIENCES	3,459	1,955	1,496
Anthropology	529	237	292
Area studies	18	7	10
Criminology	69	29	40
Demography/population studies	19	6	13
Economics	942	661	279
Econometrics	18	15	3
Geography	192	106	86
International relations/affairs	99	60	39
Political science & government	586	390	195
Public policy analysis	145	80	64
Sociology	579	238	338
Social sciences, statistics	31	16	15
Urban affairs/studies	84	51	33
Social sciences, general	32	12	20
Social sciences, other	116	47	69
HUMANITIES	5,467	2,627	2,834
HISTORY	975	569	405
American	402	245	157
Asian	66	37	29
European	222	122	100
African	21	12	9
Latin American	47	31	16
History/philosophy of science & technology	48	36	12
History, general	55	28	27
History, other	114	58	55
LETTERS	1,665	676	989
Classics	70	40	30
Comparative literature	175	75	100
Folklore	22	8	14
Linguistics	253	104	149
Literature, American	350	140	210
Literature, English	425	173	252
English language	158	52	106
Speech & rhetorical studies	127	54	73
Letters, general	19	5	14
Letters, other	66	25	41
FOREIGN LANGUAGES & LITERATURE	586	220	366
French	123	44	79
German	56	22	34

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
Italian	39	11	28
Spanish	240	87	153
Russian	25	8	17
Slavic (other than Russian)	8	2	6
Chinese	15	7	8
Japanese	14	4	10
Arabic	7	5	2
Other languages & literature	59	30	29
OTHER HUMANITIES	2,241	1,162	1,074
American studies	115	48	67
Archeology	34	16	18
Art history/criticism/conservation	247	56	190
Music	850	451	396
Philosophy	363	241	121
Religion	388	247	141
Drama/theater arts	91	32	59
Humanities, general	17	9	8
Humanities, other	136	62	74
EDUCATION	6,635	2,266	4,361
RESEARCH AND ADMINISTRATION	5,137	1,754	3,377
Curriculum & instruction	970	248	720
Educational administration & supervision	740	317	422
Educational leadership	1,596	592	1,002
Educational/instructional media design	192	81	110
Educational statistics/research methods	64	27	37
Educational assessment/testing/measure	57	27	30
Educational psychology	262	96	166
School psychology	113	20	93
Social/philosophical foundations of education	135	48	87
Special education	287	42	245
Counseling education/counseling & guidance	182	50	132
Higher education/evaluation & research	539	206	333
TEACHER EDUCATION	269	71	198
Pre-elementary/early childhood	37	5	32
Elementary	65	14	51
Secondary	26	11	15
Adult & continuing	141	41	100
TEACHING FIELDS	757	264	493
Agricultural education	21	16	5
Art education	38	6	32
Business education	7	0	7
English education	45	11	34
Foreign languages education	62	12	50
Health education	43	9	34
Family & consumer sci./home economics education	15	4	11
Mathematics education	91	36	55
Music education	93	42	51
Nursing education	10	0	10
Physical education & coaching	68	43	25
Reading education	84	7	77
Science education	86	41	45
Social science education	21	6	15
Trade & industrial education	18	14	4
Teacher education & prof. dev.	55	17	38

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2004

Field of study	Number of doctorates		
	Total [a]	Male	Female
OTHER EDUCATION	472	177	293
Education, general	196	78	117
Education, other	276	99	176
PROFESSIONAL/OTHER FIELDS	2,614	1,408	1,196
BUSINESS MGMT./ADMINISTRATIVE SERVICES	1,264	804	454
Accounting	131	84	47
Banking/financial support services	106	75	31
Business administration & management	372	254	117
Business/managerial economics	60	43	17
International business	35	23	11
Management information systems/business data	94	67	27
Marketing management & research	134	83	50
Human resources development	86	35	51
Operations research	51	44	7
Organizational behavior	124	52	71
Business management/administration serv., general	23	16	5
Business management/administration serv., other	48	28	20
COMMUNICATIONS	450	185	265
Communications research	60	29	31
Mass communications	187	90	97
Communication theory	49	16	33
Communications, general	75	25	50
Communications, other	79	25	54
OTHER PROFESSIONAL FIELDS	897	417	476
Architectural environmental design	66	36	30
Home economics	43	9	34
Law	56	35	20
Library science	23	4	19
Parks/recreation/leisure/fitness	82	43	39
Public administration	116	70	46
Social work	304	84	220
Theology/religious education	156	111	43
Professional fields, other	51	25	25
OTHER FIELDS	3	2	1

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 sex was unknown (total is 81).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
TOTAL ALL FIELDS	42,155	11,585	27,959	131	2,054	1,971	21,395	258	455	584	1,111
PHYSICAL SCIENCES	6,049	2,553	3,250	11	299	93	2,565	27	35	50	170
MATHEMATICS	1,075	526	510	0	54	10	398	2	8	16	22
Applied mathematics	264	123	135	0	14	5	99	0	6	6	5
Algebra	97	39	58	0	6	3	47	0	0	0	2
Analysis & functional analysis	99	59	39	0	2	2	33	0	0	1	1
Geometry	95	54	41	0	2	0	31	0	1	2	5
Logic	15	8	5	0	0	0	5	0	0	0	0
Number theory	39	19	20	0	2	0	15	0	0	1	2
Mathematical statistics	226	129	92	0	15	0	69	2	0	3	3
Topology	52	21	31	0	1	0	29	0	0	0	1
Computing theory & practice	10	5	5	0	1	0	4	0	0	0	0
Operations research	23	9	13	0	0	0	13	0	0	0	0
Mathematics, general	82	34	34	0	7	0	23	0	0	1	3
Mathematics, other	73	26	37	0	4	0	30	0	1	2	0
COMPUTER & INFORMATION SCIENCES	949	459	448	2	72	17	321	4	3	6	23
Computer science	768	396	342	0	61	6	253	3	1	3	15
Information science & systems	106	37	58	2	7	3	38	0	2	1	5
Computer & information science, other	75	26	48	0	4	8	30	1	0	2	3
ASTRONOMY	165	47	115	0	8	0	93	0	2	4	8
Astronomy	68	17	51	0	4	0	41	0	2	2	2
Astrophysics	97	30	64	0	4	0	52	0	0	2	6
ATMOSPHERIC SCI. & METEOROLOGY	126	51	71	1	5	1	62	0	0	0	2
Atmospheric physics & chemistry	29	13	16	1	2	1	12	0	0	0	0
Atmospheric dynamics	33	17	16	0	1	0	14	0	0	0	1
Meteorology	22	7	13	0	0	0	13	0	0	0	0
Atmospheric science/meteorology, general	24	8	16	0	0	0	15	0	0	0	1
Atmospheric science/meteorology, other	18	6	10	0	2	0	8	0	0	0	0
CHEMISTRY	1,987	720	1,180	4	110	46	921	15	14	14	56
Analytical	322	106	209	1	12	7	176	2	3	0	8
Inorganic	241	81	159	0	4	8	137	2	1	1	6
Organic	539	208	322	0	51	10	232	7	4	3	15
Medicinal/pharmaceutical	112	44	63	0	6	4	51	0	1	0	1
Physical	264	98	162	2	12	5	128	1	5	4	5
Polymer	115	53	59	0	7	1	46	2	0	1	2
Theoretical	54	35	19	0	1	1	16	0	0	0	1
Chemistry, general	198	53	106	1	10	7	70	0	0	3	15
Chemistry, other	142	42	81	0	7	3	65	1	0	2	3

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
GEOLOGICAL & EARTH SCIENCES	371	114	239	3	4	5	198	2	3	3	21
Geology	98	21	69	1	1	1	54	0	1	3	8
Geochemistry	38	12	26	0	0	0	24	0	0	0	2
Geophysics & seismology	87	41	42	1	2	0	31	0	2	0	6
Paleontology	25	6	19	0	0	0	19	0	0	0	0
Mineralogy & petrology	17	4	12	0	0	0	12	0	0	0	0
Stratigraphy & sedimentation	19	7	12	0	1	0	9	1	0	0	1
Geomorphology & glacial geology	22	2	19	0	0	1	17	0	0	0	1
Geological & related sciences, general	23	9	12	1	0	1	8	1	0	0	1
Geological & related sciences, other	42	12	28	0	0	2	24	0	0	0	2
PHYSICS	1,186	577	559	1	44	13	453	1	5	7	35
Acoustics	17	3	14	0	1	0	12	0	0	0	1
Chemical & atomic/molecular	82	36	45	1	4	1	36	0	1	0	2
Elementary particle	163	80	82	0	10	1	68	0	0	1	2
Biophysyics	55	30	25	0	5	1	17	0	0	0	2
Nuclear	74	37	36	0	2	0	33	0	0	0	1
Optics	119	58	59	0	6	0	46	0	2	1	4
Plasma & high-temperature	37	11	26	0	3	1	19	0	0	0	3
Polymer	18	14	4	0	0	0	3	0	0	0	1
Solid state & low-temperature	276	172	101	0	5	2	85	0	1	1	7
Applied physics	72	32	37	0	3	3	27	1	0	1	2
Physics, general	142	55	60	0	4	2	46	0	0	1	7
Physics, other	131	49	70	0	1	2	61	0	1	2	3
OCEAN/MARINE SCIENCES	190	59	128	0	2	1	119	3	0	0	3
Hydrology & water resources	49	17	32	0	2	0	27	2	0	0	1
Oceanography	67	27	39	0	0	1	38	0	0	0	0
Marine sciences	59	12	45	0	0	0	42	1	0	0	2
Ocean/marine, other	15	3	12	0	0	0	12	0	0	0	0
ENGINEERING	5,776	3,302	2,182	6	354	94	1,542	19	24	45	98
Aerospace, aeronautical & astronaut engineering	201	116	77	0	9	1	60	0	2	1	4
Agricultural engineering	60	32	26	0	2	4	18	1	0	1	0
Bioengineering & biomedical engineering	369	124	236	0	31	5	184	0	3	3	10
Ceramic sciences engineering	14	6	8	0	0	0	8	0	0	0	0
Chemical engineering	635	304	293	1	55	9	204	1	3	7	13
Civil engineering	547	350	177	3	24	6	123	7	4	6	4
Communications engineering	34	27	6	0	1	1	3	0	0	0	1
Computer engineering	227	160	62	1	17	2	35	0	1	0	6
Electrical & electronics engineering	1,388	867	430	0	91	30	274	4	4	6	21
Engineering mechanics	98	69	25	0	4	2	18	0	0	0	1

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Engineering physics	28	9	18	0	1	0	14	0	1	2	0
Engineering science	61	37	21	0	2	1	16	0	0	1	1
Environmental health engineering	128	71	47	0	11	1	32	0	1	2	0
Industrial & manufacturing engineering	217	134	77	0	10	3	56	1	0	2	5
Materials science engineering	473	258	196	0	28	6	149	0	3	3	7
Mechanical engineering	755	455	274	0	43	16	192	3	0	7	13
Metallurgical engineering	22	15	6	0	2	0	3	0	1	0	0
Mining & mineral engineering	9	3	6	0	1	0	4	0	0	0	1
Nuclear engineering	59	31	26	0	1	0	22	0	1	0	2
Ocean engineering	21	14	5	0	0	0	5	0	0	0	0
Operations research engineering	72	43	27	0	6	2	16	0	0	0	3
Petroleum engineering	34	26	4	1	0	1	2	0	0	0	0
Polymer & plastics engineering	54	35	15	0	3	0	10	0	0	1	1
Systems engineering	58	23	32	0	6	1	23	1	0	0	1
Engineering, general	29	14	10	0	1	0	9	0	0	0	0
Engineering, other	183	79	78	0	5	3	62	1	0	3	4
LIFE SCIENCES	8,819	2,301	6,063	21	616	278	4,656	70	73	112	237
AGRICULTURAL SCIENCES/NATURAL RESOURCES	1,152	473	605	4	34	23	498	4	6	7	29
Agricultural economics	106	60	42	0	3	3	33	0	0	1	2
Animal breeding & genetics	12	2	10	0	0	0	9	0	0	0	1
Animal nutrition	47	12	34	0	0	0	33	0	1	0	0
Poultry science	21	10	9	0	0	0	8	0	1	0	0
Animal sciences, other	76	25	47	0	1	0	39	1	1	0	5
Agronomy & crop science	63	26	31	1	0	2	27	0	0	0	1
Plant breeding & genetics	36	23	13	0	2	1	8	0	0	0	2
Plant pathology	55	30	24	0	2	1	19	0	0	2	0
Plant sciences, other	36	12	20	0	1	0	18	0	0	0	1
Food engineering	95	55	40	0	7	2	28	1	0	1	1
Food sciences, other	74	45	22	1	3	3	14	0	0	0	1
Soil chemistry/microbiology	20	9	11	0	0	1	10	0	0	0	0
Soil sciences, other	53	22	26	0	3	0	20	0	0	0	3
Horticulture science	45	20	23	0	2	1	19	0	0	1	0
Fisheries science & management	37	7	30	0	0	0	27	0	0	0	3
Forest biology	36	14	22	0	0	1	20	0	0	0	1
Forest management	27	6	18	0	0	0	16	1	0	0	1
Wood science & pulp/paper technology	19	12	7	0	0	0	6	0	0	0	1
Conservation/renewable natural resources	45	14	30	0	2	0	25	0	0	1	2
Forestry & related science, other	34	11	16	0	0	1	14	0	0	0	1
Wildlife/range management	40	6	33	0	0	0	32	0	0	0	1

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Environmental science	132	35	80	1	7	6	60	1	2	1	2
Agricultural science, general	6	1	1	0	0	0	1	0	0	0	0
Agricultural science, other	37	16	16	1	1	1	12	0	1	0	0
BIOLOGICAL/BIOMEDICAL SCIENCES	5,937	1,462	4,187	14	488	148	3,184	50	58	83	162
Biochemistry	702	193	485	1	58	12	379	9	3	11	12
Biomedical sciences	184	56	118	2	21	1	82	6	2	2	2
Biophysics	130	55	70	0	13	2	50	0	1	0	4
Biotechnology research	26	11	15	0	5	1	9	0	0	0	0
Bacteriology	15	3	12	0	1	0	10	0	1	0	0
Plant genetics	54	26	28	0	1	1	24	1	0	0	1
Plant pathology	26	11	11	0	1	2	6	0	0	0	2
Plant physiology	25	10	13	0	2	0	9	0	1	1	0
Botany, other	134	39	87	0	5	0	77	0	0	2	3
Anatomy	13	2	11	0	0	1	9	0	0	1	0
Biometrics & biostatistics	100	43	55	0	11	3	38	1	0	0	2
Cell biology	292	69	201	0	32	5	145	4	4	3	8
Ecology	366	45	306	2	5	6	272	0	4	6	11
Developmental biology/embryology	141	48	92	0	21	1	66	0	0	3	1
Endocrinology	22	10	12	0	3	0	7	0	0	1	1
Entomology	108	41	64	0	3	2	53	0	1	1	4
Biological immunology	344	63	268	1	37	7	198	4	5	5	11
Molecular biology	724	218	486	1	72	22	338	9	10	13	21
Microbiology	391	83	284	1	25	12	227	3	6	3	7
Neuroscience	584	101	460	4	64	9	347	2	3	12	19
Nutritional sciences	133	41	90	0	11	6	63	3	1	0	6
Parasitology	20	1	19	0	0	1	16	0	0	1	1
Toxicology	107	18	84	0	3	7	67	1	0	2	4
Genetics, human & animal	256	54	190	0	18	13	147	1	2	3	6
Pathology, human & animal	98	29	64	1	6	0	52	1	0	1	3
Pharmacology, human & animal	285	68	209	0	29	14	144	2	3	5	12
Physiology, human & animal	205	37	161	1	19	7	120	0	5	3	6
Zoology, other	96	20	70	0	1	0	67	0	0	1	1
Biological sciences, general	190	32	130	0	11	10	94	1	4	1	9
Biological sciences, other	166	35	92	0	10	3	68	2	2	2	5
HEALTH SCIENCES	1,730	366	1,271	3	94	107	974	16	9	22	46
Speech-Language pathology & audiology	95	16	76	0	3	6	62	0	1	2	2
Environmental health	57	13	34	0	3	2	28	0	0	1	0
Environmental toxicology	27	9	18	0	1	3	13	0	0	0	1
Health systems/service administration	66	17	46	0	4	7	30	0	1	1	3

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Public health	258	34	215	0	25	26	151	3	0	5	5
Epidemiology	217	43	164	0	21	12	122	4	0	1	4
Exercise physiology/science, kinesiology	163	21	136	0	3	7	118	1	1	3	3
Nursing	394	56	327	2	10	23	271	5	4	2	10
Pharmacy	164	89	53	0	12	6	32	0	1	1	1
Rehabilitation/therapeutic services	76	11	63	0	2	3	44	0	0	1	13
Veterinary medicine	54	29	24	0	2	0	17	0	0	3	2
Health sciences, general	33	4	28	0	3	4	19	1	1	0	0
Health sciences, other	126	24	87	1	5	8	67	2	0	2	2
SOCIAL SCIENCES AND PSYCHOLOGY	6,795	1,187	5,092	21	293	356	3,934	36	96	146	210
PSYCHOLOGY	3,336	188	2,789	13	153	204	2,141	19	52	99	108
Clinical	1,221	44	1,044	7	62	83	784	8	14	51	35
Cognitive & psycholinguistics	144	19	120	0	11	1	98	0	1	3	6
Comparative	6	0	6	0	0	0	6	0	0	0	0
Counseling	511	17	456	3	23	47	330	5	16	14	18
Developmental & child	186	12	144	0	8	9	113	0	4	3	7
Human/individual & family development	144	15	121	0	2	7	102	0	0	3	7
Experimental	88	13	75	0	3	2	67	0	1	0	2
Educational	74	5	63	0	5	9	46	0	0	1	2
Family & marriage counseling	31	1	30	0	1	3	24	0	1	1	0
Industrial & organizational	158	11	134	0	7	7	105	2	2	5	6
Personality	18	3	14	0	1	2	8	0	0	1	2
Physiological/psychobiology	83	10	72	0	6	4	57	1	1	1	2
Quantitative	29	5	23	0	2	0	19	0	0	2	0
School	87	1	83	0	1	7	71	0	1	1	2
Social	163	10	148	1	11	6	114	0	7	6	3
Psychology, general	226	13	140	0	7	13	96	1	2	7	14
Psychology, other	167	9	116	2	3	4	101	2	2	0	2
SOCIAL SCIENCES	3,459	999	2,303	8	140	152	1,793	17	44	47	102
Anthropology	529	62	442	2	23	15	339	3	14	18	28
Area studies	18	5	12	0	0	4	5	0	2	0	1
Criminology	69	3	66	0	2	5	57	0	1	0	1
Demography/population studies	19	7	12	0	0	3	8	0	0	0	1
Economics	942	536	352	0	39	19	271	1	3	6	13
Econometrics	18	13	5	0	0	1	4	0	0	0	0
Geography	192	39	144	1	4	3	124	1	1	1	9
International relations/affairs	99	32	65	0	2	2	57	1	1	2	0
Political science & government	586	88	470	0	30	33	372	5	8	7	15
Public policy analysis	145	35	105	0	4	11	83	0	0	1	6

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Sociology	579	103	454	2	28	34	350	4	13	10	13
Social sciences, statistics	31	17	11	0	2	1	8	0	0	0	0
Urban affairs/studies	84	28	53	0	2	7	36	2	1	0	5
Social sciences, general	32	6	24	1	2	4	14	0	0	2	1
Social sciences, other	116	25	88	2	2	10	65	0	0	0	9
HUMANITIES	5,467	841	4,364	16	225	183	3,531	37	80	113	179
HISTORY	975	85	858	3	30	50	696	5	20	8	46
American	402	16	384	1	8	28	324	1	8	2	12
Asian	66	19	46	0	16	0	26	0	0	0	4
European	222	20	202	0	2	0	190	0	1	0	9
African	21	3	17	1	1	5	9	0	0	0	1
Latin American	47	8	39	0	0	2	22	3	4	4	4
History/philosophy of science & technology	48	5	42	0	2	1	33	0	2	0	4
History, general	55	3	41	1	0	2	31	1	0	1	5
History, other	114	11	87	0	1	12	61	0	5	1	7
LETTERS	1,665	251	1,335	5	65	63	1,088	6	19	25	64
Letters, classics	70	7	61	0	2	0	55	0	0	0	4
Letters, comparative literature	175	45	123	1	12	6	82	0	3	7	12
Folklore	22	4	18	0	0	0	16	0	1	0	1
Linguistics	253	108	137	0	14	3	106	0	3	6	5
Literature, American	350	22	324	1	14	31	253	4	3	4	14
Literature, English	425	35	386	1	19	10	338	1	5	4	8
English language	158	16	104	1	1	8	85	1	0	2	6
Speech & rhetorical studies	127	6	116	1	3	4	94	0	3	1	10
Letters, general	19	2	14	0	0	0	12	0	0	1	1
Letters, other	66	6	52	0	0	1	47	0	1	0	3
FOREIGN LANGUAGES & LITERATURE	586	127	432	2	13	12	314	13	18	47	13
French	123	25	98	1	1	5	86	0	0	1	4
German	56	10	44	0	2	1	40	0	0	1	0
Italian	39	13	23	0	1	1	18	0	0	0	3
Spanish	240	53	177	1	1	3	97	13	18	44	0
Russian	25	2	23	0	1	0	21	0	0	0	1
Slavic (other than Russian)	8	0	8	0	0	0	8	0	0	0	0
Chinese	15	7	8	0	0	0	6	0	0	0	2
Japanese	14	2	11	0	4	0	7	0	0	0	0
Arabic	7	1	5	0	0	0	5	0	0	0	0
Other languages & literature	59	14	35	0	3	2	26	0	0	1	3

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
OTHER HUMANITIES	2,241	378	1,739	6	117	58	1,433	13	23	33	56
American studies	115	7	107	3	5	8	70	2	4	4	11
Archeology	34	7	27	0	0	2	23	0	1	1	0
Art history/criticism/conservation	247	27	208	2	10	2	178	1	3	4	8
Music	850	198	592	0	56	11	490	7	5	8	15
Philosophy	363	56	295	0	10	8	259	0	1	6	11
Religion	388	53	325	1	29	13	272	2	3	2	3
Drama/theater arts	91	6	83	0	1	6	69	1	2	2	2
Humanities, general	17	1	14	0	1	1	11	0	0	1	0
Humanities, other	136	23	88	0	5	7	61	0	4	5	6
EDUCATION	6,635	627	5,417	46	155	787	4,006	56	129	86	152
RESEARCH AND ADMINISTRATION	5,137	403	4,301	38	120	628	3,185	42	112	68	108
Curriculum & instruction	970	103	805	10	20	112	597	13	20	7	26
Educational administration & supervision	740	37	662	6	17	116	478	4	18	7	16
Educational leadership	1,596	51	1,305	13	25	240	939	9	32	23	24
Educational/instructional media design	192	47	129	0	6	12	101	3	1	2	4
Educational statistics/research methods	64	16	47	2	4	2	38	0	1	0	0
Educational assessment/testing/measure	57	20	37	1	2	3	29	0	0	2	0
Educational psychology	262	22	220	2	11	16	171	1	6	5	8
School psychology	113	6	105	0	1	5	85	3	4	5	2
Social/philosophical foundations of education	135	21	110	1	6	15	76	0	5	4	3
Special education	287	33	242	1	9	19	198	3	2	4	6
Counseling education/counseling & guidance	182	13	160	0	5	27	115	2	2	3	6
Higher education/evaluation & research	539	34	479	2	14	61	358	4	21	6	13
TEACHER EDUCATION	269	30	215	1	4	37	155	3	3	5	7
Pre-elementary/early childhood	37	7	30	1	0	4	19	1	0	3	2
Elementary	65	8	47	0	2	8	32	0	3	0	2
Secondary	26	1	24	0	0	7	17	0	0	0	0
Adult & continuing	141	14	114	0	2	18	87	2	0	2	3
TEACHING FIELDS	757	152	581	3	26	59	462	7	5	6	13
Agricultural education	21	4	14	0	0	1	13	0	0	0	0
Art education	38	9	28	0	3	2	21	0	1	0	1
Business education	7	1	6	0	1	1	4	0	0	0	0
English education	45	12	33	0	0	1	29	2	0	0	1
Foreign languages education	62	38	22	0	3	3	15	0	1	0	0
Health education	43	3	37	1	2	7	24	0	1	0	2
Family & consumer sci./home economics education	15	5	10	0	0	3	7	0	0	0	0
Mathematics education	91	16	73	0	0	7	58	4	0	2	2

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Music education	93	15	76	0	6	6	60	1	0	1	2
Nursing education	10	0	10	0	0	1	9	0	0	0	0
Physical education & coaching	68	14	48	0	4	2	40	0	0	0	2
Reading education	84	2	81	1	2	6	70	0	0	2	0
Science education	86	21	63	0	3	5	52	0	0	1	2
Social science education	21	4	17	0	1	0	16	0	0	0	0
Trade & industrial education	18	2	14	0	0	1	13	0	0	0	0
Teacher education & prof. dev.	55	6	49	1	1	13	31	0	2	0	1
OTHER EDUCATION	472	42	320	4	5	63	204	4	9	7	24
Education, general	196	25	118	3	2	32	69	1	3	2	6
Education, other	276	17	202	1	3	31	135	3	6	5	18
PROFESSIONAL/OTHER FIELDS	2,614	774	1,591	10	112	180	1,161	13	18	32	65
BUSINESS MGMT./ADMINISTRATIVE SERVICES	1,264	472	653	5	56	70	461	6	8	16	31
Accounting	131	51	78	1	7	11	50	1	1	3	4
Banking/financial support services	106	70	36	1	5	2	26	0	0	0	2
Business administration & management	372	107	189	1	15	22	132	1	4	5	9
Business/managerial economics	60	30	27	0	6	2	17	0	1	0	1
International business	35	13	17	0	0	4	12	0	1	0	0
Management information systems/business data	94	45	47	0	6	2	35	1	0	1	2
Marketing management & research	134	64	62	0	7	4	41	2	1	2	5
Human resources development	86	17	60	0	1	8	46	0	0	4	1
Operations research	51	36	14	0	2	0	12	0	0	0	0
Organizational behavior	124	20	92	1	3	14	68	1	0	1	4
Business management/administration serv., general	23	6	7	0	0	0	7	0	0	0	0
Business management/administration serv., other	48	13	24	1	4	1	15	0	0	0	3
COMMUNICATIONS	450	107	325	2	16	27	258	3	3	3	13
Communications research	60	6	53	1	1	2	48	0	0	0	1
Mass communications	187	66	116	1	8	11	90	1	2	1	2
Communication theory	49	4	44	0	2	3	35	0	1	0	3
Communications, general	75	14	55	0	3	2	45	1	0	2	2
Communications, other	79	17	57	0	2	9	40	1	0	0	5
OTHER PROFESSIONAL FIELDS	897	195	612	3	40	83	442	4	7	13	20
Architectural environmental design	66	34	28	0	5	0	20	0	0	0	3
Home economics	43	14	29	0	2	6	20	1	0	0	0
Law	56	20	15	0	0	1	12	0	1	0	1
Library science	23	6	17	0	1	3	13	0	0	0	0
Parks/recreation/leisure/fitness	82	34	41	0	1	4	31	0	0	2	3
Public administration	116	18	92	2	2	18	63	1	2	3	1

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2004

Subfield of study	Total doctorate recipients [b]	Non-U.S. citizen temporary visa holders	U.S. citizens and non-U.S. citizen permanent residents [a]								
			Total	American Indian [c]	Asian [d]	Black	White	Puerto Rican	Mexican	Other Hispanic	Other/ unknown race [e]
Social work	304	33	252	1	13	43	178	1	4	5	7
Theology/religious education	156	22	110	0	14	4	86	1	0	2	3
Professional fields, other	51	14	28	0	2	4	19	0	0	1	2
OTHER FIELDS	3	0	1	0	0	0	0	0	0	0	1

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 2,611 individuals who did not report their citizenship at time of doctorate. See the "Important Notice" for discussion of item response rate issues.

[c] Includes Alaska 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, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all doctorates

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Number in field		42,155	1,351	1,987	687	1,075	949	6,049	5,776	702	5,235	1,730	1,152	8,819	3,336	960
Sex	%															
Male		54.5	82.9	68.0	65.2	71.6	78.9	73.4	82.2	57.8	53.0	31.4	62.5	50.4	32.6	70.4
Female		45.3	17.0	31.7	34.8	28.4	20.5	26.4	17.6	42.0	46.8	68.2	37.1	49.4	67.3	29.4
Unknown [b]		0.2	0.1	0.3	0.0	0.0	0.5	0.2	0.2	0.1	0.2	0.3	0.4	0.2	0.1	0.2
Citizenship	%															
U.S. citizenship		62.7	46.5	55.9	60.4	42.3	41.9	49.7	33.6	64.7	66.9	69.2	49.1	64.8	81.7	32.9
Non-U.S., permanent resident		3.6	3.4	3.5	3.3	5.1	5.3	4.0	4.2	4.4	3.8	4.2	3.4	3.9	1.9	4.3
Non-U.S., temporary visa holder		27.5	46.2	36.2	32.6	48.9	48.4	42.2	57.2	27.5	24.2	21.2	41.1	26.1	5.6	57.2
Unknown		6.2	3.9	4.4	3.6	3.6	4.4	4.1	5.1	3.4	5.0	5.4	6.4	5.2	10.8	5.6
Marital status	%															
Never married		26.3	39.1	34.8	28.2	39.0	30.3	35.1	31.6	38.0	30.2	23.9	23.3	28.7	25.6	31.7
Married		51.9	45.5	47.4	53.0	46.0	53.3	48.3	54.0	46.9	50.6	53.1	55.9	51.5	44.4	49.9
Separated		0.8	0.7	----	----	0.9	----	----	----	----	----	----	----	0.6	0.7	----
Divorced		4.5	2.1	2.1	3.8	3.2	2.5	2.5	2.1	2.0	3.0	6.1	3.5	3.6	4.9	2.6
Marriage-like relationship		5.8	5.9	6.0	7.1	4.4	3.9	5.5	3.5	6.1	7.3	4.7	3.8	6.2	8.1	5.0
Widowed		0.3	0.0	----	----	0.0	----	----	----	----	----	----	----	0.1	0.2	----
Unknown		10.4	6.7	8.8	7.1	6.5	9.2	7.8	8.4	6.6	8.4	10.8	12.7	9.3	16.0	10.4
Median age at doctorate	Yrs	33.3	30.4	29.5	32.4	30.4	32.3	30.6	31.4	29.7	30.9	36.7	33.5	31.7	32.3	31.7
Bachelor's in same field as doctorate	%	52.5	74.3	72.7	52.4	70.7	43.8	65.9	75.6	29.3	53.5	42.1	46.4	48.4	62.1	58.3
Percent with master's	%	73.9	68.2	42.6	71.8	76.7	82.1	63.9	81.3	31.2	40.3	80.8	79.3	52.6	77.2	77.9
Median time lapse from baccalaureate to doctorate	Yrs															
Since baccalaureate		10.0	7.5	6.7	9.0	7.8	9.4	7.8	8.4	7.0	8.1	12.7	10.0	8.7	8.9	9.0
Since starting graduate school		8.0	6.7	5.7	7.7	6.7	7.8	6.7	7.2	6.1	6.7	9.3	7.9	7.0	7.0	7.0
Postdoctoral plans	%															
Definite postdoctoral study		24.0	51.1	45.2	40.3	34.4	15.4	39.4	22.5	58.5	56.6	20.5	28.2	46.3	32.6	7.6
Definite employment		44.0	18.4	24.6	29.0	38.6	53.7	30.7	39.4	6.7	13.2	49.9	37.6	22.8	37.6	69.5
Seeking employment or study		28.6	29.2	27.8	27.7	24.0	27.8	27.4	35.3	31.8	26.6	26.7	31.3	27.6	26.0	19.6
Other/unknown [c]		3.4	1.3	2.4	3.0	3.1	3.0	2.4	2.7	3.1	3.6	2.9	2.8	3.3	3.8	3.3
Definite postdoctoral study [d]	%	35.3	73.5	64.7	58.1	47.1	22.3	56.2	36.3	89.7	81.0	29.2	42.9	67.0	46.4	9.8
Fellowship		18.7	30.5	32.1	26.0	27.5	8.5	26.6	12.4	56.2	46.8	18.3	12.9	37.9	33.0	5.3
Research associateship		13.0	41.2	30.0	31.0	17.5	12.5	27.6	21.8	26.0	22.6	6.9	27.9	20.5	7.4	2.6
Traineeship		0.7	----	0.7	----	1.0	----	0.5	0.8	0.9	1.2	1.0	1.2	1.1	1.3	0.6
Intern, clinical residency		1.1	----	0.5	----	----	----	0.4	0.2	2.1	4.4	1.3	0.0	3.1	3.5	0.0
Other study		1.8	1.0	1.5	0.9	----	1.0	1.1	1.1	4.4	6.0	1.6	0.9	4.4	1.2	1.4
Definite employment after doctorate [e]	%	64.7	26.5	35.3	41.9	52.9	77.7	43.8	63.7	10.3	19.0	70.8	57.1	33.0	53.6	90.2
Educational institution [f]		43.4	8.7	8.2	19.2	39.6	43.0	20.7	17.0	4.7	9.4	47.3	25.2	18.3	30.1	54.1
Industry/business		11.7	12.5	22.5	11.8	9.9	27.7	17.5	35.8	4.4	4.8	10.5	14.4	7.0	9.8	13.0
Government		5.1	3.0	2.2	8.6	2.5	4.6	3.5	7.4	0.9	3.4	6.4	12.9	4.9	6.5	14.2
Nonprofit		3.6	1.7	1.7	----	----	----	1.6	2.6	----	1.0	5.8	3.9	2.2	6.4	4.4
Other & unknown		0.9	0.6	0.6	----	----	----	0.4	0.9	----	0.4	0.8	0.8	0.5	0.8	4.4

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all doctorates

Characteristics		Anthropology & sociology	Political sci./ Internatn'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		1,108	685	706	6,795	27,439	975	350	583	586	2,973	5,467	6,635	1,264	1,347	2,614	14,716
Sex	%																
Male		42.9	65.7	50.1	44.8	60.8	58.4	40.0	38.6	37.5	49.5	48.1	34.2	63.6	44.7	53.9	42.8
Female		56.9	34.2	49.6	55.1	39.0	41.5	60.0	61.4	62.5	50.3	51.8	65.7	35.9	55.0	45.8	57.0
Unknown [b]		0.3	0.1	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.5	0.3	0.4	0.2
Citizenship	%																
U.S. citizenship		77.9	72.8	67.7	71.8	56.7	84.8	90.9	81.5	63.1	70.6	74.8	80.0	47.6	65.8	57.0	74.0
Non-U.S., permanent resident		3.0	5.3	5.2	3.1	3.8	3.2	1.7	2.6	10.6	5.4	5.0	1.7	4.0	3.8	3.9	3.3
Non-U.S., temporary visa holder		14.9	17.5	23.4	17.5	34.1	8.7	6.3	8.7	21.7	18.7	15.4	9.4	37.3	22.4	29.6	15.2
Unknown		4.2	4.4	3.7	7.6	5.5	3.3	1.1	7.2	4.6	5.3	4.8	8.9	11.0	8.0	9.5	7.5
Marital status	%																
Never married		25.2	25.3	22.2	26.0	30.0	25.5	30.9	27.8	24.7	25.9	26.2	13.2	19.3	20.3	19.8	19.2
Married		49.0	55.6	54.0	48.1	50.5	54.7	48.9	44.8	50.9	49.8	50.2	58.3	56.7	52.2	54.3	54.6
Separated		----	----	----	0.9	0.6	----	----	----	----	0.9	1.2	1.3	----	1.1	0.9	1.2
Divorced		6.1	3.8	7.5	5.0	3.4	4.2	5.7	5.0	3.8	5.7	5.2	8.3	3.7	6.1	4.9	6.5
Marriage-like relationship		10.9	6.1	5.7	7.7	5.9	7.2	12.0	7.2	9.0	8.0	8.2	4.0	3.2	5.3	4.3	5.6
Widowed		----	----	----	0.3	0.1	----	----	----	----	0.3	0.3	0.9	----	1.0	0.6	0.6
Unknown		6.9	7.4	9.1	12.2	9.5	7.0	----	13.9	8.0	9.4	8.8	14.0	16.2	14.0	15.2	12.3
Median age at doctorate	Yrs	35.1	34.2	35.5	33.1	31.7	35.1	34.7	34.5	34.7	35.2	35.0	43.1	35.8	38.0	37.0	38.0
Bachelor's in same field as doctorate	%	47.2	55.8	24.9	54.6	59.5	55.1	33.7	59.7	46.8	55.2	53.4	31.2	33.0	30.4	31.6	39.5
Percent with master's	%	85.7	82.8	87.5	80.4	68.0	87.4	90.0	80.8	85.7	85.2	85.5	85.6	76.8	88.0	82.5	85.0
Median time lapse from baccalaureate to doctorate	Yrs																
Since baccalaureate		11.5	11.1	11.6	9.8	8.7	11.6	11.8	11.3	11.0	12.0	11.7	17.7	12.1	13.9	13.0	13.6
Since starting graduate school		9.2	8.9	9.2	7.9	7.2	9.7	9.7	9.2	8.7	9.7	9.7	12.7	9.7	10.4	10.0	10.7
Postdoctoral plans	%																
Definite postdoctoral study		16.5	8.8	10.8	21.3	33.7	9.5	7.5	5.0	5.8	6.9	7.1	4.4	2.6	5.1	3.9	5.3
Definite employment		45.9	61.1	56.9	48.2	34.2	53.0	54.8	60.2	60.5	52.3	54.3	67.7	76.0	64.7	70.1	62.9
Seeking employment or study		34.5	26.5	29.3	27.0	29.1	33.6	34.5	30.8	30.1	36.5	34.6	23.5	17.8	26.9	22.6	27.6
Other/unknown [c]		3.2	3.5	3.0	3.5	3.0	3.8	3.2	4.0	3.7	4.2	4.0	4.4	3.6	3.4	3.5	4.1
Definite postdoctoral study [d]	%	26.4	12.6	16.0	30.7	49.6	15.3	12.1	7.7	8.7	11.7	11.6	6.0	3.3	7.3	5.3	7.8
Fellowship		19.4	9.5	9.0	21.4	26.3	12.3	10.7	6.5	4.2	7.7	8.2	2.2	1.4	2.6	2.0	4.2
Research associateship		5.6	2.3	5.3	5.6	18.7	1.8	----	1.2	1.4	1.8	1.6	2.1	1.3	3.2	2.3	2.0
Traineeship		----	----	----	0.8	0.9	0.0	0.0	0.0	1.1	----	0.3	0.4	----	----	----	0.3
Intern, clinical residency		----	----	----	1.7	1.6	0.0	----	0.0	----	----	0.2	0.3	----	----	----	0.2
Other study		1.1	----	1.2	1.2	2.2	1.2	----	0.0	----	1.6	1.3	1.1	----	1.4	0.9	1.1
Definite employment after doctorate [e]	%	73.6	87.4	84.0	69.3	50.4	84.7	87.9	92.3	91.3	88.3	88.4	94.0	96.7	92.7	94.7	92.2
Educational institution [f]		57.3	65.2	54.4	44.5	25.1	70.9	83.3	87.0	87.1	74.6	77.3	81.2	79.1	67.5	73.4	78.4
Industry/business		5.2	----	7.2	8.8	15.5	2.5	3.3	2.8	2.0	4.5	3.5	3.6	11.3	6.4	8.9	4.6
Government		5.6	10.8	9.7	8.4	5.9	6.3	0.0	----	----	1.5	2.1	4.0	4.6	6.9	5.7	3.6
Nonprofit		5.0	5.4	10.0	6.1	3.1	4.0	----	1.9	1.1	6.9	4.7	3.8	----	9.6	5.4	4.4
Other & unknown		0.5	----	2.8	1.5	0.8	1.1	----	----	----	0.9	0.8	1.4	----	2.2	1.3	1.1

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all doctorates

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Employment commitments after doctorate [g]																
Primary activity [h]	%															
R & D		31.2	61.5	71.0	41.6	42.6	63.7	58.1	70.3	47.7	45.3	34.7	48.1	41.5	21.0	55.8
Teaching		41.4	19.9	18.9	29.7	50.3	27.2	29.6	14.2	29.5	30.3	39.3	26.4	33.2	24.4	29.4
Administration		15.7	4.9	2.8	10.3	2.1	5.8	4.5	5.8	9.1	7.9	12.2	10.9	10.3	8.9	6.8
Professional services		9.8	8.4	5.1	14.6	3.9	2.4	5.6	8.7	11.4	13.7	12.2	12.0	12.7	43.9	6.7
Other		1.9	5.3	2.3	3.8	1.1	0.9	2.2	1.0	2.3	2.7	1.6	2.7	2.2	1.9	1.4
Secondary activity [h]	%															
R & D		34.3	23.9	16.8	41.6	47.1	27.9	30.3	19.8	22.7	29.0	36.2	31.3	32.3	29.2	32.4
Teaching		18.9	4.9	3.2	11.9	24.7	27.0	15.7	15.1	9.1	14.4	22.1	18.5	18.3	20.8	31.6
Administration		11.8	14.2	27.8	8.6	5.8	8.8	13.8	18.7	27.3	20.2	15.1	17.4	17.7	13.0	8.7
Professional services		8.2	11.1	6.7	----	----	----	6.6	7.6	9.1	8.9	9.1	10.3	9.3	11.2	5.1
Other		2.0	4.9	0.5	----	----	----	1.0	1.2	4.5	3.1	2.3	1.1	2.4	2.5	1.0
No secondary activity		24.8	41.2	45.1	28.6	16.8	31.4	32.7	37.6	27.3	24.5	15.1	21.5	20.0	23.3	21.2
Activity(ies) unknown		2.0	2.2	2.5	0.0	1.6	1.5	1.7	2.7	0.0	2.5	2.5	2.4	2.4	2.3	1.5
Region of employment after doctorate	%															
New England		5.9	9.5	10.5	5.9	4.7	4.6	7.0	6.0	18.2	7.1	6.5	2.9	6.3	5.3	7.7
Middle Atlantic		13.4	18.6	19.1	7.0	19.7	18.3	17.6	10.5	13.6	13.7	12.0	7.7	11.7	18.0	12.9
East North Central		12.8	6.1	13.2	5.9	14.5	6.8	10.0	11.3	11.4	13.1	13.9	9.8	12.7	14.4	7.6
West North Central		6.3	4.3	4.0	5.4	5.2	3.1	4.2	2.6	6.8	5.2	4.8	11.4	6.4	7.8	2.7
South Atlantic		18.0	13.0	14.6	13.0	18.1	20.0	16.5	13.0	13.6	17.8	18.3	14.9	17.3	19.1	22.0
East South Central		4.8	5.2	3.6	4.3	4.1	3.3	3.9	2.9	0.0	2.7	6.9	5.6	5.0	3.6	1.7
West South Central		8.5	5.2	6.1	19.5	5.7	5.4	7.1	8.6	13.6	6.6	9.5	10.3	8.8	8.6	3.7
Mountain		5.7	8.7	5.6	10.3	4.4	4.4	5.9	6.3	2.3	4.7	6.0	5.3	5.3	6.4	2.0
Pacific & insular		13.5	20.8	17.9	13.5	13.2	19.4	17.2	21.3	13.6	15.7	10.6	7.4	11.8	13.1	8.7
Foreign		11.1	8.2	5.2	15.1	10.4	14.8	10.4	17.4	6.8	13.4	11.2	24.7	14.7	3.6	30.8
Region unknown		0.1	0.4	0.2	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.2

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all doctorates

Characteristics		Anthropology & sociology	Political sci./ Internatn'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
Employment commitments after doctorate [g]																	
Primary activity [h]	%																
R & D		32.5	24.8	33.1	32.2	48.7	15.4	8.0	6.4	10.6	9.9	10.5	7.7	41.2	18.2	30.2	12.9
Teaching		51.9	55.4	43.4	36.6	29.0	69.1	81.9	82.0	83.5	74.9	76.2	41.2	43.6	53.5	48.3	54.3
Administration		7.4	11.6	15.1	9.4	7.7	9.3	5.9	6.1	4.7	5.7	6.2	41.0	10.5	15.5	12.9	24.0
Professional services		5.4	5.3	6.2	19.8	12.7	3.8	2.1	4.1	----	5.1	4.0	8.8	3.7	10.4	6.9	6.8
Other		2.8	2.9	2.2	2.1	1.9	2.5	2.1	1.4	----	4.5	3.1	1.3	1.1	2.3	1.7	2.0
Secondary activity [h]	%																
R & D		45.7	51.2	40.6	37.0	30.5	53.7	52.1	59.3	66.7	48.8	53.2	26.0	37.8	47.5	42.4	38.2
Teaching		20.1	19.8	21.8	22.9	18.6	13.9	9.6	9.2	11.5	13.6	12.6	18.9	40.7	22.8	32.1	19.3
Administration		11.0	7.7	10.6	10.8	14.8	6.3	9.0	5.8	3.4	8.8	7.4	10.1	5.9	9.3	7.6	8.7
Professional services		4.8	4.7	8.1	7.6	7.8	4.8	3.7	2.4	----	5.4	4.3	12.4	5.2	8.1	6.6	8.6
Other		2.2	0.8	1.4	1.8	1.6	1.7	4.8	3.1	----	4.7	3.7	2.1	0.9	1.1	1.0	2.4
No secondary activity		16.2	15.8	17.4	19.9	26.8	19.6	20.7	20.3	15.6	18.8	18.8	30.5	9.6	11.2	10.4	22.7
Activity(ies) unknown		1.9	2.1	1.7	2.0	2.2	1.7	0.5	1.3	1.5	1.6	1.5	1.9	1.2	2.8	2.0	1.8
Region of employment after doctorate	%																
New England		6.8	4.9	7.2	6.2	6.3	7.2	7.9	8.7	8.9	5.8	6.9	4.4	6.9	3.7	5.3	5.4
Middle Atlantic		13.8	12.4	10.5	14.6	13.6	13.9	22.8	18.7	18.7	14.7	16.0	11.3	11.0	14.0	12.4	13.1
East North Central		14.9	15.0	11.8	12.8	11.8	12.6	15.9	16.7	12.0	14.8	14.3	13.6	13.0	13.7	13.3	13.8
West North Central		4.9	6.2	7.4	6.0	4.9	5.8	5.8	4.0	6.4	8.2	6.9	8.6	5.0	8.9	6.9	7.7
South Atlantic		14.0	18.3	22.3	19.2	16.7	20.5	14.3	15.1	16.9	15.3	16.3	22.3	16.5	18.9	17.7	19.4
East South Central		3.4	5.7	5.5	3.7	3.8	5.2	6.3	8.0	4.3	3.9	4.8	6.7	4.7	5.9	5.3	5.8
West South Central		5.3	8.0	6.1	6.6	7.7	9.5	6.3	7.0	7.7	8.8	8.4	9.7	10.8	9.1	10.0	9.3
Mountain		7.6	4.7	5.2	5.3	5.7	5.4	5.8	3.7	4.0	5.1	4.9	7.0	3.7	3.9	3.8	5.7
Pacific & insular		16.6	13.4	13.2	12.8	15.5	11.8	11.1	14.4	14.1	12.5	12.7	10.8	11.3	9.2	10.3	11.3
Foreign		12.7	11.4	10.7	12.7	13.8	8.1	3.7	3.7	7.1	10.9	8.6	5.5	17.0	12.7	14.9	8.3
Region unknown		0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Physical sciences includes mathematics and computer sciences.

[b] Includes 81 respondents not reporting sex.

[c] Includes recipients who indicated that they did not plan to work or study and a small number of recipients who indicated some other type of postdoctoral plans.

[d] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

[e] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

[f] Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

[g] Includes only recipients with definite employment plans.

[h] Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all males

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Number in field		22,976	1,120	1,352	448	770	749	4,439	4,750	406	2,775	544	720	4,445	1,086	676
Males as percent of total doctorates	%	54.5	82.9	68.0	65.2	71.6	78.9	73.4	82.2	57.8	53.0	31.4	62.5	50.4	32.6	70.4
Citizenship	%															
U.S. citizenship		56.5	46.5	56.6	56.3	41.9	41.3	48.9	32.2	64.5	65.7	59.7	49.0	62.1	80.8	31.2
Non-U.S., permanent resident		3.3	3.0	2.4	2.5	4.3	4.8	3.3	3.9	3.9	3.2	3.9	2.6	3.2	1.7	3.8
Non-U.S., temporary visa holder		34.3	47.1	35.9	36.6	49.7	50.3	43.6	59.2	28.1	25.5	30.7	41.5	29.0	6.5	58.7
Unknown		5.9	3.4	5.0	4.7	4.0	3.6	4.2	4.8	3.4	5.7	5.7	6.8	5.6	11.0	6.2
Marital status	%															
Never married		27.0	39.5	34.2	26.6	38.3	31.4	35.0	31.4	40.1	28.6	23.3	21.7	27.9	24.2	30.3
Married		54.2	46.1	48.2	55.1	47.9	54.2	49.3	54.7	45.6	52.1	54.0	58.1	52.7	47.3	51.5
Separated		0.6	0.8	----	----	0.8	----	0.6	----	----	----	1.7	1.0	----	----	0.0
Divorced		2.8	1.8	1.8	3.3	2.2	2.3	----	1.9	1.7	2.7	2.8	1.7	2.4	3.4	2.7
Marriage-like relationship		5.2	5.8	5.8	6.0	4.0	4.0	5.2	3.4	5.7	7.0	5.3	3.2	6.1	8.0	4.7
Widowed		0.1	0.0	----	----	0.0	----	----	----	----	----	0.0	0.0	----	----	0.0
Unknown		10.1	6.1	9.4	8.3	6.8	7.7	7.7	8.2	6.7	9.1	12.9	14.4	10.2	16.8	10.8
Median age at doctorate	Yrs	32.8	30.6	29.6	33.0	30.5	32.2	30.8	31.6	30.0	31.1	34.7	33.8	31.7	32.7	32.1
Bachelor's in same field as doctorate	%	55.4	74.6	72.0	53.8	68.3	45.4	65.7	76.5	30.8	51.7	32.5	50.7	47.3	62.3	56.5
Percent with master's	%	73.0	68.6	42.8	73.2	74.3	83.3	64.7	82.4	33.5	40.5	75.4	79.4	50.5	74.4	78.7
Median time lapse from baccalaureate to doctorate	Yrs															
Since baccalaureate		9.5	7.6	6.8	9.4	7.8	9.3	7.9	8.5	7.1	8.2	10.8	10.4	8.6	8.7	9.0
Since starting graduate school		7.7	6.7	5.9	8.2	6.5	7.7	6.7	7.2	6.3	6.7	8.2	8.0	6.9	7.0	7.0
Postdoctoral plans	%															
Definite postdoctoral study		26.0	51.5	47.7	40.1	34.4	15.3	40.1	22.1	62.3	58.6	21.5	27.0	49.8	33.9	7.5
Definite employment		42.6	18.7	23.4	31.1	37.8	54.1	30.7	40.1	5.3	13.2	51.4	40.1	21.1	39.1	69.2
Seeking employment or study		28.4	28.5	26.2	26.2	24.9	27.9	26.8	35.4	30.1	24.1	24.1	30.9	25.7	24.2	21.0
Other/unknown [b]		3.0	1.3	2.6	2.7	2.9	2.6	2.4	2.5	2.4	4.1	3.0	2.0	3.5	2.8	2.3
Definite postdoctoral study [c]	%	37.9	73.3	67.0	56.4	47.7	22.0	56.7	35.5	92.2	81.6	29.5	40.3	70.3	46.4	9.8
Fellowship		18.7	30.3	33.3	27.5	29.0	8.6	27.1	12.1	57.0	44.2	18.4	10.7	37.4	30.4	5.4
Research associateship		15.4	41.1	31.0	28.2	16.5	11.9	27.6	21.3	25.0	23.2	5.8	27.4	21.9	9.3	2.2
Traineeship		0.7	0.3	----	----	1.2	----	0.6	0.9	1.6	1.3	1.5	1.0	1.3	1.2	0.9
Intern, clinical residency		1.2	0.5	----	----	----	----	0.3	0.3	3.1	5.6	2.0	0.0	4.1	4.1	0.0
Other study		1.9	1.1	1.6	----	----	1.0	1.1	1.0	5.5	7.3	1.8	1.2	5.6	1.4	1.3
Definite employment after doctorate [d]	%	62.1	26.7	33.0	43.6	52.3	78.0	43.3	64.5	7.8	18.4	70.5	59.7	29.7	53.6	90.2
Educational institution [e]		36.9	8.3	6.5	19.6	36.8	39.4	19.1	16.3	3.1	8.8	40.4	25.5	14.5	28.2	52.7
Industry/business		15.2	12.9	22.2	12.4	11.9	31.2	18.5	37.5	4.3	4.8	17.0	16.7	8.0	10.2	12.6
Government		5.7	3.0	2.0	9.6	2.7	4.8	3.6	7.1	----	3.4	7.0	12.6	4.9	7.3	16.3
Nonprofit		3.4	1.8	1.7	2.1	----	----	1.7	2.7	----	1.1	----	----	1.9	7.0	4.3
Other & unknown		0.9	0.7	0.6	0.0	----	----	0.5	0.9	----	0.3	----	----	0.4	0.8	4.3

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all males

Characteristics		Anthropology & sociology	Political sci./ Internatn'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		475	450	354	3,041	16,675	569	140	225	220	1,473	2,627	2,266	804	602	1,408	6,301
Males as percent of total doctorates	%	42.9	65.7	50.1	44.8	60.8	58.4	40.0	38.6	37.5	49.5	48.1	34.2	63.6	44.7	53.9	42.8
Citizenship	%																
U.S. citizenship		76.6	72.0	63.8	65.8	50.8	85.1	87.9	85.3	65.5	73.9	77.3	77.5	47.1	59.1	52.2	71.8
Non-U.S., permanent resident		2.1	4.2	4.8	3.0	3.4	2.8	2.1	0.9	8.6	4.1	3.8	1.5	3.5	3.3	3.4	2.9
Non-U.S., temporary visa holder		17.1	19.6	28.2	24.2	40.6	9.3	8.6	8.0	20.9	16.5	14.2	11.4	39.1	27.4	34.0	17.6
Unknown		4.2	4.2	3.1	7.0	5.3	2.8	1.4	5.8	5.0	5.5	4.7	9.5	10.3	10.1	10.4	7.7
Marital status	%																
Never married		22.7	26.0	22.0	25.4	30.3	24.6	30.0	24.4	25.9	24.4	24.9	11.3	16.8	17.3	17.0	18.2
Married		55.8	57.1	57.6	52.2	52.3	59.8	51.4	49.3	49.1	54.2	54.4	64.8	61.6	56.6	59.4	59.3
Separated		1.5	----	----	----	0.5	0.5	----	----	3.2	----	----	----	----	----	0.6	0.8
Divorced		4.2	2.4	6.2	3.6	2.4	3.2	----	3.6	----	3.8	3.5	4.9	3.4	3.0	3.2	3.9
Marriage-like relationship		8.2	6.4	4.5	6.7	5.2	6.2	12.1	7.6	10.9	8.0	8.0	3.6	2.2	4.2	3.1	5.3
Widowed		0.0	----	----	----	0.1	0.0	----	----	----	----	----	----	----	----	0.6	0.2
Unknown		7.6	6.7	9.0	11.6	9.2	5.8	2.1	14.2	8.6	8.9	8.3	14.3	15.5	16.9	16.3	12.3
Median age at doctorate	Yrs	35.5	34.3	36.2	33.6	31.7	35.4	33.8	34.7	34.4	35.2	35.1	42.2	35.9	38.1	37.1	37.3
Bachelor's in same field as doctorate	%	45.5	54.9	26.3	53.1	61.6	56.8	31.4	60.0	41.4	57.8	55.0	25.2	31.5	31.1	31.3	39.0
Percent with master's	%	84.0	84.9	87.3	79.9	68.7	89.1	87.9	79.1	85.5	84.7	85.4	85.6	77.5	86.5	81.3	84.5
Median time lapse from baccalaureate to doctorate	Yrs																
Since baccalaureate		12.0	11.2	11.8	10.0	8.6	11.7	11.0	11.1	10.4	11.9	11.5	17.2	12.0	13.4	12.7	13.0
Since starting graduate school		9.3	8.9	9.2	8.0	7.2	9.7	9.2	9.1	8.7	9.5	9.3	12.6	9.7	10.3	9.8	10.2
Postdoctoral plans	%																
Definite postdoctoral study		16.8	9.1	10.3	18.5	33.7	9.3	7.3	6.8	4.0	5.3	6.3	4.4	2.2	5.0	3.4	5.0
Definite employment		48.4	61.9	56.7	53.1	34.8	53.2	57.7	63.0	63.0	54.3	55.7	69.7	77.8	64.7	72.2	64.1
Seeking employment or study		31.8	26.1	30.5	25.8	28.8	34.7	33.6	28.6	29.5	36.6	34.8	21.8	16.2	26.9	20.8	27.3
Other/unknown [b]		3.0	2.9	2.5	2.7	2.7	2.8	1.5	1.6	3.5	3.8	3.2	4.1	3.7	3.4	3.6	3.6
Definite postdoctoral study [c]	%	25.8	12.8	15.3	25.8	49.2	14.9	11.2	9.7	6.0	9.0	10.2	5.9	2.8	7.2	4.5	7.3
Fellowship		19.8	9.1	7.9	17.0	24.1	12.5	10.1	8.2	3.0	5.5	7.4	1.6	1.1	2.3	1.6	3.9
Research associateship		4.6	2.7	6.0	5.5	20.3	1.8	0.0	----	----	1.6	1.5	2.4	1.1	4.0	2.3	2.0
Traineeship		----	0.0	----	0.7	0.9	----	----	----	----	----	----	0.3	----	0.0	----	0.2
Intern, clinical residency		----	----	0.0	1.5	1.6	----	----	0.0	0.0	----	----	0.4	0.0	0.0	----	0.2
Other study		1.1	----	----	1.2	2.3	----	----	0.0	----	1.3	0.9	1.1	----	0.9	0.6	0.9
Definite employment after doctorate [d]	%	74.2	87.2	84.7	74.2	50.8	85.1	88.8	90.3	94.0	91.0	89.8	94.1	97.2	92.8	95.5	92.7
Educational institution [e]		54.1	68.2	52.1	46.9	22.3	68.1	86.5	81.3	91.0	74.7	76.0	80.0	77.3	63.6	71.9	76.5
Industry/business		6.7	3.7	7.4	9.0	18.8	3.0	----	4.5	----	4.9	4.0	4.1	13.2	5.7	10.3	5.5
Government		7.4	9.8	11.6	10.4	6.1	9.0	0.0	----	0.0	1.9	3.2	5.1	5.4	7.7	6.3	4.6
Nonprofit		4.9	4.4	10.2	6.0	2.8	3.9	0.0	3.0	----	8.2	5.6	3.7	----	12.9	5.8	4.9
Other & unknown		1.1	1.0	3.3	2.0	0.8	1.2	----	----	0.0	1.4	1.0	1.3	----	2.9	1.2	1.2

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all males

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Employment commitments after doctorate [f]																
Primary activity [g]	%															
R & D		39.5	65.1	75.6	47.2	47.5	67.2	62.5	72.3	50.0	50.0	45.8	48.5	48.4	25.1	57.2
Teaching		36.2	17.2	14.8	27.6	45.7	23.8	25.8	12.7	30.0	25.0	30.5	24.5	26.5	24.6	27.1
Administration		14.1	4.2	2.8	7.9	2.3	6.0	4.4	5.5	10.0	8.2	10.2	11.2	9.7	11.7	8.1
Professional services		8.2	8.3	4.6	15.0	3.0	2.2	5.2	8.6	5.0	14.0	11.0	13.3	12.7	36.8	6.4
Other		2.0	5.2	2.1	2.4	1.5	0.8	2.1	1.0	5.0	2.7	2.5	2.5	2.7	1.8	1.2
Secondary activity [g]	%															
R & D		32.3	22.4	12.4	40.9	43.0	25.1	27.3	18.9	30.0	29.0	30.5	30.7	29.9	28.1	31.3
Teaching		19.4	5.2	3.5	11.8	25.7	26.8	16.3	14.8	10.0	14.9	24.2	19.9	18.9	22.5	33.5
Administration		13.5	15.1	32.2	11.0	----	9.6	15.0	19.5	25.0	24.7	19.1	18.7	21.3	15.2	10.0
Professional services		7.7	11.5	8.1	----	6.4	----	7.5	7.8	5.0	9.8	8.9	8.7	9.1	12.3	----
Other		1.6	4.7	0.4	----	----	----	1.1	1.2	10.0	2.7	2.5	0.8	2.3	2.0	----
No secondary activity		25.5	41.1	43.5	25.2	18.5	33.6	32.9	37.7	20.0	18.9	14.8	21.2	18.4	19.9	20.0
Activity(ies) unknown		2.0	2.0	1.4	0.0	1.5	1.6	1.4	2.8	0.0	1.8	2.1	2.0	1.9	2.6	1.7
Region of employment after doctorate	%															
New England		5.8	9.7	11.1	6.3	5.6	4.0	7.1	6.0	15.0	5.7	5.4	2.4	4.9	5.4	7.9
Middle Atlantic		12.4	16.8	17.8	6.3	19.0	18.5	16.9	10.1	10.0	13.8	9.5	7.7	10.7	16.2	11.3
East North Central		12.3	6.1	11.8	4.7	13.4	7.3	9.2	10.8	15.0	12.9	14.5	8.1	12.0	13.4	7.7
West North Central		6.0	4.1	5.6	4.7	6.3	3.5	4.8	2.7	10.0	6.3	3.3	12.2	7.3	8.8	2.6
South Atlantic		16.7	13.3	12.2	12.6	17.5	18.5	15.4	12.2	15.0	20.1	20.3	12.2	17.7	19.9	20.4
East South Central		4.3	5.6	3.1	5.5	4.5	3.0	4.0	2.5	0.0	1.8	7.9	5.3	4.5	3.4	1.0
West South Central		8.8	5.6	6.6	18.9	5.9	5.4	7.2	9.0	10.0	8.7	11.2	12.6	10.6	9.1	4.8
Mountain		5.6	9.2	6.6	11.0	4.8	4.6	6.5	6.4	5.0	4.5	5.0	4.9	4.8	8.8	1.4
Pacific & insular		14.5	20.9	19.9	13.4	11.9	21.0	18.0	22.0	10.0	11.7	10.8	8.1	10.3	12.0	8.7
Foreign		13.5	8.2	4.9	16.5	11.2	14.2	10.7	18.1	10.0	14.7	12.0	26.4	17.2	2.8	33.9
Region unknown		0.1	0.5	0.3	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all males

Characteristics		Anthropology & sociology	Political sci./ Internatn'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
Employment commitments after doctorate [f]																	
Primary activity [g]	%																
R & D		34.6	25.4	31.8	36.9	56.5	18.1	7.7	3.3	12.7	8.0	10.2	7.4	42.1	15.3	32.0	14.4
Teaching		48.8	55.2	40.8	36.6	24.5	63.5	85.9	82.5	83.3	75.2	74.8	36.3	41.9	55.7	47.2	53.5
Administration		6.8	11.9	18.4	10.8	7.3	11.3	----	----	3.2	4.7	5.9	49.3	11.7	14.3	12.7	24.0
Professional services		6.8	4.8	6.7	13.7	9.8	4.6	----	8.3	----	6.5	5.4	5.7	3.3	11.1	6.3	5.7
Other		2.9	2.8	2.2	2.0	1.8	2.5	----	----	----	5.6	3.7	1.2	1.0	3.5	1.9	2.3
Secondary activity [g]	%																
R & D		47.3	51.2	40.8	37.7	27.8	49.3	64.1	61.7	69.0	48.4	52.7	24.5	35.7	46.5	39.8	38.9
Teaching		22.0	23.0	21.8	25.7	18.8	18.1	11.5	5.0	12.7	11.7	12.5	20.2	41.9	19.1	33.3	20.4
Administration		11.2	8.3	8.4	11.0	16.4	8.2	6.4	7.5	4.8	9.6	8.4	10.2	6.8	11.5	8.6	9.1
Professional services		5.9	----	----	6.9	7.7	4.6	----	2.5	----	5.4	4.4	11.6	4.9	9.2	6.5	7.6
Other		1.5	----	----	1.2	1.3	1.8	----	3.3	----	4.7	3.4	1.4	0.8	1.9	1.2	2.1
No secondary activity		12.2	13.5	19.6	17.6	28.0	18.1	12.8	20.0	11.1	20.3	18.5	32.2	9.9	11.8	10.6	21.8
Activity(ies) unknown		2.4	2.3	1.6	2.1	2.2	1.1	1.3	0.8	0.0	1.8	1.4	2.2	1.3	3.1	2.0	1.8
Region of employment after doctorate	%																
New England		3.3	5.0	6.0	5.9	6.1	7.4	6.3	13.2	8.7	5.4	6.9	4.3	5.9	4.0	5.2	5.5
Middle Atlantic		12.4	10.9	8.8	12.3	12.4	13.0	26.6	15.7	19.0	13.9	15.1	10.0	11.1	12.7	11.7	12.3
East North Central		15.2	15.1	12.1	12.1	11.0	12.6	15.2	19.0	11.9	14.5	14.3	14.7	13.4	13.0	13.2	14.2
West North Central		5.7	7.4	6.6	6.0	4.8	5.3	----	----	5.6	8.2	6.4	9.7	5.6	9.0	6.9	7.7
South Atlantic		13.8	17.8	22.5	19.1	15.7	23.5	15.2	14.9	10.3	15.4	16.6	20.7	15.5	17.6	16.3	18.1
East South Central		2.4	7.0	5.5	3.5	3.4	5.3	5.1	9.1	6.3	4.6	5.3	6.1	5.4	5.9	5.6	5.7
West South Central		6.7	7.8	8.8	7.2	8.3	7.7	3.8	5.8	10.3	10.0	8.8	9.8	9.6	10.2	9.8	9.4
Mountain		7.6	4.3	6.0	5.3	5.9	4.9	2.5	3.3	5.6	5.5	5.0	6.1	4.6	4.3	4.5	5.3
Pacific & insular		17.6	12.4	12.1	11.9	16.4	11.2	16.5	14.0	15.9	11.6	12.5	11.6	11.7	8.0	10.3	11.6
Foreign		15.2	12.4	11.5	16.7	15.8	9.1	6.3	3.3	6.3	10.8	9.1	6.8	17.0	15.4	16.4	10.0
Region unknown		0.0	0.0	0.0	0.1	0.2	0.0	----	----	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Physical sciences includes mathematics and computer sciences.

[b] Includes recipients who indicated that they did not plan to work or study and a small number of recipients who indicated some other type of postdoctoral plans.

[c] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

[d] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

[e] Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

[f] Includes only recipients with definite employment plans.

[g] Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all females

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Number in field		19,098	230	629	239	305	195	1,598	1,014	295	2,452	1,180	427	4,354	2,245	282
Females as percent of total doctorates	%	45.3	17.0	31.7	34.8	28.4	20.5	26.4	17.6	42.0	46.8	68.2	37.1	49.4	67.3	29.4
Citizenship	%															
U.S. citizenship		70.4	46.5	54.8	68.2	43.3	45.6	52.3	40.6	65.1	68.4	74.0	49.9	67.9	82.3	37.2
Non-U.S., permanent resident		4.1	5.2	5.9	5.0	7.2	6.7	6.0	5.7	5.1	4.6	4.4	4.7	4.6	2.0	5.3
Non-U.S., temporary visa holder		19.4	42.2	37.0	25.1	46.9	42.1	38.5	48.5	26.8	22.8	16.9	40.7	23.2	5.2	53.5
Unknown		6.2	6.1	2.2	1.7	2.6	5.6	3.2	5.1	3.1	4.2	4.7	4.7	4.3	10.5	3.9
Marital status	%															
Never married		25.5	37.4	36.6	31.4	40.7	27.2	35.5	32.6	35.3	32.2	24.3	26.2	29.7	26.4	35.1
Married		49.4	43.0	46.1	49.0	41.3	51.3	45.8	51.6	48.8	49.1	53.0	52.9	50.5	43.1	46.5
Separated		1.1	----	----	----	----	----	----	----	----	----	----	----	0.6	0.9	----
Divorced		6.5	3.5	2.5	4.6	5.6	3.6	3.7	3.4	2.4	3.3	7.6	6.6	4.7	5.7	2.5
Marriage-like relationship		6.4	6.5	6.5	9.2	5.2	3.6	6.3	4.0	6.8	7.6	4.4	4.9	6.4	8.2	5.7
Widowed		0.6	----	----	----	----	----	----	----	----	----	----	----	0.2	0.3	----
Unknown		10.5	9.1	6.7	5.0	5.9	12.3	7.3	7.9	6.1	7.3	9.4	8.7	7.9	15.5	8.9
Median age at doctorate	Yrs	33.9	29.8	29.2	31.4	30.4	32.7	30.2	30.6	29.2	30.7	38.3	32.7	31.7	32.2	31.2
Bachelor's in same field as doctorate	%	49.4	73.0	74.9	49.8	76.7	39.0	66.8	72.6	27.5	55.7	46.7	39.6	49.7	62.1	63.1
Percent with master's	%	75.3	67.0	42.6	69.0	83.0	79.0	62.2	77.2	28.1	40.0	83.6	79.6	54.9	78.8	76.2
Median time lapse from baccalaureate to doctorate	Yrs															
Since baccalaureate		10.7	7.1	6.4	8.4	7.9	9.8	7.6	7.9	6.9	8.0	13.9	9.5	8.9	9.0	8.6
Since starting graduate school		8.6	6.4	5.7	7.3	6.7	8.0	6.4	6.7	5.9	6.7	10.2	7.7	7.0	7.0	7.0
Postdoctoral plans	%															
Definite postdoctoral study		21.6	49.3	40.0	40.6	34.3	16.1	37.6	24.4	53.3	54.3	20.1	30.2	42.8	31.9	7.8
Definite employment		45.7	16.7	27.0	25.3	40.5	51.8	30.7	36.5	8.7	13.2	49.2	33.8	24.5	36.9	70.2
Seeking employment or study		28.8	33.0	31.1	30.6	21.8	27.4	29.1	35.2	34.1	29.4	27.8	32.0	29.6	26.9	16.5
Other/unknown [b]		3.9	1.0	1.9	3.5	3.5	4.8	2.6	3.9	4.0	3.1	2.8	4.1	3.2	4.3	5.5
Definite postdoctoral study [c]	%	32.1	74.6	59.6	61.6	45.8	23.7	55.0	40.0	86.0	80.4	29.0	47.2	63.6	46.4	10.1
Fellowship		18.8	31.2	29.4	23.2	24.1	7.9	25.2	13.9	55.0	50.0	18.3	16.5	38.5	34.3	5.0
Research associateship		10.0	42.0	27.7	36.4	19.9	14.9	27.8	23.8	27.5	22.0	7.5	28.6	19.0	6.4	3.5
Traineeship		0.6	----	----	----	----	----	0.4	----	----	1.1	0.8	1.6	1.0	1.4	----
Intern, clinical residency		1.0	----	----	----	----	----	0.4	----	----	2.9	0.9	----	2.0	3.1	----
Other study		1.7	----	1.3	----	----	----	1.2	1.6	2.9	4.4	1.5	----	3.1	1.2	----
Definite employment after doctorate [d]	%	67.9	25.4	40.4	38.4	54.2	76.3	45.0	60.0	14.0	19.6	71.0	52.8	36.4	53.6	89.9
Educational institution [e]		51.4	10.9	11.9	18.5	46.3	57.9	25.3	20.6	7.0	10.1	50.5	24.6	22.3	31.1	57.3
Industry/business		7.4	10.1	23.4	10.6	5.1	13.2	14.6	27.7	4.7	4.8	7.5	10.5	6.0	9.5	14.1
Government		4.4	2.9	2.8	6.6	----	3.5	3.3	8.5	2.3	3.4	6.1	13.3	5.0	6.1	9.5
Nonprofit		3.8	----	----	2.6	----	----	----	2.5	----	0.8	6.1	----	2.5	6.1	4.5
Other & unknown		0.9	----	----	0.0	----	----	----	0.7	----	0.5	0.8	----	0.6	0.8	4.5

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all females

Characteristics		Anthropology & sociology	Political sci./ Internatn'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		630	234	350	3,741	10,707	405	210	358	366	1,495	2,834	4,361	454	741	1,196	8,391
Females as percent of total doctorates	%	56.9	34.2	49.6	55.1	39.0	41.5	60.0	61.4	62.5	50.3	51.8	65.7	35.9	55.0	45.8	57.0
Citizenship	%																
U.S. citizenship		79.2	74.8	72.0	76.9	66.1	84.7	92.9	79.1	61.7	67.7	72.7	81.4	49.1	71.5	63.0	75.8
Non-U.S., permanent resident		3.7	7.3	5.7	3.2	4.4	3.7	1.4	3.6	11.7	6.6	6.1	1.8	5.1	4.2	4.5	3.6
Non-U.S., temporary visa holder		13.3	13.7	18.6	12.0	24.0	7.9	4.8	9.2	22.1	20.9	16.5	8.4	34.8	18.5	24.7	13.5
Unknown		3.8	4.3	3.7	7.9	5.5	3.7	1.0	8.1	4.4	4.8	4.7	8.5	11.0	5.8	7.8	7.1
Marital status	%																
Never married		27.1	23.9	22.6	26.7	29.8	26.9	31.4	29.9	24.0	27.4	27.5	14.3	24.0	22.8	23.2	20.0
Married		44.1	53.0	50.6	44.9	47.9	47.7	47.1	41.9	51.9	45.6	46.4	55.0	48.9	48.9	48.8	51.2
Separated		----	----	----	1.1	0.8	----	----	----	----	1.2	1.6	1.6	----	----	1.3	1.5
Divorced		7.6	6.4	8.9	6.1	4.9	5.7	7.1	5.9	4.9	7.6	6.7	10.0	4.4	8.6	7.0	8.5
Marriage-like relationship		13.0	5.6	6.9	8.5	6.9	8.6	11.9	7.0	7.9	8.1	8.3	4.3	4.8	6.3	5.8	5.8
Widowed		----	----	----	0.5	0.3	----	----	----	----	0.5	0.5	1.3	----	----	0.6	0.9
Unknown		6.0	8.5	8.6	12.3	9.4	8.4	----	13.7	7.7	9.6	9.0	13.6	16.3	11.2	13.2	12.0
Median age at doctorate	Yrs	34.6	33.8	34.9	32.8	31.7	34.4	35.3	34.4	34.7	35.2	34.9	43.6	35.6	38.0	36.9	38.7
Bachelor's in same field as doctorate	%	48.7	57.7	23.7	56.1	56.7	52.8	35.2	59.5	50.0	52.8	52.0	34.4	36.1	30.1	32.4	40.0
Percent with master's	%	87.5	79.1	88.0	80.9	67.2	85.2	91.4	81.8	85.8	85.9	85.7	85.7	76.7	89.5	84.5	85.5
Median time lapse from baccalaureate to doctorate	Yrs																
Since baccalaureate		11.3	11.0	11.4	9.7	8.9	11.6	12.0	11.3	11.5	12.0	11.9	18.0	12.2	14.2	13.6	14.1
Since starting graduate school		9.0	8.9	9.2	7.7	7.1	9.7	9.7	9.2	9.0	9.7	9.7	12.7	9.4	10.7	10.2	10.9
Postdoctoral plans	%																
Definite postdoctoral study		16.2	8.3	11.4	23.7	33.7	9.9	7.7	3.9	6.8	8.5	7.9	4.3	3.1	5.2	4.4	5.6
Definite employment		44.0	59.7	57.1	44.2	33.3	52.8	52.9	58.4	59.0	50.3	53.0	66.7	72.9	64.6	67.7	62.0
Seeking employment or study		36.4	27.3	28.1	28.0	29.5	32.0	35.1	32.1	30.4	36.4	34.4	24.3	20.6	26.9	24.5	27.9
Other/unknown [b]		3.4	4.6	3.5	4.2	3.5	5.3	4.3	5.6	3.8	4.7	4.8	4.6	3.4	3.3	3.4	4.5
Definite postdoctoral study [c]	%	26.9	12.2	16.6	34.9	50.4	15.7	12.7	6.3	10.3	14.4	12.9	6.1	4.1	7.4	6.1	8.3
Fellowship		19.0	10.2	10.1	25.3	29.8	11.9	11.1	5.3	4.9	9.9	9.0	2.4	2.1	2.8	2.5	4.5
Research associateship		6.4	----	4.6	5.7	16.2	1.7	----	----	----	2.0	1.7	2.0	1.7	2.6	2.3	1.9
Traineeship		----	----	----	0.9	0.8	----	----	----	----	0.5	----	0.5	----	----	----	0.4
Intern, clinical residency		----	----	----	1.9	1.5	----	----	----	----	----	----	0.2	----	----	----	0.2
Other study		1.1	----	----	1.2	2.0	2.1	----	----	1.8	2.0	1.6	1.1	----	1.7	1.2	1.2
Definite employment after doctorate [d]	%	73.1	87.8	83.4	65.1	49.6	84.3	87.3	93.7	89.7	85.6	87.1	93.9	95.9	92.6	93.9	91.7
Educational institution [e]		59.9	59.2	56.7	42.4	29.5	74.9	81.0	91.1	84.8	74.5	78.5	81.8	82.5	70.4	75.1	79.8
Industry/business		3.9	8.2	6.9	8.7	10.2	1.7	4.0	1.6	1.8	4.0	3.1	3.4	7.9	7.0	7.3	3.9
Government		4.2	12.9	7.8	6.7	5.6	2.6	----	----	----	1.1	1.1	3.3	3.1	6.3	5.1	2.9
Nonprofit		5.0	7.5	9.7	6.2	3.6	4.3	----	----	----	5.5	3.9	3.9	1.7	7.2	5.1	4.1
Other & unknown		0.0	0.0	2.3	1.1	0.7	0.9	0.8	0.0	----	0.4	0.5	1.4	0.7	1.7	1.3	1.1

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all females

Characteristics		2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sci.	Mathematics	Computer sciences	PHYSICAL SCIENCES [a]	ENGINEERING	Biochemistry	Other biological sciences	Health sciences	Agricultural sciences	LIFE SCIENCES	Psychology	Economics
Employment commitments after doctorate [f]																
Primary activity [g]	%															
R & D		21.8	41.2	62.5	29.3	31.3	48.8	45.8	60.4	45.8	39.9	29.6	47.2	35.5	18.9	52.5
Teaching		47.1	35.3	26.3	34.5	60.9	41.9	40.0	21.3	29.2	36.4	43.3	29.9	39.1	24.3	34.5
Administration		17.5	8.8	2.6	15.5	1.7	4.7	4.9	7.5	8.3	7.6	13.1	10.2	10.9	7.5	----
Professional services		11.7	8.8	5.9	13.8	6.1	----	6.7	9.3	16.7	13.4	12.7	9.4	12.6	47.4	7.3
Other		1.8	5.9	2.6	6.9	0.0	----	2.5	1.5	0.0	2.7	1.2	3.1	1.9	1.9	----
Secondary activity [g]	%															
R & D		36.6	32.4	25.0	43.1	56.5	39.5	38.9	24.3	16.7	29.2	38.8	32.3	34.5	29.7	35.0
Teaching		18.3	2.9	2.6	12.1	22.6	27.9	13.9	16.2	8.3	13.7	21.2	15.7	17.9	19.9	27.1
Administration		9.9	8.8	19.7	3.4	5.2	5.8	10.3	14.7	29.2	15.1	13.3	15.0	14.5	11.9	----
Professional services		8.7	8.8	3.9	5.2	2.6	----	4.0	6.6	12.5	7.9	9.2	13.4	9.5	10.7	6.8
Other		2.4	5.9	0.7	0.0	0.0	----	0.9	1.5	0.0	3.4	2.2	1.6	2.4	2.8	----
No secondary activity		24.0	41.2	48.0	36.2	13.0	22.1	31.9	36.6	33.3	30.6	15.3	22.0	21.3	25.0	23.7
Activity(ies) unknown		2.0	2.9	4.4	0.0	1.7	1.1	2.4	2.1	0.0	3.3	2.7	3.1	2.9	2.1	1.1
Region of employment after doctorate	%															
New England		6.0	8.6	9.4	5.2	2.6	6.9	6.6	5.9	20.8	8.6	7.1	3.8	7.4	5.3	7.3
Middle Atlantic		14.4	28.6	21.4	8.6	21.4	17.2	19.5	12.9	16.7	13.3	13.2	7.6	12.6	18.9	16.8
East North Central		13.4	5.7	15.7	8.6	17.1	4.6	12.3	13.8	8.3	13.3	13.5	13.0	13.3	14.9	7.3
West North Central		6.6	5.7	1.3	6.9	2.6	----	2.6	2.4	4.2	4.0	5.5	9.9	5.6	7.3	2.8
South Atlantic		19.5	11.4	18.9	13.8	19.7	26.4	19.3	16.8	12.5	15.3	17.4	19.8	16.9	18.6	25.7
East South Central		5.3	2.9	4.4	----	3.4	4.6	3.7	4.7	----	3.7	6.5	6.1	5.4	3.7	3.4
West South Central		8.2	2.9	5.0	20.7	5.1	5.7	7.0	6.5	16.7	4.3	8.8	6.1	7.2	8.3	----
Mountain		5.7	5.7	3.8	8.6	3.4	3.4	4.4	5.9	----	5.0	6.5	6.1	5.8	5.2	3.4
Pacific & insular		12.3	20.0	14.5	13.8	16.2	12.6	14.9	17.6	16.7	20.3	10.5	6.1	13.1	13.6	8.9
Foreign		8.5	8.6	5.7	12.1	8.5	17.2	9.6	13.5	4.2	12.0	10.9	21.4	12.4	4.0	23.5
Region unknown		0.1	0.0	0.0	----	0.0	----	0.0	0.0	0.0	0.3	0.2	0.0	0.2	0.1	----

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients, by major field of study, 2004 - Total all females

Characteristics		Anthropology & sociology	Political sci./ Internatn'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
Employment commitments after doctorate [f]																	
Primary activity [g]	%																
R & D		30.7	23.6	34.3	27.6	36.0	11.4	8.2	8.6	9.2	11.9	10.7	7.9	39.4	20.5	28.0	11.8
Teaching		54.5	55.9	46.1	36.6	36.2	77.2	79.1	81.7	83.6	74.5	77.5	43.9	46.6	51.8	49.7	54.8
Administration		7.8	11.0	11.8	7.9	8.4	6.2	7.3	6.9	5.6	6.7	6.5	36.5	8.3	16.4	13.2	24.0
Professional services		4.3	6.3	5.6	25.7	17.4	2.6	2.7	----	----	3.6	2.7	10.4	4.3	9.9	7.7	7.7
Other		2.7	3.1	2.2	2.2	2.1	2.6	2.7	----	----	3.3	2.5	1.3	1.4	1.4	1.4	1.7
Secondary activity [g]	%																
R & D		44.4	51.2	40.4	36.3	34.8	60.1	43.6	57.7	65.1	49.2	53.7	26.8	41.5	48.2	45.5	37.8
Teaching		18.7	13.4	21.9	20.3	18.2	7.8	8.2	12.0	10.8	15.5	12.6	18.2	38.3	25.5	30.6	18.4
Administration		10.9	----	12.9	10.5	12.2	3.6	10.9	4.6	2.6	7.9	6.3	10.0	----	7.7	6.4	8.3
Professional services		3.9	7.1	7.9	8.3	7.9	5.2	3.6	2.3	----	5.5	4.2	12.9	5.8	----	6.6	9.3
Other		2.7	----	1.7	2.4	2.1	1.6	7.3	2.9	----	4.8	3.9	2.6	----	----	0.7	2.7
No secondary activity		19.5	20.5	15.2	22.2	24.8	21.8	26.4	20.6	18.5	17.1	19.2	29.5	9.0	10.8	10.1	23.4
Activity(ies) unknown		1.5	1.6	1.7	1.8	2.2	2.5	0.0	1.7	2.5	1.5	1.7	1.8	1.1	2.6	2.0	1.8
Region of employment after doctorate	%																
New England		9.6	4.7	8.3	6.6	6.8	7.1	9.1	5.6	9.0	6.2	6.9	4.5	8.6	3.5	5.5	5.4
Middle Atlantic		14.9	15.5	12.2	16.8	15.5	15.2	20.0	20.8	18.5	15.6	17.0	12.0	10.7	15.0	13.3	13.7
East North Central		14.6	14.7	11.6	13.5	13.3	12.6	16.4	15.2	12.0	15.0	14.3	13.0	12.1	14.3	13.5	13.4
West North Central		4.2	3.9	8.3	6.0	5.0	6.6	8.2	5.6	7.0	8.2	7.5	8.1	3.9	8.9	6.9	7.7
South Atlantic		14.2	19.4	22.1	19.2	18.3	16.2	13.6	15.2	21.0	15.1	16.0	23.1	18.2	20.0	19.3	20.4
East South Central		4.2	3.1	5.5	3.9	4.4	5.1	7.3	7.3	3.0	3.2	4.3	7.0	3.6	5.9	5.0	5.9
West South Central		4.2	8.5	3.3	6.1	6.6	12.1	8.2	7.9	6.0	7.5	8.0	9.6	13.2	8.2	10.2	9.2
Mountain		7.7	5.4	4.4	5.3	5.4	6.1	8.2	3.9	3.0	4.7	4.8	7.4	2.1	3.5	3.0	6.0
Pacific & insular		15.7	15.5	14.4	13.7	14.1	12.6	7.3	14.6	13.0	13.5	12.9	10.3	10.7	10.1	10.3	11.1
Foreign		10.7	9.3	9.9	8.8	10.5	6.6	----	3.9	7.5	11.0	8.2	4.8	16.8	10.6	13.0	7.1
Region unknown		0.0	0.0	0.0	0.1	0.1	0.0	----	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Physical sciences includes mathematics and computer sciences.

[b] Includes recipients who indicated that they did not plan to work or study and a small number of recipients who indicated some other type of postdoctoral plans.

[c] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

[d] Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

[e] Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

[f] Includes only recipients with definite employment plans.

[g] Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2004

Characteristics		Total [a]				American Indian [b]				Asian [c]				Black			
				Non-U.S.				Non-U.S.				Non-U.S.				Non-U.S.	
		Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.
Total number		42,155	26,431	1,528	11,585	135	129	2	4	9,039	1,449	605	6,941	2,376	1,869	102	355
Male	%	54.6	49.1	49.0	68.1	45.9	44.2	---	---	64.2	50.0	45.5	68.8	41.0	34.5	68.6	67.3
Female		45.4	50.9	51.0	31.9	54.1	55.8	---	---	35.8	50.0	54.5	31.2	59.0	65.5	31.4	32.7
Field of study																	
Physical sciences [e]	%	14.3	11.4	16.0	22.0	8.1	8.5	---	---	19.6	13.9	16.0	21.1	5.9	4.1	15.7	12.4
Engineering		13.7	7.3	15.8	28.5	4.4	3.9	---	---	30.7	15.8	20.7	34.6	5.4	4.5	9.8	8.5
Life sciences		20.9	21.6	22.5	19.9	15.6	16.3	---	---	22.5	31.5	26.3	20.3	15.2	13.8	20.6	23.4
Social sciences		16.1	18.5	13.8	10.2	16.3	16.3	---	---	9.0	15.9	10.4	7.3	17.3	18.0	18.6	14.1
Humanities		13.0	15.5	17.9	7.3	12.6	11.6	---	---	6.3	10.3	12.6	4.9	8.9	9.1	12.7	7.6
Education		15.7	20.1	7.3	5.4	34.1	35.7	---	---	5.5	7.8	6.9	4.9	37.9	41.3	14.7	24.5
Professional/other fields		6.2	5.6	6.7	6.7	8.9	7.8	---	---	6.6	4.8	7.1	6.9	9.4	9.2	7.8	9.6
Median age at doctorate	Yrs	33.3	33.8	34.6	32.2	44.5	44.8	---	---	32.2	31.3	34.3	32.2	37.8	37.3	38.2	38.8
Median time lapse from baccalaureate to doctorate																	
Since baccalaureate	Yrs	10.0	10.4	10.8	9.2	13.1	13.4	---	---	9.4	8.7	11.2	9.4	12.5	12.3	13.3	12.9
Since starting graduate school		8.0	8.3	8.7	7.7	9.9	9.9	---	---	7.7	7.2	9.1	7.7	9.7	9.9	8.7	9.3
Graduate school primary source of support [f]																	
Teaching assistantships	%	16.6	15.5	21.0	18.5	7.3	5.9	---	---	16.3	11.9	17.2	17.1	9.7	6.2	22.7	24.3
Research and other non-teaching assistantships/traineeships		26.1	17.3	28.5	46.3	11.3	11.0	---	---	48.1	25.3	37.0	53.9	12.4	8.7	21.6	29.0
Fellowships/dissertation grants		26.3	28.8	26.4	20.7	30.6	29.7	---	---	20.9	40.6	24.3	16.5	32.8	33.5	27.8	31.2
Own resources		25.1	33.2	19.0	6.9	46.8	49.2	---	---	9.9	18.8	16.5	7.5	38.8	45.3	21.6	9.3
Foreign government		2.1	0.1	2.0	6.9	---	---	---	---	3.7	0.2	1.9	4.6	0.7	0.0	---	4.4
Employer		3.7	5.0	3.1	0.6	4.0	4.2	---	---	1.1	3.0	3.2	0.5	5.4	6.1	---	1.6
Other		0.1	0.1	0.0	0.1	---	---	---	---	0.1	0.2	0.0	0.1	0.2	0.2	---	0.3
Postdoctoral Plans																	
Definite postdoctoral study	%	24.0	21.8	22.4	29.3	14.4	14.3	---	---	28.6	29.9	20.7	29.0	15.5	14.9	---	18.5
Definite employment		44.0	48.2	38.9	35.1	52.8	52.1	---	---	33.7	35.0	35.4	33.2	48.2	50.1	38.1	41.4
Seeking employment or study		28.6	26.4	35.3	32.8	28.0	28.6	---	---	34.8	30.2	40.2	35.3	32.4	30.8	41.2	37.8
Other/unknown [g]		3.4	3.6	3.4	2.9	4.8	5.0	---	---	3.0	4.9	3.7	2.5	3.9	4.2	---	2.4
Postdoc study plans	%	35.3	31.2	36.5	45.5	21.4	21.5	---	---	45.9	46.0	37.0	46.6	24.4	23.0	30.2	30.8
Postdoc employment plans	%	64.7	68.8	63.5	54.5	78.6	78.5	---	---	54.1	54.0	63.0	53.4	75.6	77.0	69.8	69.2
Educational institution [h]		43.4	48.0	39.4	32.3	60.7	60.8	---	---	28.4	28.5	30.4	28.2	56.8	58.3	39.6	52.7
Industry/business		11.7	9.8	18.2	15.7	7.1	6.3	---	---	18.9	17.3	26.1	18.7	6.3	5.6	18.9	7.0
Government		5.1	6.0	2.5	3.3	6.0	6.3	---	---	3.4	4.2	3.1	3.3	6.8	7.4	0.0	5.0
Nonprofit		3.6	4.3	3.0	1.9	---	---	---	---	2.4	3.5	2.8	2.2	4.4	4.2	11.3	4.0
Other/unknown		0.9	0.8	0.5	1.2	---	---	---	---	1.0	0.5	0.6	1.1	1.2	1.4	0.0	0.5

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2004

Characteristics		White				Puerto Rican	Mexican				Other Hispanic				Other/unknown race [d]			
				Non-U.S.					Non-U.S.				Non-U.S.				Non-U.S.	
		Total	U.S.	Perm.	Temp.	Total	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.
Total number		24,578	20,745	650	3,028	258	642	429	26	184	1,119	490	94	524	4,008	1,062	49	549
Male	%	52.1	50.4	48.9	65.6	41.5	54.5	49.2	34.6	70.1	56.2	45.9	47.9	67.7	57.1	53.9	60.4	72.4
Female		47.9	49.6	51.1	34.4	58.5	45.5	50.8	65.4	29.9	43.8	54.1	52.1	32.3	42.9	46.1	39.6	27.6
Field of study																		
Physical sciences [e]	%	13.7	11.8	16.5	26.6	10.5	11.4	7.7	7.7	20.7	12.7	8.0	11.7	17.4	12.7	15.0	22.4	20.2
Engineering		8.7	7.0	13.1	19.8	7.4	9.3	5.1	7.7	19.6	13.8	6.5	13.8	20.6	12.1	8.8	10.2	22.4
Life sciences		21.1	21.8	19.7	17.0	27.1	18.5	16.1	15.4	25.0	21.9	19.2	19.1	25.0	19.5	21.0	28.6	21.3
Social sciences		18.1	18.5	15.2	14.5	14.0	19.3	21.2	19.2	15.2	21.6	26.7	16.0	18.1	17.4	18.8	20.4	11.7
Humanities		15.8	16.3	22.5	11.6	14.3	14.8	17.0	26.9	8.2	15.5	18.0	26.6	11.5	11.8	16.3	12.2	8.6
Education		16.9	19.1	6.8	3.8	21.7	22.7	29.1	15.4	7.6	10.1	16.3	6.4	4.4	18.2	14.2	2.0	9.5
Professional/other fields		5.6	5.4	6.3	6.6	5.0	3.9	3.7	7.7	3.8	4.4	5.3	6.4	3.1	8.2	5.9	4.1	6.4
Median age at doctorate	Yrs	33.5	33.8	34.2	31.6	34.5	34.6	34.4	37.6	34.6	34.4	33.6	36.2	35.0	32.7	33.2	32.0	32.3
Median time lapse from baccalaureate to doctorate																		
Since baccalaureate	Yrs	10.0	10.5	9.7	8.2	11.0	10.5	10.4	12.0	10.3	10.1	9.7	12.0	10.3	9.4	9.8	8.4	9.1
Since starting graduate school		8.0	8.3	8.2	7.1	8.8	8.7	8.7	8.5	8.0	7.9	8.0	9.2	7.6	7.7	7.9	8.2	7.3
Graduate school primary source of support [f]																		
Teaching assistantships	%	17.6	16.8	23.9	21.5	10.8	12.7	11.5	20.8	14.5	16.6	13.5	23.0	18.3	15.7	15.4	24.0	15.5
Research and other non teaching assistantships/traineeships		20.4	17.8	23.1	37.3	6.8	10.4	9.3	25.0	11.2	22.1	13.1	20.7	30.7	23.0	18.0	24.0	32.0
Fellowships/dissertation grants		26.8	26.8	28.1	27.0	42.6	36.0	41.0	25.0	26.3	31.9	37.8	23.0	28.3	30.0	31.9	36.0	27.1
Own resources		29.5	33.2	20.2	5.8	31.3	27.2	35.6	25.0	7.8	19.0	32.8	24.1	5.2	24.1	30.7	16.0	6.5
Foreign government		1.0	0.1	1.8	7.7	0.0	11.7	0.0	---	39.7	8.5	---	---	16.5	4.1	---	0.0	17.2
Employer		4.6	5.2	2.9	0.6	8.4	2.0	2.7	---	---	1.7	---	---	---	2.9	---	0.0	1.4
Other		0.1	0.1	0.0	0.1	0.0	0.0	0.0	---	---	0.2	---	---	---	0.2	---	0.0	0.3
Postdoctoral Plans																		
Definite postdoctoral study	%	23.3	21.9	25.0	32.5	21.4	20.5	20.6	---	20.4	25.4	26.1	---	25.8	22.7	20.5	---	27.8
Definite employment		47.5	49.3	42.2	36.6	45.2	47.4	47.8	48.0	46.4	40.9	42.0	37.5	40.3	42.6	45.1	30.8	38.7
Seeking employment or study		25.9	25.5	29.4	27.8	28.6	27.7	27.0	32.0	28.7	30.1	27.4	40.9	30.9	28.2	29.0	34.6	25.4
Other/unknown [g]		3.3	3.3	3.4	3.1	4.8	4.3	4.5	---	4.4	3.5	4.5	---	2.9	6.5	5.3	---	8.1
Postdoc study plans	%	32.9	30.7	37.2	47.1	32.1	30.2	30.1	29.4	30.6	38.3	38.3	35.3	39.1	34.7	31.3	46.7	41.8
Postdoc employment plans	%	67.1	69.3	62.8	52.9	67.9	69.8	69.9	70.6	69.4	61.7	61.7	64.7	60.9	65.3	68.7	53.3	58.2
Educational institution [h]		46.9	48.5	44.4	35.8	44.0	53.3	55.2	47.1	49.6	42.3	41.8	49.0	42.0	41.4	43.5	46.7	36.5
Industry/business		9.9	9.6	13.1	11.8	11.3	8.7	6.6	23.5	11.6	10.9	11.4	9.8	10.4	13.0	12.5	---	13.8
Government		5.5	6.0	2.6	2.5	6.5	5.0	4.9	0.0	5.8	4.8	5.1	2.0	5.0	6.9	8.0	---	5.3
Nonprofit		4.0	4.4	2.1	1.4	3.0	1.9	2.4	0.0	0.8	2.3	2.8	3.9	1.5	2.9	3.5	---	1.6
Other/unknown		0.8	0.7	0.5	1.4	3.0	0.9	0.7	0.0	1.7	1.4	0.6	0.0	2.1	1.1	1.2	---	1.1

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2004

Characteristics		Total [a]				American Indian [b]				Asian [c]				Black/African-American			
				Non-U.S.				Non-U.S.				Non-U.S.				Non-U.S.	
		Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.
Employment location after doctorate [l]																	
U.S.	%	88.8	97.6	93.9	59.8	---	100.0	---	---	71.9	92.7	93.1	65.3	92.6	99.0	---	51.8
Foreign		11.1	2.3	---	40.1	---	0.0	---	---	27.9	7.1	6.9	34.5	7.3	0.9	---	48.2
Unknown		0.1	0.1	---	0.1	---	0.0	---	---	0.1	0.2	0.0	0.1	0.1	0.1	---	0.0

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2004

Characteristics		White				Puerto Rican	Mexican				Other Hispanic				Other/unknown race [d]			
				Non-U.S.					Non-U.S.				Non-U.S.				Non-U.S.	
		Total	U.S.	Perm.	Temp.	Total	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.
Employment location after doctorate [i]																		
U.S.	%	93.8	97.7	93.5	57.6	100.0	78.4	98.5	100.0	27.4	70.4	96.4	---	41.7	84.5	97.4	87.5	39.1
Foreign		6.1	2.2	6.5	42.4	0.0	21.6	1.5	0.0	72.6	29.4	3.6	---	58.3	14.4	2.1	0.0	60.0
Unknown		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	---	0.0	1.2	0.5	12.5	0.9

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

---- = Cell value suppressed to protect confidentiality of doctorate recipients.

[a] Totals include 81 individuals who did not report their sex and 2,611 individuals who did not report their citizenship at time of doctorate.

[b] Includes Alaska 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.

[e] Includes mathematics and computer sciences.

[f] Percentages are based on the number indicating a primary source of financial support during graduate school.

[g] Includes recipients who indicated that they did not plan to work or study and recipients who did not indicate their postdoctoral plans.

[h] Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

[i] Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-5. Doctorate recipients' financial resources in support of doctoral programs, by broad field of study and sex, 2004

	Total		Physical sciences [a]		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
Financial Resource	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Unduplicated total [b]	20,765	17,204	4,138	1,501	4,386	938	4,008	4,034	2,700	3,306	2,418	2,601	1,937	3,773	1,178	1,051
	Percent															
Fellowship, scholarship	49.7	51.6	49.2	56.8	39.9	54.9	55.3	55.2	58.9	55.5	70.1	70.0	23.8	29.3	48.2	50.3
Grant, stipend	29.3	32.5	26.1	29.2	16.7	23.8	45.0	44.8	35.5	37.8	39.6	39.3	12.3	15.7	26.0	25.1
Teaching assistantship	56.9	53.1	76.9	80.1	46.1	49.0	40.8	40.8	72.4	67.0	80.7	80.7	20.5	23.5	57.1	59.0
Research assistantship	58.2	45.8	77.8	77.1	82.6	82.5	54.5	50.9	57.3	56.7	25.4	27.1	18.3	21.7	45.0	47.2
Other assistantship	3.1	5.0	1.9	1.9	1.3	1.9	1.7	2.2	6.0	8.8	5.5	5.9	5.6	6.4	3.5	3.8
Traineeship	2.4	3.6	1.5	2.1	1.1	1.2	6.1	8.1	4.0	6.5	0.6	0.5	0.5	0.7	0.3	0.6
Internship, clinical residency	4.7	6.9	4.1	3.7	5.8	4.3	1.9	1.8	13.0	23.9	2.1	2.9	2.7	3.4	2.4	2.1
Loans (from any source)	26.3	34.1	15.8	16.0	10.8	11.1	23.3	22.6	43.5	51.5	46.7	43.1	37.5	37.5	31.2	34.8
Personal savings	34.3	37.6	22.1	19.8	25.9	21.2	27.3	27.5	46.1	42.8	44.4	42.5	54.3	49.4	51.5	45.9
Other personal earnings during graduate school	25.9	37.1	11.8	12.1	10.7	11.5	15.6	20.4	42.9	45.1	51.6	51.7	50.6	52.2	35.4	43.9
Family earnings or savings [c]	25.3	36.8	15.8	18.8	16.3	17.3	23.0	28.7	36.4	46.5	42.7	47.0	30.1	40.9	31.7	40.5
Employer reimbursement/assistance	8.5	10.2	5.1	3.4	7.7	6.3	5.0	7.7	7.2	6.3	5.7	4.5	26.4	23.1	14.7	13.7
Foreign (non-U.S.) support	6.3	4.0	4.8	3.7	8.4	5.8	5.4	3.7	7.1	3.9	6.2	5.5	3.9	2.5	8.7	6.2
Other	0.4	0.3	0.3	0.2	0.3	0.1	0.5	0.3	0.3	0.3	0.5	0.6	0.5	0.4	0.9	0.4

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 percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of this report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. The table excludes 81 individuals for whom sex was not reported.

[a] Includes mathematics and computer sciences.

[b] The 4,170 doctorate recipients who did not report sources of support are omitted from this total. Percentages are based only on known responses.

[c] This category includes spouses and significant others.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-6. Distribution of doctorate recipients' financial resources in support of doctoral programs, by sex and broad field of study, 2004

Financial resource	All fields	Physical sciences [a]	Engineering	Life sciences	Social sciences	Humanities	Education	Professional/ other fields
					Percent			
Male								
Unduplicated count [b]	20,765	19.9	21.1	19.3	13.0	11.6	9.3	5.7
Fellowship, scholarship	10,313	19.7	17.0	21.5	15.4	16.4	4.5	5.5
Grant, stipend	6,078	17.8	12.1	29.7	15.8	15.8	3.9	5.0
Teaching assistantship	11,815	26.9	17.1	13.8	16.6	16.5	3.4	5.7
Research assistantship	12,078	26.7	30.0	18.1	12.8	5.1	2.9	4.4
Other assistantship	654	12.2	9.0	10.6	24.9	20.3	16.7	6.3
Traineeship	490	12.4	9.6	49.8	22.2	3.1	2.0	0.8
Internship, clinical residency	984	17.4	25.9	7.7	35.7	5.2	5.3	2.8
Loans (from any source)	5,463	12.0	8.7	17.1	21.5	20.7	13.3	6.7
Personal savings	7,122	12.8	15.9	15.4	17.5	15.1	14.8	8.5
Other personal earnings during graduate school	5,385	9.1	8.7	11.6	21.5	23.2	18.2	7.7
Family earnings or savings [c]	5,263	12.4	13.6	17.5	18.7	19.6	11.1	7.1
Employer reimbursement/assistance	1,764	12.0	19.1	11.3	11.1	7.8	29.0	9.8
Foreign (non-U.S.) support	1,301	15.1	28.2	16.7	14.8	11.5	5.8	7.9
Other	83	14.5	15.7	22.9	9.6	13.3	10.8	13.3
Female								
Unduplicated count [d]	17,204	8.7	5.5	23.4	19.2	15.1	21.9	6.1
Fellowship, scholarship	8,880	9.6	5.8	25.1	20.7	20.5	12.4	6.0
Grant, stipend	5,599	7.8	4.0	32.3	22.3	18.3	10.6	4.7
Teaching assistantship	9,127	13.2	5.0	18.0	24.3	23.0	9.7	6.8
Research assistantship	7,878	14.7	9.8	26.1	23.8	8.9	10.4	6.3
Other assistantship	861	3.4	2.1	10.3	33.7	17.9	28.0	4.6
Traineeship	626	5.0	1.8	51.9	34.3	2.1	4.0	1.0
Internship, clinical residency	1,183	4.6	3.4	6.1	66.9	6.3	10.8	1.9
Loans (from any source)	5,862	4.1	1.8	15.6	29.1	19.1	24.1	6.2
Personal savings	6,471	4.6	3.1	17.1	21.9	17.1	28.8	7.4
Other personal earnings during graduate school	6,380	2.9	1.7	12.9	23.4	21.1	30.9	7.2
Family earnings or savings [c]	6,333	4.5	2.6	18.3	24.3	19.3	24.4	6.7
Employer reimbursement/assistance	1,760	2.9	3.4	17.6	11.9	6.6	49.5	8.2
Foreign (non-U.S.) support	694	8.1	7.8	21.6	18.7	20.7	13.7	9.4
Other	58	5.2	1.7	19.0	15.5	27.6	24.1	6.9

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 sum of the individual sources of support will be greater than the unduplicated total. (Data on the "primary" source of support for doctorate recipients are presented in the body of this report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

[a] Includes mathematics and computer sciences.

[b] The 2,211 male doctorate recipients who did not report sources of support are omitted from this count.

[c] This category includes spouses and significant others.

[d] The 1,894 female doctorate recipients who did not report sources of support are omitted from this count.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-7. State of doctoral institution of doctorate recipients, by broad field of study and sex, 2004

State	Total [a]		Physical sciences [b]		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
U.S. total [c]	22,976	19,098	4,439	1,598	4,750	1,014	4,445	4,354	3,041	3,741	2,627	2,834	2,266	4,361	1,408	1,196
Alabama	250	230	46	18	44	15	73	68	21	36	17	15	26	58	23	20
Alaska	9	11	3	4	2	1	3	3	1	1	0	0	0	1	0	1
Arizona	423	368	103	30	92	17	67	62	43	66	48	68	37	100	33	25
Arkansas	93	65	13	3	14	5	34	20	5	4	6	1	17	31	4	1
California	2,824	2,207	633	221	647	132	444	493	448	550	336	375	189	344	127	92
Colorado	384	328	90	31	89	30	73	75	42	62	33	29	32	81	25	20
Connecticut	338	274	69	19	40	9	88	83	41	62	67	56	15	38	18	7
Delaware	117	82	31	8	37	12	11	7	19	17	4	10	15	27	0	1
District of Columbia	241	274	29	9	38	9	23	39	64	84	44	48	19	42	24	43
Florida	1,138	1,231	172	66	180	43	143	147	117	185	69	64	291	620	166	106
Georgia	580	494	72	39	190	45	106	97	61	64	49	66	73	151	29	32
Hawaii	57	71	9	8	2	2	15	15	18	17	9	20	3	9	1	0
Idaho	65	51	9	5	12	0	12	12	6	0	4	4	21	29	1	1
Illinois	1,129	841	207	73	236	45	173	175	188	140	147	155	97	200	81	53
Indiana	652	415	105	44	140	24	97	69	81	75	134	82	66	93	29	28
Iowa	326	228	64	21	80	16	65	51	32	29	31	33	42	64	12	14
Kansas	225	207	34	22	33	6	53	41	32	43	29	25	34	58	10	12
Kentucky	231	163	28	11	26	4	52	41	31	33	27	24	27	34	40	16
Louisiana	297	285	41	33	50	14	79	71	28	39	50	29	18	68	31	31
Maine	25	17	9	1	4	0	7	3	1	6	1	5	2	2	1	0
Maryland	551	452	120	31	125	21	136	191	81	69	58	71	20	56	11	13
Massachusetts	1,176	934	271	104	241	72	216	253	183	182	125	162	58	114	82	47
Michigan	840	653	147	52	227	46	156	167	103	147	82	94	81	111	44	36
Minnesota	380	368	62	23	70	12	85	99	48	77	37	46	44	83	34	28
Mississippi	160	193	23	15	11	7	35	29	25	25	12	15	39	85	15	17
Missouri	393	332	71	27	60	14	86	82	51	68	52	49	48	66	25	26
Montana	45	34	14	4	2	0	19	15	3	3	0	1	7	11	0	0
Nebraska	163	124	23	4	18	2	47	31	13	23	18	18	28	36	16	10
Nevada	60	65	12	5	10	3	7	10	13	17	3	8	12	19	3	3
New Hampshire	60	46	19	6	9	2	25	24	4	7	3	1	0	6	0	0
New Jersey	537	406	131	61	118	37	78	71	53	83	108	93	24	41	25	20
New Mexico	162	125	36	8	36	7	25	21	22	31	17	22	19	33	7	3

APPENDIX TABLE A-7. State of doctoral institution of doctorate recipients, by broad field of study and sex, 2004

	Total [a]		Physical sciences [b]		Engineering		Life sciences		Social sciences		Humanities		Education		Professional/ other fields	
State	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
New York	1,873	1,655	395	117	291	53	356	342	356	460	284	348	93	223	98	112
North Carolina	626	575	122	67	123	31	182	168	65	86	61	75	50	115	23	33
North Dakota	40	33	14	3	1	1	13	5	6	3	1	0	5	19	0	2
Ohio	899	703	166	49	221	43	194	186	86	116	82	102	104	151	46	56
Oklahoma	223	143	24	9	35	8	55	27	38	27	17	15	41	47	13	10
Oregon	218	186	38	18	30	7	82	53	24	33	17	18	19	45	8	12
Pennsylvania	1,133	1,020	238	76	265	58	175	238	127	186	138	153	111	244	79	65
Puerto Rico	21	49	5	8	3	1	5	4	4	17	1	7	3	12	0	0
Rhode Island	126	112	40	19	22	2	20	26	15	24	26	33	0	5	3	3
South Carolina	211	179	28	14	53	9	47	55	25	21	18	23	23	46	17	11
South Dakota	42	47	4	2	1	1	9	6	4	12	0	0	24	26	0	0
Tennessee	335	354	53	12	56	16	73	77	37	74	29	42	58	113	29	20
Texas	1,474	1,142	264	90	368	55	298	270	149	185	153	158	149	303	93	81
Utah	240	103	56	17	49	8	57	24	27	17	7	9	29	19	15	9
Vermont	24	31	1	0	3	1	11	8	4	6	1	1	4	15	0	0
Virginia	570	468	109	38	147	27	82	97	81	97	51	42	65	132	35	35
Washington	416	299	83	27	85	19	106	90	46	55	42	48	35	43	19	17
West Virginia	80	93	8	7	14	4	22	22	13	25	9	8	14	27	0	0
Wisconsin	469	315	88	16	97	18	119	85	53	49	70	63	29	60	13	24
Wyoming	25	17	7	3	3	0	6	6	3	3	0	0	6	5	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 81).

[b] Includes mathematics and computer sciences.

[c] Includes the 50 states, District of Columbia, and Puerto Rico.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
All U.S. Institutions	42,155	1,351	1,987	687	2,024	5,776	5,937	1,730	1,152	3,336	3,459	975	350	583	3,559	6,635	2,614
ALABAMA	484	19	17	6	22	60	76	45	22	36	21	12	4	10	6	85	43
AL A&M U.	5	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Auburn U.	155	2	10	0	10	16	8	7	20	16	12	5	2	3	0	32	12
U.S. Sports Academy	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8
U. AL Birmingham	111	0	0	0	4	9	55	29	0	2	2	0	0	0	0	10	0
U. AL in Huntsville	31	6	0	3	1	19	2	0	0	0	0	0	0	0	0	0	0
U. AL, The	159	8	7	2	7	16	9	5	0	18	7	7	2	7	6	35	23
U. South AL	12	0	0	1	0	0	2	4	0	0	0	0	0	0	0	5	0
ALASKA	20	1	0	6	0	3	1	0	5	0	2	0	0	0	0	1	1
U. AK	20	1	0	6	0	3	1	0	5	0	2	0	0	0	0	1	1
ARIZONA	793	32	37	26	39	109	89	25	16	50	59	23	7	6	80	137	58
AZ State U.	357	3	6	6	27	72	28	10	2	30	22	10	3	5	40	55	38
Northern AZ U.	35	0	0	0	0	0	7	0	4	0	2	2	0	0	5	15	0
U. AZ	401	29	31	20	12	37	54	15	10	20	35	11	4	1	35	67	20
ARKANSAS	158	5	4	3	4	19	21	5	28	8	1	3	0	1	3	48	5
AR State U.	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
U. AR	110	4	3	3	4	19	11	3	24	8	1	3	0	1	3	18	5
U. AR Little Rock	32	1	1	0	0	0	0	0	0	0	0	0	0	0	0	30	0
U. AR for Medical Sciences	12	0	0	0	0	0	10	2	0	0	0	0	0	0	0	0	0
CALIFORNIA	5,037	186	265	107	297	780	725	147	66	494	504	135	46	53	478	534	220
Argosy U./Orange County	28	0	0	0	2	0	0	0	0	2	0	0	0	0	0	14	10
Argosy U./San Francisco Bay Area	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Azusa Pacific U.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Biola U.	16	0	0	0	0	0	0	0	0	6	0	0	0	0	1	8	1
CA Institute Integral Studies	28	0	0	0	0	0	0	0	0	5	2	1	0	0	16	4	0
CA Institute of Technology	166	40	26	6	18	54	18	0	1	1	0	0	0	0	0	0	2
CA School of Professional Psychology/Alameda	45	0	0	0	0	0	0	0	0	44	0	0	0	0	0	0	1
CA School of Professional Psychology/Alhambra	39	0	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0
CA School of Professional Psychology/Fresno	29	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0
CA School of Professional Psychology/San Diego	60	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	8
Claremont Graduate U.	100	0	0	0	10	0	1	0	0	13	17	4	2	2	17	27	7
Claremont School of Theology	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Fielding Graduate Institute	82	0	0	0	0	0	12	0	0	35	3	0	0	0	0	26	6
Fuller Theological Seminary	63	0	0	0	0	0	0	0	0	21	1	1	0	0	23	0	17

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
Graduate Theological Union	24	0	0	0	0	0	0	0	0	0	1	2	0	0	19	0	2
La Sierra U.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Loma Linda U.	34	0	0	0	0	0	10	10	0	13	0	0	0	0	0	1	0
Naval Postgraduate School	9	0	0	4	4	1	0	0	0	0	0	0	0	0	0	0	0
Pacific Graduate School of Psychology	40	0	0	0	0	0	0	0	0	39	0	0	0	0	1	0	0
Pardee RAND Graduate School	11	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0
Pepperdine U.	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	8
San Diego State U.	22	0	0	1	0	1	2	1	0	3	1	0	0	0	0	13	0
Santa Clara U.	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
Saybrook Graduate School	30	0	0	0	0	0	0	0	0	22	2	0	0	0	0	1	5
Scripps Research Institute, The	32	0	15	0	0	1	16	0	0	0	0	0	0	0	0	0	0
Stanford U.	591	29	28	23	42	199	70	1	1	13	60	16	4	8	42	30	25
U. CA, Berkeley	769	30	58	14	49	138	88	30	23	21	104	22	13	11	92	44	32
U. CA, Davis	375	16	16	4	26	64	127	11	28	16	33	6	3	4	15	6	0
U. CA, Irvine	187	7	19	4	19	26	21	2	1	6	33	9	4	4	19	9	4
U. CA, Los Angeles	664	18	30	3	46	94	130	30	2	18	70	37	5	5	89	62	25
U. CA, Riverside	141	6	10	5	7	5	30	1	4	5	31	6	5	3	12	11	0
U. CA, San Diego	326	16	24	14	25	58	74	7	0	28	37	5	3	3	25	1	6
U. CA, San Francisco	95	1	4	0	1	7	47	25	0	0	10	0	0	0	0	0	0
U. CA, Santa Barbara	253	12	15	10	15	44	19	0	1	20	38	15	2	2	34	18	8
U. CA, Santa Cruz	104	5	5	11	6	9	19	0	5	7	18	3	3	4	9	0	0
U. La Verne	35	0	0	0	0	0	0	0	0	1	0	0	0	0	0	33	1
U. San Diego	23	0	0	0	0	0	0	5	0	0	0	0	0	0	0	16	2
U. San Francisco	45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	43	1
U. Southern CA	477	6	14	8	27	73	38	24	0	26	32	8	2	7	62	104	46
U. the Pacific	22	0	1	0	0	0	3	0	0	4	0	0	0	0	0	14	0
Wright Institute, The	6	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	0
COLORADO	713	26	23	36	36	120	96	29	23	40	64	5	3	6	48	113	45
CO School of Mines	44	1	2	9	2	28	0	0	0	0	2	0	0	0	0	0	0
CO State U.	160	7	6	7	9	23	35	6	23	14	5	0	0	0	0	20	5
CO Technical U.	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
U. CO	279	17	13	20	17	64	25	5	0	10	41	4	1	2	28	14	18
U. CO Health Sciences Ctr.	43	0	0	0	0	0	34	9	0	0	0	0	0	0	0	0	0
U. CO-Colorado Springs	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
U. CO-Denver	33	0	0	0	3	0	0	6	0	0	4	0	0	0	0	17	3
U. Denver	77	1	0	0	0	1	1	0	0	12	10	1	2	4	7	27	11
U. Northern CO	65	0	2	0	1	0	1	3	0	4	2	0	0	0	13	35	4

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
CONNECTICUT	613	16	39	4	29	49	128	34	9	41	62	25	1	11	86	53	26
U. CT	257	2	17	0	12	28	52	21	6	32	16	3	1	4	15	38	10
U. Hartford	15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0
U. New Haven	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Wesleyan U.	13	2	3	0	0	0	5	0	0	0	0	0	0	0	3	0	0
Yale U.	327	12	19	4	17	21	71	13	3	9	46	22	0	7	67	1	15
DELEWARE	199	3	15	11	10	49	8	2	8	3	33	3	1	3	7	42	1
U. DE	178	3	15	11	10	49	8	2	8	3	33	3	1	3	7	21	1
Wilmington C.	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0
DISTRICT OF COLUMBIA	515	5	16	1	16	47	51	11	0	55	93	34	5	2	51	61	67
American U.	59	1	5	0	1	0	0	0	0	8	33	6	0	0	0	4	1
Catholic U. America	75	2	2	0	0	4	1	6	0	10	7	3	0	1	21	1	17
Gallaudet U.	8	0	0	0	0	0	0	0	0	4	0	0	0	0	1	3	0
George Washington U.	214	2	3	1	14	40	16	3	0	13	23	8	3	0	5	48	35
Georgetown U.	71	0	2	0	0	0	21	0	0	1	13	11	0	0	21	2	0
Howard U.	88	0	4	0	1	3	13	2	0	19	17	6	2	1	3	3	14
FLORIDA	2,378	45	66	31	96	223	159	80	52	219	83	22	12	19	80	914	277
Barry U.	34	0	0	0	1	0	0	0	0	6	0	0	0	0	0	22	5
FL A&M U.	23	0	1	0	0	2	2	2	0	0	0	0	0	0	0	16	0
FL Atlantic U.	51	3	0	0	1	10	4	1	0	1	0	0	1	0	4	17	9
FL Institute of Technology	29	0	0	1	7	9	5	0	1	2	0	0	0	0	0	4	0
FL International U.	78	0	3	1	3	10	9	0	0	4	7	3	0	0	3	24	11
FL State U.	268	12	10	13	13	9	10	7	0	23	18	10	2	3	41	61	36
Lynn U.	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	4
Nova Southeastern U.	645	0	0	0	35	2	0	5	0	67	3	0	0	0	0	426	107
U. Central FL	137	10	0	0	10	38	1	1	0	9	4	0	0	0	3	56	5
U. FL	522	19	38	3	12	114	83	44	51	24	35	8	1	9	10	52	19
U. Miami	113	1	4	11	2	7	29	4	0	8	9	1	4	3	15	9	6
U. Sarasota	269	0	0	0	7	0	0	0	0	46	1	0	0	0	0	151	64
U. South FL	170	0	10	2	5	22	16	16	0	29	6	0	4	4	4	43	9
U. West FL	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	2
GEORGIA	1,076	10	50	14	37	235	133	32	39	69	57	18	2	23	72	224	61
Clark Atlanta U.	30	0	2	0	0	0	1	0	0	0	0	0	0	1	1	19	6
Emory U.	162	0	13	0	6	0	40	5	0	11	19	10	1	7	42	5	3
GA Institute of Technology	311	6	19	9	21	229	8	0	0	7	3	1	0	0	0	0	8

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

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GA Southern U.	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
GA State U.	112	2	3	0	1	0	15	2	0	19	9	3	1	3	2	38	14
Institute of Paper Science and Technology at GA Tech	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Medical C. GA	8	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0
Morehouse School of Medicine	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
U. GA	404	2	13	5	9	1	59	24	39	32	26	4	0	12	27	121	30
Valdosta State U.	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0
HAWAII	128	5	2	7	3	4	23	3	4	13	22	5	0	0	24	12	1
U. HI Manoa	128	5	2	7	3	4	23	3	4	13	22	5	0	0	24	12	1
IDAHO	116	1	5	2	6	12	10	2	12	3	3	2	0	3	3	50	2
Boise State U.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
ID State U.	33	0	0	0	1	3	3	1	0	3	2	0	0	3	3	14	0
U. ID	80	1	5	2	5	9	7	1	12	0	1	2	0	0	0	33	2
ILLINOIS	1,970	54	97	17	112	281	259	63	26	121	207	54	19	36	193	297	134
Benedictine U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Chicago Theological Seminary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DePaul U.	13	0	0	0	2	0	0	0	0	7	0	0	0	0	2	2	0
Rosalind Franklin U. of Med & Sci.	13	0	0	0	0	0	4	1	0	8	0	0	0	0	0	0	0
Garrett Evangelical Theological Seminary	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
IL Institute of Technology	65	2	3	0	5	28	2	0	0	20	1	0	0	0	0	0	4
IL State U.	43	0	0	0	0	0	0	0	0	1	0	0	4	4	2	32	0
Institute for Clinical Social Work	7	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	5
Loyola U. Chicago	138	0	1	0	0	0	25	7	0	13	9	5	3	2	8	59	6
Lutheran School of Theology Chicago	4	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0
National-Louis U.	18	0	0	0	0	0	0	0	0	0	0	0	0	5	0	13	0
Northern IL U.	90	0	7	1	0	0	3	0	0	8	7	1	0	2	0	61	0
Northwestern U.	308	1	21	2	16	93	39	6	0	11	40	6	3	2	21	14	33
Roosevelt U.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Rush U.	16	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
Southern IL U.	124	1	0	0	6	6	15	8	1	12	13	1	2	1	13	31	14
U. Chicago, The	331	25	9	7	28	0	49	0	0	10	88	23	4	5	68	1	14
U. IL-Chicago	209	1	22	1	14	25	46	27	0	7	14	6	1	6	5	22	12
U. IL-Springfield	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
U. IL-Urbana-Champaign	574	24	34	6	41	129	68	6	25	22	35	11	2	9	70	53	39

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INDIANA	1,071	26	78	9	37	164	102	31	34	73	83	36	11	28	142	160	57
Ball State U.	57	0	0	0	0	0	0	2	1	13	0	0	0	0	12	29	0
IN State U.	27	0	0	1	0	0	2	0	0	7	2	0	0	0	0	11	4
IN U.	391	12	19	3	11	0	45	17	2	15	46	21	4	7	81	85	23
Purdue U.	448	7	52	4	16	133	43	12	31	26	17	3	3	15	22	35	29
U. Notre Dame	148	7	7	1	10	31	12	0	0	12	18	12	4	6	27	0	1
IOWA	555	13	33	5	35	96	73	23	20	31	30	7	2	6	49	106	26
Drake U.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
IA State U.	228	11	19	2	17	58	35	1	20	11	9	3	0	2	5	29	6
Maharishi U. Management	6	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0
St. Ambrose U.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
U. IA	300	2	14	3	18	36	36	21	0	20	21	4	2	4	41	59	19
U. Northern IA	10	0	0	0	0	2	0	0	0	0	0	0	0	0	0	8	0
KANSAS	432	8	33	3	12	39	50	13	31	53	22	11	2	3	38	92	22
KS State U.	148	7	7	1	8	18	20	1	31	8	9	2	0	0	0	32	4
U. KS	256	1	26	2	3	13	29	12	0	32	13	9	2	3	38	55	18
Wichita State U.	28	0	0	0	1	8	1	0	0	13	0	0	0	0	0	5	0
KENTUCKY	397	5	19	0	15	30	58	17	18	34	30	9	0	7	36	61	58
Asbury Theological Seminary	8	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	3
Southern Baptist Theological Seminary, The	47	0	0	0	0	0	0	0	0	0	0	2	0	0	9	6	30
Spalding U.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
U. KY	234	5	14	0	12	20	37	17	18	20	25	6	0	5	18	21	16
U. Louisville	99	0	5	0	3	10	21	0	0	14	3	1	0	2	6	25	9
LOUISIANA	582	11	33	8	22	64	81	42	27	35	32	10	11	6	52	86	62
Grambling State U.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
LA State U. & A&M C.	240	8	12	5	10	22	25	9	26	17	13	6	5	1	27	26	28
LA State U. Health Sciences Ctr. Shreveport	11	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
LA State U. School of Medicine	27	0	0	0	0	0	15	12	0	0	0	0	0	0	0	0	0
LA Tech U.	33	0	1	0	2	12	0	0	0	4	0	0	0	0	0	6	8
New Orleans Baptist Theological Seminary	14	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	10
Southern U. and A&M C.	7	0	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0
Tulane U.	127	2	8	1	1	19	24	16	1	5	13	4	3	2	15	1	12
U. LA Lafayette	29	0	0	0	7	3	6	0	0	1	0	0	3	3	6	0	0
U. LA Monroe	12	0	0	1	0	0	0	1	0	3	0	0	0	0	0	6	1
U. New Orleans	80	1	12	1	2	8	0	0	0	5	6	0	0	0	0	42	3

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MAINE	42	4	2	3	1	4	5	1	4	7	0	4	0	1	1	4	1
U. ME	42	4	2	3	1	4	5	1	4	7	0	4	0	1	1	4	1
MARYLAND	1,004	49	35	15	52	147	192	115	20	49	101	25	7	9	88	76	24
Johns Hopkins U.	355	12	12	2	13	37	113	77	0	7	35	13	1	2	27	4	0
Loyola C. in MD	5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1
Morgan State U.	26	0	0	0	0	5	0	5	0	0	0	0	0	0	0	16	0
Uniformed Services U. the Health Sciences	12	0	0	0	0	0	6	3	0	3	0	0	0	0	0	0	0
U. MD	481	36	12	13	29	93	32	12	20	24	56	12	6	7	59	53	17
U. MD Baltimore	65	1	7	0	10	12	8	1	0	11	10	0	0	0	2	3	0
U. MD School of Medicine	60	0	4	0	0	0	33	17	0	0	0	0	0	0	0	0	6
MASSACHUSETTS	2,116	116	110	29	123	313	368	91	12	115	250	67	15	21	184	172	130
American International C.	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
Boston C.	123	5	13	0	0	0	4	8	0	7	13	5	0	2	18	34	14
Boston U.	270	17	5	2	11	29	54	15	1	18	23	8	2	2	46	19	18
Brandeis U.	80	1	4	0	7	0	18	0	0	2	18	11	2	6	11	0	0
Clark U.	27	2	1	0	0	0	4	0	0	4	10	4	0	0	2	0	0
Harvard U.	579	31	23	6	21	14	140	44	0	28	87	30	5	3	67	44	36
MA C. Pharmacy & Health Sciences	5	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0
MA Institute of Technology	467	41	32	20	53	183	49	4	0	2	42	4	0	0	11	2	24
New England Conservatory of Music	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Northeastern U.	63	4	5	0	8	17	7	0	0	3	12	1	2	0	0	0	4
Simmons C.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Smith C.	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Springfield C.	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0
Suffolk U.	5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
Tufts U.	97	2	2	0	4	6	44	2	0	13	17	1	1	3	2	0	0
U. MA Amherst	266	9	17	1	14	36	21	10	10	26	21	3	3	5	23	48	19
U. MA Dartmouth	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
U. MA Harbor campus	27	0	0	0	0	0	2	1	1	5	7	0	0	0	0	11	0
U. MA Lowell	40	4	5	0	4	11	1	3	0	0	0	0	0	0	0	9	3
U. MA Worcester	24	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0
Worcester Polytechnic Institute	17	0	1	0	1	15	0	0	0	0	0	0	0	0	0	0	0
MICHIGAN	1,494	52	71	11	65	273	196	71	57	117	133	23	10	17	126	192	80
Andrews U.	33	0	0	0	0	1	0	0	0	6	0	0	0	0	2	20	4
Calvin C.	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Central MI U.	14	0	0	0	2	0	0	0	0	8	0	0	0	0	0	4	0

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
Eastern MI U.	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1
MI State U.	422	14	19	2	15	44	53	12	45	31	46	4	2	7	48	54	26
MI Technological U.	42	4	1	1	3	17	6	0	3	0	0	0	0	0	5	0	2
Oakland U.	28	0	1	0	2	11	4	0	0	0	0	0	0	0	0	10	0
U. Detroit Mercy	11	0	0	0	0	1	0	0	0	10	0	0	0	0	0	0	0
U. MI	658	26	38	5	30	170	95	48	8	33	56	13	3	4	59	34	36
Wayne State U.	196	4	12	0	7	27	36	11	0	21	14	4	4	2	9	40	5
Western MI U.	75	4	0	3	6	2	2	0	1	8	17	2	1	4	0	19	6
MINNESOTA	755	17	31	11	28	82	83	72	29	75	53	18	2	5	59	128	62
Hamline U.	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0
Luther Seminary	8	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	4
Mayo Graduate School	24	0	0	0	1	1	22	0	0	0	0	0	0	0	0	0	0
St. Marys U. MN	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
U. MN	565	17	31	11	27	81	60	58	29	35	45	18	2	5	54	60	32
U. St. Thomas	27	0	0	0	0	0	0	3	0	0	0	0	0	0	1	22	1
Walden U.	108	0	0	0	0	0	1	11	0	39	7	0	0	0	1	24	25
MISSISSIPPI	357	5	22	4	7	20	29	11	24	31	21	6	7	3	11	124	32
Delta State U.	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Jackson State U.	41	0	0	0	0	0	0	1	4	9	5	0	0	0	0	12	10
MS State U.	85	0	1	0	3	10	6	1	18	1	7	1	0	0	0	32	5
U. MS	72	3	8	1	2	6	2	1	0	5	2	4	6	1	4	21	6
U. MS Medical Ctr.	14	0	1	0	0	0	11	2	0	0	0	0	0	0	0	0	0
U. Southern MS	139	2	12	3	2	4	10	6	2	16	7	1	1	2	7	53	11
MISSOURI	726	19	43	11	25	74	123	27	19	69	50	19	7	13	62	114	51
Concordia Seminary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
St. Louis U.	123	0	0	3	0	1	19	15	0	21	6	1	2	3	10	39	3
U. MO-Columbia	258	7	9	3	12	14	26	5	19	25	18	10	4	6	19	51	30
U. MO-Kansas City	62	0	4	0	4	1	6	5	0	10	4	2	0	0	15	9	2
U. MO-Rolla	61	5	11	4	1	40	0	0	0	0	0	0	0	0	0	0	0
U. MO-St. Louis	39	0	5	0	0	0	8	1	0	6	4	0	0	0	0	15	0
Washington U.	182	7	14	1	8	18	64	1	0	7	18	6	1	4	17	0	16
MONTANA	79	5	9	2	2	2	20	1	13	6	0	0	0	0	1	18	0
MT State U.	41	5	7	1	1	1	12	0	5	0	0	0	0	0	0	9	0
U. MT	38	0	2	1	1	1	8	1	8	6	0	0	0	0	1	9	0

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
NEBRASKA	287	10	10	3	4	20	40	12	26	20	16	6	5	5	20	64	26
Creighton U.	9	0	1	0	0	1	7	0	0	0	0	0	0	0	0	0	0
U. NE Medical Ctr.	27	0	0	0	0	0	17	10	0	0	0	0	0	0	0	0	0
U. NE-Lincoln	236	10	9	3	4	19	16	2	26	20	11	6	5	5	20	55	25
U. NE-Omaha	15	0	0	0	0	0	0	0	0	0	5	0	0	0	0	9	1
NEVADA	125	2	4	10	1	13	16	1	0	21	9	4	2	3	2	31	6
U. NV, Las Vegas	48	0	0	2	0	7	3	0	0	0	2	2	2	2	1	21	6
U. NV, Reno	77	2	4	8	1	6	13	1	0	21	7	2	0	1	1	10	0
NEW HAMPSHIRE	106	5	5	3	12	11	42	1	6	9	2	2	0	0	2	6	0
Antioch New England Graduate School	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
Dartmouth C.	56	2	2	0	10	4	33	1	0	4	0	0	0	0	0	0	0
U. NH	46	3	3	3	2	7	9	0	2	5	2	2	0	0	2	6	0
NEW JERSEY	943	56	42	15	79	155	121	6	22	62	74	31	7	22	141	65	45
Drew U.	31	0	0	0	0	0	0	0	0	1	0	1	2	2	24	0	1
Fairleigh Dickinson U.	21	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0
Montclair State U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
NJ Institute Technology	68	5	1	0	17	41	1	0	3	0	0	0	0	0	0	0	0
Princeton Theological Seminary	23	0	0	0	0	0	0	0	0	0	0	2	0	0	16	0	5
Princeton U.	281	24	12	11	29	50	29	0	0	6	47	15	0	10	45	0	3
Rutgers U.	347	18	22	3	31	52	42	4	19	16	18	13	5	10	56	30	8
Rutgers State U.-Newark	56	1	2	0	1	0	11	2	0	3	9	0	0	0	0	0	27
Seton Hall U.	50	0	4	0	0	0	0	0	0	15	0	0	0	0	0	31	0
Stevens Institute of Technology	23	8	0	1	1	12	0	0	0	0	0	0	0	0	0	0	1
U. Medicine & Dentistry of NJ	39	0	1	0	0	0	38	0	0	0	0	0	0	0	0	0	0
NEW MEXICO	288	17	11	4	12	44	33	6	7	28	25	9	1	5	24	52	10
NM Institute of Mining & Technology	10	1	1	2	0	5	0	0	1	0	0	0	0	0	0	0	0
NM State U.	76	5	3	0	3	9	9	0	6	11	0	0	0	0	5	20	5
U. NM	202	11	7	2	9	30	24	6	0	17	25	9	1	5	19	32	5
NEW YORK	3,533	154	128	35	195	344	543	89	69	381	436	92	59	74	408	316	210
Adelphi U.	27	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	2
Albany Medical C.	11	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
Alfred U.	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Clarkson U.	14	0	4	0	1	9	0	0	0	0	0	0	0	0	0	0	0

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Columbia U.	408	22	16	3	25	28	60	27	0	5	83	24	7	13	60	2	33
Cornell U.	413	30	20	5	24	86	64	2	52	14	52	4	3	6	28	7	16
Cornell U. Weill Med. College	33	0	1	0	0	0	32	0	0	0	0	0	0	0	0	0	0
Fordham U.	97	0	0	0	0	0	0	1	0	36	17	3	3	1	8	14	14
Graduate School & U. Ctr., CUNY	298	5	10	3	15	14	25	3	0	55	41	13	14	12	70	2	16
Hofstra U.	37	0	0	0	0	0	0	0	0	24	0	0	0	3	0	10	0
Jewish Theological Seminary of America	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
Julliard School, The	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0
Long Island U.-Brooklyn campus	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0
Mt. Sinai School of Medicine	26	1	0	0	1	0	24	0	0	0	0	0	0	0	0	0	0
New School, The	64	0	0	0	0	0	0	0	0	15	35	0	0	0	14	0	0
NY Medical C.	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0
NY U.	372	7	12	0	31	1	41	15	2	36	45	12	8	13	73	40	36
Pace U.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Polytechnic U.	21	1	2	0	3	15	0	0	0	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Institute	156	11	10	3	16	80	9	0	0	0	9	0	0	0	3	0	15
Rochester Institute of Technology	6	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Rockefeller U., The	13	1	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0
SUNY Binghamton U.	102	0	8	1	6	8	4	1	0	10	23	8	9	6	12	3	3
SUNY C. of Environmental Science and Forestry	23	0	3	1	0	2	4	0	13	0	0	0	0	0	0	0	0
SUNY Health Science Ctr. Brooklyn	21	0	0	0	0	0	20	0	0	1	0	0	0	0	0	0	0
SUNY State C. of Optometry	4	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0
SUNY Stony Brook U.	214	31	5	13	23	21	37	0	0	16	21	1	2	5	39	0	0
SUNY U. Albany	178	8	2	2	13	0	17	4	0	33	38	8	2	2	9	23	17
SUNY U. Buffalo	258	7	13	1	12	44	34	16	0	15	19	9	8	4	27	37	12
SUNY Upstate Medical U.	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
St. Johns U.-Queens	50	0	0	0	0	0	6	1	0	18	0	3	0	1	0	21	0
Syracuse U.	154	5	14	1	11	16	8	1	2	9	35	0	0	3	13	20	16
Teachers C., Columbia U.	193	0	0	0	0	0	3	8	0	29	11	1	0	1	6	131	3
Union Theological Seminary	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	7
U. Rochester	209	24	8	2	14	13	62	8	0	15	7	5	3	4	32	5	7
Yeshiva U.	72	0	0	0	0	0	53	1	0	13	0	0	0	0	0	0	5
NORTH CAROLINA	1,203	32	68	16	73	156	244	60	46	57	94	29	9	16	82	165	56
Appalachian State U.	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
Duke U.	239	8	14	4	14	33	74	1	1	9	30	8	4	6	23	0	10
East Carolina U. School of Medicine	17	0	0	0	0	0	4	0	0	1	0	0	0	0	0	12	0
Fayetteville State U.	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0

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NC A&T State U.	21	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0
NC State U.	338	10	12	7	33	84	46	2	43	13	20	0	0	0	0	54	14
Southeastern Baptist Theological Seminary	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
U. NC Chapel Hill	419	9	39	5	25	8	87	51	2	20	44	21	3	7	43	29	26
U. NC Charlotte	25	1	0	0	1	8	1	0	0	1	0	0	0	0	0	13	0
U. NC Greensboro	83	0	0	0	0	0	3	5	0	13	0	0	2	3	14	42	1
Wake Forest U.	39	4	3	0	0	2	29	1	0	0	0	0	0	0	0	0	0
NORTH DAKOTA	73	0	13	1	3	2	11	4	3	9	0	0	0	0	1	24	2
ND State U.	32	0	10	0	3	2	6	4	3	1	0	0	0	0	1	0	2
U. ND	41	0	3	1	0	0	5	0	0	8	0	0	0	0	0	24	0
OHIO	1,602	60	93	15	47	264	243	98	39	119	83	30	11	22	121	255	102
Air Force Institute of Technology	9	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
Bowling Green State U.	78	1	7	0	1	0	3	1	0	16	2	5	3	2	22	10	5
Case Western Reserve U.	188	5	12	2	5	48	49	16	0	11	5	1	1	1	4	0	28
Cleveland Institute of Music	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Cleveland State U.	39	0	3	0	0	14	7	0	0	0	3	0	0	0	0	8	4
Hebrew Union C.	3	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0
Kent State U.	110	13	0	1	7	0	9	1	0	18	4	2	1	4	3	34	13
Medical C. OH	14	1	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0
Miami U.	43	0	5	1	0	0	12	0	0	6	6	1	1	5	2	4	0
OH State U., The	560	16	24	7	20	77	97	34	37	19	43	13	3	6	53	76	35
OH U.	107	7	3	1	3	10	10	0	1	12	0	3	1	2	3	41	10
U. Akron	100	4	17	0	0	33	0	0	0	21	1	1	0	0	0	23	0
U. Cincinnati	220	4	17	3	6	49	27	20	0	11	18	2	0	1	30	29	3
U. Dayton	25	3	0	0	0	11	0	0	0	0	0	0	0	0	0	9	2
U. Toledo	82	4	5	0	2	13	8	25	0	4	1	1	1	1	0	15	2
Wright State U.	16	0	0	0	3	2	8	1	1	1	0	0	0	0	0	0	0
Youngstown State U.	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
OKLAHOMA	367	5	13	7	8	44	40	6	36	38	27	8	3	4	17	88	23
OK State U.	203	2	6	0	2	20	15	3	35	15	12	3	0	1	5	70	14
U. OK	151	3	7	6	4	24	25	3	1	15	15	5	2	2	12	18	9
U. Tulsa	13	0	0	1	2	0	0	0	0	8	0	0	1	1	0	0	0
OREGON	407	12	15	13	17	37	79	19	39	29	28	4	2	7	22	64	20
OR Health & Science U.	43	0	0	0	4	8	31	0	0	0	0	0	0	0	0	0	0
OR State U.	172	2	7	6	7	26	32	16	39	6	5	2	0	0	0	23	1

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Portland State U.	28	1	3	1	0	3	0	0	0	2	2	0	0	0	0	8	8
U. OR	164	9	5	6	6	0	16	3	0	21	21	2	2	7	22	33	11
PENNSYLVANIA	2,154	66	93	20	135	323	269	115	29	157	157	47	23	39	182	355	144
Bryn Mawr C.	19	1	0	0	0	0	1	0	0	4	0	0	0	0	7	1	5
Carnegie Mellon U.	195	12	10	0	51	71	7	0	0	6	5	6	0	0	8	3	16
Drexel U.	95	5	4	2	4	31	11	0	2	26	1	0	0	0	0	5	4
Duquesne U.	26	0	2	0	0	0	0	2	0	8	0	0	3	3	3	0	5
Gannon U.	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
Indiana U. PA	72	0	0	0	0	0	0	0	0	0	3	0	10	20	8	31	0
Lehigh U.	76	4	2	0	7	29	1	0	1	4	0	1	4	2	1	17	3
Marywood U.	11	0	0	0	0	0	0	0	0	9	0	0	0	0	0	2	0
PA State U., The	580	22	30	15	19	119	79	23	26	33	43	6	1	7	31	92	34
Temple U.	223	2	8	0	6	1	28	22	0	42	18	6	0	0	35	42	13
Thomas Jefferson U.	22	0	0	0	0	2	20	0	0	0	0	0	0	0	0	0	0
U. PA	413	12	21	2	28	35	69	14	0	6	50	22	3	5	49	60	37
U. Pittsburgh	347	8	15	1	20	35	53	46	0	15	37	6	2	2	31	53	23
U. of the Sciences in Philadelphia	1	0	1	0	0	0	0	0	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	9	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	4
Widener U.	57	0	0	0	0	0	0	8	0	0	0	0	0	0	0	49	0
PUERTO RICO	71	3	9	2	0	4	9	0	0	21	0	2	0	0	6	15	0
Inter American U. PR-Metro campus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ponce School of Medicine	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Pontifical Catholic U. PR-Ponce	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
U. PR-Mayaguez	6	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0
U. PR-Medical Sciences campus	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
U. PR-Rio Piedras	56	3	9	0	0	0	3	0	0	19	0	2	0	0	6	14	0
RHODE ISLAND	238	11	11	18	19	24	29	12	5	14	25	5	4	8	42	5	6
Brown U.	147	9	9	7	16	12	21	0	0	3	24	5	2	6	33	0	0
Salve Regina U.	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0
U. RI	84	2	2	11	3	12	8	12	5	11	1	0	2	2	2	5	6
SOUTH CAROLINA	393	4	22	5	12	62	49	44	9	20	27	8	3	6	24	70	28
Clemson U.	113	3	10	0	7	31	18	1	9	2	11	0	0	0	0	13	8
Medical U. SC	16	0	1	0	0	0	14	1	0	0	0	0	0	0	0	0	0
SC State U.	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
U. SC	241	1	11	5	5	31	17	42	0	18	16	8	3	6	24	34	20

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SOUTH DAKOTA	89	0	2	4	0	2	9	0	6	9	7	0	0	0	0	50	0
SD School of Mines & Technology	7	0	0	4	0	2	1	0	0	0	0	0	0	0	0	0	0
SD State U.	21	0	2	0	0	0	6	0	6	0	7	0	0	0	0	0	0
U. SD	61	0	0	0	0	0	2	0	0	9	0	0	0	0	0	50	0
TENNESSEE	690	16	27	1	21	72	109	30	11	84	27	12	6	3	51	171	49
East TN State U.	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Meharry Medical C.	14	0	2	0	0	0	12	0	0	0	0	0	0	0	0	0	0
Mid-America Baptist Theological Seminary	8	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5
Middle TN State U.	12	0	2	0	0	0	0	0	0	0	2	0	0	1	0	7	0
TN State U.	45	0	0	0	0	0	1	0	0	9	0	0	0	0	0	34	1
TN Technological U.	9	0	0	0	0	4	0	0	2	0	0	0	0	0	0	3	0
U. Memphis	110	0	2	0	5	7	2	2	0	34	1	5	0	0	12	28	12
U. TN Health Science Ctr.	32	0	3	0	0	3	16	10	0	0	0	0	0	0	0	0	0
U. TN, Knoxville	244	7	12	1	7	33	25	9	9	37	19	2	4	2	9	43	25
Vanderbilt U.	185	9	6	0	9	25	53	9	0	4	5	5	2	0	27	25	6
TEXAS	2,617	71	114	54	115	423	392	108	68	182	153	37	16	29	229	452	174
Baylor C. of Medicine	51	0	0	0	1	0	50	0	0	0	0	0	0	0	0	0	0
Baylor U.	57	1	9	0	6	0	1	1	0	0	1	0	1	2	9	26	0
Dallas Theological Seminary	10	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	4
Lamar U.	6	0	1	0	0	3	0	0	0	0	0	0	0	0	1	1	0
Rice U.	128	8	12	4	14	35	9	0	0	4	17	3	2	4	16	0	0
St. Marys U.	10	0	0	0	0	0	0	0	0	7	0	0	0	0	0	3	0
Sam Houston State U.	3	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
Southern Methodist U.	28	0	0	3	7	7	0	0	0	1	5	0	0	0	5	0	0
Southwestern Baptist Theological Seminary	31	0	0	0	0	0	0	0	0	5	0	0	0	0	9	5	12
TX A&M U.	492	8	28	12	18	127	67	11	45	31	28	5	3	6	3	66	34
TX A&M U. System-Health Science Ctr.	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
TX A&M U.-Commerce	37	0	0	0	0	0	0	0	0	1	0	0	0	0	0	36	0
TX A&M U.-Corpus Christi	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
TX A&M U.-Kingsville	27	0	0	0	0	0	0	0	2	0	0	0	0	0	0	25	0
TX Christian U.	16	2	2	0	0	0	1	0	0	5	0	1	1	1	3	0	0
TX Southern U.	11	0	0	0	0	0	1	5	0	1	0	0	0	0	0	4	0
TX State U.-San Marcos Southwest TX State U.	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
TX Tech U.	173	2	8	2	5	24	7	3	15	18	6	7	1	0	23	39	13
TX Tech U. Health Sciences Ctr.	5	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0
TX Womans U.	63	0	0	0	0	0	7	21	0	9	1	0	0	0	7	13	5

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
U. Dallas	8	0	0	0	0	0	0	0	0	0	2	0	0	3	3	0	0
U. Houston	209	6	14	5	8	22	15	3	0	22	18	6	2	3	14	56	15
U. North TX	152	4	6	1	16	4	6	0	3	26	3	3	1	5	20	46	8
U. North TX, Health Science Ctr. Ft. Worth	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0
U. TX Medical Branch-Galveston	35	0	0	0	0	1	27	4	0	1	0	0	0	0	2	0	0
U. TX-Arlington	58	3	6	0	6	15	2	0	0	5	1	0	0	0	4	0	16
U. TX-Austin	702	31	26	21	24	160	46	12	1	32	58	10	4	5	101	118	53
U. TX-Dallas	59	1	2	5	8	16	4	1	0	0	7	2	1	0	3	0	9
U. TX-El Paso	20	0	0	1	1	6	1	0	2	3	0	0	0	0	0	6	0
U. TX-Health Science Ctr.-Houston	103	4	0	0	0	0	55	41	0	1	1	0	0	0	0	0	1
U. TX-Health Science Ctr.-San Antonio	35	1	0	0	0	0	30	4	0	0	0	0	0	0	0	0	0
U. TX-Pan American	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	4
U. TX-San Antonio	5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0
U. TX-Southwestern Medical Ctr.-Dallas	48	0	0	0	0	3	35	0	0	10	0	0	0	0	0	0	0
UTAH	343	10	33	11	19	57	62	15	4	30	14	3	4	1	8	48	24
Brigham Young U.	65	1	4	0	1	20	8	1	0	18	2	0	0	0	0	9	1
U. UT	214	6	24	10	16	28	45	14	0	7	8	3	4	1	8	21	19
UT State U.	64	3	5	1	2	9	9	0	4	5	4	0	0	0	0	18	4
VERMONT	55	0	1	0	0	4	15	0	4	10	0	0	0	0	2	19	0
Middlebury C.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
U. VT	53	0	1	0	0	4	15	0	4	10	0	0	0	0	0	19	0
VIRGINIA	1,040	25	38	21	63	174	111	38	31	86	93	20	5	14	54	197	70
C. of William and Mary	53	9	1	8	6	0	3	0	0	0	0	3	0	0	2	21	0
George Mason U.	162	1	0	4	21	9	5	9	7	14	51	0	0	0	3	38	0
Hampton U.	2	0	0	0	0	0	0	2	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	6	0	2	6	20	8	0	1	2	2	0	0	0	0	5	7
Regent U.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8
Union Theological Seminary-PSCE	7	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	3
U. VA	358	5	17	2	8	51	47	9	2	25	29	14	5	14	40	81	9
VA Commonwealth U.	97	1	6	1	2	1	33	10	0	18	4	0	0	0	3	4	14
VA Polytechnic Institute and State U.	290	3	14	4	20	93	15	8	21	27	7	3	0	0	0	48	27
WASHINGTON	722	20	32	30	28	106	124	50	25	33	70	22	3	11	54	78	36
Gonzaga U.	23	0	0	0	0	0	0	0	0	0	3	0	0	0	1	16	3
Seattle Pacific U.	18	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	0

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2004

Institution	2004 Total	Physics & astronomy	Chemistry	Earth, atmos., & marine sciences	Mathematics & computer sciences	Engineering	Biological/biomedical sciences	Health sciences	Agricultural sciences/ natural resources	Psychology	Other social sciences	History	American literature	English language & literature	Other humanities	Education	Professional/ other fields
Seattle U.	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
U. WA	506	18	30	28	25	84	84	45	6	14	47	14	2	9	51	29	20
WA State U.	167	2	2	2	3	22	40	5	19	10	20	8	1	2	2	16	13
WEST VIRGINIA	173	4	6	1	4	18	28	4	12	29	9	5	2	3	7	41	0
Marshall U.	9	0	0	0	0	0	6	0	0	0	0	0	0	0	0	3	0
WV U.	164	4	6	1	4	18	22	4	12	29	9	5	2	3	7	38	0
WISCONSIN	784	30	36	12	26	115	152	19	33	36	66	23	11	19	80	89	37
Cardinal Stritch U.	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Marquette U.	45	0	3	0	1	9	3	0	0	3	0	4	0	3	13	4	2
Medical C. WI	27	1	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0
U. WI-Madison	627	26	31	12	24	98	119	16	33	24	54	19	5	14	64	57	31
U. WI-Milwaukee	71	3	2	0	1	8	4	3	0	9	12	0	6	2	3	14	4
WYOMING	42	0	6	4	0	3	8	0	4	5	1	0	0	0	0	11	0
U. WY	42	0	6	4	0	3	8	0	4	5	1	0	0	0	0	11	0

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE A-9. Top 50 doctorate-granting institutions, 2004

Rank	Institution	Number
1.	U. CA, Berkeley	769
2.	U. TX-Austin	702
3.	U. CA, Los Angeles	664
4.	U. MI	658
5.	Nova Southeastern U.	645
6.	U. WI-Madison	627
7.	Stanford U.	591
8.	PA State U., The	580
9.	Harvard U.	579
10.	U. IL-Urbana-Champaign	574
11.	U. MN	565
12.	OH State U., The	560
13.	U. FL	522
14.	U. WA	506
15.	TX A&M U.	492
16.	U. MD	481
17.	U. Southern CA	477
18.	MA Institute of Technology	467
19.	Purdue U.	448
20.	MI State U.	422
21.	U. NC Chapel Hill	419
[22.	Cornell U.	413
[22.	U. PA	413
24.	Columbia U.	408
25.	U. GA	404
26.	U. AZ	401
27.	IN U.	391
28.	U. CA, Davis	375
29.	NY U.	372
30.	U. VA	358
31.	AZ State U.	357
32.	Johns Hopkins U.	355
[33.	Rutgers U.	347
[33.	U. Pittsburgh	347
35.	NC State U.	338
36.	U. Chicago, The	331
37.	Yale U.	327
38.	U. CA, San Diego	326
39.	GA Institute of Technology	311
40.	Northwestern U.	308
41.	U. IA	300
42.	Graduate School & U. Ctr., CUNY	298
43.	VA Polytechnic Institute and State U.	290
44.	Princeton U.	281
45.	U. CO	279
46.	Boston U.	270
47.	U. Sarasota	269
48.	FL State U.	268
49.	U. MA Amherst	266
[50.	U. MO-Columbia	258
[50.	SUNY U. Buffalo	258

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX B: Trend Tables, 1994-2004

Appendix B includes the following two tables:

B-1: Number of doctorate recipients, by subfield, 1994-2004

B-2: Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1994-2004

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 the inside back cover of the questionnaire at the back 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 nine 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 1994-2004. 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 of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
TOTAL ALL FIELDS [a]	41,035	41,750	42,439	42,541	42,647	41,092	41,365	40,824	39,989	40,770	42,155
PHYSICAL SCIENCES	6,761	6,727	6,592	6,583	6,669	6,224	5,979	5,857	5,610	5,830	6,049
MATHEMATICS	1,118	1,190	1,122	1,123	1,177	1,083	1,050	1,007	918	994	1,075
Applied mathematics	206	211	230	242	265	252	238	214	225	223	264
Algebra	78	82	78	78	75	84	82	68	65	69	97
Analysis & functional analysis	107	99	100	103	130	86	81	91	74	85	99
Geometry	35	45	72	70	54	65	59	40	52	48	95
Logic	29	35	16	23	16	23	19	24	14	18	15
Number theory	37	35	42	46	46	50	40	35	26	46	39
Mathematical statistics	205	205	178	181	204	174	195	198	167	191	226
Topology	38	51	55	62	65	65	50	54	40	49	52
Computing theory & practice	16	14	18	14	18	14	17	11	11	8	10
Operations research	26	36	21	20	17	21	19	14	19	19	23
Mathematics, general	269	305	233	153	163	116	151	155	133	150	82
Mathematics, other	72	72	79	131	124	133	99	103	92	88	73
COMPUTER & INFORMATION SCIENCES	903	997	920	909	927	856	859	826	807	865	949
Computer science	833	913	836	828	821	741	722	688	673	698	768
Information science & systems	70	84	84	81	106	115	137	81	79	65	106
Computer & information science, other	---	---	---	---	---	---	---	57	55	102	75
ASTRONOMY	144	173	192	198	206	159	185	186	144	168	165
Astronomy	66	89	84	71	91	59	78	89	54	70	68
Astrophysics	78	84	108	127	115	100	107	97	90	98	97
ATMOSPHERIC SCI. & METEOROLOGY	129	130	125	149	125	124	143	116	117	139	126
Atmospheric physics & chemistry	27	27	22	45	38	43	39	33	39	39	29
Atmospheric dynamics	27	16	21	25	24	17	17	17	13	21	33
Meteorology	32	25	35	28	25	22	34	20	15	25	22
Atmospheric science/meteorology, general	37	44	33	36	22	32	36	34	27	33	24
Atmospheric science/meteorology, other	6	18	14	15	16	10	17	12	23	21	18
CHEMISTRY	2,257	2,162	2,149	2,148	2,216	2,132	1,989	1,981	1,923	2,041	1,987
Analytical	334	317	346	350	383	333	326	334	302	338	322
Inorganic	262	258	249	279	287	279	221	280	247	264	241
Nuclear	10	5	5	8	6	10	9	4	9	4	---
Organic	544	483	507	567	598	563	525	522	525	556	539
Medicinal/pharmaceutical	102	96	96	105	114	131	107	115	99	110	112
Physical	334	338	300	334	279	310	271	285	302	321	264
Polymer	117	116	121	110	122	95	107	107	102	110	115
Theoretical	52	40	57	48	41	56	52	40	48	49	54
Chemistry, general	447	458	396	261	285	196	261	202	203	186	198
Chemistry, other	55	51	72	86	101	159	110	92	86	103	142

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GEOLOGICAL & EARTH SCIENCES	479	430	421	446	469	420	343	348	393	348	371
Geology	194	186	162	165	171	157	123	115	132	119	98
Geochemistry	59	42	49	49	58	55	49	41	70	53	38
Geophysics & seismology	106	93	101	108	106	100	70	88	91	75	87
Paleontology	17	20	14	23	23	15	31	16	22	18	25
Mineralogy & petrology	21	19	23	19	14	14	5	15	13	8	17
Stratigraphy & sedimentation	27	16	12	23	24	17	13	13	7	16	19
Geomorphology & glacial geology	13	11	11	26	20	18	14	10	16	20	22
Geological & related sciences, general	18	21	27	16	13	9	20	16	12	9	23
Geological & related sciences, other	24	22	22	17	40	35	18	34	30	30	42
PHYSICS	1,548	1,479	1,485	1,401	1,378	1,271	1,204	1,197	1,127	1,080	1,186
Acoustics	20	18	19	19	18	16	10	10	18	24	17
Chemical & atomic/molecular	140	110	129	106	100	100	110	81	82	73	82
Elementary particle	176	183	176	170	173	169	147	121	156	134	163
Biophysyics	---	---	---	---	---	---	---	---	---	---	55
Fluids	12	18	21	24	26	23	10	8	15	9	---
Nuclear	90	91	87	106	92	77	74	80	76	67	74
Optics	104	98	129	123	105	98	117	107	107	95	119
Plasma & high-temperature	79	46	48	39	55	49	38	39	29	32	37
Polymer	29	23	33	19	24	28	21	18	22	13	18
Solid state & low-temperature	388	371	364	328	314	307	279	295	298	272	276
Applied physics	---	---	---	---	---	---	---	---	---	---	72
Physics, general	343	355	323	255	190	202	224	206	173	171	142
Physics, other	167	166	156	212	281	202	174	232	151	190	131
OCEAN/MARINE SCIENCES	183	166	178	209	171	179	206	196	181	195	190
Hydrology & water resources	30	24	31	43	35	32	43	45	35	26	49
Oceanography	91	83	107	114	94	100	99	85	86	97	67
Marine sciences	34	32	27	30	18	30	35	36	42	36	59
Ocean/marine, other	28	27	13	22	24	17	29	30	18	36	15
ENGINEERING	5,821	6,008	6,309	6,115	5,924	5,330	5,321	5,505	5,076	5,278	5,776
Aerospace, aeronautical & astronaut engineering	230	252	287	273	241	206	214	203	209	200	201
Agricultural engineering	89	73	104	79	74	59	60	52	50	54	60
Bioengineering & biomedical engineering	173	189	220	211	208	245	252	232	246	280	369
Ceramic sciences engineering	39	39	41	39	24	33	22	17	13	18	14
Chemical engineering	630	602	681	662	669	576	618	635	607	567	635
Civil engineering	601	572	600	592	587	506	480	500	539	552	547
Communications engineering	33	29	32	33	40	39	42	47	22	36	34
Computer engineering	202	189	208	227	210	203	172	186	164	192	227
Electrical & electronics engineering	1,438	1,513	1,501	1,460	1,346	1,236	1,330	1,343	1,209	1,238	1,388
Engineering mechanics	132	108	105	93	86	68	57	75	56	63	98
Engineering physics	17	17	37	24	15	28	26	22	16	28	28
Engineering science	46	56	52	45	49	49	34	53	31	39	61

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Environmental health engineering	82	84	98	63	63	78	76	94	87	122	128
Industrial & manufacturing engineering	228	284	259	246	229	211	176	206	230	213	217
Materials science engineering	433	476	472	483	482	393	404	448	364	437	473
Mechanical engineering	883	917	947	929	936	787	807	878	771	751	755
Metallurgical engineering	67	73	61	60	59	43	25	32	19	19	22
Mining & mineral engineering	23	19	31	33	21	18	10	10	8	14	9
Nuclear engineering	85	105	113	103	96	76	98	75	64	75	59
Ocean engineering	29	21	26	34	29	16	18	28	23	12	21
Operations research engineering	47	48	74	74	62	67	51	55	66	80	72
Petroleum engineering	42	48	52	51	48	45	45	37	45	36	34
Polymer & plastics engineering	53	58	65	54	59	53	62	57	53	45	54
Systems engineering	51	47	47	49	68	42	34	47	45	45	58
Engineering, general	39	60	60	51	29	40	42	25	19	19	29
Engineering, other	129	129	136	147	194	213	166	148	120	143	183
LIFE SCIENCES	7,799	7,998	8,337	8,422	8,612	8,205	8,627	8,445	8,473	8,514	8,819
AGRICULTURAL SCIENCES/NATURAL RESOURCES	1,301	1,293	1,289	1,212	1,267	1,216	1,181	1,132	1,130	1,181	1,152
Agricultural economics	162	173	169	133	155	149	138	154	120	119	106
Agricultural business & management	0	3	2	1	2	2	5	3	1	1	---
Animal breeding & genetics	17	19	12	24	18	21	22	16	14	21	12
Animal nutrition	58	50	54	55	45	47	45	45	49	41	47
Dairy science	11	14	9	14	10	12	9	2	7	18	---
Poultry science	21	11	11	9	11	8	9	11	10	18	21
Animal sciences, other	86	85	90	62	60	70	73	71	70	88	76
Agronomy & crop science	143	114	110	77	97	106	70	75	74	55	63
Plant breeding & genetics	81	72	63	67	69	44	68	37	59	50	36
Plant pathology	55	52	90	65	66	66	63	52	53	48	55
Plant sciences, other	24	30	21	20	37	38	29	26	27	29	36
Food distrubution	1	---	---	---	---	---	---	---	---	---	---
Food engineering	16	7	7	11	13	7	10	14	7	11	95
Food sciences, other	152	135	142	175	153	137	142	130	130	157	74
Soil chemistry/microbiology	21	27	29	32	27	29	26	23	29	24	20
Soil sciences, other	69	72	78	56	74	67	64	56	55	50	53
Horticulture science	65	67	73	44	60	66	55	37	46	54	45
Fisheries science & management	48	49	46	45	30	38	43	44	53	47	37
Forest biology	20	24	19	22	20	14	22	27	19	16	36
Forest engineering	---	4	0	13	2	1	3	0	3	3	---
Forest management	17	20	22	21	27	17	13	13	16	18	27
Wood science & pulp/paper technology	26	26	18	25	25	21	11	20	29	19	19
Conservation/renewable natural resources	21	24	13	17	25	25	19	32	27	47	45
Forestry & related science, other	59	71	55	50	69	50	54	48	56	47	34
Wildlife/range management	52	50	64	50	56	44	56	41	37	46	40
Environmental science	61	81	83	96	73	99	95	119	112	137	132
Agricultural science, general	4	6	5	10	8	8	10	2	4	2	6
Agricultural science, other	11	7	4	18	35	30	27	34	23	15	37

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BIOLOGICAL/BIOMEDICAL SCIENCES	5,202	5,376	5,724	5,789	5,845	5,582	5,854	5,691	5,690	5,697	5,937
Biochemistry	804	824	794	832	800	760	776	728	781	772	702
Biomedical sciences	---	93	141	158	182	176	155	155	220	182	184
Biophysics	123	155	142	147	166	173	164	162	151	161	130
Biotechnology research	14	4	6	11	12	19	14	9	13	24	26
Bacteriology	18	13	16	13	13	13	15	17	12	6	15
Plant genetics	30	35	41	30	40	31	35	31	57	38	54
Plant pathology	40	32	38	33	18	36	25	31	24	27	26
Plant physiology	70	55	73	47	61	54	39	45	43	32	25
Botany, other	117	102	105	91	113	67	92	75	84	80	134
Anatomy	66	64	47	50	35	33	39	29	20	33	13
Biometrics & biostatistics	72	67	80	84	75	76	92	90	82	84	100
Cell biology	237	236	233	251	300	281	337	315	302	302	292
Ecology	201	203	245	255	293	273	296	338	312	348	366
Developmental biology/embryology	62	64	96	115	127	108	111	107	93	126	141
Endocrinology	26	20	24	17	30	19	20	18	14	21	22
Entomology	123	121	136	123	138	114	137	90	113	111	108
Biological immunology	161	190	238	214	245	223	239	266	278	261	344
Molecular biology	598	617	651	775	736	716	707	709	622	615	724
Microbiology	423	426	444	410	383	383	382	396	382	363	391
Neuroscience	284	308	404	437	413	431	495	485	489	472	584
Nutritional sciences	147	136	142	124	139	102	150	135	141	127	133
Parasitology	22	14	22	17	15	13	19	22	17	15	20
Toxicology	120	126	138	180	155	114	123	133	122	122	107
Genetics, human & animal	203	202	212	217	197	216	228	198	225	226	256
Pathology, human & animal	128	109	135	106	90	120	106	116	115	101	98
Pharmacology, human & animal	259	278	316	300	255	254	267	257	268	275	285
Physiology, human & animal	289	262	275	227	258	244	241	216	208	214	205
Zoology, other	117	145	100	97	111	126	133	103	122	127	96
Biological sciences, general	288	348	292	209	217	182	200	194	184	195	190
Biological sciences, other	160	127	138	219	228	225	217	221	196	237	166
HEALTH SCIENCES	1,296	1,329	1,324	1,421	1,500	1,407	1,592	1,622	1,653	1,636	1,730
Speech-language pathology & audiology	95	106	94	88	95	86	106	92	100	94	95
Environmental health	51	51	58	67	54	69	52	56	49	53	57
Environmental toxicology	---	---	---	---	---	---	---	---	---	---	27
Health systems/service administration	53	62	60	66	62	62	59	51	54	58	66
Public health	142	152	156	138	156	173	207	216	219	206	258
Epidemiology	168	153	149	151	165	179	191	168	198	234	217
Exercise physiology/science, kinesiology	87	118	105	105	129	104	130	152	148	145	163
Nursing	336	354	354	420	399	353	415	364	434	414	394
Pharmacy	148	144	145	142	156	137	164	148	159	118	164
Rehabilitation/therapeutic services	43	20	26	34	35	26	40	118	73	69	76
Veterinary medicine	56	55	65	47	49	49	50	60	56	48	54

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Health sciences, general	41	35	22	45	17	32	49	35	39	39	33
Health sciences, other	76	79	90	118	183	137	129	162	124	158	126
SOCIAL SCIENCES AND PSYCHOLOGY	6,615	6,636	6,823	7,041	7,073	7,041	7,112	6,833	6,616	6,786	6,795
PSYCHOLOGY	3,379	3,429	3,495	3,557	3,675	3,668	3,618	3,442	3,199	3,281	3,336
Clinical	1,285	1,290	1,327	1,255	1,345	1,441	1,353	1,262	1,218	1,188	1,221
Cognitive & psycholinguistics	129	104	128	166	113	143	141	141	121	133	144
Comparative	8	4	3	6	6	11	7	5	2	4	6
Counseling	497	471	465	488	448	460	475	482	469	437	511
Developmental & child	179	152	188	215	267	193	203	193	171	178	186
Human/individual & family development	129	150	151	126	119	135	147	137	139	151	144
Experimental	139	151	128	146	149	139	133	134	112	119	88
Educational	69	74	92	61	61	64	97	48	54	52	74
Family & marriage counseling	---	57	51	63	51	56	54	45	67	62	31
Industrial & organizational	137	155	162	187	189	158	188	173	154	158	158
Personality	19	16	24	26	25	16	23	11	17	17	18
Physiological/psychobiology	93	92	80	77	92	87	89	92	88	85	83
Psychometrics	5	10	11	11	9	15	13	2	9	7	---
Quantitative	17	13	19	17	15	14	8	10	13	11	29
School	84	91	82	84	106	121	99	109	89	102	87
Social	153	155	170	181	186	176	207	198	179	202	163
Psychology, general	280	306	281	318	300	235	239	223	146	227	226
Psychology, other	156	138	133	130	194	204	142	177	151	148	167
SOCIAL SCIENCES	3,236	3,207	3,328	3,484	3,398	3,373	3,494	3,391	3,417	3,505	3,459
Anthropology	384	375	397	434	425	463	446	410	495	472	529
Area studies	34	27	28	10	14	11	14	19	25	12	18
Criminology	41	44	60	49	55	51	66	62	56	76	69
Demography/population studies	23	15	11	24	30	28	20	12	20	15	19
Economics	914	952	979	999	976	911	933	914	890	909	942
Econometrics	26	27	29	31	25	15	15	13	14	23	18
Geography	146	150	165	149	154	144	197	186	197	168	192
International relations/affairs	112	73	99	88	96	119	77	91	82	99	99
Political science & government	589	599	622	665	662	655	669	658	606	660	586
Public policy analysis	94	94	104	127	97	125	138	139	147	147	145
Sociology	525	541	517	577	549	544	617	565	545	597	579
Social sciences, statistics	46	48	48	56	61	72	60	49	54	48	31
Urban affairs/studies	133	103	108	92	77	57	79	80	92	78	84
Social sciences, general	21	35	26	26	30	25	37	25	33	28	32
Social sciences, other	148	124	135	157	147	153	126	168	161	173	116
HUMANITIES	4,742	5,062	5,115	5,432	5,514	5,459	5,634	5,598	5,374	5,413	5,467
HISTORY	801	889	857	965	990	1,010	1,061	1,027	1,030	940	975
American	310	344	355	373	408	418	443	425	422	415	402

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Asian	---	43	54	54	70	68	51	51	67	66	66
European	180	185	187	245	230	235	243	246	232	190	222
African	---	---	---	---	---	---	---	---	---	---	21
Latin American	---	---	---	---	---	---	---	---	---	---	47
History/philosophy of science & technology	27	41	37	35	44	50	42	40	46	46	48
History, general	140	148	101	82	86	75	102	75	81	72	55
History, other	144	128	123	176	152	164	180	190	182	151	114
LETTERS	1,600	1,749	1,723	1,793	1,820	1,767	1,843	1,720	1,649	1,640	1,665
Classics	84	62	72	53	85	77	64	55	57	75	70
Comparative literature	163	191	164	181	164	166	188	203	175	165	175
Folklore	---	---	---	---	---	---	---	---	---	---	22
Linguistics	221	201	230	244	220	251	230	230	195	225	253
Literature, American	296	327	314	408	389	372	460	385	369	362	350
Literature, English	597	706	621	534	543	517	544	469	521	435	425
English language	50	46	78	152	146	133	66	124	86	132	158
Speech & rhetorical studies	142	139	155	138	169	150	143	126	137	151	127
Letters, general	22	43	28	23	22	19	55	34	30	27	19
Letters, other	25	34	61	60	82	82	93	94	79	68	66
FOREIGN LANGUAGES & LITERATURE	594	639	605	652	643	626	641	620	626	621	586
French	129	151	142	150	137	148	143	141	121	102	123
German	67	93	88	82	106	90	83	84	68	100	56
Italian	32	35	24	23	33	20	16	16	23	33	39
Spanish	212	209	196	249	207	201	218	233	243	238	240
Russian	38	28	37	39	43	25	29	27	26	28	25
Slavic (other than Russian)	10	16	11	9	15	17	14	12	19	11	8
Chinese	25	20	29	23	19	27	21	16	22	24	15
Japanese	12	7	10	19	11	10	18	17	15	20	14
Hebrew	10	11	12	7	8	4	11	6	8	5	---
Arabic	4	8	6	4	9	12	15	6	5	4	7
Other languages & literature	55	61	50	47	55	72	73	62	76	56	59
OTHER HUMANITIES	1,747	1,785	1,930	2,022	2,061	2,056	2,089	2,231	2,069	2,212	2,241
American studies	88	94	115	84	100	98	113	127	97	94	115
Archeology	34	35	21	35	34	26	36	40	26	33	34
Art history/criticism/conservation	182	181	177	188	221	188	228	223	216	254	247
Music	683	713	697	727	696	767	746	787	762	874	850
Philosophy	302	298	369	444	410	389	364	412	359	391	363
Religion	252	248	317	303	327	334	348	342	348	303	388
Drama/theater arts	102	80	103	116	92	99	82	104	92	86	91
Humanities, general	32	25	39	25	23	24	40	29	19	27	17
Humanities, other	72	111	92	100	158	131	132	167	150	150	136

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
EDUCATION	6,711	6,650	6,785	6,574	6,571	6,546	6,430	6,337	6,487	6,632	6,635
RESEARCH AND ADMINISTRATION	4,528	4,552	4,864	4,744	4,650	4,774	4,692	4,697	5,110	5,070	5,137
Curriculum & instruction	819	896	899	917	884	993	965	884	987	999	970
Educational administration & supervision	1,207	1,086	1,172	1,020	952	895	813	839	792	772	740
Educational leadership	793	890	993	1,031	1,116	1,149	1,214	1,225	1,548	1,582	1,596
Educational/instructional media design	112	121	107	92	91	123	138	140	171	129	192
Educational statistics/research methods	68	63	76	58	56	57	55	65	67	62	64
Educational assessment/testing/measure	28	19	32	30	35	39	45	44	31	47	57
Educational psychology	311	297	309	359	327	298	278	281	302	285	262
School psychology	97	71	114	118	112	108	137	123	170	124	113
Social/philosophical foundations of education	140	130	125	138	129	125	135	141	127	145	135
Special education	241	254	278	270	247	262	260	229	213	214	287
Counseling education/counseling & guidance	284	268	278	207	270	260	214	211	257	221	182
Higher education/evaluation & research	428	457	481	504	431	465	438	515	445	490	539
TEACHER EDUCATION	401	390	371	290	342	292	260	295	261	240	269
Pre-elementary/early childhood	91	70	81	43	54	49	34	49	50	70	37
Elementary	71	61	46	56	62	59	53	55	52	34	65
Secondary	24	24	34	27	54	31	23	22	21	19	26
Adult & continuing	215	235	210	164	172	153	150	169	138	117	141
TEACHING FIELDS	960	924	864	919	954	892	823	721	684	714	757
Agricultural education	52	35	32	38	25	38	22	22	28	25	21
Art education	33	39	41	30	46	47	31	31	30	34	38
Business education	25	21	20	26	31	45	37	19	13	6	7
English education	56	60	57	62	53	64	44	56	53	47	45
Foreign languages education	54	60	45	47	73	62	43	47	41	46	62
Health education	97	99	90	58	70	58	71	65	39	54	43
Home economics education	11	15	13	13	8	10	14	8	9	4	15
Technology & industrial arts education	20	15	11	19	30	21	21	16	7	13	---
Mathematics education	74	92	100	93	115	101	90	80	88	80	91
Music education	89	96	91	101	93	79	79	62	80	74	93
Nursing education	24	18	23	21	14	22	11	5	7	8	10
Physical education & coaching	139	104	101	109	109	115	83	80	72	75	68
Reading education	97	85	66	70	76	68	89	72	66	60	84
Science education	85	73	96	77	109	58	60	72	60	69	86
Social science education	10	14	12	26	15	9	35	12	10	10	21
Technical education	30	20	24	32	18	27	20	10	23	24	---
Trade & industrial education	24	13	12	16	14	14	12	7	5	5	18
Teacher education, educ. & prof dev.	40	65	30	81	55	54	61	57	53	80	55
OTHER EDUCATION	822	784	686	621	625	588	655	624	432	608	472
Education, general	484	429	353	336	234	196	253	256	157	312	196
Education, other	338	355	333	285	391	392	402	368	275	296	276

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study,1994-2004

Subfield of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
PROFESSIONAL/OTHER FIELDS	2,586	2,669	2,478	2,374	2,284	2,287	2,262	2,249	2,353	2,317	2,614
BUSINESS MGMT./ADMINISTRATIVE SERVICES	1,283	1,330	1,279	1,245	1,174	1,108	1,065	1,053	1,097	1,038	1,264
Accounting	179	168	156	150	154	154	111	115	110	106	131
Banking/financial support services	134	163	114	69	83	74	72	66	76	79	106
Business administration & management	319	341	393	426	348	315	321	347	339	342	372
Business/managerial economics	40	37	38	48	57	42	52	50	38	44	60
International business	22	23	36	39	33	34	32	29	24	44	35
Management information systems/business data	117	111	95	100	86	83	85	98	89	86	94
Marketing management & research	167	153	153	153	142	127	141	113	132	111	134
Human resources development	---	---	---	---	---	---	---	---	---	---	86
Operations research	54	60	64	45	57	52	61	40	36	26	51
Organizational behavior	102	101	110	123	105	101	99	118	174	113	124
Business management/administration serv., general	87	92	67	28	38	49	36	20	33	18	23
Business management/administration serv., other	62	81	53	64	71	77	55	57	46	69	48
COMMUNICATIONS	371	381	389	332	373	379	389	389	398	415	450
Communications research	40	40	60	51	52	50	53	60	63	63	60
Mass communications	156	121	137	117	142	153	154	153	156	161	187
Communication theory	45	53	37	40	48	47	39	40	43	42	49
Communications, general	68	78	81	74	62	69	77	78	70	89	75
Communications, other	62	89	74	50	69	60	66	58	66	60	79
OTHER PROFESSIONAL FIELDS	891	932	771	773	721	768	797	801	800	842	897
Architectural environmental design	67	55	61	66	52	65	60	66	67	69	66
Home economics	31	31	28	36	18	23	23	20	24	21	43
Law	33	38	24	27	31	37	41	34	49	52	56
Library science	42	47	49	40	34	39	45	40	32	42	23
Parks/recreation/leisure/fitness	37	54	29	24	38	29	45	41	52	38	82
Public administration	135	128	103	95	104	117	103	96	103	120	116
Social work	272	303	256	247	235	224	257	260	237	272	304
Theology/religious education	262	273	213	178	158	162	171	194	172	173	156
Professional fields, general	1	1	2	4	0	9	3	8	7	4	---
Professional fields, other	11	2	6	56	51	63	49	42	57	51	51
OTHER FIELDS	41	26	39	24	16	32	11	6	58	22	3

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; 10 in 2000; 5 in 2001; 10 in 2002; 19 in 2003.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

APPENDIX TABLE B-2a. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1994-2004 - Total all doctorates

Citizenship status by race/ethnicity	Year of doctorate										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total all doctorates [a]	41,035	41,750	42,439	42,541	42,647	41,092	41,365	40,824	39,989	40,770	42,155
U.S. citizens	27,150	27,743	27,775	28,151	28,457	27,986	27,979	27,040	26,011	26,485	26,431
Permanent residents	3,748	4,317	3,765	2,931	2,702	2,308	1,950	1,838	1,650	1,634	1,528
Temporary visa holders	9,422	8,831	9,650	9,193	9,496	9,057	9,663	9,833	9,727	10,612	11,585
Unknown citizenship	715	859	1,249	2,266	1,992	1,741	1,773	2,113	2,601	2,039	2,611
Total known race/ethnicity	39,849	40,347	40,707	38,911	39,392	38,684	38,801	38,074	36,765	37,698	38,655
U.S. citizens	26,901	27,447	27,445	27,074	27,541	27,527	27,424	26,565	25,522	25,776	25,811
Permanent residents	3,701	4,275	3,732	2,868	2,614	2,269	1,898	1,804	1,603	1,592	1,484
Temporary visa holders	9,130	8,565	9,404	8,852	9,089	8,800	9,371	9,507	9,365	10,161	11,092
Unknown citizenship	117	60	126	117	148	88	108	198	275	169	268
American Indian [b]	146	148	188	167	190	214	169	163	155	142	135
U.S. citizens	143	148	185	167	189	214	169	148	147	134	129
Permanent residents [c]	0	0	1	0	0	0	0	2	3	3	2
Temporary visa holders [c]	3	0	2	0	0	0	0	12	5	5	4
Unknown citizenship	0	0	0	0	1	0	0	1	0	0	0
Asian [d]	9,353	9,693	9,803	9,006	8,563	7,993	8,059	8,110	7,873	8,278	9,039
U.S. citizens	937	1,129	1,066	1,296	1,155	1,304	1,363	1,396	1,364	1,354	1,449
Permanent residents	2,597	3,168	2,608	1,813	1,552	1,191	909	777	745	671	605
Temporary visa holders	5,805	5,384	6,106	5,865	5,826	5,469	5,764	5,915	5,733	6,229	6,941
Unknown citizenship	14	12	23	32	30	29	23	22	31	24	44
Black/African-American	1,681	1,807	1,825	1,760	1,913	2,052	2,094	2,011	2,028	2,100	2,376
U.S. citizens	1,099	1,293	1,305	1,335	1,485	1,630	1,629	1,614	1,663	1,711	1,869
Permanent residents	178	168	141	139	119	133	119	118	87	88	102
Temporary visa holders	391	336	366	276	297	281	334	265	257	266	355
Unknown citizenship	13	10	13	10	12	8	12	14	21	35	50
Hispanic [e]	1,534	1,544	1,632	1,694	1,879	1,899	1,962	1,907	2,024	2,218	2,019
U.S. citizens	884	922	957	1,063	1,205	1,184	1,180	1,128	1,238	1,276	1,177
Permanent residents	146	142	156	135	122	140	128	144	131	150	120
Temporary visa holders	503	475	514	484	543	561	648	620	645	785	708
Unknown citizenship	1	5	5	12	9	14	6	15	10	7	14
White	27,086	27,081	27,158	26,250	26,787	26,412	26,389	25,468	24,284	24,461	24,578
U.S. citizens	23,796	23,891	23,847	23,181	23,455	23,093	22,969	21,936	20,767	20,875	20,745
Permanent residents	779	795	823	781	819	801	741	752	629	667	650
Temporary visa holders	2,422	2,362	2,404	2,225	2,417	2,481	2,612	2,653	2,675	2,817	3,028
Unknown citizenship	89	33	84	63	96	37	67	127	213	102	155
Other/unknown race/ethnicity [f]	1,235	1,477	1,833	3,664	3,315	2,522	2,692	3,165	3,625	3,571	4,008
U.S. citizens	291	360	415	1,109	968	561	669	818	832	1,135	1,062
Permanent residents	48	44	36	63	90	43	53	45	55	55	49
Temporary visa holders	298	274	258	343	413	265	305	368	412	510	549
Unknown citizenship	598	799	1,124	2,149	1,844	1,653	1,665	1,934	2,326	1,871	2,348

[a] Total includes doctorate recipients for whom sex was not reported.

[b] Includes Alaska 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 2001–2004.

[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 an 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, 1994-2004 - Total males

Citizenship status by race/ethnicity	Year of doctorate										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total all doctorates [a]	25,059	25,161	25,286	24,943	24,633	23,434	23,166	22,793	21,771	22,201	22,976
U.S. citizens	14,734	14,965	14,720	15,047	14,872	14,514	14,155	13,642	12,855	13,077	12,986
Permanent residents	2,636	2,907	2,483	1,834	1,665	1,379	1,135	1,000	870	815	748
Temporary visa holders	7,320	6,855	7,416	6,974	7,007	6,630	6,854	7,030	6,752	7,265	7,882
Unknown citizenship	369	434	667	1,088	1,089	911	1,022	1,121	1,294	1,044	1,360
Total known race/ethnicity	24,328	24,308	24,275	23,017	22,727	22,068	21,633	21,257	20,065	20,510	20,975
U.S. citizens	14,568	14,759	14,498	14,439	14,331	14,222	13,826	13,357	12,564	12,664	12,613
Permanent residents	2,602	2,881	2,461	1,795	1,605	1,352	1,102	979	844	794	721
Temporary visa holders	7,105	6,642	7,234	6,717	6,714	6,445	6,651	6,802	6,499	6,981	7,529
Unknown citizenship	53	26	82	66	77	49	54	119	158	71	112
American Indian [b]	74	80	102	79	104	96	76	77	72	56	62
U.S. citizens	71	80	101	79	104	96	76	66	67	52	57
Permanent residents [c]	0	0	0	0	0	0	0	2	2	1	2
Temporary visa holders [c]	3	0	1	0	0	0	0	8	3	3	3
Unknown citizenship	0	0	0	0	0	0	0	1	0	0	0
Asian [d]	7,052	7,095	7,198	6,425	6,027	5,526	5,351	5,431	5,144	5,442	5,802
U.S. citizens	582	662	603	742	641	764	740	747	747	734	725
Permanent residents	1,877	2,197	1,787	1,142	985	711	501	424	374	332	275
Temporary visa holders	4,584	4,227	4,793	4,522	4,385	4,030	4,094	4,243	4,004	4,363	4,775
Unknown citizenship	9	9	15	19	16	21	16	17	19	13	27
Black/African-American	888	877	929	857	820	909	880	867	855	838	973
U.S. citizens	410	487	531	528	524	609	560	591	612	598	644
Permanent residents	142	125	107	108	86	91	82	85	61	55	70
Temporary visa holders	330	261	287	212	203	204	233	186	178	178	239
Unknown citizenship	6	4	4	9	7	5	5	5	4	7	20
Hispanic [e]	866	914	935	980	1,060	991	1,070	1,017	1,040	1,169	1,086
U.S. citizens	438	463	480	543	610	510	546	498	540	592	543
Permanent residents	80	79	87	81	72	69	63	71	61	72	54
Temporary visa holders	347	370	364	350	375	405	459	443	434	502	484
Unknown citizenship	1	2	4	6	3	7	2	5	5	3	5
White	15,421	15,307	15,063	14,660	14,683	14,496	14,198	13,659	12,768	12,764	12,810
U.S. citizens	13,043	13,037	12,744	12,532	12,423	12,200	11,853	11,293	10,450	10,494	10,446
Permanent residents	503	479	480	464	461	478	455	393	343	326	318
Temporary visa holders	1,838	1,780	1,781	1,632	1,748	1,802	1,859	1,893	1,845	1,897	1,987
Unknown citizenship	37	11	58	32	51	16	31	80	130	47	59
Other/unknown race/ethnicity [f]	758	888	1,059	1,942	1,939	1,416	1,591	1,742	1,892	1,932	2,243
U.S. citizens	190	236	261	623	570	335	380	447	439	607	571
Permanent residents	34	27	22	39	61	30	34	25	29	29	29
Temporary visa holders	218	217	190	258	296	189	209	257	288	322	394
Unknown citizenship	316	408	586	1,022	1,012	862	968	1,013	1,136	974	1,249

[a] Total includes doctorate recipients for whom sex was not reported.

[b] Includes Alaska 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 2001–2004.

[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 an 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, 1994-2004 - Total females

Citizenship status by race/ethnicity	Year of doctorate										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total all doctorates [a]	15,822	16,418	16,956	17,241	17,849	17,480	18,125	17,951	18,124	18,410	19,098
U.S. citizens	12,413	12,776	13,055	13,072	13,571	13,472	13,821	13,398	13,155	13,405	13,442
Permanent residents	1,111	1,409	1,282	1,096	1,021	929	813	838	780	818	779
Temporary visa holders	2,080	1,959	2,221	2,204	2,469	2,423	2,808	2,802	2,969	3,333	3,697
Unknown citizenship	218	274	398	869	788	656	683	913	1,220	854	1,180
Total known race/ethnicity	15,507	16,031	16,427	15,881	16,640	16,615	17,166	16,817	16,699	17,179	17,678
U.S. citizens	12,330	12,688	12,947	12,632	13,207	13,305	13,597	13,208	12,957	13,110	13,198
Permanent residents	1,098	1,393	1,271	1,072	1,001	917	796	825	759	797	763
Temporary visa holders	2,018	1,917	2,166	2,126	2,362	2,354	2,720	2,705	2,866	3,176	3,562
Unknown citizenship	61	33	43	51	70	39	53	79	117	96	155
American Indian [b]	72	68	86	88	86	118	93	86	83	86	73
U.S. citizens	72	68	84	88	85	118	93	82	80	82	72
Permanent residents [c]	0	0	1	0	0	0	0	0	1	2	0
Temporary visa holders [c]	0	0	1	0	0	0	0	4	2	2	1
Unknown citizenship	0	0	0	0	1	0	0	0	0	0	0
Asian [d]	2,292	2,591	2,600	2,574	2,520	2,466	2,708	2,679	2,729	2,831	3,235
U.S. citizens	354	467	463	553	513	540	623	649	617	620	724
Permanent residents	719	970	821	671	560	480	408	353	371	338	330
Temporary visa holders	1,216	1,151	1,309	1,337	1,434	1,438	1,670	1,672	1,729	1,863	2,165
Unknown citizenship	3	3	7	13	13	8	7	5	12	10	16
Black/African-American	791	930	896	903	1,091	1,143	1,214	1,144	1,173	1,258	1,403
U.S. citizens	689	806	774	807	961	1,021	1,069	1,023	1,051	1,111	1,225
Permanent residents	36	43	34	31	32	42	37	33	26	33	32
Temporary visa holders	60	75	79	64	93	77	101	79	79	87	116
Unknown citizenship	6	6	9	1	5	3	7	9	17	27	30
Hispanic [e]	668	630	697	714	817	908	891	890	984	1,049	933
U.S. citizens	446	459	477	520	594	674	633	630	698	684	634
Permanent residents	66	63	69	54	50	71	65	73	70	78	66
Temporary visa holders	156	105	150	134	167	156	189	177	211	283	224
Unknown citizenship	0	3	1	6	6	7	4	10	5	4	9
White	11,662	11,773	12,095	11,584	12,099	11,916	12,190	11,809	11,515	11,697	11,768
U.S. citizens	10,751	10,854	11,103	10,647	11,031	10,893	11,116	10,643	10,316	10,381	10,299
Permanent residents	276	316	343	316	358	323	286	359	286	341	332
Temporary visa holders	583	582	623	590	665	679	753	760	830	920	1,041
Unknown citizenship	52	21	26	31	45	21	35	47	83	55	96
Other/unknown race/ethnicity [f]	337	426	582	1,378	1,236	929	1,029	1,343	1,640	1,489	1,686
U.S. citizens	101	122	154	457	387	226	287	371	393	527	488
Permanent residents	14	17	14	24	21	13	17	20	26	26	19
Temporary visa holders	65	46	59	79	110	73	95	110	118	178	150
Unknown citizenship	157	241	355	818	718	617	630	842	1,103	758	1,029

[a] Total includes doctorate recipients for whom sex was not reported.

[b] Includes Alaska 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 2001–2004.

[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 an 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, 1969-2004

C-2. Profiles of respondents versus nonrespondents for critical item data, by source of response, 2004

C-3. Item response rates, 1994-2004

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= 279 in 2004)

Field of employment

Field of science and engineering

Type of doctoral 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 2004 survey consisted of all individuals who received a research doctorate from a U.S. academic institution in the 12-month period ending on June 30, 2004. The total universe consisted of 42,155 persons in more than 400 institutions that confer research doctorates awards in 2004.

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.

Because 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 at the University of Chicago (Chicago, Illinois) currently conducts the survey under contract.

Survey Response Rates

Of the 42,155 new research doctorates granted in 2004, 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 8 institutions accounted for 30 percent of the total nonrespondents.

APPENDIX TABLE C-1. Survey response rates, 1969-2004 [a]

Year	Self-report rate	Year	Self-report rate
1969	96.6	1987	93.1
1970	93.6	1988	92.9
1971	92.3	1989	92.3
1972	90.2	1990	93.6
1973	88.5	1991	94.6
1974	83.9	1992	95.1
1975	90.7	1993	94.7
1976	91.2	1994	94.6
1977	91.4	1995	94.1
1978	91.0	1996	92.9
1979	91.0	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	91.2
1985	94.8	2003	91.2
1986	93.5	2004	90.8

[a] The rates for 1969–2003 reflect late responses. The rate for 2004 may increase slightly in the next year if additional questionnaires are received after survey closure.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 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 2004 (42,155) 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 six of the eight critical item variables. Nonrespondents appear to be slightly older than respondents. Nonrespondents are more likely to be non-white. While a majority of both respondents and nonrespondents are male, nonrespondents appear slightly more likely to be female than respondents. 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, 2004

Critical item variable	Respondents (percent self-reported)	Nonrespondents (percent institution-provided)	Percent difference
Year of birth *			
Missing data	1.8	26.5	
Before 1970 [a]	44.9	50.5	-5.6
1970 and later	55.1	49.5	5.6
Sex			
Missing data	0.0	0.5	
Male	54.7	53.6	1.1
Female	45.3	46.4	-1.1
Citizenship status *			
Missing data	0.6	19.5	
U.S. citizen	67.0	63.2	3.8
Permanent resident	3.9	3.7	0.2
Temporary visa holder	29.1	33.1	-3.9
Country of citizenship (for non-U.S. citizens only) *			
Country reported	97.9	52.3	45.6
Country not reported	2.1	47.7	-45.6
Race/ethnicity * (U.S. citizens & permanent residents only)			
Missing data	0.7	14.0	
American Indian [b]	0.5	1.0	-0.6
Asian [c]	7.5	5.7	1.7
Black	6.9	13.3	-6.4
Hispanic [d]	4.7	3.4	1.3
White	77.7	70.1	7.5
Other [e]	2.7	6.3	-3.6
Broad field of doctorate *			
Physical sciences [f]	14.8	10.8	4.0
Engineering	14.0	11.6	2.4
Life sciences	21.2	18.0	3.1
Social sciences	15.8	20.5	-4.7
Humanities	13.2	11.2	2.0
Education	15.1	19.1	-4.0
Professional/other fields	5.9	8.7	-2.8
Bachelor's institution			
Missing data	3.6	46.6	
U.S.	69.6	69.6	>-0.05
Non-U.S.	30.4	30.4	<0.05
Year of bachelor's degree *			
Missing data	5.6	48.6	
Before 1994 [g]	49.2	52.1	-2.9
1994-after	50.8	47.9	2.9
Postgraduation location			
Missing data	1.3	60.6	
U.S.	88.7	90.0	-1.3
Non-U.S.	11.3	10.0	1.3

* 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] 1970 is the median year of birth of 2004 doctorate recipients. [b] Includes Alaska Natives. [c] Does not include Native Hawaiians and other Pacific Islanders.

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

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

[f] Includes computer science and mathematics. [g] 1994 is the median year of baccalureate of 2004 doctorate recipients.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

Item Response Rates

Item nonresponse rates in 2004 for the main SED demographic variables ranged from 0.2 percent for sex to 8.7 percent for postgraduation location. No imputation was performed for missing data items.

Key variable	Item response rate
Sex	99.8
Citizenship	93.8
Race/ethnicity	93.1
Country of citizenship	93.5
Postgraduation location	91.3

TABLE C-3: Table C-3 on the following pages shows the response rates for each item in the Survey of Earned Doctorates for 1994 through 2004. 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, 1994-2004

Variable Name	Variable description	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AMERIND	American Indian/Alaska Native race indicator	96.1	95.6	94.8	90.2	90.8	92.4	92.4	93.6	91.9	92.8	91.7
ASIAN	Asian race indicator	96.1	95.6	94.8	90.2	90.8	92.4	92.4	93.6	91.9	92.8	91.7
BAFIELD	B.A. field	92.8	92.5	90.9	83.2	84.8	85.1	86.9	87.3	86.5	86.5	87.2
BAINST	B.A. institution	97.9	97.4	96.5	89.6	91.2	92.5	91.1	92.9	91.8	92.5	91.5
BAMONTH	Month of B.A.	90.2	90.0	88.6	82.2	83.0	83.7	85.0	85.2	84.3	84.0	83.6
BANONE	No B.A./no M.A. indicator	9.1	9.7	11.4	6.9	8.1	8.0	2.7	9.5	10.1	9.5	12.1
BAYEAR	Year of B.A.	97.4	97.1	96.4	88.6	90.7	92.3	90.5	92.4	91.2	91.9	89.2
BIRTHMO	Month of birth	98.1	97.5	96.7	92.7	92.9	95.0	95.2	94.3	93.0	93.9	92.0
BIRTHPL	Place of birth	97.2	96.9	95.9	93.8	93.8	94.2	94.3	93.5	92.3	93.4	92.3
BIRTHYR	Year of birth	98.2	97.5	96.8	92.9	92.7	95.1	95.2	94.4	93.2	94.2	92.4
BLACK	Black race indicator	96.1	95.6	94.8	90.2	90.8	92.4	92.4	93.6	91.9	92.8	91.7
CEPLACE	Place of college entry	92.3	92.1	90.6	82.6	90.4	90.6	89.9	91.9	92.3	93.7	-----
CEYEAR	Year of college entry	91.5	91.3	89.2	82.7	88.8	89.1	87.3	89.4	87.7	87.4	85.4
CITIZ	Type of citizenship	98.3	97.9	97.1	94.7	95.3	95.8	95.7	94.8	93.5	95.0	93.8
CNTRYCIT	Country of citizenship	98.2	97.9	96.9	94.3	95.0	95.5	95.5	94.6	93.2	94.5	93.5
DEBTIND	Debt level indicator	92.8	92.3	91.3	89.3	89.7	90.6	91.1	-----	-----	-----	-----
DEPENDS	Number of dependents	89.7	89.4	89.5	88.3	88.8	89.1	89.4	-----	-----	-----	-----
DEPEND5	Number of dependents - ages 5 or younger	-----	-----	-----	-----	-----	-----	-----	-----	89.0	89.1	87.9
DEPEND18	Number of dependents - ages 6-18	-----	-----	-----	-----	-----	-----	-----	-----	89.0	89.2	87.9
DEPEND19	Number of dependents - ages 19 and older	-----	-----	-----	-----	-----	-----	-----	-----	89.0	89.1	87.9
DOCCODE	Type of doctorate	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	100.0
EDFATHER	Fathers education	92.7	92.3	91.5	89.5	89.8	90.5	90.8	90.8	89.7	90.0	89.5
EDMOTHER	Mothers education	92.5	92.2	91.7	89.8	90.0	90.7	91.1	91.0	90.0	90.2	89.6
GDEBTLVL	Graduate debt level	100.0	66.7	60.0	.	33.3	75.0	50.0	97.7	89.3	89.7	89.2
GEYEAR	Year of graduate entry	88.2	87.4	85.7	77.4	81.4	84.8	83.6	84.3	83.4	82.0	87.9
HANDICAP	Handicapped status	93.7	93.3	91.8	90.1	90.1	90.4	90.9	90.8	89.8	90.1	89.5
HAWAIIAN	Native Hawaiian/Pacific Islander race indicator	-----	-----	-----	-----	-----	-----	-----	-----	91.2	92.6	91.7
HISPANIC	Hispanic origin indicator	97.6	97.1	96.4	93.1	93.6	95.1	94.8	92.1	91.3	91.9	90.9
HISPORIG	Hispanic origin specified	96.8	96.4	95.6	92.3	92.5	94.1	93.7	90.9	90.2	90.1	89.4
HSPLACE	Place of high school	93.9	93.5	92.2	90.2	90.8	91.4	91.9	90.9	90.1	90.4	89.3
JRCOLL	Junior college indicator	92.5	92.4	90.6	91.5	91.9	91.8	92.2	92.0	90.9	91.0	89.6
MAFIELD	Masters field	84.1	83.6	84.6	75.4	78.1	78.3	73.8	80.3	80.1	80.0	83.4
MAINST	Masters institution	86.9	86.3	87.3	79.1	80.7	80.6	76.0	82.4	82.2	81.9	85.1
MAMONTH	Month of masters	80.3	79.8	81.0	73.3	75.3	75.8	71.2	77.3	77.5	77.5	79.6
MARITAL	Marital status	91.5	91.0	91.7	89.3	90.2	90.8	91.2	91.0	89.9	90.3	89.6
MAYEAR	Year of masters	85.1	84.7	85.6	77.8	80.4	79.5	75.0	81.1	81.2	81.1	82.7
PDEMPLOY	Postdoctoral employer type	86.4	85.6	85.8	82.7	84.8	84.1	86.0	87.0	87.0	87.3	88.0
PDLOC	Post-graduation location	94.6	94.2	92.7	83.7	89.6	92.0	92.3	92.4	91.2	92.8	91.3
PDOCPLAN	Post-graduation plans	70.2	69.0	69.6	66.3	68.3	70.0	71.3	72.8	72.7	72.9	88.0
PDOCSTAT	Post-graduation status	91.7	91.0	91.0	89.0	89.7	90.5	91.2	91.0	90.0	90.3	89.2
PDSTDSUP	Postdoctoral study support	92.3	91.8	91.6	88.6	88.7	90.3	91.1	91.0	89.9	90.3	87.9
PDUSFOR	Post-graduation location: U.S. or foreign	100.0	100.0	100.0	100.0	89.6	92.0	92.3	92.4	91.2	92.8	91.3

APPENDIX TABLE C-3. Item response rates, 1994-2004

Variable Name	Variable description	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
PDWK1ED	Edited primary work activity	81.4	81.1	84.9	83.0	84.0	83.8	85.6	85.2	84.9	85.3	87.4
PDWK2ED	Edited secondary work activity	63.2	62.9	72.6	74.2	75.1	73.6	74.9	72.9	74.3	76.0	77.2
PDWKPRIM	Primary work activity	81.4	81.1	84.9	83.0	84.0	83.8	85.6	85.2	84.9	85.3	87.4
PDWKSEC	Secondary work activity	63.2	62.9	72.6	74.2	75.1	73.6	74.9	72.9	74.3	76.0	77.2
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	93.3	92.4	92.2	89.2	90.1	91.0	91.5	91.4	90.5	90.9	90.2
PHDENTRY	First year entry PHDINST after B.A.	86.7	86.5	85.6	79.1	83.7	85.9	85.2	85.2	83.7	83.6	88.4
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
PHDTYPE1	Type of doctorate	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	99.6	99.6	99.5	99.5	99.8	99.5	99.6	99.7	99.6	99.6	-----
PROFDEG	Type of professional doctorate	1.7	1.8	1.9	1.9	1.2	2.0	2.2	1.8	2.1	1.9	1.3
PROFYEAR	Year of professional doctorate	1.7	1.8	1.9	1.8	2.8	2.8	2.2	1.8	2.1	1.9	1.3
QUESTYR	Year questionnaire filled out	94.5	94.1	92.9	91.5	91.9	91.9	92.3	92.2	91.2	91.4	82.7
RACE	Edited race/ethnic code	97.6	97.1	96.4	93.1	93.6	95.1	94.8	94.1	93.0	93.6	93.1
RACEOTH	Other/multiple race indicator	96.1	95.6	94.8	90.2	90.8	92.4	92.0	-----	-----	-----	-----
REGTTD	Registered time to degree	89.4	88.8	87.1	77.1	81.0	84.8	83.3	85.4	84.9	84.3	-----
SEX	Sex of student	99.6	99.6	99.5	99.2	99.6	99.6	99.8	99.8	99.8	99.6	99.8
SRCE1ED	Edited primary source of support	72.4	74.9	88.0	87.9	88.6	89.9	90.2	90.1	88.6	87.3	88.7
SRCEPRIM	Primary source support	72.4	74.9	88.0	87.9	88.7	89.9	90.2	90.1	88.6	88.8	88.7
TOTTTD	Total time to degree	96.7	96.0	94.9	86.5	87.9	91.0	89.4	90.9	89.6	90.3	87.6
TUITREMS	Tuition remission - full or partial	-----	-----	-----	-----	-----	-----	-----	-----	87.2	88.2	86.6
UDEBTLVL	Undergraduate debt level	-----	-----	-----	-----	-----	-----	-----	-----	89.4	89.8	89.2
WHITE	White race indicator	96.1	95.6	94.8	90.2	90.8	92.4	92.4	93.6	91.9	92.8	91.7
YRSCOURS	Years of coursework	-----	-----	-----	-----	-----	-----	-----	-----	89.9	90.2	88.1
YRSDISST	Years preparing dissertation	-----	-----	-----	-----	-----	-----	-----	-----	90.1	90.4	88.4
YRSGRAD	Years from graduate entry to doctorate	-----	-----	-----	-----	-----	-----	-----	-----	89.9	89.8	-----

NOTE: ----- = data 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 25 percent of AY 2001 respondents submitted data on earlier versions of the survey form, AY 2001 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. Particular variables (including BANONE, REGNURSE, PROFDEG, PROFYEAR, PHDDISS2) have low response rates because of the nature of the data collected. Although all respondents are considered eligible to provide data for these items, only some will be able to do so. For instance, the data response rate to REGNURSE represents only the small number of doctorate recipients who report having received a registered nurse degree. In some ways, it is more appropriate to consider the figures for these variables to be measurements of the percentage of the SED universe to which these items apply, rather than a "response rate" as it is defined above.

3. 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.

4. The items DEPENDS and DEBTLEVL 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 CNTRYCIT counts as respondents all doctorate recipients who reported being U.S. citizens and non-citizens who also provided their country of citizenship.

5. It is common for each AY's data to include data gathered on that year's survey forms and data gathered on earlier survey forms. Therefore, in the first year in which a variable appears on the new survey form, only the respondents using that form will have the opportunity to provide data on that item. To address cases like these, response rates are calculated on a base of respondents who used the new survey form.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2004 Survey of Earned Doctorates.

Derived Variables

The following derived variables deserve further explanation.

Major field of study

Major field of doctoral study is used in tables 5, 6, 9, and 30. The levels of this variable were derived by grouping related fine fields of study from the field of study taxonomy used in the SED. The following aggregation was used to determine major field of study, where PHDFIELD is the doctorate field of study variable with values corresponding to the field codes used in the field of study list included in the annual questionnaire:

Field of study	Field code
Physical sciences *	(PHDFIELD GE 400 and PHDFIELD LE 599)
Physics & astronomy	(PHDFIELD GE 500 and PHDFIELD LE 506) or (PHDFIELD GE 560 and PHDFIELD LE 579)
Chemistry	(PHDFIELD GE 520 and PHDFIELD LE 539)
Earth, atmospheric and marine sciences	(PHDFIELD GE 510 and PHDFIELD LE 519) or (PHDFIELD GE 540 and PHDFIELD LE 559) or (PHDFIELD GE 580 and PHDFIELD LE 599)
Mathematics	(PHDFIELD GE 420 and PHDFIELD LE 499)
Computer science	(PHDFIELD GE 400 and PHDFIELD LE 419)
Engineering*	(PHDFIELD GE 300 and PHDFIELD LE 399)
Life sciences*	(PHDFIELD GE 000 and PHDFIELD LE 299)
Biological sciences	(PHDFIELD GE 100 and PHDFIELD LE 199)
Health sciences	(PHDFIELD GE 200 and PHDFIELD LE 299)
Agricultural sciences	(PHDFIELD GE 000 and PHDFIELD LE 099)
Social sciences*	(PHDFIELD GE 600 and PHDFIELD LE 699)
Psychology	(PHDFIELD GE 600 and PHDFIELD LE 649)
Anthropology	(PHDFIELD EQ 650)
Economics	(PHDFIELD GE 666 and PHDFIELD LE 668)
Political science/international relations	(PHDFIELD GE 674 and PHDFIELD LE 679)
Sociology	(PHDFIELD EQ 686)
Other social sciences	(PHDFIELD GE 651 and PHDFIELD LE 665) or (PHDFIELD GE 669 and PHDFIELD LE 673) or (PHDFIELD GE 680 and PHDFIELD LE 685) or (PHDFIELD GE 687 and PHDFIELD LE 699)
Humanities*	(PHDFIELD GE 700 and PHDFIELD LE 799)
History	(PHDFIELD GE 700 and PHDFIELD LE 719)
English language & literature	(PHDFIELD IN (725,726,732,733,734))
Foreign language & literature	(PHDFIELD GE 740 and PHDFIELD LE 769)
Other humanities	(PHDFIELD GE 720 and PHDFIELD LE 724) or (PHDFIELD EQ 729) or (PHDFIELD GE 736 and PHDFIELD LE 739) or (PHDFIELD GE 770 and PHDFIELD LE 799)
Education*	(PHDFIELD GE 800 and PHDFIELD LE 899)
Teacher education	(PHDFIELD GE 850 and PHDFIELD LE 858)
Teaching fields	(PHDFIELD GE 860 and PHDFIELD LE 889)
Other education	(PHDFIELD GE 800 and PHDFIELD LE 849) or (PHDFIELD GE 898 and PHDFIELD LE 899)
Professional/other fields*	(PHDFIELD GE 900 and PHDFIELD LE 999) or (PHDFIELD EQ.)
Business & management	(PHDFIELD GE 900 and PHDFIELD LE 939)
Communications	(PHDFIELD GE 940 and PHDFIELD LE 959)
Other professional fields	(PHDFIELD GE 960 and PHDFIELD LE 989)
Other fields	(PHDFIELD IN 999)

* Denotes broad field of study

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.

Definite Postdoctoral Plans

Postdoctoral plans are coded using the values of PDOCSTAT, which indicate whether 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=.;
```

Definite 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).*

Graduate school time to degree (GTD): GTD gauges the elapsed time from the initiation of graduate study in any program or capacity at any university and the doctorate. GTD can only be computed for individuals who provided the year they started graduate school. *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 in the calculation of TTD, 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). If months are missing in the calculation of GTD, month values are assigned to the modal value for doctorate recipients who provided month of graduate entry (i.e., assignment to a value of 243.25 which corresponds to the month of September). (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 more than one race, Native Hawaiian and other Pacific Islander in 2001 to the present). (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 U.S. visa)
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 1997-2004 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 A7). The resulting variables identify seven 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
$10,000 OR LESS
$10,001-$20,000
$20,001-$30,000
$30,001-$40,000
$40,001-$50,000
$50,001 and up

Availability of Data

The Survey of Earned Doctorates has collected information on doctoral recipients annually since 1957. More limited information is contained in the cumulative Doctorate Records File maintained for NSF by the SED data collection contractor for research doctorate recipients from 1920-1956. This annual *Summary Report* is an interagency report sponsored by the Federal

agencies that support the SED (six in 2004). The report as well as the *Summary Reports* for 1997-2003 is available on the Web at: http://www.norc.uchicago.edu/issues/docdata.htm.

The data from this survey are also published annually in Detailed Statistical Tables in the series *Science and Engineering Doctorate Awards*, available on the SRS Web site at (http://www.nsf.gov/statistics/doctorates/). 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 NSF-SRS report series *Science and Engineering Degrees*; in *Science and Engineering Indicators*; in *Women, Minorities, and Persons With Disabilities in Science and Engineering*; and in special occasional publications.

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 with NSF-SRS.

A complete methodology report for the 2004 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:

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Appendix D: Survey of Earned Doctorates Questionnaire, Academic Year 2003-2004

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

Type of Doctoral Degree (e.g., Ph.D., Ed.D., D.B.A.)	Date Degree Granted (mm/yyyy)

Survey of Earned Doctorates

July 1, 2003, to June 30, 2004

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. Your Social Security Number is also solicited under the NSF Act of 1950, as amended; provision of it is voluntary. It will be kept confidential. It is used for quality control, to assure that we identify the correct persons, especially when data are used for statistical purposes in Federal program evaluation. 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.

The time needed to complete this form varies according to individual circumstances, but the average time is estimated to be 19 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. A Federal agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number.

OMB No.: 3145-0019
Approval Expires 04/30/2006

INSTRUCTIONS

Thank you for taking the time to complete this questionnaire. Directions are provided for each question.

- **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."**

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. Please write the name of the primary field of your dissertation research.

Name of Field _____

Using the list on page 7, choose the code that best describes the primary field of your dissertation research.

Number of Field ☐☐☐

If your dissertation research was interdisciplinary, list the name and number of your secondary field.

Name of Field _____

Number of Field ☐☐☐

If there were more than two fields, please continue on the back cover of the questionnaire (p. 8).

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

_____

Department/Committee/Center/Institute/Program

A4. If you received full or partial tuition remission (waiver) 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 but less than full
4 ☐ full tuition remission

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

Mark ALL that apply

a. ☐ Fellowship, scholarship
b. ☐ Grant, stipend
c. ☐ Teaching assistantship
d. ☐ Research assistantship
e. ☐ Other assistantship
f. ☐ Traineeship
g. ☐ Internship, clinical residency
h. ☐ Loans (from any source)
i. ☐ Personal savings
j. ☐ Personal earnings during graduate school (other than sources listed above)
k. ☐ Spouse's, partner's, or family earnings or savings
l. ☐ Employer reimbursement/assistance
m. ☐ Foreign (non-U.S.) support
n. ☐ Other - Specify

_____

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

Enter letters of primary and secondary sources

1 ☐ Primary source of support
2 ☐ Secondary source of support
☐ *Mark (X) if no secondary source*

A7. 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	☐ None	☐ None
1	☐ $10,000 or less	☐ $10,000 or less
2	☐ $10,001 - $20,000	☐ $10,001 - $20,000
3	☐ $20,001 - $30,000	☐ $20,001 - $30,000
4	☐ $30,001 - $40,000	☐ $30,001 - $40,000
5	☐ $40,001 - $50,000	☐ $40,001 - $50,000
6	☐ $50,001 or more	☐ $50,001 or more

A8. **The next few questions ask about the degrees you have received. Starting with this doctorate degree, please provide the following information for the most recent master's degree and your <u>first</u> bachelor's degree.**

	This research doctorate degree	Most recent master's degree (e.g. MS, MA, MBA) or equivalent	<u>First</u> bachelor's degree (e.g. BA, BS, AB) or equivalent
a. Have you received a degree of this type?	Yes [X] No [ ]	Yes [ ] No [ ]	Yes [ ] No [ ]
b. Month/year that you started your degree	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]
c. Month/year of degree award	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]
d. Primary field of study			
e. Field number from list on p. 7	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]
f. Institution name			
g. Branch or city			
h. State or province			
i. Country	USA		

A9. **Excluding those above, have you attained any <u>additional</u> postsecondary degrees?** Yes [ ] No [ ]

A10. **Was a master's degree a prerequisite for admission to your doctoral program?** Yes [ ] No [ ]

A11. **In what year did you first enter graduate school in <u>any</u> program or capacity, in <u>any</u> university?** Year [ ][ ][ ][ ]

A12. **How many years were you taking courses or preparing for exams for this doctoral degree (including a master's degree, if that was a part of your doctoral program)?** Years [ ][ ]

Round to whole years

A13. **After coursework and exams, how many years did you work on your dissertation (non-course related preparation or research, writing, and defense)?** Years [ ][ ]

Round to whole years

If yes, please list the additional degree(s), granting institution(s), and years.

Degree Type _____
Degree Field _____
Year Granted _____
Institution _____
Branch or City _____
State or Country _____

Degree Type _____
Degree Field _____
Year Granted _____
Institution _____
Branch or City _____
State or Country _____

If necessary, please continue this list on the back cover (p.8).

A14. Did you earn college credit from a community or two-year college?

1 ☐ Yes
2 ☐ No

A15. Are you earning, or have you earned, a professional medical or dental degree (e.g. MD, DDS), in addition to the doctorate?

1 ☐ Yes
2 ☐ No

PART B - Postgraduation Plans

B1. In what country or state do you intend to live after graduation (within the next year)?

0 ☐ in U.S. → State
1 ☐ not in U.S. → Country

B2. Do you intend to take a "postdoc" position?
(A "postdoc" is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)

1 ☐ Yes
2 ☐ No

B3. What is the status of your postgraduate plans (in the next year)?
Mark (X) one

0 ☐ Returning to, or continuing in, predoctoral employment
1 ☐ Have signed contract or made definite commitment for other work or study
→ **GO TO B4**

2 ☐ Negotiating with one or more specific organizations
3 ☐ Seeking position but have no specific prospects
4 ☐ Do not plan to work or study
5 ☐ Other - Specify
→ **SKIP TO C1**

B4. What best describes your (within the next year) postgraduate plans?
Mark (X) one

FURTHER TRAINING OR STUDY

0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship
2 ☐ Traineeship
3 ☐ Intern, clinical residency
4 ☐ Other - Specify
→ **GO TO B5**

EMPLOYMENT

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

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
1 ☐ Industry/Business
2 ☐ College or university
3 ☐ Private foundation
4 ☐ Nonprofit, other than private foundation or college
5 ☐ Other - Specify
6 ☐ Unknown

B6. For what type of employer will you be working or in training 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. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)

g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)

k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER

m. ☐ Self-employed
n. ☐ Other - Specify

B7. Please name the organization and geographic location where you will work or study.

Name

State (if U.S.)

OR

Country (if not U.S.)

B8. What will be your primary and secondary work activities?

Mark (X) one in each column

	a. Primary	b. Secondary
Research and development	1 ☐	1 ☐
Teaching	2 ☐	2 ☐
Management or administration	3 ☐	3 ☐
Professional services to individuals	4 ☐	4 ☐
Other - Specify	5 ☐	5 ☐

☐ *Mark (X) if no secondary work activities.*

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
5 ☐ Divorced
6 ☐ 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 financial support from you?

☐ *Mark (X) box if none*

	Number
5 years of age or younger	
6 to 18 years	
19 years or older	

C4. What is the highest educational attainment of your mother and father (or guardians)?

Mark (X) one for each parent

	a. Mother	b. Father
Less than high/secondary school graduate	1 ☐	1 ☐
High/secondary school graduate	2 ☐	2 ☐
Some college	3 ☐	3 ☐
Bachelor's degree	4 ☐	4 ☐
Master's degree (e.g., MA, MS, MBA, MSW, etc.)	5 ☐	5 ☐
Professional degree (e.g., JD, LLB, D.Min, MD, DDS, etc.)	6 ☐	6 ☐
Doctoral degree	7 ☐	7 ☐
Not applicable	8 ☐	8 ☐

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 1 9 ☐☐

C7. What is your citizenship status?

Mark (X) one

U.S. CITIZEN

0 ☐ Since birth
1 ☐ Naturalized

→ **SKIP TO C9**

NON-U.S. CITIZEN

2 ☐ With a Permanent U.S. Resident Visa ("Green Card")
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. 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. Which of the following best describes your Hispanic origin or descent?

Mark (X) one

1 ☐ Mexican 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 (if applicable), and telephone number where you can be reached.

E-mail address

Daytime telephone

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Current Address

Street Address

City State Country Zip or Postal Code

Contact Person

First Name Last Name

Street Address

City State Country Zip or Postal Code

Phone Number (including area or country code)

E-mail Address

C18. Please sign and date.

Signature Date

The results of this survey will be published in a Summary Report; The Summary Reports on earlier surveys are available at http://www.norc.uchicago.edu/issues/docdata.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 this questionnaire to your GRADUATE SCHOOL 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.

FIELD OF STUDY

INSTRUCTIONS: The following field listing is to be used in responding to items A2 and A8. Please choose the code that best describes the name of your field.

AGRICULTURAL SCIENCES/NATURAL RESOURCES
000 Agri. Economics
005 Agricultural Animal Breeding
010 Animal Nutrition
014 Poultry Science
019 Animal Sci., Other
020 Agronomy & Crop Science
025 Agric. & Hort. Plant Breeding
030 Plant Pathology/ Phytopathology
039 Plant Sciences, Other
043 Food Science
044 Food Science and Technology, Other
046 Soil Chemistry/ Microbiology
049 Soil Sciences, Other
050 Horticulture Science
055 Fishing and Fisheries Sciences/Mgt.
066 Forest Sciences and Biology
070 Forest/Resources Mgt.
072 Wood Science & Pulp/Paper Tech.
074 Natural Resources/ Conservation
079 Forestry & Related Science, Other
080 Wildlife/Range Management
081 Environmental Science
098 Agriculture, General
099 Agricultural Sci., Other

BIOLOGICAL/ BIOMEDICAL SCIENCES
100 Biochemistry (see 539)
103 Biomedical Sciences
105 Biophysics (see 565)
107 Biotechnology
110 Bacteriology
115 Plant Genetics
120 Plant Pathology/ Phytopathology
125 Plant Physiology
129 Botany/Plant Biology
130 Anatomy
133 Biometrics & Biostatistics
136 Cell/Cellular Biology and Histology
139 Ecology
142 Developmental Biology/Embryology
145 Endocrinology
148 Entomology
151 Immunology
154 Molecular Biology
157 Microbiology
160 Neuroscience
163 Nutrition Sciences
166 Parasitology
169 Toxicology
170 Genetics, Human & Animal
175 Pathology, Human & Animal
180 Pharmacology, Human & Animal
185 Physiology, Human & Animal
189 Zoology, Other
198 Biology/Biological Sciences, General
199 Biology/Biomed Sci, Other

HEALTH SCIENCES
200 Speech-Lang. Pathology & Audiology
210 Environmental Health
211 Environmental Toxicology
212 Health Systems/ Service Administration
215 Public Health
220 Epidemiology
222 Kinesiology/Exercise Sci
230 Nursing Science
240 Pharmacy
245 Rehabilitation/ Therapeutic Services
250 Veterinary Medicine
298 Health Sciences, General
299 Health Sciences, Other

ENGINEERING
300 Aerospace, Aeronautical & Astronautical
303 Agricultural
306 Bioengineering & Biomedical
309 Ceramic Sciences
312 Chemical
315 Civil
318 Communications
321 Computer
324 Electrical, Electronics and Communications
327 Engineering Mechanics
330 Engineering Physics
333 Engineering Science
336 Environmental Health Engineering
339 Industrial & Manufacturing
342 Materials Science
345 Mechanical
348 Metallurgical
351 Mining & Mineral
357 Nuclear
360 Ocean
363 Operations Research (See also 465, 930)
366 Petroleum
369 Polymer & Plastics
372 Systems
398 Engineering, General
399 Engineering, Other

COMPUTER & INFORMATION SCIENCES
400 Computer Science
410 Information Science & Systems
419 Computer & Information Science, Other

MATHEMATICS
420 Applied Mathematics
425 Algebra
430 Analysis & Functional Analysis
435 Geometry/Geom. Anal.
440 Logic
445 Number Theory
450 Statistics (See also 690)
455 Topology/Found.
460 Computing Theory & Practice
465 Operations Research (See also 363, 930)
498 Math/Stat, General
499 Math/Stat, Other

PHYSICAL SCIENCES
Astronomy
500 Astronomy
505 Astrophysics

Atmospheric Sci. & Meteorology
510 Atmospheric Chemistry and Climatology
512 Atmospheric Physics and Dynamics
514 Meteorology
518 Atmospheric Science/ Meteorology, General
519 Atmospheric Science/ Meteorology, Other

Chemistry
520 Analytical
522 Inorganic
526 Organic
528 Medicinal/ Pharmaceutical
530 Physical
532 Polymer
534 Theoretical
538 Chemistry, General
539 Chemistry, Other (See also 100)

Geological & Earth Sciences
540 Geology
542 Geochemistry
544 Geophysics & Seismology
546 Paleontology
548 Mineralogy & Petrology
550 Stratigraphy & Sedimentation
552 Geomorphology & Glacial Geology
558 Geological and Earth Sciences, General
559 Geological and Earth Sciences, Other

Physics
560 Acoustics
561 Atomic/Molec/Chem
564 Particle (Elem)
565 Biophysics (see 105)
568 Nuclear Physics
569 Optics/Phototonics
570 Plasma/Fusion
572 Polymer
574 Condensed Matter/Low Temp
576 Applied Physics
578 Physics, General
579 Physics, Other

Ocean/Marine Sciences
585 Hydrology & Water Resources
590 Oceanography, Chemical and Physical
595 Marine Sciences
599 Ocean/Marine, Other

PSYCHOLOGY
600 Clinical
603 Cognitive & Psycholinguistics
606 Comparative
609 Counseling
612 Developmental & Child
613 Human Devlpmt. & Family Studies
615 Experimental
618 Educational (See also 822)
620 Family Psychology
621 Industrial & Organizational (See also 935)
624 Personality
627 Physiological/ Psychobiology
633 Psychometrics and Quantitative Psychology
636 School (See also 825)
639 Social
648 Psychology, General
649 Psychology, Other

SOCIAL SCIENCES
650 Anthropology
652 Area Studies
658 Criminology
662 Demography/ Population Studies
666 Economics
668 Econometrics
670 Geography
674 International Relations/Affairs
678 Political Science & Government
682 Public Policy Analysis
686 Sociology
690 Statistics (See also 450)
694 Urban Affairs/Studies
698 Social Sciences, General
699 Social Sciences, Other

HUMANITIES
History
700 History, American
703 History, Asian
705 History, European
706 History, African
707 History, Latin American
710 History/Philosophy of Science & Technolog
718 History, General
719 History, Other

Letters
720 Classics
723 Comparative Literature
724 Folklore
729 Linguistics
732 Literature, American
733 Literature, English
734 English Language
736 Speech & Rhetorical Studies
738 Letters, General
739 Letters, Other

Foreign Languages & Literature
740 French
743 German
746 Italian
749 Spanish
752 Russian
755 Slavic (other than Russian)
758 Chinese
762 Japanese
768 Arabic
769 Other Languages & Literature

Other Humanities
770 American/U.S. Studies
773 Archeology
776 Art History/Criticism/ Conservation
780 Music
785 Philosophy
790 Religion/Religious Studies (See also 984)
795 Drama/Theater Arts
798 Humanities, General
799 Humanities, Other

EDUCATION
800 Curriculum & Instruction
805 Educ. Administration & Supervision
807 Educ. Leadership
810 Educ./Instructional Media Design
815 Educ. Statistics/ Research Methods
820 Educ. Assessment/ Testing/Measure
822 Educ. Psychology (See also 618)
825 School Psychology (See also 636)
830 Social/Philosophical Foundations of Educ.
835 Special Educ.
840 Counseling Educ./ Counseling & Guidanc
845 Higher Educ./ Evaluation & Research

Teacher Education
850 Pre-elementary/Early Childhood
852 Elementary
856 Secondary
858 Adult & Continuing

Teaching Fields
860 Agricultural Education
861 Art Education
862 Business Education
864 English Education
866 Foreign Languages Education
868 Health Education
870 Family & Consumer Sci./Home Economics
874 Math. Education
876 Music Education
878 Nursing Education
880 Physical Education & Coaching
882 Reading Education
884 Science Education
885 Social Science Education
887 Trade & Ind. Educ.
889 Teach Educ. & Prof Dev.

Other Education
898 Education, General
899 Education, Other

PROFESSIONAL FIELDS
Business Mgmt./Administrative Services
900 Accounting
905 Banking/Financial Support Services
910 Business Admin. & Management
915 Business/Managerial Economics
916 International Business/Trade/ Commerce
917 Mgmt. Information Systems/Business Data
920 Marketing Management & Research
921 Human Resources Development
930 Operations Research (See also 363, 465)
935 Organiz. Behavior (See also 621)
938 Business Mgmt./ Administration Serv., General
939 Business Mgmt./ Administration Serv., Other

Communications
940 Communications Research
947 Mass Communication/ Media Studies
957 Communication Theory
958 Communications, General
959 Communications, Other

Other Professional Fields
960 Architec. Environ. Design
964 Family/Consumer Sci./Human Sci., General
968 Law
972 Library Science
974 Parks/Sports/Rec./ Leisure/Fitness
976 Public Administration
980 Social Work
984 Theo./Religious Education (See also 790)
989 Prof. Fields, Other

Other Fields
999 Other Fields

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 T. Carlson
National Science Foundation

Additions to Questions

A2 (continued)

Name of Field

Number of Field

Name of Field

Number of Field

A9 (continued)

Degree Type		Degree Type	
Degree Field		Degree Field	
Year Granted		Year Granted	
Institution		Institution	
Branch or City		Branch or City	
State or Country		State or Country	

Comments about the Survey

Please return this questionnaire to your GRADUATE SCHOOL 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.

OFFICE USE ONLY			
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)**
- Astronomy (500-505)*
- Atmospheric Sciences and Meteorology (510-519)*
- Chemistry (520-539)
- Earth, Atmospheric, and Marine Sciences (510-519, 540-559, 590-599)**
- Geological and Earth Sciences (540-559)*
- Physics (560-579)*
- Mathematics (420-499)
- Computer Sciences (400-419)

} Combined in Table A -7

Engineering (300-399)

Life Sciences (000-299)
- Biological/Biomedical Sciences (100 -199)
  - Biochemistry (100)**
  - Other Biological Sciences (103 -199)**
- Health Sciences (200-299)
- Agricultural Sciences/Natural Resources (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)
- Other Social Sciences (652-662, 670, 672, 682, 690-699)

} Combined in Table A-7**

NONSCIENCES

Humanities (700-799)
- History (700-719)
- Letters (720-739)*
- 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)
- Research and Administration (800-845)*
- Teacher Education (850-859)*
- Teaching Fields (860-889)*
- Other Education (898,899)*

Professional and Other Fields (900-999)
- Business and Management (900 -939)
- Communications (940-959)*
- Other Professional Fields (940 -989)**
- Other Fields (999)**

NOTE: *Doctorate recipients indicate their fields of specialty. Their choices may differ from departmental names.*
** - Grouping appears in Appendix tables A-1, A-2, and B-1 only.*
*** - Grouping appears in Appendix tables A-3 and A-7 only*

TITLES OF RESEARCH DEGREES INCLUDED IN THE SURVEY OF EARNED DOCTORATES

PhD Doctor of Philosophy

Other degrees, if research doctorate, as relevant:

DA	Doctor of Arts
DBA	Doctor of Business Administration
DCM	Doctor of Church Music
DDes	Doctor of Design
DEng/DESc/DES	Doctor of Engineering/ Doctor of Engineering Science
DFA	Doctor of Fine Arts
DHL	Doctor of Hebrew Letters
DIT	Doctor of Industrial Technology
DM	Doctor of Music
DMA	Doctor of Musical Arts
DME	Doctor of Music Education
DML	Doctor of Modern Languages
DNSc	Doctor of Nursing Science
DPA	Doctor of Public Administration
DPE	Doctor of Physical Education
DPH	Doctor of Public Health
DSc/ScD	Doctor of Science
DSW	Doctor of Social Work
EdD	Doctor of Education
JCD	Doctor of Cannon Law
JSD/SJD	Doctor of Juridical Science
STD	Doctor of Sacred Theology
ThD	Doctor of Theology

NSF Publications from the Doctorate Data Project

InfoBriefs

- Employment Sector, Salaries, Publishing, and Patenting Activities of S&E Doctorate Holders (2004)
- Emigration of U.S.-Born S&E Doctorate Recipients (2004)
- Plans for Postdoctoral Research Appointments Among Recent U.S. Doctorate Recipients (2004)
- How Large is the U.S. S&E Workforce?
- Declines in U.S. Doctorate Awards in Physics and Engineering
- Interstate Migration Patterns of Recent Science and Engineering Doctorate Recipients
- Employment Preferences and Outcomes of Recent Science and Engineering Doctorate Holders in the Labor Market
- Academic Employment of Recent Science and Engineering Doctorate Holders
- Psychology Doctorate Recipients: How Much Financial Debt at Graduation?
- Does the Educational Debt Burden of Science and Engineering Doctorates Differ by Race/Ethnicity and Sex?
- Does the Educational Debt Burden of Science and Engineering Doctorates Differ by Race/Ethnicity and Sex?
- Doctorate Awards Declining in Some Science and Engineering Fields
- Healthy Economy Yields Even Lower Unemployment Rate for Doctoral Scientists and Engineers
- How Much Does the U.S. Rely on Immigrant Engineers?
- Despite Increases, Women and Minorities Still Underrepresented in Undergraduate Science and Engineering Education

Reports

- Women, Minorities, and Persons with Disabilities in Science and Engineering: 2004
- Gender Differences in the Careers of Academic Scientists and Engineers
- Science and Engineering Doctorate Awards: 2004
- Characteristics of Doctoral Scientists and Engineers in the U.S.: 2003
- Science and Engineering State Profiles 2001-2003
- Doctoral Scientists and Engineers in the U.S.: 2001 Profile Tables
- Science and Engineering Degrees, by Race/Ethnicity of Recipients: 1992-2001
- Science and Engineering Degrees: 1966-2001
- Older Doctoral Scientists and Engineers: Selected Labor Force Characteristics
- Modes of Financial Support in the Graduate Education of S&E Doctorate Recipients
- SESTAT: A Tool for Studying Scientists and Engineers in the United States

Data sources and publications sources:

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).***

Complete electronic information on these surveys and publications may be obtained on the web at:
http://www.nsf.gov/sbe/srs/stats.htm

For further information, please contact:
Susan T. Hill, Director, Doctorate Data Project, sthill@nsf.gov

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