

*Doctorate  
Recipients from  
United States  
Universities*

*Summary Report 2005*



*SED*

*Survey of Earned Doctorates*

*Sponsored by:*

The National  
Science Foundation

The National  
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National Institutes of Health  
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National Endowment for the Humanities  
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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>. The SED 2005 tables are also available as Excel files on this site. 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 2005

## Introduction

*Doctorate Recipients from United States Universities: Summary Report 2005* is the thirty-ninth in a series of reports on research doctorates awarded by universities in the United States.<sup>1</sup> The data presented in this report are from the annual Survey of Earned Doctorates (SED), a census of the 43,354 research doctorate recipients who earned their degrees between July 1, 2004, and June 30, 2005. 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 2005. For the 2005 survey, 92 percent of the 43,354 new doctorate recipients completed the SED questionnaire; basic information on nonrespondents was obtained from their degree-granting institutions and public records.<sup>2</sup> The cumulative DRF now contains a total of 1,602,923 records on individuals completing doctorates over the last 86 years at U.S. institutions.

## Organization

*Summary Report 2005* 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,

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<sup>1</sup> 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 System (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.

<sup>2</sup> 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 doctoral degree are reported as well as cross-sectional data for the 2005 cohort on the numbers of doctorate recipients reporting disabilities. Cross-sectional data for the 2005 cohort are also presented on the sources of financial support during graduate school, and the postgraduation status and plans of doctorate recipients. Finally, continuing on work that was done in the *Summary Report 2004*, data on recent trends in non-U.S. citizens' decisions to stay in the U.S. or leave are presented, with a special focus on whether any changes might be attributable 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 2005 research doctorate recipients are shown in Appendix A, and trend tabulations for the previous ten-year period (1995 to 2005) 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 2005 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 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*, is available on the NSF website above. 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>). At this same URL, the 2005 tables will be available as Excel files. 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)
- A Profile of International Students (1997)
- 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 2005 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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## Trends in Doctorate Recipients

The individual research doctorate recipients<sup>3</sup> 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, 2005, U.S. universities awarded 43,354 research doctorate degrees, compared with 42,117 in 2004 and 40,740 in 2003. (See table 1.) The 2005 total was a 2.9 percent increase from 2004, and this is the highest number of doctorates awarded in the history of the SED.

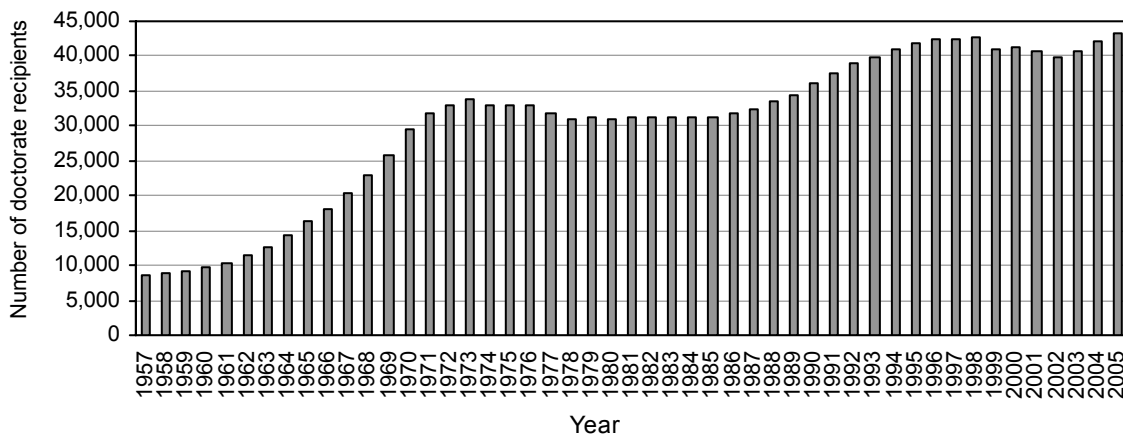
The long-term trend in the number of new research doctorates has been one of considerable growth. Since the SED began in 1958, the number of doctorates granted by U.S. universities has, on average, increased by approximately 3.5 percent per year. The expansion has been characterized by two periods of rapid growth followed by stability and a few slight declines. Between 1961 – the year when the number of annual doctorates awarded surpassed

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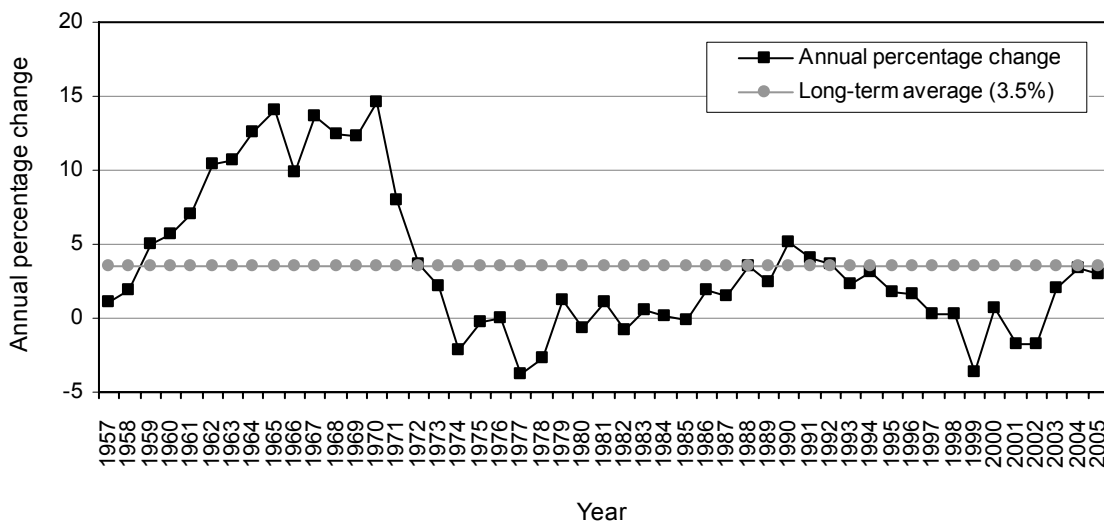
<sup>3</sup> Doctorates are reported by academic year (from July 1 of one year through June 30 of the following year) and include *research doctorates* in all fields. Research doctoral programs are oriented toward preparing students to make original contributions to knowledge in a field and typically 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 “doctorate” and “doctoral degree” are used to represent any of the research doctoral degrees covered by the survey. This is the third year that individuals who had also earned research doctorates in previous years are included in the SED. In 2005, a total of 107 individuals earned a second research doctorate, similar to the 110 in 2004.

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 doctoral degrees annually awarded during the late 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. From 1998 - 2002, the number of doctorates awarded each year generally declined, reaching a low point in 2002. The trend reversed from 2003-2005 and the three years of growth has led to an all-time high for number of doctorates earned in 2005. (See figures 1 and 2.)

**Figure 1. Doctorates awarded by U.S. colleges and universities, 1957-2005**



**Figure 2. Annual rate of change in doctorates awarded by U.S. colleges and universities, 1957-2005**



See Table 1

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

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

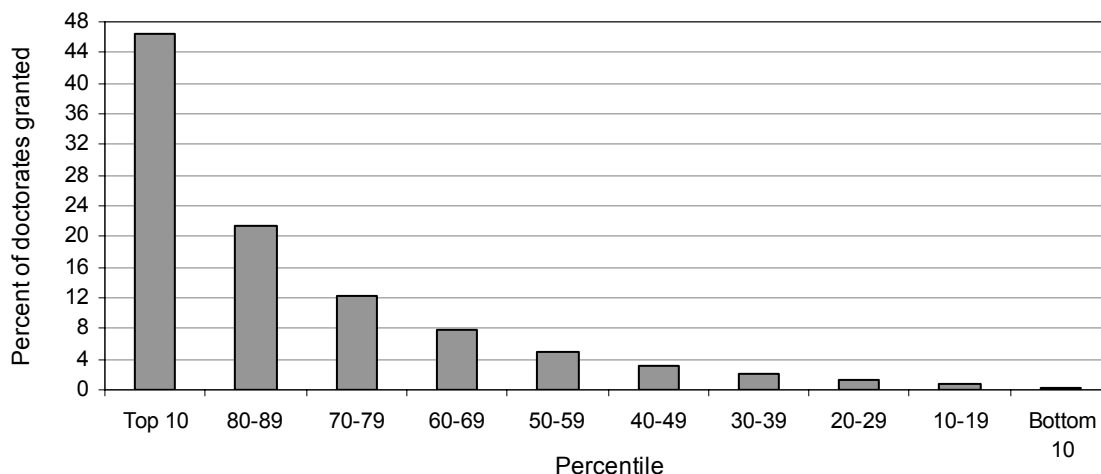
The SED project closely monitors the universe of research doctorate-granting institutions, including an annual review of all accredited institutions recognized by the U.S. Department of Education in its Integrated Postsecondary Education Data System (IPEDS). The data collection contractor for the SED 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 that the university deems to be a research doctorate. Appendix table A-8 contains the full list of institutions granting research doctorates in the 2005 academic year.

During the 2005 academic year, there were 416 universities in the United States and Puerto Rico that awarded at least one research doctorate. (See table 2.) In 2005, the mean number of doctorates awarded per institution was 104, while the median was 42. (See table 2 for the mean and median numbers of doctorates awarded per institution from 1965 to 2005.) As the substantial difference between the mean and the median indicates, a relatively small number of institutions award a disproportionately large number of doctorates. The top ten percent of institutions granted nearly half (46 percent) of all doctorates in 2005. Institutions in the next decile, 80th to 89th percentile, accounted for more than one fifth (21 percent) of all doctorates; the next decile accounted for 12 percent of all doctorates; institutions below the 70th percentile accounted for the final 20 percent of doctorates in 2005 (See figure 3).<sup>4</sup>

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<sup>4</sup> Calculations derived from appendix table A-8. See appendix table A-9 for a list of the 50 largest institutions.

**Figure 3. Percentage of doctorates granted, by institution doctorate cohort size percentile, 2005**



See Appendix Table A8.

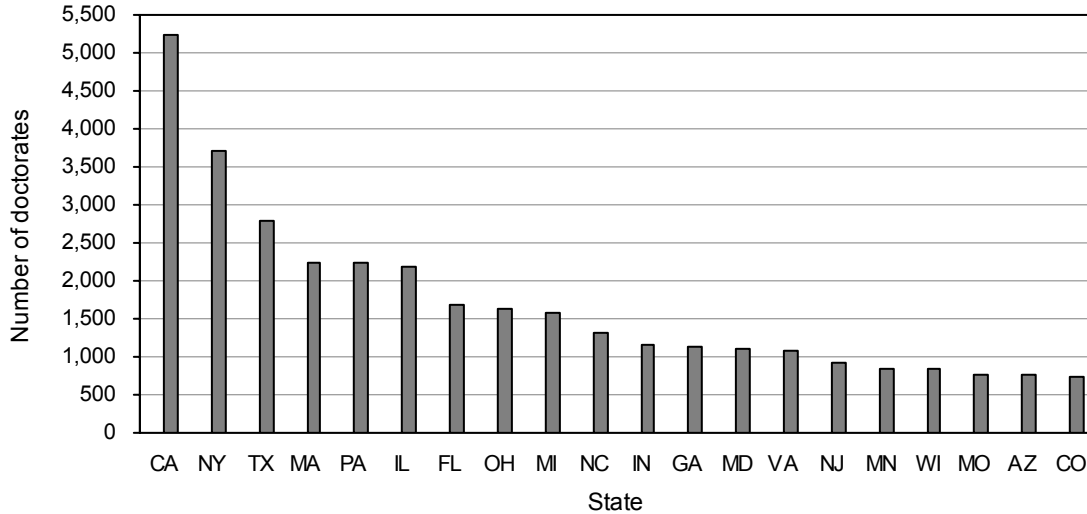
Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

The trend data in table 2 show that the median number of degrees awarded per institution grew rapidly during the 1960s, from 33 in 1965 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 2005 academic year, the University of California-Berkeley granted the largest number of doctorates, 802, or 1.8 percent of all doctorates awarded in 2005, followed by the University of Texas-Austin (716), the University of Michigan-Ann Arbor (711), the University of Wisconsin-Madison (664), and the University of California-Los Angeles (651). In 2005 (as was also the case in 2004), the ten institutions awarding the highest number of doctoral degrees granted approximately 15 percent of all doctorates. (See 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 4 and table 4 show that California universities led the nation by awarding 5,225 doctorates, or 12 percent of all doctorates in 2005. New York institutions granted the next highest number (3,705), followed by institutions in Texas (2,791), Massachusetts (2,236), Pennsylvania (2,232), Illinois (2,172), Florida (1,677), Ohio (1,627), and Michigan (1,574). These nine states accounted for 54 percent of all doctorates awarded in 2005. (See figure 4 and table 4.)

**Figure 4. Top 20 doctorate-granting states, 2005**



See Table 4.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

### **Doctorates by Field of Study**

There were 279 fields of specialization into which the SED classified research doctorate degrees in 2005 (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 periodically in order to identify emerging fields and modified, as needed, 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 2005 was attained for all of the 43,354 doctorate recipients.

Consistent with past practice in presenting the SED data, the fields of specialization are grouped into seven broad fields: physical sciences,<sup>5</sup> engineering, life sciences,<sup>6</sup> social sciences,<sup>7</sup> humanities, education, and a heterogeneous group of 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.

<sup>5</sup> Physical sciences also include mathematics and computer sciences in this report.

<sup>6</sup> Life sciences encompass biological, agricultural, and health sciences in this report.

<sup>7</sup> Social sciences include psychology in this report.

The institutions granting the largest numbers of doctorates in each of the seven broad fields in 2005 are listed in table 3. The Massachusetts Institute of Technology awarded the most doctorates in physical sciences (190), while Georgia Institute of Technology granted the most engineering doctorates (249). The Johns Hopkins University led all universities in life sciences (199) and the University of California – Berkeley granted the most doctorates in the social sciences (108). In the humanities, the University of Texas led all universities in doctorates awarded (138). The University of Southern California had the highest total in education (178), while Nova Southeastern University granted the most doctorates in the diverse “other fields” category (59).

The numbers of doctorates awarded in the seven broad fields were also concentrated in a relatively small number of institutions. While the ten institutions that granted the largest number of doctorates awarded 15 percent of all doctorates in 2005, the concentration was higher in six of the seven broad fields: 19 percent in physical sciences, 28 percent in engineering, 18 percent in life sciences, 22 percent in humanities, 17 percent in education, and 18 percent in other fields. The concentration was slightly lower than the overall average in social sciences (14 percent). (Derived from table 3.)

The overall increase of 2.9 percent in doctorates awarded between the 2004 and 2005 academic years was a result of increases in four of the seven broad fields. Engineering and physical sciences showed the largest increases (10.9 percent and 10.8 percent respectively). Life sciences and social sciences showed smaller increases (5.6 percent, and 0.7 percent, respectively). The numbers in education, other fields, and humanities dropped since 2004 (6.1 percent, 2.5 percent, and 2.1 percent decreases respectively)<sup>8</sup>. (See appendix table B-1.)

Since 1990, life sciences has been the largest broad field, with 9,306 doctorates awarded in 2005. Over the last five years, the number of doctorates awarded in engineering, other fields, and physical sciences showed the largest increases: 20.3 percent, 12.1 percent, and 12.0 percent higher respectively in 2005 than in 2000. (See table 5.) Life sciences also awarded more doctorates (7.9 percent), while the total number completing doctorates in humanities, social

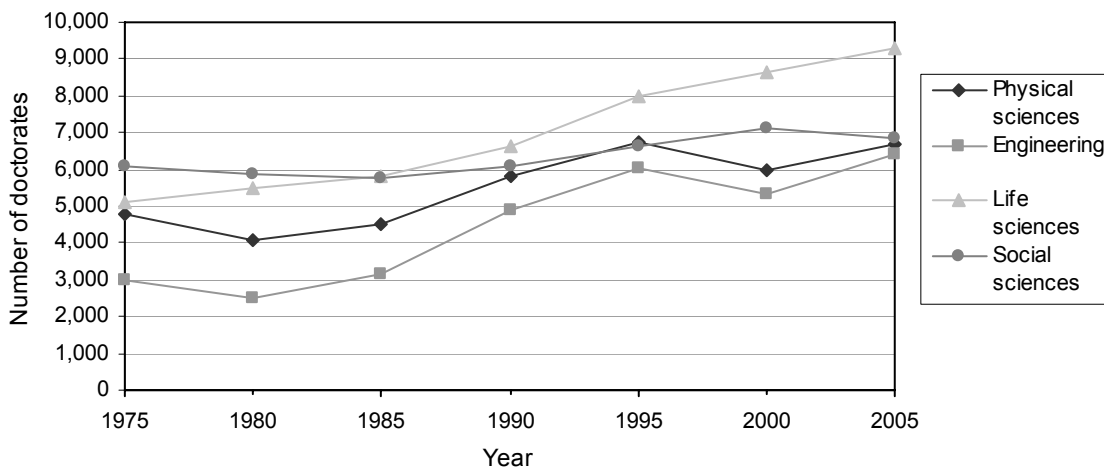
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<sup>8</sup> The decrease in new doctorate recipients in the broad field of education is attributable to some relatively large programs changing from granting research doctorates to granting professional doctorates and thus becoming ineligible for inclusion in the SED. These changes were found during the routine eligibility review (See Appendix C).

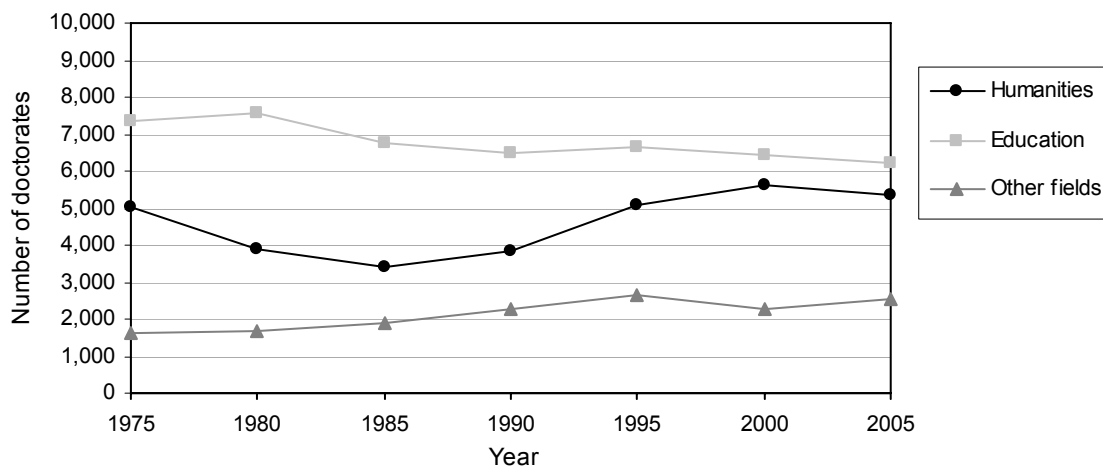


sciences and education was slightly lower, with 5.1 percent, 3.8 percent, and 3.2 percent fewer degrees awarded respectively in 2005 than five years earlier. (See table 5 and figures 5 and 6.)

**Figure 5. Science and engineering doctorates awarded, by broad field of study, for selected years, 1975-2005**



**Figure 6. Humanities, education, and other fields doctorates awarded, for selected years, 1975-2005**



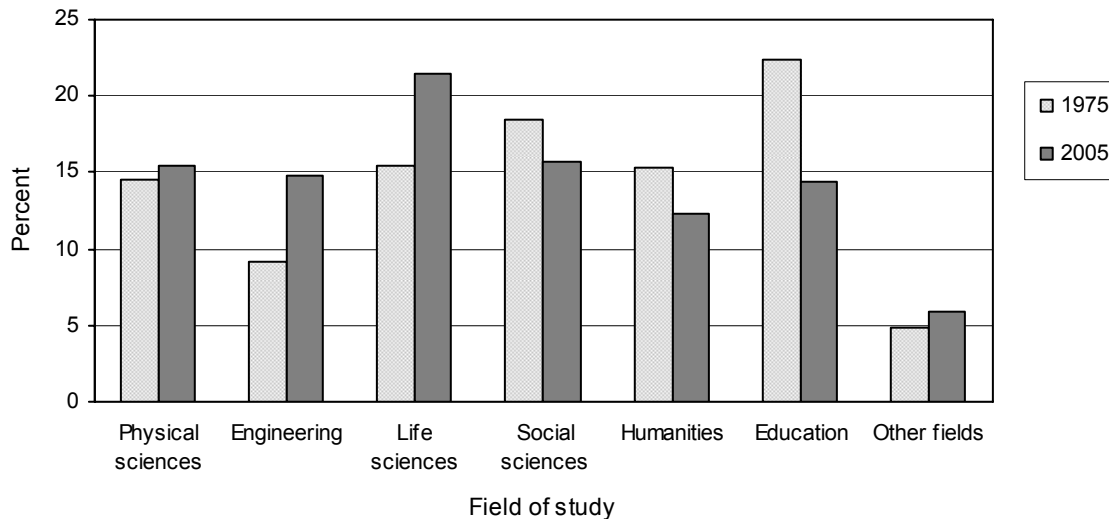
See Table 5.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 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 68 percent of all doctorates awarded in 2005. S&E doctorates accounted for close to the same percentage of all doctorates (66 percent) in 1995, but only 62 percent of the total in 1985 and 58 percent in 1975. (See table 5.)

The 30-year comparisons for all seven broad fields are shown in figure 7. The relative shares of graduates in engineering and life sciences were greater in 2005 than in 1975, while the relative shares in humanities, education, and social sciences were smaller in 2005. The relative shares of graduates in physical sciences and other fields in 1975 and 2005 were about the same. (See figure 7.)

**Figure 7. Percentage distribution of doctorate recipients, by broad field of study, 1975 and 2005**



See Table 5.

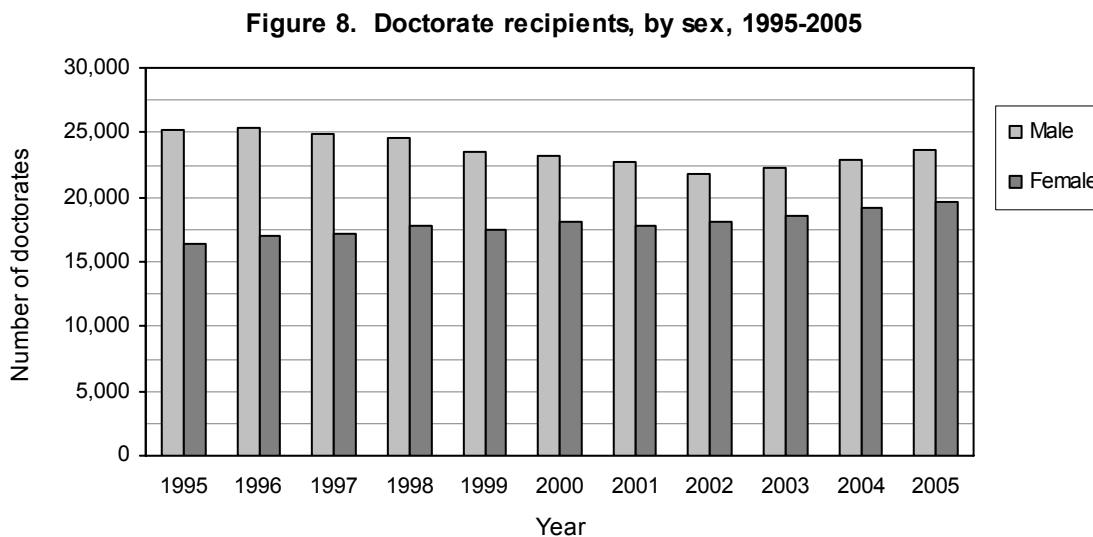
Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

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 1975 within physical sciences was computer sciences, which was not even a defined field of doctoral study in 1975, going from 218 doctorate recipients in 1980 to 1,136 in 2005. In the broad field of life sciences, the numbers of new doctorate recipients in biological sciences and health sciences increased rapidly from 1975 to 2005. In the broad field of social sciences, the subfields of psychology, anthropology, and economics showed growth over the 30 year period, while other subfields showed a decline. 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 2.9 percent increase in total doctorates awarded between 2004 and 2005 reflected increases in the numbers earned by both males and females. The number of doctorates awarded to men rose by 772 and increased for women by 407 in 2005 compared to 2004. The net proportional effect is that for 2005, females received 45.2 percent of all doctorates, which is virtually unchanged from 2004<sup>9</sup> (See figure 8). This number signifies the tenth 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 (2000) females comprised 44 percent of all doctorate recipients; 10 years ago (1995) they comprised 39 percent, and 30 years ago (1975) 22 percent. (See figure 8 and table 7.)



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

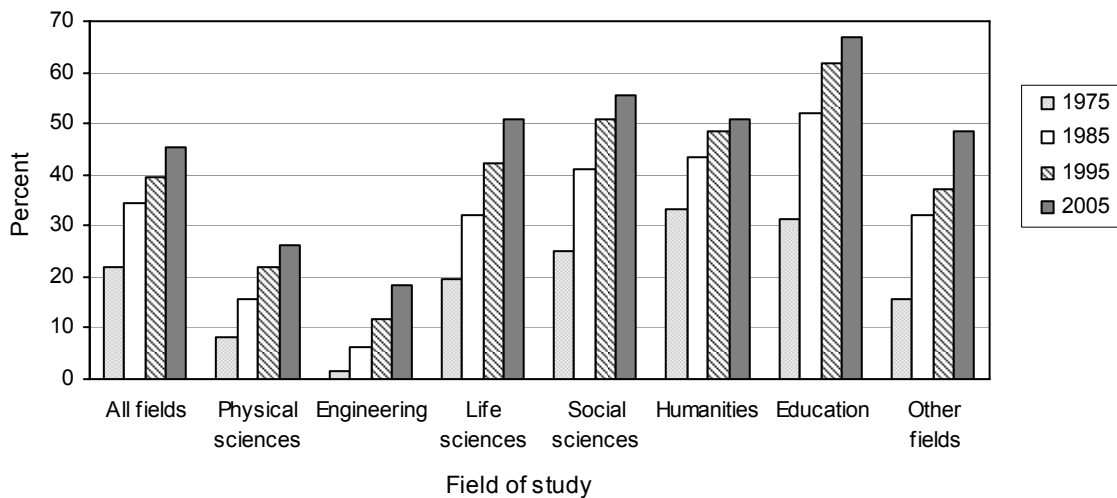
Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

The proportion of doctorates earned by women has also grown steadily within all of the broad fields of study. Women constituted 67 percent of all education doctorate recipients for 2005, the majority in social sciences (56 percent), humanities (51 percent), and for the first time ever, in life sciences (51 percent). In contrast, the representation of females among doctorate

<sup>9</sup> For 2005, sex category could not be determined for 59 doctorate recipients; these 59 are not part of this and other gender percentage calculations.

recipients in physical sciences and engineering for 2005 was 26 percent and 18 percent, respectively (figure 9). However, even these percentages represent significant increases over the last 30 years. In 1975, when only 22 percent of all doctorate recipients were women, just 8 percent and 2 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 20 percent in 1975 to 51 percent in 2005; from 25 percent to 56 percent in social sciences over that same period; and from 33 percent in humanities in 1975 to the current 51 percent. (See figure 9 and table 7.)

**Figure 9. Percentage of doctorate recipients who are female, by broad field of study, for selected years, 1975-2005**



See Table 7.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

In 2005, 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 1995 to 2005 in aerospace engineering (137 percent); civil and architectural engineering (99 percent); mechanical engineering (95 percent); and earth, atmospheric, and marine sciences (67 percent). (See table 6.)

## Doctorate Recipients by Race/Ethnicity

A total of 5,071 U.S. citizens who were members of racial/ethnic minority groups<sup>10</sup> were awarded doctorates, representing 20 percent of the U.S. citizens earning research doctorates in 2005. (See table 8.) This number is nearly equal to 2004, when 5,082 minority group members earned their doctorate; and the 2005 minority percentage matches the highest percentage recorded in the SED, reached in 2004. (See appendix table B-2a.) Blacks earned the most doctorates (1,688) of the five main U.S. minority populations in 2005, followed by Asians (1,493), Hispanics (1,294), American Indians/Alaska Natives<sup>11</sup> (139), and Hawaiians and other Pacific Islanders (67). (See table 8.) A total of 390 non-Hispanic U.S. citizens reported more than one racial background in the 2005 survey, and are counted here as racial/ethnic minorities, but they and the 67 Hawaiian and other Pacific Islanders are grouped in the “other” category and not shown separately in table 8 or figure 10 because of the lack of trend data.<sup>12</sup>

In 2005, the number of minority doctorate recipients was 14 percent higher than the total in 2000 and 43 percent higher than in 1995. Conversely, there were 9 percent fewer non-Hispanic white doctorate recipients in 2005 compared to 2000, and 13 percent fewer than in 1995. 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 (189 percent) and Hispanics (130 percent), than for blacks (85 percent) and American Indians (45 percent). (See figures 10 and 11 and table 8.)

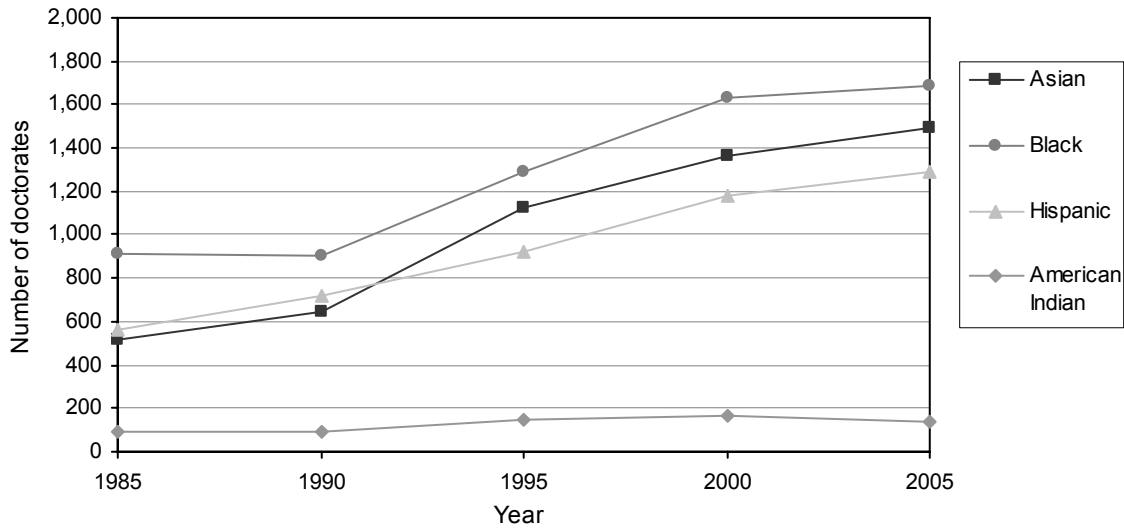
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<sup>10</sup> As used here, U.S. minority groups include Asians, blacks, Hispanics, American Indians/Alaska Natives, Native Hawaiians and other Pacific Islanders, and individuals who indicated more than one racial background. Only U.S. citizens are included in the U.S. minority groups.

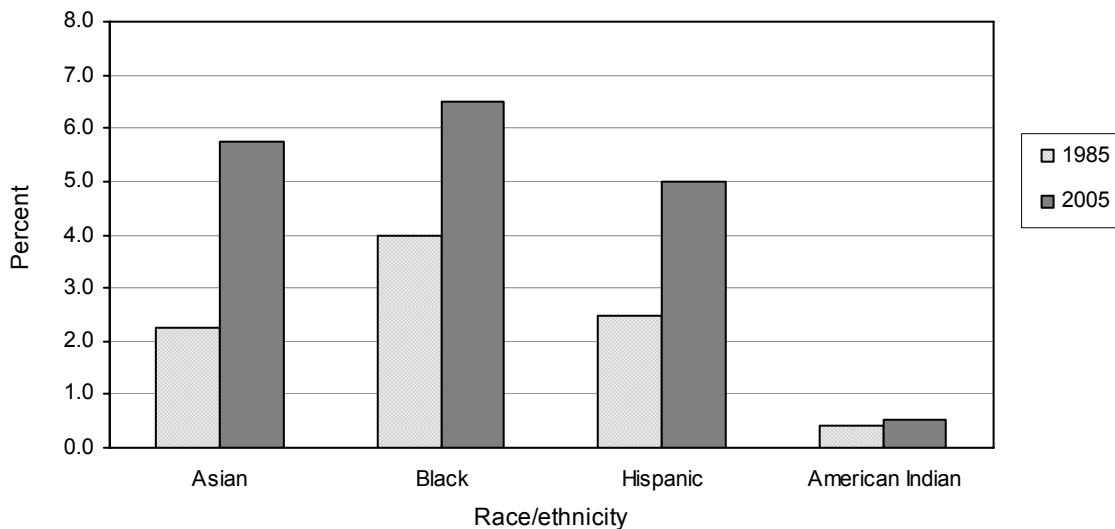
<sup>11</sup> American Indians/Alaska Natives are referred to as American Indians hereafter in the text of this report.

<sup>12</sup> 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 one or more 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 2005 questionnaire is included in appendix D.

**Figure 10. Doctorates awarded to racial/ethnic minority U.S. citizens, by race/ethnicity, for selected years, 1985-2005**



**Figure 11. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, 1985 and 2005**



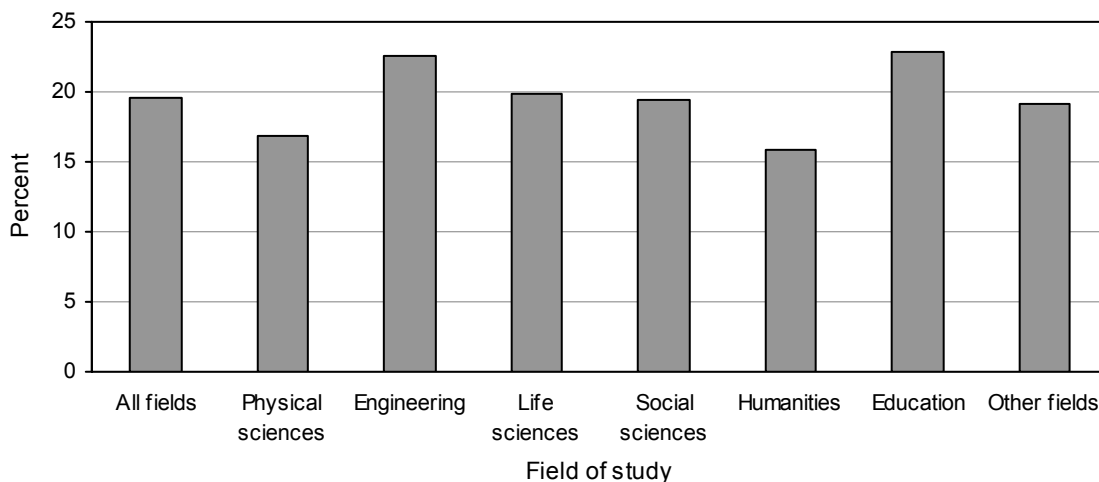
See Table 8.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

U.S. minority group members had their largest presence in the broad fields of education and engineering (23 percent of U.S. citizens earning doctorates), life sciences (20 percent), and other fields (19 percent), in 2005. The lowest percentage representations were in physical sciences (17 percent) and humanities (16 percent). (See figure 12.)

The proportional representation of the different minority groups varied by broad field. Asians were the largest contingent in engineering, physical sciences, and life sciences; representing 55 percent, 48 percent, and 44 percent, respectively, of all minority group members earning doctorates in those broad fields during the 2005 academic year. Blacks were the largest minority population in education, other fields, and social sciences; representing 57 percent, 43 percent, and 32 percent, respectively, of all minority group members earning doctorates in those broad fields during the 2005 academic year. Hispanics were the largest minority population in humanities, representing 32 percent of all minority group members in 2005. This pattern of relative representation is observed for each year shown in table 8, back to 1985. (See table 9 for the numbers of minority doctorate recipients in each of the 25 subfields in 2005.)

**Figure 12. Percentage of doctorates earned by racial/ethnic minority U.S. citizens, by broad field of study, 2005**



See Table 8.

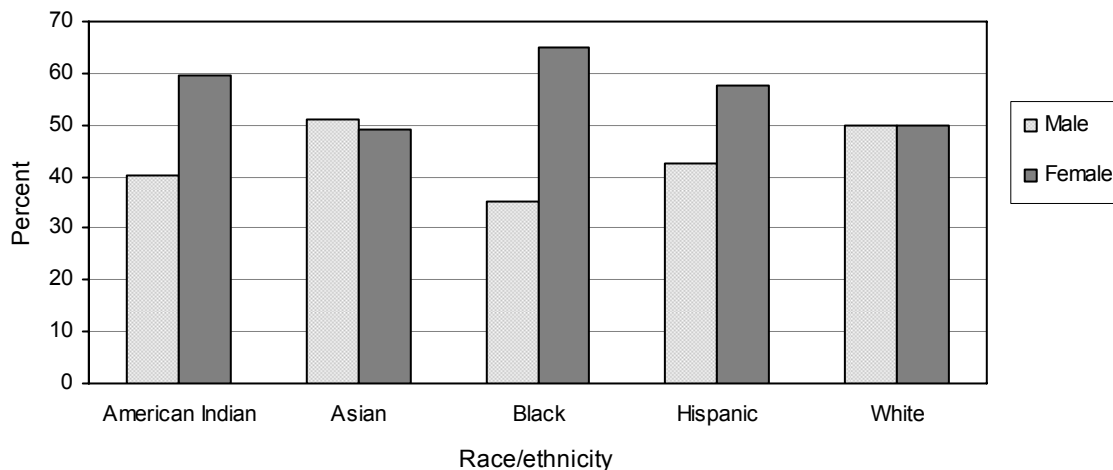
Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

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 1985 to 2005. The general pattern for minority recipients had been one of relatively small increases from 1985 to 1995 followed by moderate increases from 1995 to 2000. In 2005, there were some notable exceptions to the trend of increases. For example, the number of American Indian

doctorate recipients remained stable or fell in almost every broad field category in 2005<sup>13</sup> relative to 2000. The exception was humanities, where the number increased slightly. (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, American Indians, and Hispanics, women constituted a majority, earning 65 percent, 60 percent, and 58 percent, respectively, of doctorates received by persons of those races or ethnicities. Among Asians, women were 49 percent of the total. This is a slight decrease from 2004, when for the first time Asian women earned as many doctorates as their male counterparts. (See figure 13 and appendix table A-4.)

**Figure 13. Sex distribution of doctorates earned by U.S. citizens, by race/ethnicity, 2005**



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

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 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 2001 and 2005, and the number granted by each university. Over that five-year interval, four California institutions – UCLA, Berkeley, Stanford, and USC – and two in Massachusetts – Harvard and MIT – awarded a total of 1,564 doctorates to Asians, or 22 percent of all doctorates awarded by U.S. universities to Asians.

<sup>13</sup> 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 the 2001 questionnaire of the option to select one or more racial categories. Of the 390 non-Hispanic U.S. citizen respondents indicating more than one race, 167 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 (2002-2005) the introduction of the revised item; see appendix table B-2a.



Nova Southeastern University and Howard University awarded, by far, the most doctorates to blacks (396 and 278, respectively), 8 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 (32) 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. Over the 2001 - 2005 period, the ten universities granting the largest numbers of doctorates to all doctorate recipients conferred 15 percent of all doctorates. However, over the 2001-2005 period, the ten universities that awarded the most doctorates to Asians (table 10) granted 30 percent of all Asian doctorates; for blacks the corresponding figure was 19 percent; for Hispanics it was 22 percent, and for American Indians it was 23 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 at the time of graduation. Of the 2005 doctorate recipients with known citizenship status (94 percent of the total), 65 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 31 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 1975 to 31 percent in 2005. 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 1975.

The number of doctorate recipients with permanent residence has shown more fluctuation over time. The 2005 total of 1,600 represents an increase of 4 percent from 2004, and has dropped back near the 1990 (1,695) numbers. The numbers of doctorate recipients with

permanent residence were at historical highs in the mid-1990s (reaching a peak of 4,317 in 1995)<sup>14</sup>, and ranged between 1,200 and 1,700 from 1975 until the early 1990s. (See table 11.)

U.S. citizens earned more than three fourths of the doctorates awarded in humanities and education (78 percent and 89 percent of those reporting citizenship status, respectively) in 2005. (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; engineering and physical sciences were the most popular fields for those in the United States on temporary visas.

The trend towards increasing female representation in the doctoral cohorts is particularly striking for U.S. citizens. In 2005, 51 percent of all doctorates awarded to U.S. citizens went to women. This marks the fourth 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 2005, 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 21 percent of all female doctorate recipients in 2005, they earned 25 percent of the doctorates granted to females in life sciences, 39 percent of the doctorates earned by females in physical sciences, and 54 percent of the female-earned doctorates in engineering. (See appendix table A-3c.)

In 2005, 3,827 doctorate recipients were citizens of the People's Republic of China (PRC)<sup>15</sup>, comprising 9 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 2005 were the same as in 2004, though some changes in rankings occurred within the top 15. The leading five countries (PRC, Korea, India, Taiwan, and Canada)

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<sup>14</sup> 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 federal law 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.

<sup>15</sup> Includes Hong Kong.

accounted for 19 percent of all doctorates awarded by U.S. universities to individuals of known citizenship in 2005. Only 6 percent of the total citizenship-known 2005 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 accounted for 30 percent of the doctorates awarded in 2005 with country of citizenship reported, including U.S. citizens.

The twenty institutions awarding the largest numbers of doctorates to non-U.S. citizens in 2005 are listed in table 13. The University of Illinois at Urbana-Champaign awarded the largest number of doctorates to non-U.S. citizens, with 303 doctorates granted 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' highest level of educational attainment. In 2005, for the first time, responses are grouped into four categories: high school diploma or less, some college, earned baccalaureate, and advanced degree, including the master's, doctorate, or a professional degree.<sup>16</sup> Previous versions of the *Summary Report* combined the 'some college' and 'earned baccalaureate' categories into a single category.

The 2005 data shown in table 14 indicate that 28 percent of recipients' fathers had earned no more than a high school diploma; the corresponding figure for their mothers was 36 percent. Thirteen percent of doctorate recipients had a father who had attended at least some college, but did not attain a baccalaureate degree; 17 percent of the mothers of doctorate recipients in 2005 achieved this level of education. About one fourth (25 percent) of doctorate recipients indicated that their fathers earned a baccalaureate degree; the percentage whose mother earned a baccalaureate degree was the same. 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 2005 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 attained at

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<sup>16</sup> 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.

least a baccalaureate degree. The observed sex differences appear to be driven by mothers' education. That is, the fathers of both male and female doctorate recipients were equally likely to have earned at least a baccalaureate degree (59 percent), but the mothers of female doctorate recipients (48 percent) were more likely than the mothers of male doctorate recipients (45 percent) to have at least a baccalaureate degree.

There is considerable variation in parental education attainment by race/ethnicity, citizenship status, and broad field of study. Among U.S. citizens, Asian doctorate recipients were more likely than members of the other racial/ethnic categories to come from families in which one or both parents attained at least a baccalaureate degree. Black, Hispanic, and American Indian recipients' parents were less likely to have gone beyond high school and were far less likely to have attained a baccalaureate or advanced degree 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 at least a baccalaureate degree (and much less likely than these two groups to have parents whose formal education did not extend beyond the high school level).

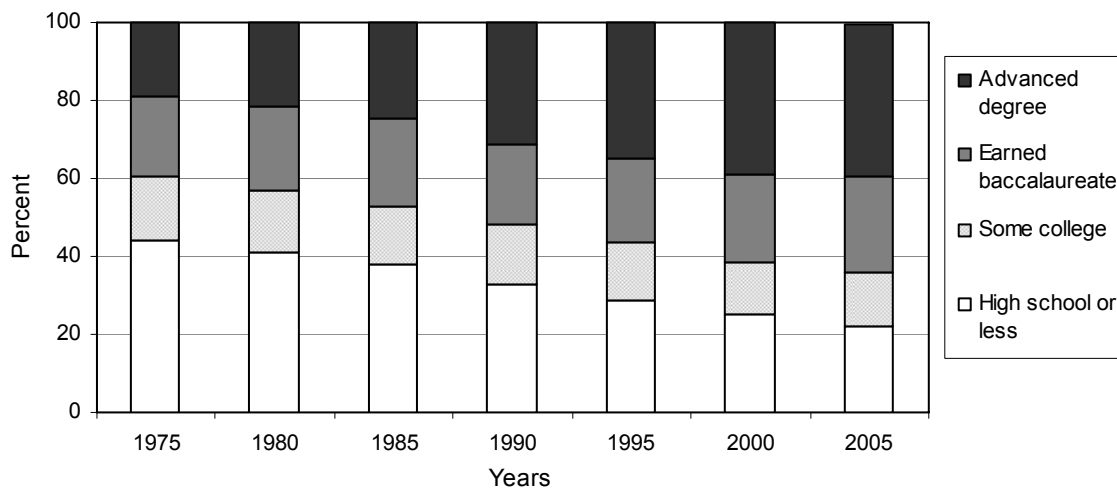
The distributions of parental education by the broad fields in table 14 reflect, in part, the different racial/ethnic and citizenship compositions of the fields. Doctorate recipients in humanities displayed the highest percentages of both fathers (65 percent) and mothers (53 percent) with at least a baccalaureate degree. The lowest percentages of baccalaureate or higher degrees by fathers or mothers were reported by doctorate recipients in the broad field of education (42 percent for fathers and 33 percent for mothers). Education also represents the highest fraction of parents whose formal education ended at high school or before. Conversely, the broad field of humanities has the lowest percentage of parents who never went beyond high school.

There has been an overall trend of parents of doctorate recipients being more highly educated over the past thirty years (See figure 14 and table 15). In 1975, 44 percent of doctorate recipients reported that neither of their parents had attained an education beyond a high school diploma and less than one in five (19 percent) reported that either parent had an advanced degree. By 1990, the proportion of doctorate recipients whose highest parental educational attainment was a high school diploma or less and those whose highest parental educational attainment was an advanced degree had nearly equalized (33 percent and 31 percent,

respectively). By 2005, the proportions in the most and least educated groups had almost completely reversed; with 22 percent of doctorates reporting highest parental education of a high school diploma or less and 39 percent reporting at least one parent with an advanced degree.

The proportions of doctorates reporting highest parental education of 'some college' has shown a gradual decrease over the past thirty years (from 16 percent in 1975 to 13 percent in 2005). At the same time, the proportion indicating an earned baccalaureate degree as either parent's highest education has shown an increase of about the same magnitude (from 21 percent in 1975 to 25 percent in 2005).

**Figure 14. Highest parental educational attainment, 1975-2005**



See Table 15.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

### 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.

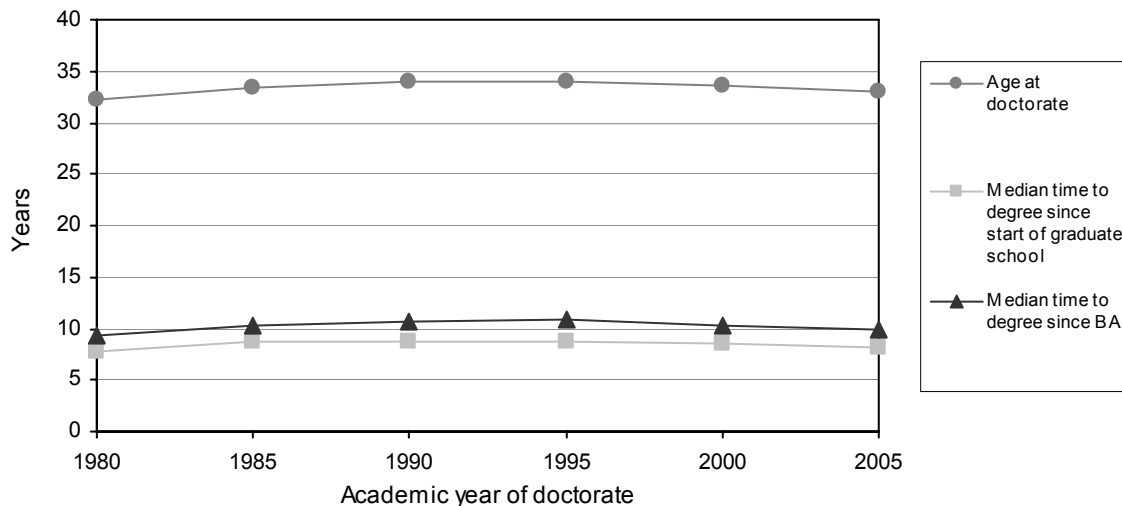
The SED measures time to degree in three different ways: (1) the total time elapsed from completion of the baccalaureate to completion of the doctorate, (2) the total time elapsed from the start of graduate school to completion of the doctorate, and (3) the age of the doctorate

recipient at the time the doctorate is awarded. In this section, the 2005 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 2005 doctorate recipients, the median total time span from baccalaureate to doctorate was 9.9 years (table 16). The median total time span was shortest in physical sciences (7.8 years) and longest in education (17.3 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 16 show that the 2005 median total time to degree was about four months shorter than in 2000. The long-term trend, however, had been one of increases in length from 1980 to 1995. (See figure 15 and table 16.) From 2000 to 2005, most of the broad fields showed the same or slightly shorter times, except for humanities and social sciences where the time increased slightly.

**Figure 15. Median number of years to doctorate from baccalaureate award and from graduate school entry, and age at doctorate, for selected years, 1980-2005**



See Table 16.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates

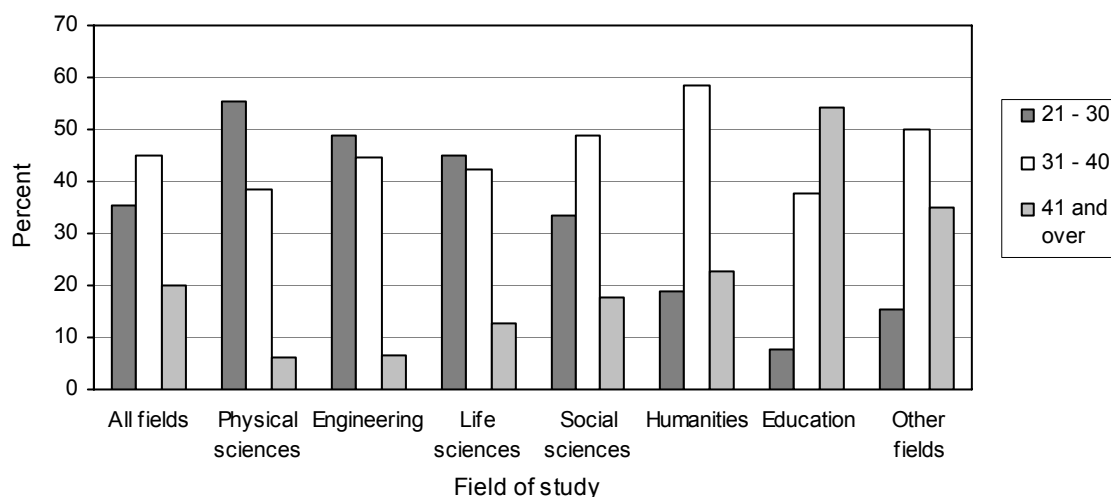
The median duration between starting and completing graduate school was 8.2 years for the 2005 doctorates (table 16). Graduate-school time to degree was shortest in physical sciences (6.7 years) and life sciences (7.1 years), and longest in education (13.0 years) (table 16). The

trend for time spent in graduate school is one of small but continual increases over the span from 1980 to 1995 and then declines in most of the seven broad fields. (See table 16.)

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 17). 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 17). 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 17.)

A third measure of time to degree gathered in the SED is age at doctorate. The median ages of the 2005 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 2005 was 33.0 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 31.4 years old. In comparison, age at doctorate was 35.2 years in humanities, 42.5 years in education, and 36.9 years in the other fields category. (See appendix table A-3a and table 18.) The modal age spans evident in figure 16 and table 18 reflect this ordering.

**Figure 16. Age distribution at doctorate, by broad field of study, 2005**



See Table 18.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 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 2005 (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 2005 doctorate recipients, a total of 622 individuals (about 1.4 percent of the doctoral cohort) indicated having one or more disabilities. The most frequently reported disabilities were physical or orthopedic, with 216 doctorate recipients indicating this disability, followed by learning or cognitive disabilities, with 170. Doctorate recipients with disabilities were more likely to earn their degrees in non-S&E fields of study (47 percent) compared with persons who reported no disabilities (32 percent of all doctorate recipients earned their doctorates in non-S&E fields). (See table 19.)

The demographic breaks shown in table 19 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

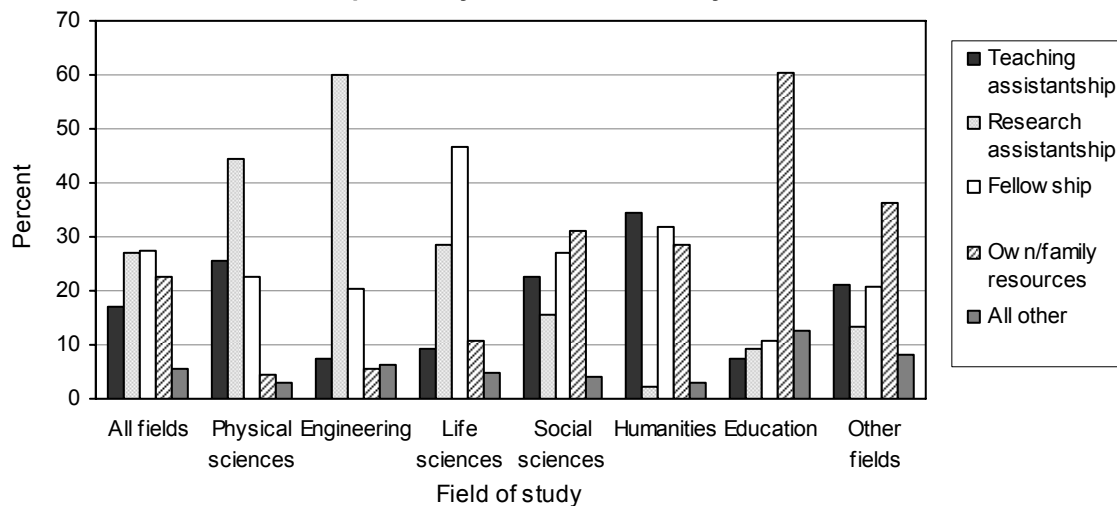
The SED asks two questions that, taken together, provide information on the financial sources of support utilized by the new doctorate recipients during graduate school (for the exact formats and wordings, see the copy of the questionnaire in Appendix D). The first question asks respondents to complete 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 20.

Seven out of ten (71 percent) of the 2005 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.<sup>17</sup> Slightly less than one in four (23 percent) of all 2005 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 17 and table 20.)

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<sup>17</sup> Private foundations, U.S. government agencies, and state governments tend to be the original sources of these funds.

**Figure 17. Primary sources of financial support for doctorate recipients, by broad field of study, 2005**



See Table 20.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 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 (93 percent). Within engineering, 88 percent of the research doctorate recipients in 2005 listed teaching/research assistantships or fellowships as their principal form of support, as did 84 percent of respondents in life sciences. On the other hand, only 56 percent of doctorate recipients in 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 (30 percent versus 17 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 20).

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 (16 percent and 6 percent, respectively) than did U.S. citizen respondents (31 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 20).

Differences in the various modes of financial support were found among the main racial/ethnic groups. Black and American Indian doctorate recipients indicated the greatest reliance on their own resources to finance their doctoral program (42 percent and 37 percent, respectively), followed in decreasing order by Hispanics and whites (33 and 32 percent, respectively), and Asians (17 percent). (See table 20.) Racial/ethnic differences in reliance on own resources also diminished within most of the broad fields of study. The exception to this trend was within life sciences, wherein blacks reported relying on their own resources at a rate that was fifty percent higher than the nearest other racial/ethnic group, whites (21 and 14 percent, respectively), and more than twice the rate of all other racial/ethnic groups. 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 20.)

### **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. This is defined as debt related to tuition and fees, living expenses and supplies, and transportation to and from school. Just over half (51 percent) of the respondents in 2005 reported having no graduate or undergraduate education-related debt, while another 21 percent reported cumulative debt of \$20,000 or less (table 21). However, 12 percent of all new doctorate recipients reported debt over \$50,000, creating a bulge at the high end of the debt distribution. Examining the debt distributions within each of the seven broad fields, substantial differences were evident. Graduates in engineering and physical sciences were most likely to complete their doctorate with no education-related debt (66 percent and 62 percent, respectively). About half of graduates in life sciences (51 percent), other fields (50 percent), and education (50 percent) had no education-related debt. Graduates in social science (39 percent) and humanities (39 percent) were least likely to have no education-related debt. Debt levels of \$50,000 or more were most common

among graduates in social science fields (22 percent), humanities (17 percent), and other fields and education (15 percent).

Data separating graduate from undergraduate debt are shown in the lower two panels of table 21. 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, 73 percent of the 2005 doctoral cohort reported no remaining undergraduate debt and only 1 percent reported remaining undergraduate debt greater than \$50,000. In contrast, 67 percent reported no graduate school debt and 10 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 other broad fields. (See table 21.)

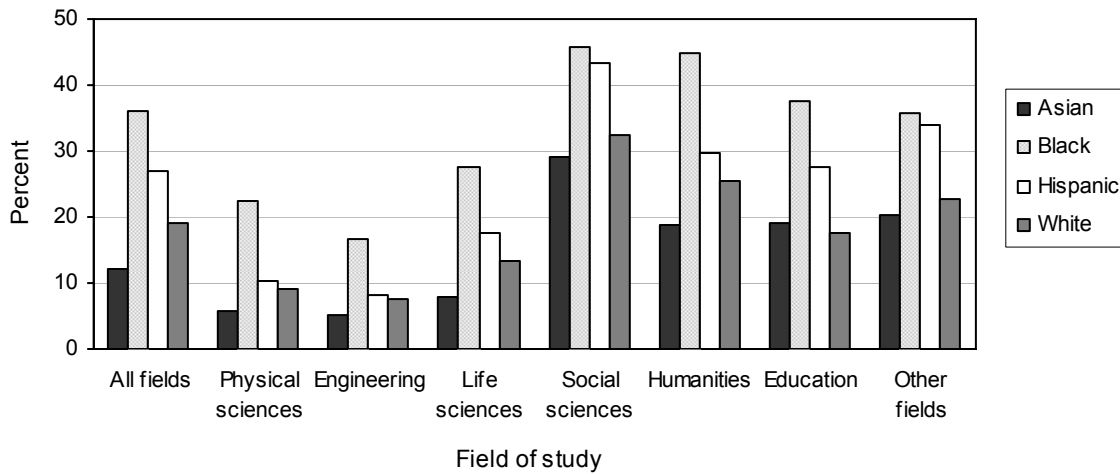
The pattern of debt levels for the study's main demographic groups is shown in table 22. Debt differences between the sexes were not large, with new male doctorates about four percentage points more likely to have no debt than their female counterparts (53.3 percent versus 49.1 percent). U.S. citizen doctorate recipients were less likely to have no higher-education-related debt than graduates with permanent or temporary visas (41 percent, versus 67 percent, and 71 percent, respectively), and more likely to have debts totaling over \$50,000 (15 percent, versus 7 percent for permanent visa holders and 6 percent for temporary visa holders). (See table 22.)

Particularly noteworthy in the cumulative debt tabulations (first panel of table 22) is the much higher incidence of blacks, Hispanics, and American Indians sustaining high levels of education-related debt. Nearly three in ten black and American Indian doctorate recipients (29 percent for both), and 22 percent of Hispanic doctorate recipients owed over \$50,000; these figures compare to 9 percent of Asians and 14 percent of whites with that level of debt. Similarly, Asians (47 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 21, were also associated with indebtedness. A preliminary assessment of this possibility is provided

in table 23 and figure 18, which show 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 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 18 and table 23.)

**Figure 18. 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 only), 2005**



See Table 23.

Source: NSF/NIH/USED/NEH/USDA/NASA, 2005 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.<sup>18</sup> 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 24 and 25). 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 26 and 27). The third aspect examined is the distribution of graduates across U.S.-based employment sectors, broken down by broad field of study (table 28), sex, race/ethnicity, and citizenship status (table 29). The final aspects discussed are financial support for postdoctoral study (table 30) and anticipated location of postgraduate commitment (international versus U.S.) for non-U.S. citizens (tables 31 and 32).

### Definite versus Indefinite Plans

Slightly more than seven in ten (71 percent) of all doctorate recipients in 2005 reported having definite commitments for employment or postdoctoral study or research. As defined here, a definite commitment is indicated by a respondent reporting either 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

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<sup>18</sup> 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 (92 percent in 2005), minus a low, often negligible, rate of item nonresponse. For the 2005 SED cycle the overall response rate for the first item, asking whether the respondent has definite plans for either career employment or study, was 90 percent.

position but had no specific prospects yet, (e) did not plan to work or study or (f) had some other situation, usually described as “have not made a plan yet.” Of the 29 percent with indefinite plans, over a quarter (28 percent) indicated they were in category (c), negotiating, 66 percent were still seeking a position, and 3 percent were not seeking one. (See survey question B3 in the 2005 questionnaire included in appendix D for the item wording.)

The 71 percent with definite plans is similar to 2004, when 70 percent reported having definite commitments. The percentages with definite commitments in 2005 vary little by broad field with the noteworthy exception of humanities and engineering, where about 65 percent have a definite commitment. (See table 24.)

The percentages of graduates from various demographic groups with definite commitments are shown in table 25. About 2 percent fewer women than men (72 percent compared to 70 percent) reported having definite plans. U.S. citizens were more likely to have definite commitments (74 percent) than individuals with permanent (65 percent) or temporary visas (67 percent). Among U.S. citizens, whites were more likely than Hispanics, blacks, Asians, and American Indians to have definite plans.

### **Career Employment versus Postdoctoral Training or Study**

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 26). Nonetheless, the 35 percent planning on a postdoc (a temporary position primarily for gaining additional education and training in research) represents the highest level ever recorded in the SED, edging up two percent from 33 percent in 2003 and up less than one percent from 2004. Plans for postdoctoral study were more common among graduates in life sciences (67 percent) and physical sciences (55 percent) than in the other broad fields. Compared to 1985, 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 27. Men were more likely than women to have definite plans for postdoctoral study (38 versus 33 percent). The percentage of men with definite plans for postdoctoral study remained very near the all-time high level (38 percent) recorded in 2004. The percentage of women with definite plans for postdoctoral study

increased to all-time high in 2005, which exceeded the previous all-time high of 32 percent, recorded in 2004. (See table 26 and table 27 and in the *Summary Report, 2004*).

Students with temporary visas were more likely than permanent residents and U.S. citizens to pursue postdoctoral 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, Asian doctorate recipients were more likely than other racial/ethnic subgroups to pursue postdoctoral study, followed by Hispanic and non-Hispanic white recipients. Black and American Indian doctorate recipients were least likely to plan postdoctorates. (See table 27.) 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 2005 doctorate recipients with definite employment commitments within the United States was higher education, identified by over half (55 percent) of the 2005 respondent subpopulation. (See the total column in table 28.) The next largest group had commitments to industry or some form of self-employment (23 percent) while 7 percent planned to work for U.S. federal, state, or local government. Fifteen percent of the 2005 doctorate recipients indicated a type of employment that did not correspond to these main sectors, and are grouped into the “other” category in tables 28 and 29. These included 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 1985 shows reductions in government employment, coupled with small increases in the higher education sector, increasing noticeably between 2000 and 2005 (49 to 55 percent). The turn of the twenty-first century (the 2000 time point in table 28) 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 percentage of new doctorate recipients with definite employment commitments in industry or some form of self-employment increased by a notable percentage from 2004 (19 percent) to 2005 (23 percent). The four-percent gain in industry and self-employment in 2005



was accompanied by two percent declines in the academic and the “other” sectors, relative to 2004.

The relative shares of doctorate recipients in the main employment sectors varied by broad field of doctorate (table 28). The proportion employed in academe in 2005 was highest among humanities doctorate recipients (84 percent) and lowest among the engineering doctorate recipients (19 percent). The proportion employed in industry or self-employed in 2005 ranged from highs of 69 percent of the engineering doctorate recipients and 49 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 (41 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 29. 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 2005 female doctorate recipients, 14 percent had commitments to industry or some form of self-employment, compared to 31 percent of their male counterparts. Women were more likely than men to have commitments to academe (60 percent versus 50 percent); 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 (46 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 (49 versus 16 percent). Permanent residents were somewhat less likely to have definite plans for employment in academe than U.S. citizens (55 percent versus 57 percent, respectively), but, like those on temporary visas, were more likely

than U.S. citizens to take employment in industry or be self-employed (34 percent versus 16 percent). (See table 29.)

Among U.S. citizens, 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 (33 percent). Blacks were least likely to have work commitments in industry or self-employment (8 percent) and were more likely than all others to have commitments subsumed in the “other” category (27 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 29.)

### **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 2005, 49 percent of all postdocs named a college or university as their main source of funding, followed by 31 percent indicating the U.S. government.<sup>19</sup> Private foundations supported another 5 percent, and other types of nonprofit organizations supported 3 percent. (See table 30.) 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 30.) Similarly, the racial/ethnic breakdowns in table 30 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. However, substantial numbers of non-U.S. citizens, especially permanent residents, also received U.S. government support, though the percentages, but not the absolute numbers, were generally lower in 2005 than in the other years shown in table 30. An overall trend of a decreasing share of U.S. government support for postdoctoral study

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<sup>19</sup> Some college or university support may derive from federal funds, and this may not be clear to the SED respondents.

since 1985 is evident. Non-U.S. citizens with postdoctoral 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, 95 percent of all new doctorate recipients holding permanent visas and 74 percent of temporary visa holders indicated that they would remain in the United States following graduation (table 31). In 2005, chemistry, biological sciences, and electrical and related engineering were the fields with the highest concentrations of new doctorate recipients with temporary visas staying in the United States (90 percent, 89 percent, and 84 percent, respectively). The lowest concentrations were located in the broad fields of education (39 percent), social sciences (55 percent) and humanities (58 percent). (See table 31.)

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 32 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 1985, about half (51 percent) of those with temporary visas had firm commitments to positions in the United States. A decade later, 54 percent of them had firm commitments to stay in the United States; in 2005, the number had increased to 74 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.<sup>20</sup> There is no 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 2004 and again in 2005. But since the median time from starting graduate school to completing the doctorate is about eight years,

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<sup>20</sup> *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.

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 33 indicates that the percentage of foreign graduates intending to stay from the two academic years prior to 9/11 was almost identical to the percentage intending to stay in the four years since 9/11 (70 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 2000. Then in each succeeding year, 2002, 2003, and 2004, the percentage saying they would stay was slightly lower. However, in 2005 the percentage saying they would stay (73 percent) is higher than pre-9/11 levels. Disaggregating the foreign graduates by country of citizenship and geographical region of citizenship, table 33 shows that this general pattern of intentions to stay in the U.S., characterized by slight yearly declines from 2001 to 2004 followed by an increase to pre-9/11 levels in 2005, 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, 1957–2005

| 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 | 31,238                         | 1.2                               |
| 1980 | 31,019                         | -0.7                              |
| 1981 | 31,355                         | 1.1                               |
| 1982 | 31,108                         | -0.8                              |
| 1983 | 31,280                         | 0.6                               |
| 1984 | 31,334                         | 0.2                               |
| 1985 | 31,295                         | -0.1                              |
| 1986 | 31,897                         | 1.9                               |
| 1987 | 32,365                         | 1.5                               |
| 1988 | 33,497                         | 3.5                               |
| 1989 | 34,325                         | 2.5                               |
| 1990 | 36,065                         | 5.1                               |
| 1991 | 37,530                         | 4.1                               |
| 1992 | 38,886                         | 3.6                               |
| 1993 | 39,800                         | 2.4                               |
| 1994 | 41,033                         | 3.1                               |
| 1995 | 41,747                         | 1.7                               |
| 1996 | 42,437                         | 1.7                               |
| 1997 | 42,535                         | 0.2                               |
| 1998 | 42,637                         | 0.2                               |
| 1999 | 41,092                         | -3.6                              |
| 2000 | 41,361                         | 0.7                               |
| 2001 | 40,651                         | -1.7                              |
| 2002 | 39,953                         | -1.7                              |
| 2003 | 40,740                         | 2.0                               |
| 2004 | 42,117                         | 3.4                               |
| 2005 | 43,354                         | 2.9                               |

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 2. Number of U.S. colleges and universities awarding doctorates and average doctorate recipients per institution, 1965-2005

| Year | Number of doctorate recipients | Number of institutions | Mean number of doctorate recipients per institution | Median number of doctorate recipients per institution |
|------|--------------------------------|------------------------|---|---|
| 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 | 31,238                         | 311                    | 100   | 40.0  |
| 1980 | 31,019                         | 320                    | 97  | 37.0  |
| 1981 | 31,355                         | 323                    | 97  | 41.0  |
| 1982 | 31,108                         | 328                    | 95  | 35.0  |
| 1983 | 31,280                         | 332                    | 94  | 37.0  |
| 1984 | 31,334                         | 331                    | 95  | 39.0  |
| 1985 | 31,295                         | 337                    | 93  | 36.0  |
| 1986 | 31,897                         | 340                    | 94  | 36.0  |
| 1987 | 32,365                         | 349                    | 93  | 38.0  |
| 1988 | 33,497                         | 351                    | 95  | 36.0  |
| 1989 | 34,325                         | 356                    | 96  | 36.0  |
| 1990 | 36,065                         | 354                    | 102   | 42.5  |
| 1991 | 37,530                         | 364                    | 103   | 38.5  |
| 1992 | 38,886                         | 367                    | 106   | 42.0  |
| 1993 | 39,800                         | 372                    | 107   | 42.5  |
| 1994 | 41,033                         | 374                    | 110   | 43.0  |
| 1995 | 41,747                         | 382                    | 109   | 43.0  |
| 1996 | 42,437                         | 390                    | 109   | 44.0  |
| 1997 | 42,535                         | 383                    | 111   | 45.0  |
| 1998 | 42,637                         | 388                    | 110   | 43.5  |
| 1999 | 41,092                         | 396                    | 104   | 41.5  |
| 2000 | 41,361                         | 408                    | 101   | 40.5  |
| 2001 | 40,651                         | 417                    | 97  | 36.0  |
| 2002 | 39,953                         | 415                    | 96  | 38.0  |
| 2003 | 40,740                         | 424                    | 96  | 36.0  |
| 2004 | 42,117                         | 419                    | 101   | 38.0  |
| 2005 | 43,354                         | 416                    | 104   | 42.0  |

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



TABLE 3. Top 20 doctorate-granting institutions, by broad field of study, 2005

| Institution                           | Number of doctorate recipients | Institution                | Number of doctorate recipients |
|---------------------------------------|--------------------------------|----------------------------|--------------------------------|
| All Fields                            | 43,354                         | Physical sciences          | 6,699                          |
| U. CA, Berkeley                       | 802                            | MA Institute of Technology | 190                            |
| U. TX-Austin                          | 716                            | U. CA, Berkeley            | 184                            |
| U. MI                                 | 711                            | Stanford U.                | 163                            |
| U. WI-Madison                         | 664                            | U. IL-Urbana-Champaign     | 128                            |
| U. CA, Los Angeles                    | 651                            | U. WI-Madison              | 112                            |
| U. MN                                 | 644                            | U. CA, Los Angeles         | 109                            |
| Stanford U.                           | 642                            | U. WA                      | 103                            |
| U. IL-Urbana-Champaign                | 637                            | Cornell U.                 | 100                            |
| PA State U., The                      | 606                            | U. TX-Austin               | 100                            |
| OH State U., The                      | 591                            | Columbia U.                | 99                             |
| MA Institute of Technology            | 581                            | U. MN                      | 98                             |
| U. FL                                 | 574                            | U. MD                      | 96                             |
| U. Southern CA                        | 554                            | U. MI                      | 95                             |
| Purdue U.                             | 522                            | CA Institute of Technology | 94                             |
| TX A&M U.                             | 511                            | Purdue U.                  | 94                             |
| U. WA                                 | 511                            | PA State U., The           | 92                             |
| Harvard U.                            | 510                            | TX A&M U.                  | 90                             |
| U. MD                                 | 499                            | U. CO                      | 90                             |
| MI State U.                           | 475                            | U. FL                      | 90                             |
| Columbia U.                           | 472                            | GA Institute of Technology | 83                             |
|                                       |                                | Harvard U.                 | 83                             |
| Engineering                           | 6,404                          | Life sciences              | 9,306                          |
| GA Institute of Technology            | 249                            | Johns Hopkins U.           | 199                            |
| MA Institute of Technology            | 222                            | U. FL                      | 178                            |
| Stanford U.                           | 217                            | U. MN                      | 177                            |
| U. MI                                 | 205                            | U. WI-Madison              | 177                            |
| U. CA, Berkeley                       | 170                            | U. CA, Davis               | 165                            |
| Purdue U.                             | 165                            | OH State U., The           | 162                            |
| U. IL-Urbana-Champaign                | 160                            | U. WA                      | 155                            |
| TX A&M U.                             | 145                            | Harvard U.                 | 152                            |
| U. TX-Austin                          | 143                            | U. NC Chapel Hill          | 147                            |
| U. FL                                 | 135                            | U. MI                      | 145                            |
| PA State U., The                      | 127                            | U. CA, Los Angeles         | 135                            |
| U. CA, Los Angeles                    | 115                            | U. CA, Berkeley            | 131                            |
| U. MD                                 | 109                            | PA State U., The           | 127                            |
| VA Polytechnic Institute and State U. | 101                            | Cornell U.                 | 125                            |
| U. MN                                 | 97                             | MI State U.                | 125                            |
| NC State U.                           | 93                             | TX A&M U.                  | 121                            |
| Carnegie Mellon U.                    | 91                             | U. IL-Urbana-Champaign     | 118                            |
| OH State U., The                      | 90                             | Columbia U.                | 114                            |
| U. WI-Madison                         | 81                             | U. GA                      | 110                            |
| Cornell U.                            | 80                             | U. PA                      | 107                            |

TABLE 3. Top 20 doctorate-granting institutions, by broad field of study, 2005

| Institution                           | Number of<br>doctorate recipients | Institution                                | Number of<br>doctorate recipients |
|---------------------------------------|-----------------------------------|--|-----------------------------------|
| Social sciences                       | 6,837                             | Humanities                                 | 5,349                             |
| U. CA, Berkeley                       | 108                               | U. TX-Austin                               | 138                               |
| U. TX-Austin                          | 102                               | U. CA, Berkeley                            | 136                               |
| Harvard U.                            | 100                               | IN U.                                      | 126                               |
| U. CA, Los Angeles                    | 100                               | NY U.                                      | 123                               |
| Graduate School & U. Ctr., CUNY       | 96                                | Columbia U.                                | 117                               |
| U. MI                                 | 91                                | U. CA, Los Angeles                         | 112                               |
| U. MN                                 | 89                                | U. MI                                      | 108                               |
| PA State U., The                      | 87                                | Harvard U.                                 | 103                               |
| U. MD                                 | 86                                | U. WI-Madison                              | 98                                |
| U. WI-Madison                         | 86                                | U. Chicago, The                            | 94                                |
| MI State U.                           | 84                                | Graduate School & U. Ctr., CUNY            | 92                                |
| U. Chicago, The                       | 81                                | OH State U., The                           | 91                                |
| OH State U., The                      | 77                                | U. NC Chapel Hill                          | 88                                |
| Columbia U.                           | 75                                | Yale U.                                    | 81                                |
| Yale U.                               | 74                                | Princeton U.                               | 78                                |
| U. PA                                 | 72                                | U. IL-Urbana-Champaign                     | 76                                |
| U. NC Chapel Hill                     | 68                                | U. MD                                      | 75                                |
| NY U.                                 | 66                                | U. MN                                      | 70                                |
| U. GA                                 | 66                                | U. PA                                      | 70                                |
| U. IL-Urbana-Champaign                | 65                                | U. WA                                      | 70                                |
| Education                             | 6,229                             | Other fields                               | 2,530                             |
| U. Southern CA                        | 178                               | Nova Southeastern U.                       | 59                                |
| Teachers C., Columbia U.              | 141                               | U. TX-Austin                               | 50                                |
| U. GA                                 | 116                               | U. GA                                      | 47                                |
| Loyola U. Chicago                     | 112                               | NY U.                                      | 45                                |
| U. TX-Austin                          | 102                               | U. PA                                      | 44                                |
| PA State U., The                      | 92                                | U. MN                                      | 43                                |
| U. VA                                 | 85                                | U. NC Chapel Hill                          | 41                                |
| U. PA                                 | 81                                | U. Southern CA                             | 40                                |
| IN U.                                 | 77                                | FL State U.                                | 39                                |
| OH State U., The                      | 74                                | U. WI-Madison                              | 39                                |
| U. WI-Madison                         | 71                                | MI State U.                                | 37                                |
| U. MN                                 | 70                                | PA State U., The                           | 36                                |
| AZ State U.                           | 66                                | TX A&M U.                                  | 36                                |
| TX A&M U.                             | 63                                | Purdue U.                                  | 35                                |
| U. IL-Urbana-Champaign                | 61                                | Southern Baptist Theological Seminary, The | 34                                |
| U. MO-Columbia                        | 61                                | U. FL                                      | 34                                |
| FL State U.                           | 60                                | Columbia U.                                | 32                                |
| VA Polytechnic Institute and State U. | 60                                | U. MI                                      | 32                                |
| MI State U.                           | 58                                | IN U.                                      | 31                                |
| U. La Verne                           | 58                                | U. CA, Berkeley                            | 29                                |
|                                       |                                   | U. IL-Urbana-Champaign                     | 29                                |
|                                       |                                   | U. Pittsburgh                              | 29                                |

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

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 4. State of awarding institution, including the District of Columbia and Puerto Rico, ranked by number of doctorate recipients, 2005

| Rank | State                | Number of doctorate recipients |
|------|----------------------|--------------------------------|
| 1    | California           | 5,225                          |
| 2    | New York             | 3,705                          |
| 3    | Texas                | 2,791                          |
| 4    | Massachusetts        | 2,236                          |
| 5    | Pennsylvania         | 2,232                          |
| 6    | Illinois             | 2,172                          |
| 7    | Florida              | 1,677                          |
| 8    | Ohio                 | 1,627                          |
| 9    | Michigan             | 1,574                          |
| 10   | North Carolina       | 1,305                          |
| 11   | Indiana              | 1,152                          |
| 12   | Georgia              | 1,139                          |
| 13   | Maryland             | 1,109                          |
| 14   | Virginia             | 1,066                          |
| 15   | New Jersey           | 917                            |
| 16   | Minnesota            | 847                            |
| 17   | Wisconsin            | 842                            |
| 18   | Missouri             | 767                            |
| 19   | Arizona              | 760                            |
| 20   | Colorado             | 750                            |
| 21   | Washington           | 728                            |
| 22   | Tennessee            | 699                            |
| 23   | Connecticut          | 613                            |
| 24   | Iowa                 | 569                            |
| 25   | Louisiana            | 566                            |
| 26   | Alabama              | 525                            |
| 27   | District of Columbia | 519                            |
| 28   | Kentucky             | 462                            |
| 29   | South Carolina       | 431                            |
| 30   | Kansas               | 413                            |
| 31   | Oklahoma             | 386                            |
| 32   | Oregon               | 375                            |
| 33   | Utah                 | 371                            |
| 34   | Mississippi          | 367                            |
| 35   | New Mexico           | 309                            |
| 36   | Nebraska             | 289                            |
| 37   | Rhode Island         | 231                            |
| 38   | Delaware             | 200                            |
| 39   | Arkansas             | 194                            |
| 40   | West Virginia        | 163                            |
| 41   | Hawaii               | 149                            |
| 42   | New Hampshire        | 141                            |
| 43   | Idaho                | 126                            |
| 44   | Nevada               | 125                            |
| 45   | Montana              | 92                             |
| 46   | North Dakota         | 91                             |
| 47   | South Dakota         | 81                             |
| 48   | Puerto Rico          | 67                             |
| 49   | Vermont              | 62                             |
| 50   | Wyoming              | 52                             |
| 51   | Maine                | 40                             |
| 52   | Alaska               | 25                             |

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 5. Major field of study of doctorate recipients for selected years, 1975–2005

| Field of study <sup>a</sup>               | 1975   |         | 1980   |         | 1985   |         | 1990   |         | 1995   |         | 2000   |         | 2005   |         |
|---|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|
|   | Count  | Percent | Count  | Percent | Count  | Percent | Count  | Percent | Count  | Percent | Count  | Percent | Count  | Percent |
| All fields                                | 32,952 | 100.0   | 31,019 | 100.0   | 31,295 | 100.0   | 36,065 | 100.0   | 41,747 | 100.0   | 41,361 | 100.0   | 43,354 | 100.0   |
| Physical sciences <sup>b</sup>            | 4,780  | 14.5    | 4,071  | 13.1    | 4,489  | 14.3    | 5,809  | 16.1    | 6,727  | 16.1    | 5,982  | 14.5    | 6,699  | 15.5    |
| Physics & astronomy                       | 1,300  | 3.9     | 983    | 3.2     | 1,080  | 3.5     | 1,393  | 3.9     | 1,652  | 4.0     | 1,389  | 3.4     | 1,520  | 3.5     |
| Chemistry                                 | 1,776  | 5.4     | 1,538  | 5.0     | 1,836  | 5.9     | 2,100  | 5.8     | 2,162  | 5.2     | 1,989  | 4.8     | 2,127  | 4.9     |
| Earth, atmospheric, & marine sciences     | 557    | 1.7     | 588    | 1.9     | 575    | 1.8     | 719    | 2.0     | 726    | 1.7     | 694    | 1.7     | 713    | 1.6     |
| Mathematics                               | 1,147  | 3.5     | 744    | 2.4     | 688    | 2.2     | 892    | 2.5     | 1,190  | 2.9     | 1,050  | 2.5     | 1,203  | 2.8     |
| Computer sciences <sup>c</sup>            | ---    | ---     | 218    | 0.7     | 310    | 1.0     | 705    | 2.0     | 997    | 2.4     | 860    | 2.1     | 1,136  | 2.6     |
| Engineering                               | 3,002  | 9.1     | 2,479  | 8.0     | 3,166  | 10.1    | 4,894  | 13.6    | 6,008  | 14.4    | 5,323  | 12.9    | 6,404  | 14.8    |
| Aerospace/aeronautical engineering        | 141    | 0.4     | 81     | 0.3     | 124    | 0.4     | 192    | 0.5     | 252    | 0.6     | 214    | 0.5     | 219    | 0.5     |
| Chemical and related engineering          | 387    | 1.2     | 316    | 1.0     | 504    | 1.6     | 658    | 1.8     | 708    | 1.7     | 726    | 1.8     | 875    | 2.0     |
| Civil and related engineering             | 361    | 1.1     | 306    | 1.0     | 391    | 1.2     | 553    | 1.5     | 656    | 1.6     | 556    | 1.3     | 757    | 1.7     |
| Electrical and related engineering        | 714    | 2.2     | 540    | 1.7     | 716    | 2.3     | 1,276  | 3.5     | 1,731  | 4.1     | 1,543  | 3.7     | 1,852  | 4.3     |
| Industrial engineering                    | 92     | 0.3     | 77     | 0.2     | 92     | 0.3     | 151    | 0.4     | 284    | 0.7     | 176    | 0.4     | 222    | 0.5     |
| Mechanical and related engineering        | 487    | 1.5     | 384    | 1.2     | 513    | 1.6     | 884    | 2.5     | 1,025  | 2.5     | 864    | 2.1     | 978    | 2.3     |
| Materials/metallurgical engineering       | 272    | 0.8     | 273    | 0.9     | 303    | 1.0     | 440    | 1.2     | 588    | 1.4     | 451    | 1.1     | 540    | 1.2     |
| Other engineering                         | 548    | 1.7     | 502    | 1.6     | 523    | 1.7     | 740    | 2.1     | 764    | 1.8     | 793    | 1.9     | 961    | 2.2     |
| Life sciences                             | 5,103  | 15.5    | 5,501  | 17.7    | 5,822  | 18.6    | 6,655  | 18.5    | 7,998  | 19.2    | 8,624  | 20.9    | 9,306  | 21.5    |
| Biological sciences                       | 3,497  | 10.6    | 3,803  | 12.3    | 3,793  | 12.1    | 4,328  | 12.0    | 5,376  | 12.9    | 5,853  | 14.2    | 6,368  | 14.7    |
| Health sciences                           | 462    | 1.4     | 586    | 1.9     | 729    | 2.3     | 956    | 2.7     | 1,329  | 3.2     | 1,591  | 3.8     | 1,777  | 4.1     |
| Agricultural sciences/natural resources   | 1,144  | 3.5     | 1,112  | 3.6     | 1,300  | 4.2     | 1,371  | 3.8     | 1,293  | 3.1     | 1,180  | 2.9     | 1,161  | 2.7     |
| Social sciences                           | 6,066  | 18.4    | 5,855  | 18.9    | 5,764  | 18.4    | 6,092  | 16.9    | 6,635  | 15.9    | 7,109  | 17.2    | 6,837  | 15.8    |
| Psychology                                | 2,751  | 8.3     | 3,098  | 10.0    | 3,117  | 10.0    | 3,281  | 9.1     | 3,429  | 8.2     | 3,616  | 8.7     | 3,327  | 7.7     |
| Anthropology                              | 386    | 1.2     | 370    | 1.2     | 353    | 1.1     | 324    | 0.9     | 375    | 0.9     | 446    | 1.1     | 455    | 1.0     |
| Economics                                 | 895    | 2.7     | 767    | 2.5     | 811    | 2.6     | 862    | 2.4     | 979    | 2.3     | 948    | 2.3     | 1,061  | 2.4     |
| Political science/international relations | 862    | 2.6     | 585    | 1.9     | 484    | 1.5     | 559    | 1.5     | 672    | 1.6     | 746    | 1.8     | 725    | 1.7     |
| Sociology                                 | 680    | 2.1     | 600    | 1.9     | 461    | 1.5     | 428    | 1.2     | 540    | 1.3     | 617    | 1.5     | 535    | 1.2     |
| Other social sciences                     | 492    | 1.5     | 435    | 1.4     | 538    | 1.7     | 638    | 1.8     | 640    | 1.5     | 736    | 1.8     | 734    | 1.7     |
| Humanities                                | 5,046  | 15.3    | 3,871  | 12.5    | 3,429  | 11.0    | 3,822  | 10.6    | 5,062  | 12.1    | 5,634  | 13.6    | 5,349  | 12.3    |
| History                                   | 1,183  | 3.6     | 745    | 2.4     | 543    | 1.7     | 612    | 1.7     | 889    | 2.1     | 1,061  | 2.6     | 924    | 2.1     |
| American literature                       | 251    | 0.8     | 209    | 0.7     | 204    | 0.7     | 229    | 0.6     | 327    | 0.8     | 460    | 1.1     | 406    | 0.9     |
| English language & literature             | 1,039  | 3.2     | 743    | 2.4     | 525    | 1.7     | 567    | 1.6     | 752    | 1.8     | 610    | 1.5     | 554    | 1.3     |
| Foreign language & literature             | 826    | 2.5     | 535    | 1.7     | 435    | 1.4     | 512    | 1.4     | 639    | 1.5     | 642    | 1.6     | 609    | 1.4     |
| Other humanities                          | 1,747  | 5.3     | 1,639  | 5.3     | 1,722  | 5.5     | 1,902  | 5.3     | 2,455  | 5.9     | 2,861  | 6.9     | 2,856  | 6.6     |
| Education                                 | 7,360  | 22.3    | 7,586  | 24.5    | 6,733  | 21.5    | 6,509  | 18.0    | 6,648  | 15.9    | 6,432  | 15.6    | 6,229  | 14.4    |
| Education administration                  | 1,508  | 4.6     | 1,536  | 5.0     | 1,625  | 5.2     | 1,664  | 4.6     | 1,974  | 4.7     | 2,030  | 4.9     | 2,170  | 5.0     |
| Education research                        | 3,375  | 10.2    | 3,317  | 10.7    | 2,925  | 9.3     | 2,439  | 6.8     | 2,576  | 6.2     | 2,665  | 6.4     | 2,668  | 6.2     |
| Teacher education                         | 570    | 1.7     | 639    | 2.1     | 463    | 1.5     | 419    | 1.2     | 390    | 0.9     | 261    | 0.6     | 264    | 0.6     |
| Teaching fields                           | 1,417  | 4.3     | 1,471  | 4.7     | 1,118  | 3.6     | 922    | 2.6     | 924    | 2.2     | 823    | 2.0     | 664    | 1.5     |
| Other education                           | 490    | 1.5     | 623    | 2.0     | 602    | 1.9     | 1,065  | 3.0     | 784    | 1.9     | 653    | 1.6     | 463    | 1.1     |

TABLE 5. Major field of study of doctorate recipients for selected years, 1975–2005

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| Field of study <sup>a</sup>     | 1975  |         | 1980  |         | 1985  |         | 1990  |         | 1995  |         | 2000  |         | 2005  |         |
|---------------------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
|                                 | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent |
| Other fields                    | 1,595 | 4.8     | 1,656 | 5.3     | 1,892 | 6.0     | 2,284 | 6.3     | 2,669 | 6.4     | 2,257 | 5.5     | 2,530 | 5.8     |
| Business & management           | 787   | 2.4     | 640   | 2.1     | 789   | 2.5     | 1,036 | 2.9     | 1,330 | 3.2     | 1,065 | 2.6     | 1,168 | 2.7     |
| Communications                  | 264   | 0.8     | 270   | 0.9     | 266   | 0.8     | 323   | 0.9     | 381   | 0.9     | 389   | 0.9     | 486   | 1.1     |
| Fields not elsewhere classified | 544   | 1.7     | 746   | 2.4     | 837   | 2.7     | 925   | 2.6     | 958   | 2.3     | 803   | 1.9     | 876   | 2.0     |

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

<sup>a</sup> Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

<sup>b</sup> Includes mathematics and computer science

<sup>c</sup> Computer sciences first appeared on the survey form in 1978.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 6. Number of doctorate recipients and percent female, by major field of study, 1995 and 2005

| Field of study <sup>a</sup>               | 1995 <sup>b</sup>              |                                  | 2005 <sup>c</sup>              |                                  | Percentage change earned by females, 1995- 2005 <sup>d</sup> |
|---|--------------------------------|----------------------------------|--------------------------------|----------------------------------|--|
|   | Number of doctorate recipients | Percent of doctorates to females | Number of doctorate recipients | Percent of doctorates to females |  |
| All fields                                | 41,576                         | 39.5                             | 43,295                         | 45.2                             | 14.4   |
| Physical sciences                         | 6,697                          | 22.0                             | 6,692                          | 26.4                             | 20.1   |
| Physics & astronomy                       | 1,646                          | 12.9                             | 1,518                          | 16.4                             | 27.4   |
| Chemistry                                 | 2,149                          | 30.8                             | 2,126                          | 34.0                             | 10.6   |
| Earth, atmospheric, & marine sciences     | 724                            | 20.3                             | 713                            | 34.1                             | 67.9   |
| Mathematics                               | 1,184                          | 22.4                             | 1,201                          | 27.1                             | 21.3   |
| Computer sciences                         | 994                            | 18.7                             | 1,134                          | 19.8                             | 6.0  |
| Engineering                               | 5,966                          | 11.7                             | 6,389                          | 18.4                             | 57.5   |
| Aerospace/Aeronautical engineering        | 251                            | 5.6                              | 219                            | 13.2                             | 137.4  |
| Chemical and related engineering          | 706                            | 15.4                             | 872                            | 24.1                             | 56.0   |
| Civil and related engineering             | 651                            | 11.7                             | 756                            | 23.3                             | 99.4   |
| Electrical and related engineering        | 1,718                          | 10.1                             | 1,847                          | 13.5                             | 33.9   |
| Industrial engineering                    | 281                            | 17.8                             | 219                            | 18.7                             | 5.2  |
| Mechanical and related engineering        | 1,018                          | 6.3                              | 978                            | 12.3                             | 95.2   |
| Materials/Metallurgical engineering       | 584                            | 16.3                             | 539                            | 22.3                             | 36.9   |
| Other engineering                         | 757                            | 15.2                             | 959                            | 23.9                             | 57.2   |
| Life sciences                             | 7,956                          | 42.2                             | 9,294                          | 50.9                             | 20.5   |
| Biological/biomedical sciences            | 5,349                          | 41.4                             | 6,362                          | 48.8                             | 17.8   |
| Health sciences                           | 1,320                          | 63.9                             | 1,774                          | 68.2                             | 6.7  |
| Agricultural sciences/natural resources   | 1,287                          | 23.2                             | 1,158                          | 35.7                             | 54.0   |
| Social sciences                           | 6,613                          | 51.0                             | 6,833                          | 55.5                             | 8.8  |
| Psychology                                | 3,426                          | 63.7                             | 3,326                          | 68.1                             | 6.9  |
| Anthropology                              | 374                            | 58.6                             | 454                            | 56.4                             | -3.7   |
| Economics                                 | 972                            | 24.4                             | 1,059                          | 30.0                             | 23.2   |
| Political science/international relations | 667                            | 28.0                             | 725                            | 39.3                             | 40.2   |
| Sociology                                 | 537                            | 53.6                             | 535                            | 62.4                             | 16.4   |
| Other social sciences                     | 637                            | 40.7                             | 734                            | 45.4                             | 11.6   |
| Humanities                                | 5,054                          | 48.4                             | 5,343                          | 51.0                             | 5.3  |
| History                                   | 887                            | 37.4                             | 923                            | 41.6                             | 11.2   |
| American literature                       | 327                            | 56.3                             | 406                            | 57.9                             | 2.9  |
| English language & literature             | 752                            | 57.8                             | 554                            | 61.6                             | 6.4  |
| Foreign language & literature             | 637                            | 59.7                             | 608                            | 60.4                             | 1.2  |
| Other humanities                          | 2,451                          | 45.5                             | 2,852                          | 49.0                             | 7.7  |
| Education                                 | 6,638                          | 61.6                             | 6,219                          | 66.8                             | 8.4  |
| Education administration                  | 1,973                          | 55.0                             | 2,166                          | 61.0                             | 11.0   |
| Education research                        | 2,574                          | 67.1                             | 2,665                          | 69.6                             | 3.9  |
| Teacher education                         | 390                            | 73.3                             | 263                            | 76.0                             | 3.7  |
| Teaching fields                           | 922                            | 58.0                             | 663                            | 69.1                             | 19.0   |
| Other education                           | 779                            | 59.1                             | 462                            | 68.8                             | 16.6   |
| Other fields                              | 2,652                          | 37.0                             | 2,525                          | 48.7                             | 31.4   |
| Business mgt./Administrative services     | 1,323                          | 28.6                             | 1,164                          | 40.5                             | 41.9   |
| Communications                            | 380                            | 49.2                             | 485                            | 56.1                             | 14.0   |
| Fields not elsewhere classified           | 949                            | 43.9                             | 876                            | 55.4                             | 26.0   |

<sup>a</sup> Major field study definitions are detailed in appendix C in the section on "Derived Variables."

<sup>b</sup> 1995 field total excludes 171 individuals for whom sex was not reported.

<sup>c</sup> 2005 field total excludes 59 individuals for whom sex was not reported.

<sup>d</sup> Change in percent to females computed as (2005 percent - 1995 percent) / 1995 percent.

See Appendix Table A-1.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 7. Number and percent of doctorate recipients, by sex within broad field of study for selected years, 1975–2005

| Field of study and sex         | 1975   |         | 1980   |         | 1985   |         | 1990   |         | 1995 <sup>a</sup> |         | 2000 <sup>b</sup> |         | 2005 <sup>c</sup> |         |
|--------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|-------------------|---------|-------------------|---------|-------------------|---------|
|                                | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number            | Percent | Number            | Percent | Number            | Percent |
| All fields                     | 32,952 | 100.0   | 31,019 | 100.0   | 31,295 | 100.0   | 36,064 | 100.0   | 41,576            | 100.0   | 41,287            | 100.0   | 43,295            | 100.0   |
| Male                           | 25,751 | 78.1    | 21,612 | 69.7    | 20,552 | 65.7    | 22,960 | 63.7    | 25,160            | 60.5    | 23,161            | 56.1    | 23,731            | 54.8    |
| Female                         | 7,201  | 21.9    | 9,407  | 30.3    | 10,743 | 34.3    | 13,104 | 36.3    | 16,416            | 39.5    | 18,126            | 43.9    | 19,564            | 45.2    |
| Physical sciences <sup>d</sup> | 4,780  | 100.0   | 4,071  | 100.0   | 4,489  | 100.0   | 5,809  | 100.0   | 6,697             | 100.0   | 5,971             | 100.0   | 6,692             | 100.0   |
| Male                           | 4,385  | 91.7    | 3,575  | 87.8    | 3,781  | 84.2    | 4,750  | 81.8    | 5,226             | 78.0    | 4,548             | 76.2    | 4,926             | 73.6    |
| Female                         | 395    | 8.3     | 496    | 12.2    | 708    | 15.8    | 1,059  | 18.2    | 1,471             | 22.0    | 1,423             | 23.8    | 1,766             | 26.4    |
| Engineering                    | 3,002  | 100.0   | 2,479  | 100.0   | 3,166  | 100.0   | 4,894  | 100.0   | 5,966             | 100.0   | 5,297             | 100.0   | 6,389             | 100.0   |
| Male                           | 2,950  | 98.3    | 2,389  | 96.4    | 2,968  | 93.7    | 4,479  | 91.5    | 5,270             | 88.3    | 4,459             | 84.2    | 5,215             | 81.6    |
| Female                         | 52     | 1.7     | 90     | 3.6     | 198    | 6.3     | 415    | 8.5     | 696               | 11.7    | 838               | 15.8    | 1,174             | 18.4    |
| Life sciences                  | 5,103  | 100.0   | 5,501  | 100.0   | 5,822  | 100.0   | 6,655  | 100.0   | 7,956             | 100.0   | 8,613             | 100.0   | 9,294             | 100.0   |
| Male                           | 4,100  | 80.3    | 4,081  | 74.2    | 3,946  | 67.8    | 4,163  | 62.6    | 4,598             | 57.8    | 4,569             | 53.0    | 4,567             | 49.1    |
| Female                         | 1,003  | 19.7    | 1,420  | 25.8    | 1,876  | 32.2    | 2,492  | 37.4    | 3,358             | 42.2    | 4,044             | 47.0    | 4,727             | 50.9    |
| Social sciences                | 6,066  | 100.0   | 5,855  | 100.0   | 5,764  | 100.0   | 6,092  | 100.0   | 6,613             | 100.0   | 7,100             | 100.0   | 6,833             | 100.0   |
| Male                           | 4,544  | 74.9    | 3,810  | 65.1    | 3,387  | 58.8    | 3,266  | 53.6    | 3,242             | 49.0    | 3,226             | 45.4    | 3,043             | 44.5    |
| Female                         | 1,522  | 25.1    | 2,045  | 34.9    | 2,377  | 41.2    | 2,826  | 46.4    | 3,371             | 51.0    | 3,874             | 54.6    | 3,790             | 55.5    |
| Humanities                     | 5,046  | 100.0   | 3,871  | 100.0   | 3,429  | 100.0   | 3,822  | 100.0   | 5,054             | 100.0   | 5,629             | 100.0   | 5,343             | 100.0   |
| Male                           | 3,359  | 66.6    | 2,339  | 60.4    | 1,940  | 56.6    | 2,074  | 54.3    | 2,608             | 51.6    | 2,797             | 49.7    | 2,619             | 49.0    |
| Female                         | 1,687  | 33.4    | 1,532  | 39.6    | 1,489  | 43.4    | 1,748  | 45.7    | 2,446             | 48.4    | 2,832             | 50.3    | 2,724             | 51.0    |
| Education                      | 7,360  | 100.0   | 7,586  | 100.0   | 6,733  | 100.0   | 6,509  | 100.0   | 6,638             | 100.0   | 6,429             | 100.0   | 6,219             | 100.0   |
| Male                           | 5,065  | 68.8    | 4,203  | 55.4    | 3,242  | 48.2    | 2,758  | 42.4    | 2,546             | 38.4    | 2,255             | 35.1    | 2,065             | 33.2    |
| Female                         | 2,295  | 31.2    | 3,383  | 44.6    | 3,491  | 51.8    | 3,751  | 57.6    | 4,092             | 61.6    | 4,174             | 64.9    | 4,154             | 66.8    |
| Other fields                   | 1,595  | 100.0   | 1,656  | 100.0   | 1,892  | 100.0   | 2,283  | 100.0   | 2,652             | 100.0   | 2,248             | 100.0   | 2,525             | 100.0   |
| Male                           | 1,348  | 84.5    | 1,215  | 73.4    | 1,288  | 68.1    | 1,470  | 64.4    | 1,670             | 63.0    | 1,307             | 58.1    | 1,296             | 51.3    |
| Female                         | 247    | 15.5    | 441    | 26.6    | 604    | 31.9    | 813    | 35.6    | 982               | 37.0    | 941               | 41.9    | 1,229             | 48.7    |

<sup>a</sup> Group total for 1995 excludes 171 individuals for whom sex was not reported.

<sup>b</sup> Group total for 2000 excludes 74 individuals for whom sex was not reported.

<sup>c</sup> Group total for 2005 excludes 59 individuals for whom sex was not reported.

<sup>d</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/INEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 8. Number of U.S. citizen doctorate recipients, by race/ethnicity and broad field of study, for selected years, 1985–2005

| Field of study and race/ethnicity | 1985   | 1990   | 1995   | 2000   | 2005   |
|-----------------------------------|--------|--------|--------|--------|--------|
| All fields                        | 23,388 | 24,913 | 27,740 | 27,986 | 26,312 |
| Known race/ethnicity              | 22,873 | 24,540 | 27,444 | 27,431 | 25,916 |
| Asian <sup>a</sup>                | 516    | 642    | 1,129  | 1,365  | 1,493  |
| Black                             | 911    | 899    | 1,293  | 1,631  | 1,688  |
| Hispanic                          | 563    | 723    | 922    | 1,182  | 1,294  |
| American Indian <sup>b</sup>      | 96     | 96     | 148    | 169    | 139    |
| White                             | 20,778 | 22,172 | 23,888 | 22,970 | 20,845 |
| Other <sup>c</sup>                | 9      | 8      | 64     | 114    | 457    |
| Physical sciences <sup>d</sup>    | 3,021  | 3,369  | 3,591  | 3,222  | 3,074  |
| Known race/ethnicity              | 2,919  | 3,288  | 3,535  | 3,150  | 3,014  |
| Asian <sup>a</sup>                | 99     | 110    | 219    | 194    | 241    |
| Black                             | 29     | 27     | 49     | 82     | 84     |
| Hispanic                          | 41     | 85     | 84     | 111    | 116    |
| American Indian <sup>b</sup>      | 4      | 4      | 10     | 16     | 9      |
| White                             | 2,745  | 3,062  | 3,167  | 2,740  | 2,508  |
| Other <sup>c</sup>                | 1      | 0      | 6      | 7      | 56     |
| Engineering                       | 1,279  | 1,957  | 2,386  | 2,223  | 1,999  |
| Known race/ethnicity              | 1,224  | 1,918  | 2,337  | 2,169  | 1,963  |
| Asian <sup>a</sup>                | 90     | 157    | 254    | 241    | 242    |
| Black                             | 19     | 28     | 53     | 74     | 85     |
| Hispanic                          | 16     | 39     | 61     | 69     | 73     |
| American Indian <sup>b</sup>      | 1      | 4      | 9      | 8      | 8      |
| White                             | 1,098  | 1,690  | 1,958  | 1,765  | 1,521  |
| Other <sup>c</sup>                | 0      | 0      | 2      | 12     | 34     |
| Life sciences                     | 4,499  | 4,654  | 5,063  | 5,575  | 5,911  |
| Known race/ethnicity              | 4,410  | 4,587  | 5,012  | 5,461  | 5,842  |
| Asian <sup>a</sup>                | 129    | 156    | 262    | 391    | 508    |
| Black                             | 71     | 74     | 159    | 193    | 269    |
| Hispanic                          | 76     | 105    | 147    | 212    | 266    |
| American Indian <sup>b</sup>      | 19     | 9      | 27     | 27     | 19     |
| White                             | 4,114  | 4,243  | 4,404  | 4,610  | 4,679  |
| Other <sup>c</sup>                | 1      | 0      | 13     | 28     | 101    |
| Social sciences                   | 4,581  | 4,665  | 5,052  | 5,446  | 4,807  |
| Known race/ethnicity              | 4,475  | 4,594  | 5,010  | 5,336  | 4,720  |
| Asian <sup>a</sup>                | 62     | 86     | 165    | 213    | 198    |
| Black                             | 173    | 181    | 236    | 336    | 296    |
| Hispanic                          | 121    | 171    | 216    | 277    | 289    |
| American Indian <sup>b</sup>      | 18     | 24     | 30     | 40     | 32     |
| White                             | 4,100  | 4,127  | 4,345  | 4,445  | 3,806  |
| Other <sup>c</sup>                | 1      | 5      | 18     | 25     | 99     |
| Humanities                        | 2,864  | 3,093  | 3,982  | 4,434  | 3,895  |
| Known race/ethnicity              | 2,799  | 3,047  | 3,929  | 4,336  | 3,822  |
| Asian <sup>a</sup>                | 44     | 35     | 90     | 132    | 140    |
| Black                             | 67     | 72     | 106    | 157    | 172    |
| Hispanic                          | 97     | 112    | 131    | 188    | 194    |
| American Indian <sup>b</sup>      | 8      | 8      | 19     | 21     | 22     |
| White                             | 2,580  | 2,820  | 3,571  | 3,818  | 3,217  |
| Other <sup>c</sup>                | 3      | 0      | 12     | 20     | 77     |
| Education                         | 5,781  | 5,637  | 5,775  | 5,559  | 5,136  |
| Known race/ethnicity              | 5,705  | 5,585  | 5,743  | 5,474  | 5,088  |
| Asian <sup>a</sup>                | 69     | 67     | 84     | 125    | 112    |



TABLE 8. Number of U.S. citizen doctorate recipients, by race/ethnicity and broad field of study, for selected years, 1985–2005

| Field of study and race/ethnicity | 1985  | 1990  | 1995  | 2000  | 2005  |
|-----------------------------------|-------|-------|-------|-------|-------|
| Black                             | 477   | 455   | 579   | 676   | 661   |
| Hispanic                          | 182   | 180   | 235   | 275   | 277   |
| American Indian <sup>b</sup>      | 40    | 37    | 41    | 51    | 43    |
| White                             | 4,934 | 4,843 | 4,794 | 4,329 | 3,928 |
| Other <sup>c</sup>                | 3     | 3     | 10    | 18    | 67    |
| Other fields                      | 1,363 | 1,538 | 1,891 | 1,527 | 1,490 |
| Known race/ethnicity              | 1,341 | 1,521 | 1,878 | 1,505 | 1,467 |
| Asian <sup>a</sup>                | 23    | 31    | 55    | 69    | 52    |
| Black                             | 75    | 62    | 111   | 113   | 121   |
| Hispanic                          | 30    | 31    | 48    | 50    | 79    |
| American Indian <sup>b</sup>      | 6     | 10    | 12    | 6     | 6     |
| White                             | 1,207 | 1,387 | 1,649 | 1,263 | 1,186 |
| Other <sup>c</sup>                | 0     | 0     | 3     | 4     | 23    |

<sup>a</sup> Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them thereafter.

<sup>b</sup> Includes Alaska Natives.

<sup>c</sup> Includes 67 Native Hawaiians and other Pacific Islanders and 390 respondents choosing multiple races (excluding those selecting an Hispanic ethnicity) in 2005; prior to 2001, this category included only non-Hispanic respondents choosing multiple races.

<sup>d</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

Table 9. Major field of study for U.S. citizen doctorate recipients, by race/ethnicity, 2005

| Field of study <sup>a</sup>               | Total U.S. citizen doctorate recipients | Number with known race/ethnicity | U.S. citizens      |       |          |                              |        |                    |
|---|---|----------------------------------|--------------------|-------|----------|------------------------------|--------|--------------------|
|   |   |                                  | Asian <sup>b</sup> | Black | Hispanic | American Indian <sup>c</sup> | White  | Other <sup>d</sup> |
| All fields                                | 26,312                                  | 25,916                           | 1,493              | 1,688 | 1,294    | 139                          | 20,845 | 457                |
| Physical sciences                         | 3,074                                   | 3,014                            | 241                | 84    | 116      | 9                            | 2,508  | 56                 |
| Physics & astronomy                       | 637                                     | 615                              | 55                 | 12    | 17       | 2                            | 517    | 12                 |
| Chemistry                                 | 1,131                                   | 1,121                            | 85                 | 35    | 52       | 2                            | 925    | 22                 |
| Earth, atmospheric, & marine sciences     | 421                                     | 415                              | 11                 | 6     | 15       | 4                            | 374    | 5                  |
| Mathematics                               | 480                                     | 469                              | 38                 | 16    | 23       | 0                            | 387    | 5                  |
| Computer sciences                         | 405                                     | 394                              | 52                 | 15    | 9        | 1                            | 305    | 12                 |
| Engineering                               | 1,999                                   | 1,963                            | 242                | 85    | 73       | 8                            | 1,521  | 34                 |
| Aerospace/Aeronautical engineering        | 93                                      | 89                               | 7                  | 2     | 6        | 1                            | 71     | 2                  |
| Chemical and related engineering          | 294                                     | 289                              | 33                 | 11    | 15       | 0                            | 223    | 7                  |
| Civil and related engineering             | 211                                     | 207                              | 13                 | 7     | 10       | 0                            | 174    | 3                  |
| Electrical and related engineering        | 466                                     | 459                              | 77                 | 28    | 11       | 2                            | 332    | 9                  |
| Industrial engineering                    | 59                                      | 58                               | 3                  | 7     | 1        | 0                            | 46     | 1                  |
| Mechanical and related engineering        | 292                                     | 287                              | 32                 | 8     | 12       | 4                            | 228    | 3                  |
| Materials/Metallurgical engineering       | 177                                     | 176                              | 15                 | 4     | 10       | 0                            | 145    | 2                  |
| Other engineering                         | 407                                     | 398                              | 62                 | 18    | 8        | 1                            | 302    | 7                  |
| Life sciences                             | 5,911                                   | 5,842                            | 508                | 269   | 266      | 19                           | 4,679  | 101                |
| Biological sciences                       | 4,141                                   | 4,089                            | 409                | 142   | 207      | 12                           | 3,248  | 71                 |
| Health sciences                           | 1,206                                   | 1,194                            | 84                 | 114   | 41       | 4                            | 929    | 22                 |
| Agricultural sciences/natural resources   | 564                                     | 559                              | 15                 | 13    | 18       | 3                            | 502    | 8                  |
| Social sciences                           | 4,807                                   | 4,720                            | 198                | 296   | 289      | 32                           | 3,806  | 99                 |
| Psychology                                | 2,811                                   | 2,762                            | 110                | 159   | 178      | 15                           | 2,243  | 57                 |
| Anthropology                              | 345                                     | 338                              | 15                 | 21    | 17       | 3                            | 273    | 9                  |
| Economics                                 | 294                                     | 289                              | 24                 | 7     | 15       | 1                            | 238    | 4                  |
| Political science/international relations | 502                                     | 495                              | 18                 | 34    | 26       | 3                            | 404    | 10                 |
| Sociology                                 | 391                                     | 387                              | 14                 | 38    | 32       | 4                            | 289    | 10                 |
| Other social sciences                     | 464                                     | 449                              | 17                 | 37    | 21       | 6                            | 359    | 9                  |
| Humanities                                | 3,895                                   | 3,822                            | 140                | 172   | 194      | 22                           | 3,217  | 77                 |
| History                                   | 762                                     | 747                              | 22                 | 41    | 32       | 6                            | 633    | 13                 |
| American literature                       | 372                                     | 369                              | 15                 | 34    | 18       | 6                            | 277    | 19                 |
| English language & literature             | 448                                     | 437                              | 17                 | 17    | 9        | 0                            | 383    | 11                 |
| Foreign language & literature             | 336                                     | 327                              | 12                 | 7     | 60       | 0                            | 243    | 5                  |
| Other humanities                          | 1,977                                   | 1,942                            | 74                 | 73    | 75       | 10                           | 1,681  | 29                 |
| Education                                 | 5,136                                   | 5,088                            | 112                | 661   | 277      | 43                           | 3,928  | 67                 |
| Education administration                  | 1,926                                   | 1,912                            | 28                 | 312   | 101      | 18                           | 1,430  | 23                 |
| Education research                        | 2,206                                   | 2,191                            | 56                 | 243   | 120      | 17                           | 1,722  | 33                 |
| Teacher education                         | 206                                     | 204                              | 4                  | 26    | 7        | 4                            | 160    | 3                  |
| Teaching fields                           | 495                                     | 487                              | 12                 | 29    | 26       | 1                            | 414    | 5                  |
| Other education                           | 303                                     | 294                              | 12                 | 51    | 23       | 3                            | 202    | 3                  |
| Other fields                              | 1,490                                   | 1,467                            | 52                 | 121   | 79       | 6                            | 1,186  | 23                 |
| Business & management                     | 578                                     | 569                              | 25                 | 51    | 30       | 1                            | 456    | 6                  |
| Communications                            | 314                                     | 311                              | 12                 | 18    | 16       | 0                            | 260    | 5                  |
| Fields not elsewhere classified           | 598                                     | 587                              | 15                 | 52    | 33       | 5                            | 470    | 12                 |

<sup>a</sup> Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

<sup>b</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>c</sup> Includes Alaska Natives.

<sup>d</sup> 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, 2005 Survey of Earned Doctorates.

TABLE 10. Doctorate-granting institutions having the largest number of U.S. citizen minority doctorate recipients, by race/ethnicity, 2001-2005

| Institution                              | Number of doctorate recipients | Institution                              | Number of doctorate recipients |
|--|--------------------------------|--|--------------------------------|
| <b>Asian <sup>a</sup></b>                |                                | <b>Black</b>                             |                                |
| U. CA, Los Angeles                       | 379                            | Nova Southeastern U.                     | 396                            |
| U. CA, Berkeley                          | 376                            | Howard U.                                | 278                            |
| Stanford U.                              | 255                            | U. MI                                    | 141                            |
| Harvard U.                               | 215                            | U. MD                                    | 120                            |
| MA Institute of Technology               | 172                            | Walden U.                                | 120                            |
| U. Southern CA                           | 167                            | U. NC Chapel Hill                        | 119                            |
| U. MI                                    | 145                            | Loyola U. Chicago                        | 115                            |
| Columbia U.                              | 144                            | OH State U., The                         | 107                            |
| U. PA                                    | 135                            | Temple U.                                | 106                            |
| U. CA, Davis                             | 133                            | U. Sarasota                              | 105                            |
| Johns Hopkins U.                         | 116                            | Wayne State U.                           | 103                            |
| U. IL-Urbana-Champaign                   | 116                            | U. TX-Austin                             | 97                             |
| U. CA, San Diego                         | 115                            | Jackson State U.                         | 95                             |
| U. WA                                    | 112                            | Harvard U.                               | 94                             |
| U. CA, Irvine                            | 105                            | George Washington U.                     | 93                             |
| U. TX-Austin                             | 91                             | NC State U.                              | 93                             |
| NY U.                                    | 89                             | U. PA                                    | 91                             |
| Northwestern U.                          | 88                             | Teachers C., Columbia U.                 | 89                             |
| U. WI-Madison                            | 83                             | MI State U.                              | 88                             |
| Cornell U.                               | 79                             | U. CA, Berkeley                          | 87                             |
| <i>Top 20 Institutions</i>               | 3,115                          | <i>Top 20 Institutions</i>               | 2,537                          |
| <i>Total institutions reported (334)</i> | 7,091                          | <i>Total institutions reported (350)</i> | 8,553                          |
| <b>Hispanic</b>                          |                                | <b>American Indian <sup>b</sup></b>      |                                |
| U. PR-Rio Piedras                        | 193                            | OK State U.                              | 32                             |
| U. CA, Berkeley                          | 179                            | U. OK                                    | 19                             |
| U. TX-Austin                             | 155                            | AZ State U.                              | 16                             |
| U. CA, Los Angeles                       | 148                            | Nova Southeastern U.                     | 15                             |
| U. AZ                                    | 115                            | U. NM                                    | 14                             |
| Nova Southeastern U.                     | 109                            | Fielding Graduate Institute              | 13                             |
| Stanford U.                              | 109                            | U. CA, Berkeley                          | 13                             |
| TX A&M U.                                | 109                            | U. ND                                    | 12                             |
| Harvard U.                               | 106                            | U. TX-Austin                             | 12                             |
| U. Southern CA                           | 101                            | U. AZ                                    | 11                             |
| U. MI                                    | 97                             | Stanford U.                              | 10                             |
| AZ State U.                              | 93                             | TX A&M U.                                | 10                             |
| U. CA, Davis                             | 84                             | U. CA, Santa Barbara                     | 10                             |
| U. FL                                    | 84                             | U. KS                                    | 10                             |
| U. WI-Madison                            | 84                             | U. MI                                    | 9                              |
| U. NM                                    | 83                             | U. FL                                    | 8                              |
| Graduate School & U. Ctr., CUNY          | 82                             | U. MO-Columbia                           | 8                              |
| U. CA, San Diego                         | 80                             | U. North TX                              | 8                              |
| U. IL-Urbana-Champaign                   | 74                             | U. Southern CA                           | 8                              |
| U. CA, Santa Barbara                     | 70                             | U. WI-Madison                            | 8                              |
| <i>Top 20 Institutions</i>               | 2,155                          | <i>Top 20 Institutions</i>               | 246                            |
| <i>Total institutions reported (331)</i> | 6,111                          | <i>Total institutions reported (204)</i> | 696                            |

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

<sup>a</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>b</sup> Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

Table 11. Citizenship status of doctorate recipients, by broad field of study for selected years, 1975-2005

| Field/citizenship                    | 1975   | 1980   | 1985   | 1990   | 1995   | 2000   | 2005   |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| <b>All fields</b>                    |        |        |        |        |        |        |        |
| Total                                | 32,952 | 31,019 | 31,295 | 36,065 | 41,747 | 41,361 | 43,354 |
| U.S. citizen                         | 27,162 | 25,239 | 23,388 | 24,913 | 27,740 | 27,986 | 26,312 |
| Non-U.S., permanent resident         | 1,708  | 1,289  | 1,319  | 1,695  | 4,317  | 1,950  | 1,600  |
| Non-U.S., temporary visa holder      | 3,559  | 3,677  | 5,247  | 8,138  | 8,831  | 9,660  | 12,824 |
| Unknown                              | 523    | 814    | 1,341  | 1,319  | 859    | 1,765  | 2,618  |
| <b>Physical sciences<sup>a</sup></b> |        |        |        |        |        |        |        |
| Total                                | 4,780  | 4,071  | 4,489  | 5,809  | 6,727  | 5,982  | 6,699  |
| U.S. citizen                         | 3,602  | 3,039  | 3,021  | 3,369  | 3,591  | 3,222  | 3,074  |
| Non-U.S., permanent resident         | 344    | 249    | 229    | 291    | 1,163  | 356    | 282    |
| Non-U.S., temporary visa holder      | 746    | 691    | 1,063  | 1,939  | 1,840  | 2,136  | 2,984  |
| Unknown                              | 88     | 92     | 176    | 210    | 133    | 268    | 359    |
| <b>Engineering</b>                   |        |        |        |        |        |        |        |
| Total                                | 3,002  | 2,479  | 3,166  | 4,894  | 6,008  | 5,323  | 6,404  |
| U.S. citizen                         | 1,719  | 1,256  | 1,279  | 1,957  | 2,386  | 2,223  | 1,999  |
| Non-U.S., permanent resident         | 418    | 298    | 315    | 389    | 956    | 350    | 285    |
| Non-U.S., temporary visa holder      | 819    | 857    | 1,423  | 2,286  | 2,527  | 2,451  | 3,754  |
| Unknown                              | 46     | 68     | 149    | 262    | 139    | 299    | 366    |
| <b>Life sciences</b>                 |        |        |        |        |        |        |        |
| Total                                | 5,103  | 5,501  | 5,822  | 6,655  | 7,998  | 8,624  | 9,306  |
| U.S. citizen                         | 3,996  | 4,454  | 4,499  | 4,654  | 5,063  | 5,575  | 5,911  |
| Non-U.S., permanent resident         | 316    | 232    | 193    | 287    | 1,066  | 508    | 367    |
| Non-U.S., temporary visa holder      | 700    | 722    | 933    | 1,539  | 1,741  | 2,212  | 2,550  |
| Unknown                              | 91     | 93     | 197    | 175    | 128    | 329    | 478    |
| <b>Social sciences</b>               |        |        |        |        |        |        |        |
| Total                                | 6,066  | 5,855  | 5,764  | 6,092  | 6,635  | 7,109  | 6,837  |
| U.S. citizen                         | 5,202  | 4,996  | 4,581  | 4,665  | 5,052  | 5,446  | 4,807  |
| Non-U.S., permanent resident         | 212    | 195    | 209    | 245    | 400    | 250    | 227    |
| Non-U.S., temporary visa holder      | 547    | 488    | 668    | 920    | 1,027  | 1,043  | 1,377  |
| Unknown                              | 105    | 176    | 306    | 262    | 156    | 370    | 426    |
| <b>Humanities</b>                    |        |        |        |        |        |        |        |
| Total                                | 5,046  | 3,871  | 3,429  | 3,822  | 5,062  | 5,634  | 5,349  |
| U.S. citizen                         | 4,507  | 3,396  | 2,864  | 3,093  | 3,982  | 4,434  | 3,895  |
| Non-U.S., permanent resident         | 221    | 136    | 149    | 196    | 336    | 251    | 241    |
| Non-U.S., temporary visa holder      | 231    | 210    | 265    | 426    | 649    | 743    | 878    |
| Unknown                              | 87     | 129    | 151    | 107    | 95     | 206    | 335    |
| <b>Education</b>                     |        |        |        |        |        |        |        |
| Total                                | 7,360  | 7,586  | 6,733  | 6,509  | 6,648  | 6,432  | 6,229  |
| U.S. citizen                         | 6,817  | 6,752  | 5,781  | 5,637  | 5,775  | 5,559  | 5,136  |
| Non-U.S., permanent resident         | 117    | 112    | 128    | 152    | 218    | 126    | 109    |
| Non-U.S., temporary visa holder      | 352    | 514    | 577    | 506    | 506    | 539    | 536    |
| Unknown                              | 74     | 208    | 247    | 214    | 149    | 208    | 448    |
| <b>Other fields</b>                  |        |        |        |        |        |        |        |
| Total                                | 1,595  | 1,656  | 1,892  | 2,284  | 2,669  | 2,257  | 2,530  |
| U.S. citizen                         | 1,319  | 1,346  | 1,363  | 1,538  | 1,891  | 1,527  | 1,490  |
| Non-U.S., permanent resident         | 80     | 67     | 96     | 135    | 178    | 109    | 89     |
| Non-U.S., temporary visa holder      | 164    | 195    | 318    | 522    | 541    | 536    | 745    |
| Unknown                              | 32     | 48     | 115    | 89     | 59     | 85     | 206    |

<sup>a</sup> Includes mathematics and computer sciences

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 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), 2005

| Rank | Country/ economy                                | Number of doctorate recipients |
|------|---|--------------------------------|
| 1    | China, People's Republic of <sup>a</sup>        | 3,827                          |
| 2    | South Korea                                     | 1,530                          |
| 3    | India   | 1,274                          |
| 4    | China, Republic of (Taiwan)                     | 726                            |
| 5    | Canada  | 556                            |
| 6    | Turkey  | 419                            |
| 7    | Thailand  | 328                            |
| 8    | Japan   | 310                            |
| 9    | Russia  | 255                            |
| 10   | Mexico  | 254                            |
| 11   | Germany   | 249                            |
| 12   | Romania   | 211                            |
| 13   | Brazil  | 206                            |
| 14   | Italy   | 182                            |
| 15   | Great Britain, UK                               | 168                            |
| 16   | Egypt   | 164                            |
| 17   | France  | 150                            |
| 18   | Iran  | 141                            |
| 19   | Colombia  | 137                            |
| 20   | Spain   | 121                            |
| 21   | Saudi Arabia                                    | 111                            |
| 22   | Israel  | 109                            |
| 23   | Greece  | 107                            |
| 24   | Argentina                                       | 106                            |
| 25   | Jordan  | 98                             |
| 26   | Bulgaria  | 92                             |
| 27   | Kenya   | 79                             |
| 28   | Singapore                                       | 78                             |
| 29   | Bangladesh                                      | 77                             |
| 30   | Australia                                       | 76                             |
|      | <i>Top 30 countries of origin</i>               | <i>12,141</i>                  |
|      | <i>Total non-U.S. citizens (165 countries)*</i> | <i>14,225</i>                  |

<sup>a</sup> Includes Hong Kong.

\* Excludes cases with unknown country of origin.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 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), 2005

| Institution                | Number of doctorate recipients | Institution                              | Number of doctorate recipients |
|----------------------------|--------------------------------|--|--------------------------------|
| U. IL-Urbana-Champaign     | 303                            | U. MN                                    | 237                            |
| Purdue U.                  | 279                            | U. TX-Austin                             | 233                            |
| OH State U., The           | 278                            | U. CA, Berkeley                          | 227                            |
| TX A&M U.                  | 275                            | Cornell U.                               | 218                            |
| PA State U., The           | 259                            | U. WI-Madison                            | 215                            |
| U. CA, Los Angeles         | 256                            | GA Institute of Technology               | 208                            |
| U. FL                      | 245                            | U. MD                                    | 208                            |
| MA Institute of Technology | 243                            | U. Southern CA                           | 202                            |
| Stanford U.                | 242                            | Columbia U.                              | 194                            |
| U. MI                      | 237                            | MI State U.                              | 168                            |
|                            |                                | <i>Top 20 institutions</i>               | <i>4,727</i>                   |
|                            |                                | <i>Total institutions reported (415)</i> | <i>14,424</i>                  |

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

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

Table 14. Parental education attainment of doctorate recipients, by selected demographic characteristics, 2005

| Demographic characteristics         | Total percent | Parental education  |                           |                      |                 | Total number |
|-------------------------------------|---------------|---------------------|---------------------------|----------------------|-----------------|--------------|
|                                     |               | High school or less | Some college <sup>a</sup> | Baccalaureate degree | Advanced degree |              |
| Total                               |               |                     |                           |                      |                 |              |
| Father's education <sup>b</sup>     | 100.0         | 28.2                | 13.2                      | 24.7                 | 33.9            | 38,445       |
| Mother's education <sup>c</sup>     | 100.0         | 36.1                | 17.4                      | 25.2                 | 21.3            | 38,517       |
| Sex                                 |               |                     |                           |                      |                 |              |
| Male                                |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 29.4                | 12.1                      | 25.3                 | 33.2            | 21,066       |
| Mother's education                  | 100.0         | 38.5                | 16.1                      | 24.9                 | 20.5            | 21,069       |
| Female                              |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 26.8                | 14.5                      | 24.0                 | 34.7            | 17,377       |
| Mother's education                  | 100.0         | 33.3                | 18.9                      | 25.7                 | 22.2            | 17,446       |
| Race/ethnicity (U.S. citizens only) |               |                     |                           |                      |                 |              |
| Asian <sup>d</sup>                  |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 17.8                | 9.5                       | 25.0                 | 47.8            | 1,430        |
| Mother's education                  | 100.0         | 29.3                | 12.0                      | 31.4                 | 27.3            | 1,429        |
| Black                               |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 49.1                | 18.6                      | 11.7                 | 20.5            | 1,486        |
| Mother's education                  | 100.0         | 41.5                | 20.9                      | 16.3                 | 21.3            | 1,523        |
| Hispanic                            |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 39.4                | 15.4                      | 16.8                 | 28.3            | 1,211        |
| Mother's education                  | 100.0         | 45.5                | 18.6                      | 18.6                 | 17.3            | 1,220        |
| American Indian <sup>e</sup>        |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 45.4                | 20.0                      | 13.8                 | 20.8            | 130          |
| Mother's education                  | 100.0         | 50.0                | 25.0                      | 14.4                 | 10.6            | 132          |
| White                               |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 23.8                | 14.8                      | 21.8                 | 39.7            | 19,908       |
| Mother's education                  | 100.0         | 28.1                | 20.5                      | 25.9                 | 25.5            | 19,971       |
| Citizenship                         |               |                     |                           |                      |                 |              |
| U.S. Citizen                        |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 25.8                | 14.8                      | 21.0                 | 38.4            | 24,895       |
| Mother's education                  | 100.0         | 29.9                | 20.0                      | 25.1                 | 25.0            | 25,010       |
| Non-U.S. citizen, permanent visa    |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 30.8                | 9.7                       | 28.0                 | 31.5            | 1,492        |
| Mother's education                  | 100.0         | 43.7                | 12.6                      | 26.0                 | 17.7            | 1,486        |
| Non-U.S. citizen, temporary visa    |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 33.1                | 10.3                      | 31.9                 | 24.8            | 12,032       |
| Mother's education                  | 100.0         | 48.1                | 12.6                      | 25.3                 | 14.0            | 11,994       |
| Broad field of study                |               |                     |                           |                      |                 |              |
| Physical sciences <sup>f</sup>      |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 25.9                | 12.1                      | 28.3                 | 33.7            | 6,018        |
| Mother's education                  | 100.0         | 35.1                | 16.1                      | 26.5                 | 22.4            | 6,021        |
| Engineering                         |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 27.3                | 11.4                      | 32.1                 | 29.2            | 5,720        |
| Mother's education                  | 100.0         | 39.9                | 14.9                      | 28.0                 | 17.1            | 5,715        |
| Life sciences                       |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 25.2                | 13.7                      | 24.7                 | 36.3            | 8,382        |
| Mother's education                  | 100.0         | 32.4                | 17.7                      | 27.5                 | 22.4            | 8,396        |
| Social sciences                     |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 25.1                | 13.8                      | 22.6                 | 38.5            | 6,026        |
| Mother's education                  | 100.0         | 31.5                | 18.2                      | 25.1                 | 25.2            | 6,039        |
| Humanities                          |               |                     |                           |                      |                 |              |
| Father's education                  | 100.0         | 24.7                | 10.8                      | 22.1                 | 42.4            | 4,728        |
| Mother's education                  | 100.0         | 29.9                | 17.0                      | 25.5                 | 27.5            | 4,742        |

Table 14. Parental education attainment of doctorate recipients, by selected demographic characteristics, 2005

| Demographic characteristics | Total percent | Parental education  |                           |                      |                 | Total number |
|-----------------------------|---------------|---------------------|---------------------------|----------------------|-----------------|--------------|
|                             |               | High school or less | Some college <sup>a</sup> | Baccalaureate degree | Advanced degree |              |
| <b>Education</b>            |               |                     |                           |                      |                 |              |
| Father's education          | 100.0         | 41.7                | 16.8                      | 17.7                 | 23.8            | 5,398        |
| Mother's education          | 100.0         | 47.1                | 20.4                      | 17.8                 | 14.7            | 5,429        |
| <b>Other fields</b>         |               |                     |                           |                      |                 |              |
| Father's education          | 100.0         | 32.0                | 12.9                      | 24.3                 | 30.8            | 2,173        |
| Mother's education          | 100.0         | 42.2                | 16.9                      | 24.0                 | 16.9            | 2,175        |

<sup>a</sup> Includes those who have attended college, but not earned a bachelor's.

<sup>b</sup> Total count excludes 287 (0.7%) cases who reported 'not applicable' for father's education.

<sup>c</sup> Total count excludes 253 (0.7%) cases who reported 'not applicable' for mothers education.

<sup>d</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>e</sup> Includes Alaska Natives.

<sup>f</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



TABLE 15. Highest parental education for selected years, 1975-2005

| Year              | High school<br>or less | Some<br>college <sup>a</sup> | Earned<br>baccalaureate | Advanced degree |
|-------------------|------------------------|------------------------------|-------------------------|-----------------|
| 1975              | 44.2                   | 16.1                         | 20.7                    | 18.9            |
| 1980              | 40.8                   | 16.0                         | 21.7                    | 21.5            |
| 1985              | 37.9                   | 14.7                         | 22.6                    | 24.8            |
| 1990              | 32.9                   | 15.2                         | 20.9                    | 31.0            |
| 1995              | 28.7                   | 15.1                         | 21.6                    | 34.7            |
| 2000              | 25.2                   | 13.3                         | 22.4                    | 39.2            |
| 2005 <sup>b</sup> | 22.2                   | 13.5                         | 24.7                    | 39.2            |

<sup>a</sup> Includes those who have attended college, but not earned a bachelor's.

<sup>b</sup> In 2005 0.5 percent (n=175) doctorate recipients chose 'Not Applicable' for both father's and mother's education.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 16. Median number of years from baccalaureate to doctorate award, by broad field of study for selected years, 1980–2005

| Field of study and time to degree | 1980 | 1985 | 1990 | 1995 | 2000 | 2005 |
|-----------------------------------|------|------|------|------|------|------|
| All fields                        |      |      |      |      |      |      |
| Since baccalaureate               | 9.3  | 10.3 | 10.6 | 10.8 | 10.3 | 9.9  |
| Since starting graduate school    | 7.7  | 8.7  | 8.7  | 8.7  | 8.5  | 8.2  |
| Physical sciences <sup>a</sup>    |      |      |      |      |      |      |
| Since baccalaureate               | 7.0  | 7.3  | 7.7  | 8.4  | 7.9  | 7.8  |
| Since starting graduate school    | 6.0  | 6.2  | 6.7  | 7.2  | 6.7  | 6.7  |
| Engineering                       |      |      |      |      |      |      |
| Since baccalaureate               | 7.7  | 8.2  | 8.3  | 9.2  | 8.7  | 8.2  |
| Since starting graduate school    | 6.4  | 6.7  | 6.7  | 7.3  | 7.2  | 7.2  |
| Life sciences                     |      |      |      |      |      |      |
| Since baccalaureate               | 7.5  | 8.5  | 9.2  | 9.5  | 9.0  | 8.7  |
| Since starting graduate school    | 6.3  | 7.2  | 7.7  | 7.7  | 7.7  | 7.1  |
| Social sciences                   |      |      |      |      |      |      |
| Since baccalaureate               | 8.7  | 10.0 | 10.6 | 10.5 | 9.8  | 9.9  |
| Since starting graduate school    | 7.3  | 8.7  | 8.9  | 8.7  | 7.9  | 8.0  |
| Humanities                        |      |      |      |      |      |      |
| Since baccalaureate               | 10.7 | 11.9 | 12.2 | 12.0 | 11.4 | 11.8 |
| Since starting graduate school    | 9.7  | 10.2 | 10.3 | 9.9  | 9.7  | 9.7  |
| Education                         |      |      |      |      |      |      |
| Since baccalaureate               | 13.2 | 15.2 | 18.0 | 19.9 | 19.4 | 17.3 |
| Since starting graduate school    | 10.7 | 12.7 | 14.7 | 15.7 | 14.2 | 13.0 |
| Other fields                      |      |      |      |      |      |      |
| Since baccalaureate               | 11.1 | 13.0 | 13.3 | 13.5 | 14.0 | 13.3 |
| Since starting graduate school    | 9.4  | 10.7 | 10.7 | 10.7 | 10.7 | 10.6 |

<sup>a</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 17. Median number of years from baccalaureate to doctorate award, by selected demographic group and broad field of study, 2005

| Time to degree and demographic characteristics | All fields |        | Physical sciences <sup>a</sup> |        | Engineering |        | Life sciences |        | Social sciences |        | Humanities |        | Education |        | Other fields |        |
|--|------------|--------|--------------------------------|--------|-------------|--------|---------------|--------|-----------------|--------|------------|--------|-----------|--------|--------------|--------|
|  | Median     | Number | Median                         | Number | Median      | Number | Median        | Number | Median          | Number | Median     | Number | Median    | Number | Median       | Number |
| Elapsed time from baccalaureate (years)        |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| All doctorate recipients                       | 9.9        | 38,223 | 7.8                            | 5,881  | 8.2         | 5,665  | 8.7           | 8,275  | 9.9             | 6,090  | 11.8       | 4,735  | 17.3      | 5,410  | 13.3         | 2,167  |
| Sex  |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| Male   | 9.4        | 20,928 | 7.8                            | 4,327  | 8.3         | 4,616  | 8.6           | 4,059  | 10.0            | 2,689  | 11.7       | 2,337  | 17.0      | 1,798  | 13.0         | 1,102  |
| Female   | 10.5       | 17,291 | 7.5                            | 1,554  | 8.0         | 1,047  | 8.7           | 4,215  | 9.6             | 3,401  | 11.8       | 2,397  | 17.8      | 3,612  | 13.5         | 1,065  |
| Citizenship                                    |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| U.S. citizen                                   | 10.4       | 25,179 | 7.0                            | 2,955  | 7.6         | 1,945  | 8.2           | 5,669  | 10.0            | 4,611  | 12.0       | 3,746  | 18.2      | 4,836  | 15.3         | 1,417  |
| Non-U.S., permanent resident                   | 10.5       | 1,442  | 9.4                            | 254    | 9.9         | 262    | 10.0          | 324    | 10.6            | 205    | 11.4       | 221    | 14.2      | 95     | 12.1         | 81     |
| Non-U.S., temporary visa holder                | 9.1        | 11,533 | 8.4                            | 2,664  | 8.4         | 3,442  | 9.4           | 2,271  | 9.5             | 1,255  | 10.7       | 762    | 12.5      | 473    | 10.8         | 666    |
| Race/ethnicity (U.S. citizens only)            |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| Asian <sup>b</sup>                             | 8.8        | 1,401  | 7.5                            | 219    | 7.6         | 227    | 8.0           | 480    | 9.2             | 190    | 11.1       | 132    | 16.6      | 104    | 12.3         | 49     |
| Black  | 12.7       | 1,570  | 8.0                            | 79     | 8.3         | 81     | 8.6           | 255    | 10.9            | 281    | 13.0       | 164    | 17.6      | 599    | 15.5         | 111    |
| Hispanic                                       | 10.3       | 1,213  | 7.4                            | 110    | 7.4         | 71     | 7.8           | 249    | 9.7             | 270    | 11.3       | 179    | 15.8      | 256    | 13.7         | 78     |
| American Indian <sup>c</sup>                   | 12.0       | 134    | 8.4                            | 9      | 8.9         | 8      | 9.0           | 19     | 11.9            | 29     | 11.3       | 21     | 20.2      | 42     | 20.8         | 6      |
| White  | 10.4       | 20,111 | 7.0                            | 2,437  | 7.4         | 1,496  | 8.3           | 4,515  | 10.0            | 3,683  | 12.0       | 3,110  | 18.6      | 3,737  | 15.6         | 1,133  |
| Years in graduate school                       |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| All doctorate recipients                       | 8.2        | 38,669 | 6.7                            | 6,048  | 7.2         | 5,743  | 7.1           | 8,359  | 8.0             | 6,080  | 9.7        | 4,771  | 13.0      | 5,462  | 10.6         | 2,206  |
| Sex  |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| Male   | 7.8        | 21,223 | 6.9                            | 4,454  | 7.2         | 4,681  | 7.0           | 4,080  | 8.2             | 2,706  | 9.7        | 2,358  | 12.7      | 1,817  | 10.2         | 1,127  |
| Female   | 8.7        | 17,442 | 6.5                            | 1,594  | 7.2         | 1,061  | 7.1           | 4,277  | 7.9             | 3,374  | 9.7        | 2,412  | 13.2      | 3,645  | 10.7         | 1,079  |
| Citizenship                                    |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| U.S. citizen                                   | 8.4        | 25,163 | 6.2                            | 2,970  | 6.7         | 1,939  | 6.7           | 5,655  | 8.0             | 4,559  | 10.0       | 3,746  | 13.7      | 4,863  | 12.0         | 1,431  |
| Non-U.S., permanent resident                   | 8.7        | 1,488  | 7.8                            | 266    | 8.2         | 265    | 8.0           | 333    | 9.2             | 214    | 9.7        | 226    | 10.7      | 101    | 9.4          | 83     |
| Non-U.S., temporary visa holder                | 7.7        | 11,998 | 7.3                            | 2,809  | 7.4         | 3,538  | 7.7           | 2,369  | 8.0             | 1,297  | 9.0        | 797    | 9.2       | 496    | 8.7          | 692    |
| Race/ethnicity (U.S. citizens only)            |            |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| Asian <sup>b</sup>                             | 7.3        | 1,418  | 6.7                            | 233    | 6.7         | 230    | 6.7           | 481    | 8.0             | 188    | 9.7        | 130    | 12.6      | 106    | 11.0         | 50     |
| Black  | 10.5       | 1,560  | 7.3                            | 78     | 7.6         | 80     | 7.3           | 254    | 9.1             | 281    | 10.7       | 162    | 13.3      | 590    | 12.7         | 115    |
| Hispanic                                       | 8.7        | 1,223  | 6.5                            | 107    | 7.0         | 73     | 6.8           | 250    | 8.2             | 269    | 9.7        | 183    | 12.5      | 264    | 10.5         | 77     |
| American Indian <sup>c</sup>                   | 10.0       | 134    | 7.2                            | 9      | 8.7         | 7      | 7.7           | 18     | 9.4             | 32     | 9.9        | 22     | 14.7      | 40     | 16.5         | 6      |
| White  | 8.3        | 20,088 | 6.2                            | 2,440  | 6.7         | 1,484  | 6.7           | 4,508  | 8.0             | 3,640  | 10.0       | 3,114  | 14.0      | 3,761  | 12.2         | 1,141  |

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>c</sup> Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 18. Median age and number of doctorate recipients at different age levels, by field of study and demographic characteristics, 2005

| 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                                     | 33.0                    | 306          | 13,959 | 12,493 | 5,670 | 2,960 | 5,101   |
| Broad field of study                           |                         |              |        |        |       |       |         |
| Physical sciences <sup>a</sup>                 | 30.4                    | 112          | 3,388  | 1,880  | 538   | 215   | 170     |
| Engineering                                    | 31.1                    | 92           | 2,829  | 2,028  | 654   | 213   | 175     |
| Life sciences                                  | 31.5                    | 42           | 3,914  | 2,768  | 941   | 494   | 616     |
| Social sciences                                | 33.1                    | 30           | 2,121  | 2,148  | 972   | 461   | 669     |
| Humanities                                     | 35.2                    | 16           | 925    | 1,828  | 1,089 | 481   | 648     |
| Education                                      | 42.5                    | 10           | 436    | 1,142  | 1,027 | 824   | 2,293   |
| Other fields                                   | 36.9                    | 4            | 346    | 699    | 449   | 272   | 530     |
| Sex  |                         |              |        |        |       |       |         |
| Male   | 32.6                    | 177          | 8,039  | 7,334  | 3,220 | 1,531 | 1,900   |
| Female   | 33.6                    | 129          | 5,918  | 5,157  | 2,450 | 1,428 | 3,201   |
| Citizenship                                    |                         |              |        |        |       |       |         |
| U.S. citizen                                   | 33.8                    | 182          | 8,747  | 6,756  | 3,534 | 2,245 | 4,671   |
| Permanent resident                             | 34.1                    | ----         | 365    | 624    | 321   | 152   | 100     |
| Temporary visa holder                          | 32.0                    | 118          | 4,773  | 5,065  | 1,787 | 554   | 322     |
| Race/ethnicity (U.S. citizens only)            |                         |              |        |        |       |       |         |
| Asian <sup>b</sup>                             | 31.3                    | 14           | 665    | 438    | 157   | 93    | 107     |
| Black  | 36.7                    | 11           | 369    | 394    | 255   | 175   | 469     |
| Hispanic                                       | 34.3                    | 6            | 388    | 356    | 211   | 133   | 194     |
| American Indian <sup>c</sup>                   | 39.1                    | ----         | 29     | 28     | 16    | 22    | 44      |
| White  | 33.7                    | 145          | 7,024  | 5,305  | 2,785 | 1,762 | 3,731   |

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

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>c</sup> Includes Alaska Natives.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 19. Percentage of doctorate recipients indicating one or more disabilities, by selected demographic characteristics, 2005

| Demographic characteristic     | 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                          | 622                                  | 1.4     | 60                      | 0.1     | 216                            | 0.5     | 85                   | 0.2     | 170                           | 0.4     | 17                      | 0.0     | 130                          | 0.3     |
| Field of study                 |                                      |         |                         |         |                                |         |                      |         |                               |         |                         |         |                              |         |
| Physical sciences <sup>a</sup> | 57                                   | 0.9     | 8                       | 0.1     | 15                             | 0.2     | 8                    | 0.1     | 19                            | 0.3     | ----                    | ----    | ----                         | ----    |
| Engineering                    | 35                                   | 0.5     | ----                    | ----    | 11                             | 0.2     | ----                 | ----    | 9                             | 0.1     | ----                    | ----    | ----                         | ----    |
| Life sciences                  | 107                                  | 1.1     | 8                       | 0.1     | 33                             | 0.4     | 14                   | 0.2     | 35                            | 0.4     | 7                       | 0.1     | 14                           | 0.2     |
| Social sciences                | 130                                  | 1.9     | 12                      | 0.2     | 48                             | 0.7     | 17                   | 0.2     | 38                            | 0.6     | ----                    | ----    | 27                           | 0.4     |
| Humanities                     | 98                                   | 1.8     | 10                      | 0.2     | 33                             | 0.6     | 13                   | 0.2     | 21                            | 0.4     | 0                       | 0.0     | 31                           | 0.6     |
| Education                      | 157                                  | 2.5     | 12                      | 0.2     | 58                             | 0.9     | 25                   | 0.4     | 42                            | 0.7     | ----                    | ----    | 38                           | 0.6     |
| Other fields                   | 38                                   | 1.5     | ----                    | ----    | 18                             | 0.7     | ----                 | ----    | ----                          | ----    | 0                       | 0.0     | 9                            | 0.4     |
| Sex                            |                                      |         |                         |         |                                |         |                      |         |                               |         |                         |         |                              |         |
| Male                           | 290                                  | 1.2     | 31                      | 0.1     | 97                             | 0.4     | 44                   | 0.2     | 85                            | 0.4     | 12                      | 0.1     | 48                           | 0.2     |
| Female                         | 332                                  | 1.7     | 29                      | 0.1     | 119                            | 0.6     | 41                   | 0.2     | 85                            | 0.4     | 5                       | 0.0     | 82                           | 0.4     |
| Citizenship                    |                                      |         |                         |         |                                |         |                      |         |                               |         |                         |         |                              |         |
| U.S. citizens                  | 567                                  | 2.2     | 53                      | 0.2     | 194                            | 0.7     | 77                   | 0.3     | 166                           | 0.6     | 12                      | 0.0     | 121                          | 0.5     |
| Non-U.S. citizens              | 55                                   | 0.4     | 7                       | 0.0     | 22                             | 0.2     | 8                    | 0.1     | ----                          | ----    | 5                       | 0.0     | 9                            | 0.1     |

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

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

<sup>a</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 20. Primary source of financial support for doctorate recipients, by broad field of study and demographic group, 2005<sup>a</sup>

| Primary source of support and broad field of study | Total <sup>b</sup> | Sex    |        | Citizenship  |                    |                       |                    |       | U.S. citizens |                              |        |               |          |
|--|--------------------|--------|--------|--------------|--------------------|-----------------------|--------------------|-------|---------------|------------------------------|--------|---------------|----------|
|  |                    | Male   | Female | U.S. citizen | Permanent resident | Temporary visa holder | Asian <sup>c</sup> | Black | Hispanic      | American Indian <sup>d</sup> | White  | U.S. citizens |          |
|  |                    |        |        |              |                    |                       |                    |       |               |                              |        | U.S. citizen  | Hispanic |
| All fields   | 38,531             | 21,164 | 17,361 | 24,900       | 1,488              | 11,987                | 1,433              | 1,524 | 1,206         | 131                          | 19,862 |               |          |
| Teaching assistantships                            | 17.1               | 17.7   | 16.3   | 15.3         | 21.9               | 20.3                  | 11.2               | 7.5   | 12.8          | 13.7                         | 16.2   |               |          |
| Research assistantships/traineeships               | 26.9               | 32.7   | 19.9   | 16.9         | 31.3               | 47.2                  | 24.4               | 7.3   | 11.3          | 8.4                          | 17.5   |               |          |
| Fellowships/dissertation grants                    | 27.5               | 26.7   | 28.6   | 30.7         | 26.3               | 21.1                  | 43.5               | 37.2  | 39.0          | 33.6                         | 28.6   |               |          |
| Own resources                                      | 22.7               | 16.9   | 29.8   | 31.4         | 16.1               | 5.5                   | 17.2               | 41.5  | 32.7          | 37.4                         | 31.7   |               |          |
| Foreign government                                 | 1.7                | 2.0    | 1.3    | 0.0          | ---                | 5.2                   | ---                | 0.0   | ---           | ---                          | 0.0    |               |          |
| Employer   | 3.8                | 3.8    | 3.9    | 5.4          | 2.6                | 0.7                   | 3.6                | 6.0   | ---           | 6.1                          | 5.7    |               |          |
| Other  | 0.2                | 0.2    | 0.2    | 0.2          | ---                | 0.0                   | ---                | 0.5   | ---           | ---                          | 0.2    |               |          |
| Physical sciences <sup>e</sup>                     | 6,068              | 4,476  | 1,591  | 2,964        | 260                | 2,818                 | 231                | 79    | 106           | 9                            | 2,436  |               |          |
| Teaching assistantships                            | 25.6               | 25.7   | 25.5   | 20.5         | 31.2               | 30.6                  | 19.9               | 16.5  | 23.6          | ---                          | 20.6   |               |          |
| Research assistantships/traineeships               | 44.5               | 45.6   | 41.5   | 38.0         | 41.9               | 51.5                  | 42.0               | 16.5  | 17.9          | ---                          | 39.1   |               |          |
| Fellowships/dissertation grants                    | 22.5               | 21.3   | 25.6   | 30.6         | 18.8               | 14.3                  | 27.7               | 48.1  | 49.1          | ---                          | 29.6   |               |          |
| Own resources                                      | 4.3                | 4.2    | 4.7    | 7.2          | 5.4                | 1.1                   | 5.6                | 12.7  | ---           | 0.0                          | 7.3    |               |          |
| Foreign government                                 | 1.2                | 1.2    | 1.1    | ---          | ---                | 2.3                   | ---                | 0.0   | 0.0           | 0.0                          | 0.0    |               |          |
| Employer   | 1.9                | 2.1    | 1.4    | 3.6          | ---                | ---                   | 4.3                | ---   | ---           | ---                          | 3.4    |               |          |
| Other  | 0.0                | 0.0    | 0.0    | ---          | 0.0                | ---                   | ---                | ---   | 0.0           | 0.0                          | 0.0    |               |          |
| Engineering  | 5,743              | 4,674  | 1,067  | 1,921        | 267                | 3,531                 | 233                | 80    | 70            | 6                            | 1,468  |               |          |
| Teaching assistantships                            | 7.4                | 7.6    | 6.8    | 4.6          | 8.6                | 8.9                   | 5.2                | 6.3   | ---           | ---                          | 4.4    |               |          |
| Research assistantships/traineeships               | 60.1               | 60.9   | 56.8   | 37.7         | 62.5               | 72.2                  | 48.1               | 11.3  | 30.0          | 0.0                          | 38.2   |               |          |
| Fellowships/dissertation grants                    | 20.4               | 18.8   | 27.6   | 37.5         | 14.2               | 11.6                  | 32.6               | 62.5  | 51.4          | ---                          | 36.0   |               |          |
| Own resources                                      | 5.6                | 6.0    | 3.8    | 10.3         | 7.5                | 2.8                   | 6.9                | 8.8   | 8.6           | ---                          | 11.0   |               |          |
| Foreign government                                 | 2.5                | ---    | 2.6    | ---          | ---                | 3.9                   | 0.0                | 0.0   | 0.0           | 0.0                          | ---    |               |          |
| Employer   | 3.9                | 4.3    | 2.2    | 9.7          | 6.4                | 0.6                   | 7.3                | 11.3  | ---           | ---                          | 10.2   |               |          |
| Other  | 0.1                | ---    | 0.0    | ---          | ---                | 0.0                   | 0.0                | 0.0   | 0.0           | 0.0                          | ---    |               |          |
| Life sciences                                      | 8,406              | 4,115  | 4,289  | 5,655        | 345                | 2,375                 | 495                | 252   | 255           | 19                           | 4,486  |               |          |
| Teaching assistantships                            | 9.1                | 9.7    | 8.6    | 8.5          | 9.9                | 10.7                  | 4.8                | 4.0   | 5.9           | ---                          | 9.2    |               |          |
| Research assistantships/traineeships               | 28.6               | 31.2   | 26.1   | 20.8         | 32.8               | 46.7                  | 17.6               | 9.9   | 16.9          | ---                          | 22.0   |               |          |
| Fellowships/dissertation grants                    | 46.5               | 46.4   | 46.6   | 52.8         | 43.5               | 32.1                  | 65.9               | 61.1  | 66.3          | 52.6                         | 50.0   |               |          |
| Own resources                                      | 10.8               | 7.9    | 13.7   | 14.1         | 11.0               | 3.1                   | 9.9                | 21.4  | 10.2          | ---                          | 14.4   |               |          |
| Foreign government                                 | 1.9                | 2.1    | ---    | 0.0          | ---                | 6.6                   | 0.0                | ---   | 0.0           | 0.0                          | ---    |               |          |
| Employer   | 2.9                | 2.6    | 3.2    | 3.8          | 2.3                | 0.9                   | 1.8                | 3.2   | ---           | ---                          | 4.3    |               |          |
| Other  | 0.1                | 0.0    | ---    | 0.1          | ---                | 0.0                   | 0.0                | ---   | ---           | 0.0                          | ---    |               |          |
| Social sciences                                    | 6,026              | 2,684  | 3,342  | 4,496        | 211                | 1,293                 | 183                | 270   | 266           | 30                           | 3,600  |               |          |
| Teaching assistantships                            | 22.5               | 25.3   | 20.2   | 19.2         | 25.6               | 33.3                  | 16.4               | 10.0  | 12.0          | ---                          | 20.4   |               |          |
| Research assistantships/traineeships               | 15.5               | 14.5   | 16.2   | 14.4         | 15.6               | 18.6                  | 18.0               | 9.6   | 10.5          | ---                          | 14.9   |               |          |
| Fellowships/dissertation grants                    | 26.9               | 27.5   | 26.5   | 25.6         | 28.9               | 31.1                  | 36.1               | 41.1  | 37.6          | 46.7                         | 22.8   |               |          |
| Own resources                                      | 31.2               | 27.7   | 34.1   | 38.1         | 25.6               | 8.7                   | 29.0               | 34.8  | 37.6          | 30.0                         | 39.2   |               |          |
| Foreign government                                 | 1.8                | 2.8    | 1.1    | 0.0          | 3.3                | 8.0                   | 0.0                | ---   | ---           | 0.0                          | 0.0    |               |          |

TABLE 20. Primary source of financial support for doctorate recipients, by broad field of study and demographic group, 2005<sup>a</sup>

| Primary source of support and broad field of study | Total <sup>b</sup> | Sex   |        | Citizenship  |                    |                       |                    |       | U.S. citizens |                              |       |     |  |
|--|--------------------|-------|--------|--------------|--------------------|-----------------------|--------------------|-------|---------------|------------------------------|-------|-----|--|
|  |                    | Male  | Female | U.S. citizen | Permanent resident | Temporary visa holder | Asian <sup>c</sup> | Black | Hispanic      | American Indian <sup>d</sup> | White |     |  |
|  |                    |       |        |              |                    |                       |                    |       |               |                              |       |     |  |
| Employer   | 1.8                | 1.9   | 1.7    | 2.3          | ---                | 0.5                   | ---                | 3.7   | ---           | 0.0                          | ---   | 2.4 |  |
| Other  | 0.2                | 0.3   | 0.2    | 0.3          | ---                | 0.0                   | ---                | ---   | ---           | 0.0                          | ---   | 0.2 |  |
| Humanities   | 4,742              | 2,328 | 2,413  | 3,703        | 223                | 798                   | 133                | 157   | 181           | 22                           | 3,076 |     |  |
| Teaching assistantships                            | 34.3               | 35.2  | 33.4   | 33.0         | 44.8               | 37.5                  | 27.8               | 19.1  | 34.3          | 27.3                         | 33.9  |     |  |
| Research assistantships/traineeships               | 2.1                | 1.7   | 2.4    | 1.8          | 2.7                | 3.0                   | ---                | ---   | ---           | 0.0                          | 1.9   |     |  |
| Fellowships/dissertation grants                    | 31.9               | 27.6  | 32.0   | 30.9         | 27.8               | 38.2                  | 43.6               | 45.2  | 33.7          | 27.3                         | 29.1  |     |  |
| Own resources                                      | 28.6               | 27.6  | 29.5   | 32.2         | 20.6               | 13.7                  | 26.3               | 30.6  | 27.6          | 45.5                         | 33.0  |     |  |
| Foreign government                                 | 1.3                | 1.5   | ---    | 0.0          | 3.1                | 7.0                   | 0.0                | 0.0   | 0.0           | 0.0                          | 0.0   |     |  |
| Employer   | 1.5                | 1.7   | 1.3    | 1.8          | ---                | ---                   | ---                | 3.2   | 3.3           | 0.0                          | 1.7   |     |  |
| Other  | 0.3                | 0.5   | ---    | 0.3          | ---                | ---                   | 0.0                | ---   | ---           | 0.0                          | 0.4   |     |  |
| Education  | 5,385              | 1,778 | 3,607  | 4,773        | 98                 | 491                   | 108                | 572   | 257           | 39                           | 3,691 |     |  |
| Teaching assistantships                            | 7.2                | 6.6   | 7.5    | 6.1          | 16.3               | 16.3                  | ---                | 2.8   | 2.3           | 7.7                          | 6.9   |     |  |
| Research assistantships/traineeships               | 9.2                | 9.6   | 9.0    | 7.2          | 22.4               | 25.1                  | 11.1               | 5.1   | 7.0           | ---                          | 7.5   |     |  |
| Fellowships/dissertation grants                    | 10.7               | 9.6   | 11.3   | 10.2         | 9.2                | 16.7                  | 15.7               | 18.7  | 15.2          | 15.4                         | 8.2   |     |  |
| Own resources                                      | 60.3               | 58.5  | 61.1   | 64.2         | 42.9               | 26.7                  | 58.3               | 64.3  | 66.5          | 59.0                         | 64.4  |     |  |
| Foreign government                                 | 1.3                | 2.4   | 0.8    | 0.0          | ---                | 13.2                  | ---                | ---   | ---           | 0.0                          | 0.0   |     |  |
| Employer   | 10.8               | 13.0  | 9.8    | 11.9         | 5.1                | 2.0                   | 11.1               | 8.6   | 8.6           | 12.8                         | 12.7  |     |  |
| Other  | 0.4                | 0.3   | 0.5    | 0.5          | ---                | 0.0                   | 0.0                | ---   | ---           | ---                          | 0.4   |     |  |
| Other fields                                       | 2,161              | 1,109 | 1,052  | 1,388        | 84                 | 681                   | 50                 | 114   | 71            | 6                            | 1,105 |     |  |
| Teaching assistantships                            | 21.3               | 20.9  | 21.7   | 17.8         | 21.4               | 28.2                  | 16.0               | 11.4  | 16.9          | 0.0                          | 18.6  |     |  |
| Research assistantships/traineeships               | 13.5               | 14.2  | 12.8   | 8.4          | 19.0               | 23.1                  | 12.0               | 5.3   | 7.0           | 0.0                          | 8.9   |     |  |
| Fellowships/dissertation grants                    | 20.9               | 22.7  | 19.0   | 18.7         | 26.2               | 25.0                  | 34.0               | 31.6  | 18.3          | ---                          | 16.3  |     |  |
| Own resources                                      | 36.2               | 32.9  | 39.6   | 46.7         | 31.0               | 15.6                  | 36.0               | 45.6  | 52.1          | ---                          | 46.8  |     |  |
| Foreign government                                 | 2.0                | ---   | ---    | ---          | ---                | 6.0                   | 0.0                | ---   | 0.0           | 0.0                          | ---   |     |  |
| Employer   | 5.9                | 6.6   | 5.1    | 8.1          | 0.0                | ---                   | ---                | 5.3   | ---           | 0.0                          | 9.1   |     |  |
| Other  | 0.2                | ---   | ---    | ---          | ---                | ---                   | ---                | ---   | ---           | 0.0                          | ---   |     |  |

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

<sup>a</sup> Includes only doctorate recipients who reported a primary source of support.

<sup>b</sup> Total includes 6 doctoral recipients for whom sex and source of support are not reported, 156 missing citizenship information, and 744 U.S. citizens with missing race/ethnicity (n=102) or racial/ethnic identifications other than those listed here (n=642).

<sup>c</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>d</sup> Includes Alaska Natives.

<sup>e</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Eamed Doctorates.

TABLE 21. Education-related debt of doctorate recipients, by broad field of study, 2005

| Debt level                | Total    |         | Physical sciences <sup>a</sup> |         | Engineering |         | Life sciences |         | Social sciences |         | Humanities |         | Education |         | Other fields |         |  |  |
|---------------------------|----------|---------|--------------------------------|---------|-------------|---------|---------------|---------|-----------------|---------|------------|---------|-----------|---------|--------------|---------|--|--|
|                           | Number   | Percent | Number                         | Percent | Number      | Percent | Number        | Percent | Number          | Percent | Number     | Percent | Number    | Percent | Number       | Percent |  |  |
| <b>Cumulative debt</b>    |          |         |                                |         |             |         |               |         |                 |         |            |         |           |         |              |         |  |  |
| Mean <sup>b</sup>         | \$15,181 |         | \$9,641                        |         | \$9,053     |         | \$13,742      |         | \$22,627        |         | \$20,127   |         | \$16,766  |         | \$16,842     |         |  |  |
| No debt                   | 19,924   | 51.4    | 3,783                          | 62.2    | 3,816       | 66.4    | 4,328         | 51.3    | 2,338           | 38.5    | 1,843      | 38.6    | 2,708     | 49.7    | 1,108        | 50.8    |  |  |
| \$10,000 or less          | 4,423    | 11.4    | 729                            | 12.0    | 629         | 10.9    | 1,012         | 12.0    | 628             | 10.3    | 592        | 12.4    | 615       | 11.3    | 218          | 10.0    |  |  |
| \$10,001-\$20,000         | 3,544    | 9.1     | 534                            | 8.8     | 383         | 6.7     | 944           | 11.2    | 576             | 9.5     | 560        | 11.7    | 400       | 7.3     | 147          | 6.7     |  |  |
| \$20,001-\$30,000         | 2,660    | 6.9     | 334                            | 5.5     | 267         | 4.6     | 635           | 7.5     | 480             | 7.9     | 403        | 8.4     | 365       | 6.7     | 176          | 8.1     |  |  |
| \$30,001-\$40,000         | 1,888    | 4.9     | 207                            | 3.4     | 155         | 2.7     | 447           | 5.3     | 380             | 6.3     | 306        | 6.4     | 285       | 5.2     | 108          | 4.9     |  |  |
| \$40,001-\$50,000         | 1,585    | 4.1     | 151                            | 2.5     | 130         | 2.3     | 320           | 3.8     | 354             | 5.8     | 269        | 5.6     | 267       | 4.9     | 94           | 4.3     |  |  |
| \$50,001 and up           | 4,718    | 12.2    | 346                            | 5.7     | 365         | 6.4     | 753           | 8.9     | 1,314           | 21.6    | 800        | 16.8    | 809       | 14.8    | 331          | 15.2    |  |  |
| Total                     | 38,742   | 100.0   | 6,084                          | 100.0   | 5,745       | 100.0   | 8,439         | 100.0   | 6,070           | 100.0   | 4,773      | 100.0   | 5,449     | 100.0   | 2,182        | 100.0   |  |  |
| <b>Graduate debt</b>      |          |         |                                |         |             |         |               |         |                 |         |            |         |           |         |              |         |  |  |
| Mean <sup>b</sup>         | \$10,105 |         | \$5,106                        |         | \$5,581     |         | \$7,696       |         | \$16,605        |         | \$14,178   |         | \$12,432  |         | \$12,479     |         |  |  |
| No debt                   | 25,989   | 67.1    | 4,801                          | 78.9    | 4,478       | 78.0    | 6,070         | 71.9    | 3,246           | 53.5    | 2,641      | 55.3    | 3,391     | 62.2    | 1,362        | 62.4    |  |  |
| \$10,000 or less          | 2,931    | 7.6     | 438                            | 7.2     | 433         | 7.5     | 629           | 7.5     | 440             | 7.3     | 433        | 9.1     | 406       | 7.5     | 152          | 7.0     |  |  |
| \$10,001-\$20,000         | 1,916    | 4.9     | 227                            | 3.7     | 200         | 3.5     | 415           | 4.9     | 375             | 6.2     | 336        | 7.0     | 254       | 4.7     | 109          | 5.0     |  |  |
| \$20,001-\$30,000         | 1,665    | 4.3     | 179                            | 2.9     | 159         | 2.8     | 347           | 4.1     | 294             | 4.8     | 286        | 6.0     | 278       | 5.1     | 122          | 5.6     |  |  |
| \$30,001-\$40,000         | 1,292    | 3.3     | 119                            | 2.0     | 115         | 2.0     | 255           | 3.0     | 292             | 4.8     | 207        | 4.3     | 230       | 4.2     | 74           | 3.4     |  |  |
| \$40,001-\$50,000         | 1,080    | 2.8     | 77                             | 1.3     | 85          | 1.5     | 179           | 2.1     | 279             | 4.6     | 178        | 3.7     | 205       | 3.8     | 77           | 3.5     |  |  |
| \$50,001 and up           | 3,866    | 10.0    | 243                            | 4.0     | 274         | 4.8     | 544           | 6.4     | 1,142           | 18.8    | 692        | 14.5    | 685       | 12.6    | 286          | 13.1    |  |  |
| Total                     | 38,739   | 100.0   | 6,084                          | 100.0   | 5,744       | 100.0   | 8,439         | 100.0   | 6,068           | 100.0   | 4,773      | 100.0   | 5,449     | 100.0   | 2,182        | 100.0   |  |  |
| <b>Undergraduate debt</b> |          |         |                                |         |             |         |               |         |                 |         |            |         |           |         |              |         |  |  |
| Mean <sup>b</sup>         | \$5,077  |         | \$4,535                        |         | \$3,473     |         | \$6,046       |         | \$6,027         |         | \$5,949    |         | \$4,335   |         | \$4,363      |         |  |  |
| No debt                   | 28,129   | 72.6    | 4,494                          | 73.9    | 4,627       | 80.5    | 5,688         | 67.4    | 4,155           | 68.5    | 3,216      | 67.4    | 4,243     | 77.9    | 1,706        | 78.2    |  |  |
| \$10,000 or less          | 3,542    | 9.1     | 564                            | 9.3     | 416         | 7.2     | 830           | 9.8     | 615             | 10.1    | 543        | 11.4    | 422       | 7.7     | 152          | 7.0     |  |  |
| \$10,001-\$20,000         | 3,120    | 8.1     | 498                            | 8.2     | 304         | 5.3     | 908           | 10.8    | 538             | 8.9     | 460        | 9.6     | 290       | 5.3     | 122          | 5.6     |  |  |
| \$20,001-\$30,000         | 1,951    | 5.0     | 280                            | 4.6     | 207         | 3.6     | 517           | 6.1     | 379             | 6.2     | 259        | 5.4     | 220       | 4.0     | 89           | 4.1     |  |  |
| \$30,001-\$40,000         | 1,043    | 2.7     | 136                            | 2.2     | 95          | 1.7     | 275           | 3.3     | 197             | 3.2     | 156        | 3.3     | 125       | 2.3     | 59           | 2.7     |  |  |
| \$40,001-\$50,000         | 574      | 1.5     | 62                             | 1.0     | 47          | 0.8     | 145           | 1.7     | 116             | 1.9     | 80         | 1.7     | 91        | 1.7     | 33           | 1.5     |  |  |
| \$50,001 and up           | 383      | 1.0     | 50                             | 0.8     | 49          | 0.9     | 76            | 0.9     | 70              | 1.2     | 59         | 1.2     | 58        | 1.1     | 21           | 1.0     |  |  |
| Total                     | 38,742   | 100.0   | 6,084                          | 100.0   | 5,745       | 100.0   | 8,439         | 100.0   | 6,070           | 100.0   | 4,773      | 100.0   | 5,449     | 100.0   | 2,182        | 100.0   |  |  |

<sup>a</sup>Includes mathematics and computer sciences.

<sup>b</sup>Mean calculations are based on all valid responses to the debt item. See appendix C for details on calculations of means.

SOURCE: NSF/NIH/USED/NEH/USDANASA, 2005 Survey of Earned Doctorates.



TABLE 22. Education-related debt of doctorate recipients, by demographic group, 2005

| Debt level         | Sex      |       | Citizenship |         |          |         |              |         | Race/ethnicity (U.S. citizens) |         |                       |         |                    |         |          |         |          |         |                              |         |          |         |        |         |  |
|--------------------|----------|-------|-------------|---------|----------|---------|--------------|---------|--------------------------------|---------|-----------------------|---------|--------------------|---------|----------|---------|----------|---------|------------------------------|---------|----------|---------|--------|---------|--|
|                    |          |       | Male        |         | Female   |         | U.S. citizen |         | Permanent resident             |         | Temporary visa holder |         | Asian <sup>a</sup> |         | Black    |         | Hispanic |         | American Indian <sup>b</sup> |         | White    |         |        |         |  |
|                    |          |       | Number      | Percent | Number   | Percent | Number       | Percent | Number                         | Percent | Number                | Percent | Number             | Percent | Number   | Percent | Number   | Percent | Number                       | Percent | Number   | Percent | Number | Percent |  |
| Cumulative debt    |          |       |             |         |          |         |              |         |                                |         |                       |         |                    |         |          |         |          |         |                              |         |          |         |        |         |  |
| Mean <sup>c</sup>  | \$14,138 |       | \$16,452    |         | \$19,027 |         | \$9,428      |         | \$7,910                        |         | \$13,939              |         | \$29,295           |         | \$24,819 |         | \$26,023 |         | \$18,295                     |         | \$11,804 |         |        |         |  |
| No debt            | 11,337   | 53.3  | 8,584       | 49.1    | 10,340   | 41.3    | 1,005        | 66.5    | 8,513                          | 70.6    | 680                   | 47.5    | 403                | 26.2    | 350      | 28.8    | 45       | 34.1    | 69                           | 52.3    | 10       | 7.6     | 1,441  | 7.2     |  |
| \$10,000 or less   | 2,511    | 11.8  | 1,912       | 10.9    | 2,922    | 11.7    | 148          | 9.8     | 1,336                          | 11.1    | 209                   | 14.6    | 171                | 11.1    | 157      | 12.9    | 20       | 15.2    | 20                           | 15.2    | 7        | 5.3     | 1,088  | 5.5     |  |
| \$10,001-\$20,000  | 1,912    | 9.0   | 1,631       | 9.3     | 2,838    | 11.3    | 87           | 5.8     | 598                            | 5.0     | 183                   | 12.8    | 148                | 9.6     | 154      | 12.7    | 8        | 6.1     | 8                            | 6.1     | 7        | 5.3     | 1,008  | 5.1     |  |
| \$20,001-\$30,000  | 1,402    | 6.6   | 1,258       | 7.2     | 2,174    | 8.7     | 89           | 5.9     | 385                            | 3.2     | 98                    | 6.8     | 132                | 8.6     | 118      | 9.7     | 8        | 6.1     | 8                            | 6.1     | 5        | 3.8     | 1,227  | 6.1     |  |
| \$30,001-\$40,000  | 994      | 4.7   | 894         | 5.1     | 1,572    | 6.3     | 49           | 3.2     | 261                            | 2.2     | 80                    | 5.6     | 116                | 7.5     | 92       | 7.6     | 5        | 3.8     | 8                            | 6.1     | 5        | 3.8     | 1,025  | 5.1     |  |
| \$40,001-\$50,000  | 819      | 3.9   | 766         | 4.4     | 1,325    | 5.3     | 32           | 2.1     | 223                            | 1.8     | 55                    | 3.8     | 115                | 7.5     | 80       | 6.6     | 8        | 6.1     | 8                            | 6.1     | 5        | 3.8     | 1,025  | 5.1     |  |
| \$50,001 and up    | 2,287    | 10.8  | 2,430       | 13.9    | 3,851    | 15.4    | 102          | 6.7     | 744                            | 6.2     | 128                   | 8.9     | 454                | 29.5    | 264      | 21.7    | 38       | 28.8    | 32                           | 24.2    | 32       | 24.2    | 2,354  | 11.8    |  |
| Total              | 21,262   | 100.0 | 17,475      | 100.0   | 25,022   | 100.0   | 1,512        | 100.0   | 12,060                         | 100.0   | 1,433                 | 100.0   | 1,539              | 100.0   | 1,215    | 100.0   | 132      | 100.0   | 132                          | 100.0   | 132      | 100.0   | 19,960 | 100.0   |  |
| Graduate debt      |          |       |             |         |          |         |              |         |                                |         |                       |         |                    |         |          |         |          |         |                              |         |          |         |        |         |  |
| Mean <sup>c</sup>  | \$9,083  |       | \$11,348    |         | \$12,447 |         | \$6,468      |         | \$5,673                        |         | \$7,844               |         | \$20,903           |         | \$16,593 |         | \$18,295 |         | \$11,804                     |         |          |         |        |         |  |
| No debt            | 14,673   | 69.0  | 11,313      | 64.7    | 15,489   | 61.9    | 1,142        | 75.5    | 9,269                          | 76.9    | 1,037                 | 72.4    | 675                | 43.9    | 639      | 52.6    | 69       | 52.3    | 69                           | 52.3    | 10       | 7.6     | 1,441  | 7.2     |  |
| \$10,000 or less   | 1,672    | 7.9   | 1,259       | 7.2     | 1,807    | 7.2     | 95           | 6.3     | 1,018                          | 8.4     | 100                   | 7.0     | 122                | 7.9     | 84       | 6.9     | 10       | 7.6     | 10                           | 7.6     | 7        | 5.3     | 1,088  | 5.5     |  |
| \$10,001-\$20,000  | 1,007    | 4.7   | 908         | 5.2     | 1,385    | 5.5     | 65           | 4.3     | 453                            | 3.8     | 73                    | 5.1     | 96                 | 6.2     | 83       | 6.8     | 7        | 5.3     | 7                            | 5.3     | 5        | 3.8     | 1,088  | 5.5     |  |
| \$20,001-\$30,000  | 893      | 4.2   | 772         | 4.4     | 1,272    | 5.1     | 74           | 4.9     | 313                            | 2.6     | 50                    | 3.5     | 89                 | 5.8     | 81       | 6.7     | 7        | 5.3     | 7                            | 5.3     | 5        | 3.8     | 1,088  | 5.5     |  |
| \$30,001-\$40,000  | 659      | 3.1   | 633         | 3.6     | 1,009    | 4.0     | 40           | 2.6     | 239                            | 2.0     | 40                    | 2.8     | 91                 | 5.9     | 56       | 4.6     | 7        | 5.3     | 7                            | 5.3     | 5        | 3.8     | 1,088  | 5.5     |  |
| \$40,001-\$50,000  | 533      | 2.5   | 547         | 3.1     | 864      | 3.5     | 20           | 1.3     | 190                            | 1.6     | 32                    | 2.2     | 92                 | 6.0     | 45       | 3.7     | 5        | 3.8     | 5                            | 3.8     | 5        | 3.8     | 667    | 3.3     |  |
| \$50,001 and up    | 1,823    | 8.6   | 2,042       | 11.7    | 3,193    | 12.8    | 76           | 5.0     | 578                            | 4.8     | 101                   | 7.0     | 374                | 24.3    | 227      | 18.7    | 32       | 24.2    | 32                           | 24.2    | 32       | 24.2    | 2,354  | 11.8    |  |
| Total              | 21,260   | 100.0 | 17,474      | 100.0   | 25,019   | 100.0   | 1,512        | 100.0   | 12,060                         | 100.0   | 1,433                 | 100.0   | 1,539              | 100.0   | 1,215    | 100.0   | 132      | 100.0   | 132                          | 100.0   | 132      | 100.0   | 19,958 | 100.0   |  |
| Undergraduate debt |          |       |             |         |          |         |              |         |                                |         |                       |         |                    |         |          |         |          |         |                              |         |          |         |        |         |  |
| Mean <sup>c</sup>  | \$5,055  |       | \$5,104     |         | \$6,581  |         | \$2,960      |         | \$2,238                        |         | \$6,096               |         | \$8,392            |         | \$8,226  |         | \$7,727  |         | \$6,338                      |         |          |         |        |         |  |
| No debt            | 15,440   | 72.6  | 12,684      | 72.6    | 16,262   | 65.0    | 1,279        | 84.6    | 10,475                         | 86.9    | 924                   | 64.5    | 912                | 59.3    | 676      | 55.6    | 82       | 62.1    | 82                           | 62.1    | 19       | 14.4    | 13,220 | 66.2    |  |
| \$10,000 or less   | 1,960    | 9.2   | 1,582       | 9.1     | 2,721    | 10.9    | 87           | 5.8     | 721                            | 6.0     | 179                   | 12.5    | 192                | 12.5    | 180      | 14.8    | 19       | 14.4    | 19                           | 14.4    | 9        | 6.8     | 2,056  | 10.3    |  |
| \$10,001-\$20,000  | 1,722    | 8.1   | 1,398       | 8.0     | 2,696    | 10.8    | 56           | 3.7     | 355                            | 2.9     | 168                   | 11.7    | 156                | 10.1    | 164      | 13.5    | 9        | 6.8     | 9                            | 6.8     | 10       | 7.6     | 2,114  | 10.6    |  |
| \$20,001-\$30,000  | 1,034    | 4.9   | 917         | 5.2     | 1,688    | 6.7     | 42           | 2.8     | 216                            | 1.8     | 83                    | 5.8     | 129                | 8.4     | 91       | 7.5     | 10       | 7.6     | 10                           | 7.6     | 10       | 7.6     | 1,319  | 6.6     |  |
| \$30,001-\$40,000  | 588      | 2.8   | 455         | 2.6     | 884      | 3.5     | 18           | 1.2     | 139                            | 1.2     | 45                    | 3.1     | 73                 | 4.7     | 53       | 4.4     | 7        | 5.3     | 7                            | 5.3     | 7        | 5.3     | 672    | 3.4     |  |
| \$40,001-\$50,000  | 306      | 1.4   | 268         | 1.5     | 491      | 2.0     | 13           | 0.9     | 68                             | 0.6     | 20                    | 1.4     | 40                 | 2.6     | 30       | 2.5     | 5        | 3.8     | 5                            | 3.8     | 5        | 3.8     | 382    | 1.9     |  |
| \$50,001 and up    | 212      | 1.0   | 171         | 1.0     | 280      | 1.1     | 17           | 1.1     | 86                             | 0.7     | 14                    | 1.0     | 37                 | 2.4     | 21       | 1.7     | 3        | 2.3     | 3                            | 2.3     | 3        | 2.3     | 197    | 1.0     |  |
| Total              | 21,262   | 100.0 | 17,475      | 100.0   | 25,022   | 100.0   | 1,512        | 100.0   | 12,060                         | 100.0   | 1,433                 | 100.0   | 1,539              | 100.0   | 1,215    | 100.0   | 132      | 100.0   | 132                          | 100.0   | 132      | 100.0   | 19,960 | 100.0   |  |

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

<sup>a</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>b</sup> Includes Alaska Natives.

<sup>c</sup> Mean calculations are based on all valid responses to the debt item. See appendix C for details on calculations of means.

SOURCE: NSF/NIHUSED/INEH/USDA/INASA, 2005 Survey of Earned Doctorates.

TABLE 23. Number and percentage of U.S. citizen doctorate recipients with levels of graduate school debt greater than \$30,000, by broad field of study and race/ethnicity, 2005

| Broad field of study           | Total  |         | Asian <sup>a</sup> |         | Black  |         | Hispanic |         | American Indian <sup>b</sup> |         | White  |         | Other <sup>c</sup> |         |
|--------------------------------|--------|---------|--------------------|---------|--------|---------|----------|---------|------------------------------|---------|--------|---------|--------------------|---------|
|                                | Number | Percent | Number             | Percent | Number | Percent | Number   | Percent | Number                       | Percent | Number | Percent | Number             | Percent |
| All fields                     | 25,019 | 20.2    | 1,433              | 12.1    | 1,539  | 36.2    | 1,215    | 27.0    | 132                          | 31.8    | 19,958 | 19.1    | 438                | 23.1    |
| Physical sciences <sup>d</sup> | 2,963  | 9.1     | 231                | 5.6     | 80     | 22.5    | 106      | 10.4    | 9                            | 11.1    | 2,437  | 9.0     | 54                 | 5.6     |
| Engineering                    | 1,916  | 7.7     | 233                | 5.2     | 78     | 16.7    | 72       | 8.3     | 6                            | 0.0     | 1,464  | 7.6     | 33                 | 9.1     |
| Life sciences                  | 5,677  | 13.7    | 491                | 7.7     | 254    | 27.6    | 256      | 17.6    | 19                           | 21.1    | 4,509  | 13.4    | 96                 | 16.7    |
| Social sciences                | 4,513  | 33.8    | 185                | 29.2    | 276    | 45.7    | 267      | 43.4    | 30                           | 46.7    | 3,611  | 32.5    | 92                 | 33.7    |
| Humanities                     | 3,726  | 26.4    | 134                | 18.7    | 158    | 44.9    | 181      | 29.8    | 22                           | 45.5    | 3,093  | 25.4    | 74                 | 25.7    |
| Education                      | 4,827  | 21.0    | 110                | 19.1    | 578    | 37.7    | 262      | 27.5    | 40                           | 27.5    | 3,731  | 17.7    | 66                 | 28.8    |
| Other fields                   | 1,397  | 24.6    | 49                 | 20.4    | 115    | 35.7    | 71       | 33.8    | 6                            | 33.3    | 1,113  | 22.6    | 23                 | 43.5    |

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

<sup>a</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>b</sup> Includes Alaska Natives.

<sup>c</sup> Includes Native Hawaiians and other Pacific Islanders and respondents choosing multiple races (excluding those selecting an Hispanic ethnicity) in 2005.

<sup>d</sup> Includes mathematics and computer sciences.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 24. Postgraduation status of doctorate recipients, by broad field of study for selected years, 1985–2005

| Year and commitments  | All fields | Physical sciences <sup>a</sup> | Engineering | Life sciences | Social sciences | Humanities | Education | Other fields |
|---|------------|--------------------------------|-------------|---------------|-----------------|------------|-----------|--------------|
| <b>Total</b>  |            |                                |             |               |                 |            |           |              |
| 1985  | 31,295     | 4,489                          | 3,166       | 5,822         | 5,764           | 3,429      | 6,733     | 1,892        |
| 1990  | 36,065     | 5,809                          | 4,894       | 6,655         | 6,092           | 3,822      | 6,509     | 2,284        |
| 1995  | 41,747     | 6,727                          | 6,008       | 7,998         | 6,635           | 5,062      | 6,648     | 2,669        |
| 2000  | 41,361     | 5,982                          | 5,323       | 8,624         | 7,109           | 5,634      | 6,432     | 2,257        |
| 2005  | 43,354     | 6,699                          | 6,404       | 9,306         | 6,837           | 5,349      | 6,229     | 2,530        |
| <b>Total responses to postgraduation status<sup>b</sup></b>     |            |                                |             |               |                 |            |           |              |
| 1985  | 28,383     | 4,057                          | 2,741       | 5,355         | 5,180           | 3,140      | 6,210     | 1,700        |
| 1990  | 32,708     | 5,229                          | 4,304       | 6,122         | 5,496           | 3,488      | 5,993     | 2,076        |
| 1995  | 37,977     | 6,155                          | 5,385       | 7,314         | 6,026           | 4,679      | 5,998     | 2,420        |
| 2000  | 37,733     | 5,476                          | 4,828       | 8,009         | 6,400           | 5,182      | 5,794     | 2,044        |
| 2005  | 38,538     | 6,055                          | 5,734       | 8,434         | 6,016           | 4,737      | 5,389     | 2,173        |
| <b>Percent</b>  |            |                                |             |               |                 |            |           |              |
| <b>Definite commitments for employment or study<sup>c</sup></b> |            |                                |             |               |                 |            |           |              |
| 1985  | 73.8       | 78.0                           | 72.3        | 75.5          | 70.6            | 64.7       | 75.1      | 82.6         |
| 1990  | 71.6       | 72.9                           | 65.9        | 74.6          | 69.1            | 66.0       | 74.6      | 78.3         |
| 1995  | 65.8       | 64.4                           | 57.0        | 70.3          | 65.3            | 58.2       | 72.9      | 73.3         |
| 2000  | 71.2       | 74.4                           | 69.8        | 72.4          | 70.0            | 61.5       | 75.1      | 78.1         |
| 2005  | 71.1       | 73.2                           | 65.0        | 71.1          | 74.0            | 65.3       | 74.9      | 76.0         |
| <b>Seeking employment or study<sup>b,c</sup></b>                |            |                                |             |               |                 |            |           |              |
| 1985  | 26.2       | 22.0                           | 27.7        | 24.5          | 29.4            | 35.3       | 24.9      | 17.4         |
| 1990  | 28.4       | 27.1                           | 34.1        | 25.4          | 30.9            | 34.0       | 25.4      | 21.7         |
| 1995  | 34.2       | 35.6                           | 43.0        | 29.7          | 34.7            | 41.8       | 27.1      | 26.7         |
| 2000  | 28.8       | 25.6                           | 30.2        | 27.6          | 30.0            | 38.5       | 24.9      | 21.9         |
| 2005  | 28.9       | 26.8                           | 35.0        | 28.9          | 26.0            | 34.7       | 25.1      | 24.0         |

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> Does not include respondents who indicated 'do not plan to work or study' in 2005.

<sup>c</sup> Percent calculated on those responding to the item on postgraduation status.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 25. Postgraduation status of doctorate recipients, by selected demographic groups for selected years, 1985–2005

| Year and status   | Sex    |        | Citizenship |              |                    | U.S. citizens         |                    |       |          |                              |        |
|---|--------|--------|-------------|--------------|--------------------|-----------------------|--------------------|-------|----------|------------------------------|--------|
|   | Total  | Men    | Women       | U.S. citizen | Permanent resident | Temporary visa holder | Asian <sup>a</sup> | Black | Hispanic | American Indian <sup>b</sup> | White  |
| Total   |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985  | 31,295 | 20,552 | 10,743      | 23,388       | 1,319              | 5,247                 | 516                | 911   | 563      | 96                           | 20,778 |
| 1990 <sup>c</sup>   | 36,065 | 22,960 | 13,104      | 24,913       | 1,695              | 8,138                 | 642                | 899   | 723      | 96                           | 22,172 |
| 1995 <sup>d</sup>   | 41,747 | 25,160 | 16,416      | 27,740       | 4,317              | 8,831                 | 1,129              | 1,293 | 922      | 148                          | 23,888 |
| 2000 <sup>e</sup>   | 41,361 | 23,161 | 18,126      | 27,986       | 1,950              | 9,660                 | 1,365              | 1,631 | 1,182    | 169                          | 22,970 |
| 2005 <sup>f</sup>   | 43,354 | 23,731 | 19,564      | 26,312       | 1,600              | 12,824                | 1,493              | 1,688 | 1,294    | 139                          | 20,845 |
| Total responses to postgraduation status <sup>g</sup>     |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985  | 28,383 | 18,552 | 9,831       | 22,450       | 1,240              | 4,683                 | 484                | 851   | 537      | 93                           | 20,159 |
| 1990  | 32,708 | 20,690 | 12,017      | 23,819       | 1,545              | 7,329                 | 602                | 813   | 677      | 90                           | 21,358 |
| 1995  | 37,977 | 22,959 | 15,013      | 26,076       | 3,887              | 8,005                 | 1,058              | 1,148 | 851      | 139                          | 22,628 |
| 2000  | 37,733 | 21,170 | 16,563      | 26,753       | 1,841              | 9,095                 | 1,300              | 1,519 | 1,111    | 162                          | 22,172 |
| 2005  | 38,538 | 21,194 | 17,340      | 24,899       | 1,499              | 12,075                | 1,420              | 1,534 | 1,212    | 131                          | 19,855 |
| Percent   |        |        |             |              |                    |                       |                    |       |          |                              |        |
| Definite commitments for employment or study <sup>h</sup> |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985  | 73.8   | 75.7   | 70.3        | 75.2         | 61.3               | 70.4                  | 70.7               | 71.7  | 70.2     | 76.3                         | 75.8   |
| 1990  | 71.6   | 72.0   | 70.8        | 74.7         | 59.2               | 64.1                  | 68.3               | 74.5  | 68.8     | 65.6                         | 75.1   |
| 1995  | 65.8   | 65.2   | 66.7        | 69.7         | 53.6               | 58.9                  | 66.9               | 71.3  | 67.3     | 68.3                         | 69.9   |
| 2000  | 71.2   | 72.5   | 69.5        | 73.0         | 62.3               | 67.7                  | 69.5               | 68.8  | 72.0     | 72.8                         | 73.7   |
| 2005  | 71.1   | 71.7   | 70.3        | 73.5         | 65.3               | 66.7                  | 67.7               | 67.7  | 71.4     | 67.9                         | 74.8   |
| Seeking employment or study <sup>g, h, i</sup>            |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985  | 26.2   | 24.3   | 29.7        | 24.8         | 38.7               | 29.6                  | 29.3               | 28.3  | 29.8     | 23.7                         | 24.2   |
| 1990  | 28.4   | 28.0   | 29.2        | 25.3         | 40.8               | 35.9                  | 31.7               | 25.5  | 31.2     | 34.4                         | 24.9   |
| 1995  | 34.2   | 34.8   | 33.3        | 30.3         | 46.4               | 41.1                  | 33.1               | 28.7  | 32.7     | 31.7                         | 30.1   |
| 2000  | 28.8   | 27.5   | 30.5        | 27.0         | 37.7               | 32.3                  | 30.5               | 31.2  | 28.0     | 27.2                         | 26.3   |
| 2005  | 28.9   | 28.3   | 29.7        | 26.5         | 34.7               | 33.3                  | 32.3               | 32.3  | 28.6     | 32.1                         | 25.2   |

<sup>a</sup> Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them in 2005.

<sup>b</sup> Includes Alaska Natives.

<sup>c</sup> Group total for 1990 includes 1 doctoral recipient for whom sex was not reported.

<sup>d</sup> Group total for 1995 includes 171 doctoral recipients for whom sex was not reported.

<sup>e</sup> Group total for 2000 includes 74 doctoral recipients for whom sex was not reported.

<sup>f</sup> Group total for 2005 includes 59 doctoral recipients for whom sex was not reported.

<sup>g</sup> Does not include respondents who indicated 'do not plan to work or study' in 2004 or 2005.

<sup>h</sup> Percent calculated on those responding to the item on postgraduation status.

<sup>i</sup> Includes respondents who indicated 'other' in all years.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 26. Postgraduation plans of doctorate recipients with definite commitments, by broad field of study for selected years, 1985–2005

| Year and commitments  | All fields | Physical sciences <sup>a</sup> | Engineering | Life sciences | Social sciences | Humanities | Education | Other fields |
|---|------------|--------------------------------|-------------|---------------|-----------------|------------|-----------|--------------|
| <b>All definite commitments</b>                             |            |                                |             |               |                 |            |           |              |
| 1985  | 20,951     | 3,165                          | 1,983       | 4,043         | 3,659           | 2,031      | 4,665     | 1,405        |
| 1990  | 23,412     | 3,814                          | 2,835       | 4,566         | 3,799           | 2,303      | 4,470     | 1,625        |
| 1995  | 24,977     | 3,961                          | 3,068       | 5,141         | 3,937           | 2,721      | 4,374     | 1,775        |
| 2000  | 26,860     | 4,073                          | 3,372       | 5,797         | 4,480           | 3,188      | 4,354     | 1,596        |
| 2005  | 27,383     | 4,433                          | 3,728       | 5,993         | 4,451           | 3,091      | 4,036     | 1,651        |
| <b>Definite commitments with responses to type of plans</b> |            |                                |             |               |                 |            |           |              |
| 1985  | 20,867     | 3,155                          | 1,977       | 4,037         | 3,643           | 2,022      | 4,639     | 1,394        |
| 1990  | 23,298     | 3,810                          | 2,822       | 4,557         | 3,779           | 2,281      | 4,428     | 1,621        |
| 1995  | 24,821     | 3,942                          | 3,060       | 5,126         | 3,907           | 2,692      | 4,328     | 1,766        |
| 2000  | 26,736     | 4,056                          | 3,356       | 5,765         | 4,464           | 3,177      | 4,328     | 1,590        |
| 2005  | 27,051     | 4,408                          | 3,698       | 5,900         | 4,400           | 3,052      | 3,965     | 1,628        |
| <b>Percent</b>  |            |                                |             |               |                 |            |           |              |
| <b>Employment<sup>b</sup></b>                               |            |                                |             |               |                 |            |           |              |
| 1985  | 77.7       | 59.0                           | 85.1        | 44.8          | 85.2            | 94.1       | 96.9      | 97.6         |
| 1990  | 73.6       | 52.9                           | 80.7        | 37.5          | 84.2            | 93.6       | 96.0      | 96.6         |
| 1995  | 70.3       | 48.2                           | 75.1        | 35.6          | 78.6            | 91.9       | 96.1      | 96.7         |
| 2000  | 71.4       | 54.7                           | 78.8        | 39.8          | 75.7            | 91.5       | 95.2      | 95.2         |
| 2005  | 64.5       | 44.7                           | 67.2        | 33.1          | 70.1            | 88.4       | 93.8      | 94.5         |
| <b>Study<sup>b</sup></b>                                    |            |                                |             |               |                 |            |           |              |
| 1985  | 22.3       | 41.0                           | 14.9        | 55.2          | 14.8            | 5.9        | 3.1       | 2.4          |
| 1990  | 26.4       | 47.1                           | 19.3        | 62.5          | 15.8            | 6.4        | 4.0       | 3.4          |
| 1995  | 29.7       | 51.8                           | 24.9        | 64.4          | 21.4            | 8.1        | 3.9       | 3.3          |
| 2000  | 28.6       | 45.3                           | 21.2        | 60.2          | 24.3            | 8.5        | 4.8       | 4.8          |
| 2005  | 35.5       | 55.3                           | 32.8        | 66.9          | 29.9            | 11.6       | 6.2       | 5.5          |

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> 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, 2005 Survey of Earned Doctorates.

TABLE 27. Postgraduation plans of doctorate recipients with definite commitments, by demographic group for selected years, 1985–2005

| Year and commitment                                  | Sex    |        | Citizenship |              |                    | U.S. citizens         |                    |       |          |                              |        |
|--|--------|--------|-------------|--------------|--------------------|-----------------------|--------------------|-------|----------|------------------------------|--------|
|  | Total  | Male   | Female      | U.S. citizen | Permanent resident | Temporary visa holder | Asian <sup>a</sup> | Black | Hispanic | American Indian <sup>b</sup> | White  |
| All definite commitments                             |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985   | 20,951 | 14,041 | 6,910       | 16,888       | 760                | 3,295                 | 342                | 610   | 377      | 71                           | 15,273 |
| 1990   | 23,412 | 14,898 | 8,513       | 17,787       | 915                | 4,699                 | 411                | 606   | 466      | 59                           | 16,050 |
| 1995   | 24,977 | 14,964 | 10,011      | 18,169       | 2,082              | 4,718                 | 708                | 819   | 573      | 95                           | 15,811 |
| 2000   | 26,860 | 15,356 | 11,504      | 19,528       | 1,147              | 6,161                 | 903                | 1,045 | 800      | 118                          | 16,337 |
| 2005   | 27,383 | 15,186 | 12,194      | 18,304       | 979                | 8,057                 | 961                | 1,039 | 865      | 89                           | 14,843 |
| Definite commitments with responses to type of plans |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985   | 20,867 | 13,984 | 6,883       | 16,832       | 754                | 3,273                 | 339                | 602   | 374      | 70                           | 15,234 |
| 1990   | 23,298 | 14,823 | 8,474       | 17,708       | 910                | 4,669                 | 411                | 600   | 464      | 59                           | 15,979 |
| 1995   | 24,821 | 14,881 | 9,938       | 18,059       | 2,068              | 4,686                 | 703                | 806   | 565      | 94                           | 15,731 |
| 2000   | 26,736 | 15,280 | 11,456      | 19,460       | 1,137              | 6,118                 | 897                | 1,039 | 794      | 116                          | 16,291 |
| 2005   | 27,051 | 15,012 | 12,036      | 18,078       | 962                | 7,969                 | 950                | 1,023 | 855      | 87                           | 14,665 |
| Percent  |        |        |             |              |                    |                       |                    |       |          |                              |        |
| Employment <sup>c</sup>                              |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985   | 77.7   | 76.2   | 80.9        | 78.6         | 79.2               | 72.9                  | 68.7               | 91.2  | 84.5     | 81.4                         | 78.2   |
| 1990   | 73.6   | 71.4   | 77.4        | 76.5         | 69.3               | 63.4                  | 63.5               | 88.8  | 78.2     | 88.1                         | 76.3   |
| 1995   | 70.3   | 67.5   | 74.5        | 74.2         | 52.3               | 62.9                  | 58.0               | 83.0  | 75.4     | 73.4                         | 74.5   |
| 2000   | 71.4   | 69.7   | 73.6        | 74.0         | 69.0               | 63.5                  | 60.2               | 81.8  | 70.8     | 79.3                         | 74.5   |
| 2005   | 64.5   | 62.2   | 67.4        | 68.2         | 65.8               | 56.0                  | 51.2               | 75.6  | 65.0     | 78.2                         | 68.9   |
| Study <sup>c</sup>                                   |        |        |             |              |                    |                       |                    |       |          |                              |        |
| 1985   | 22.3   | 23.8   | 19.1        | 21.4         | 20.8               | 27.1                  | 31.3               | 8.8   | 15.5     | 18.6                         | 21.8   |
| 1990   | 26.4   | 28.6   | 22.6        | 23.5         | 30.7               | 36.6                  | 36.5               | 11.2  | 21.8     | 11.9                         | 23.7   |
| 1995   | 29.7   | 32.5   | 25.5        | 25.8         | 47.7               | 37.1                  | 42.0               | 17.0  | 24.6     | 26.6                         | 25.5   |
| 2000   | 28.6   | 30.3   | 26.4        | 26.0         | 31.0               | 36.5                  | 39.8               | 18.2  | 29.2     | 20.7                         | 25.5   |
| 2005   | 35.5   | 37.8   | 32.6        | 31.8         | 34.2               | 44.0                  | 48.8               | 24.4  | 35.0     | 21.8                         | 31.1   |

<sup>a</sup> Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them in 2005.

<sup>b</sup> Includes Alaska Natives.

<sup>c</sup> Percent based on those with definite commitments and type of plan.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 28. Employment sector of doctorate recipients with definite postgraduation employment commitments in the U.S., by broad field of study for selected years, 1985–2005

| Year and commitment                             | Total  | Physical sciences <sup>a</sup> | Engineering | Life sciences | Social sciences | Humanities | Education | Other fields |
|---|--------|--------------------------------|-------------|---------------|-----------------|------------|-----------|--------------|
| All employment commitments                      |        |                                |             |               |                 |            |           |              |
| 1985  | 14,559 | 1,700                          | 1,413       | 1,456         | 2,828           | 1,766      | 4,176     | 1,220        |
| 1990  | 15,239 | 1,780                          | 1,872       | 1,325         | 2,877           | 1,980      | 4,020     | 1,385        |
| 1995  | 15,303 | 1,666                          | 1,890       | 1,456         | 2,681           | 2,233      | 3,913     | 1,464        |
| 2000  | 17,242 | 2,033                          | 2,334       | 1,948         | 3,030           | 2,660      | 3,906     | 1,331        |
| 2005  | 15,611 | 1,785                          | 2,124       | 1,708         | 2,644           | 2,468      | 3,537     | 1,345        |
| Employment commitments with responses to sector |        |                                |             |               |                 |            |           |              |
| 1985  | 14,371 | 1,690                          | 1,400       | 1,448         | 2,780           | 1,741      | 4,097     | 1,215        |
| 1990  | 15,066 | 1,771                          | 1,863       | 1,310         | 2,826           | 1,965      | 3,960     | 1,371        |
| 1995  | 15,043 | 1,645                          | 1,863       | 1,430         | 2,621           | 2,210      | 3,826     | 1,448        |
| 2000  | 17,010 | 1,996                          | 2,313       | 1,907         | 2,991           | 2,631      | 3,862     | 1,310        |
| 2005  | 15,508 | 1,776                          | 2,103       | 1,698         | 2,633           | 2,450      | 3,513     | 1,335        |
| Percent   |        |                                |             |               |                 |            |           |              |
| Academe <sup>b</sup>                            |        |                                |             |               |                 |            |           |              |
| 1985  | 49.5   | 36.8                           | 30.2        | 54.0          | 47.5            | 78.3       | 42.0      | 72.9         |
| 1990  | 52.1   | 38.9                           | 26.5        | 49.0          | 50.4            | 84.1       | 47.1      | 78.6         |
| 1995  | 53.3   | 42.3                           | 19.4        | 52.4          | 53.9            | 83.7       | 49.4      | 73.4         |
| 2000  | 49.3   | 34.4                           | 14.9        | 47.0          | 51.6            | 80.1       | 48.4      | 71.8         |
| 2005  | 54.7   | 40.8                           | 18.7        | 53.2          | 61.1            | 83.8       | 50.6      | 76.0         |
| Industry/self-employed <sup>b</sup>             |        |                                |             |               |                 |            |           |              |
| 1985  | 21.1   | 51.1                           | 55.9        | 26.1          | 17.0            | 6.2        | 7.8       | 9.1          |
| 1990  | 22.2   | 50.9                           | 59.4        | 26.7          | 19.1            | 4.7        | 6.3       | 7.4          |
| 1995  | 22.1   | 45.9                           | 67.1        | 24.9          | 17.0            | 5.2        | 6.2       | 11.4         |
| 2000  | 26.4   | 55.7                           | 73.6        | 29.5          | 18.1            | 6.8        | 5.8       | 13.4         |
| 2005  | 22.9   | 48.9                           | 69.4        | 25.6          | 14.6            | 4.3        | 4.1       | 12.1         |
| Government <sup>b</sup>                         |        |                                |             |               |                 |            |           |              |
| 1985  | 11.3   | 10.3                           | 11.9        | 14.4          | 15.6            | 3.2        | 12.3      | 6.4          |
| 1990  | 8.9    | 8.3                            | 11.9        | 16.5          | 13.3            | 2.2        | 7.3       | 3.9          |
| 1995  | 8.2    | 8.7                            | 11.1        | 14.4          | 13.1            | 1.8        | 6.1       | 4.8          |
| 2000  | 7.5    | 6.9                            | 9.1         | 13.9          | 11.9            | 2.1        | 4.7       | 5.0          |
| 2005  | 7.0    | 6.6                            | 9.5         | 12.8          | 10.5            | 2.4        | 4.1       | 5.2          |
| Other <sup>b, c</sup>                           |        |                                |             |               |                 |            |           |              |
| 1985  | 18.1   | 1.8                            | 2.0         | 5.5           | 19.8            | 12.3       | 38.0      | 11.5         |
| 1990  | 16.8   | 1.9                            | 2.3         | 7.8           | 17.2            | 9.0        | 39.3      | 10.2         |
| 1995  | 16.3   | 3.1                            | 2.5         | 8.3           | 16.0            | 9.3        | 38.3      | 10.4         |
| 2000  | 16.8   | 3.0                            | 2.4         | 9.5           | 18.5            | 11.0       | 41.1      | 9.8          |
| 2005  | 15.4   | 3.6                            | 2.4         | 8.3           | 13.8            | 9.5        | 41.2      | 6.7          |

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> Percent based on those with definite employment commitments and sector.

<sup>c</sup> "Other" is mainly composed of elementary and secondary schools and non-profit organizations.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 29. Employment sector of doctorate recipients with definite postgraduation employment commitments in the U.S., by selected demographic groups for selected years, 1985–2005

| Commitments                                     | Total  | Sex   |        | Citizenship  |                    |                       | U.S. citizens      |       |          |                              |        |
|---|--------|-------|--------|--------------|--------------------|-----------------------|--------------------|-------|----------|------------------------------|--------|
|   |        | Male  | Female | U.S. citizen | Permanent resident | Temporary visa holder | Asian <sup>b</sup> | Black | Hispanic | American Indian <sup>c</sup> | White  |
| All employment commitments                      |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 14,559 | 9,295 | 5,264  | 13,061       | 533                | 959                   | 223                | 548   | 310      | 57                           | 11,768 |
| 1990  | 15,239 | 9,042 | 6,197  | 13,298       | 549                | 1,383                 | 249                | 532   | 355      | 52                           | 11,984 |
| 1995 <sup>a</sup>                               | 15,303 | 8,420 | 6,882  | 13,084       | 965                | 1,249                 | 381                | 665   | 418      | 67                           | 11,443 |
| 2000  | 17,242 | 9,358 | 7,884  | 14,134       | 710                | 2,386                 | 520                | 845   | 547      | 87                           | 11,917 |
| 2005  | 15,611 | 8,122 | 7,489  | 12,094       | 596                | 2,895                 | 468                | 769   | 551      | 66                           | 9,923  |
| Employment commitments with responses to sector |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 14,371 | 9,197 | 5,174  | 12,925       | 524                | 917                   | 220                | 528   | 303      | 57                           | 11,667 |
| 1990  | 15,066 | 8,965 | 6,101  | 13,155       | 542                | 1,360                 | 248                | 523   | 351      | 51                           | 11,857 |
| 1995 <sup>a</sup>                               | 15,043 | 8,292 | 6,750  | 12,870       | 941                | 1,227                 | 376                | 641   | 410      | 66                           | 11,269 |
| 2000  | 17,010 | 9,233 | 7,777  | 13,957       | 699                | 2,345                 | 506                | 834   | 535      | 85                           | 11,781 |
| 2005  | 15,508 | 8,067 | 7,441  | 12,023       | 585                | 2,875                 | 464                | 767   | 547      | 66                           | 9,868  |
| Percent   |        |       |        |              |                    |                       |                    |       |          |                              |        |
| Academe <sup>d</sup>                            |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 49.5   | 47.0  | 54.0   | 48.7         | 52.5               | 59.8                  | 40.9               | 51.5  | 58.4     | 52.6                         | 48.4   |
| 1990  | 52.1   | 48.5  | 57.4   | 51.6         | 56.1               | 55.0                  | 37.5               | 55.3  | 57.8     | 64.7                         | 51.5   |
| 1995  | 53.3   | 47.9  | 60.1   | 54.8         | 41.9               | 46.6                  | 44.1               | 60.4  | 59.8     | 63.6                         | 54.6   |
| 2000  | 49.3   | 44.5  | 55.1   | 52.1         | 44.8               | 34.2                  | 39.5               | 52.8  | 56.8     | 63.5                         | 52.3   |
| 2005  | 54.7   | 49.9  | 59.9   | 56.7         | 54.9               | 46.0                  | 46.1               | 56.7  | 62.7     | 53.0                         | 57.0   |
| Industry/self-employed <sup>d</sup>             |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 21.1   | 25.7  | 13.0   | 19.6         | 40.1               | 31.0                  | 37.7               | 6.1   | 11.2     | 14.0                         | 20.1   |
| 1990  | 22.2   | 27.9  | 13.7   | 20.0         | 32.8               | 38.7                  | 41.9               | 5.0   | 11.4     | 13.7                         | 20.4   |
| 1995  | 22.1   | 29.5  | 12.9   | 17.9         | 47.8               | 46.5                  | 36.7               | 6.1   | 15.4     | 15.2                         | 18.0   |
| 2000  | 26.4   | 35.0  | 16.2   | 19.9         | 46.1               | 59.4                  | 41.9               | 11.3  | 16.8     | 8.2                          | 19.6   |
| 2005  | 22.9   | 30.8  | 14.4   | 16.2         | 33.7               | 48.8                  | 32.5               | 7.7   | 11.2     | 15.2                         | 16.4   |
| Government <sup>d</sup>                         |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 11.3   | 11.4  | 11.0   | 12.1         | 2.9                | 4.3                   | 11.8               | 14.8  | 11.6     | 10.5                         | 12.0   |
| 1990  | 8.9    | 9.8   | 7.7    | 9.8          | 3.9                | 2.6                   | 11.7               | 10.7  | 12.0     | 3.9                          | 9.7    |
| 1995  | 8.2    | 9.0   | 7.4    | 9.2          | 3.2                | 1.9                   | 10.1               | 7.0   | 10.0     | 6.1                          | 9.3    |
| 2000  | 7.5    | 8.2   | 6.6    | 8.6          | 3.7                | 1.9                   | 7.3                | 9.2   | 9.7      | 11.8                         | 8.5    |
| 2005  | 7.0    | 7.6   | 6.3    | 8.5          | 3.8                | 1.5                   | 10.6               | 9.0   | 6.9      | 10.6                         | 8.3    |
| Other <sup>d,e</sup>                            |        |       |        |              |                    |                       |                    |       |          |                              |        |
| 1985  | 18.1   | 15.9  | 22.0   | 19.6         | 4.6                | 5.0                   | 9.5                | 27.7  | 18.8     | 22.8                         | 19.5   |
| 1990  | 16.8   | 13.8  | 21.3   | 18.6         | 7.2                | 3.8                   | 8.9                | 29.1  | 18.8     | 17.6                         | 18.4   |
| 1995  | 16.3   | 13.7  | 19.6   | 18.1         | 7.1                | 5.1                   | 9.0                | 26.5  | 14.9     | 15.2                         | 18.1   |
| 2000  | 16.8   | 12.3  | 22.2   | 19.4         | 5.4                | 4.5                   | 11.3               | 26.7  | 16.6     | 16.5                         | 19.5   |
| 2005  | 15.4   | 11.7  | 19.4   | 18.6         | 7.7                | 3.7                   | 10.8               | 26.6  | 19.2     | 21.2                         | 18.4   |

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

<sup>a</sup> Total for 1995 includes 1 respondent not reporting sex.

<sup>b</sup> Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them in 2005.

<sup>c</sup> Includes Alaska Natives.

<sup>d</sup> Percent based on those with definite employment commitments and sector.

<sup>e</sup> "Other" is mainly composed of elementary and secondary schools and non-profit organizations.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



TABLE 30. Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1985–2005

| Commitments   | Sex   |       |        | Citizenship  |                    |             |                       |                    | U.S. citizens |          |                              |                     |       |
|---|-------|-------|--------|--------------|--------------------|-------------|-----------------------|--------------------|---------------|----------|------------------------------|---------------------|-------|
|   | Total | Male  | Female | U.S. citizen | Permanent resident |             | Temporary visa holder | Asian <sup>d</sup> | Black         | Hispanic | American Indian <sup>e</sup> |                     | White |
|   |       |       |        |              | resident           | visa holder |                       |                    |               |          | Hispanic                     | Indian <sup>e</sup> |       |
| <b>All postgraduate study commitments</b>                                 |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 4,257 | 3,060 | 1,197  | 3,350        | 135                | 770         | 99                    | 39                 | 47            | 9        | 3,104                        |                     |       |
| 1990 <sup>a</sup>   | 5,321 | 3,698 | 1,622  | 3,710        | 220                | 1,389       | 132                   | 47                 | 78            | 5        | 3,392                        |                     |       |
| 1995 <sup>b</sup>   | 6,321 | 4,173 | 2,147  | 4,088        | 840                | 1,391       | 262                   | 102                | 112           | 22       | 3,550                        |                     |       |
| 2000  | 6,494 | 3,939 | 2,555  | 4,389        | 274                | 1,824       | 306                   | 144                | 191           | 20       | 3,645                        |                     |       |
| 2005 <sup>c</sup>   | 7,789 | 4,611 | 3,176  | 4,836        | 252                | 2,691       | 384                   | 199                | 244           | 12       | 3,854                        |                     |       |
| <b>Postgraduate study commitments with responses to source of support</b> |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 4,017 | 2,891 | 1,126  | 3,155        | 128                | 732         | 91                    | 36                 | 45            | 8        | 2,929                        |                     |       |
| 1990 <sup>a</sup>   | 4,978 | 3,464 | 1,513  | 3,446        | 206                | 1,324       | 123                   | 41                 | 71            | 5        | 3,152                        |                     |       |
| 1995 <sup>b</sup>   | 5,975 | 3,955 | 2,019  | 3,866        | 792                | 1,315       | 241                   | 93                 | 105           | 19       | 3,371                        |                     |       |
| 2000  | 6,337 | 3,847 | 2,490  | 4,287        | 263                | 1,782       | 293                   | 139                | 186           | 19       | 3,571                        |                     |       |
| 2005 <sup>c</sup>   | 7,607 | 4,496 | 3,109  | 4,714        | 248                | 2,636       | 372                   | 187                | 236           | 11       | 3,769                        |                     |       |
| <b>U.S. government<sup>f</sup></b>  |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 47.8  | 47.0  | 49.7   | 53.8         | 49.2               | 22.0        | 54.9                  | 36.1               | 42.2          | ---      | 54.4                         |                     |       |
| 1990  | 40.0  | 38.6  | 43.1   | 48.1         | 34.5               | 19.7        | 47.2                  | 31.7               | 45.1          | ---      | 48.4                         |                     |       |
| 1995  | 41.1  | 40.2  | 42.8   | 48.8         | 39.3               | 19.6        | 44.8                  | 43.0               | 48.6          | 57.9     | 48.9                         |                     |       |
| 2000  | 38.5  | 38.2  | 39.0   | 45.5         | 43.0               | 21.1        | 47.1                  | 46.0               | 47.8          | 47.4     | 45.3                         |                     |       |
| 2005  | 30.5  | 30.1  | 31.2   | 38.0         | 27.8               | 17.6        | 34.1                  | 36.9               | 41.1          | ---      | 38.6                         |                     |       |
| <b>College or university<sup>f</sup></b>                                  |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 20.9  | 22.4  | 17.1   | 15.9         | 23.4               | 41.9        | 12.1                  | 30.6               | 20.0          | ---      | 15.7                         |                     |       |
| 1990  | 28.1  | 30.5  | 22.7   | 20.4         | 33.0               | 47.5        | 21.1                  | 39.0               | 26.8          | 0.0      | 20.0                         |                     |       |
| 1995  | 30.0  | 32.5  | 25.0   | 23.3         | 32.3               | 48.3        | 22.0                  | 26.9               | 25.7          | 26.3     | 23.4                         |                     |       |
| 2000  | 33.6  | 35.5  | 30.7   | 28.1         | 35.0               | 46.7        | 27.6                  | 36.0               | 29.0          | 26.3     | 27.9                         |                     |       |
| 2005  | 48.5  | 50.0  | 46.4   | 41.4         | 54.4               | 60.7        | 46.0                  | 46.0               | 37.7          | ---      | 40.8                         |                     |       |
| <b>Private foundation<sup>f</sup></b>                                     |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 12.0  | 11.5  | 13.3   | 11.9         | 12.5               | 12.3        | 17.6                  | ---                | 17.8          | ---      | 11.6                         |                     |       |
| 1990  | 12.3  | 11.2  | 14.7   | 12.7         | 12.6               | 11.1        | 13.8                  | ---                | 14.1          | ---      | 12.6                         |                     |       |
| 1995  | 9.6   | 8.9   | 11.1   | 9.7          | 9.0                | 9.9         | 7.1                   | 11.8               | 7.6           | 0.0      | 10.0                         |                     |       |
| 2000  | 8.5   | 8.2   | 8.9    | 7.8          | 8.0                | 10.3        | 7.2                   | 6.5                | 6.5           | ---      | 7.9                          |                     |       |
| 2005  | 5.3   | 4.6   | 6.2    | 6.2          | 2.4                | 3.8         | 5.4                   | 6.4                | 8.9           | ---      | 5.9                          |                     |       |
| <b>Nonprofit, other than private foundation<sup>f</sup></b>               |       |       |        |              |                    |             |                       |                    |               |          |                              |                     |       |
| 1985  | 3.1   | 3.1   | 3.1    | 3.0          | ---                | 3.4         | 6.6                   | ---                | ---           | 0.0      | 3.0                          |                     |       |
| 1990  | 2.7   | 2.6   | 3.0    | 2.3          | 3.9                | 3.6         | ---                   | ---                | ---           | 0.0      | 2.3                          |                     |       |
| 1995  | 2.7   | 2.4   | 3.3    | 2.4          | 2.9                | 3.5         | 3.7                   | 5.4                | ---           | ---      | 2.1                          |                     |       |
| 2000  | 3.4   | 3.4   | 3.5    | 2.9          | 2.7                | 4.8         | 2.7                   | ---                | 3.8           | 0.0      | 2.9                          |                     |       |
| 2005  | 3.0   | 2.6   | 3.5    | 3.0          | 4.0                | 2.8         | 2.2                   | 4.3                | 2.1           | 0.0      | 3.0                          |                     |       |

TABLE 30. Sources of support for doctorate recipients with postgraduation commitments for postdoctoral study, by selected demographic groups for selected years, 1985–2005

| Commitments          | Sex   |      |        | Citizenship  |                    |      |                       |                    | U.S. citizens |          |                              |      |       |
|----------------------|-------|------|--------|--------------|--------------------|------|-----------------------|--------------------|---------------|----------|------------------------------|------|-------|
|                      | Total | Male | Female | U.S. citizen | Permanent resident |      | Temporary visa holder | Asian <sup>d</sup> | Black         | Hispanic | American Indian <sup>e</sup> |      | White |
|                      |       |      |        |              | 7.9                | 7.0  |                       |                    |               |          | 11.6                         | 8.9  |       |
| Other <sup>f</sup>   |       |      |        |              |                    |      |                       |                    |               |          |                              |      |       |
| 1985                 | 8.5   | 8.8  | 7.8    | 7.9          | 7.0                | 11.6 | ----                  | ----               | ----          | ----     | 0.0                          | 0.0  | 7.9   |
| 1990                 | 10.1  | 10.7 | 8.6    | 9.5          | 10.2               | 11.4 | 8.9                   | ----               | ----          | ----     | 0.0                          | 0.0  | 9.8   |
| 1995                 | 10.0  | 10.0 | 10.1   | 9.3          | 8.5                | 12.9 | 14.1                  | 5.4                | 8.6           | ----     | ----                         | ---- | 9.1   |
| 2000                 | 8.2   | 7.8  | 8.8    | 8.0          | 6.1                | 8.8  | 7.8                   | ----               | 7.5           | ----     | ----                         | ---- | 8.1   |
| 2005                 | 7.9   | 8.2  | 7.5    | 6.7          | 7.3                | 10.2 | 7.8                   | 3.7                | 6.4           | ----     | 0.0                          | 0.0  | 6.7   |
| Unknown <sup>f</sup> |       |      |        |              |                    |      |                       |                    |               |          |                              |      |       |
| 1985                 | 7.6   | 7.1  | 9.0    | 7.5          | ----               | 8.7  | ----                  | 16.7               | ----          | ----     | ----                         | ---- | 7.4   |
| 1990                 | 6.9   | 6.4  | 7.9    | 7.0          | 5.8                | 6.6  | ----                  | ----               | 7.0           | ----     | ----                         | ---- | 6.9   |
| 1995                 | 6.6   | 6.1  | 7.8    | 6.6          | 8.1                | 5.9  | 8.3                   | 7.5                | ----          | ----     | ----                         | ---- | 6.5   |
| 2000                 | 7.8   | 6.9  | 9.2    | 7.8          | 5.3                | 8.3  | 7.5                   | 5.0                | 5.4           | ----     | ----                         | ---- | 7.9   |
| 2005                 | 4.8   | 4.6  | 5.2    | 4.8          | 4.0                | 5.0  | 4.6                   | 2.7                | 3.8           | ----     | 0.0                          | 0.0  | 5.0   |

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

<sup>a</sup> Total for 1990 includes 1 respondent not reporting sex.

<sup>b</sup> Total for 1995 includes 1 respondent not reporting sex.

<sup>c</sup> Total for 2005 includes 2 respondents not reporting sex.

<sup>d</sup> Includes Native Hawaiians/other Pacific Islanders through 2000, but excludes them in 2005.

<sup>e</sup> Includes Alaska Natives.

<sup>f</sup> Percent based on those with definite commitments for postdoctoral study or training.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 31. Postgraduation location and type of plan<sup>a</sup> of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by major field of study and visa residency status, 2005

| Field of study <sup>b</sup>               | Permanent residents <sup>c</sup> |                    |               |                    |               | Temporary visa holders <sup>c</sup> |                    |               |                    |               |
|---|----------------------------------|--------------------|---------------|--------------------|---------------|-------------------------------------|--------------------|---------------|--------------------|---------------|
|   | Number of responses              | U.S. location      |               | Foreign location   |               | Number of responses                 | U.S. location      |               | Foreign location   |               |
|   |                                  | Employment percent | Study percent | Employment percent | Study percent |                                     | Employment percent | Study percent | Employment percent | Study percent |
| All fields                                | 962                              | 62.0               | 32.6          | 3.8                | 1.6           | 7,961                               | 36.4               | 37.5          | 19.6               | 6.5           |
| Physical sciences                         | 189                              | 51.9               | 46.0          | 0.0                | 2.1           | 1,983                               | 31.0               | 51.7          | 8.2                | 9.1           |
| Physics & astronomy                       | 35                               | 25.7               | 71.4          | 0.0                | 2.9           | 479                                 | 14.2               | 68.3          | 5.6                | 11.9          |
| Chemistry                                 | 55                               | 40.0               | 60.0          | 0.0                | 0.0           | 527                                 | 19.4               | 70.6          | 3.0                | 7.0           |
| Earth, atmospheric, & marine sciences     | 13                               | 53.8               | 46.2          | 0.0                | 0.0           | 156                                 | 14.7               | 61.5          | 11.5               | 12.2          |
| Mathematics                               | 44                               | 63.6               | 31.8          | 0.0                | 4.5           | 428                                 | 41.4               | 35.7          | 9.8                | 13.1          |
| Computer sciences                         | 42                               | 76.2               | 21.4          | 0.0                | 2.4           | 393                                 | 62.3               | 19.6          | 15.3               | 2.8           |
| Engineering                               | 169                              | 76.9               | 19.5          | 3.0                | 0.6           | 2,146                               | 48.4               | 32.1          | 15.8               | 3.8           |
| Aerospace engineering                     | 1                                | ----               | ----          | ----               | ----          | 64                                  | 34.4               | 43.8          | 12.5               | 9.4           |
| Chemical engineering                      | 23                               | 73.9               | 21.7          | 4.3                | 0.0           | 281                                 | 46.6               | 34.2          | 15.3               | 3.9           |
| Civil and architectural engineering       | 27                               | 59.3               | 25.9          | 14.8               | 0.0           | 266                                 | 38.3               | 32.7          | 24.8               | 4.1           |
| Electrical & related engineering          | 61                               | 91.8               | 8.2           | 0.0                | 0.0           | 735                                 | 63.1               | 21.0          | 13.3               | 2.6           |
| Industrial engineering                    | 8                                | 87.5               | ----          | ----               | ----          | 71                                  | 52.1               | 15.5          | 25.4               | 7.0           |
| Mechanical engineering                    | 14                               | 85.7               | 14.3          | 0.0                | 0.0           | 304                                 | 40.1               | 41.8          | 14.8               | 3.3           |
| Materials engineering                     | 9                                | ----               | 55.6          | ----               | ----          | 171                                 | 38.6               | 45.0          | 11.1               | 5.3           |
| Other engineering                         | 26                               | 65.4               | 34.6          | 0.0                | 0.0           | 254                                 | 37.0               | 42.5          | 16.1               | 4.3           |
| Life sciences                             | 202                              | 28.7               | 67.8          | 1.5                | 2.0           | 1,609                               | 14.2               | 65.1          | 13.5               | 7.1           |
| Biological sciences                       | 144                              | 17.4               | 81.3          | 0.0                | 1.4           | 1,101                               | 9.2                | 79.3          | 6.4                | 5.2           |
| Health sciences                           | 41                               | 56.1               | 36.6          | 4.9                | 2.4           | 239                                 | 33.1               | 30.1          | 29.7               | 7.1           |
| Agricultural sciences/natural resources   | 17                               | 58.8               | 29.4          | 5.9                | 5.9           | 269                                 | 17.8               | 38.3          | 28.6               | 15.2          |
| Social sciences                           | 136                              | 65.4               | 26.5          | 7.4                | 0.7           | 951                                 | 41.1               | 14.3          | 38.5               | 6.1           |
| Psychology                                | 43                               | 46.5               | 53.5          | 0.0                | 0.0           | 131                                 | 28.2               | 42.0          | 18.3               | 11.5          |
| Anthropology                              | 9                                | 55.6               | ----          | ----               | ----          | 35                                  | ----               | ----          | 45.7               | 28.6          |
| Economics                                 | 31                               | 90.3               | 0.0           | 9.7                | 0.0           | 519                                 | 48.2               | 6.6           | 41.8               | 3.5           |
| Political science/international relations | 17                               | 58.8               | 23.5          | 11.8               | 5.9           | 97                                  | 33.0               | 12.4          | 46.4               | 8.2           |
| Sociology                                 | 18                               | 77.8               | ----          | ----               | 0.0           | 53                                  | 47.2               | ----          | 34.0               | ----          |
| Other social sciences                     | 18                               | 66.7               | ----          | ----               | ----          | 116                                 | 39.7               | 17.2          | 39.7               | 3.4           |
| Humanities                                | 146                              | 83.6               | 9.6           | 3.4                | 3.4           | 469                                 | 46.9               | 10.7          | 35.0               | 7.5           |
| History                                   | 10                               | 90.0               | ----          | ----               | ----          | 69                                  | 40.6               | 15.9          | 33.3               | 10.1          |
| American literature                       | 5                                | 100.0              | 0.0           | 0.0                | 0.0           | 11                                  | 36.4               | ----          | ----               | ----          |
| English language & literature             | 14                               | 78.6               | ----          | ----               | ----          | 28                                  | 39.3               | ----          | 50.0               | ----          |
| Foreign language & literature             | 49                               | 85.7               | 12.2          | 2.0                | 0.0           | 103                                 | 69.9               | 6.8           | 16.5               | 6.8           |
| Other humanities                          | 68                               | 80.9               | 8.8           | 4.4                | 5.9           | 258                                 | 40.7               | 10.5          | 41.5               | 7.4           |
| Education                                 | 59                               | 79.7               | 3.4           | 16.9               | 0.0           | 287                                 | 31.4               | 8.0           | 49.8               | 10.8          |
| Education administration                  | 14                               | 78.6               | ----          | ----               | ----          | 33                                  | 15.2               | 12.1          | 54.5               | 18.2          |
| Education research                        | 29                               | 82.8               | ----          | ----               | ----          | 158                                 | 38.0               | 6.3           | 44.3               | 11.4          |
| Teacher education                         | 2                                | ----               | ----          | ----               | ----          | 16                                  | ----               | ----          | 50.0               | ----          |
| Teaching fields                           | 8                                | 75.0               | ----          | ----               | ----          | 60                                  | 26.7               | ----          | 61.7               | ----          |
| Other education                           | 6                                | 83.3               | ----          | ----               | ----          | 20                                  | 25.0               | ----          | 50.0               | ----          |
| Other fields                              | 61                               | 85.2               | 8.2           | 6.6                | 0.0           | 516                                 | 60.7               | 3.7           | 33.1               | 2.5           |
| Business & management                     | 38                               | 86.8               | ----          | ----               | ----          | 348                                 | 67.8               | 1.4           | 28.4               | 2.3           |
| Communications                            | 14                               | 78.6               | ----          | ----               | ----          | 75                                  | 58.7               | ----          | 29.3               | ----          |
| Fields not elsewhere classified           | 0                                | 0.0                | 0.0           | 0.0                | 0.0           | 2                                   | ----               | ----          | ----               | ----          |

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

<sup>a</sup> Postdoctoral plans are categorized as either employment or study plans.

<sup>b</sup> Major field of study definitions are detailed in appendix C in the section on "Derived Variables."

<sup>c</sup> 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, 2005 Survey of Earned Doctorates.

TABLE 32. Postdoctoral location of non-U.S. citizen doctorate recipients with definite postgraduation commitments, by visa residency status for selected years, 1985–2005

| Year and location                              | All non-U.S. citizens | Permanent resident | Temporary visa holder |
|--|-----------------------|--------------------|-----------------------|
|  |                       |                    |                       |
| All definite commitments                       |                       |                    |                       |
| 1985   | 4,055                 | 760                | 3,295                 |
| 1990   | 5,614                 | 915                | 4,699                 |
| 1995   | 6,800                 | 2,082              | 4,718                 |
| 2000   | 7,308                 | 1,147              | 6,161                 |
| 2005   | 9,036                 | 979                | 8,057                 |
| Definite commitments with response to location |                       |                    |                       |
| 1985   | 4,055                 | 760                | 3,295                 |
| 1990   | 5,614                 | 915                | 4,699                 |
| 1995   | 6,800                 | 2,082              | 4,718                 |
| 2000   | 7,270                 | 1,141              | 6,129                 |
| 2005   | 9,028                 | 979                | 8,049                 |
| Percent  |                       |                    |                       |
| U.S. location <sup>a</sup>                     |                       |                    |                       |
| 1985   | 58.4                  | 90.5               | 51.0                  |
| 1990   | 62.3                  | 87.7               | 57.3                  |
| 1995   | 65.3                  | 91.6               | 53.6                  |
| 2000   | 73.3                  | 91.9               | 69.8                  |
| 2005   | 76.0                  | 94.7               | 73.8                  |
| Foreign location <sup>a</sup>                  |                       |                    |                       |
| 1985   | 41.6                  | 9.5                | 49.0                  |
| 1990   | 37.7                  | 12.3               | 42.7                  |
| 1995   | 34.7                  | 8.4                | 46.4                  |
| 2000   | 26.7                  | 8.1                | 30.2                  |
| 2005   | 24.0                  | 5.3                | 26.2                  |

<sup>a</sup> Percent based on those with definite commitments with response to location.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

TABLE 33. Percentage of non-U.S. citizen doctorate recipients intending to stay in the United States after doctorate receipt, by country of citizenship, 2000-2005

| Place of origin       | Total, 2000-2001         |                         |                          |                         |                          |                         | Total, 2002-2005         |                         |                          |                         |                          |                         | 2000                     |                         |                          | 2001                    |                          |                         | 2002                     |                         |                          | 2003                    |                          |                         | 2004                     |                         |                          | 2005                    |  |  |
|-----------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--|--|
|                       | 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. | 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. |  |  |
|                       | 23,235                   | 69.7                    | 51,181                   | 70.3                    | 11,610                   | 67.6                    | 11,625                   | 71.7                    | 11,383                   | 70.6                    | 12,219                   | 69.0                    | 13,155                   | 68.5                    | 14,424                   | 72.7                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| All non-U.S. citizens | 23,235                   | 69.7                    | 51,181                   | 70.3                    | 11,610                   | 67.6                    | 11,625                   | 71.7                    | 11,383                   | 70.6                    | 12,219                   | 69.0                    | 13,155                   | 68.5                    | 14,424                   | 72.7                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| East/South Asia       | 12,563                   | 75.2                    | 28,082                   | 75.4                    | 6,300                    | 73.7                    | 6,263                    | 76.7                    | 6,129                    | 76.4                    | 6,567                    | 73.3                    | 7,194                    | 74.5                    | 8,192                    | 77.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| China <sup>a</sup>    | 5,286                    | 91.4                    | 12,477                   | 90.4                    | 2,618                    | 90.5                    | 2,668                    | 92.3                    | 2,652                    | 92.5                    | 2,778                    | 90.8                    | 3,220                    | 89.2                    | 3,827                    | 89.8                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Taiwan                | 1,724                    | 58.6                    | 2,829                    | 54.6                    | 950                      | 56.1                    | 774                      | 61.8                    | 675                      | 60.3                    | 724                      | 51.1                    | 704                      | 49.0                    | 726                      | 58.3                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Japan                 | 536                      | 52.2                    | 1,119                    | 55.6                    | 302                      | 49.7                    | 234                      | 55.6                    | 236                      | 56.4                    | 295                      | 57.3                    | 278                      | 53.6                    | 310                      | 55.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| South Korea           | 2,247                    | 60.8                    | 5,476                    | 64.7                    | 1,063                    | 58.4                    | 1,184                    | 62.9                    | 1,190                    | 66.2                    | 1,304                    | 62.2                    | 1,452                    | 65.2                    | 1,530                    | 65.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| India                 | 1,956                    | 88.4                    | 4,034                    | 87.3                    | 1,000                    | 87.2                    | 956                      | 89.7                    | 839                      | 90.6                    | 908                      | 86.0                    | 1,013                    | 86.9                    | 1,274                    | 86.3                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Other                 | 814                      | 28.0                    | 2,147                    | 30.8                    | 367                      | 27.0                    | 447                      | 28.9                    | 537                      | 25.9                    | 558                      | 28.1                    | 527                      | 32.3                    | 525                      | 37.1                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| West Asia             | 2,028                    | 58.1                    | 4,593                    | 57.3                    | 975                      | 54.2                    | 1,053                    | 61.8                    | 1,026                    | 58.7                    | 1,127                    | 56.3                    | 1,213                    | 52.2                    | 1,227                    | 62.3                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Iran                  | 196                      | 89.3                    | 341                      | 88.9                    | 88                       | 89.8                    | 108                      | 88.9                    | 66                       | 87.9                    | 70                       | 85.7                    | 64                       | 92.2                    | 141                      | 89.4                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Israel                | 139                      | 59.0                    | 390                      | 65.1                    | 67                       | 49.3                    | 72                       | 68.1                    | 75                       | 66.7                    | 92                       | 68.5                    | 114                      | 62.3                    | 109                      | 64.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Jordan                | 170                      | 57.6                    | 376                      | 49.7                    | 83                       | 57.8                    | 87                       | 57.5                    | 67                       | 62.7                    | 96                       | 52.1                    | 115                      | 44.3                    | 98                       | 44.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Saudi Arabia          | 178                      | 10.1                    | 464                      | 8.0                     | 90                       | 8.9                     | 88                       | 11.4                    | 104                      | 4.8                     | 115                      | 7.8                     | 134                      | 9.7                     | 111                      | 9.0                     |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Turkey                | 687                      | 55.7                    | 1,695                    | 58.5                    | 331                      | 49.2                    | 356                      | 61.8                    | 398                      | 58.3                    | 446                      | 57.2                    | 432                      | 52.3                    | 419                      | 66.3                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Other                 | 658                      | 64.3                    | 1,327                    | 65.0                    | 316                      | 62.3                    | 342                      | 66.1                    | 316                      | 68.0                    | 308                      | 64.0                    | 354                      | 60.2                    | 349                      | 67.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Pacific/Australasia   | 468                      | 53.6                    | 934                      | 60.8                    | 249                      | 52.6                    | 219                      | 54.8                    | 236                      | 58.5                    | 224                      | 57.6                    | 227                      | 63.4                    | 247                      | 63.6                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Australia             | 140                      | 57.9                    | 272                      | 65.1                    | 72                       | 48.6                    | 68                       | 67.6                    | 64                       | 65.6                    | 69                       | 66.7                    | 63                       | 71.4                    | 76                       | 57.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Indonesia             | 133                      | 41.4                    | 284                      | 52.1                    | 76                       | 40.8                    | 57                       | 42.1                    | 76                       | 51.3                    | 56                       | 50.0                    | 77                       | 51.9                    | 75                       | 54.7                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| New Zealand           | 77                       | 59.7                    | 150                      | 56.7                    | 34                       | 64.7                    | 43                       | 55.8                    | 36                       | 58.3                    | 40                       | 47.5                    | 39                       | 61.5                    | 35                       | 60.0                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Other                 | 118                      | 58.5                    | 228                      | 69.3                    | 67                       | 64.2                    | 51                       | 51.0                    | 60                       | 60.0                    | 59                       | 61.0                    | 48                       | 72.9                    | 61                       | 83.6                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Africa                | 1,023                    | 63.8                    | 2,092                    | 63.7                    | 537                      | 56.8                    | 486                      | 71.6                    | 448                      | 63.6                    | 481                      | 64.2                    | 568                      | 61.3                    | 595                      | 65.7                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Egypt                 | 184                      | 60.9                    | 556                      | 59.9                    | 92                       | 56.5                    | 92                       | 65.2                    | 113                      | 58.4                    | 129                      | 62.8                    | 150                      | 63.3                    | 164                      | 55.5                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Nigeria               | 84                       | 77.4                    | 131                      | 80.2                    | 45                       | 73.3                    | 39                       | 82.1                    | 27                       | 96.3                    | 31                       | 71.0                    | 35                       | 71.4                    | 38                       | 84.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| South Africa          | 140                      | 59.3                    | 183                      | 49.2                    | 62                       | 51.6                    | 78                       | 65.4                    | 43                       | 53.5                    | 40                       | 52.5                    | 48                       | 41.7                    | 52                       | 50.0                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Other                 | 615                      | 63.9                    | 1,222                    | 65.9                    | 338                      | 55.6                    | 277                      | 74.0                    | 265                      | 64.2                    | 281                      | 65.8                    | 335                      | 62.1                    | 341                      | 71.0                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Europe                | 4,038                    | 72.8                    | 8,550                    | 73.7                    | 1,937                    | 71.2                    | 2,101                    | 74.3                    | 2,020                    | 74.8                    | 2,079                    | 74.0                    | 2,197                    | 70.7                    | 2,254                    | 75.4                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Bulgaria              | 117                      | 88.9                    | 290                      | 86.6                    | 59                       | 91.5                    | 58                       | 86.2                    | 54                       | 92.6                    | 61                       | 82.0                    | 83                       | 84.3                    | 92                       | 88.0                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Greece                | 216                      | 67.6                    | 423                      | 66.2                    | 101                      | 69.3                    | 115                      | 66.1                    | 98                       | 64.3                    | 99                       | 66.7                    | 119                      | 64.7                    | 107                      | 69.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Romania               | 246                      | 89.4                    | 693                      | 87.2                    | 119                      | 84.0                    | 127                      | 94.5                    | 151                      | 84.8                    | 145                      | 88.3                    | 186                      | 86.6                    | 211                      | 88.6                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| United Kingdom        | 392                      | 76.5                    | 747                      | 76.8                    | 184                      | 69.6                    | 208                      | 82.7                    | 223                      | 81.2                    | 171                      | 75.4                    | 185                      | 72.4                    | 168                      | 77.4                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Germany               | 600                      | 66.8                    | 1,024                    | 67.6                    | 291                      | 65.3                    | 309                      | 68.3                    | 255                      | 65.5                    | 270                      | 69.6                    | 250                      | 67.2                    | 249                      | 67.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Italy                 | 259                      | 61.4                    | 687                      | 66.5                    | 112                      | 63.4                    | 147                      | 59.9                    | 153                      | 67.3                    | 159                      | 56.6                    | 193                      | 71.0                    | 182                      | 69.8                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| France                | 243                      | 75.7                    | 514                      | 70.0                    | 122                      | 73.8                    | 121                      | 77.7                    | 122                      | 64.8                    | 113                      | 70.8                    | 129                      | 69.8                    | 150                      | 74.0                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Spain                 | 227                      | 64.3                    | 487                      | 66.1                    | 108                      | 62.0                    | 119                      | 66.4                    | 113                      | 66.4                    | 138                      | 68.8                    | 115                      | 58.3                    | 121                      | 70.2                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Russia                | 486                      | 85.0                    | 960                      | 84.4                    | 234                      | 83.8                    | 252                      | 86.1                    | 229                      | 88.2                    | 255                      | 85.1                    | 221                      | 77.8                    | 255                      | 85.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |
| Other                 | 1,252                    | 69.2                    | 2,725                    | 71.7                    | 607                      | 68.0                    | 645                      | 70.2                    | 622                      | 74.4                    | 668                      | 74.3                    | 716                      | 66.6                    | 719                      | 71.9                    |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |                          |                         |  |  |

TABLE 33. Percentage of non-U.S. citizen doctorate recipients intending to stay in the United States after doctorate receipt, by country of citizenship, 2000-2005

| Place of origin     | Total, 2000-2001         |                         | Total, 2002-2005         |                         | 2000                     |                         | 2001                     |                         | 2002                     |                         | 2003                     |                         | 2004                     |                         | 2005                     |                         |
|---------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
|                     | 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 | 2,925                    | 56.8                    | 6,311                    | 57.4                    | 1,533                    | 54.5                    | 1,392                    | 59.3                    | 1,391                    | 56.6                    | 1,562                    | 57.2                    | 1,649                    | 56.7                    | 1,709                    | 58.9                    |
| Canada              | 1,021                    | 64.9                    | 2,193                    | 62.3                    | 525                      | 63.6                    | 496                      | 66.3                    | 496                      | 65.1                    | 538                      | 62.5                    | 603                      | 60.9                    | 556                      | 61.3                    |
| Mexico              | 490                      | 42.9                    | 964                      | 48.9                    | 247                      | 37.2                    | 243                      | 48.6                    | 221                      | 45.7                    | 257                      | 50.2                    | 232                      | 47.8                    | 254                      | 51.2                    |
| Argentina           | 180                      | 63.9                    | 414                      | 68.8                    | 99                       | 63.6                    | 81                       | 64.2                    | 93                       | 72.0                    | 99                       | 71.7                    | 116                      | 64.7                    | 106                      | 67.9                    |
| Brazil              | 348                      | 38.2                    | 729                      | 43.2                    | 178                      | 38.2                    | 170                      | 38.2                    | 171                      | 40.4                    | 162                      | 40.1                    | 190                      | 43.2                    | 206                      | 48.1                    |
| Chile               | 85                       | 51.8                    | 257                      | 41.2                    | 48                       | 52.1                    | 37                       | 51.4                    | 53                       | 28.3                    | 80                       | 47.5                    | 59                       | 40.7                    | 65                       | 44.6                    |
| Colombia            | 148                      | 61.5                    | 400                      | 56.3                    | 74                       | 52.7                    | 74                       | 70.3                    | 67                       | 62.7                    | 107                      | 52.3                    | 89                       | 59.6                    | 137                      | 54.0                    |
| Peru                | 71                       | 67.6                    | 174                      | 71.8                    | 35                       | 60.0                    | 36                       | 75.0                    | 47                       | 72.3                    | 43                       | 74.4                    | 36                       | 72.2                    | 48                       | 68.8                    |
| Other               | 582                      | 61.2                    | 1,180                    | 61.7                    | 327                      | 59.0                    | 255                      | 63.9                    | 243                      | 56.0                    | 276                      | 60.1                    | 324                      | 60.8                    | 337                      | 68.0                    |
| Country unknown     | 190                      | 29.5                    | 619                      | 51.9                    | 79                       | 30.4                    | 111                      | 28.8                    | 133                      | 27.1                    | 179                      | 63.1                    | 107                      | 30.8                    | 200                      | 69.5                    |

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.

<sup>a</sup> Includes Hong Kong.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



# APPENDICES



## APPENDIX A: The Nine Basic Tables, 2005

Appendix A includes the following nine tables:

- A-1 Number of doctorate recipients, by sex and subfield of study, 2005
- A-2 Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2005
- A-3 Statistical profile of doctorate recipients, by major field of study, 2005
- A-4 Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2005
- A-5 Doctorate recipients' financial resources in support of doctoral programs, by broad field of study and sex, 2005
- A-6 Distribution of doctorate recipients' financial resources in support of doctoral programs, by sex and broad field of study, 2005
- A-7 State of doctoral institution of doctorate recipients, by broad field and sex, 2005
- A-8 Institutions granting research doctorates, by major field of study, 2005
- A-9 Top 50 doctorate-granting institutions, 2005

**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 associateship", "Traineeship", "Intern, clinical residency", or "Other"). "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"). "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:

|                            |   |
|----------------------------|---|
| <i>New England:</i>        | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont   |
| <i>Middle Atlantic:</i>    | New Jersey, New York, Pennsylvania  |
| <i>East North Central:</i> | Illinois, Indiana, Michigan, Ohio, Wisconsin  |
| <i>West North Central:</i> | Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota   |
| <i>South Atlantic:</i>     | Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia |
| <i>East South Central:</i> | Alabama, Kentucky, Mississippi, Tennessee   |
| <i>West South Central:</i> | Arkansas, Louisiana, Oklahoma, Texas  |

|                               |  |
|-------------------------------|--|
| <i>Mountain:</i>              | Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming   |
| <i>Pacific &amp; Insular:</i> | Alaska, California, Hawaii, Oregon, Washington, American Samoa, Guam, Puerto Rico, Trust Territory, Virgin Islands |

**TABLE A-4:** Table A-4 contains data by race/ethnicity and citizenship for selected variables included in Tables A-3 and A-5. Field 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 2005. 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, 2005

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| Field of study                              | Number of doctorates |        |        |
|---|----------------------|--------|--------|
|   | Total <sup>a</sup>   | Male   | Female |
| <u>TOTAL ALL FIELDS</u>                     | 43,354               | 23,731 | 19,564 |
| <u>PHYSICAL SCIENCES</u>                    | 6,699                | 4,926  | 1,766  |
| <u>MATHEMATICS</u>                          | 1,203                | 875    | 326    |
| Applied mathematics                         | 291                  | 206    | 84     |
| Mathematics, algebra                        | 97                   | 72     | 25     |
| Mathematics, analysis & functional analysis | 111                  | 86     | 25     |
| Mathematics, geometry                       | 96                   | 83     | 13     |
| Mathematics, logic                          | 26                   | 22     | 4      |
| Mathematics, number theory                  | 62                   | 53     | 9      |
| Mathematics, statistics                     | 267                  | 158    | 108    |
| Mathematics, topology                       | 51                   | 36     | 15     |
| Mathematics, computing theory & practice    | 16                   | 13     | 3      |
| Mathematics, operations research            | 23                   | 19     | 4      |
| Mathematics, general                        | 104                  | 84     | 20     |
| Mathematics, other                          | 59                   | 43     | 16     |
| <u>COMPUTER &amp; INFORMATION SCIENCES</u>  | 1,136                | 909    | 225    |
| Computer science                            | 955                  | 796    | 157    |
| Information science & systems               | 85                   | 48     | 37     |
| Computer & information science, other       | 96                   | 65     | 31     |
| <u>ASTRONOMY</u>                            | 186                  | 137    | 49     |
| Astronomy                                   | 72                   | 46     | 26     |
| Astrophysics                                | 114                  | 91     | 23     |
| <u>ATMOSPHERIC SCI. &amp; METEOROLOGY</u>   | 144                  | 93     | 51     |
| Atmospheric chemistry & climatology         | 42                   | 23     | 19     |
| Atmospheric physics & dynamics              | 28                   | 20     | 8      |
| Meteorology                                 | 20                   | 15     | 5      |
| Atmospheric science/meteorology, general    | 29                   | 18     | 11     |
| Atmospheric science/meteorology, other      | 25                   | 17     | 8      |
| <u>CHEMISTRY</u>                            | 2,127                | 1,403  | 723    |
| Chemistry, analytical                       | 364                  | 185    | 179    |
| Chemistry, inorganic                        | 255                  | 172    | 83     |
| Chemistry, organic                          | 600                  | 447    | 153    |
| Chemistry, medicinal/pharmaceutical         | 110                  | 61     | 49     |
| Chemistry, physical                         | 298                  | 211    | 87     |
| Chemistry, polymer                          | 119                  | 89     | 30     |
| Chemistry, theoretical                      | 57                   | 45     | 12     |
| Chemistry, general                          | 195                  | 125    | 69     |
| Chemistry, other                            | 129                  | 68     | 61     |
| <u>GEOLOGICAL &amp; EARTH SCIENCES</u>      | 379                  | 259    | 120    |
| Geology                                     | 107                  | 74     | 33     |
| Geochemistry                                | 55                   | 33     | 22     |
| Geophysics & seismology                     | 92                   | 66     | 26     |
| Paleontology                                | 29                   | 22     | 7      |
| Mineralogy & petrology                      | 8                    | 6      | 2      |
| Stratigraphy & sedimentation                | 15                   | 9      | 6      |
| Geomorphology & glacial geology             | 12                   | 9      | 3      |
| Geological & earth sciences, general        | 24                   | 18     | 6      |
| Geological & earth sciences, other          | 37                   | 22     | 15     |
| <u>PHYSICS</u>                              | 1,334                | 1,132  | 200    |
| Physics, acoustics                          | 25                   | 17     | 8      |
| Physics, atomic/molecular/chemical          | 87                   | 69     | 18     |
| Physics, elementary particle                | 188                  | 167    | 21     |
| Biophysics                                  | 72                   | 54     | 18     |
| Physics, nuclear                            | 70                   | 66     | 4      |
| Physics, optics/phototonics                 | 145                  | 121    | 24     |

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2005

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| Field of study                                 | Number of doctorates |              |              |
|--|----------------------|--------------|--------------|
|  | Total <sup>a</sup>   | Male         | Female       |
| Physics, plasma/fusion                         | 54                   | 44           | 10           |
| Physics, polymer                               | 29                   | 26           | 3            |
| Physics, condensed matter/low temp             | 314                  | 273          | 41           |
| Applied physics                                | 101                  | 84           | 16           |
| Physics, general                               | 129                  | 111          | 17           |
| Physics, other                                 | 120                  | 100          | 20           |
| <b>OCEAN/MARINE SCIENCES</b>                   | <b>190</b>           | <b>118</b>   | <b>72</b>    |
| Hydrology & water resources                    | 41                   | 34           | 7            |
| Oceanography                                   | 74                   | 42           | 32           |
| Marine sciences                                | 61                   | 36           | 25           |
| Ocean/marine sciences, other                   | 14                   | 6            | 8            |
| <b>ENGINEERING</b>                             | <b>6,404</b>         | <b>5,215</b> | <b>1,174</b> |
| <b>AEROSPACE/AERONAUTICAL ENGINEERING</b>      | <b>219</b>           | <b>190</b>   | <b>29</b>    |
| <b>CHEMICAL AND RELATED ENGINEERING</b>        | <b>875</b>           | <b>662</b>   | <b>210</b>   |
| Chemical engineering                           | 774                  | 589          | 183          |
| Petroleum engineering                          | 50                   | 35           | 14           |
| Polymer & plastics engineering                 | 51                   | 38           | 13           |
| <b>CIVIL AND RELATED ENGINEERING</b>           | <b>757</b>           | <b>580</b>   | <b>176</b>   |
| Civil engineering                              | 621                  | 502          | 118          |
| Environmental health engineering               | 136                  | 78           | 58           |
| <b>ELECTRICAL AND RELATED ENGINEERING</b>      | <b>1,852</b>         | <b>1,598</b> | <b>249</b>   |
| Communications engineering                     | 27                   | 24           | 3            |
| Computer engineering                           | 277                  | 235          | 41           |
| Electrical & electronics engineering           | 1,548                | 1,339        | 205          |
| <b>INDUSTRIAL ENGINEERING</b>                  | <b>222</b>           | <b>178</b>   | <b>41</b>    |
| <b>MECHANICAL AND RELATED ENGINEERING</b>      | <b>978</b>           | <b>858</b>   | <b>120</b>   |
| Engineering mechanics                          | 86                   | 80           | 6            |
| Mechanical engineering                         | 892                  | 778          | 114          |
| <b>MATERIALS/METALLURGICAL ENGINEERING</b>     | <b>540</b>           | <b>419</b>   | <b>120</b>   |
| Ceramic sciences engineering                   | 14                   | 9            | 5            |
| Materials science engineering                  | 493                  | 380          | 112          |
| Metallurgical engineering                      | 33                   | 30           | 3            |
| <b>OTHER ENGINEERING</b>                       | <b>961</b>           | <b>730</b>   | <b>229</b>   |
| Agricultural engineering                       | 47                   | 38           | 9            |
| Bioengineering & biomedical engineering        | 417                  | 307          | 110          |
| Engineering physics                            | 27                   | 20           | 7            |
| Engineering science                            | 42                   | 30           | 11           |
| Mining & mineral engineering                   | 12                   | 12           | 0            |
| Nuclear engineering                            | 71                   | 62           | 8            |
| Ocean engineering                              | 18                   | 11           | 7            |
| Operations research engineering                | 87                   | 67           | 20           |
| Systems engineering                            | 56                   | 47           | 9            |
| Engineering, general                           | 53                   | 41           | 12           |
| Engineering, other                             | 131                  | 95           | 36           |
| <b>LIFE SCIENCES</b>                           | <b>9,306</b>         | <b>4,567</b> | <b>4,727</b> |
| <b>AGRICULTURAL SCIENCES/NATURAL RESOURCES</b> | <b>1,161</b>         | <b>745</b>   | <b>413</b>   |
| Agricultural economics                         | 123                  | 86           | 37           |
| Agricultural animal breeding                   | 14                   | 11           | 3            |
| Animal nutrition                               | 51                   | 39           | 12           |
| Poultry science                                | 14                   | 6            | 8            |
| Animal sciences, other                         | 71                   | 41           | 30           |
| Agronomy & crop science                        | 79                   | 65           | 14           |

APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2005

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| Field of study                              | Number of doctorates |              |              |
|---|----------------------|--------------|--------------|
|   | Total <sup>a</sup>   | Male         | Female       |
| Agricultural & horticultural plant breeding | 35                   | 28           | 7            |
| Plant pathology/phytopathology              | 71                   | 37           | 33           |
| Plant sciences, other                       | 31                   | 15           | 16           |
| Food science                                | 93                   | 49           | 43           |
| Food science & technology, other            | 48                   | 24           | 24           |
| Soil chemistry/microbiology                 | 24                   | 11           | 13           |
| Soil sciences, other                        | 52                   | 36           | 16           |
| Horticulture science                        | 49                   | 32           | 17           |
| Fishing & fisheries science & management    | 34                   | 25           | 9            |
| Forest sciences & biology                   | 29                   | 21           | 8            |
| Forest/resources management                 | 40                   | 31           | 9            |
| Wood science & pulp/paper technology        | 15                   | 13           | 2            |
| Natural resources/conservation              | 64                   | 39           | 25           |
| Forestry & related science, other           | 24                   | 14           | 10           |
| Wildlife/range management                   | 44                   | 31           | 13           |
| Environmental science                       | 129                  | 76           | 52           |
| Agriculture, general                        | 10                   | 5            | 5            |
| Agricultural Science, other                 | 17                   | 10           | 7            |
| <b>BIOLOGICAL/BIOMEDICAL SCIENCES</b>       | <b>6,368</b>         | <b>3,257</b> | <b>3,105</b> |
| Biochemistry                                | 692                  | 416          | 276          |
| Biomedical sciences                         | 248                  | 110          | 137          |
| Biophysics                                  | 144                  | 85           | 59           |
| Biotechnology                               | 23                   | 14           | 9            |
| Bacteriology                                | 13                   | 6            | 7            |
| Plant genetics                              | 50                   | 27           | 23           |
| Plant pathology (Biological)                | 31                   | 18           | 13           |
| Plant physiology                            | 38                   | 19           | 19           |
| Botany/plant biology                        | 87                   | 45           | 42           |
| Anatomy                                     | 23                   | 15           | 8            |
| Biometrics & biostatistics                  | 130                  | 67           | 63           |
| Cellular biology & histology                | 316                  | 164          | 151          |
| Ecology                                     | 412                  | 219          | 193          |
| Developmental biology/embryology            | 162                  | 76           | 86           |
| Endocrinology                               | 29                   | 10           | 19           |
| Entomology                                  | 103                  | 63           | 40           |
| Immunology                                  | 343                  | 173          | 170          |
| Molecular biology                           | 726                  | 362          | 362          |
| Microbiology                                | 430                  | 206          | 224          |
| Neuroscience                                | 689                  | 368          | 321          |
| Nutritional sciences                        | 163                  | 37           | 126          |
| Parasitology                                | 21                   | 11           | 10           |
| Toxicology                                  | 102                  | 48           | 54           |
| Genetics, human & animal                    | 287                  | 143          | 143          |
| Pathology, human & animal                   | 93                   | 51           | 42           |
| Pharmacology, human & animal                | 315                  | 142          | 173          |
| Physiology, human & animal                  | 208                  | 109          | 99           |
| Zoology, other                              | 103                  | 53           | 50           |
| Biology/biomedical sciences, general        | 189                  | 94           | 95           |
| Biology/biomedical sciences, other          | 198                  | 106          | 91           |
| <b>HEALTH SCIENCES</b>                      | <b>1,777</b>         | <b>565</b>   | <b>1,209</b> |
| Speech-language pathology & audiology       | 97                   | 23           | 74           |
| Environmental health                        | 42                   | 17           | 25           |
| Environmental toxicology                    | 42                   | 20           | 22           |
| Health systems/service administration       | 70                   | 30           | 39           |
| Public health                               | 279                  | 80           | 199          |
| Epidemiology                                | 229                  | 78           | 151          |
| Kinesiology/exercise science                | 153                  | 89           | 64           |



APPENDIX TABLE A-1. Number of doctorate recipients, by sex and subfield of study, 2005

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| Field of study                                 | Number of doctorates |              |              |
|--|----------------------|--------------|--------------|
|  | Total <sup>a</sup>   | Male         | Female       |
| Nursing science                                | 418                  | 35           | 383          |
| Pharmacy                                       | 168                  | 80           | 86           |
| Rehabilitation/therapeutic services            | 66                   | 27           | 39           |
| Veterinary medicine                            | 47                   | 24           | 23           |
| Health sciences, general                       | 46                   | 16           | 30           |
| Health sciences, other                         | 120                  | 46           | 74           |
| <b><u>SOCIAL SCIENCES AND PSYCHOLOGY</u></b>   | <b>6,837</b>         | <b>3,043</b> | <b>3,790</b> |
| PSYCHOLOGY                                     | 3,327                | 1,062        | 2,264        |
| Psychology, clinical                           | 1,158                | 317          | 841          |
| Psychology, cognitive & psycholinguistics      | 147                  | 77           | 70           |
| Psychology, comparative                        | 5                    | 2            | 3            |
| Psychology, counseling                         | 469                  | 150          | 319          |
| Psychology, developmental & child              | 223                  | 35           | 188          |
| Psychology, human development & family studies | 172                  | 44           | 128          |
| Psychology, experimental                       | 120                  | 51           | 69           |
| Psychology, educational                        | 81                   | 25           | 56           |
| Psychology, family                             | 25                   | 12           | 13           |
| Psychology, industrial & organizational        | 184                  | 73           | 111          |
| Psychology, personality                        | 14                   | 5            | 9            |
| Psychology, physiological/psychobiology        | 85                   | 42           | 43           |
| Psychology, psychometrics & quantitative       | 23                   | 18           | 5            |
| Psychology, school                             | 108                  | 27           | 81           |
| Psychology, social                             | 183                  | 68           | 115          |
| Psychology, general                            | 187                  | 67           | 119          |
| Psychology, other                              | 143                  | 49           | 94           |
| SOCIAL SCIENCES                                | 3,510                | 1,981        | 1,526        |
| Anthropology                                   | 455                  | 198          | 256          |
| Area studies                                   | 6                    | 4            | 2            |
| Criminology                                    | 96                   | 51           | 45           |
| Demography/population studies                  | 20                   | 10           | 10           |
| Economics                                      | 1,031                | 720          | 309          |
| Econometrics                                   | 30                   | 21           | 9            |
| Geography                                      | 196                  | 128          | 68           |
| International relations/affairs                | 106                  | 66           | 40           |
| Political science & government                 | 619                  | 374          | 245          |
| Public policy analysis                         | 162                  | 84           | 78           |
| Sociology                                      | 535                  | 201          | 334          |
| Statistics (Social Sciences)                   | 22                   | 10           | 12           |
| Urban affairs/studies                          | 81                   | 51           | 30           |
| Social sciences, general                       | 32                   | 12           | 20           |
| Social sciences, other                         | 119                  | 51           | 68           |
| <b><u>HUMANITIES</u></b>                       | <b>5,349</b>         | <b>2,619</b> | <b>2,724</b> |
| HISTORY  | 924                  | 539          | 384          |
| History, American                              | 372                  | 215          | 157          |
| History, Asian                                 | 64                   | 38           | 26           |
| History, European                              | 211                  | 123          | 88           |
| History, African                               | 18                   | 13           | 5            |
| History, Latin American                        | 45                   | 25           | 20           |
| History/philosophy of science & technology     | 43                   | 27           | 16           |
| History, general                               | 77                   | 50           | 26           |
| History, other                                 | 94                   | 48           | 46           |
| LETTERS  | 1,601                | 631          | 969          |
| Classics                                       | 61                   | 30           | 31           |
| Comparative literature                         | 180                  | 65           | 115          |
| Folklore                                       | 18                   | 10           | 8            |

| Field of study                                | Number of doctorates |              |              |
|---|----------------------|--------------|--------------|
|   | Total <sup>a</sup>   | Male         | Female       |
| Linguistics                                   | 211                  | 73           | 137          |
| Literature, American                          | 406                  | 171          | 235          |
| Literature, English                           | 417                  | 158          | 259          |
| English language                              | 137                  | 55           | 82           |
| Speech & rhetorical studies                   | 98                   | 44           | 54           |
| Letters, general                              | 19                   | 9            | 10           |
| Letters, other                                | 54                   | 16           | 38           |
| <b>FOREIGN LANGUAGES &amp; LITERATURE</b>     | <b>609</b>           | <b>241</b>   | <b>367</b>   |
| French  | 113                  | 37           | 76           |
| German  | 76                   | 34           | 42           |
| Italian                                       | 19                   | 6            | 13           |
| Spanish                                       | 241                  | 87           | 154          |
| Russian                                       | 21                   | 8            | 13           |
| Slavic (other than Russian)                   | 13                   | 3            | 10           |
| Chinese                                       | 22                   | 16           | 6            |
| Japanese                                      | 23                   | 15           | 7            |
| Arabic  | 6                    | 5            | 1            |
| Other languages & literature                  | 75                   | 30           | 45           |
| <b>other HUMANITIES</b>                       | <b>2,215</b>         | <b>1,208</b> | <b>1,004</b> |
| American studies                              | 104                  | 47           | 57           |
| Archeology                                    | 44                   | 15           | 29           |
| Art history/criticism/conservation            | 211                  | 55           | 156          |
| Music   | 904                  | 483          | 419          |
| Philosophy                                    | 354                  | 265          | 89           |
| Religion                                      | 369                  | 246          | 123          |
| Drama/theater arts                            | 88                   | 38           | 49           |
| Humanities, general                           | 25                   | 14           | 11           |
| Humanities, other                             | 116                  | 45           | 71           |
| <b><u>EDUCATION</u></b>                       | <b>6,229</b>         | <b>2,065</b> | <b>4,154</b> |
| <b>EDUCATION ADMINISTRATION</b>               | <b>2,170</b>         | <b>844</b>   | <b>1,322</b> |
| Educational administration & supervision      | 731                  | 312          | 419          |
| Educational leadership                        | 1,439                | 532          | 903          |
| <b>EDUCATION RESEARCH</b>                     | <b>2,668</b>         | <b>809</b>   | <b>1,856</b> |
| Curriculum & instruction                      | 984                  | 272          | 710          |
| Educational/instructional media design        | 124                  | 56           | 68           |
| Educational statistics/research methods       | 59                   | 19           | 40           |
| Educational assessment/testing/measure        | 56                   | 23           | 33           |
| Educational psychology                        | 249                  | 72           | 177          |
| School psychology                             | 111                  | 26           | 85           |
| Social/philosophical foundations of education | 154                  | 55           | 98           |
| Special education                             | 240                  | 42           | 198          |
| Counseling education/counseling & guidance    | 177                  | 48           | 129          |
| Higher education/evaluation & research        | 514                  | 196          | 318          |
| <b>TEACHER EDUCATION</b>                      | <b>264</b>           | <b>63</b>    | <b>200</b>   |
| Education, pre-elementary/early childhood     | 36                   | 4            | 32           |
| Education, elementary                         | 56                   | 6            | 50           |
| Education, secondary                          | 22                   | 5            | 17           |
| Education, adult & continuing                 | 150                  | 48           | 101          |
| <b>TEACHING FIELDS</b>                        | <b>664</b>           | <b>205</b>   | <b>458</b>   |
| Teaching, agricultural education              | 25                   | 20           | 5            |
| Teaching, art education                       | 34                   | 5            | 29           |
| Teaching, business education                  | 7                    | 1            | 6            |
| Teaching, english education                   | 55                   | 13           | 42           |
| Teaching, foreign languages education         | 80                   | 25           | 54           |
| Teaching, health education                    | 44                   | 6            | 38           |

| Field of study  | Number of doctorates |              |              |
|---|----------------------|--------------|--------------|
|   | Total <sup>a</sup>   | Male         | Female       |
| Teaching, family & consumer sci./home economics education | 11                   | 1            | 10           |
| Teaching, mathematics education                           | 89                   | 33           | 56           |
| Teaching, music education                                 | 61                   | 19           | 42           |
| Teaching, nursing education                               | 10                   | 0            | 10           |
| Teaching, physical education & coaching                   | 49                   | 27           | 22           |
| Teaching, reading education                               | 74                   | 9            | 65           |
| Teaching, science education                               | 67                   | 28           | 39           |
| Teaching, social science education                        | 15                   | 6            | 9            |
| Teaching, trade & industrial education                    | 6                    | 5            | 1            |
| Teacher education & prof. dev.                            | 37                   | 7            | 30           |
| <b>OTHER EDUCATION</b>                                    | <b>463</b>           | <b>144</b>   | <b>318</b>   |
| Education, general  | 220                  | 71           | 148          |
| Education, other  | 243                  | 73           | 170          |
| <b>OTHER FIELDS</b>                                       | <b>2,530</b>         | <b>1,296</b> | <b>1,229</b> |
| <b>BUSINESS MGMT./ADMINISTRATIVE SERVICES</b>             | <b>1,168</b>         | <b>692</b>   | <b>472</b>   |
| Accounting  | 129                  | 76           | 53           |
| Banking/financial support services                        | 83                   | 58           | 25           |
| Business administration & management                      | 300                  | 197          | 99           |
| Business/managerial economics                             | 55                   | 40           | 15           |
| International business/trade/commerce                     | 28                   | 12           | 16           |
| Management information systems/business data              | 94                   | 64           | 30           |
| Marketing management & research                           | 142                  | 79           | 63           |
| Human resources development                               | 101                  | 33           | 68           |
| Operations research                                       | 48                   | 40           | 8            |
| Organizational behavior                                   | 120                  | 55           | 65           |
| Business management/administration serv., general         | 28                   | 15           | 13           |
| Business management/administration serv., other           | 40                   | 23           | 17           |
| <b>COMMUNICATIONS</b>                                     | <b>486</b>           | <b>213</b>   | <b>272</b>   |
| Communications research                                   | 63                   | 29           | 34           |
| Mass communications                                       | 214                  | 102          | 112          |
| Communication theory                                      | 54                   | 23           | 31           |
| Communications, general                                   | 76                   | 28           | 47           |
| Communications, other                                     | 79                   | 31           | 48           |
| <b>FIELDS NOT ELSEWHERE CLASSIFIED</b>                    | <b>846</b>           | <b>379</b>   | <b>467</b>   |
| Architectural environmental design                        | 76                   | 52           | 24           |
| Family/consumer sci./human sci., general                  | 51                   | 11           | 40           |
| Law   | 40                   | 26           | 14           |
| Library science   | 30                   | 5            | 25           |
| Parks/sports/recreation/leisure/fitness                   | 72                   | 42           | 30           |
| Public administration                                     | 103                  | 57           | 46           |
| Social work   | 325                  | 88           | 237          |
| Theology/religious education                              | 149                  | 98           | 51           |
| <b>FIELDS NOT LISTED ABOVE</b>                            | <b>30</b>            | <b>12</b>    | <b>18</b>    |

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

<sup>a</sup> Totals include doctorate recipients whose sex was unknown (total is 59).

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2005

| Subfield of study                           | U.S. citizens <sup>a</sup>              |                   |        |                              |                    |       |        |              |         |                | Other/ unknown race <sup>e</sup> |
|---|---|-------------------|--------|------------------------------|--------------------|-------|--------|--------------|---------|----------------|----------------------------------|
|   | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | Total  | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White  | Puerto Rican | Mexican | Other Hispanic |                                  |
| <b>TOTAL ALL FIELDS</b>                     | 43,354                                  | 14,424            | 26,312 | 139                          | 1,493              | 1,688 | 20,845 | 264          | 497     | 533            | 853                              |
| <b>PHYSICAL SCIENCES</b>                    | 6,699                                   | 3,266             | 3,074  | 9                            | 241                | 84    | 2,508  | 27           | 31      | 58             | 116                              |
| <b>MATHEMATICS</b>                          | 1,203                                   | 663               | 480    | 0                            | 38                 | 16    | 387    | 5            | 7       | 11             | 16                               |
| Applied mathematics                         | 291                                     | 168               | 119    | 0                            | 10                 | 7     | 91     | 2            | 5       | 2              | 2                                |
| Mathematics, algebra                        | 97                                      | 44                | 52     | 0                            | 3                  | 2     | 41     | 1            | 0       | 2              | 3                                |
| Mathematics, analysis & functional analysis | 111                                     | 62                | 49     | 0                            | 5                  | 1     | 39     | 1            | 0       | 1              | 2                                |
| Mathematics, geometry                       | 96                                      | 53                | 43     | 0                            | 5                  | 0     | 34     | 0            | 0       | 2              | 2                                |
| Mathematics, logic                          | 26                                      | 12                | 14     | 0                            | 1                  | 1     | 12     | 0            | 0       | 0              | 0                                |
| Mathematics, number theory                  | 62                                      | 25                | 36     | 0                            | 3                  | 1     | 28     | 0            | 1       | 1              | 2                                |
| Mathematics, statistics                     | 267                                     | 184               | 73     | 0                            | 7                  | 1     | 61     | 0            | 0       | 1              | 3                                |
| Mathematics, topology                       | 51                                      | 27                | 24     | 0                            | 1                  | 1     | 20     | 1            | 1       | 0              | 0                                |
| Mathematics, computing theory & practice    | 16                                      | 8                 | 8      | 0                            | 1                  | 0     | 7      | 0            | 0       | 0              | 0                                |
| Mathematics, operations research            | 23                                      | 14                | 9      | 0                            | 2                  | 1     | 6      | 0            | 0       | 0              | 0                                |
| Mathematics, general                        | 104                                     | 41                | 25     | 0                            | 0                  | 0     | 22     | 0            | 0       | 1              | 2                                |
| Mathematics, other                          | 59                                      | 25                | 28     | 0                            | 0                  | 1     | 26     | 0            | 0       | 1              | 0                                |
| <b>COMPUTER &amp; INFORMATION SCIENCES</b>  | 1,136                                   | 667               | 405    | 1                            | 52                 | 15    | 305    | 0            | 2       | 7              | 23                               |
| Computer science                            | 955                                     | 582               | 325    | 1                            | 41                 | 11    | 248    | 0            | 1       | 6              | 17                               |
| Information science & systems               | 85                                      | 38                | 38     | 0                            | 3                  | 3     | 29     | 0            | 1       | 0              | 2                                |
| Computer & information science, other       | 96                                      | 47                | 42     | 0                            | 8                  | 1     | 28     | 0            | 0       | 1              | 4                                |
| <b>ASTRONOMY</b>                            | 186                                     | 63                | 120    | 0                            | 7                  | 2     | 100    | 0            | 2       | 1              | 8                                |
| Astronomy                                   | 72                                      | 20                | 52     | 0                            | 2                  | 0     | 44     | 0            | 0       | 1              | 5                                |
| Astrophysics                                | 114                                     | 43                | 68     | 0                            | 5                  | 2     | 56     | 0            | 2       | 0              | 3                                |
| <b>ATMOSPHERIC SCI. &amp; METEOROLOGY</b>   | 144                                     | 56                | 82     | 1                            | 2                  | 3     | 73     | 1            | 1       | 1              | 0                                |
| Atmospheric chemistry & climatology         | 42                                      | 19                | 23     | 1                            | 2                  | 1     | 19     | 0            | 0       | 0              | 0                                |
| Atmospheric physics & dynamics              | 28                                      | 7                 | 20     | 0                            | 0                  | 1     | 19     | 0            | 0       | 0              | 0                                |
| Meteorology                                 | 20                                      | 8                 | 11     | 0                            | 0                  | 0     | 11     | 0            | 0       | 0              | 0                                |
| Atmospheric science/meteorology, general    | 29                                      | 13                | 14     | 0                            | 0                  | 1     | 13     | 0            | 0       | 0              | 0                                |
| Atmospheric science/meteorology, other      | 25                                      | 9                 | 14     | 0                            | 0                  | 0     | 11     | 1            | 1       | 1              | 0                                |
| <b>CHEMISTRY</b>                            | 2,127                                   | 879               | 1,131  | 2                            | 85                 | 35    | 925    | 16           | 10      | 26             | 32                               |
| Chemistry, analytical                       | 364                                     | 153               | 206    | 0                            | 10                 | 8     | 173    | 3            | 1       | 7              | 4                                |
| Chemistry, inorganic                        | 255                                     | 96                | 155    | 0                            | 12                 | 1     | 136    | 1            | 1       | 1              | 3                                |
| Chemistry, organic                          | 600                                     | 256               | 333    | 1                            | 27                 | 14    | 264    | 7            | 2       | 8              | 10                               |
| Chemistry, medicinal/pharmaceutical         | 110                                     | 54                | 55     | 0                            | 10                 | 2     | 39     | 1            | 1       | 1              | 1                                |
| Chemistry, physical                         | 298                                     | 127               | 165    | 0                            | 10                 | 4     | 139    | 2            | 4       | 1              | 5                                |
| Chemistry, polymer                          | 119                                     | 63                | 56     | 0                            | 3                  | 2     | 50     | 0            | 0       | 0              | 1                                |
| Chemistry, theoretical                      | 57                                      | 32                | 25     | 0                            | 2                  | 0     | 21     | 1            | 1       | 0              | 0                                |
| Chemistry, general                          | 195                                     | 42                | 64     | 1                            | 9                  | 1     | 45     | 0            | 0       | 5              | 3                                |
| Chemistry, other                            | 129                                     | 56                | 72     | 0                            | 2                  | 3     | 58     | 1            | 0       | 3              | 5                                |

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2005

| Subfield of study                         | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         | Other/ unknown race <sup>e</sup> |
|---|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|----------------------------------|
|   |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican |                                  |
| <b>GEOLOGICAL &amp; EARTH SCIENCES</b>    | 379                                     | 131               | 225                        | 3                            | 6                  | 2     | 200   | 2            | 4       | 8                                |
| Geology                                   | 107                                     | 29                | 71                         | 1                            | 4                  | 1     | 61    | 1            | 0       | 3                                |
| Geochemistry                              | 55                                      | 17                | 38                         | 1                            | 0                  | 0     | 34    | 1            | 0       | 1                                |
| Geophysics & seismology                   | 92                                      | 50                | 39                         | 1                            | 2                  | 0     | 34    | 0            | 0       | 1                                |
| Paleontology                              | 29                                      | 5                 | 24                         | 0                            | 0                  | 0     | 22    | 0            | 0       | 1                                |
| Mineralogy & petrology                    | 8                                       | 4                 | 3                          | 0                            | 0                  | 0     | 3     | 0            | 0       | 0                                |
| Stratigraphy & sedimentation              | 15                                      | 4                 | 11                         | 0                            | 0                  | 0     | 11    | 0            | 0       | 0                                |
| Geomorphology & glacial geology           | 12                                      | 2                 | 10                         | 0                            | 0                  | 0     | 10    | 0            | 0       | 0                                |
| Geological & earth sciences, general      | 24                                      | 8                 | 7                          | 0                            | 0                  | 0     | 6     | 0            | 0       | 0                                |
| Geological & earth sciences, other        | 37                                      | 12                | 22                         | 0                            | 0                  | 1     | 19    | 0            | 0       | 2                                |
| <b>PHYSICS</b>                            | 1,334                                   | 740               | 517                        | 2                            | 48                 | 10    | 417   | 1            | 7       | 26                               |
| Physics, acoustics                        | 25                                      | 9                 | 15                         | 0                            | 0                  | 0     | 15    | 0            | 0       | 0                                |
| Physics, atomic/molecular/chemical        | 87                                      | 39                | 47                         | 0                            | 1                  | 2     | 39    | 0            | 0       | 4                                |
| Physics, elementary particle              | 188                                     | 120               | 68                         | 0                            | 7                  | 0     | 52    | 0            | 4       | 3                                |
| Biophysics                                | 72                                      | 40                | 29                         | 0                            | 3                  | 0     | 26    | 0            | 0       | 0                                |
| Physics, nuclear                          | 70                                      | 42                | 28                         | 0                            | 3                  | 0     | 25    | 0            | 0       | 0                                |
| Physics, optics/photronics                | 145                                     | 91                | 49                         | 0                            | 5                  | 4     | 39    | 0            | 0       | 1                                |
| Physics, plasma/fusion                    | 54                                      | 29                | 20                         | 0                            | 3                  | 0     | 17    | 0            | 0       | 0                                |
| Physics, polymer                          | 29                                      | 16                | 11                         | 0                            | 4                  | 0     | 6     | 0            | 1       | 0                                |
| Physics, condensed matter/low temp        | 314                                     | 206               | 104                        | 0                            | 11                 | 2     | 80    | 1            | 1       | 7                                |
| Applied physics                           | 101                                     | 49                | 40                         | 1                            | 4                  | 2     | 30    | 0            | 0       | 3                                |
| Physics, general                          | 129                                     | 41                | 48                         | 1                            | 3                  | 0     | 37    | 0            | 0       | 6                                |
| Physics, other                            | 120                                     | 58                | 58                         | 0                            | 4                  | 0     | 51    | 0            | 1       | 2                                |
| <b>OCEAN/MARINE SCIENCES</b>              | 190                                     | 67                | 114                        | 0                            | 3                  | 1     | 101   | 2            | 2       | 3                                |
| Hydrology & water resources               | 41                                      | 20                | 17                         | 0                            | 0                  | 0     | 15    | 0            | 1       | 1                                |
| Oceanography                              | 74                                      | 33                | 40                         | 0                            | 1                  | 0     | 37    | 0            | 1       | 1                                |
| Marine sciences                           | 61                                      | 10                | 49                         | 0                            | 2                  | 1     | 41    | 2            | 0       | 1                                |
| Ocean/marine sciences, other              | 14                                      | 4                 | 8                          | 0                            | 0                  | 0     | 8     | 0            | 0       | 0                                |
| <b>ENGINEERING</b>                        | 6,404                                   | 4,039             | 1,999                      | 8                            | 242                | 85    | 1,521 | 16           | 24      | 70                               |
| <b>AEROSPACE/AERONAUTICAL ENGINEERING</b> | 219                                     | 120               | 93                         | 1                            | 7                  | 2     | 71    | 1            | 3       | 6                                |
| <b>CHEMICAL AND RELATED ENGINEERING</b>   | 875                                     | 511               | 294                        | 0                            | 33                 | 11    | 223   | 5            | 6       | 12                               |
| Chemical engineering                      | 774                                     | 436               | 276                        | 0                            | 31                 | 11    | 208   | 5            | 6       | 11                               |
| Petroleum engineering                     | 50                                      | 39                | 4                          | 0                            | 1                  | 0     | 3     | 0            | 0       | 0                                |
| Polymer & plastics engineering            | 51                                      | 36                | 14                         | 0                            | 1                  | 0     | 12    | 0            | 0       | 1                                |
| <b>CIVIL AND RELATED ENGINEERING</b>      | 757                                     | 516               | 211                        | 0                            | 13                 | 7     | 174   | 2            | 1       | 7                                |
| Civil engineering                         | 621                                     | 435               | 158                        | 0                            | 9                  | 4     | 130   | 2            | 1       | 6                                |
| Environmental health engineering          | 136                                     | 81                | 53                         | 0                            | 4                  | 3     | 44    | 0            | 0       | 1                                |

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2005

| Subfield of study                              | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         | Other/ unknown race <sup>e</sup> |                |
|--|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|----------------------------------|----------------|
|  |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican |                                  | Other Hispanic |
| <b>ELECTRICAL AND RELATED ENGINEERING</b>      | 1,852                                   | 1,289             | 466                        | 2                            | 77                 | 28    | 332   | 2            | 3       | 6                                | 16             |
| Communications engineering                     | 27                                      | 24                | 3                          | 0                            | 2                  | 0     | 1     | 0            | 0       | 0                                | 0              |
| Computer engineering                           | 277                                     | 203               | 63                         | 0                            | 12                 | 6     | 38    | 0            | 1       | 1                                | 5              |
| Electrical & electronics engineering           | 1,548                                   | 1,062             | 400                        | 2                            | 63                 | 22    | 293   | 2            | 2       | 5                                | 11             |
| <b>INDUSTRIAL ENGINEERING</b>                  | 222                                     | 145               | 59                         | 0                            | 3                  | 7     | 46    | 1            | 0       | 0                                | 2              |
| <b>MECHANICAL AND RELATED ENGINEERING</b>      | 978                                     | 637               | 292                        | 4                            | 32                 | 8     | 228   | 1            | 6       | 5                                | 8              |
| Engineering mechanics                          | 86                                      | 66                | 20                         | 0                            | 4                  | 0     | 16    | 0            | 0       | 0                                | 0              |
| Mechanical engineering                         | 892                                     | 571               | 272                        | 4                            | 28                 | 8     | 212   | 1            | 6       | 5                                | 8              |
| <b>MATERIALS/METALLURGICAL ENGINEERING</b>     | 540                                     | 334               | 177                        | 0                            | 15                 | 4     | 145   | 2            | 3       | 5                                | 3              |
| Ceramic sciences engineering                   | 14                                      | 8                 | 6                          | 0                            | 0                  | 0     | 6     | 0            | 0       | 0                                | 0              |
| Materials science engineering                  | 493                                     | 303               | 163                        | 0                            | 15                 | 4     | 131   | 2            | 3       | 5                                | 3              |
| Metallurgical engineering                      | 33                                      | 23                | 8                          | 0                            | 0                  | 0     | 8     | 0            | 0       | 0                                | 0              |
| <b>OTHER ENGINEERING</b>                       | 961                                     | 487               | 407                        | 1                            | 62                 | 18    | 302   | 2            | 2       | 4                                | 16             |
| Agricultural engineering                       | 47                                      | 26                | 21                         | 0                            | 0                  | 0     | 20    | 1            | 0       | 0                                | 0              |
| Bioengineering & biomedical engineering        | 417                                     | 185               | 211                        | 0                            | 47                 | 7     | 143   | 1            | 0       | 4                                | 9              |
| Engineering physics                            | 27                                      | 15                | 12                         | 0                            | 2                  | 0     | 10    | 0            | 0       | 0                                | 0              |
| Engineering science                            | 42                                      | 25                | 10                         | 0                            | 0                  | 2     | 8     | 0            | 0       | 0                                | 0              |
| Mining & mineral engineering                   | 12                                      | 7                 | 5                          | 1                            | 0                  | 0     | 4     | 0            | 0       | 0                                | 0              |
| Nuclear engineering                            | 71                                      | 38                | 29                         | 0                            | 4                  | 1     | 22    | 0            | 0       | 0                                | 2              |
| Ocean engineering                              | 18                                      | 9                 | 8                          | 0                            | 0                  | 0     | 7     | 0            | 0       | 0                                | 1              |
| Operations research engineering                | 87                                      | 60                | 26                         | 0                            | 3                  | 1     | 20    | 0            | 1       | 0                                | 1              |
| Systems engineering                            | 56                                      | 27                | 27                         | 0                            | 1                  | 1     | 23    | 0            | 1       | 0                                | 1              |
| Engineering, general                           | 53                                      | 26                | 13                         | 0                            | 2                  | 3     | 8     | 0            | 0       | 0                                | 0              |
| Engineering, other                             | 131                                     | 69                | 45                         | 0                            | 3                  | 3     | 37    | 0            | 0       | 0                                | 2              |
| <b>LIFE SCIENCES</b>                           | 9,306                                   | 2,917             | 5,911                      | 19                           | 508                | 269   | 4,679 | 64           | 92      | 110                              | 170            |
| <b>AGRICULTURAL SCIENCES/NATURAL RESOURCES</b> | 1,161                                   | 520               | 564                        | 3                            | 15                 | 13    | 502   | 5            | 4       | 9                                | 13             |
| Agricultural economics                         | 123                                     | 75                | 37                         | 0                            | 2                  | 0     | 29    | 0            | 1       | 3                                | 2              |
| Agricultural animal breeding                   | 14                                      | 6                 | 7                          | 0                            | 0                  | 0     | 7     | 0            | 0       | 0                                | 0              |
| Animal nutrition                               | 51                                      | 21                | 29                         | 0                            | 0                  | 0     | 26    | 1            | 0       | 0                                | 2              |
| Poultry science                                | 14                                      | 6                 | 6                          | 0                            | 0                  | 1     | 4     | 1            | 0       | 0                                | 0              |
| Animal sciences, other                         | 71                                      | 20                | 41                         | 1                            | 1                  | 1     | 36    | 0            | 0       | 1                                | 1              |
| Agronomy & crop science                        | 79                                      | 31                | 43                         | 1                            | 1                  | 1     | 40    | 0            | 0       | 0                                | 0              |
| Agricultural & horticultural plant breeding    | 35                                      | 19                | 15                         | 0                            | 0                  | 0     | 12    | 1            | 1       | 1                                | 0              |
| Plant pathology/phytopathology                 | 71                                      | 40                | 29                         | 1                            | 0                  | 0     | 28    | 0            | 0       | 0                                | 0              |
| Plant sciences, other                          | 31                                      | 13                | 16                         | 0                            | 1                  | 0     | 14    | 0            | 0       | 0                                | 1              |
| Food science                                   | 93                                      | 59                | 28                         | 0                            | 4                  | 1     | 20    | 0            | 1       | 0                                | 2              |
| Food science & technology, other               | 48                                      | 29                | 18                         | 0                            | 2                  | 3     | 11    | 1            | 0       | 1                                | 0              |

APPENDIX TABLE A-2. Number of doctorate recipients, by citizenship, race/ethnicity, and subfield of study, 2005

| Subfield of study                         | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |            |              |              |           |                |                                 |   |   |
|---|---|-------------------|----------------------------|------------------------------|--------------------|------------|--------------|--------------|-----------|----------------|---------------------------------|---|---|
|   |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black      | White        | Puerto Rican | Mexican   | Other Hispanic | Other unknown race <sup>e</sup> |   |   |
| Soil chemistry/microbiology               | 24                                      | 15                | 9                          | 0                            | 0                  | 1          | 7            | 0            | 0         | 0              | 0                               | 0 | 1 |
| Soil sciences, other                      | 52                                      | 28                | 22                         | 0                            | 0                  | 0          | 21           | 0            | 0         | 0              | 0                               | 1 | 0 |
| Horticulture science                      | 49                                      | 31                | 16                         | 0                            | 0                  | 0          | 15           | 0            | 0         | 0              | 0                               | 1 | 0 |
| Fishing & fisheries sciences & management | 34                                      | 7                 | 27                         | 0                            | 1                  | 0          | 26           | 0            | 0         | 0              | 0                               | 0 | 0 |
| Forest sciences & biology                 | 29                                      | 14                | 15                         | 0                            | 0                  | 0          | 15           | 0            | 0         | 0              | 0                               | 0 | 0 |
| Forest/resources management               | 40                                      | 14                | 24                         | 0                            | 0                  | 0          | 24           | 0            | 0         | 0              | 0                               | 0 | 0 |
| Wood science & pulp/paper technology      | 15                                      | 6                 | 7                          | 0                            | 0                  | 1          | 6            | 0            | 0         | 0              | 0                               | 0 | 0 |
| Natural resources/conservation            | 64                                      | 18                | 42                         | 0                            | 0                  | 1          | 41           | 0            | 0         | 0              | 0                               | 0 | 0 |
| Forestry & related science, other         | 24                                      | 9                 | 14                         | 0                            | 0                  | 0          | 14           | 0            | 0         | 0              | 0                               | 0 | 0 |
| Wildlife/range management                 | 44                                      | 11                | 30                         | 0                            | 0                  | 0          | 29           | 0            | 0         | 0              | 0                               | 0 | 1 |
| Environmental science                     | 129                                     | 39                | 78                         | 0                            | 2                  | 3          | 67           | 1            | 1         | 1              | 1                               | 3 | 0 |
| Agriculture, general                      | 10                                      | 2                 | 5                          | 0                            | 0                  | 0          | 5            | 0            | 0         | 0              | 0                               | 0 | 0 |
| Agricultural science, other               | 17                                      | 7                 | 6                          | 0                            | 0                  | 0          | 5            | 0            | 0         | 0              | 0                               | 0 | 0 |
| <b>BIOLOGICAL/BIOMEDICAL SCIENCES</b>     | <b>6,368</b>                            | <b>1,932</b>      | <b>4,141</b>               | <b>12</b>                    | <b>409</b>         | <b>142</b> | <b>3,248</b> | <b>53</b>    | <b>68</b> | <b>86</b>      | <b>123</b>                      |   |   |
| Biochemistry                              | 692                                     | 262               | 410                        | 0                            | 42                 | 14         | 322          | 5            | 4         | 12             | 11                              |   |   |
| Biomedical sciences                       | 248                                     | 84                | 151                        | 1                            | 22                 | 12         | 106          | 3            | 3         | 2              | 2                               |   |   |
| Biophysics                                | 144                                     | 56                | 87                         | 0                            | 9                  | 5          | 69           | 0            | 0         | 2              | 2                               |   |   |
| Biotechnology                             | 23                                      | 12                | 11                         | 0                            | 2                  | 0          | 9            | 0            | 0         | 0              | 0                               |   |   |
| Bacteriology                              | 13                                      | 5                 | 8                          | 0                            | 0                  | 0          | 6            | 1            | 1         | 0              | 0                               |   |   |
| Plant genetics                            | 50                                      | 14                | 35                         | 0                            | 3                  | 0          | 26           | 0            | 3         | 2              | 1                               |   |   |
| Plant pathology (Biological)              | 31                                      | 16                | 10                         | 0                            | 1                  | 0          | 9            | 0            | 0         | 0              | 0                               |   |   |
| Plant physiology                          | 38                                      | 18                | 20                         | 0                            | 1                  | 0          | 18           | 0            | 0         | 1              | 0                               |   |   |
| Botany/plant biology                      | 87                                      | 27                | 53                         | 0                            | 4                  | 0          | 42           | 0            | 0         | 1              | 6                               |   |   |
| Anatomy                                   | 23                                      | 7                 | 15                         | 0                            | 1                  | 0          | 13           | 1            | 0         | 0              | 0                               |   |   |
| Biometrics & biostatistics                | 130                                     | 74                | 54                         | 0                            | 10                 | 2          | 39           | 0            | 1         | 0              | 2                               |   |   |
| Cellular biology & histology              | 316                                     | 99                | 203                        | 0                            | 21                 | 10         | 158          | 0            | 4         | 7              | 3                               |   |   |
| Ecology                                   | 412                                     | 63                | 334                        | 2                            | 7                  | 2          | 308          | 4            | 3         | 3              | 5                               |   |   |
| Developmental biology/embryology          | 162                                     | 57                | 103                        | 1                            | 14                 | 1          | 81           | 0            | 1         | 2              | 3                               |   |   |
| Endocrinology                             | 29                                      | 12                | 17                         | 0                            | 3                  | 1          | 13           | 0            | 0         | 0              | 0                               |   |   |
| Entomology                                | 103                                     | 28                | 64                         | 0                            | 4                  | 0          | 55           | 1            | 0         | 1              | 3                               |   |   |
| Immunology                                | 343                                     | 106               | 233                        | 2                            | 33                 | 9          | 170          | 3            | 8         | 4              | 4                               |   |   |
| Molecular biology                         | 726                                     | 244               | 460                        | 1                            | 66                 | 15         | 338          | 5            | 9         | 8              | 18                              |   |   |
| Microbiology                              | 430                                     | 103               | 307                        | 2                            | 20                 | 12         | 244          | 6            | 6         | 8              | 9                               |   |   |
| Neuroscience                              | 689                                     | 191               | 480                        | 0                            | 53                 | 9          | 372          | 5            | 5         | 16             | 20                              |   |   |
| Nutritional sciences                      | 163                                     | 54                | 100                        | 1                            | 5                  | 6          | 84           | 1            | 1         | 1              | 1                               |   |   |
| Parasitology                              | 21                                      | 8                 | 13                         | 0                            | 0                  | 1          | 9            | 1            | 0         | 1              | 1                               |   |   |
| Toxicology                                | 102                                     | 23                | 75                         | 1                            | 5                  | 3          | 60           | 2            | 2         | 1              | 1                               |   |   |
| Genetics, human & animal                  | 287                                     | 71                | 206                        | 0                            | 20                 | 7          | 167          | 0            | 1         | 4              | 7                               |   |   |
| Pathology, human & animal                 | 93                                      | 30                | 57                         | 0                            | 7                  | 5          | 41           | 0            | 3         | 0              | 1                               |   |   |
| Pharmacology, human & animal              | 315                                     | 102               | 203                        | 0                            | 27                 | 15         | 147          | 3            | 5         | 3              | 3                               |   |   |

| Subfield of study                              | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |            |              |              |            | Other/ unknown race <sup>e</sup> |                |
|--|---|-------------------|----------------------------|------------------------------|--------------------|------------|--------------|--------------|------------|----------------------------------|----------------|
|  |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black      | White        | Puerto Rican | Mexican    |                                  | Other Hispanic |
| Physiology, human & animal                     | 208                                     | 71                | 135                        | 1                            | 9                  | 6          | 105          | 1            | 3          | 3                                | 7              |
| Zoology, other                                 | 103                                     | 16                | 78                         | 0                            | 6                  | 0          | 68           | 2            | 1          | 0                                | 1              |
| Biology/biomedical sciences, general           | 189                                     | 39                | 118                        | 0                            | 8                  | 4          | 91           | 8            | 1          | 2                                | 4              |
| Biology/biomedical sciences, other             | 198                                     | 40                | 101                        | 0                            | 6                  | 3          | 78           | 1            | 3          | 2                                | 8              |
| HEALTH SCIENCES                                | 1,777                                   | 465               | 1,206                      | 4                            | 84                 | 114        | 929          | 6            | 20         | 15                               | 34             |
| Speech-language pathology & audiology          | 97                                      | 19                | 77                         | 0                            | 2                  | 6          | 62           | 0            | 1          | 4                                | 2              |
| Environmental health                           | 42                                      | 15                | 25                         | 0                            | 1                  | 0          | 21           | 0            | 0          | 1                                | 2              |
| Environmental toxicology                       | 42                                      | 10                | 22                         | 0                            | 1                  | 1          | 19           | 0            | 1          | 0                                | 0              |
| Health systems/service administration          | 70                                      | 23                | 46                         | 0                            | 4                  | 5          | 35           | 0            | 1          | 0                                | 1              |
| Public health                                  | 279                                     | 57                | 212                        | 1                            | 27                 | 33         | 133          | 2            | 3          | 4                                | 9              |
| Epidemiology                                   | 229                                     | 61                | 162                        | 0                            | 22                 | 7          | 123          | 1            | 1          | 3                                | 5              |
| Kinesiology/exercise science                   | 153                                     | 26                | 122                        | 1                            | 0                  | 7          | 110          | 0            | 4          | 0                                | 0              |
| Nursing science                                | 418                                     | 74                | 317                        | 1                            | 10                 | 23         | 269          | 1            | 4          | 1                                | 8              |
| Pharmacy                                       | 168                                     | 99                | 49                         | 0                            | 6                  | 8          | 34           | 0            | 0          | 1                                | 0              |
| Rehabilitation/therapeutic services            | 66                                      | 15                | 51                         | 1                            | 4                  | 6          | 37           | 0            | 1          | 1                                | 1              |
| Veterinary medicine                            | 47                                      | 26                | 14                         | 0                            | 0                  | 0          | 13           | 0            | 0          | 0                                | 1              |
| Health sciences, general                       | 46                                      | 11                | 34                         | 0                            | 1                  | 6          | 23           | 1            | 1          | 0                                | 2              |
| Health sciences, other                         | 120                                     | 29                | 75                         | 0                            | 6                  | 12         | 50           | 1            | 3          | 0                                | 3              |
| <b>SOCIAL SCIENCES AND PSYCHOLOGY</b>          | <b>6,837</b>                            | <b>1,604</b>      | <b>4,807</b>               | <b>32</b>                    | <b>198</b>         | <b>296</b> | <b>3,806</b> | <b>53</b>    | <b>103</b> | <b>133</b>                       | <b>186</b>     |
| <b>PSYCHOLOGY</b>                              | <b>3,327</b>                            | <b>290</b>        | <b>2,811</b>               | <b>15</b>                    | <b>110</b>         | <b>159</b> | <b>2,243</b> | <b>37</b>    | <b>58</b>  | <b>83</b>                        | <b>106</b>     |
| Psychology, clinical                           | 1,158                                   | 60                | 1,035                      | 7                            | 46                 | 55         | 809          | 14           | 16         | 40                               | 48             |
| Psychology, cognitive & psycholinguistics      | 147                                     | 19                | 122                        | 1                            | 2                  | 1          | 106          | 0            | 1          | 1                                | 10             |
| Psychology, comparative                        | 5                                       | 0                 | 5                          | 0                            | 0                  | 0          | 5            | 0            | 0          | 0                                | 0              |
| Psychology, counseling                         | 469                                     | 41                | 412                        | 3                            | 21                 | 38         | 310          | 5            | 9          | 17                               | 9              |
| Psychology, developmental & child              | 223                                     | 27                | 191                        | 1                            | 6                  | 9          | 156          | 4            | 3          | 8                                | 4              |
| Psychology, human development & family studies | 172                                     | 24                | 145                        | 0                            | 7                  | 15         | 110          | 0            | 8          | 1                                | 4              |
| Psychology, experimental                       | 120                                     | 25                | 93                         | 1                            | 2                  | 1          | 83           | 1            | 3          | 1                                | 1              |
| Psychology, educational                        | 81                                      | 6                 | 58                         | 0                            | 1                  | 4          | 46           | 1            | 1          | 1                                | 4              |
| Psychology, family                             | 25                                      | 0                 | 20                         | 0                            | 0                  | 0          | 20           | 0            | 0          | 0                                | 0              |
| Psychology, industrial & organizational        | 184                                     | 14                | 167                        | 0                            | 6                  | 7          | 145          | 1            | 3          | 1                                | 4              |
| Psychology, personality                        | 14                                      | 3                 | 11                         | 0                            | 1                  | 1          | 9            | 0            | 0          | 0                                | 0              |
| Psychology, physiological/psychobiology        | 85                                      | 10                | 72                         | 0                            | 4                  | 3          | 58           | 0            | 4          | 2                                | 1              |
| Psychology, psychometrics & quantitative       | 23                                      | 8                 | 15                         | 0                            | 0                  | 0          | 14           | 0            | 0          | 0                                | 1              |
| Psychology, school                             | 108                                     | 1                 | 97                         | 0                            | 3                  | 3          | 82           | 1            | 4          | 4                                | 0              |
| Psychology, social                             | 183                                     | 21                | 155                        | 1                            | 8                  | 12         | 116          | 1            | 4          | 4                                | 9              |
| Psychology, general                            | 187                                     | 14                | 97                         | 1                            | 1                  | 5          | 72           | 8            | 1          | 1                                | 8              |
| Psychology, other                              | 143                                     | 17                | 116                        | 0                            | 2                  | 5          | 102          | 1            | 1          | 2                                | 3              |



| Subfield of study                          | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         |                |     |  | Other/ unknown race <sup>e</sup> |
|--|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|----------------|-----|--|----------------------------------|
|  |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican | Other Hispanic |     |  |                                  |
| <b>SOCIAL SCIENCES</b>                     | 3,510                                   | 1,314             | 1,996                      | 17                           | 88                 | 137   | 1,563 | 16           | 45      | 50             | 80  |  |                                  |
| Anthropology                               | 455                                     | 79                | 345                        | 3                            | 15                 | 21    | 273   | 3            | 8       | 6              | 16  |  |                                  |
| Area studies                               | 6                                       | 2                 | 4                          | 0                            | 0                  | 0     | 3     | 0            | 0       | 0              | 1   |  |                                  |
| Criminology                                | 96                                      | 9                 | 85                         | 1                            | 1                  | 8     | 71    | 1            | 0       | 1              | 2   |  |                                  |
| Demography/population studies              | 20                                      | 13                | 7                          | 0                            | 2                  | 0     | 4     | 1            | 0       | 0              | 0   |  |                                  |
| Economics                                  | 1,031                                   | 698               | 284                        | 1                            | 24                 | 6     | 231   | 2            | 2       | 9              | 9   |  |                                  |
| Econometrics                               | 30                                      | 19                | 10                         | 0                            | 0                  | 1     | 7     | 0            | 1       | 1              | 0   |  |                                  |
| Geography                                  | 196                                     | 63                | 125                        | 0                            | 1                  | 1     | 112   | 2            | 0       | 1              | 8   |  |                                  |
| International relations/affairs            | 106                                     | 38                | 67                         | 0                            | 1                  | 4     | 52    | 1            | 3       | 3              | 3   |  |                                  |
| Political science & government             | 619                                     | 154               | 435                        | 3                            | 17                 | 30    | 352   | 1            | 9       | 9              | 14  |  |                                  |
| Public policy analysis                     | 162                                     | 45                | 104                        | 1                            | 4                  | 11    | 80    | 0            | 2       | 2              | 4   |  |                                  |
| Sociology                                  | 535                                     | 109               | 391                        | 4                            | 14                 | 38    | 289   | 5            | 15      | 12             | 14  |  |                                  |
| Statistics (Social Sciences)               | 22                                      | 14                | 4                          | 0                            | 1                  | 0     | 2     | 0            | 0       | 0              | 1   |  |                                  |
| Urban affairs/studies                      | 81                                      | 40                | 37                         | 2                            | 3                  | 4     | 23    | 0            | 2       | 0              | 3   |  |                                  |
| Social sciences, general                   | 32                                      | 8                 | 21                         | 0                            | 0                  | 4     | 14    | 0            | 1       | 1              | 1   |  |                                  |
| Social sciences, other                     | 119                                     | 23                | 77                         | 2                            | 5                  | 9     | 50    | 0            | 2       | 5              | 4   |  |                                  |
|  | 5,349                                   | 1,119             | 3,895                      | 22                           | 140                | 172   | 3,217 | 41           | 77      | 76             | 150 |  |                                  |
| <b>HUMANITIES</b>                          |   |                   |                            |                              |                    |       |       |              |         |                |     |  |                                  |
| <b>HISTORY</b>                             |   |                   |                            |                              |                    |       |       |              |         |                |     |  |                                  |
| History, American                          | 924                                     | 118               | 762                        | 6                            | 22                 | 41    | 633   | 6            | 13      | 13             | 28  |  |                                  |
| History, Asian                             | 372                                     | 23                | 345                        | 3                            | 6                  | 21    | 293   | 1            | 5       | 4              | 12  |  |                                  |
| History, European                          | 64                                      | 24                | 40                         | 0                            | 5                  | 1     | 31    | 0            | 2       | 0              | 1   |  |                                  |
| History, African                           | 211                                     | 21                | 187                        | 0                            | 2                  | 2     | 172   | 1            | 0       | 2              | 8   |  |                                  |
| History, Latin American                    | 18                                      | 4                 | 13                         | 0                            | 0                  | 5     | 7     | 0            | 0       | 0              | 1   |  |                                  |
| History/philosophy of science & technology | 45                                      | 11                | 33                         | 0                            | 0                  | 2     | 20    | 0            | 6       | 4              | 1   |  |                                  |
| History, general                           | 43                                      | 9                 | 32                         | 0                            | 2                  | 1     | 25    | 1            | 0       | 1              | 2   |  |                                  |
| History, other                             | 77                                      | 7                 | 43                         | 0                            | 3                  | 4     | 31    | 2            | 0       | 1              | 2   |  |                                  |
|  | 94                                      | 19                | 69                         | 3                            | 4                  | 5     | 54    | 1            | 0       | 1              | 1   |  |                                  |
| <b>LETTERS</b>                             |   |                   |                            |                              |                    |       |       |              |         |                |     |  |                                  |
| Classics                                   | 1,601                                   | 292               | 1,236                      | 9                            | 50                 | 62    | 1,009 | 10           | 25      | 11             | 60  |  |                                  |
| Comparative literature                     | 61                                      | 15                | 45                         | 1                            | 1                  | 0     | 41    | 0            | 0       | 0              | 2   |  |                                  |
| Folklore                                   | 180                                     | 55                | 115                        | 0                            | 15                 | 3     | 81    | 0            | 7       | 3              | 6   |  |                                  |
| Linguistics                                | 18                                      | 3                 | 12                         | 0                            | 0                  | 0     | 10    | 0            | 0       | 1              | 1   |  |                                  |
| Literature, American                       | 211                                     | 99                | 98                         | 0                            | 2                  | 1     | 85    | 1            | 1       | 2              | 6   |  |                                  |
| Literature, English                        | 406                                     | 29                | 372                        | 6                            | 15                 | 34    | 277   | 4            | 11      | 3              | 22  |  |                                  |
| English language                           | 417                                     | 50                | 346                        | 0                            | 14                 | 10    | 301   | 2            | 4       | 0              | 15  |  |                                  |
| Speech & rhetorical studies                | 137                                     | 26                | 102                        | 0                            | 3                  | 7     | 82    | 2            | 0       | 1              | 7   |  |                                  |
| Letters, general                           | 98                                      | 7                 | 88                         | 1                            | 0                  | 5     | 79    | 1            | 1       | 0              | 1   |  |                                  |
| Letters, other                             | 19                                      | 2                 | 15                         | 0                            | 0                  | 2     | 13    | 0            | 0       | 0              | 0   |  |                                  |
|  | 54                                      | 6                 | 43                         | 1                            | 0                  | 0     | 40    | 0            | 1       | 1              | 0   |  |                                  |

| Subfield of study                             | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         |                |     |  | Other/ unknown race <sup>e</sup> |
|---|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|----------------|-----|--|----------------------------------|
|   |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican | Other Hispanic |     |  |                                  |
| <b>FOREIGN LANGUAGES &amp; LITERATURE</b>     |   |                   | 336                        | 0                            | 12                 | 7     | 243   | 13           | 20      | 27             | 14  |  |                                  |
| French  | 113                                     | 40                | 70                         | 0                            | 3                  | 1     | 64    | 0            | 0       | 0              | 2   |  |                                  |
| German  | 76                                      | 32                | 40                         | 0                            | 2                  | 0     | 35    | 0            | 0       | 0              | 3   |  |                                  |
| Italian                                       | 19                                      | 9                 | 10                         | 0                            | 0                  | 0     | 8     | 1            | 1       | 0              | 0   |  |                                  |
| Spanish                                       | 241                                     | 101               | 128                        | 0                            | 3                  | 2     | 60    | 12           | 18      | 25             | 8   |  |                                  |
| Russian                                       | 21                                      | 7                 | 14                         | 0                            | 1                  | 0     | 13    | 0            | 0       | 0              | 0   |  |                                  |
| Slavic (other than Russian)                   | 13                                      | 1                 | 9                          | 0                            | 0                  | 0     | 9     | 0            | 0       | 0              | 0   |  |                                  |
| Chinese                                       | 22                                      | 12                | 10                         | 0                            | 1                  | 0     | 9     | 0            | 0       | 0              | 0   |  |                                  |
| Japanese                                      | 23                                      | 10                | 12                         | 0                            | 1                  | 0     | 10    | 0            | 0       | 1              | 0   |  |                                  |
| Arabic  | 6                                       | 2                 | 3                          | 0                            | 0                  | 0     | 3     | 0            | 0       | 0              | 0   |  |                                  |
| Other languages & literature                  | 75                                      | 25                | 40                         | 0                            | 1                  | 4     | 32    | 0            | 1       | 1              | 1   |  |                                  |
| <b>OTHER HUMANITIES</b>                       |   |                   | 1,561                      | 7                            | 56                 | 62    | 1,332 | 12           | 19      | 25             | 48  |  |                                  |
| American studies                              | 104                                     | 8                 | 92                         | 2                            | 4                  | 11    | 60    | 3            | 5       | 3              | 4   |  |                                  |
| Archeology                                    | 44                                      | 12                | 30                         | 0                            | 1                  | 1     | 27    | 0            | 0       | 0              | 1   |  |                                  |
| Art history/criticism/conservation            | 211                                     | 40                | 160                        | 2                            | 2                  | 2     | 143   | 2            | 2       | 2              | 5   |  |                                  |
| Music   | 904                                     | 208               | 587                        | 2                            | 30                 | 17    | 505   | 4            | 6       | 6              | 17  |  |                                  |
| Philosophy                                    | 354                                     | 88                | 249                        | 0                            | 5                  | 4     | 223   | 0            | 2       | 6              | 9   |  |                                  |
| Religion                                      | 369                                     | 71                | 283                        | 0                            | 9                  | 16    | 248   | 1            | 1       | 3              | 5   |  |                                  |
| Drama/theater arts                            | 88                                      | 16                | 68                         | 1                            | 0                  | 2     | 56    | 2            | 2       | 3              | 2   |  |                                  |
| Humanities, general                           | 25                                      | 3                 | 18                         | 0                            | 0                  | 1     | 17    | 0            | 0       | 0              | 0   |  |                                  |
| Humanities, other                             | 116                                     | 24                | 74                         | 0                            | 5                  | 8     | 53    | 0            | 1       | 2              | 5   |  |                                  |
| <b>EDUCATION</b>                              |   |                   | 5,136                      | 43                           | 112                | 661   | 3,928 | 42           | 143     | 92             | 115 |  |                                  |
| <b>EDUCATION ADMINISTRATION</b>               |   |                   | 1,926                      | 18                           | 28                 | 312   | 1,430 | 10           | 61      | 30             | 37  |  |                                  |
| Educational administration & supervision      | 731                                     | 33                | 662                        | 4                            | 10                 | 122   | 490   | 5            | 16      | 7              | 8   |  |                                  |
| Educational leadership                        | 1,439                                   | 65                | 1,264                      | 14                           | 18                 | 190   | 940   | 5            | 45      | 23             | 29  |  |                                  |
| <b>EDUCATION RESEARCH</b>                     |   |                   | 2,206                      | 17                           | 56                 | 243   | 1,722 | 20           | 55      | 45             | 48  |  |                                  |
| Curriculum & instruction                      | 984                                     | 138               | 784                        | 4                            | 14                 | 92    | 609   | 7            | 23      | 18             | 17  |  |                                  |
| Educational/instructional media design        | 124                                     | 40                | 84                         | 0                            | 3                  | 8     | 61    | 2            | 1       | 3              | 6   |  |                                  |
| Educational statistics/research methods       | 59                                      | 13                | 45                         | 1                            | 1                  | 4     | 36    | 0            | 1       | 1              | 1   |  |                                  |
| Educational assessment/testing/measure        | 56                                      | 15                | 36                         | 0                            | 1                  | 4     | 31    | 0            | 0       | 0              | 0   |  |                                  |
| Educational psychology                        | 249                                     | 32                | 209                        | 2                            | 11                 | 16    | 160   | 3            | 7       | 1              | 9   |  |                                  |
| School psychology                             | 111                                     | 5                 | 104                        | 1                            | 5                  | 7     | 85    | 0            | 0       | 4              | 2   |  |                                  |
| Social/philosophical foundations of education | 154                                     | 15                | 137                        | 2                            | 7                  | 18    | 97    | 0            | 4       | 7              | 2   |  |                                  |
| Special education                             | 240                                     | 23                | 196                        | 2                            | 3                  | 16    | 163   | 3            | 3       | 4              | 2   |  |                                  |
| Counseling education/counseling & guidance    | 177                                     | 8                 | 159                        | 1                            | 1                  | 26    | 118   | 4            | 2       | 3              | 4   |  |                                  |
| Higher education/evaluation & research        | 514                                     | 44                | 452                        | 4                            | 10                 | 52    | 362   | 1            | 14      | 4              | 5   |  |                                  |
| <b>TEACHER EDUCATION</b>                      |   |                   | 206                        | 4                            | 4                  | 26    | 160   | 0            | 3       | 4              | 5   |  |                                  |
| Education, pre-elementary/early childhood     | 36                                      | 8                 | 22                         | 0                            | 0                  | 2     | 20    | 0            | 0       | 0              | 0   |  |                                  |

| Subfield of study   | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         | Other unknown race <sup>e</sup> |
|---|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|---------------------------------|
|   |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican |                                 |
| Education, elementary                                     | 56                                      | 8                 | 43                         | 1                            | 1                  | 8     | 31    | 0            | 1       | 0                               |
| Education, secondary                                      | 22                                      | 3                 | 17                         | 0                            | 0                  | 3     | 13    | 0            | 1       | 0                               |
| Education, adult & continuing                             | 150                                     | 15                | 124                        | 3                            | 3                  | 13    | 96    | 0            | 1       | 3                               |
| TEACHING FIELDS   | 664                                     | 131               | 495                        | 1                            | 12                 | 29    | 414   | 5            | 12      | 9                               |
| Teaching, agricultural education                          | 25                                      | 2                 | 22                         | 0                            | 0                  | 0     | 19    | 0            | 1       | 0                               |
| Teaching, art education                                   | 34                                      | 9                 | 25                         | 0                            | 0                  | 0     | 23    | 0            | 1       | 1                               |
| Teaching, business education                              | 7                                       | 0                 | 6                          | 0                            | 0                  | 0     | 6     | 0            | 0       | 0                               |
| Teaching, English education                               | 55                                      | 14                | 40                         | 0                            | 0                  | 3     | 35    | 0            | 1       | 1                               |
| Teaching, foreign languages education                     | 80                                      | 37                | 32                         | 0                            | 3                  | 0     | 24    | 1            | 2       | 1                               |
| Teaching, health education                                | 44                                      | 1                 | 42                         | 0                            | 0                  | 4     | 34    | 1            | 2       | 1                               |
| Teaching, family & consumer sci./home economics education | 11                                      | 2                 | 4                          | 0                            | 0                  | 1     | 2     | 0            | 0       | 1                               |
| Teaching, mathematics education                           | 89                                      | 16                | 70                         | 0                            | 3                  | 4     | 57    | 0            | 1       | 3                               |
| Teaching, music education                                 | 61                                      | 12                | 49                         | 0                            | 1                  | 1     | 47    | 0            | 0       | 0                               |
| Teaching, nursing education                               | 10                                      | 0                 | 10                         | 0                            | 1                  | 0     | 7     | 0            | 0       | 2                               |
| Teaching, physical education & coaching                   | 49                                      | 9                 | 36                         | 0                            | 0                  | 3     | 29    | 1            | 2       | 0                               |
| Teaching, reading education                               | 74                                      | 6                 | 63                         | 0                            | 1                  | 4     | 54    | 0            | 1       | 1                               |
| Teaching, science education                               | 67                                      | 17                | 48                         | 0                            | 1                  | 3     | 39    | 2            | 1       | 1                               |
| Teaching, social science education                        | 15                                      | 2                 | 12                         | 0                            | 1                  | 1     | 10    | 0            | 0       | 0                               |
| Teaching, trade & industrial education                    | 6                                       | 2                 | 4                          | 1                            | 0                  | 0     | 3     | 0            | 0       | 0                               |
| Teacher education & prof. dev.                            | 37                                      | 2                 | 32                         | 0                            | 1                  | 5     | 25    | 0            | 0       | 1                               |
| OTHER EDUCATION   | 463                                     | 49                | 303                        | 3                            | 12                 | 51    | 202   | 7            | 12      | 4                               |
| Education, general  | 220                                     | 11                | 144                        | 1                            | 6                  | 34    | 85    | 5            | 6       | 0                               |
| Education, other  | 243                                     | 38                | 159                        | 2                            | 6                  | 17    | 117   | 2            | 6       | 4                               |
| OTHER FIELDS  | 2,530                                   | 834               | 1,490                      | 6                            | 52                 | 121   | 1,186 | 21           | 27      | 31                              |
| BUSINESS MGMT./ADMINISTRATIVE SERVICES                    | 1,168                                   | 501               | 578                        | 1                            | 25                 | 51    | 456   | 9            | 10      | 11                              |
| Accounting  | 129                                     | 50                | 79                         | 0                            | 8                  | 5     | 60    | 2            | 1       | 1                               |
| Banking/financial support services                        | 83                                      | 66                | 16                         | 0                            | 1                  | 2     | 12    | 0            | 0       | 1                               |
| Business administration & management                      | 300                                     | 105               | 140                        | 1                            | 2                  | 15    | 111   | 3            | 2       | 0                               |
| Business/managerial economics                             | 55                                      | 28                | 27                         | 0                            | 1                  | 1     | 24    | 1            | 0       | 0                               |
| International business/trade/commerce                     | 28                                      | 13                | 12                         | 0                            | 0                  | 0     | 7     | 1            | 2       | 1                               |
| Management information systems/business data              | 94                                      | 52                | 42                         | 0                            | 2                  | 3     | 35    | 0            | 0       | 2                               |
| Marketing management & research                           | 142                                     | 85                | 52                         | 0                            | 3                  | 9     | 35    | 0            | 2       | 1                               |
| Human resources development                               | 101                                     | 28                | 60                         | 0                            | 1                  | 7     | 47    | 2            | 0       | 2                               |
| Operations research                                       | 48                                      | 33                | 14                         | 0                            | 0                  | 0     | 13    | 0            | 1       | 0                               |
| Organizational behavior                                   | 120                                     | 20                | 99                         | 0                            | 6                  | 4     | 85    | 0            | 1       | 1                               |
| Business management/administration serv., general         | 28                                      | 7                 | 15                         | 0                            | 1                  | 2     | 10    | 0            | 0       | 2                               |
| Business management/administration serv., other           | 40                                      | 14                | 22                         | 0                            | 0                  | 3     | 17    | 0            | 1       | 0                               |

| Subfield of study                        | Total doctorate recipients <sup>b</sup> | Non-U.S. citizens | U.S. citizens <sup>a</sup> |                              |                    |       |       |              |         |                |                                 |  |
|--|---|-------------------|----------------------------|------------------------------|--------------------|-------|-------|--------------|---------|----------------|---------------------------------|--|
|  |   |                   | Total                      | American Indian <sup>c</sup> | Asian <sup>d</sup> | Black | White | Puerto Rican | Mexican | Other Hispanic | Other unknown race <sup>e</sup> |  |
| COMMUNICATIONS                           | 486                                     | 147               | 314                        | 0                            | 12                 | 18    | 260   | 2            | 7       | 7              | 8                               |  |
| Communications research                  | 63                                      | 20                | 41                         | 0                            | 3                  | 2     | 34    | 0            | 1       | 0              | 1                               |  |
| Mass communications                      | 214                                     | 73                | 133                        | 0                            | 7                  | 7     | 110   | 0            | 2       | 2              | 5                               |  |
| Communication theory                     | 54                                      | 14                | 39                         | 0                            | 1                  | 3     | 29    | 2            | 2       | 1              | 1                               |  |
| Communications, general                  | 76                                      | 9                 | 61                         | 0                            | 0                  | 2     | 55    | 0            | 1       | 3              | 0                               |  |
| Communications, other                    | 79                                      | 31                | 40                         | 0                            | 1                  | 4     | 32    | 0            | 1       | 1              | 1                               |  |
| FIELDS NOT ELSEWHERE CLASSIFIED          | 846                                     | 179               | 583                        | 5                            | 14                 | 51    | 462   | 10           | 9       | 12             | 20                              |  |
| Architectural environmental design       | 76                                      | 39                | 34                         | 0                            | 3                  | 0     | 26    | 1            | 0       | 0              | 4                               |  |
| Family/consumer sci./human sci., general | 51                                      | 12                | 31                         | 0                            | 0                  | 2     | 29    | 0            | 0       | 0              | 0                               |  |
| Law                                      | 40                                      | 22                | 10                         | 0                            | 1                  | 0     | 9     | 0            | 0       | 0              | 0                               |  |
| Library science                          | 30                                      | 12                | 17                         | 0                            | 0                  | 1     | 16    | 0            | 0       | 0              | 0                               |  |
| Parks/sports/recreation/leisure/fitness  | 72                                      | 17                | 47                         | 0                            | 2                  | 1     | 41    | 0            | 1       | 1              | 1                               |  |
| Public administration                    | 103                                     | 27                | 75                         | 0                            | 0                  | 6     | 66    | 0            | 1       | 1              | 1                               |  |
| Social work                              | 325                                     | 29                | 270                        | 4                            | 2                  | 35    | 201   | 5            | 5       | 9              | 9                               |  |
| Theology/religious education             | 149                                     | 21                | 99                         | 1                            | 6                  | 6     | 74    | 4            | 2       | 1              | 5                               |  |
| FIELDS NOT LISTED ABOVE                  | 30                                      | 7                 | 15                         | 0                            | 1                  | 1     | 8     | 0            | 1       | 1              | 3                               |  |

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.

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

<sup>b</sup> Includes 2,620 individuals who did not report their citizenship at time of doctorate. See the "Important Notice" for discussion of item response rate issues.

<sup>c</sup> Includes Alaska Natives.

<sup>d</sup> Does not include Native Hawaiians and other Pacific Islanders.

<sup>e</sup> 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/INEH/USDA/NASA, 2005 Survey of Earned Doctorates.

| Characteristics                                   | 2005<br>Total | TOTAL SCIENCES &<br>ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND<br>PSYCHOLOGY |
|---|---------------|---------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|-------------------------------|
| Number in field                                   | 43,354        | 29,246                          | 6,699                          | 1,520               | 2,127     | 713                          | 1,203       | 1,136             | 6,404       | 9,306         | 692          | 5,676                     | 1,777           | 1,161                                       | 6,837                         |
| Sex   | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| Male  | 54.7          | 60.7                            | 73.5                           | 83.5                | 66.0      | 65.9                         | 72.7        | 80.0              | 81.4        | 49.1          | 60.1         | 50.1                      | 31.8            | 64.2  | 44.5                          |
| Female  | 45.1          | 39.2                            | 26.4                           | 16.4                | 34.0      | 34.1                         | 27.1        | 19.8              | 18.3        | 50.8          | 39.9         | 49.8                      | 68.0            | 35.6  | 55.4                          |
| Unknown <sup>b</sup>                              | 0.1           | 0.1                             | 0.1                            | 0.1                 | 0.0       | 0.0                          | 0.2         | 0.2               | 0.2         | 0.1           | 0.0          | 0.1                       | 0.2             | 0.3   | 0.1                           |
| Citizenship                                       | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| U.S. citizenship                                  | 60.7          | 54.0                            | 45.9                           | 41.9                | 53.2      | 59.0                         | 39.9        | 35.7              | 31.2        | 63.5          | 59.2         | 65.7                      | 67.9            | 48.6  | 70.3                          |
| Non-U.S., permanent resident                      | 3.7           | 4.0                             | 4.2                            | 3.3                 | 3.9       | 2.9                          | 5.1         | 6.0               | 4.5         | 3.9           | 5.8          | 3.8                       | 4.3             | 3.0   | 3.3                           |
| Non-U.S., temporary visa holder                   | 29.6          | 36.5                            | 44.5                           | 49.5                | 37.5      | 32.7                         | 50.0        | 52.7              | 58.6        | 27.4          | 32.1         | 25.6                      | 21.8            | 41.8  | 20.1                          |
| Unknown   | 6.0           | 5.6                             | 5.4                            | 5.3                 | 5.5       | 5.3                          | 5.0         | 5.6               | 5.7         | 5.1           | 2.9          | 4.8                       | 6.0             | 6.6   | 6.2                           |
| Marital status                                    | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| Never married                                     | 26.5          | 30.1                            | 34.9                           | 38.5                | 34.2      | 27.6                         | 38.5        | 32.1              | 31.8        | 28.5          | 32.8         | 31.5                      | 20.9            | 22.7  | 26.0                          |
| Married   | 51.9          | 50.5                            | 47.2                           | 43.2                | 48.8      | 53.3                         | 43.6        | 49.3              | 53.4        | 51.8          | 52.9         | 49.2                      | 56.8            | 56.4  | 49.4                          |
| Separated   | 0.5           | 0.5                             | 0.6                            | 0.5                 | 0.5       | ----                         | ----        | ----              | 0.3         | 0.5           | ----         | 0.4                       | 0.7             | 0.4   | 0.7                           |
| Divorced  | 4.2           | 3.0                             | 2.3                            | 2.5                 | 1.9       | ----                         | 2.0         | 2.8               | 1.5         | 3.2           | ----         | 2.8                       | 4.8             | 3.6   | 4.6                           |
| Marriage-like relationship                        | 6.0           | 6.0                             | 6.0                            | 6.6                 | 5.9       | 7.0                          | 6.1         | 4.6               | 3.2         | 6.7           | 7.1          | 7.5                       | 5.1             | 4.8   | 7.6                           |
| Widowed   | 0.3           | 0.2                             | 0.0                            | 0.0                 | 0.0       | 0.0                          | ----        | ----              | 0.0         | 0.3           | 0.0          | 0.1                       | 0.6             | 0.4   | 0.3                           |
| Unknown   | 10.6          | 9.8                             | 9.0                            | 8.6                 | 8.6       | 8.7                          | 9.0         | 10.6              | 9.8         | 9.1           | 5.3          | 8.5                       | 11.0            | 11.6  | 11.3                          |
| Median age at doctorate                           | 33.0          | 31.4                            | 30.4                           | 30.3                | 29.5      | 32.0                         | 30.3        | 31.7              | 31.1        | 31.5          | 29.8         | 30.7                      | 36.2            | 33.2  | 33.1                          |
| Bachelor's in same field as doctorate             | 52.7          | 59.5                            | 65.0                           | 72.9                | 74.1      | 49.1                         | 66.6        | 45.4              | 74.8        | 48.4          | 30.5         | 52.7                      | 43.7            | 45.4  | 54.7                          |
| Percent with master's                             | 74.8          | 68.6                            | 64.5                           | 70.0                | 43.4      | 71.4                         | 75.1        | 81.2              | 80.5        | 52.9          | 34.4         | 40.6                      | 81.1            | 80.5  | 82.8                          |
| Median time lapse from baccalaureate to doctorate | Yrs           |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| Since baccalaureate                               | 9.9           | 8.6                             | 7.8                            | 7.6                 | 6.8       | 9.0                          | 7.8         | 8.9               | 8.2         | 8.7           | 7.3          | 8.0                       | 12.5            | 9.9   | 9.9                           |
| Since starting graduate school                    | 8.2           | 7.2                             | 6.7                            | 6.7                 | 5.9       | 7.8                          | 6.8         | 7.7               | 7.2         | 7.1           | 6.5          | 6.7                       | 9.7             | 7.9   | 8.0                           |
| Postdoctoral plans                                | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| Definite postdoctoral study                       | 24.7          | 33.7                            | 40.0                           | 49.5                | 47.0      | 45.5                         | 34.5        | 15.9              | 21.0        | 46.5          | 63.4         | 56.5                      | 19.8            | 26.0  | 21.7                          |
| Definite employment                               | 44.9          | 35.9                            | 32.3                           | 18.6                | 25.6      | 29.0                         | 41.1        | 56.7              | 43.1        | 23.0          | 8.4          | 13.6                      | 51.2            | 36.8  | 50.7                          |
| Seeking employment or study                       | 27.9          | 28.3                            | 26.3                           | 30.3                | 26.3      | 24.0                         | 23.2        | 25.5              | 34.1        | 28.2          | 26.9         | 27.6                      | 27.0            | 34.5  | 24.8                          |
| Other/unknown <sup>c</sup>                        | 2.5           | 2.1                             | 1.4                            | 1.5                 | 1.1       | 1.5                          | 1.2         | 1.8               | 1.8         | 2.3           | 1.4          | 2.4                       | 2.1             | 2.7   | 2.8                           |
| Definite postdoctoral study <sup>d</sup>          | 35.5          | 48.4                            | 55.3                           | 72.7                | 64.8      | 61.1                         | 45.6        | 21.9              | 32.8        | 66.9          | 88.3         | 80.7                      | 27.9            | 41.4  | 29.9                          |
| Fellowship  | 19.3          | 26.3                            | 26.2                           | 29.7                | 30.9      | 30.9                         | 27.0        | 8.4               | 11.4        | 39.4          | 53.2         | 48.8                      | 17.8            | 14.0  | 21.2                          |
| Research associateship                            | 12.6          | 17.7                            | 27.4                           | 41.2                | 31.9      | 28.9                         | 16.9        | 12.0              | 19.8        | 18.4          | 27.2         | 20.0                      | 5.9             | 24.8  | 5.4                           |
| Traineeship                                       | 0.5           | 0.5                             | 0.3                            | ----                | 0.0       | ----                         | 0.7         | ----              | 0.2         | 0.9           | ----         | 0.8                       | 1.2             | ----  | 0.6                           |
| Intern, clinical residency                        | 1.1           | 1.6                             | 0.2                            | ----                | ----      | 0.0                          | 0.0         | ----              | 0.4         | 3.1           | ----         | 4.3                       | 1.1             | ----  | 2.0                           |
| Other study                                       | 2.0           | 2.3                             | 1.2                            | 1.0                 | ----      | ----                         | 1.0         | 1.1               | 1.0         | 5.1           | 4.7          | 6.8                       | 1.9             | 1.6   | 0.7                           |
| Definite employment after doctorate <sup>e</sup>  | 64.5          | 51.6                            | 44.7                           | 27.3                | 35.2      | 38.9                         | 54.4        | 78.1              | 67.2        | 33.1          | 11.7         | 19.3                      | 72.1            | 58.6  | 70.1                          |
| Educational institution <sup>f</sup>              | 41.4          | 24.2                            | 19.3                           | 8.3                 | 7.7       | 16.4                         | 36.4        | 38.1              | 15.1        | 18.2          | 4.5          | 9.8                       | 47.5            | 24.6  | 44.7                          |
| Industry/business                                 | 14.2          | 18.4                            | 20.8                           | 14.3                | 25.0      | 12.3                         | 13.8        | 35.0              | 43.3        | 7.7           | 5.5          | 5.5                       | 10.6            | 16.4  | 9.5                           |
| Government  | 4.9           | 5.6                             | 3.2                            | 3.7                 | 1.5       | 7.8                          | 2.9         | 3.3               | 6.6         | 4.5           | ----         | 2.6                       | 7.4             | 12.8  | 8.5                           |
| Nonprofit   | 3.3           | 2.7                             | 1.1                            | ----                | 0.7       | ----                         | ----        | 1.2               | 1.4         | 2.3           | 0.0          | 1.2                       | 6.1             | 3.6   | 6.0                           |
| Other & unknown                                   | 0.7           | 0.7                             | 0.3                            | ----                | 0.4       | ----                         | ----        | 0.4               | 0.7         | 0.4           | ----         | 0.2                       | 0.5             | 1.2   | 1.5                           |

| Characteristics                                   | Psychology | Economics | Anthropology & sociology | Political sci./ Internat'l Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|------------|-----------|--------------------------|---------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Number in field                                   | 3,327      | 1,061     | 990                      | 725                             | 734                   | 14,108            | 5,349      | 924     | 406                 | 554                        | 609                        | 2,856            | 6,229     | 2,530        | 1,168                 | 1,360                           |
| Sex   | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Male  | 31.9       | 69.8      | 40.3                     | 60.7                            | 54.6                  | 42.4              | 49.0       | 58.3    | 42.1                | 38.4                       | 39.6                       | 50.9             | 33.2      | 51.2         | 59.2                  | 44.3                            |
| Female  | 68.0       | 30.0      | 59.6                     | 39.3                            | 45.4                  | 57.5              | 50.9       | 41.6    | 57.9                | 61.6                       | 60.3                       | 48.9             | 66.7      | 48.6         | 40.4                  | 55.7                            |
| Unknown <sup>b</sup>                              | 0.0        | 0.2       | 0.1                      | 0.0                             | 0.0                   | 0.1               | 0.1        | 0.1     | 0.0                 | 0.0                        | 0.2                        | 0.1              | 0.2       | 0.2          | 0.3                   | 0.1                             |
| Citizenship                                       | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| U.S. citizenship                                  | 84.5       | 27.7      | 74.3                     | 69.2                            | 63.2                  | 74.6              | 72.8       | 82.5    | 91.6                | 80.9                       | 55.2                       | 69.2             | 82.5      | 58.9         | 49.5                  | 67.0                            |
| Non-U.S., permanent resident                      | 2.4        | 4.6       | 3.7                      | 4.4                             | 4.0                   | 3.1               | 4.5        | 1.7     | 1.5                 | 3.8                        | 10.8                       | 4.6              | 1.7       | 3.5          | 4.5                   | 2.7                             |
| Non-U.S., temporary visa holder                   | 6.3        | 63.0      | 15.3                     | 22.1                            | 25.6                  | 15.3              | 16.4       | 11.0    | 5.7                 | 9.9                        | 28.4                       | 18.4             | 8.6       | 29.4         | 38.4                  | 21.8                            |
| Unknown   | 6.8        | 4.7       | 6.7                      | 4.3                             | 7.2                   | 7.0               | 6.3        | 4.8     | 1.2                 | 5.4                        | 5.6                        | 7.8              | 7.2       | 8.1          | 7.6                   | 8.5                             |
| Marital status                                    | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Never married                                     | 25.4       | 31.7      | 24.9                     | 25.5                            | 22.6                  | 19.1              | 25.2       | 24.2    | 26.8                | 23.6                       | 26.4                       | 25.4             | 13.6      | 20.0         | 18.8                  | 21.0                            |
| Married   | 47.4       | 53.1      | 46.2                     | 52.4                            | 54.4                  | 54.7              | 48.2       | 52.3    | 48.8                | 43.9                       | 47.5                       | 47.8             | 59.8      | 55.8         | 58.0                  | 54.0                            |
| Separated   | 0.5        | 0.5       | 1.3                      | 1.4                             | 0.8                   | 0.6               | 0.7        | ----    | ----                | ----                       | ----                       | 0.7              | 0.7       | 0.5          | ----                  | 0.7                             |
| Divorced  | 4.6        | 2.0       | 7.1                      | 4.6                             | 5.2                   | 6.8               | 5.4        | 5.3     | 6.9                 | 6.0                        | 4.9                        | 5.1              | 8.6       | 5.3          | 5.5                   | 5.1                             |
| Marriage-like relationship                        | 8.1        | 5.6       | 10.0                     | 7.6                             | 5.7                   | 6.0               | 9.3        | 8.8     | 15.0                | 10.3                       | 10.7                       | 8.3              | 3.9       | 4.3          | 3.3                   | 5.3                             |
| Widowed   | 0.3        | 0.0       | 0.5                      | 0.0                             | 0.7                   | 0.6               | 0.3        | ----    | 0.0                 | ----                       | ----                       | 0.4              | 0.8       | 0.4          | ----                  | 0.6                             |
| Unknown   | 13.8       | 7.3       | 10.0                     | 8.6                             | 10.6                  | 12.2              | 10.9       | 8.5     | ----                | 15.2                       | 9.7                        | 12.3             | 12.7      | 13.7         | 14.1                  | 13.3                            |
| Median age at doctorate                           | 32.1       | 31.6      | 35.1                     | 34.7                            | 36.3                  | 37.7              | 35.2       | 35.3    | 34.9                | 35.2                       | 35.1                       | 35.2             | 42.5      | 36.9         | 35.6                  | 37.8                            |
| Bachelor's in same field as doctorate             | 63.3       | 58.6      | 45.5                     | 57.2                            | 20.2                  | 38.8              | 52.4       | 55.4    | 39.9                | 62.8                       | 43.3                       | 53.0             | 30.1      | 31.5         | 33.0                  | 30.2                            |
| Percent with master's                             | 81.7       | 78.9      | 85.8                     | 85.5                            | 87.2                  | 87.6              | 85.8       | 86.7    | 90.9                | 84.8                       | 87.0                       | 84.8             | 89.3      | 87.1         | 82.7                  | 90.9                            |
| Median time lapse from baccalaureate to doctorate | Yrs        |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Since baccalaureate                               | 9.0        | 8.8       | 11.4                     | 11.4                            | 12.3                  | 13.9              | 11.8       | 11.7    | 11.6                | 12.0                       | 11.0                       | 12.0             | 17.3      | 13.3         | 12.3                  | 14.0                            |
| Since starting graduate school                    | 7.3        | 7.2       | 9.7                      | 9.7                             | 10.2                  | 11.0              | 9.7        | 10.0    | 9.7                 | 9.7                        | 9.2                        | 9.9              | 13.0      | 10.6         | 9.7                   | 11.3                            |
| Postdoctoral plans                                | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Definite postdoctoral study                       | 34.4       | 6.9       | 14.9                     | 9.7                             | 9.7                   | 5.5               | 7.4        | 10.4    | 7.5                 | 8.6                        | 5.8                        | 6.5              | 4.5       | 4.1          | 3.0                   | 5.0                             |
| Definite employment                               | 38.0       | 74.3      | 49.6                     | 62.0                            | 61.1                  | 64.0              | 56.4       | 56.7    | 59.5                | 55.9                       | 61.0                       | 54.9             | 68.1      | 70.2         | 77.7                  | 63.9                            |
| Seeking employment or study                       | 24.7       | 16.5      | 32.5                     | 26.1                            | 25.5                  | 27.1              | 33.2       | 30.1    | 31.3                | 32.5                       | 29.1                       | 35.6             | 23.5      | 22.8         | 16.6                  | 28.1                            |
| Other/unknown <sup>c</sup>                        | 2.9        | 2.3       | 2.9                      | 2.2                             | 3.6                   | 3.4               | 3.0        | 2.8     | 1.8                 | 3.0                        | 4.2                        | 3.0              | 3.9       | 2.9          | 2.7                   | 3.0                             |
| Definite postdoctoral study <sup>d</sup>          | 47.5       | 8.5       | 23.1                     | 13.5                            | 13.7                  | 8.0               | 11.6       | 15.5    | 11.2                | 13.4                       | 8.6                        | 10.6             | 6.2       | 5.5          | 3.7                   | 7.2                             |
| Fellowship  | 35.0       | 5.3       | 14.4                     | 8.7                             | 8.4                   | 4.4               | 8.1        | 11.2    | 8.2                 | 11.4                       | 5.4                        | 6.8              | 2.3       | 2.4          | 1.5                   | 3.3                             |
| Research associateship                            | 6.7        | 2.8       | 7.0                      | 2.9                             | 4.9                   | 1.7               | 1.2        | 1.1     | 0.0                 | ----                       | 1.9                        | 1.4              | 2.1       | 2.0          | 1.7                   | 2.2                             |
| Traineeship                                       | 1.0        | ----      | ----                     | 0.0                             | ----                  | 0.3               | 0.4        | ----    | ----                | 0.0                        | ----                       | ----             | 0.3       | ----         | 0.0                   | ----                            |
| Intern, clinical residency                        | 4.1        | 0.0       | ----                     | 0.0                             | 0.0                   | 0.2               | 0.1        | ----    | 0.0                 | 0.0                        | 0.0                        | ----             | 0.3       | 0.0          | 0.0                   | 0.0                             |
| Other study                                       | 0.6        | ----      | 1.0                      | 1.9                             | ----                  | 1.4               | 1.9        | 2.3     | ----                | ----                       | ----                       | 2.0              | 1.3       | ----         | 0.5                   | ----                            |
| Definite employment after doctorate <sup>e</sup>  | 52.5       | 91.5      | 76.9                     | 86.5                            | 86.3                  | 92.0              | 88.4       | 84.5    | 88.8                | 86.6                       | 91.4                       | 89.4             | 93.8      | 94.5         | 96.3                  | 92.8                            |
| Educational institution <sup>f</sup>              | 29.3       | 54.9      | 59.0                     | 65.5                            | 56.4                  | 78.1              | 76.7       | 71.7    | 81.0                | 80.4                       | 85.7                       | 74.9             | 81.3      | 73.2         | 76.5                  | 69.8                            |
| Industry/business                                 | 10.7       | 11.3      | 6.3                      | 5.4                             | 9.0                   | 5.1               | 3.8        | 4.2     | 3.4                 | 3.6                        | 2.7                        | 4.1              | 3.8       | 10.7         | 13.0                  | 8.4                             |
| Government  | 5.2        | 16.1      | 5.6                      | 9.4                             | 12.2                  | 3.5               | 2.0        | 3.9     | ----                | 1.3                        | 1.4                        | 1.8              | 4.0       | 5.0          | 3.8                   | 6.2                             |
| Nonprofit   | 6.8        | 4.0       | 5.0                      | 5.6                             | 7.5                   | 4.5               | 5.1        | 4.2     | 3.0                 | ----                       | ----                       | 7.8              | 3.9       | 4.7          | 1.9                   | 7.5                             |
| Other & unknown                                   | 0.5        | 5.1       | 1.0                      | 0.6                             | 1.1                   | 0.8               | 0.8        | 0.5     | ----                | ----                       | ----                       | 0.9              | 0.8       | 1.0          | 1.1                   | 0.9                             |

| Characteristics                                     | 2005<br>Total | TOTAL SCIENCES &<br>ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND<br>PSYCHOLOGY |
|---|---------------|---------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|-------------------------------|
| Employment commitments after doctorate <sup>g</sup> |               |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| Primary activity <sup>h</sup>                       | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| R & D   | 34.0          | 51.0                            | 59.9                           | 64.1                | 70.4      | 53.8                         | 43.0        | 64.3              | 71.4        | 41.7          | 44.4         | 43.9                      | 35.0            | 52.1  | 34.7                          |
| Teaching  | 39.0          | 27.8                            | 29.0                           | 24.7                | 17.4      | 26.9                         | 48.0        | 26.5              | 11.5        | 32.3          | 29.6         | 30.9                      | 39.6            | 19.2  | 37.3                          |
| Administration                                      | 15.1          | 7.2                             | 3.8                            | 3.6                 | 4.1       | 3.8                          | 2.2         | 5.0               | 5.3         | 10.7          | 7.4          | 8.0                       | 13.0            | 11.2  | 8.8                           |
| Professional services                               | 10.2          | 12.3                            | 5.6                            | 4.4                 | 6.2       | 14.5                         | 4.9         | 3.2               | 10.0        | 13.0          | 14.8         | 14.6                      | 11.1            | 13.7  | 18.0                          |
| Other   | 1.6           | 1.7                             | 1.7                            | 3.2                 | 1.9       | 1.1                          | 1.8         | 1.1               | 1.8         | 2.4           | 3.7          | 2.6                       | 1.4             | 3.8   | 1.2                           |
| Secondary activity <sup>h</sup>                     | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| R & D   | 33.2          | 29.0                            | 28.2                           | 24.7                | 14.9      | 28.0                         | 45.1        | 27.9              | 16.9        | 32.8          | 16.7         | 29.9                      | 38.2            | 28.8  | 37.0                          |
| Teaching  | 18.8          | 17.4                            | 13.2                           | 5.2                 | 3.1       | 15.1                         | 19.1        | 20.2              | 12.1        | 17.5          | 7.4          | 14.3                      | 20.8            | 17.5  | 24.3                          |
| Administration                                      | 12.3          | 15.1                            | 13.4                           | 19.5                | 22.8      | 18.3                         | ----        | 8.0               | 20.8        | 16.4          | 25.9         | 15.2                      | 14.7            | 20.8  | 10.8                          |
| Professional services                               | 7.8           | 7.3                             | 6.1                            | 6.8                 | 5.2       | 9.1                          | 7.8         | 4.1               | 7.5         | 8.6           | 9.3          | 7.0                       | 9.4             | 10.1  | 7.1                           |
| Other   | 1.3           | 1.0                             | 0.7                            | 0.8                 | 1.4       | 1.1                          | ----        | 0.4               | 1.0         | 1.0           | 0.0          | 1.0                       | 0.9             | 1.4   | 1.0                           |
| No secondary activity                               | 26.5          | 30.2                            | 38.4                           | 43.0                | 52.6      | 28.5                         | 23.3        | 39.4              | 41.7        | 23.7          | 40.7         | 32.6                      | 16.0            | 21.4  | 19.8                          |
| Activity(ies) unknown                               | 2.2           | 2.1                             | 2.1                            | 3.1                 | 2.8       | 2.1                          | 1.1         | 1.7               | 2.1         | 2.2           | 1.8          | 2.5                       | 1.6             | 2.9   | 2.1                           |
| Region of employment after doctorate                | %             |                                 |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                               |
| New England   | 6.0           | 6.4                             | 7.1                            | 8.1                 | 10.9      | 6.8                          | 7.3         | 3.3               | 5.4         | 7.1           | 5.5          | 10.7                      | 5.8             | 3.2   | 6.2                           |
| Middle Atlantic                                     | 13.8          | 14.4                            | 16.2                           | 12.4                | 20.3      | 5.8                          | 18.6        | 15.9              | 13.7        | 12.0          | 16.4         | 12.4                      | 14.4            | 5.3   | 15.2                          |
| East North Central                                  | 13.0          | 11.3                            | 10.8                           | 9.3                 | 12.3      | 5.3                          | 12.9        | 10.5              | 10.7        | 10.9          | 18.2         | 10.3                      | 10.9            | 10.9  | 12.4                          |
| West North Central                                  | 6.3           | 4.9                             | 3.0                            | 4.2                 | 2.6       | 3.2                          | 3.3         | 2.6               | 3.5         | 7.2           | 3.6          | 5.8                       | 7.1             | 10.6  | 5.6                           |
| South Atlantic                                      | 17.3          | 16.6                            | 15.6                           | 14.3                | 15.9      | 17.9                         | 17.1        | 14.0              | 11.8        | 18.3          | 10.9         | 18.1                      | 20.0            | 16.0  | 19.9                          |
| East South Central                                  | 4.3           | 3.3                             | 3.2                            | 3.5                 | 2.6       | 1.6                          | 4.4         | 3.3               | 2.1         | 4.7           | 0.0          | 3.0                       | 6.6             | 4.3   | 3.4                           |
| West South Central                                  | 8.3           | 7.6                             | 7.4                            | 5.8                 | 5.6       | 18.4                         | 7.8         | 5.6               | 8.3         | 7.9           | 7.3          | 8.3                       | 8.0             | 7.2   | 7.0                           |
| Mountain  | 5.6           | 5.7                             | 5.2                            | 7.3                 | 3.6       | 11.6                         | 5.5         | 3.1               | 6.2         | 6.8           | 0.0          | 5.6                       | 7.0             | 9.3   | 5.1                           |
| Pacific & insular                                   | 15.1          | 17.0                            | 22.4                           | 24.3                | 22.7      | 17.9                         | 13.7        | 29.5              | 23.9        | 12.6          | 21.8         | 15.7                      | 10.0            | 11.4  | 10.9                          |
| Foreign   | 10.4          | 12.8                            | 9.1                            | 10.8                | 3.4       | 11.6                         | 9.3         | 12.2              | 14.3        | 12.5          | 16.4         | 10.0                      | 10.2            | 21.8  | 14.0                          |
| Region unknown                                      | 0.0           | 0.1                             | 0.0                            | 0.0                 | 0.0       | 0.0                          | 0.0         | 0.0               | 0.1         | 0.0           | 0.0          | 0.0                       | 0.0             | 0.0   | 0.1                           |

| Characteristics                                     | Psychology | Economics | Anthropology & sociology | Political sci./ Internat'l Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|------------|-----------|--------------------------|---------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Employment commitments after doctorate <sup>g</sup> |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Primary activity <sup>h</sup>                       | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 22.3       | 60.5      | 34.3                     | 25.7                            | 31.5                  | 13.8              | 12.0       | 14.2    | 7.7                 | 10.9                       | 11.1                       | 12.3             | 8.3       | 30.3         | 41.8                  | 18.6                            |
| Teaching  | 27.4       | 26.8      | 53.1                     | 56.8                            | 45.9                  | 52.5              | 74.3       | 72.7    | 79.0                | 78.7                       | 81.3                       | 71.4             | 38.3      | 48.3         | 41.6                  | 55.2                            |
| Administration                                      | 9.0        | 5.6       | 7.5                      | 10.0                            | 14.2                  | 24.4              | 6.4        | 7.6     | 9.0                 | 5.4                        | 3.3                        | 6.5              | 42.2      | 13.0         | 11.1                  | 15.1                            |
| Professional services                               | 40.2       | 6.1       | 4.2                      | 5.1                             | 7.6                   | 7.8               | 4.5        | 3.8     | 1.7                 | ----                       | 2.4                        | 5.7              | 10.3      | 7.6          | ----                  | 10.0                            |
| Other   | 1.1        | 1.0       | 0.9                      | 2.4                             | 0.8                   | 1.6               | 2.8        | 1.7     | 2.6                 | ----                       | 1.8                        | 3.9              | 1.0       | 0.7          | ----                  | 1.2                             |
| Secondary activity <sup>h</sup>                     | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 29.8       | 28.7      | 46.2                     | 52.7                            | 45.4                  | 38.1              | 51.4       | 57.6    | 52.8                | 52.3                       | 64.2                       | 45.6             | 26.4      | 43.2         | 40.0                  | 46.3                            |
| Teaching  | 19.9       | 36.3      | 23.2                     | 20.4                            | 19.8                  | 20.5              | 13.8       | 13.6    | 12.0                | 12.8                       | 11.1                       | 15.1             | 20.8      | 31.4         | 40.4                  | 22.2                            |
| Administration                                      | 15.0       | 8.9       | 9.2                      | 6.8                             | 8.6                   | 9.0               | 7.9        | 5.3     | 4.7                 | 7.8                        | 5.4                        | 10.0             | 10.4      | 7.6          | 5.9                   | 9.3                             |
| Professional services                               | 10.0       | 4.3       | 5.6                      | 4.6                             | 8.1                   | 8.5               | 4.1        | ----    | 3.4                 | 1.6                        | ----                       | 5.5              | 12.5      | 6.4          | 4.9                   | 8.1                             |
| Other   | 1.2        | 0.6       | 0.9                      | 1.2                             | 1.3                   | 1.8               | 3.2        | ----    | 3.0                 | 3.1                        | ----                       | 4.9              | 1.2       | 0.7          | 0.5                   | 0.8                             |
| No secondary activity                               | 24.2       | 21.2      | 14.8                     | 14.3                            | 16.8                  | 22.1              | 19.6       | 20.3    | 24.0                | 22.5                       | 16.0                       | 19.0             | 28.7      | 10.8         | 8.3                   | 13.3                            |
| Activity(ies) unknown                               | 2.2        | 1.9       | 3.6                      | 1.0                             | 2.0                   | 2.3               | 2.1        | 1.9     | 2.1                 | 2.6                        | 1.8                        | 2.3              | 2.3       | 2.3          | 2.6                   | 2.0                             |
| Region of employment after doctorate                | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| New England   | 5.4        | 7.1       | 8.4                      | 5.3                             | 5.5                   | 5.5               | 7.2        | 8.5     | 6.7                 | 9.1                        | 9.2                        | 6.0              | 4.1       | 5.7          | 6.2                   | 5.1                             |
| Middle Atlantic                                     | 19.5       | 11.8      | 14.9                     | 12.5                            | 12.9                  | 13.1              | 15.5       | 16.6    | 17.6                | 14.3                       | 10.9                       | 16.0             | 11.6      | 12.8         | 12.4                  | 13.2                            |
| East North Central                                  | 13.3       | 8.2       | 13.3                     | 16.6                            | 12.4                  | 15.0              | 15.0       | 14.6    | 14.7                | 17.7                       | 17.2                       | 14.2             | 15.1      | 14.7         | 14.2                  | 15.2                            |
| West North Central                                  | 7.6        | 2.9       | 6.1                      | 3.8                             | 6.5                   | 8.1               | 7.0        | 6.9     | 7.1                 | 6.8                        | 6.5                        | 7.3              | 9.2       | 7.2          | 6.9                   | 7.5                             |
| South Atlantic                                      | 19.0       | 20.2      | 16.5                     | 22.8                            | 22.9                  | 18.2              | 16.9       | 19.3    | 18.5                | 14.7                       | 19.2                       | 15.6             | 19.2      | 17.9         | 17.7                  | 18.1                            |
| East South Central                                  | 4.9        | 2.3       | 2.7                      | 2.2                             | 3.7                   | 5.4               | 4.0        | 3.1     | 5.5                 | 4.9                        | 2.1                        | 4.3              | 6.3       | 5.7          | 4.2                   | 7.1                             |
| West South Central                                  | 8.9        | 4.1       | 7.5                      | 7.2                             | 6.5                   | 9.1               | 8.0        | 8.1     | 6.3                 | 6.0                        | 8.0                        | 8.6              | 9.9       | 9.2          | 9.4                   | 9.0                             |
| Mountain  | 6.7        | 3.3       | 5.2                      | 3.8                             | 5.5                   | 5.4               | 4.9        | 5.8     | 6.3                 | 2.6                        | 5.0                        | 4.7              | 6.3       | 4.1          | 3.6                   | 4.6                             |
| Pacific & insular                                   | 11.2       | 7.3       | 16.1                     | 12.0                            | 10.0                  | 12.7              | 13.2       | 10.0    | 15.1                | 16.2                       | 14.2                       | 13.1             | 13.3      | 10.3         | 11.2                  | 9.4                             |
| Foreign   | 3.5        | 32.8      | 9.0                      | 13.7                            | 14.2                  | 7.5               | 8.4        | 7.1     | 2.1                 | 7.5                        | 7.7                        | 10.2             | 4.8       | 12.5         | 14.2                  | 10.8                            |
| Region unknown                                      | 0.2        | 0.0       | 0.2                      | 0.0                             | 0.0                   | 0.0               | 0.0        | 0.0     | 0.0                 | 0.0                        | 0.0                        | 0.1              | 0.0       | 0.0          | 0.0                   | 0.0                             |

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

<sup>a</sup> Physical sciences includes mathematics and computer sciences.

<sup>b</sup> Includes 59 respondents not reporting sex.

<sup>c</sup> 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.

<sup>d</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

<sup>e</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

<sup>f</sup> Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

<sup>g</sup> Includes only recipients with definite employment plans.

<sup>h</sup> Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



| Characteristics                                   | 2005<br>Total | TOTAL SCIENCES & ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND PSYCHOLOGY |
|---|---------------|------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|----------------------------|
| Number in field                                   | 23,731        | 17,751                       | 4,926                          | 1,269               | 1,403     | 470                          | 875         | 909               | 5,215       | 4,567         | 416          | 2,841                     | 565             | 745   | 3,043                      |
| Males as percent of total doctorates              | % 54.7        | 60.7                         | 73.5                           | 83.5                | 66.0      | 65.9                         | 72.7        | 80.0              | 81.4        | 49.1          | 60.1         | 50.1                      | 31.8            | 64.2  | 44.5                       |
| Citizenship                                       | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| U.S. citizenship                                  | 53.9          | 47.8                         | 44.6                           | 42.0                | 51.2      | 56.8                         | 41.1        | 34.8              | 30.7        | 61.3          | 60.3         | 65.6                      | 59.8            | 46.2  | 62.0                       |
| Non-U.S., permanent resident                      | 3.3           | 3.5                          | 3.6                            | 3.0                 | 3.4       | 2.3                          | 3.4         | 5.7               | 3.9         | 3.4           | 3.8          | 3.3                       | 4.6             | 2.3   | 2.6                        |
| Non-U.S., temporary visa holder                   | 36.9          | 43.2                         | 46.5                           | 50.0                | 39.5      | 35.3                         | 50.6        | 54.1              | 59.7        | 30.1          | 32.5         | 26.2                      | 28.7            | 45.1  | 29.1                       |
| Unknown   | 5.9           | 5.6                          | 5.3                            | 5.0                 | 5.8       | 5.5                          | 4.8         | 5.4               | 5.7         | 5.2           | 3.4          | 4.9                       | 6.9             | 6.4   | 6.3                        |
| Marital status                                    | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Never married                                     | 27.4          | 30.4                         | 35.1                           | 38.1                | 32.9      | 25.7                         | 41.4        | 33.1              | 31.6        | 27.4          | 31.3         | 30.2                      | 20.2            | 20.0  | 25.1                       |
| Married   | 53.9          | 52.2                         | 47.8                           | 43.9                | 50.6      | 55.3                         | 42.4        | 50.3              | 53.8        | 54.4          | 54.6         | 52.1                      | 58.8            | 59.9  | 53.0                       |
| Separated   | 0.4           | 0.4                          | ----                           | 0.5                 | ----      | ----                         | ----        | ----              | ----        | 0.3           | ----         | ----                      | ----            | ----  | ----                       |
| Divorced  | 2.7           | 2.2                          | 1.9                            | 2.5                 | 1.4       | ----                         | 1.1         | ----              | 1.5         | 2.5           | ----         | 2.4                       | ----            | ----  | 3.6                        |
| Marriage-like relationship                        | 5.3           | 5.1                          | 5.8                            | 6.5                 | 5.8       | 6.8                          | 5.5         | 4.4               | 3.0         | 5.9           | 6.5          | 6.6                       | 4.8             | 3.9   | 6.6                        |
| Widowed   | 0.1           | 0.1                          | ----                           | 0.0                 | ----      | 0.0                          | ----        | 0.0               | ----        | 0.1           | 0.0          | ----                      | ----            | ----  | ----                       |
| Unknown   | 10.2          | 9.7                          | 8.9                            | 8.5                 | 8.8       | 8.5                          | 8.9         | 9.7               | 9.8         | 9.4           | 5.8          | 8.4                       | 12.9            | 12.8  | 10.9                       |
| Median age at doctorate                           | Yrs 32.6      | 31.5                         | 30.6                           | 30.5                | 29.7      | 32.5                         | 30.3        | 31.5              | 31.3        | 31.7          | 30.0         | 31.1                      | 34.2            | 33.5  | 33.7                       |
| Bachelor's in same field as doctorate             | % 56.1        | 61.8                         | 65.5                           | 72.9                | 74.7      | 52.3                         | 67.2        | 46.1              | 75.8        | 47.9          | 33.2         | 51.8                      | 36.6            | 49.7  | 52.7                       |
| Percent with master's                             | % 74.0        | 69.4                         | 65.8                           | 69.8                | 45.1      | 75.3                         | 72.9        | 80.3              | 81.0        | 51.8          | 31.7         | 41.6                      | 77.5            | 82.1  | 81.7                       |
| Median time lapse from baccalaureate to doctorate | Yrs           |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Since baccalaureate                               | 9.4           | 8.5                          | 7.8                            | 7.7                 | 7.0       | 9.2                          | 7.7         | 8.8               | 8.3         | 8.6           | 7.3          | 8.2                       | 10.9            | 10.1  | 10.0                       |
| Since starting graduate school                    | 7.8           | 7.2                          | 6.9                            | 6.7                 | 6.2       | 8.0                          | 6.7         | 7.7               | 7.2         | 7.0           | 6.5          | 6.7                       | 8.3             | 7.9   | 8.2                        |
| Postdoctoral plans                                | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Definite postdoctoral study                       | 26.6          | 33.5                         | 41.3                           | 49.2                | 51.3      | 43.3                         | 37.6        | 17.0              | 20.6        | 50.3          | 66.6         | 59.5                      | 20.9            | 25.9  | 17.3                       |
| Definite employment                               | 43.8          | 36.9                         | 31.5                           | 19.3                | 22.8      | 31.0                         | 38.1        | 56.4              | 43.9        | 21.1          | 6.1          | 13.0                      | 52.3            | 39.0  | 58.0                       |
| Seeking employment or study                       | 27.6          | 27.8                         | 25.9                           | 30.4                | 24.9      | 24.1                         | 23.1        | 25.0              | 33.7        | 26.4          | 26.5         | 25.1                      | 24.3            | 33.0  | 22.8                       |
| Other/unknown <sup>b</sup>                        | 2.0           | 1.8                          | 1.3                            | 1.1                 | 1.1       | 1.6                          | 1.3         | 1.6               | 1.8         | 2.2           | 0.8          | 2.4                       | 2.4             | 2.0   | 1.9                        |
| Definite postdoctoral study <sup>c</sup>          | % 37.8        | 47.6                         | 56.7                           | 71.9                | 69.3      | 58.3                         | 49.7        | 23.2              | 31.9        | 70.4          | 91.6         | 82.1                      | 28.6            | 39.9  | 22.9                       |
| Fellowship  | 19.2          | 24.1                         | 27.0                           | 30.8                | 33.7      | 27.1                         | 29.5        | 8.8               | 11.0        | 40.3          | 56.1         | 48.0                      | 19.0            | 12.8  | 15.6                       |
| Research associateship                            | 15.0          | 19.3                         | 27.8                           | 39.1                | 33.3      | 29.9                         | 18.4        | 12.8              | 19.3        | 19.4          | 25.6         | 20.3                      | 4.7             | 24.2  | 5.2                        |
| Traineeship                                       | 0.4           | 0.5                          | 0.3                            | ----                | 0.0       | ----                         | 0.7         | ----              | 0.2         | 1.0           | ----         | 1.1                       | 1.1             | ----  | 0.3                        |
| Intern, clinical residency                        | 1.1           | 1.4                          | 0.2                            | ----                | ----      | 0.0                          | 0.0         | ----              | 0.4         | 3.8           | ----         | 5.2                       | 1.1             | ----  | 1.2                        |
| Other study                                       | 2.1           | 2.3                          | 1.4                            | 1.1                 | ----      | ----                         | 1.2         | 1.0               | 1.0         | 5.9           | 5.6          | 7.5                       | 2.7             | 1.4   | 0.6                        |
| Definite employment after doctorate <sup>d</sup>  | % 62.2        | 52.4                         | 43.3                           | 28.1                | 30.7      | 41.7                         | 50.3        | 76.8              | 68.1        | 29.6          | 8.4          | 17.9                      | 71.4            | 60.1  | 77.1                       |
| Educational institution <sup>e</sup>              | 35.3          | 21.6                         | 17.7                           | 7.7                 | 6.4       | 16.2                         | 32.1        | 34.8              | 14.5        | 14.7          | 2.8          | 8.8                       | 42.6            | 25.2  | 48.7                       |
| Industry/business                                 | 18.1          | 22.0                         | 21.1                           | 15.5                | 22.8      | 14.0                         | 13.7        | 37.3              | 44.6        | 7.9           | 3.9          | 5.3                       | 12.4            | 18.1  | 10.6                       |
| Government  | 5.3           | 5.9                          | 3.3                            | 3.8                 | 0.8       | 9.0                          | 3.3         | 3.7               | 6.8         | 4.8           | ----         | 2.5                       | 11.3            | 12.1  | 10.2                       |
| Nonprofit   | 2.8           | 2.2                          | 0.9                            | ----                | ----      | ----                         | 1.2         | ----              | 1.4         | 1.9           | 0.0          | 1.2                       | 5.2             | 3.3   | 5.8                        |
| Other & unknown                                   | 0.7           | 0.7                          | 0.2                            | ----                | ----      | ----                         | 0.0         | ----              | 0.8         | 0.3           | ----         | 0.1                       | 0.0             | 1.4   | 1.7                        |

| Characteristics                                   |     | Psychology | Economics | Anthropology & sociology | Political sci/ Internatnl Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|-----|------------|-----------|--------------------------|--------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Number in field                                   |     | 1,062      | 741       | 399                      | 440                            | 401                   | 5,980             | 2,619      | 539     | 171                 | 213                        | 241                        | 1,455            | 2,065     | 1,296        | 692                   | 602                             |
| Males as percent of total doctorates              | %   | 31.9       | 69.8      | 40.3                     | 60.7                           | 54.6                  | 42.4              | 49.0       | 58.3    | 42.1                | 38.4                       | 39.6                       | 50.9             | 33.2      | 51.2         | 59.2                  | 44.3                            |
| Citizenship                                       | %   |            |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| U.S. citizenship                                  |     | 83.1       | 26.5      | 69.2                     | 67.5                           | 58.4                  | 72.1              | 74.5       | 82.0    | 91.8                | 78.9                       | 55.2                       | 72.2             | 79.9      | 54.8         | 48.7                  | 61.8                            |
| Non-U.S., permanent resident                      |     | 1.7        | 3.0       | 3.3                      | 3.0                            | 3.5                   | 2.8               | 3.7        | 1.9     | 1.2                 | 3.8                        | 10.0                       | 3.7              | 1.7       | 2.5          | 3.0                   | 2.0                             |
| Non-U.S., temporary visa holder                   |     | 7.6        | 66.0      | 20.8                     | 24.5                           | 30.9                  | 18.1              | 16.0       | 11.9    | 6.4                 | 10.8                       | 31.5                       | 16.9             | 10.5      | 34.3         | 42.6                  | 24.9                            |
| Unknown   |     | 7.5        | 4.6       | 6.8                      | 5.0                            | 7.2                   | 7.1               | 5.8        | 4.3     | 0.6                 | 6.6                        | 3.3                        | 7.2              | 7.9       | 8.3          | 5.6                   | 11.3                            |
| Marital status                                    | %   |            |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Never married                                     |     | 23.6       | 30.8      | 26.8                     | 23.2                           | 19.0                  | 18.5              | 24.1       | 22.3    | 26.3                | 19.7                       | 30.7                       | 24.1             | 12.1      | 17.6         | 17.8                  | 17.4                            |
| Married   |     | 50.6       | 54.7      | 46.1                     | 56.8                           | 59.1                  | 58.9              | 51.9       | 57.3    | 53.2                | 46.9                       | 46.5                       | 51.4             | 66.6      | 60.6         | 61.3                  | 60.0                            |
| Separated   |     | ----       | ----      | ----                     | 1.1                            | ----                  | 0.4               | ----       | ----    | ----                | ----                       | ----                       | ----             | 0.3       | ----         | ----                  | ----                            |
| Divorced  |     | 3.7        | ----      | 6.3                      | 3.6                            | ----                  | 4.2               | 4.0        | ----    | 4.1                 | ----                       | ----                       | 3.8              | 4.6       | 4.1          | 5.3                   | ----                            |
| Marriage-like relationship                        |     | 7.2        | 5.3       | 8.8                      | 6.8                            | 5.2                   | 5.8               | 8.6        | 7.2     | 13.5                | 10.3                       | 10.4                       | 8.0              | 3.3       | 3.9          | ----                  | 4.3                             |
| Widowed   |     | ----       | 0.0       | ----                     | 0.0                            | ----                  | 0.2               | ----       | 0.0     | 0.0                 | 0.0                        | 0.0                        | ----             | 0.3       | ----         | ----                  | ----                            |
| Unknown   |     | 14.4       | 7.0       | 10.5                     | 8.4                            | 11.7                  | 12.0              | 10.6       | 8.7     | ----                | 16.4                       | 7.5                        | 12.0             | 12.8      | 13.5         | 11.8                  | 15.3                            |
| Median age at doctorate                           | Yrs | 32.5       | 32.0      | 35.2                     | 35.1                           | 36.5                  | 37.1              | 35.3       | 35.5    | 34.5                | 35.1                       | 36.0                       | 35.2             | 41.4      | 36.7         | 35.8                  | 37.5                            |
| Bachelor's in same field as doctorate             | %   | 61.8       | 57.9      | 49.1                     | 56.4                           | 18.7                  | 39.1              | 54.0       | 56.4    | 46.8                | 63.4                       | 38.2                       | 55.3             | 24.6      | 32.3         | 34.0                  | 30.4                            |
| Percent with master's                             | %   | 80.9       | 76.9      | 85.0                     | 84.5                           | 86.3                  | 87.5              | 86.5       | 88.7    | 91.8                | 85.4                       | 90.0                       | 84.6             | 89.1      | 87.2         | 84.1                  | 90.9                            |
| Median time lapse from baccalaureate to doctorate | Yrs |            |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Since baccalaureate                               |     | 9.0        | 8.8       | 11.4                     | 11.6                           | 12.6                  | 13.1              | 11.7       | 11.7    | 11.2                | 12.1                       | 11.3                       | 11.9             | 17.0      | 13.0         | 12.3                  | 13.8                            |
| Since starting graduate school                    |     | 7.3        | 7.2       | 9.7                      | 9.7                            | 10.2                  | 10.7              | 9.7        | 10.1    | 9.7                 | 10.1                       | 9.1                        | 9.7              | 12.7      | 10.2         | 9.7                   | 11.2                            |
| Postdoctoral plans                                | %   |            |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Definite postdoctoral study                       |     | 32.7       | 6.4       | 13.5                     | 11.4                           | 9.3                   | 5.7               | 7.2        | 10.0    | 7.7                 | 7.3                        | 4.9                        | 6.5              | 4.5       | 4.5          | 3.6                   | 5.5                             |
| Definite employment                               |     | 43.4       | 75.8      | 52.8                     | 60.6                           | 63.1                  | 64.8              | 56.8       | 56.8    | 59.8                | 55.9                       | 59.6                       | 56.1             | 70.7      | 72.0         | 77.4                  | 65.4                            |
| Seeking employment or study                       |     | 22.2       | 15.4      | 31.7                     | 26.2                           | 25.6                  | 27.0              | 33.9       | 32.2    | 32.0                | 35.2                       | 32.4                       | 34.9             | 21.6      | 21.3         | 16.4                  | 27.1                            |
| Other/unknown <sup>b</sup>                        |     | 1.7        | 2.3       | 2.0                      | 1.7                            | 2.0                   | 2.5               | 2.1        | 1.0     | 0.6                 | 1.7                        | 3.1                        | 2.6              | 3.3       | 2.3          | 2.6                   | 2.0                             |
| Definite postdoctoral study <sup>c</sup>          | %   | 43.0       | 7.8       | 20.3                     | 15.8                           | 12.8                  | 8.1               | 11.3       | 14.9    | 11.4                | 11.5                       | 7.6                        | 10.3             | 6.0       | 5.8          | 4.5                   | 7.8                             |
| Fellowship  |     | 30.2       | 5.3       | 12.7                     | 9.6                            | 8.2                   | 4.4               | 7.7        | 11.6    | 7.0                 | 9.7                        | 6.2                        | 6.2              | 2.1       | 2.1          | 1.4                   | 3.0                             |
| Research associateship                            |     | 8.1        | 1.8       | 6.8                      | 4.5                            | 4.7                   | 1.9               | 1.3        | 0.9     | 0.0                 | ----                       | ----                       | ----             | 2.2       | 2.7          | 2.4                   | 3.0                             |
| Traineeship                                       |     | 0.7        | ----      | ----                     | 0.0                            | 0.0                   | 0.3               | ----       | ----    | ----                | 0.0                        | 0.0                        | ----             | ----      | ----         | ----                  | ----                            |
| Intern, clinical residency                        |     | 3.3        | 0.0       | ----                     | 0.0                            | 0.0                   | 0.1               | ----       | ----    | 0.0                 | ----                       | ----                       | 0.0              | ----      | 0.0          | 0.0                   | 0.0                             |
| Other study                                       |     | 0.6        | ----      | ----                     | 1.7                            | 0.0                   | 1.3               | 1.7        | 1.5     | ----                | ----                       | ----                       | 2.1              | 1.2       | ----         | ----                  | ----                            |
| Definite employment after doctorate <sup>d</sup>  | %   | 57.0       | 92.2      | 79.7                     | 84.2                           | 87.2                  | 91.9              | 88.7       | 85.1    | 88.6                | 88.5                       | 92.4                       | 89.7             | 94.0      | 94.2         | 95.5                  | 92.2                            |
| Educational institution <sup>e</sup>              |     | 30.0       | 56.1      | 60.2                     | 62.2                           | 56.8                  | 77.0              | 76.0       | 68.9    | 83.3                | 84.1                       | 87.6                       | 74.6             | 80.6      | 73.4         | 78.1                  | 66.8                            |
| Industry/business                                 |     | 12.7       | 11.2      | 8.9                      | 6.5                            | 10.1                  | 6.0               | 3.7        | 5.2     | ----                | ----                       | ----                       | 3.9              | 4.6       | 12.0         | 12.6                  | 11.4                            |
| Government  |     | ----       | 16.6      | 5.1                      | 9.6                            | 13.6                  | 3.6               | 2.4        | 5.5     | ----                | ----                       | ----                       | 1.9              | 4.7       | 3.9          | 2.4                   | 5.8                             |
| Nonprofit   |     | 8.1        | 3.7       | 4.7                      | ----                           | 5.8                   | 4.5               | 5.7        | ----    | ----                | ----                       | ----                       | 8.2              | 3.7       | 3.9          | 1.0                   | 7.8                             |
| Other & unknown                                   |     | ----       | 4.6       | 0.8                      | ----                           | 0.8                   | 0.8               | 1.0        | ----    | 0.0                 | ----                       | 2.1                        | 1.1              | 0.4       | 1.1          | 1.4                   | 0.6                             |

| Characteristics                                     | 2005<br>Total | TOTAL SCIENCES & ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND PSYCHOLOGY |  |
|---|---------------|------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|----------------------------|--|
| Employment commitments after doctorate <sup>1</sup> |               |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |  |
| Primary activity <sup>9</sup>                       | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |  |
| R & D   | 42.5          | 58.0                         | 63.3                           | 65.3                | 73.9      | 60.6                         | 44.7        | 68.9              | 72.3        | 48.2          | 43.5         | 48.3                      | 42.5            | 54.5  | 39.8                       |  |
| Teaching  | 33.5          | 23.2                         | 25.9                           | 22.2                | 16.3      | 20.5                         | 45.0        | 22.7              | 10.6        | 25.7          | 30.4         | 28.7                      | 29.9            | 16.8  | 36.0                       |  |
| Administration                                      | 13.2          | 6.6                          | 3.6                            | 3.7                 | 3.9       | ----                         | 2.0         | 4.6               | 5.5         | 10.7          | 13.0         | 8.5                       | 13.4            | 10.7  | 8.4                        |  |
| Professional services                               | 9.2           | 10.6                         | 5.5                            | 5.1                 | 4.9       | 15.2                         | 6.3         | 2.6               | 9.8         | 13.4          | 13.0         | 13.3                      | 12.6            | 14.3  | 14.9                       |  |
| Other   | 1.5           | 1.6                          | 1.7                            | 3.7                 | 1.1       | ----                         | 2.0         | 1.1               | 1.8         | 2.0           | 0.0          | 1.2                       | 1.6             | 3.7   | 0.9                        |  |
| Secondary activity <sup>9</sup>                     | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |  |
| R & D   | 30.9          | 26.0                         | 26.1                           | 22.2                | 14.1      | 24.2                         | 43.7        | 24.3              | 16.0        | 29.7          | 17.4         | 28.4                      | 33.1            | 29.1  | 36.8                       |  |
| Teaching  | 19.2          | 17.2                         | 13.8                           | 4.6                 | 2.5       | 15.2                         | 20.0        | 20.8              | 11.9        | 17.8          | 13.0         | 14.2                      | 22.4            | 18.4  | 27.0                       |  |
| Administration                                      | 13.9          | 16.9                         | 14.7                           | 21.8                | 26.9      | 21.2                         | ----        | 9.1               | 22.3        | 19.2          | 39.1         | 16.9                      | 18.1            | 21.7  | 10.6                       |  |
| Professional services                               | 7.3           | 7.0                          | 6.3                            | 6.9                 | 5.7       | 9.8                          | 7.7         | 4.4               | 7.1         | 9.0           | 13.0         | 7.6                       | ----            | 8.2   | 6.5                        |  |
| Other   | 0.9           | 0.7                          | 0.3                            | 0.5                 | 0.7       | 0.0                          | ----        | 0.0               | 0.9         | 1.2           | 0.0          | 1.2                       | ----            | 1.6   | 0.6                        |  |
| No secondary activity                               | 27.7          | 32.1                         | 38.8                           | 44.0                | 50.2      | 29.5                         | 24.3        | 41.5              | 41.7        | 23.0          | 17.4         | 31.7                      | 14.2            | 20.9  | 18.5                       |  |
| Activity(ies) unknown                               | 2.1           | 2.1                          | 2.1                            | 3.6                 | 2.7       | 1.5                          | 1.3         | 1.7               | 2.0         | 2.9           | 4.2          | 2.6                       | 2.3             | 3.6   | 1.9                        |  |
| Region of employment after doctorate                | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |  |
| New England   | 5.6           | 5.7                          | 6.6                            | 7.6                 | 10.3      | 6.0                          | 7.6         | 3.3               | 4.8         | 6.7           | 8.3          | 10.3                      | 5.0             | 3.6   | 5.6                        |  |
| Middle Atlantic                                     | 13.6          | 13.8                         | 15.7                           | 12.5                | 20.6      | 5.2                          | 19.7        | 14.5              | 13.8        | 12.5          | 16.7         | 14.1                      | 18.1            | 4.3   | 12.8                       |  |
| East North Central                                  | 12.3          | 11.0                         | 10.1                           | 10.3                | 10.0      | 4.5                          | 11.5        | 10.8              | 11.1        | 10.1          | 12.5         | 10.6                      | 11.5            | 7.9   | 12.3                       |  |
| West North Central                                  | 5.9           | 4.4                          | 3.0                            | 2.7                 | 3.8       | 3.7                          | 3.0         | 2.4               | 3.2         | 6.7           | 0.0          | 5.6                       | 5.4             | 10.3  | 6.0                        |  |
| South Atlantic                                      | 16.2          | 15.3                         | 14.7                           | 13.4                | 15.5      | 18.7                         | 15.5        | 13.2              | 11.4        | 18.4          | 12.5         | 17.4                      | 20.8            | 17.8  | 19.0                       |  |
| East South Central                                  | 3.9           | 3.0                          | 3.2                            | 4.0                 | 2.7       | 1.5                          | 4.3         | 2.8               | 2.3         | 3.6           | 0.0          | 2.9                       | 5.8             | 2.8   | 3.2                        |  |
| West South Central                                  | 7.8           | 7.1                          | 6.7                            | 5.8                 | 5.2       | 18.7                         | 6.9         | 4.6               | 8.0         | 8.0           | 12.5         | 8.2                       | 6.5             | 8.7   | 5.9                        |  |
| Mountain  | 5.5           | 5.9                          | 5.7                            | 7.6                 | 5.2       | 11.9                         | 5.6         | 3.3               | 6.3         | 7.2           | 0.0          | 6.2                       | 6.9             | 9.5   | 4.8                        |  |
| Pacific & insular                                   | 16.3          | 18.7                         | 24.2                           | 26.3                | 22.7      | 19.4                         | 13.5        | 32.5              | 24.1        | 12.1          | 16.7         | 14.1                      | 10.0            | 11.1  | 10.3                       |  |
| Foreign   | 12.8          | 15.0                         | 10.2                           | 9.8                 | 4.1       | 10.4                         | 12.5        | 12.6              | 14.9        | 14.6          | 20.8         | 10.6                      | 10.0            | 24.1  | 19.8                       |  |
| Region unknown                                      | 0.0           | 0.0                          | 0.0                            | 0.0                 | 0.0       | 0.0                          | 0.0         | 0.0               | 0.0         | 0.0           | 0.0          | 0.0                       | 0.0             | 0.0   | 0.1                        |  |

| Characteristics                                     | Psychology | Economics | Anthropology & sociology | Political sci/ Internatnl Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|------------|-----------|--------------------------|--------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Employment commitments after doctorate <sup>f</sup> |            |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Primary activity <sup>g</sup>                       | %          |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 26.2       | 61.5      | 33.0                     | 27.3                           | 32.6                  | 15.7              | 13.4       | 14.6    | 10.1                | 11.2                       | 19.2                       | 12.5             | 7.6       | 32.6         | 42.7                  | 18.5                            |
| Teaching  | 24.9       | 25.5      | 52.5                     | 54.7                           | 45.9                  | 51.3              | 72.2       | 69.7    | 81.8                | 82.7                       | 75.4                       | 69.8             | 31.4      | 48.3         | 43.1                  | 55.4                            |
| Administration                                      | 8.3        | ----      | 7.3                      | 11.0                           | 12.8                  | 24.6              | 6.6        | 8.8     | ----                | 4.1                        | ----                       | 6.7              | 51.1      | 12.3         | 9.6                   | 16.0                            |
| Professional services                               | 39.9       | 6.6       | ----                     | 4.9                            | ----                  | 6.9               | 5.1        | 5.1     | ----                | ----                       | ----                       | 6.7              | 9.0       | 6.3          | 4.6                   | 8.6                             |
| Other   | 0.8        | ----      | ----                     | 2.0                            | ----                  | 1.5               | 2.7        | 1.8     | 0.0                 | ----                       | 0.0                        | 4.3              | 0.9       | 0.6          | 0.0                   | 1.5                             |
| Secondary activity <sup>g</sup>                     | %          |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 30.3       | 27.2      | 48.6                     | 50.2                           | 45.9                  | 39.6              | 51.7       | 55.5    | 56.6                | 56.1                       | 59.2                       | 47.4             | 23.9      | 44.6         | 42.7                  | 47.1                            |
| Teaching  | 21.0       | 37.7      | 23.5                     | 20.4                           | 22.5                  | 22.6              | 15.7       | 13.9    | 13.1                | 14.3                       | 16.9                       | 16.7             | 24.4      | 31.3         | 40.0                  | 19.1                            |
| Administration                                      | 14.8       | 9.7       | 10.1                     | 8.2                            | 8.3                   | 8.8               | 8.2        | 6.6     | 4.0                 | 9.2                        | 6.9                        | 9.5              | 9.3       | 8.9          | 6.3                   | 12.6                            |
| Professional services                               | 9.8        | ----      | 7.3                      | ----                           | 7.8                   | 7.6               | 4.0        | 1.8     | ----                | ----                       | 3.1                        | 5.4              | 12.5      | ----         | ----                  | ----                            |
| Other   | 0.5        | ----      | 0.0                      | ----                           | 1.4                   | 1.2               | 2.1        | 0.0     | ----                | ----                       | 0.0                        | 3.4              | 0.9       | ----         | ----                  | ----                            |
| No secondary activity                               | 23.6       | 20.6      | 10.6                     | 15.9                           | 14.2                  | 20.2              | 18.3       | 22.3    | 21.2                | 16.3                       | 13.8                       | 17.5             | 29.2      | 8.9          | 6.3                   | 12.6                            |
| Activity(ies) unknown                               | 2.0        | 1.3       | 4.8                      | 0.0                            | 2.7                   | 2.1               | 2.3        | 1.8     | 2.0                 | 2.0                        | 3.0                        | 2.4              | 1.6       | 2.9          | 3.2                   | 2.4                             |
| Region of employment after doctorate                | %          |           |                          |                                |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| New England   | 3.6        | 7.1       | 9.0                      | 3.3                            | 5.4                   | 5.4               | 6.4        | 7.9     | 5.9                 | 9.0                        | 9.7                        | 4.9              | 3.9       | 6.2          | 7.4                   | 4.5                             |
| Middle Atlantic                                     | 18.0       | 9.8       | 10.6                     | 13.1                           | 12.5                  | 13.1              | 15.5       | 14.3    | 16.8                | 15.0                       | 10.4                       | 16.7             | 12.1      | 10.8         | 11.9                  | 9.3                             |
| East North Central                                  | 15.2       | 8.1       | 13.3                     | 16.7                           | 11.6                  | 14.5              | 14.2       | 12.9    | 9.9                 | 19.0                       | 16.4                       | 14.2             | 15.3      | 13.9         | 13.8                  | 14.1                            |
| West North Central                                  | 9.9        | 2.9       | 7.4                      | 4.9                            | 6.3                   | 8.6               | 8.0        | 8.6     | 10.9                | 6.0                        | 7.5                        | 7.8              | 9.8       | 7.4          | 6.8                   | 8.4                             |
| South Atlantic                                      | 18.0       | 17.3      | 14.9                     | 24.9                           | 21.9                  | 17.7              | 17.9       | 21.5    | 21.8                | 14.0                       | 20.9                       | 16.0             | 17.8      | 17.4         | 16.9                  | 17.7                            |
| East South Central                                  | 5.8        | 2.5       | 1.6                      | 1.2                            | 4.0                   | 5.5               | 4.7        | 3.9     | 5.0                 | 7.0                        | 1.5                        | 5.1              | 6.1       | 5.8          | 4.2                   | 8.1                             |
| West South Central                                  | 7.4        | 4.0       | 8.0                      | 7.3                            | 4.5                   | 9.0               | 8.8        | 7.5     | 7.9                 | 6.0                        | 9.0                        | 9.7              | 9.4       | 8.9          | 9.5                   | 8.1                             |
| Mountain  | 7.9        | 2.3       | 5.3                      | 4.1                            | 5.8                   | 4.8               | 4.4        | 5.0     | 8.9                 | ----                       | 4.5                        | 3.9              | 5.7       | 4.0          | 4.0                   | 3.9                             |
| Pacific & insular                                   | 9.4        | 7.5       | 17.6                     | 11.4                           | 11.2                  | 12.3              | 11.4       | 10.4    | 10.9                | 11.0                       | 12.7                       | 11.7             | 14.1      | 10.9         | 10.0                  | 12.3                            |
| Foreign   | 4.6        | 38.6      | 11.7                     | 13.1                           | 17.0                  | 9.0               | 8.8        | 7.9     | ----                | 11.0                       | 7.5                        | 10.0             | 5.7       | 14.6         | 15.5                  | 13.5                            |
| Region unknown                                      | 0.3        | 0.0       | 0.5                      | 0.0                            | 0.0                   | 0.0               | 0.0        | 0.0     | ----                | ----                       | 0.0                        | 0.0              | 0.0       | 0.0          | 0.0                   | 0.0                             |

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

<sup>a</sup> Physical sciences includes mathematics and computer sciences.

<sup>b</sup> 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.

<sup>c</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

<sup>d</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

<sup>e</sup> Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

<sup>f</sup> Includes only recipients with definite employment plans.

<sup>g</sup> Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

| Characteristics                                   | 2005<br>Total | TOTAL SCIENCES & ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND PSYCHOLOGY |
|---|---------------|------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|----------------------------|
| Number in field                                   | 19,564        | 11,457                       | 1,766                          | 249                 | 723       | 243                          | 326         | 225               | 1,174       | 4,727         | 276          | 2,829                     | 1,209           | 413   | 3,790                      |
| Females as percent of total doctorates            | % 45.1        | 39.2                         | 26.4                           | 16.4                | 34.0      | 34.1                         | 27.1        | 19.8              | 18.3        | 50.8          | 39.9         | 49.8                      | 68.0            | 35.6  | 55.4                       |
| Citizenship                                       | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| U.S. citizenship                                  | 69.1          | 63.8                         | 49.8                           | 41.8                | 57.0      | 63.4                         | 36.8        | 39.6              | 33.7        | 65.8          | 57.6         | 65.9                      | 71.8            | 53.3  | 77.1                       |
| Non-U.S., permanent resident                      | 4.2           | 4.8                          | 5.8                            | 4.8                 | 4.7       | 4.1                          | 9.5         | 7.1               | 7.0         | 4.5           | 8.7          | 4.2                       | 4.2             | 4.4   | 3.9                        |
| Non-U.S., temporary visa holder                   | 20.8          | 26.1                         | 39.2                           | 47.4                | 33.6      | 27.6                         | 48.8        | 47.1              | 54.3        | 24.8          | 31.5         | 25.1                      | 18.7            | 36.1  | 13.0                       |
| Unknown   | 5.9           | 5.3                          | 5.2                            | 6.0                 | 4.7       | 4.9                          | 4.9         | 6.2               | 4.9         | 4.8           | 2.2          | 4.7                       | 5.3             | 6.3   | 6.1                        |
| Marital status                                    | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Never married                                     | 25.5          | 29.7                         | 34.4                           | 40.6                | 36.8      | 31.3                         | 31.0        | 28.4              | 32.9        | 29.6          | 35.1         | 32.8                      | 21.3            | 27.6  | 26.8                       |
| Married   | 49.6          | 48.2                         | 45.6                           | 40.2                | 45.4      | 49.4                         | 47.2        | 45.8              | 52.2        | 49.5          | 50.4         | 46.4                      | 56.1            | 50.6  | 46.5                       |
| Separated   | 0.7           | 0.7                          | ----                           | ----                | 0.8       | ----                         | ----        | ----              | ----        | 0.6           | 0.0          | 0.6                       | 0.8             | ----  | 0.8                        |
| Divorced  | 6.0           | 4.1                          | 3.4                            | 2.4                 | 2.9       | ----                         | 4.3         | 5.8               | 1.4         | 3.9           | 1.8          | 3.2                       | 5.9             | 4.8   | 5.4                        |
| Marriage-like relationship                        | 6.9           | 7.3                          | 6.7                            | 7.6                 | 6.1       | 7.4                          | 7.7         | 5.3               | 4.1         | 7.4           | 8.0          | 8.4                       | 5.2             | 6.5   | 8.5                        |
| Widowed   | 0.5           | 0.3                          | ----                           | ----                | 0.0       | 0.0                          | ----        | ----              | ----        | 0.4           | 0.0          | 0.2                       | 0.8             | ----  | 0.4                        |
| Unknown   | 10.7          | 9.7                          | 9.0                            | 8.4                 | 8.0       | 9.1                          | 8.6         | 13.3              | 8.8         | 8.6           | 4.7          | 8.4                       | 9.8             | 9.0   | 11.6                       |
| Median age at doctorate                           | Yrs 33.6      | 31.4                         | 30.0                           | 29.7                | 29.1      | 31.0                         | 30.5        | 32.1              | 30.3        | 31.4          | 29.5         | 30.3                      | 37.3            | 32.3  | 32.7                       |
| Bachelor's in same field as doctorate             | % 48.8        | 56.0                         | 63.7                           | 73.5                | 73.2      | 42.8                         | 65.3        | 42.7              | 71.3        | 49.0          | 26.4         | 53.6                      | 47.1            | 38.0  | 56.4                       |
| Percent with master's                             | % 75.9        | 67.6                         | 61.2                           | 71.5                | 40.2      | 63.8                         | 81.6        | 84.9              | 79.0        | 54.1          | 38.4         | 39.7                      | 83.0            | 78.2  | 83.8                       |
| Median time lapse from baccalaureate to doctorate | Yrs           |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Since baccalaureate                               | 10.5          | 8.8                          | 7.5                            | 7.3                 | 6.6       | 8.5                          | 8.0         | 10.0              | 8.0         | 8.7           | 7.3          | 7.8                       | 13.3            | 9.6   | 9.6                        |
| Since starting graduate school                    | 8.7           | 7.2                          | 6.5                            | 6.7                 | 5.7       | 7.3                          | 6.9         | 8.3               | 7.2         | 7.1           | 6.6          | 6.7                       | 10.1            | 7.8   | 7.9                        |
| Postdoctoral plans                                | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Definite postdoctoral study                       | 22.4          | 34.1                         | 36.4                           | 51.1                | 38.7      | 49.8                         | 26.2        | 11.4              | 23.1        | 42.8          | 58.6         | 53.5                      | 19.3            | 26.1  | 25.2                       |
| Definite employment                               | 46.2          | 34.3                         | 34.6                           | 15.4                | 31.0      | 25.1                         | 49.3        | 58.0              | 39.3        | 24.8          | 11.8         | 14.1                      | 50.6            | 32.8  | 44.9                       |
| Seeking employment or study                       | 28.3          | 29.0                         | 27.3                           | 30.0                | 29.1      | 23.8                         | 23.5        | 28.0              | 35.7        | 30.0          | 27.4         | 30.1                      | 28.2            | 37.1  | 26.4                       |
| Other/unknown <sup>b</sup>                        | 3.2           | 2.6                          | 1.7                            | 3.5                 | 1.2       | 1.3                          | 1.0         | 2.6               | 2.0         | 2.4           | 2.3          | 2.3                       | 1.9             | 4.0   | 3.5                        |
| Definite postdoctoral study <sup>c</sup>          | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Fellowship  | 19.3          | 29.7                         | 23.9                           | 23.8                | 25.3      | 38.3                         | 20.4        | 6.7               | 13.1        | 38.6          | 48.6         | 49.7                      | 17.3            | 16.3  | 26.1                       |
| Research associateship                            | 9.7           | 15.3                         | 26.2                           | 52.3                | 29.2      | 26.9                         | 12.9        | 8.2               | 22.2        | 17.3          | 29.7         | 19.6                      | 6.5             | 25.8  | 5.6                        |
| Traineeship                                       | 0.5           | 0.6                          | ----                           | 0.7                 | 0.0       | ----                         | ----        | ----              | ----        | 0.7           | ----         | 0.6                       | 1.2             | ----  | 0.8                        |
| Intern, clinical residency                        | 1.2           | 1.9                          | ----                           | 0.0                 | ----      | ----                         | ----        | ----              | ----        | 2.3           | ----         | 3.3                       | 1.0             | 0.0   | 2.6                        |
| Other study                                       | 2.0           | 2.3                          | 0.8                            | 0.0                 | ----      | ----                         | ----        | ----              | 0.9         | 4.3           | 3.2          | 6.0                       | 1.6             | ----  | 0.8                        |
| Definite employment after doctorate <sup>d</sup>  | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Educational institution <sup>e</sup>              | 49.0          | 28.2                         | 23.9                           | 11.9                | 10.2      | 16.8                         | 48.0        | 53.0              | 17.9        | 21.8          | 7.0          | 10.9                      | 49.8            | 23.5  | 41.2                       |
| Industry/business                                 | 9.3           | 12.7                         | 20.0                           | 7.9                 | 29.6      | 9.0                          | 13.8        | 24.6              | 37.8        | 7.5           | 8.1          | 5.7                       | 9.8             | 13.1  | 8.4                        |
| Government  | 4.4           | 5.0                          | 2.9                            | 3.3                 | 2.8       | 5.4                          | 1.8         | ----              | 5.5         | 4.3           | ----         | 2.8                       | 5.5             | 14.0  | 6.9                        |
| Nonprofit   | 3.9           | 3.5                          | 1.5                            | 0.0                 | ----      | ----                         | ----        | 3.7               | 1.3         | 2.7           | 0.0          | 1.1                       | 6.5             | ----  | 6.2                        |
| Other & unknown                                   | 0.8           | 0.8                          | 0.5                            | 0.0                 | ----      | ----                         | ----        | ----              | 0.4         | 0.5           | ----         | 0.3                       | 0.8             | ----  | 1.3                        |

| Characteristics                                   |     | Psychology | Economics | Anthropology & sociology | Political sci./ Internat'l Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|-----|------------|-----------|--------------------------|---------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Number in field                                   |     | 2,264      | 318       | 590                      | 285                             | 333                   | 8,107             | 2,724      | 384     | 235                 | 341                        | 367                        | 1,397            | 4,154     | 1,229        | 472                   | 757                             |
| Females as percent of total doctorates            | %   | 68.0       | 30.0      | 59.6                     | 39.3                            | 45.4                  | 57.5              | 50.9       | 41.6    | 57.9                | 61.6                       | 60.3                       | 48.9             | 66.7      | 48.6         | 40.4                  | 55.7                            |
| Citizenship                                       | %   |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| U.S. citizenship                                  |     | 85.2       | 30.8      | 78.0                     | 71.9                            | 69.1                  | 76.6              | 71.4       | 83.3    | 91.5                | 82.1                       | 55.3                       | 66.4             | 83.9      | 63.5         | 51.1                  | 71.2                            |
| Non-U.S., permanent resident                      |     | 2.7        | 8.5       | 4.1                      | 6.7                             | 4.5                   | 3.4               | 5.2        | 1.6     | 1.7                 | 3.8                        | 11.4                       | 5.6              | 1.8       | 4.6          | 6.6                   | 3.3                             |
| Non-U.S., temporary visa holder                   |     | 5.7        | 56.3      | 11.5                     | 18.2                            | 19.2                  | 13.3              | 16.8       | 9.9     | 5.1                 | 9.4                        | 26.2                       | 20.0             | 7.7       | 24.4         | 32.6                  | 19.3                            |
| Unknown   |     | 6.4        | 4.4       | 6.4                      | 3.2                             | 7.2                   | 6.7               | 6.6        | 5.2     | 1.7                 | 4.7                        | 7.1                        | 8.1              | 6.6       | 7.6          | 9.7                   | 6.2                             |
| Marital status                                    | %   |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Never married                                     |     | 26.2       | 34.0      | 23.7                     | 29.1                            | 27.0                  | 19.6              | 26.4       | 27.1    | 27.2                | 26.1                       | 23.7                       | 26.8             | 14.3      | 22.5         | 20.3                  | 23.9                            |
| Married   |     | 45.9       | 49.7      | 46.3                     | 45.6                            | 48.6                  | 51.7              | 44.7       | 45.3    | 45.5                | 41.9                       | 48.2                       | 44.2             | 56.5      | 50.9         | 53.6                  | 49.3                            |
| Separated   |     | 0.5        | ----      | ----                     | 1.8                             | ----                  | 0.8               | 0.7        | ----    | 0.0                 | ----                       | ----                       | 0.9              | 0.9       | 0.8          | ----                  | 1.2                             |
| Divorced  |     | 5.0        | ----      | 7.6                      | 6.0                             | 6.6                   | 8.7               | 6.7        | 7.3     | 8.9                 | 5.9                        | ----                       | 6.6              | 10.7      | 6.5          | 5.7                   | 7.0                             |
| Marriage-like relationship                        |     | 8.5        | 6.3       | 10.8                     | 8.8                             | 6.3                   | 6.3               | 10.1       | 10.9    | 16.2                | 10.3                       | 10.9                       | 8.5              | 4.2       | 4.9          | 3.0                   | 6.1                             |
| Widowed   |     | 0.4        | 0.0       | ----                     | 0.0                             | ----                  | 0.8               | 0.5        | ----    | 0.0                 | ----                       | ----                       | 0.6              | 1.1       | 0.7          | ----                  | 0.9                             |
| Unknown   |     | 13.4       | 7.2       | 9.5                      | 8.8                             | 9.3                   | 12.1              | 11.0       | 8.1     | 2.1                 | 14.4                       | 10.9                       | 12.5             | 12.4      | 13.6         | 16.7                  | 11.6                            |
| Median age at doctorate                           | Yrs | 31.8       | 30.9      | 34.8                     | 33.9                            | 36.0                  | 38.3              | 35.1       | 35.1    | 35.5                | 35.2                       | 34.3                       | 35.2             | 43.1      | 37.1         | 35.2                  | 38.2                            |
| Bachelor's in same field as doctorate             | %   | 64.0       | 60.7      | 43.1                     | 58.6                            | 21.9                  | 38.6              | 50.8       | 54.2    | 34.9                | 62.5                       | 46.6                       | 50.9             | 32.8      | 30.8         | 32.0                  | 30.1                            |
| Percent with master's                             | %   | 82.1       | 83.6      | 86.4                     | 87.0                            | 88.3                  | 87.8              | 85.4       | 84.1    | 90.2                | 84.5                       | 85.0                       | 85.3             | 89.5      | 87.3         | 81.4                  | 91.0                            |
| Median time lapse from baccalaureate to doctorate | Yrs |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Since baccalaureate                               |     | 9.0        | 8.6       | 11.5                     | 11.1                            | 11.8                  | 14.3              | 11.8       | 11.6    | 12.0                | 11.6                       | 10.9                       | 12.0             | 17.8      | 13.5         | 12.4                  | 14.6                            |
| Since starting graduate school                    |     | 7.2        | 7.3       | 9.7                      | 9.4                             | 10.2                  | 11.3              | 9.8        | 9.7     | 9.7                 | 9.7                        | 9.3                        | 10.2             | 13.2      | 10.7         | 9.8                   | 11.3                            |
| Postdoctoral plans                                | %   |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Definite postdoctoral study                       |     | 35.1       | 8.1       | 15.9                     | 7.1                             | 10.2                  | 5.4               | 7.6        | 10.9    | 7.4                 | 9.5                        | 6.4                        | 6.5              | 4.5       | 3.6          | 2.0                   | 4.6                             |
| Definite employment                               |     | 35.5       | 70.7      | 47.5                     | 64.0                            | 58.7                  | 63.4              | 56.0       | 56.6    | 59.3                | 55.9                       | 62.2                       | 53.6             | 66.8      | 68.4         | 78.2                  | 62.8                            |
| Seeking employment or study                       |     | 25.9       | 18.9      | 33.1                     | 25.8                            | 25.4                  | 27.2              | 32.5       | 27.2    | 30.7                | 30.8                       | 26.5                       | 36.4             | 24.5      | 24.5         | 17.0                  | 28.8                            |
| Other/unknown <sup>b</sup>                        |     | 3.5        | 2.4       | 3.6                      | 3.0                             | 5.6                   | 4.0               | 3.9        | 5.3     | 2.6                 | 3.7                        | 4.9                        | 3.5              | 4.2       | 3.5          | 2.8                   | 3.8                             |
| Definite postdoctoral study <sup>c</sup>          | %   | 49.7       | 10.3      | 25.1                     | 10.0                            | 14.8                  | 7.9               | 11.9       | 16.2    | 11.0                | 14.5                       | 9.3                        | 10.9             | 6.4       | 5.1          | 2.5                   | 6.8                             |
| Fellowship  |     | 37.4       | 5.1       | 15.6                     | 7.4                             | 8.6                   | 4.4               | 8.4        | 10.8    | 9.1                 | 12.4                       | 4.9                        | 7.5              | 2.5       | 2.7          | 1.6                   | 3.5                             |
| Research associateship                            |     | 6.1        | 5.1       | 7.1                      | ----                            | 5.3                   | 1.6               | 1.2        | ----    | 0.0                 | ----                       | 2.7                        | 1.1              | 2.0       | 1.2          | ----                  | 1.5                             |
| Traineeship                                       |     | 1.2        | 0.0       | ----                     | ----                            | ----                  | 0.3               | ----       | ----    | ----                | 0.0                        | ----                       | ----             | 0.3       | ----         | 0.0                   | ----                            |
| Intern, clinical residency                        |     | 4.5        | 0.0       | 0.0                      | ----                            | ----                  | 0.2               | ----       | ----    | 0.0                 | 0.0                        | 0.0                        | ----             | 0.3       | 0.0          | 0.0                   | 0.0                             |
| Other study                                       |     | 0.6        | 0.0       | ----                     | 2.1                             | ----                  | 1.5               | 2.0        | 3.3     | ----                | ----                       | ----                       | 1.9              | 1.3       | ----         | ----                  | ----                            |
| Definite employment after doctorate <sup>d</sup>  | %   | 50.3       | 89.7      | 74.9                     | 90.0                            | 85.2                  | 92.1              | 88.1       | 83.8    | 89.0                | 85.5                       | 90.7                       | 89.1             | 93.6      | 94.9         | 97.5                  | 93.2                            |
| Educational institution <sup>e</sup>              |     | 29.0       | 52.1      | 58.1                     | 70.5                            | 56.0                  | 79.0              | 77.4       | 75.5    | 79.2                | 78.2                       | 84.4                       | 75.2             | 81.7      | 72.9         | 74.1                  | 72.1                            |
| Industry/business                                 |     | 9.7        | 11.5      | 4.4                      | 3.7                             | ----                  | 4.5               | 3.9        | 2.9     | 3.2                 | 4.7                        | 3.6                        | 4.3              | 3.4       | 9.2          | 13.6                  | 6.1                             |
| Government  |     | 5.0        | 15.0      | 5.9                      | 8.9                             | 10.5                  | 3.4               | 1.6        | ----    | ----                | ----                       | ----                       | 1.6              | 3.6       | 6.3          | 6.0                   | 6.6                             |
| Nonprofit   |     | 6.2        | 4.7       | 5.3                      | ----                            | 9.6                   | 4.4               | 4.6        | 3.3     | 4.5                 | ----                       | ----                       | 7.3              | 4.0       | 5.6          | ----                  | 7.2                             |
| Other & unknown                                   |     | 0.5        | 6.4       | 1.2                      | ----                            | ----                  | 0.8               | 0.6        | ----    | ----                | ----                       | ----                       | 0.7              | 0.9       | 0.9          | ----                  | 1.1                             |

| Characteristics                                     | 2005<br>Total | TOTAL SCIENCES & ENGINEERING | PHYSICAL SCIENCES <sup>a</sup> | Physics & astronomy | Chemistry | Earth, atmos., & marine sci. | Mathematics | Computer sciences | ENGINEERING | LIFE SCIENCES | Biochemistry | Other biological sciences | Health sciences | Agricultural sciences/<br>natural resources | SOCIAL SCI. AND PSYCHOLOGY |
|---|---------------|------------------------------|--------------------------------|---------------------|-----------|------------------------------|-------------|-------------------|-------------|---------------|--------------|---------------------------|-----------------|---|----------------------------|
| Employment commitments after doctorate <sup>1</sup> |               |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| Primary activity <sup>g</sup>                       | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| R & D   | 24.2          | 39.4                         | 51.2                           | 57.1                | 65.5      | 37.0                         | 39.7        | 45.5              | 66.9        | 36.5          | 45.2         | 39.8                      | 31.4            | 47.1  | 29.4                       |
| Teaching  | 45.4          | 35.3                         | 36.7                           | 40.0                | 19.0      | 42.6                         | 54.1        | 41.8              | 15.8        | 37.5          | 29.0         | 32.9                      | 44.1            | 24.0  | 38.7                       |
| Administration                                      | 17.2          | 8.3                          | 4.4                            | 2.9                 | 4.5       | ----                         | 2.7         | 6.4               | 4.4         | 10.7          | 3.2          | 7.5                       | 12.8            | 12.4  | 9.2                        |
| Professional services                               | 11.4          | 15.0                         | 5.9                            | 0.0                 | 8.0       | 13.0                         | ----        | ----              | 11.2        | 12.7          | 16.1         | 15.9                      | 10.4            | 12.4  | 21.2                       |
| Other   | 1.8           | 1.9                          | 1.8                            | 0.0                 | 3.0       | ----                         | ----        | ----              | 1.7         | 2.6           | 6.5          | 3.9                       | 1.3             | 4.1   | 1.5                        |
| Secondary activity <sup>g</sup>                     | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| R & D   | 35.8          | 34.2                         | 33.6                           | 40.0                | 16.0      | 37.0                         | 47.9        | 42.7              | 20.9        | 35.3          | 16.1         | 31.2                      | 40.6            | 28.1  | 37.3                       |
| Teaching  | 18.3          | 17.6                         | 11.7                           | 8.6                 | 4.0       | 14.8                         | 17.1        | 18.2              | 12.7        | 17.2          | 3.2          | 14.5                      | 20.1            | 15.7  | 21.5                       |
| Administration                                      | 10.5          | 12.1                         | 9.9                            | 5.7                 | 17.0      | 11.1                         | 5.5         | 3.6               | 13.6        | 14.1          | 16.1         | 13.6                      | 13.2            | 19.0  | 11.0                       |
| Professional services                               | 8.5           | 7.7                          | 5.5                            | 5.7                 | 4.5       | 7.4                          | 8.2         | ----              | 9.5         | 8.3           | 6.5          | 6.4                       | 8.4             | ----  | 7.7                        |
| Other   | 1.8           | 1.3                          | 1.8                            | 2.9                 | 2.5       | 3.7                          | 0.0         | ----              | 1.5         | 0.9           | 0.0          | 0.8                       | 0.9             | ----  | 1.4                        |
| No secondary activity                               | 25.1          | 27.1                         | 37.4                           | 37.1                | 56.0      | 25.9                         | 21.2        | 30.9              | 41.8        | 24.3          | 58.1         | 33.4                      | 16.8            | 22.3  | 21.2                       |
| Activity(ies) unknown                               | 2.2           | 2.1                          | 2.0                            | 0.0                 | 2.9       | 3.6                          | 0.7         | 1.8               | 2.6         | 1.7           | 0.0          | 2.4                       | 1.3             | 1.6   | 2.4                        |
| Region of employment after doctorate                | %             |                              |                                |                     |           |                              |             |                   |             |               |              |                           |                 |   |                            |
| New England   | 6.4           | 7.4                          | 8.5                            | 11.4                | 11.7      | 8.9                          | 6.8         | 3.6               | 8.3         | 7.3           | 3.2          | 11.1                      | 6.1             | 2.4   | 6.9                        |
| Middle Atlantic                                     | 14.1          | 15.3                         | 17.4                           | 11.4                | 19.9      | 7.1                          | 16.3        | 21.4              | 13.3        | 11.5          | 16.1         | 10.9                      | 12.6            | 7.3   | 17.7                       |
| East North Central                                  | 13.8          | 11.8                         | 12.6                           | 2.9                 | 15.5      | 7.1                          | 15.6        | 8.9               | 9.0         | 11.5          | 22.6         | 10.1                      | 10.6            | 17.1  | 12.5                       |
| West North Central                                  | 6.8           | 5.6                          | 3.2                            | 14.3                | 1.0       | ----                         | 4.1         | 3.6               | 5.0         | 7.6           | 6.5          | 6.0                       | 7.9             | 11.4  | 5.2                        |
| South Atlantic                                      | 18.6          | 18.7                         | 17.8                           | 20.0                | 16.5      | 16.1                         | 20.4        | 17.0              | 13.5        | 18.2          | 9.7          | 18.8                      | 19.7            | 12.2  | 20.9                       |
| East South Central                                  | 4.7           | 3.9                          | 3.4                            | 0.0                 | 2.4       | ----                         | 4.8         | 5.4               | 1.4         | 5.5           | 0.0          | 3.0                       | 7.0             | 7.3   | 3.6                        |
| West South Central                                  | 8.8           | 8.4                          | 9.0                            | 5.7                 | 6.3       | 17.9                         | 9.5         | 9.8               | 9.5         | 7.9           | 3.2          | 8.4                       | 8.7             | 4.1   | 8.1                        |
| Mountain  | 5.7           | 5.5                          | 4.0                            | 5.7                 | 1.5       | 10.7                         | 5.4         | 2.7               | 5.5         | 6.4           | 0.0          | 5.2                       | 7.0             | 8.9   | 5.4                        |
| Pacific & insular                                   | 13.6          | 14.3                         | 17.8                           | 11.4                | 22.8      | 14.3                         | 14.3        | 17.0              | 23.0        | 13.1          | 25.8         | 17.1                      | 9.9             | 12.2  | 11.5                       |
| Foreign   | 7.5           | 9.0                          | 6.3                            | 17.1                | 2.4       | 14.3                         | 2.7         | 10.7              | 11.1        | 10.9          | 12.9         | 9.5                       | 10.3            | 17.1  | 8.0                        |
| Region unknown                                      | 0.1           | 0.1                          | 0.0                            | 0.0                 | 0.0       | 0.0                          | 0.0         | 0.0               | 0.5         | 0.0           | 0.0          | 0.0                       | 0.0             | 0.0   | 0.1                        |

| Characteristics                                     | Psychology | Economics | Anthropology & sociology | Political sci./ Internat'l Rel. | Other social sciences | TOTAL NONSCIENCES | HUMANITIES | History | American literature | English lang. & literature | Foreign lang. & literature | Other humanities | EDUCATION | OTHER FIELDS | Business & management | Fields not elsewhere classified |
|---|------------|-----------|--------------------------|---------------------------------|-----------------------|-------------------|------------|---------|---------------------|----------------------------|----------------------------|------------------|-----------|--------------|-----------------------|---------------------------------|
| Employment commitments after doctorate <sup>f</sup> |            |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| Primary activity <sup>g</sup>                       | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 20.1       | 58.1      | 35.2                     | 23.4                            | 30.1                  | 12.3              | 10.6       | 13.6    | 6.0                 | 10.6                       | 5.9                        | 12.1             | 8.6       | 27.9         | 40.6                  | 18.7                            |
| Teaching  | 28.9       | 30.0      | 53.4                     | 59.9                            | 46.0                  | 53.3              | 76.3       | 76.8    | 76.9                | 76.3                       | 85.1                       | 73.3             | 41.9      | 48.4         | 39.3                  | 55.0                            |
| Administration                                      | 9.4        | 4.9       | 7.7                      | 8.4                             | 15.9                  | 24.2              | 6.3        | 6.1     | 11.2                | 6.3                        | 3.0                        | 6.4              | 37.4      | 13.9         | 13.2                  | 14.4                            |
| Professional services                               | 40.3       | 4.9       | 2.8                      | 5.4                             | ---                   | 8.5               | 3.8        | 2.0     | ---                 | ---                        | 3.0                        | 4.7              | 10.9      | 9.0          | ---                   | 11.0                            |
| Other   | 1.3        | 2.0       | 0.8                      | 3.0                             | ---                   | 1.6               | 3.0        | 1.5     | ---                 | ---                        | 3.0                        | 3.6              | 1.1       | 0.8          | ---                   | 1.0                             |
| Secondary activity <sup>g</sup>                     | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| R & D   | 29.5       | 32.5      | 44.5                     | 56.3                            | 44.9                  | 37.0              | 51.1       | 60.6    | 50.0                | 50.0                       | 67.3                       | 43.5             | 27.7      | 41.6         | 36.0                  | 45.7                            |
| Teaching  | 19.2       | 32.5      | 23.1                     | 20.4                            | 16.5                  | 18.9              | 12.0       | 13.1    | 11.2                | 11.9                       | 7.4                        | 13.4             | 18.9      | 31.5         | 40.9                  | 24.6                            |
| Administration                                      | 15.1       | 6.9       | 8.5                      | 4.8                             | 9.1                   | 9.2               | 7.6        | ---     | 5.2                 | 6.9                        | 4.5                        | 10.4             | 11.1      | 6.1          | 5.3                   | 6.7                             |
| Professional services                               | 10.1       | ---       | 4.5                      | 4.8                             | ---                   | 9.1               | 4.2        | 4.0     | 4.5                 | ---                        | ---                        | 5.6              | 12.5      | 6.9          | 5.6                   | 7.9                             |
| Other   | 1.6        | ---       | 1.6                      | 1.8                             | ---                   | 2.2               | 4.3        | ---     | 3.0                 | ---                        | ---                        | 6.5              | 1.3       | 1.1          | 1.0                   | 1.2                             |
| No secondary activity                               | 24.5       | 22.7      | 17.8                     | 12.0                            | 19.9                  | 23.6              | 20.9       | 17.7    | 26.1                | 26.3                       | 17.3                       | 20.5             | 28.4      | 12.8         | 11.2                  | 13.9                            |
| Activity(ies) unknown                               | 2.3        | 3.3       | 2.8                      | 2.3                             | 1.1                   | 2.3               | 2.1        | 2.0     | 2.2                 | 3.0                        | 1.0                        | 2.1              | 2.7       | 1.6          | 1.6                   | 1.6                             |
| Region of employment after doctorate                | %          |           |                          |                                 |                       |                   |            |         |                     |                            |                            |                  |           |              |                       |                                 |
| New England   | 6.4        | 7.1       | 7.9                      | 8.2                             | 5.6                   | 5.5               | 8.0        | 9.4     | 7.3                 | 9.1                        | 8.8                        | 7.2              | 4.3       | 5.0          | 4.2                   | 5.6                             |
| Middle Atlantic                                     | 20.3       | 16.7      | 18.1                     | 11.7                            | 13.5                  | 13.2              | 15.5       | 19.8    | 18.2                | 13.9                       | 11.3                       | 15.2             | 11.4      | 15.0         | 13.3                  | 16.2                            |
| East North Central                                  | 12.2       | 8.6       | 13.4                     | 16.4                            | 13.5                  | 15.4              | 15.9       | 16.8    | 18.2                | 17.0                       | 17.6                       | 14.3             | 15.0      | 15.6         | 14.9                  | 16.0                            |
| West North Central                                  | 6.3        | 2.9       | 5.1                      | 2.3                             | 6.7                   | 7.7               | 6.1        | 4.5     | 4.4                 | 7.3                        | 5.9                        | 6.7              | 8.9       | 7.0          | 7.1                   | 6.8                             |
| South Atlantic                                      | 19.5       | 27.6      | 17.7                     | 19.9                            | 24.2                  | 18.5              | 15.9       | 16.3    | 16.1                | 15.2                       | 18.1                       | 15.2             | 20.0      | 18.6         | 18.8                  | 18.4                            |
| East South Central                                  | 4.3        | 1.9       | 3.5                      | 3.5                             | 3.4                   | 5.3               | 3.3        | 2.0     | 5.8                 | 3.6                        | 2.5                        | 3.3              | 6.4       | 5.5          | 4.2                   | 6.4                             |
| West South Central                                  | 9.7        | 4.3       | 7.1                      | 7.0                             | 9.0                   | 9.1               | 7.2        | 8.9     | 5.1                 | 6.1                        | 7.4                        | 7.3              | 10.1      | 9.4          | 9.1                   | 9.6                             |
| Mountain  | 6.0        | 5.7       | 5.1                      | 3.5                             | 5.1                   | 5.8               | 5.3        | 6.9     | 4.4                 | 3.0                        | 5.4                        | 5.5              | 6.6       | 4.2          | 2.9                   | 5.2                             |
| Pacific & insular                                   | 12.2       | 6.7       | 15.0                     | 12.9                            | 8.4                   | 13.0              | 14.9       | 9.4     | 18.2                | 19.4                       | 15.2                       | 14.6             | 13.0      | 9.5          | 13.0                  | 7.1                             |
| Foreign   | 2.9        | 18.6      | 7.1                      | 14.6                            | 10.7                  | 6.4               | 8.0        | 5.9     | 2.2                 | 5.5                        | 7.8                        | 10.5             | 4.3       | 10.2         | 12.3                  | 8.7                             |
| Region unknown                                      | 0.1        | 0.0       | 0.0                      | 0.0                             | 0.0                   | 0.0               | 0.1        | 0.0     | 0.0                 | 0.0                        | 0.0                        | 0.2              | 0.0       | 0.0          | 0.0                   | 0.0                             |

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

<sup>a</sup> Physical sciences includes mathematics and computer sciences.

<sup>b</sup> 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.

<sup>c</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for study and who indicated the type of study.

<sup>d</sup> Percentages are based upon only those doctorate recipients who indicated definite postdoctoral plans for employment and who indicated the sector of employment.

<sup>e</sup> Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

<sup>f</sup> Includes only recipients with definite employment plans.

<sup>g</sup> Percentages are based upon only those doctorate recipients who indicated their primary and secondary work activities.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2005

| Characteristics   | Total <sup>a</sup> |          |       | American Indian <sup>b</sup> |          |      | Asian <sup>c</sup> |          |        | Black |          |       |       |       |      |      |
|---|--------------------|----------|-------|------------------------------|----------|------|--------------------|----------|--------|-------|----------|-------|-------|-------|------|------|
|   | Total              | Non-U.S. |       | Total                        | Non-U.S. |      | Total              | Non-U.S. |        | Total | Non-U.S. |       |       |       |      |      |
|   |                    | U.S.     | Perm. |                              | Temp.    | U.S. |                    | Perm.    | Temp.  |       | U.S.     | Perm. | Temp. |       |      |      |
| Total number  | 43,354             | 26,312   | 1,600 | 12,824                       | 142      | 139  | 1                  | 2        | 10,222 | 1,493 | 688      | 8,003 | 2,178 | 1,688 | 107  | 380  |
| Male  | 54.8               | 48.6     | 48.9  | 68.2                         | 41.5     | 40.3 | ----               | ----     | 64.1   | 51.0  | 45.3     | 68.3  | 41.6  | 35.1  | 61.7 | 64.7 |
| Female  | 45.2               | 51.4     | 51.1  | 31.8                         | 58.5     | 59.7 | ----               | ----     | 35.9   | 49.0  | 54.7     | 31.7  | 58.4  | 64.9  | 38.3 | 35.3 |
| Field of study  |                    |          |       |                              |          |      |                    |          |        |       |          |       |       |       |      |      |
| Physical sciences <sup>e</sup>                              | %                  | 15.5     | 11.7  | 17.6                         | 23.3     | 7.0  | 6.5                | ----     | 21.3   | 16.1  | 19.0     | 22.5  | 7.2   | 5.0   | 13.1 | 15.5 |
| Engineering   |                    | 14.8     | 7.6   | 17.8                         | 29.3     | 7.0  | 5.8                | ----     | 31.4   | 16.2  | 23.7     | 34.9  | 6.7   | 5.0   | 14.0 | 12.1 |
| Life sciences   |                    | 21.5     | 22.5  | 22.9                         | 19.9     | 13.4 | 13.7               | ----     | 22.5   | 34.0  | 24.1     | 20.2  | 18.0  | 15.9  | 26.2 | 25.3 |
| Social sciences   |                    | 15.8     | 18.3  | 14.2                         | 10.7     | 22.5 | 23.0               | ----     | 9.2    | 13.3  | 11.0     | 8.3   | 16.7  | 17.5  | 15.0 | 13.4 |
| Humanities  |                    | 12.3     | 14.8  | 15.1                         | 6.8      | 15.5 | 15.8               | ----     | 5.3    | 9.4   | 9.6      | 4.2   | 10.3  | 10.2  | 9.3  | 11.3 |
| Education   |                    | 14.4     | 19.5  | 6.8                          | 4.2      | 30.3 | 30.9               | ----     | 4.6    | 7.5   | 6.1      | 3.9   | 34.1  | 39.2  | 18.7 | 16.1 |
| Other fields  |                    | 5.8      | 5.7   | 5.6                          | 5.8      | 4.2  | 4.3                | ----     | 5.5    | 3.5   | 6.4      | 5.9   | 6.9   | 7.2   | 3.7  | 6.3  |
| Median age at doctorate                                     | Yrs                | 33.0     | 33.8  | 34.1                         | 32.0     | 38.7 | 39.1               | ----     | 32.0   | 31.3  | 34.0     | 31.9  | 36.8  | 36.7  | 36.4 | 37.3 |
| Median time lapse from baccalaureate to doctorate           |                    |          |       |                              |          |      |                    |          |        |       |          |       |       |       |      |      |
| Since baccalaureate   | Yrs                | 9.9      | 10.4  | 10.5                         | 9.1      | 12.0 | 12.0               | ----     | 9.3    | 8.8   | 11.1     | 9.2   | 12.5  | 12.7  | 11.8 | 11.8 |
| Since starting graduate school                              |                    | 8.2      | 8.4   | 8.7                          | 7.7      | 9.9  | 10.0               | ----     | 7.9    | 7.3   | 9.1      | 7.9   | 10.0  | 10.5  | 9.1  | 8.7  |
| Graduate school, primary source of support <sup>f</sup>     |                    |          |       |                              |          |      |                    |          |        |       |          |       |       |       |      |      |
| Teaching assistantships                                     | %                  | 17.1     | 15.3  | 21.9                         | 20.3     | 13.4 | 13.7               | ----     | 17.3   | 11.2  | 19.5     | 18.3  | 11.9  | 7.5   | 18.6 | 29.7 |
| Research and other non-teaching assistantships/traineeships |                    | 26.9     | 16.9  | 31.3                         | 47.2     | 9.7  | 8.4                | ----     | 49.4   | 24.4  | 38.2     | 55.1  | 11.6  | 7.3   | 21.6 | 27.4 |
| Fellowships/dissertation grants                             |                    | 27.5     | 30.7  | 26.3                         | 21.1     | 33.6 | 33.6               | ----     | 21.4   | 43.5  | 23.4     | 17.1  | 35.6  | 37.2  | 29.9 | 30.0 |
| Own resources   |                    | 22.7     | 31.4  | 16.1                         | 5.5      | 36.6 | 37.4               | ----     | 8.1    | 17.2  | 13.7     | 5.9   | 35.0  | 41.5  | 21.6 | 10.1 |
| Foreign government  |                    | 1.7      | 0.0   | ----                         | 5.2      | 0.0  | 0.0                | ----     | 2.6    | ----  | 1.9      | 3.1   | 0.4   | 0.0   | ---- | ---- |
| Employer  |                    | 3.8      | 5.4   | 2.6                          | 0.7      | 6.0  | 6.1                | ----     | 1.2    | ----  | 3.3      | 0.5   | 5.1   | 6.0   | 5.2  | ---- |
| Other   |                    | 0.2      | 0.2   | ----                         | 0.0      | 0.7  | 0.8                | ----     | 0.0    | 0.0   | 0.0      | 0.0   | 0.5   | 0.5   | ---- | 0.0  |
| Postdoctoral plans  |                    |          |       |                              |          |      |                    |          |        |       |          |       |       |       |      |      |
| Definite postdoctoral study                                 | %                  | 24.7     | 22.9  | 21.7                         | 28.9     | 14.8 | 14.4               | ----     | 28.3   | 32.3  | 20.2     | 28.2  | 17.3  | 16.2  | 23.8 | 19.8 |
| Definite employment   |                    | 44.9     | 49.1  | 41.7                         | 36.7     | 51.9 | 51.5               | ----     | 35.4   | 33.8  | 42.7     | 35.0  | 46.2  | 50.1  | 31.7 | 33.3 |
| Seeking employment or study                                 |                    | 27.9     | 25.4  | 33.7                         | 32.4     | 28.1 | 28.8               | ----     | 34.1   | 31.0  | 34.5     | 34.7  | 33.5  | 30.5  | 43.6 | 43.5 |
| Other/unknown <sup>g</sup>                                  |                    | 2.5      | 2.7   | 3.0                          | 2.1      | 5.2  | 5.3                | ----     | 2.3    | 2.9   | 2.6      | 2.1   | 3.2   | 3.2   | 1.0  | 3.4  |
| Postdoc study plans   | %                  | 35.5     | 31.8  | 34.2                         | 44.0     | 22.2 | 21.8               | ----     | 44.4   | 48.8  | 32.1     | 44.6  | 27.2  | 24.4  | 42.9 | 37.2 |
| Postdoc employment plans                                    | %                  | 64.5     | 68.2  | 65.8                         | 56.0     | 77.8 | 78.2               | ----     | 55.6   | 51.2  | 67.9     | 55.4  | 72.8  | 75.6  | 57.1 | 62.8 |
| Educational institution <sup>h</sup>                        |                    | 41.4     | 46.7  | 37.8                         | 29.8     | 50.0 | 51.7               | ----     | 25.4   | 24.6  | 33.8     | 24.9  | 55.4  | 58.7  | 30.4 | 45.2 |
| Industry/business   |                    | 14.2     | 11.0  | 20.8                         | 20.5     | 12.2 | 11.5               | ----     | 24.0   | 16.8  | 27.0     | 25.1  | 6.5   | 6.0   | 10.7 | 8.0  |
| Government  |                    | 4.9      | 5.8   | 2.6                          | 3.3      | 8.9  | 8.0                | ----     | 3.5    | 5.3   | 3.9      | 3.2   | 6.3   | 6.7   | 3.6  | 4.8  |
| Nonprofit   |                    | 3.3      | 4.1   | 3.0                          | 1.4      | 6.7  | 6.9                | ----     | 1.6    | 3.9   | 1.5      | 1.2   | 4.0   | 3.9   | 7.1  | 3.7  |
| Other/unknown   |                    | 0.7      | 0.5   | 1.6                          | 1.0      | 0.0  | 0.0                | ----     | 1.0    | 0.5   | 1.7      | 1.0   | 0.6   | 0.3   | 5.4  | 1.1  |

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2005

| Characteristics   | Puerto Rican |        |       |       |         |      |       |       |                |       |       |       |                                 |       |       |       |      |
|---|--------------|--------|-------|-------|---------|------|-------|-------|----------------|-------|-------|-------|---------------------------------|-------|-------|-------|------|
|   | White        |        |       |       | Mexican |      |       |       | Other Hispanic |       |       |       | Other/unknown race <sup>d</sup> |       |       |       |      |
|   | Total        | U.S.   | Perm. | Temp. | Total   | U.S. | Perm. | Temp. | Total          | U.S.  | Perm. | Temp. | Total                           | U.S.  | Perm. | Temp. |      |
| Total number  | 24,704       | 20,845 | 627   | 3,166 | 264     | 732  | 497   | 22    | 213            | 1,276 | 533   | 110   | 629                             | 3,836 | 853   | 45    | 431  |
| Male  | 0.0          | 0.0    | 0.8   | 0.2   | 1.9     | 0.7  | 1.0   | 22.7  | 2.3            | 0.4   | 0.9   | 4.5   | 0.8                             | 0.1   | 0.6   | 11.1  | 1.2  |
| Female  | 52.3         | 50.0   | 51.5  | 68.0  | 37.5    | 54.6 | 45.5  | 50.0  | 76.5           | 54.2  | 41.8  | 42.7  | 67.1                            | 55.3  | 49.3  | 48.9  | 69.9 |
|   | 47.7         | 50.0   | 48.5  | 32.0  | 62.5    | 45.4 | 54.5  | 50.0  | 23.5           | 45.8  | 58.2  | 57.3  | 32.9                            | 44.7  | 50.7  | 51.1  | 30.1 |
| Field of study  |              |        |       |       |         |      |       |       |                |       |       |       |                                 |       |       |       |      |
| Physical sciences <sup>e</sup>                              | 14.3         | 12.0   | 18.7  | 28.2  | 10.2    | 8.5  | 6.2   | 13.6  | 13.1           | 13.5  | 10.9  | 8.2   | 16.7                            | 14.7  | 13.6  | 17.8  | 21.8 |
| Engineering   | 9.1          | 7.3    | 13.2  | 20.2  | 6.1     | 11.5 | 4.8   | 0.0   | 28.2           | 12.5  | 6.2   | 14.5  | 17.6                            | 13.6  | 8.2   | 15.6  | 24.6 |
| Life sciences   | 21.7         | 22.4   | 21.9  | 17.2  | 24.2    | 21.0 | 18.5  | 13.6  | 27.7           | 23.5  | 20.6  | 20.9  | 26.4                            | 18.4  | 19.9  | 22.2  | 15.1 |
| Social sciences   | 17.8         | 18.3   | 16.9  | 14.5  | 20.1    | 19.4 | 20.7  | 22.7  | 16.0           | 20.2  | 25.0  | 18.2  | 16.5                            | 17.1  | 21.8  | 8.9   | 15.1 |
| Humanities  | 15.0         | 15.4   | 20.1  | 11.3  | 15.5    | 12.7 | 15.5  | 27.3  | 4.7            | 14.2  | 14.3  | 23.6  | 12.6                            | 13.9  | 17.6  | 15.6  | 11.6 |
| Education   | 16.4         | 18.8   | 4.3   | 2.7   | 15.9    | 21.9 | 28.8  | 13.6  | 6.6            | 10.7  | 17.3  | 10.0  | 5.1                             | 15.1  | 13.5  | 13.3  | 6.3  |
| Other fields  | 5.7          | 5.7    | 4.9   | 5.9   | 8.0     | 5.1  | 5.4   | 9.1   | 3.8            | 5.3   | 5.8   | 4.5   | 5.1                             | 7.2   | 5.4   | 6.7   | 5.6  |
| Median age at doctorate                                     | 33.2         | 33.7   | 33.5  | 31.3  | 34.7    | 34.9 | 35.0  | 36.7  | 34.7           | 33.8  | 33.6  | 35.3  | 33.8                            | 33.1  | 33.7  | 34.2  | 32.6 |
| Median time lapse from baccalaureate to doctorate           |              |        |       |       |         |      |       |       |                |       |       |       |                                 |       |       |       |      |
| Since baccalaureate   | 10.0         | 10.4   | 9.8   | 8.2   | 11.0    | 10.6 | 10.6  | 11.4  | 10.2           | 9.9   | 10.0  | 10.4  | 9.6                             | 9.8   | 10.0  | 11.0  | 9.4  |
| Since starting graduate school                              | 8.2          | 8.3    | 8.3   | 7.2   | 8.9     | 8.7  | 8.7   | 9.3   | 8.5            | 7.9   | 8.7   | 7.7   | 7.3                             | 7.9   | 8.0   | 8.7   | 7.6  |
| Graduate school primary source of support <sup>f</sup>      |              |        |       |       |         |      |       |       |                |       |       |       |                                 |       |       |       |      |
| Teaching assistantships                                     | 17.5         | 16.2   | 24.4  | 24.7  | 13.3    | 13.0 | 13.5  | ---   | 11.1           | 17.8  | 11.8  | 28.6  | 21.0                            | 18.4  | 18.5  | 15.2  | 19.1 |
| Research and other non-teaching assistantships/traineeships | 20.0         | 17.5   | 28.1  | 35.3  | 11.6    | 13.4 | 10.3  | ---   | 20.3           | 23.5  | 12.0  | 21.9  | 33.2                            | 22.4  | 16.5  | 21.2  | 34.2 |
| Fellowships/dissertation grants                             | 28.5         | 28.6   | 27.4  | 27.6  | 42.1    | 32.5 | 34.4  | ---   | 29.5           | 34.4  | 41.9  | 31.4  | 28.5                            | 32.3  | 34.7  | 39.4  | 28.3 |
| Own resources   | 27.9         | 31.7   | 16.9  | 4.9   | 27.5    | 28.0 | 38.0  | 35.0  | 4.3            | 14.9  | 30.1  | 15.2  | 2.3                             | 20.6  | 26.2  | 24.2  | ---  |
| Foreign government  | 0.9          | 0.0    | 1.4   | 6.9   | ---     | 9.4  | 0.0   | ---   | 30.9           | 6.6   | ---   | ---   | 12.7                            | 3.2   | 0.0   | 0.0   | 13.2 |
| Employer  | 4.9          | 5.7    | 1.9   | 0.5   | 4.7     | ---  | ---   | 0.0   | 3.9            | 2.8   | 4.0   | ---   | 2.2                             | 2.7   | ---   | 0.0   | ---  |
| Other   | 0.2          | 0.2    | 0.0   | 0.0   | ---     | ---  | ---   | 0.0   | 0.0            | 0.0   | 0.0   | ---   | 0.0                             | 0.2   | ---   | 0.0   | 0.0  |
| Postdoctoral plans  |              |        |       |       |         |      |       |       |                |       |       |       |                                 |       |       |       |      |
| Definite postdoctoral study                                 | 24.0         | 22.7   | 24.0  | 32.2  | ---     | 24.5 | 24.4  | ---   | ---            | 25.2  | 26.1  | 18.9  | 25.6                            | 23.8  | 22.0  | 16.2  | 31.3 |
| Definite employment   | 48.7         | 50.5   | 41.8  | 38.5  | 44.6    | 45.8 | 45.7  | 42.9  | 46.4           | 44.9  | 45.7  | 42.5  | 44.5                            | 43.5  | 44.1  | 45.9  | 41.8 |
| Seeking employment or study                                 | 24.8         | 24.2   | 30.8  | 27.7  | 33.0    | 27.3 | 27.1  | 42.9  | 26.3           | 27.8  | 26.1  | 34.9  | 28.1                            | 28.7  | 30.4  | 29.7  | 22.0 |
| Other/unknown <sup>g</sup>                                  | 2.5          | 2.6    | 3.3   | 1.6   | ---     | 2.4  | 2.9   | ---   | ---            | 2.0   | 2.0   | 3.8   | 1.8                             | 4.1   | 3.5   | 8.1   | 4.9  |
| Postdoc study plans   | 33.0         | 31.1   | 36.5  | 45.5  | 32.0    | 34.9 | 34.8  | 25.0  | 35.8           | 36.0  | 36.4  | 30.8  | 36.5                            | 35.3  | 33.3  | 26.1  | 42.9 |
| Postdoc employment plans                                    | 67.0         | 68.9   | 63.5  | 54.5  | 68.0    | 65.1 | 65.2  | 75.0  | 64.2           | 64.0  | 63.6  | 69.2  | 63.5                            | 64.7  | 66.7  | 73.9  | 57.1 |
| Educational institution <sup>h</sup>                        | 45.7         | 47.3   | 41.6  | 35.5  | 47.7    | 48.8 | 51.9  | 50.0  | 41.7           | 45.3  | 45.5  | 47.7  | 44.7                            | 40.1  | 43.4  | 30.4  | 33.2 |
| Industry/business   | 11.8         | 11.2   | 16.9  | 14.4  | 5.9     | 7.4  | 5.6   | 25.0  | 9.9            | 10.3  | 9.6   | 12.3  | 10.5                            | 11.7  | 9.6   | 21.7  | 14.3 |
| Government  | 5.2          | 5.7    | 1.3   | 2.5   | 5.2     | 5.6  | 4.4   | 0.0   | 8.6            | 4.3   | 4.4   | ---   | 4.4                             | 7.3   | 8.0   | 0.0   | 6.6  |
| Nonprofit   | 3.8          | 4.1    | 3.0   | 1.3   | 8.5     | 2.2  | ---   | 0.0   | ---            | 3.0   | ---   | 4.6   | 2.6                             | 3.9   | 4.0   | ---   | ---  |
| Other/unknown   | 0.6          | 0.5    | 0.8   | 0.8   | 0.7     | 1.2  | ---   | 0.0   | ---            | 1.1   | ---   | ---   | 1.2                             | 1.7   | 1.6   | ---   | ---  |

| Characteristics                                  | Total <sup>a</sup> |          |       | American Indian <sup>b</sup> |          |      | Asian <sup>c</sup> |          |       | Black |          |       |       |      |       |       |  |
|--|--------------------|----------|-------|------------------------------|----------|------|--------------------|----------|-------|-------|----------|-------|-------|------|-------|-------|--|
|  | Total              | Non-U.S. |       | Total                        | Non-U.S. |      | Total              | Non-U.S. |       | Total | Non-U.S. |       |       |      |       |       |  |
|  |                    | U.S.     | Perm. |                              | Temp.    | U.S. |                    | Perm.    | Temp. |       | U.S.     | Perm. | Temp. | U.S. | Perm. | Temp. |  |
| Employment location after doctorate <sup>i</sup> |                    |          |       |                              |          |      |                    |          |       |       |          |       |       |      |       |       |  |
| U.S.   | 89.6               | 98.2     | 94.3  | 65.1                         | 98.6     | 98.5 | ----               | 76.0     | 96.5  | 94.2  | 70.5     | 94.3  | 99.5  | 93.8 | 60.2  |       |  |
| Foreign  | 10.4               | 1.7      | 5.7   | 34.9                         | 1.4      | 1.5  | ----               | 23.9     | 3.5   | 5.8   | 29.5     | 5.7   | 0.5   | 6.3  | 39.8  |       |  |
| Unknown  | 0.0                | 0.0      | 0.0   | 0.0                          | 0.0      | 0.0  | ----               | 0.0      | 0.0   | 0.0   | 0.0      | 0.0   | 0.0   | 0.0  | 0.0   |       |  |

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 2005

| Characteristics                                  | Puerto Rican |      |          |         |       |          |                |       |          |                                 |      |          |      |      |      |      |      |
|--|--------------|------|----------|---------|-------|----------|----------------|-------|----------|---------------------------------|------|----------|------|------|------|------|------|
|  | White        |      |          | Mexican |       |          | Other Hispanic |       |          | Other/unknown race <sup>d</sup> |      |          |      |      |      |      |      |
|  | Total        | U.S. | Non-U.S. | Total   | U.S.  | Non-U.S. | Total          | U.S.  | Non-U.S. | Total                           | U.S. | Non-U.S. |      |      |      |      |      |
| Employment location after doctorate <sup>1</sup> |              |      |          |         |       |          |                |       |          |                                 |      |          |      |      |      |      |      |
| U.S.   | 94.4         | 98.3 | 94.8     | 61.3    | 100.0 | 80.4     | 100.0          | 100.0 | 34.0     | 72.6                            | 97.8 | 93.3     | 47.6 | 84.0 | 95.8 | 88.2 | 48.2 |
| Foreign  | 5.6          | 1.7  | 5.2      | 38.7    | 0.0   | 19.6     | 0.0            | 0.0   | 66.0     | 27.4                            | 2.2  | 6.7      | 52.4 | 15.0 | 3.6  | 11.8 | 51.8 |
| Unknown  | 0.0          | 0.0  | 0.0      | 0.0     | 0.0   | 0.0      | 0.0            | 0.0   | 0.0      | 0.0                             | 0.0  | 0.0      | 0.0  | 1.0  | 0.6  | 0.0  | 0.0  |

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.

<sup>a</sup> Totals include 59 individuals who did not report their sex and 2,618 individuals who did not report their citizenship at time of doctorate.

<sup>b</sup> Includes Alaska Native.

<sup>c</sup> Does not include Native Hawaiians and other Pacific Islanders.

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

<sup>e</sup> Includes mathematics and computer sciences.

<sup>f</sup> Percentages are based on the number indicating a primary source of financial support during graduate school.

<sup>g</sup> Includes recipients who indicated that they did not plan to work or study and recipients who did not indicate their postdoctoral plans.

<sup>h</sup> Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

<sup>i</sup> Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

APPENDIX TABLE A-5. Doctorate recipients' financial resources in support of doctoral programs, by broad field of study and sex, 2005

| Financial resource                             | Physical sciences <sup>a</sup> |        |             |        |               |        |                 |        |            |        |           |        |              |        |       |
|--|--------------------------------|--------|-------------|--------|---------------|--------|-----------------|--------|------------|--------|-----------|--------|--------------|--------|-------|
|  | Total                          |        | Engineering |        | Life sciences |        | Social sciences |        | Humanities |        | Education |        | Other fields |        |       |
|  | Male                           | Female | Male        | Female | Male          | Female | Male            | Female | Male       | Female | Male      | Female | Male         | Female |       |
| Unduplicated total <sup>b</sup>                | 21,446                         | 17,588 | 4,537       | 1,612  | 4,745         | 1,081  | 4,345           | 2,719  | 3,381      | 2,359  | 2,443     | 1,804  | 3,654        | 1,127  | 1,072 |
|  | Percent                        |        |             |        |               |        |                 |        |            |        |           |        |              |        |       |
| Fellowship, scholarship                        | 48.6                           | 50.9   | 48.2        | 53.0   | 40.3          | 51.0   | 51.6            | 57.6   | 56.0       | 69.2   | 70.4      | 24.7   | 29.2         | 47.6   | 47.5  |
| Grant, stipend                                 | 32.0                           | 35.6   | 28.1        | 32.8   | 20.3          | 27.2   | 51.2            | 36.8   | 39.0       | 41.3   | 41.4      | 13.2   | 16.1         | 25.7   | 24.5  |
| Teaching assistantship                         | 56.8                           | 53.7   | 77.4        | 78.8   | 46.4          | 50.9   | 39.8            | 70.4   | 69.7       | 79.9   | 81.4      | 19.2   | 24.5         | 60.1   | 57.3  |
| Research assistantship                         | 59.1                           | 46.4   | 78.1        | 77.9   | 82.4          | 81.6   | 54.1            | 55.0   | 56.4       | 25.3   | 28.5      | 19.3   | 21.9         | 47.5   | 45.5  |
| Other assistantship                            | 3.5                            | 5.4    | 2.1         | 2.0    | 1.3           | 2.0    | 1.9             | 6.9    | 9.3        | 6.5    | 7.5       | 6.5    | 6.7          | 4.7    | 5.1   |
| Traineeship                                    | 1.9                            | 3.0    | 1.0         | 1.4    | 0.8           | 1.1    | 5.4             | 7.5    | 4.4        | 0.3    | 0.5       | 0.1    | 0.3          | 0.3    | 0.5   |
| Internship, clinical residency                 | 3.6                            | 5.1    | 3.8         | 3.3    | 4.6           | 5.0    | 1.3             | 0.8    | 10.1       | 18.8   | 0.9       | 1.4    | 1.9          | 0.8    | 1.5   |
| Loans (from any source)                        | 24.5                           | 32.8   | 14.4        | 16.1   | 9.4           | 8.2    | 21.3            | 41.4   | 48.9       | 46.6   | 45.8      | 38.9   | 37.0         | 29.9   | 33.7  |
| Personal savings                               | 29.7                           | 33.2   | 17.8        | 17.1   | 21.6          | 16.5   | 23.6            | 40.6   | 37.2       | 41.8   | 38.3      | 52.1   | 47.0         | 45.9   | 41.7  |
| Other personal earnings during graduate school | 22.4                           | 33.1   | 9.5         | 8.3    | 9.3           | 7.1    | 13.2            | 36.3   | 40.0       | 48.8   | 49.1      | 49.6   | 52.1         | 31.7   | 38.3  |
| Family earnings or savings <sup>c</sup>        | 22.1                           | 33.8   | 12.7        | 16.3   | 14.8          | 17.0   | 20.7            | 32.0   | 44.2       | 38.2   | 42.8      | 28.4   | 38.0         | 28.1   | 40.2  |
| Employer reimbursement/assistance              | 7.9                            | 9.4    | 4.2         | 3.5    | 7.4           | 4.7    | 5.0             | 6.0    | 5.3        | 5.5    | 4.7       | 29.0   | 23.0         | 12.2   | 10.5  |
| Foreign (non-U.S.) support                     | 5.6                            | 3.7    | 3.9         | 2.7    | 6.5           | 5.1    | 4.5             | 8.2    | 3.5        | 6.7    | 5.5       | 3.8    | 2.3          | 6.6    | 4.4   |
| Other  | 0.2                            | 0.4    | 0.0         | 0.2    | 0.2           | 0.2    | 0.1             | 0.3    | 0.7        | 0.5    | 0.6       | 0.4    | 0.7          | 0.7    | 0.1   |

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 59 individuals for whom sex was not reported.

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> The 4,325 doctorate recipients who did not report sources of support are omitted from this total. Percentages are based only on known responses.

<sup>c</sup> This category includes spouses and significant others.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 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, 2005

| Financial resource                             | All fields | Physical sciences <sup>a</sup> | Engineering | Life sciences | Social sciences | Humanities | Education | Other fields |
|--|------------|--------------------------------|-------------|---------------|-----------------|------------|-----------|--------------|
|  |            | Percent                        |             |               |                 |            |           |              |
| <b>Male</b>                                    |            |                                |             |               |                 |            |           |              |
| Unduplicated count <sup>b</sup>                | 21,446     | 21.2                           | 22.1        | 19.4          | 12.7            | 11.0       | 8.4       | 5.3          |
| Fellowship, scholarship                        | 10,421     | 21.0                           | 18.4        | 20.6          | 15.0            | 15.7       | 4.3       | 5.1          |
| Grant, stipend                                 | 6,872      | 18.6                           | 14.0        | 31.0          | 14.6            | 14.2       | 3.5       | 4.2          |
| Teaching assistantship                         | 12,190     | 28.8                           | 18.1        | 13.6          | 15.7            | 15.5       | 2.8       | 5.6          |
| Research assistantship                         | 12,676     | 28.0                           | 30.8        | 17.7          | 11.8            | 4.7        | 2.7       | 4.2          |
| Other assistantship                            | 745        | 12.6                           | 8.1         | 10.6          | 25.2            | 20.5       | 15.8      | 7.1          |
| Traineeship                                    | 397        | 11.8                           | 9.1         | 56.4          | 19.9            | 1.5        | 0.5       | 0.8          |
| Internship, clinical residency                 | 779        | 22.1                           | 28.2        | 6.7           | 35.2            | 2.8        | 3.9       | 1.2          |
| Loans (from any source)                        | 5,244      | 12.5                           | 8.5         | 16.8          | 21.5            | 21.0       | 13.4      | 6.4          |
| Personal savings                               | 6,362      | 12.7                           | 16.1        | 15.4          | 17.3            | 15.5       | 14.8      | 8.1          |
| Other personal earnings during graduate school | 4,811      | 9.0                            | 9.2         | 11.4          | 20.5            | 23.9       | 18.6      | 7.4          |
| Family earnings or savings <sup>c</sup>        | 4,735      | 12.1                           | 14.8        | 18.1          | 18.4            | 19.0       | 10.8      | 6.7          |
| Employer reimbursement/assistance              | 1,702      | 11.2                           | 20.6        | 12.2          | 9.6             | 7.6        | 30.8      | 8.0          |
| Foreign (non-U.S.) support                     | 1,198      | 14.7                           | 25.9        | 15.7          | 18.7            | 13.2       | 5.7       | 6.2          |
| Other  | 53         | 3.8                            | 15.1        | 11.3          | 17.0            | 22.6       | 15.1      | 15.1         |
| <b>Female</b>                                  |            |                                |             |               |                 |            |           |              |
| Unduplicated count <sup>d</sup>                | 17,588     | 9.2                            | 6.1         | 24.7          | 19.2            | 13.9       | 20.8      | 6.1          |
| Fellowship, scholarship                        | 8,949      | 9.6                            | 6.2         | 26.3          | 21.2            | 19.2       | 11.9      | 5.7          |
| Grant, stipend                                 | 6,262      | 8.4                            | 4.7         | 36.1          | 21.0            | 16.1       | 9.4       | 4.2          |
| Teaching assistantship                         | 9,440      | 13.5                           | 5.8         | 18.7          | 25.0            | 21.1       | 9.5       | 6.5          |
| Research assistantship                         | 8,165      | 15.4                           | 10.8        | 26.2          | 23.4            | 8.5        | 9.8       | 6.0          |
| Other assistantship                            | 941        | 3.5                            | 2.3         | 9.4           | 33.4            | 19.4       | 26.1      | 5.8          |
| Traineeship                                    | 535        | 4.3                            | 2.2         | 60.6          | 28.0            | 2.1        | 1.9       | 0.9          |
| Internship, clinical residency                 | 895        | 5.9                            | 6.0         | 3.8           | 71.1            | 3.7        | 7.7       | 1.8          |
| Loans (from any source)                        | 5,768      | 4.5                            | 1.5         | 16.2          | 28.6            | 19.4       | 23.5      | 6.3          |
| Personal savings                               | 5,836      | 4.7                            | 3.1         | 17.6          | 21.6            | 16.0       | 29.4      | 7.7          |
| Other personal earnings during graduate school | 5,819      | 2.3                            | 1.3         | 12.8          | 23.2            | 20.6       | 32.7      | 7.1          |
| Family earnings or savings <sup>c</sup>        | 5,946      | 4.4                            | 3.1         | 19.1          | 25.2            | 17.6       | 23.4      | 7.2          |
| Employer reimbursement/assistance              | 1,658      | 3.4                            | 3.1         | 18.3          | 10.7            | 6.9        | 50.7      | 6.8          |
| Foreign (non-U.S.) support                     | 646        | 6.8                            | 8.5         | 25.4          | 18.3            | 20.9       | 12.8      | 7.3          |
| Other  | 73         | 4.1                            | 2.7         | 6.8           | 31.5            | 19.2       | 34.2      | 1.4          |

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 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.

<sup>a</sup> Includes mathematics and computer sciences.

<sup>b</sup> The 2,289 male doctorate recipients who did not report sources of support are omitted from this count.

<sup>c</sup> This category includes spouses and significant others.

<sup>d</sup> The 1,977 female doctorate recipients who did not report sources of support are omitted from this count.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

| State                   | Total <sup>a</sup> |        | Physical sciences <sup>b</sup> |        | Engineering |        | Life sciences |        | Social sciences |        | Humanities |        | Education |        | Other fields |        |
|-------------------------|--------------------|--------|--------------------------------|--------|-------------|--------|---------------|--------|-----------------|--------|------------|--------|-----------|--------|--------------|--------|
|                         | Male               | Female | Male                           | Female | Male        | Female | Male          | Female | Male            | Female | Male       | Female | Male      | Female | Male         | Female |
|                         |                    |        |                                |        |             |        |               |        |                 |        |            |        |           |        |              |        |
| U.S. total <sup>c</sup> | 23,731             | 19,564 | 4,926                          | 1,766  | 5,215       | 1,174  | 4,567         | 4,727  | 3,043           | 3,790  | 2,619      | 2,724  | 2,065     | 4,154  | 1,296        | 1,229  |
| Alabama                 | 299                | 226    | 60                             | 26     | 61          | 18     | 91            | 70     | 22              | 27     | 17         | 11     | 31        | 53     | 17           | 21     |
| Alaska                  | 16                 | 9      | 5                              | 4      | 2           | 0      | 7             | 5      | 1               | 0      | 1          | 0      | 0         | 0      | 0            | 0      |
| Arizona                 | 412                | 348    | 80                             | 27     | 99          | 22     | 78            | 64     | 45              | 70     | 43         | 56     | 41        | 88     | 26           | 21     |
| Arkansas                | 108                | 86     | 21                             | 6      | 18          | 3      | 41            | 19     | 2               | 12     | 3          | 5      | 20        | 39     | 3            | 2      |
| California              | 2,912              | 2,312  | 736                            | 225    | 717         | 169    | 446           | 487    | 383             | 519    | 304        | 378    | 217       | 419    | 109          | 115    |
| Colorado                | 425                | 323    | 110                            | 41     | 92          | 29     | 93            | 71     | 50              | 62     | 32         | 36     | 29        | 70     | 19           | 14     |
| Connecticut             | 302                | 311    | 54                             | 20     | 38          | 19     | 75            | 109    | 54              | 66     | 53         | 56     | 12        | 32     | 16           | 9      |
| Delaware                | 112                | 88     | 24                             | 7      | 40          | 14     | 11            | 6      | 10              | 13     | 6          | 9      | 20        | 38     | 1            | 1      |
| District of Columbia    | 224                | 295    | 23                             | 18     | 13          | 5      | 31            | 54     | 67              | 90     | 46         | 45     | 21        | 48     | 23           | 35     |
| Florida                 | 922                | 751    | 199                            | 78     | 208         | 30     | 148           | 139    | 102             | 131    | 56         | 73     | 106       | 230    | 103          | 70     |
| Georgia                 | 621                | 513    | 110                            | 41     | 203         | 50     | 98            | 119    | 62              | 84     | 51         | 56     | 63        | 125    | 34           | 38     |
| Hawaii                  | 74                 | 75     | 11                             | 9      | 5           | 1      | 10            | 12     | 19              | 18     | 21         | 23     | 5         | 11     | 3            | 1      |
| Idaho                   | 60                 | 66     | 8                              | 6      | 8           | 2      | 11            | 9      | 5               | 9      | 2          | 1      | 22        | 34     | 4            | 5      |
| Illinois                | 1,171              | 1,001  | 234                            | 90     | 267         | 53     | 191           | 212    | 163             | 174    | 154        | 149    | 95        | 241    | 67           | 82     |
| Indiana                 | 663                | 488    | 127                            | 49     | 167         | 30     | 92            | 79     | 72              | 85     | 106        | 95     | 62        | 110    | 37           | 40     |
| Iowa                    | 334                | 235    | 65                             | 25     | 78          | 16     | 85            | 60     | 31              | 26     | 30         | 38     | 26        | 54     | 19           | 16     |
| Kansas                  | 231                | 182    | 43                             | 19     | 33          | 6      | 40            | 42     | 40              | 35     | 31         | 21     | 30        | 42     | 14           | 17     |
| Kentucky                | 263                | 196    | 25                             | 18     | 32          | 10     | 60            | 50     | 34              | 32     | 31         | 15     | 37        | 41     | 44           | 30     |
| Louisiana               | 288                | 276    | 42                             | 29     | 49          | 19     | 88            | 80     | 26              | 40     | 35         | 34     | 22        | 55     | 26           | 19     |
| Maine                   | 21                 | 19     | 7                              | 2      | 0           | 0      | 8             | 5      | 1               | 2      | 2          | 4      | 3         | 6      | 0            | 0      |
| Maryland                | 575                | 533    | 120                            | 45     | 138         | 41     | 161           | 215    | 64              | 84     | 56         | 72     | 26        | 60     | 10           | 16     |
| Massachusetts           | 1,243              | 991    | 335                            | 111    | 268         | 64     | 235           | 276    | 174             | 210    | 133        | 154    | 47        | 119    | 51           | 57     |
| Michigan                | 872                | 695    | 154                            | 69     | 270         | 42     | 140           | 176    | 122             | 146    | 84         | 95     | 62        | 122    | 40           | 45     |
| Minnesota               | 455                | 391    | 70                             | 28     | 87          | 19     | 99            | 111    | 73              | 71     | 37         | 37     | 49        | 86     | 40           | 39     |
| Mississippi             | 185                | 182    | 24                             | 5      | 14          | 4      | 37            | 29     | 27              | 34     | 15         | 14     | 44        | 80     | 24           | 16     |
| Missouri                | 455                | 312    | 72                             | 19     | 85          | 19     | 102           | 82     | 59              | 63     | 55         | 26     | 56        | 82     | 26           | 21     |
| Montana                 | 47                 | 45     | 10                             | 3      | 2           | 0      | 25            | 14     | 2               | 4      | 0          | 2      | 8         | 22     | 0            | 0      |
| Nebraska                | 145                | 143    | 27                             | 4      | 12          | 5      | 36            | 42     | 21              | 32     | 17         | 23     | 23        | 27     | 9            | 10     |
| Nevada                  | 68                 | 57     | 20                             | 9      | 17          | 1      | 3             | 14     | 13              | 14     | 8          | 4      | 6         | 11     | 1            | 4      |
| New Hampshire           | 81                 | 60     | 30                             | 8      | 15          | 3      | 21            | 30     | 8               | 9      | 1          | 4      | 4         | 6      | 2            | 0      |
| New Jersey              | 540                | 376    | 131                            | 50     | 121         | 29     | 62            | 69     | 72              | 90     | 105        | 86     | 25        | 30     | 24           | 22     |
| New Mexico              | 167                | 142    | 46                             | 11     | 36          | 8      | 20            | 21     | 15              | 15     | 10         | 17     | 32        | 57     | 8            | 13     |
| New York                | 1,933              | 1,768  | 419                            | 135    | 330         | 69     | 367           | 382    | 316             | 449    | 330        | 354    | 83        | 265    | 88           | 114    |
| North Carolina          | 681                | 624    | 155                            | 64     | 122         | 43     | 164           | 218    | 79              | 80     | 79         | 81     | 47        | 106    | 35           | 32     |
| North Dakota            | 37                 | 54     | 8                              | 0      | 2           | 0      | 13            | 7      | 5               | 12     | 0          | 1      | 9         | 33     | 0            | 1      |
| Ohio                    | 894                | 732    | 165                            | 54     | 250         | 51     | 179           | 173    | 88              | 138    | 95         | 85     | 67        | 173    | 50           | 58     |
| Oklahoma                | 223                | 161    | 29                             | 12     | 44          | 6      | 55            | 28     | 26              | 37     | 10         | 18     | 36        | 51     | 23           | 9      |
| Oregon                  | 193                | 178    | 45                             | 17     | 31          | 6      | 58            | 52     | 23              | 42     | 16         | 18     | 12        | 34     | 8            | 9      |
| Pennsylvania            | 1,271              | 958    | 263                            | 85     | 322         | 61     | 196           | 207    | 156             | 187    | 126        | 144    | 126       | 213    | 82           | 61     |
| Puerto Rico             | 24                 | 43     | 6                              | 5      | 0           | 1      | 3             | 10     | 4               | 15     | 5          | 3      | 6         | 8      | 0            | 1      |
| Rhode Island            | 119                | 112    | 47                             | 20     | 15          | 7      | 19            | 28     | 13              | 26     | 23         | 27     | 0         | 3      | 2            | 1      |
| South Carolina          | 238                | 190    | 45                             | 10     | 49          | 9      | 58            | 59     | 21              | 18     | 20         | 8      | 34        | 71     | 11           | 15     |

APPENDIX TABLE A-7. State of doctoral institution of doctorate recipients, by broad field of study and sex, 2005

| State         | Total <sup>a</sup> |        | Physical sciences <sup>b</sup> |        | Engineering |        | Life sciences |        | Social sciences |        | Humanities |        | Education |        | Other fields |        |
|---------------|--------------------|--------|--------------------------------|--------|-------------|--------|---------------|--------|-----------------|--------|------------|--------|-----------|--------|--------------|--------|
|               | Male               | Female | Male                           | Female | Male        | Female | Male          | Female | Male            | Female | Male       | Female | Male      | Female | Male         | Female |
| South Dakota  | 37                 | 44     | 4                              | 4      | 3           | 0      | 10            | 7      | 5               | 5      | 2          | 0      | 13        | 28     | 0            | 0      |
| Tennessee     | 344                | 355    | 34                             | 19     | 61          | 14     | 83            | 83     | 50              | 63     | 38         | 32     | 61        | 121    | 17           | 23     |
| Texas         | 1,582              | 1,202  | 291                            | 98     | 401         | 84     | 339           | 316    | 155             | 192    | 163        | 149    | 139       | 296    | 94           | 67     |
| Utah          | 230                | 141    | 50                             | 22     | 64          | 15     | 41            | 32     | 44              | 36     | 10         | 9      | 10        | 14     | 11           | 13     |
| Vermont       | 26                 | 35     | 5                              | 1      | 3           | 1      | 7             | 7      | 3               | 10     | 2          | 1      | 6         | 14     | 0            | 1      |
| Virginia      | 632                | 433    | 133                            | 37     | 148         | 28     | 112           | 96     | 76              | 85     | 42         | 43     | 88        | 124    | 33           | 20     |
| Washington    | 378                | 348    | 81                             | 39     | 80          | 20     | 89            | 122    | 51              | 48     | 35         | 55     | 32        | 55     | 10           | 9      |
| West Virginia | 94                 | 69     | 10                             | 6      | 19          | 1      | 21            | 21     | 26              | 11     | 6          | 1      | 12        | 28     | 0            | 1      |
| Wisconsin     | 474                | 368    | 100                            | 35     | 69          | 26     | 105           | 104    | 60              | 65     | 72         | 56     | 36        | 67     | 32           | 15     |
| Wyoming       | 30                 | 22     | 13                             | 1      | 7           | 1      | 3             | 4      | 3               | 4      | 0          | 0      | 4         | 12     | 0            | 0      |

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

<sup>a</sup> Totals exclude doctorate recipients whose gender was unknown (n=59).

<sup>b</sup> Includes mathematics and computer sciences.

<sup>c</sup> Includes the 50 states, District of Columbia, and Puerto Rico.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                                    | 2005 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 | Other fields |
|--|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| All U.S. institutions                          | 43,354     | 1,520               | 2,127     | 713                              | 1,203       | 1,136             | 6,404       | 6,368                          | 1,777           | 1,161                                   | 3,327      | 3,510                 | 924     | 406                 | 554                           | 3,465            | 6,229     | 2,530        |
| ALABAMA  | 525        | 24                  | 25        | 10                               | 14          | 13                | 79          | 96                             | 47              | 18                                      | 34         | 15                    | 9       | 5                   | 6                             | 8                | 84        | 38           |
| AL A&M U.                                      | 8          | 6                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 2                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Auburn U.                                      | 174        | 2                   | 13        | 1                                | 3           | 1                 | 30          | 20                             | 5               | 16                                      | 20         | 6                     | 3       | 0                   | 2                             | 1                | 36        | 15           |
| U. AL Birmingham                               | 139        | 5                   | 2         | 0                                | 2           | 1                 | 6           | 68                             | 36              | 0                                       | 8          | 4                     | 0       | 0                   | 0                             | 0                | 7         | 0            |
| U. AL in Huntsville                            | 39         | 6                   | 0         | 1                                | 1           | 5                 | 25          | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. AL, The                                     | 154        | 5                   | 10        | 6                                | 8           | 6                 | 18          | 4                              | 5               | 0                                       | 5          | 5                     | 6       | 5                   | 4                             | 7                | 37        | 23           |
| U. South AL                                    | 11         | 0                   | 0         | 2                                | 0           | 0                 | 0           | 4                              | 1               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| ALASKA   | 25         | 1                   | 1         | 7                                | 0           | 0                 | 2           | 8                              | 0               | 4                                       | 0          | 1                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| U. AK  | 25         | 1                   | 1         | 7                                | 0           | 0                 | 2           | 8                              | 0               | 4                                       | 0          | 1                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| ARIZONA  | 760        | 35                  | 27        | 19                               | 17          | 9                 | 121         | 92                             | 28              | 22                                      | 47         | 68                    | 20      | 3                   | 6                             | 70               | 129       | 47           |
| AZ State U.                                    | 321        | 7                   | 11        | 4                                | 6           | 7                 | 62          | 24                             | 11              | 2                                       | 25         | 29                    | 7       | 1                   | 4                             | 28               | 66        | 27           |
| Northern AZ U.                                 | 52         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 11                             | 0               | 1                                       | 3          | 6                     | 3       | 0                   | 0                             | 2                | 25        | 1            |
| U. AZ  | 387        | 28                  | 16        | 15                               | 11          | 2                 | 59          | 57                             | 17              | 19                                      | 19         | 33                    | 10      | 2                   | 2                             | 40               | 38        | 19           |
| ARKANSAS                                       | 194        | 12                  | 8         | 0                                | 3           | 4                 | 21          | 26                             | 7               | 27                                      | 8          | 6                     | 4       | 1                   | 1                             | 2                | 59        | 5            |
| AR State U.                                    | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 1                              | 0               | 2                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 8         | 0            |
| U. AR  | 145        | 10                  | 5         | 0                                | 3           | 4                 | 17          | 15                             | 4               | 25                                      | 8          | 6                     | 4       | 1                   | 1                             | 0                | 37        | 5            |
| U. AR Little Rock                              | 23         | 2                   | 3         | 0                                | 0           | 0                 | 4           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 14        | 0            |
| U. AR for Medical Sciences                     | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 10                             | 3               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| CALIFORNIA                                     | 5,225      | 213                 | 292       | 132                              | 153         | 171               | 886         | 741                            | 145             | 47                                      | 455        | 447                   | 127     | 52                  | 52                            | 452              | 636       | 224          |
| Azusa Pacific U.                               | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| Biola U.                                       | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 7          | 1                     | 0       | 0                   | 0                             | 0                | 3         | 2            |
| CA Institute Integral Studies                  | 25         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 2          | 2                     | 0       | 0                   | 0                             | 16               | 3         | 2            |
| CA Institute of Technology                     | 182        | 32                  | 33        | 9                                | 12          | 8                 | 58          | 27                             | 0               | 0                                       | 1          | 2                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| CA School of Professional Psychology/Alameda   | 28         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 26         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 2            |
| CA School of Professional Psychology/Alhambra  | 33         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 33         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| CA School of Professional Psychology/Fresno    | 22         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 22         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| CA School of Professional Psychology/San Diego | 45         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 41         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 4            |
| Claremont Graduate U.                          | 92         | 0                   | 0         | 0                                | 2           | 2                 | 0           | 4                              | 0               | 0                                       | 3          | 21                    | 5       | 5                   | 2                             | 22               | 17        | 9            |
| Claremont School of Theology                   | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 4            |
| Fielding Graduate Institute                    | 107        | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 46         | 4                     | 0       | 0                   | 0                             | 1                | 29        | 27           |
| Fuller Theological Seminary                    | 67         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 28         | 5                     | 1       | 0                   | 0                             | 18               | 0         | 15           |
| Graduate Theological Union                     | 25         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 1       | 0                   | 0                             | 20               | 0         | 4            |
| La Sierra U.                                   | 16         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 16        | 0            |
| Loma Linda U.                                  | 45         | 0                   | 0         | 1                                | 0           | 0                 | 0           | 12                             | 15              | 0                                       | 10         | 0                     | 0       | 0                   | 0                             | 0                | 5         | 2            |
| Naval Postgraduate School                      | 7          | 0                   | 0         | 0                                | 1           | 1                 | 5           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Pacific Graduate School of Psychology          | 27         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 27         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |

| Institution                     | 2005 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 | Other fields |
|---------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| Pardue RAND Graduate School     | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 6                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Pepperdine U.                   | 67         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 53        | 11           |
| San Diego State U.              | 14         | 0                   | 0         | 0                                | 1           | 0                 | 1           | 1                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 11        | 0            |
| Santa Clara U.                  | 5          | 0                   | 0         | 0                                | 0           | 0                 | 5           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Saybrook Graduate School        | 35         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 32         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 3            |
| Scripps Research Institute, The | 21         | 0                   | 7         | 0                                | 0           | 0                 | 0           | 14                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Stanford U.                     | 642        | 38                  | 40        | 30                               | 26          | 29                | 217         | 72                             | 6               | 2                                       | 13         | 45                    | 19      | 3                   | 8                             | 38               | 29        | 27           |
| U. CA, Berkeley                 | 802        | 44                  | 53        | 17                               | 37          | 33                | 170         | 90                             | 20              | 21                                      | 25         | 83                    | 32      | 11                  | 9                             | 84               | 44        | 29           |
| U. CA, Davis                    | 389        | 13                  | 22        | 11                               | 12          | 12                | 57          | 140                            | 9               | 16                                      | 9          | 34                    | 8       | 5                   | 8                             | 13               | 20        | 0            |
| U. CA, Irvine                   | 211        | 9                   | 20        | 2                                | 8           | 12                | 34          | 41                             | 3               | 0                                       | 13         | 22                    | 5       | 4                   | 5                             | 21               | 7         | 5            |
| U. CA, Los Angeles              | 651        | 19                  | 31        | 14                               | 23          | 22                | 115         | 102                            | 33              | 0                                       | 26         | 74                    | 20      | 5                   | 6                             | 81               | 57        | 23           |
| U. CA, Riverside                | 159        | 5                   | 11        | 0                                | 10          | 7                 | 15          | 28                             | 3               | 6                                       | 7          | 23                    | 9       | 8                   | 2                             | 13               | 11        | 1            |
| U. CA, San Diego                | 301        | 13                  | 31        | 19                               | 9           | 9                 | 56          | 82                             | 3               | 0                                       | 14         | 26                    | 6       | 5                   | 1                             | 20               | 2         | 5            |
| U. CA, San Francisco            | 86         | 0                   | 9         | 0                                | 0           | 1                 | 6           | 46                             | 19              | 0                                       | 0          | 5                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. CA, Santa Barbara            | 287        | 26                  | 9         | 12                               | 5           | 14                | 64          | 15                             | 0               | 1                                       | 22         | 35                    | 13      | 2                   | 4                             | 38               | 24        | 3            |
| U. CA, Santa Cruz               | 99         | 7                   | 7         | 7                                | 4           | 4                 | 10          | 13                             | 2               | 1                                       | 10         | 15                    | 5       | 1                   | 2                             | 10               | 0         | 1            |
| U. La Verne                     | 59         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 58        | 1            |
| U. San Diego                    | 20         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 5               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 14        | 0            |
| U. San Francisco                | 42         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 5                     | 0       | 0                   | 0                             | 1                | 33        | 3            |
| U. Southern CA                  | 554        | 7                   | 16        | 10                               | 3           | 17                | 73          | 54                             | 25              | 0                                       | 26         | 38                    | 3       | 3                   | 5                             | 56               | 178       | 40           |
| U. the Pacific                  | 26         | 0                   | 3         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 19        | 1            |
| Wright Institute, The           | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 7          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| COLORADO                        | 750        | 44                  | 34        | 31                               | 26          | 16                | 122         | 111                            | 33              | 21                                      | 50         | 62                    | 5       | 5                   | 6                             | 52               | 99        | 33           |
| CO School of Mines              | 51         | 8                   | 2         | 5                                | 2           | 1                 | 29          | 0                              | 0               | 1                                       | 0          | 3                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| CO State U.                     | 187        | 4                   | 8         | 11                               | 4           | 1                 | 25          | 43                             | 2               | 20                                      | 13         | 16                    | 0       | 0                   | 0                             | 0                | 34        | 6            |
| U. CO                           | 267        | 31                  | 20        | 15                               | 14          | 10                | 59          | 27                             | 1               | 0                                       | 6          | 29                    | 5       | 2                   | 1                             | 32               | 9         | 6            |
| U. CO Health Sciences Ctr.      | 54         | 1                   | 1         | 0                                | 0           | 0                 | 0           | 35                             | 17              | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. CO-Colorado Springs          | 7          | 0                   | 0         | 0                                | 0           | 2                 | 5           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. CO-Denver                    | 21         | 0                   | 0         | 0                                | 3           | 0                 | 2           | 0                              | 5               | 0                                       | 0          | 3                     | 0       | 0                   | 0                             | 0                | 5         | 3            |
| U. Denver                       | 94         | 0                   | 2         | 0                                | 0           | 2                 | 2           | 5                              | 0               | 0                                       | 17         | 11                    | 0       | 3                   | 5                             | 5                | 29        | 13           |
| U. Northern CO                  | 69         | 0                   | 1         | 0                                | 3           | 0                 | 0           | 1                              | 8               | 0                                       | 14         | 0                     | 0       | 0                   | 0                             | 15               | 22        | 5            |
| CONNECTICUT                     | 613        | 13                  | 35        | 3                                | 19          | 4                 | 57          | 162                            | 16              | 6                                       | 38         | 82                    | 17      | 10                  | 10                            | 72               | 44        | 25           |
| U. CT                           | 261        | 3                   | 15        | 2                                | 7           | 0                 | 40          | 66                             | 8               | 3                                       | 23         | 23                    | 5       | 7                   | 4                             | 9                | 34        | 12           |
| U. Hartford                     | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 10        | 0            |
| U. New Haven                    | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 1            |
| Wesleyan U.                     | 14         | 0                   | 1         | 0                                | 5           | 0                 | 0           | 5                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 3                | 0         | 0            |
| Yale U.                         | 327        | 10                  | 19        | 1                                | 7           | 4                 | 17          | 91                             | 8               | 3                                       | 15         | 59                    | 12      | 3                   | 6                             | 60               | 0         | 12           |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                           | 2005 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 | Other fields |
|---------------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| DELAWARE                              | 200        | 3                   | 9         | 11                               | 5           | 3                 | 54          | 12                             | 2               | 3                                       | 9          | 14                    | 2       | 1                   | 3                             | 9                | 58        | 2            |
| U. DE Wilmington C.                   | 156        | 3                   | 9         | 11                               | 4           | 3                 | 54          | 12                             | 2               | 3                                       | 8          | 14                    | 2       | 1                   | 3                             | 9                | 16        | 2            |
|                                       | 44         | 0                   | 0         | 0                                | 1           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 42        | 0            |
| DISTRICT OF COLUMBIA                  | 519        | 6                   | 18        | 0                                | 7           | 10                | 18          | 69                             | 16              | 0                                       | 60         | 97                    | 24      | 14                  | 5                             | 48               | 69        | 58           |
| American U.                           | 72         | 2                   | 2         | 0                                | 2           | 0                 | 0           | 1                              | 0               | 0                                       | 16         | 32                    | 3       | 0                   | 0                             | 0                | 11        | 3            |
| Catholic U. America                   | 72         | 1                   | 0         | 0                                | 0           | 0                 | 4           | 0                              | 8               | 0                                       | 11         | 3                     | 3       | 4                   | 4                             | 17               | 4         | 13           |
| Gallaudet U.                          | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 9          | 0                     | 0       | 0                   | 0                             | 1                | 3         | 0            |
| George Washington U.                  | 183        | 2                   | 4         | 0                                | 2           | 10                | 13          | 25                             | 5               | 0                                       | 9          | 22                    | 7       | 8                   | 0                             | 6                | 42        | 28           |
| Georgetown U.                         | 80         | 0                   | 10        | 0                                | 0           | 0                 | 0           | 19                             | 1               | 0                                       | 1          | 21                    | 5       | 0                   | 0                             | 21               | 0         | 2            |
| Howard U.                             | 99         | 1                   | 2         | 0                                | 3           | 0                 | 1           | 24                             | 2               | 0                                       | 14         | 19                    | 6       | 2                   | 1                             | 3                | 9         | 12           |
| FLORIDA                               | 1,677      | 64                  | 80        | 32                               | 25          | 76                | 238         | 152                            | 76              | 59                                      | 147        | 86                    | 14      | 10                  | 13                            | 92               | 336       | 177          |
| Barry U.                              | 35         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 4          | 0                     | 0       | 0                   | 0                             | 0                | 24        | 7            |
| FL A&M U.                             | 22         | 0                   | 0         | 0                                | 0           | 0                 | 5           | 0                              | 7               | 2                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 8         | 0            |
| FL Atlantic U.                        | 55         | 5                   | 2         | 0                                | 0           | 2                 | 7           | 0                              | 2               | 0                                       | 8          | 1                     | 0       | 0                   | 0                             | 1                | 19        | 8            |
| FL Institute of Technology            | 18         | 3                   | 1         | 1                                | 1           | 2                 | 7           | 1                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 1         | 0            |
| FL International U.                   | 80         | 4                   | 2         | 0                                | 0           | 5                 | 5           | 7                              | 0               | 0                                       | 12         | 8                     | 2       | 1                   | 0                             | 2                | 26        | 6            |
| FL State U.                           | 278        | 10                  | 17        | 10                               | 3           | 8                 | 14          | 11                             | 5               | 2                                       | 18         | 23                    | 10      | 0                   | 3                             | 45               | 60        | 39           |
| Lynn U.                               | 16         | 0                   | 0         | 0                                | 0           | 1                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 1                | 10        | 3            |
| Nova Southeastern U.                  | 121        | 0                   | 0         | 1                                | 0           | 33                | 1           | 0                              | 4               | 0                                       | 15         | 7                     | 0       | 0                   | 0                             | 0                | 1         | 59           |
| U. Central FL                         | 151        | 17                  | 1         | 0                                | 4           | 16                | 31          | 2                              | 3               | 0                                       | 12         | 2                     | 0       | 0                   | 0                             | 0                | 56        | 7            |
| U. FL                                 | 574        | 20                  | 43        | 8                                | 13          | 6                 | 135         | 92                             | 31              | 55                                      | 38         | 23                    | 2       | 3                   | 4                             | 12               | 55        | 34           |
| U. Miami                              | 110        | 2                   | 7         | 6                                | 0           | 0                 | 9           | 19                             | 7               | 0                                       | 18         | 11                    | 0       | 1                   | 4                             | 21               | 5         | 0            |
| U. South FL                           | 188        | 3                   | 7         | 6                                | 4           | 3                 | 24          | 20                             | 17              | 0                                       | 21         | 10                    | 0       | 5                   | 2                             | 10               | 42        | 14           |
| U. West FL                            | 29         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 29        | 0            |
| GEORGIA                               | 1,139      | 20                  | 66        | 14                               | 23          | 28                | 253         | 147                            | 40              | 32                                      | 74         | 72                    | 16      | 8                   | 16                            | 67               | 191       | 72           |
| Clark Atlanta U.                      | 24         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 2                              | 0               | 0                                       | 0          | 7                     | 0       | 0                   | 0                             | 0                | 14        | 1            |
| Emory U.                              | 161        | 0                   | 13        | 0                                | 4           | 0                 | 1           | 43                             | 11              | 0                                       | 9          | 22                    | 3       | 2                   | 8                             | 37               | 6         | 2            |
| GA Institute of Technology            | 364        | 13                  | 30        | 9                                | 6           | 25                | 249         | 9                              | 1               | 4                                       | 5          | 6                     | 3       | 0                   | 0                             | 0                | 0         | 4            |
| GA Southern U.                        | 22         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 22        | 0            |
| GA State U.                           | 121        | 4                   | 2         | 1                                | 0           | 1                 | 1           | 14                             | 5               | 0                                       | 21         | 10                    | 3       | 2                   | 4                             | 4                | 31        | 18           |
| Medical C. GA                         | 14         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 12                             | 2               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Mercer U. Southern School of Pharmacy | 4          | 0                   | 1         | 0                                | 0           | 0                 | 0           | 1                              | 2               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Morehouse School of Medicine          | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 3                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. GA                                 | 424        | 3                   | 20        | 4                                | 13          | 2                 | 2           | 63                             | 19              | 28                                      | 39         | 27                    | 7       | 4                   | 4                             | 26               | 116       | 47           |
| Valdosta State U.                     | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 2         | 0            |
| HAWAII                                | 149        | 7                   | 2         | 7                                | 2           | 2                 | 6           | 16                             | 3               | 3                                       | 8          | 29                    | 5       | 1                   | 7                             | 31               | 16        | 4            |
| U. HI Manoa                           | 149        | 7                   | 2         | 7                                | 2           | 2                 | 6           | 16                             | 3               | 3                                       | 8          | 29                    | 5       | 1                   | 7                             | 31               | 16        | 4            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                              | 2005 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 | Other fields |
|--|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| IDAHO                                    | 126        | 3                   | 4         | 1                                | 3           | 3                 | 10          | 9                              | 2               | 9                                       | 10         | 4                     | 1       | 1                   | 0                             | 1                | 56        | 9            |
| Boise State U.                           | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 1         | 0            |
| ID State U.                              | 27         | 0                   | 0         | 0                                | 1           | 0                 | 0           | 4                              | 1               | 0                                       | 7          | 0                     | 0       | 1                   | 0                             | 1                | 8         | 3            |
| U. ID                                    | 98         | 3                   | 4         | 1                                | 2           | 3                 | 9           | 5                              | 1               | 9                                       | 3          | 4                     | 1       | 0                   | 0                             | 0                | 47        | 6            |
| ILLINOIS                                 | 2,172      | 70                  | 128       | 18                               | 59          | 49                | 320         | 290                            | 72              | 41                                      | 160        | 177                   | 55      | 20                  | 31                            | 197              | 336       | 149          |
| Benedictine U.                           | 23         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 0         | 22           |
| Chicago Theological Seminary             | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 4                | 0         | 1            |
| DePaul U.                                | 26         | 0                   | 0         | 0                                | 0           | 2                 | 0           | 0                              | 0               | 0                                       | 19         | 0                     | 0       | 0                   | 0                             | 0                | 5         | 0            |
| Rosalind Franklin U. of Med & Sci.       | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 9                              | 0               | 0                                       | 12         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Garrett Evangelical Theological Seminary | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 5                | 0         | 1            |
| IL Institute of Technology               | 62         | 2                   | 1         | 0                                | 0           | 7                 | 35          | 1                              | 0               | 0                                       | 10         | 0                     | 0       | 0                   | 0                             | 0                | 1         | 5            |
| IL State U.                              | 49         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 5                              | 0               | 0                                       | 2          | 0                     | 0       | 1                   | 2                             | 5                | 34        | 0            |
| Institute for Clinical Social Work       | 5          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 5            |
| Loyola U. Chicago                        | 200        | 0                   | 3         | 0                                | 0           | 0                 | 0           | 21                             | 10              | 0                                       | 22         | 6                     | 5       | 0                   | 3                             | 9                | 112       | 9            |
| Lutheran School of Theology Chicago      | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 1            |
| National-Louis U.                        | 8          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 8         | 0            |
| Northern IL U.                           | 80         | 1                   | 2         | 2                                | 2           | 0                 | 0           | 1                              | 0               | 0                                       | 8          | 7                     | 2       | 3                   | 2                             | 1                | 49        | 0            |
| Northwestern U.                          | 295        | 8                   | 37        | 1                                | 10          | 3                 | 79          | 39                             | 6               | 0                                       | 12         | 25                    | 8       | 3                   | 4                             | 29               | 8         | 23           |
| Roosevelt U.                             | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 7         | 0            |
| Rush U.                                  | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 6                              | 4               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Southern IL U.                           | 145        | 0                   | 3         | 1                                | 0           | 0                 | 11          | 12                             | 4               | 3                                       | 16         | 19                    | 2       | 0                   | 5                             | 9                | 32        | 28           |
| U. Chicago, The                          | 327        | 22                  | 26        | 1                                | 17          | 5                 | 0           | 62                             | 0               | 0                                       | 14         | 67                    | 20      | 4                   | 6                             | 64               | 2         | 17           |
| U. IL-Chicago                            | 261        | 4                   | 20        | 2                                | 9           | 5                 | 35          | 65                             | 36              | 1                                       | 11         | 20                    | 8       | 3                   | 6                             | 12               | 17        | 7            |
| U. IL-Springfield                        | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 1            |
| U. IL-Urbana-Champaign                   | 637        | 33                  | 36        | 11                               | 21          | 27                | 160         | 69                             | 12              | 37                                      | 33         | 32                    | 10      | 6                   | 3                             | 57               | 61        | 29           |
| INDIANA                                  | 1,152      | 42                  | 56        | 12                               | 41          | 26                | 197         | 103                            | 31              | 37                                      | 71         | 86                    | 35      | 8                   | 23                            | 135              | 172       | 77           |
| Ball State U.                            | 44         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 12         | 0                     | 0       | 1                   | 2                             | 7                | 22        | 0            |
| IN State U.                              | 49         | 0                   | 0         | 0                                | 0           | 0                 | 1           | 2                              | 0               | 0                                       | 10         | 3                     | 0       | 0                   | 0                             | 0                | 32        | 1            |
| IN U.                                    | 409        | 15                  | 10        | 5                                | 13          | 6                 | 1           | 48                             | 14              | 5                                       | 14         | 44                    | 21      | 4                   | 10                            | 91               | 77        | 31           |
| Purdue U.                                | 522        | 14                  | 37        | 4                                | 22          | 17                | 165         | 43                             | 17              | 32                                      | 27         | 26                    | 5       | 3                   | 6                             | 28               | 41        | 35           |
| U. Notre Dame                            | 128        | 13                  | 9         | 3                                | 6           | 3                 | 30          | 10                             | 0               | 0                                       | 8          | 13                    | 9       | 0                   | 5                             | 9                | 0         | 10           |
| IOWA                                     | 569        | 13                  | 43        | 4                                | 25          | 5                 | 94          | 83                             | 33              | 29                                      | 36         | 21                    | 8       | 2                   | 10                            | 48               | 80        | 35           |
| Drake U.                                 | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| IA State U.                              | 246        | 7                   | 25        | 1                                | 13          | 4                 | 57          | 42                             | 6               | 29                                      | 18         | 11                    | 1       | 0                   | 2                             | 2                | 21        | 7            |
| Maharishi U. Management                  | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 1            |
| St. Ambrose U.                           | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 2            |
| U. IA                                    | 306        | 6                   | 18        | 3                                | 12          | 1                 | 36          | 41                             | 26              | 0                                       | 18         | 10                    | 7       | 2                   | 8                             | 45               | 48        | 25           |
| U. Northern IA                           | 9          | 0                   | 0         | 0                                | 0           | 0                 | 1           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 8         | 0            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                                 | 2005 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 | Other fields |
|---|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|---------------------------------|-----------------|--|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| KANSAS                                      | 413        | 10                  | 38        | 2                                | 7           | 5                 | 39          | 39                              | 15              | 28                                       | 45         | 30                    | 16      | 1                   | 3                             | 32               | 72        | 31           |
| KS State U.                                 | 138        | 7                   | 5         | 0                                | 3           | 3                 | 17          | 21                              | 1               | 28                                       | 9          | 9                     | 2       | 0                   | 0                             | 0                | 23        | 10           |
| U. KS                                       | 239        | 3                   | 28        | 2                                | 2           | 2                 | 9           | 18                              | 12              | 0  | 26         | 21                    | 14      | 1                   | 3                             | 32               | 45        | 21           |
| Wichita State U.                            | 36         | 0                   | 5         | 0                                | 2           | 0                 | 13          | 0                               | 2               | 0  | 10         | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| KENTUCKY                                    | 462        | 3                   | 12        | 4                                | 17          | 7                 | 42          | 71                              | 22              | 17                                       | 30         | 36                    | 6       | 5                   | 4                             | 31               | 81        | 74           |
| Asbury Theological Seminary                 | 5          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 2                     | 0       | 0                   | 0                             | 1                | 0         | 2            |
| Southern Baptist Theological Seminary, The  | 56         | 0                   | 0         | 0                                | 1           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 13               | 8         | 34           |
| Spalding U.                                 | 22         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 21        | 1            |
| U. KY                                       | 275        | 3                   | 7         | 4                                | 14          | 3                 | 33          | 46                              | 21              | 17                                       | 17         | 28                    | 6       | 5                   | 3                             | 13               | 29        | 26           |
| U. Louisville                               | 104        | 0                   | 5         | 0                                | 2           | 4                 | 9           | 25                              | 1               | 0  | 13         | 6                     | 0       | 0                   | 1                             | 4                | 23        | 11           |
| LOUISIANA                                   | 566        | 5                   | 27        | 8                                | 21          | 10                | 69          | 104                             | 41              | 24                                       | 41         | 25                    | 4       | 12                  | 7                             | 46               | 77        | 45           |
| Grambling State U.                          | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| LA State U. & A&M C.                        | 222        | 1                   | 14        | 7                                | 7           | 3                 | 25          | 32                              | 4               | 24                                       | 11         | 9                     | 3       | 8                   | 4                             | 31               | 22        | 17           |
| LA State U. Health Sciences Ctr. Shreveport | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 9                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| LA State U. School of Medicine              | 25         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 15                              | 10              | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| LA Tech U.                                  | 34         | 1                   | 0         | 0                                | 5           | 2                 | 13          | 1                               | 0               | 0  | 3          | 0                     | 0       | 0                   | 0                             | 0                | 8         | 1            |
| New Orleans Baptist Theological Seminary    | 14         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 5          | 0                     | 0       | 0                   | 0                             | 3                | 0         | 6            |
| Southern U. and A&M C.                      | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| Tulane U.                                   | 139        | 2                   | 6         | 1                                | 1           | 3                 | 22          | 36                              | 19              | 0  | 9          | 11                    | 1       | 1                   | 1                             | 7                | 2         | 17           |
| U. LA Lafayette                             | 34         | 0                   | 0         | 0                                | 8           | 2                 | 4           | 7                               | 3               | 0  | 0          | 0                     | 0       | 3                   | 2                             | 5                | 0         | 0            |
| U. LA Monroe                                | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 4                               | 5               | 0  | 10         | 0                     | 0       | 0                   | 0                             | 0                | 2         | 0            |
| U. New Orleans                              | 60         | 1                   | 7         | 0                                | 0           | 0                 | 5           | 0                               | 0               | 0  | 3          | 5                     | 0       | 0                   | 0                             | 0                | 35        | 4            |
| MAINE                                       | 40         | 1                   | 2         | 3                                | 0           | 3                 | 0           | 7                               | 1               | 5  | 3          | 0                     | 5       | 0                   | 0                             | 1                | 9         | 0            |
| U. ME                                       | 40         | 1                   | 2         | 3                                | 0           | 3                 | 0           | 7                               | 1               | 5  | 3          | 0                     | 5       | 0                   | 0                             | 1                | 9         | 0            |
| MARYLAND                                    | 1,109      | 46                  | 25        | 20                               | 36          | 38                | 180         | 217                             | 140             | 19                                       | 47         | 101                   | 21      | 11                  | 11                            | 85               | 86        | 26           |
| Baltimore Hebrew U.                         | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| Bowie State U.                              | 16         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 16        | 0            |
| Johns Hopkins U.                            | 386        | 8                   | 10        | 6                                | 7           | 6                 | 56          | 108                             | 91              | 0  | 0          | 36                    | 15      | 3                   | 2                             | 30               | 8         | 0            |
| Loyola C. in MD                             | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 6          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Morgan State U.                             | 25         | 0                   | 0         | 0                                | 0           | 0                 | 5           | 0                               | 5               | 0  | 0          | 0                     | 1       | 0                   | 0                             | 0                | 14        | 0            |
| Uniformed Services U. the Health Sciences   | 12         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 6                               | 4               | 0  | 2          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. MD                                       | 499        | 33                  | 11        | 14                               | 21          | 17                | 109         | 44                              | 12              | 17                                       | 31         | 55                    | 5       | 8                   | 9                             | 53               | 39        | 21           |
| U. MD Baltimore                             | 77         | 5                   | 4         | 0                                | 8           | 15                | 9           | 10                              | 0               | 1  | 8          | 10                    | 0       | 0                   | 0                             | 1                | 5         | 1            |
| U. MD Eastern Shore                         | 5          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 1  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| U. MD School of Medicine                    | 82         | 0                   | 0         | 0                                | 0           | 0                 | 1           | 49                              | 28              | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 4            |
| MASSACHUSETTS                               | 2,236      | 130                 | 132       | 43                               | 68          | 73                | 333         | 419                             | 74              | 19                                       | 121        | 263                   | 67      | 14                  | 20                            | 186              | 166       | 108          |
| American International C.                   | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 2          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |

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| Institution                       | 2005 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 | Other fields |
|-----------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| Boston C.                         | 137        | 0                   | 9         | 0                                | 0           | 0                 | 0           | 3                              | 16              | 0                                       | 16         | 14                    | 6       | 0                   | 4                             | 18               | 37        | 14           |
| Boston U.                         | 281        | 15                  | 16        | 6                                | 9           | 3                 | 23          | 68                             | 10              | 2                                       | 15         | 30                    | 6       | 6                   | 1                             | 46               | 16        | 9            |
| Brandeis U.                       | 79         | 5                   | 3         | 0                                | 3           | 3                 | 0           | 21                             | 1               | 0                                       | 7          | 17                    | 7       | 1                   | 3                             | 8                | 0         | 0            |
| Clark U.                          | 32         | 4                   | 0         | 0                                | 0           | 0                 | 0           | 1                              | 0               | 0                                       | 10         | 14                    | 1       | 0                   | 0                             | 1                | 1         | 0            |
| Harvard U.                        | 510        | 27                  | 26        | 12                               | 14          | 4                 | 10          | 136                            | 16              | 0                                       | 26         | 74                    | 29      | 1                   | 2                             | 71               | 36        | 26           |
| MA C. Pharmacy & Health Sciences  | 3          | 0                   | 2         | 0                                | 0           | 0                 | 0           | 1                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| MA Institute of Technology        | 581        | 49                  | 40        | 21                               | 32          | 48                | 222         | 65                             | 4               | 1                                       | 2          | 58                    | 5       | 0                   | 0                             | 11               | 0         | 23           |
| New England Conservatory of Music | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 3                | 0         | 0            |
| Northeastern U.                   | 72         | 9                   | 3         | 0                                | 1           | 1                 | 21          | 7                              | 2               | 0                                       | 8          | 13                    | 5       | 1                   | 0                             | 0                | 0         | 1            |
| Simmons C.                        | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 6            |
| Smith C.                          | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 0         | 9            |
| Springfield C.                    | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| Suffolk U.                        | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 6          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Tufts U.                          | 90         | 3                   | 4         | 0                                | 2           | 2                 | 5           | 46                             | 0               | 0                                       | 7          | 9                     | 1       | 1                   | 2                             | 3                | 0         | 5            |
| U. MA Amherst                     | 267        | 9                   | 22        | 3                                | 7           | 8                 | 28          | 29                             | 11              | 14                                      | 12         | 27                    | 7       | 4                   | 7                             | 23               | 43        | 13           |
| U. MA Dartmouth                   | 2          | 0                   | 0         | 0                                | 0           | 0                 | 2           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. MA Harbor campus               | 48         | 0                   | 1         | 1                                | 0           | 0                 | 0           | 7                              | 6               | 2                                       | 10         | 6                     | 0       | 0                   | 0                             | 0                | 15        | 0            |
| U. MA Lowell                      | 49         | 5                   | 4         | 0                                | 0           | 2                 | 9           | 3                              | 7               | 0                                       | 0          | 0                     | 0       | 0                   | 1                             | 1                | 15        | 2            |
| U. MA Worcester                   | 32         | 0                   | 0         | 0                                | 0           | 0                 | 1           | 31                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Worcester Polytechnic Institute   | 21         | 4                   | 2         | 0                                | 0           | 2                 | 12          | 1                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| MICHIGAN                          | 1,574      | 41                  | 88        | 18                               | 41          | 37                | 314         | 183                            | 70              | 63                                      | 131        | 138                   | 38      | 10                  | 17                            | 115              | 185       | 85           |
| Andrews U.                        | 18         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 3                | 11        | 3            |
| Calvin Theological Seminary       | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 1       | 0                   | 0                             | 1                | 0         | 2            |
| Central MI U.                     | 18         | 0                   | 0         | 0                                | 1           | 0                 | 0           | 0                              | 0               | 0                                       | 13         | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| Eastern MI U.                     | 16         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 15        | 1            |
| MI State U.                       | 475        | 13                  | 34        | 2                                | 13          | 16                | 48          | 62                             | 14              | 49                                      | 35         | 49                    | 7       | 3                   | 4                             | 31               | 58        | 37           |
| MI Technological U.               | 44         | 2                   | 2         | 3                                | 6           | 1                 | 26          | 2                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 0            |
| Oakland U.                        | 20         | 1                   | 0         | 0                                | 1           | 2                 | 4           | 1                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 10        | 0            |
| U. Detroit Mercy                  | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 10         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. MI                             | 711        | 22                  | 34        | 11                               | 13          | 15                | 205         | 82                             | 51              | 12                                      | 33         | 58                    | 27      | 2                   | 8                             | 71               | 35        | 32           |
| Wayne State U.                    | 165        | 1                   | 16        | 0                                | 3           | 3                 | 28          | 30                             | 5               | 0                                       | 17         | 21                    | 0       | 2                   | 4                             | 5                | 27        | 3            |
| Western MI U.                     | 93         | 2                   | 2         | 2                                | 4           | 0                 | 3           | 6                              | 0               | 2                                       | 21         | 10                    | 3       | 3                   | 1                             | 2                | 25        | 7            |
| MINNESOTA                         | 847        | 17                  | 36        | 9                                | 20          | 16                | 106         | 111                            | 66              | 34                                      | 89         | 55                    | 10      | 5                   | 4                             | 55               | 135       | 79           |
| Hamline U.                        | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 9         | 1            |
| Luther Seminary                   | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 4                | 0         | 0            |
| Mayo Graduate School              | 24         | 0                   | 0         | 0                                | 0           | 0                 | 7           | 17                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| St. Marys U. MN                   | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 18        | 3            |
| U. MN                             | 644        | 17                  | 36        | 9                                | 20          | 16                | 97          | 93                             | 50              | 34                                      | 41         | 48                    | 10      | 5                   | 4                             | 51               | 70        | 43           |

| Institution                         | 2005 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 | Other fields |
|-------------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| U. St. Thomas                       | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 16        | 4            |
| Walden U.                           | 123        | 0                   | 0         | 0                                | 0           | 0                 | 2           | 1                              | 16              | 0                                       | 47         | 7                     | 0       | 0                   | 0                             | 0                | 22        | 28           |
| MISSISSIPPI                         | 367        | 1                   | 15        | 3                                | 4           | 6                 | 18          | 36                             | 7               | 23                                      | 41         | 20                    | 10      | 5                   | 4                             | 10               | 124       | 40           |
| Delta State U.                      | 12         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 8         | 4            |
| Jackson State U.                    | 32         | 0                   | 3         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 2                                       | 4          | 4                     | 0       | 0                   | 0                             | 0                | 14        | 5            |
| MS State U.                         | 111        | 0                   | 3         | 0                                | 0           | 3                 | 11          | 11                             | 0               | 21                                      | 4          | 7                     | 5       | 0                   | 0                             | 0                | 39        | 7            |
| U. MS                               | 64         | 0                   | 1         | 0                                | 4           | 1                 | 3           | 4                              | 6               | 0                                       | 9          | 2                     | 4       | 1                   | 2                             | 1                | 15        | 11           |
| U. MS Medical Ctr.                  | 11         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 11                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. Southern MS                      | 137        | 1                   | 8         | 3                                | 0           | 2                 | 4           | 10                             | 1               | 0                                       | 24         | 7                     | 1       | 4                   | 2                             | 9                | 48        | 13           |
| MISSOURI                            | 767        | 17                  | 34        | 11                               | 16          | 13                | 104         | 141                            | 18              | 25                                      | 63         | 59                    | 16      | 4                   | 8                             | 53               | 138       | 47           |
| Concordia Seminary                  | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 4            |
| St. Louis U.                        | 120        | 0                   | 0         | 3                                | 1           | 0                 | 0           | 18                             | 9               | 0                                       | 13         | 3                     | 4       | 1                   | 2                             | 15               | 50        | 1            |
| U. MO-Columbia                      | 275        | 4                   | 9         | 2                                | 11          | 6                 | 21          | 33                             | 2               | 24                                      | 22         | 24                    | 7       | 1                   | 5                             | 16               | 61        | 27           |
| U. MO-Kansas City                   | 48         | 0                   | 7         | 1                                | 1           | 0                 | 2           | 1                              | 5               | 1                                       | 6          | 6                     | 1       | 0                   | 0                             | 9                | 5         | 3            |
| U. MO-Rolla                         | 66         | 2                   | 6         | 1                                | 1           | 2                 | 54          | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. MO-St. Louis                     | 51         | 1                   | 3         | 0                                | 0           | 0                 | 0           | 6                              | 0               | 0                                       | 14         | 6                     | 0       | 0                   | 0                             | 0                | 21        | 0            |
| Washington U.                       | 201        | 10                  | 9         | 4                                | 2           | 5                 | 27          | 83                             | 2               | 0                                       | 8          | 20                    | 4       | 2                   | 1                             | 11               | 1         | 12           |
| MONTANA                             | 92         | 3                   | 4         | 0                                | 4           | 2                 | 2           | 26                             | 1               | 12                                      | 4          | 2                     | 1       | 0                   | 0                             | 1                | 30        | 0            |
| MT State U.                         | 32         | 3                   | 1         | 0                                | 2           | 2                 | 2           | 10                             | 0               | 2                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 9         | 0            |
| U. MT                               | 60         | 0                   | 3         | 0                                | 2           | 0                 | 0           | 16                             | 1               | 10                                      | 4          | 1                     | 1       | 0                   | 0                             | 1                | 21        | 0            |
| NEBRASKA                            | 289        | 3                   | 13        | 1                                | 4           | 10                | 17          | 45                             | 15              | 19                                      | 30         | 23                    | 4       | 9                   | 10                            | 17               | 50        | 19           |
| Creighton U.                        | 13         | 0                   | 1         | 0                                | 0           | 0                 | 0           | 11                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| U. NE Medical Ctr.                  | 28         | 0                   | 5         | 0                                | 0           | 0                 | 0           | 14                             | 8               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| U. NE-Lincoln                       | 229        | 3                   | 7         | 1                                | 4           | 10                | 17          | 20                             | 7               | 19                                      | 30         | 15                    | 4       | 9                   | 10                            | 15               | 40        | 18           |
| U. NE-Omaha                         | 19         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 8                     | 0       | 0                   | 0                             | 0                | 10        | 1            |
| NEVADA                              | 125        | 7                   | 4         | 17                               | 0           | 1                 | 18          | 13                             | 2               | 2                                       | 20         | 7                     | 0       | 1                   | 6                             | 5                | 17        | 5            |
| U. NV, Las Vegas                    | 37         | 2                   | 0         | 2                                | 0           | 0                 | 5           | 1                              | 0               | 1                                       | 0          | 5                     | 0       | 0                   | 4                             | 3                | 10        | 4            |
| U. NV, Reno                         | 88         | 5                   | 4         | 15                               | 0           | 1                 | 13          | 12                             | 2               | 1                                       | 20         | 2                     | 0       | 1                   | 2                             | 2                | 7         | 1            |
| NEW HAMPSHIRE                       | 141        | 9                   | 7         | 6                                | 6           | 10                | 18          | 37                             | 2               | 12                                      | 11         | 6                     | 3       | 0                   | 1                             | 1                | 10        | 2            |
| Antioch New England Graduate School | 5          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 5                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Dartmouth C.                        | 70         | 5                   | 4         | 0                                | 3           | 9                 | 13          | 31                             | 2               | 0                                       | 3          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Southern NH U.                      | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 0         | 2            |
| U. NH                               | 63         | 4                   | 3         | 6                                | 3           | 1                 | 5           | 6                              | 0               | 7                                       | 8          | 5                     | 3       | 0                   | 1                             | 1                | 10        | 0            |
| NEW JERSEY                          | 917        | 52                  | 44        | 9                                | 41          | 36                | 150         | 99                             | 11              | 21                                      | 65         | 97                    | 40      | 7                   | 17                            | 127              | 55        | 46           |
| Drew U.                             | 29         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 1       | 0                   | 4                             | 23               | 0         | 1            |
| Fairleigh Dickinson U.              | 23         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 23         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                                   | 2005 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 | Other fields |
|---|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| Montclair State U.                            | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 2         | 0            |
| NJ Institute Technology                       | 70         | 4                   | 2         | 0                                | 7           | 13                | 40          | 1                              | 1               | 2                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Princeton Theological Seminary                | 20         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 2       | 0                   | 0                             | 14               | 0         | 4            |
| Princeton U.                                  | 277        | 25                  | 23        | 3                                | 11          | 12                | 57          | 18                             | 0               | 0                                       | 5          | 44                    | 23      | 3                   | 6                             | 46               | 0         | 1            |
| Rutgers U.                                    | 306        | 16                  | 4         | 4                                | 22          | 8                 | 42          | 35                             | 7               | 19                                      | 19         | 34                    | 14      | 4                   | 7                             | 44               | 11        | 16           |
| Rutgers State U.-Newark                       | 63         | 2                   | 9         | 1                                | 0           | 3                 | 0           | 4                              | 3               | 0                                       | 4          | 19                    | 0       | 0                   | 0                             | 0                | 0         | 18           |
| Seton Hall U.                                 | 63         | 0                   | 5         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 14         | 0                     | 0       | 0                   | 0                             | 0                | 42        | 2            |
| Stevens Institute of Technology               | 23         | 5                   | 1         | 1                                | 1           | 0                 | 11          | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 4            |
| U. Medicine & Dentistry of NJ                 | 41         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 41                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| NEW MEXICO                                    | 309        | 18                  | 9         | 8                                | 12          | 10                | 44          | 30                             | 4               | 7                                       | 13         | 17                    | 5       | 4                   | 4                             | 14               | 89        | 21           |
| NM Institute of Mining & Technology           | 12         | 2                   | 1         | 4                                | 0           | 2                 | 3           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| NM State U.                                   | 96         | 7                   | 2         | 0                                | 3           | 2                 | 10          | 6                              | 0               | 7                                       | 6          | 0                     | 0       | 0                   | 0                             | 0                | 46        | 7            |
| U. NM   | 201        | 9                   | 6         | 4                                | 9           | 6                 | 31          | 24                             | 4               | 0                                       | 7          | 17                    | 5       | 4                   | 4                             | 14               | 43        | 14           |
| NEW YORK                                      | 3,705      | 172                 | 140       | 43                               | 107         | 93                | 399         | 604                            | 100             | 47                                      | 363        | 403                   | 111     | 64                  | 70                            | 439              | 348       | 202          |
| Adephi U.                                     | 42         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 39         | 0                     | 0       | 0                   | 0                             | 0                | 1         | 2            |
| Albany Medical C.                             | 11         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 11                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Alfred U.                                     | 5          | 0                   | 0         | 0                                | 0           | 0                 | 5           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Clarkson U.                                   | 17         | 1                   | 2         | 0                                | 0           | 0                 | 14          | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Columbia U.                                   | 472        | 29                  | 26        | 17                               | 15          | 12                | 32          | 82                             | 31              | 1                                       | 8          | 67                    | 36      | 10                  | 9                             | 62               | 3         | 32           |
| Cornell U.                                    | 452        | 34                  | 22        | 3                                | 26          | 15                | 80          | 83                             | 4               | 38                                      | 14         | 47                    | 7       | 5                   | 8                             | 36               | 5         | 25           |
| Cornell U. Weill Med. College                 | 42         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 42                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Fordham U.                                    | 100        | 0                   | 0         | 0                                | 0           | 0                 | 0           | 2                              | 0               | 0                                       | 42         | 8                     | 0       | 1                   | 3                             | 8                | 20        | 16           |
| Graduate School & U. Ctr., CUNY               | 296        | 11                  | 10        | 2                                | 6           | 11                | 21          | 28                             | 3               | 1                                       | 49         | 47                    | 11      | 12                  | 16                            | 53               | 7         | 8            |
| Hofstra U.                                    | 24         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 16         | 0                     | 0       | 0                   | 0                             | 0                | 8         | 0            |
| Jewish Theological Seminary of America        | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 4                | 3         | 0            |
| Juilliard School, The                         | 14         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 14               | 0         | 0            |
| Long Island U.-Brooklyn campus                | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 1                              | 0               | 0                                       | 12         | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Mt. Sinai School of Medicine                  | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 21                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| New School, The                               | 80         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 20         | 37                    | 0       | 0                   | 0                             | 23               | 0         | 0            |
| NY Medical C.                                 | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 7                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| NY U.   | 387        | 11                  | 10        | 0                                | 15          | 8                 | 0           | 53                             | 17              | 0                                       | 24         | 42                    | 19      | 13                  | 11                            | 80               | 39        | 45           |
| Pace U.                                       | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 1            |
| Polytechnic U.                                | 27         | 0                   | 6         | 0                                | 1           | 2                 | 18          | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Rensselaer Polytechnic Institute              | 135        | 7                   | 11        | 4                                | 6           | 5                 | 76          | 6                              | 0               | 0                                       | 1          | 5                     | 1       | 0                   | 0                             | 4                | 1         | 8            |
| Rochester Institute of Technology             | 4          | 0                   | 1         | 0                                | 0           | 0                 | 3           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Rockefeller U., The                           | 22         | 2                   | 0         | 0                                | 0           | 0                 | 0           | 20                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| SUNY Binghamton U.                            | 102        | 0                   | 11        | 1                                | 4           | 3                 | 15          | 4                              | 4               | 0                                       | 12         | 16                    | 7       | 5                   | 2                             | 12               | 5         | 1            |
| SUNY C. of Environmental Science and Forestry | 18         | 0                   | 3         | 2                                | 0           | 0                 | 2           | 5                              | 0               | 5                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 0         | 0            |



APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                               | 2005 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 | Other fields |
|---|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| SUNY Health Science Ctr. Brooklyn         | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 13                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| SUNY State C. of Optometry                | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| SUNY Stony Brook U.                       | 251        | 21                  | 11        | 6                                | 20          | 11                | 34          | 55                             | 0               | 0                                       | 15         | 17                    | 6       | 0                   | 7                             | 45               | 0         | 3            |
| SUNY U. Albany                            | 135        | 5                   | 2         | 4                                | 2           | 3                 | 2           | 12                             | 5               | 1                                       | 19         | 30                    | 5       | 2                   | 4                             | 9                | 18        | 12           |
| SUNY U. Buffalo                           | 331        | 9                   | 17        | 1                                | 9           | 11                | 50          | 48                             | 12              | 0                                       | 14         | 31                    | 4       | 15                  | 7                             | 35               | 51        | 17           |
| SUNY Upstate Medical U.                   | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 9                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| St. Johns U.-Queens                       | 47         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 5                              | 1               | 0                                       | 13         | 1                     | 4       | 0                   | 0                             | 2                | 21        | 0            |
| Syracuse U.                               | 115        | 8                   | 5         | 2                                | 0           | 3                 | 26          | 4                              | 3               | 1                                       | 8          | 24                    | 3       | 0                   | 1                             | 6                | 12        | 9            |
| Teachers C., Columbia U.                  | 210        | 0                   | 0         | 0                                | 1           | 0                 | 0           | 4                              | 10              | 0                                       | 37         | 8                     | 2       | 0                   | 0                             | 5                | 141       | 2            |
| Union Theological Seminary                | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. Rochester                              | 219        | 34                  | 3         | 1                                | 2           | 9                 | 21          | 48                             | 7               | 0                                       | 8          | 21                    | 6       | 1                   | 2                             | 41               | 11        | 4            |
| Yeshiva U.                                | 67         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 41                             | 2               | 0                                       | 11         | 1                     | 0       | 0                   | 0                             | 0                | 2         | 10           |
| NORTH CAROLINA                            | 1,305      | 35                  | 80        | 11                               | 51          | 42                | 165         | 269                            | 71              | 42                                      | 52         | 107                   | 20      | 15                  | 21                            | 104              | 153       | 67           |
| Appalachian State U.                      | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| Duke U.                                   | 287        | 7                   | 17        | 7                                | 13          | 11                | 37          | 75                             | 2               | 0                                       | 7          | 50                    | 6       | 3                   | 6                             | 37               | 1         | 8            |
| East Carolina U. School of Medicine       | 25         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 11                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 14        | 0            |
| NC A&T State U.                           | 6          | 0                   | 0         | 0                                | 0           | 0                 | 6           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| NC State U.                               | 343        | 14                  | 22        | 4                                | 26          | 10                | 93          | 51                             | 3               | 41                                      | 7          | 12                    | 0       | 0                   | 0                             | 0                | 46        | 14           |
| Southeastern Baptist Theological Seminary | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 1            |
| U. NC Chapel Hill                         | 458        | 8                   | 37        | 0                                | 5           | 17                | 15          | 89                             | 58              | 0                                       | 23         | 45                    | 14      | 11                  | 14                            | 49               | 32        | 41           |
| U. NC Charlotte                           | 41         | 0                   | 0         | 0                                | 7           | 4                 | 12          | 4                              | 0               | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 12        | 0            |
| U. NC Greensboro                          | 90         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 4                              | 8               | 0                                       | 13         | 0                     | 0       | 1                   | 1                             | 16               | 44        | 3            |
| Wake Forest U.                            | 48         | 6                   | 4         | 0                                | 0           | 0                 | 2           | 35                             | 0               | 1                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| NORTH DAKOTA                              | 91         | 2                   | 0         | 0                                | 1           | 5                 | 2           | 13                             | 2               | 5                                       | 17         | 0                     | 0       | 0                   | 1                             | 0                | 42        | 1            |
| ND State U.                               | 27         | 2                   | 0         | 0                                | 1           | 5                 | 1           | 9                              | 1               | 5                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 1            |
| U. ND                                     | 64         | 0                   | 0         | 0                                | 0           | 0                 | 1           | 4                              | 1               | 0                                       | 15         | 0                     | 0       | 0                   | 1                             | 0                | 42        | 0            |
| OHIO                                      | 1,627      | 56                  | 106       | 6                                | 31          | 20                | 301         | 232                            | 79              | 41                                      | 136        | 90                    | 37      | 13                  | 18                            | 113              | 240       | 108          |
| Air Force Institute of Technology         | 21         | 2                   | 0         | 0                                | 0           | 0                 | 19          | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Bowling Green State U.                    | 90         | 0                   | 4         | 0                                | 6           | 0                 | 0           | 9                              | 2               | 0                                       | 17         | 6                     | 2       | 0                   | 1                             | 13               | 16        | 14           |
| Case Western Reserve U.                   | 189        | 7                   | 13        | 0                                | 3           | 1                 | 60          | 53                             | 18              | 0                                       | 6          | 6                     | 2       | 1                   | 2                             | 3                | 0         | 14           |
| Cleveland State U.                        | 34         | 0                   | 2         | 0                                | 0           | 0                 | 10          | 5                              | 0               | 0                                       | 2          | 4                     | 0       | 0                   | 0                             | 0                | 7         | 4            |
| Hebrew Union C.                           | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 0            |
| Kent State U.                             | 125        | 6                   | 3         | 0                                | 2           | 7                 | 0           | 5                              | 4               | 0                                       | 19         | 8                     | 3       | 4                   | 4                             | 3                | 38        | 19           |
| Medical C. OH                             | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 10                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Miami U.                                  | 44         | 0                   | 7         | 1                                | 0           | 0                 | 1           | 13                             | 0               | 0                                       | 7          | 3                     | 2       | 1                   | 1                             | 3                | 5         | 0            |
| OH State U., The                          | 591        | 18                  | 30        | 2                                | 13          | 7                 | 90          | 84                             | 38              | 40                                      | 32         | 45                    | 20      | 3                   | 6                             | 62               | 74        | 27           |
| OH U.                                     | 115        | 8                   | 9         | 0                                | 4           | 0                 | 10          | 11                             | 0               | 0                                       | 11         | 0                     | 4       | 1                   | 2                             | 7                | 31        | 17           |
| U. Akron                                  | 114        | 5                   | 21        | 0                                | 0           | 0                 | 36          | 0                              | 0               | 0                                       | 20         | 4                     | 0       | 0                   | 0                             | 0                | 25        | 3            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                      | 2005 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 | Other fields |
|----------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| U. Cincinnati                    | 186        | 7                   | 13        | 3                                | 3           | 3                 | 33          | 31                             | 12              | 1                                       | 13         | 14                    | 1       | 2                   | 2                             | 19               | 24        | 5            |
| U. Dayton                        | 16         | 2                   | 0         | 0                                | 0           | 0                 | 9           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 4         | 0            |
| U. Toledo                        | 68         | 1                   | 4         | 0                                | 0           | 0                 | 21          | 7                              | 5               | 0                                       | 8          | 0                     | 3       | 1                   | 0                             | 0                | 13        | 5            |
| Wright State U.                  | 19         | 0                   | 0         | 0                                | 0           | 2                 | 12          | 4                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Youngstown State U.              | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| OKLAHOMA                         | 386        | 13                  | 7         | 9                                | 5           | 7                 | 50          | 50                             | 11              | 23                                      | 41         | 23                    | 9       | 4                   | 3                             | 12               | 87        | 32           |
| OK State U.                      | 175        | 6                   | 4         | 0                                | 2           | 1                 | 20          | 21                             | 4               | 22                                      | 12         | 10                    | 3       | 0                   | 0                             | 2                | 54        | 14           |
| U. OK                            | 181        | 7                   | 3         | 8                                | 3           | 2                 | 21          | 28                             | 7               | 1                                       | 19         | 13                    | 6       | 2                   | 0                             | 10               | 33        | 18           |
| U. Tulsa                         | 30         | 0                   | 0         | 1                                | 0           | 4                 | 9           | 1                              | 0               | 0                                       | 10         | 0                     | 0       | 2                   | 3                             | 0                | 0         | 0            |
| OREGON                           | 375        | 15                  | 16        | 14                               | 11          | 7                 | 38          | 59                             | 20              | 33                                      | 32         | 33                    | 1       | 5                   | 5                             | 23               | 46        | 17           |
| OR Health & Science U.           | 34         | 0                   | 0         | 0                                | 0           | 4                 | 7           | 20                             | 0               | 0                                       | 3          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| OR State U.                      | 159        | 9                   | 10        | 12                               | 3           | 2                 | 22          | 29                             | 19              | 32                                      | 7          | 2                     | 0       | 0                   | 0                             | 0                | 10        | 2            |
| Portland State U.                | 56         | 3                   | 1         | 0                                | 2           | 0                 | 9           | 3                              | 0               | 0                                       | 7          | 13                    | 0       | 0                   | 0                             | 0                | 12        | 6            |
| U. OR                            | 126        | 3                   | 5         | 2                                | 6           | 1                 | 0           | 7                              | 1               | 1                                       | 15         | 18                    | 1       | 5                   | 5                             | 23               | 24        | 9            |
| PENNSYLVANIA                     | 2,232      | 75                  | 111       | 15                               | 70          | 77                | 384         | 275                            | 106             | 22                                      | 158        | 185                   | 31      | 18                  | 47                            | 175              | 340       | 143          |
| Bryn Mawr C.                     | 16         | 0                   | 1         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 6          | 0                     | 0       | 0                   | 0                             | 6                | 0         | 3            |
| Carnegie Mellon U.               | 197        | 9                   | 8         | 1                                | 13          | 40                | 91          | 6                              | 1               | 0                                       | 2          | 10                    | 3       | 0                   | 1                             | 2                | 0         | 10           |
| Drexel U.                        | 94         | 4                   | 2         | 0                                | 0           | 2                 | 41          | 11                             | 1               | 0                                       | 22         | 0                     | 0       | 0                   | 0                             | 0                | 10        | 1            |
| Duquesne U.                      | 45         | 0                   | 10        | 0                                | 0           | 0                 | 0           | 2                              | 1               | 0                                       | 10         | 0                     | 0       | 1                   | 1                             | 17               | 0         | 3            |
| Gannon U.                        | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 7          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Indiana U. PA                    | 71         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 5          | 10                    | 0       | 5                   | 21                            | 12               | 18        | 0            |
| Lehigh U.                        | 101        | 7                   | 3         | 1                                | 2           | 1                 | 50          | 3                              | 0               | 0                                       | 13         | 2                     | 3       | 2                   | 2                             | 0                | 12        | 0            |
| Marywood U.                      | 12         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 3               | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 6         | 1            |
| PA State U., The                 | 606        | 27                  | 30        | 10                               | 18          | 7                 | 127         | 86                             | 19              | 22                                      | 38         | 49                    | 3       | 4                   | 7                             | 31               | 92        | 36           |
| Temple U.                        | 219        | 4                   | 8         | 0                                | 9           | 2                 | 1           | 18                             | 10              | 0                                       | 33         | 26                    | 9       | 4                   | 4                             | 31               | 44        | 16           |
| Thomas Jefferson U.              | 12         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 12                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. PA                            | 464        | 13                  | 20        | 2                                | 14          | 10                | 31          | 95                             | 12              | 0                                       | 6          | 66                    | 11      | 2                   | 8                             | 49               | 81        | 44           |
| U. Pittsburgh                    | 329        | 11                  | 23        | 1                                | 14          | 15                | 43          | 41                             | 51              | 0                                       | 12         | 22                    | 2       | 0                   | 3                             | 18               | 44        | 29           |
| U. the Sciences in Philadelphia  | 9          | 0                   | 6         | 0                                | 0           | 0                 | 0           | 1                              | 2               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Villanova U.                     | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| Westminster Theological Seminary | 8          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 8                | 0         | 0            |
| Widener U.                       | 41         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 6               | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 33        | 0            |
| PUERTO RICO                      | 67         | 1                   | 5         | 3                                | 0           | 2                 | 1           | 13                             | 0               | 0                                       | 19         | 0                     | 4       | 0                   | 0                             | 4                | 14        | 1            |
| U. PR-Mayaguez                   | 7          | 0                   | 0         | 3                                | 0           | 2                 | 1           | 1                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. PR-Rio Piedras                | 60         | 1                   | 5         | 0                                | 0           | 0                 | 0           | 12                             | 0               | 0                                       | 19         | 0                     | 4       | 0                   | 0                             | 4                | 14        | 1            |
| RHODE ISLAND                     | 231        | 15                  | 11        | 15                               | 17          | 9                 | 22          | 34                             | 6               | 7                                       | 16         | 23                    | 10      | 4                   | 7                             | 29               | 3         | 3            |
| Brown U.                         | 151        | 12                  | 6         | 7                                | 14          | 9                 | 11          | 23                             | 1               | 0                                       | 3          | 21                    | 10      | 3                   | 5                             | 25               | 0         | 1            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                               | 2005 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 | Other fields |
|---|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|---------------------------------|-----------------|--|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| Salve Regina U.                           | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 4                | 0         | 0            |
| U. RI                                     | 76         | 3                   | 5         | 8                                | 3           | 0                 | 11          | 11                              | 5               | 7  | 13         | 2                     | 0       | 1                   | 2                             | 0                | 3         | 2            |
| SOUTH CAROLINA                            | 431        | 10                  | 23        | 7                                | 10          | 6                 | 60          | 64                              | 45              | 8  | 20         | 19                    | 6       | 6                   | 4                             | 12               | 105       | 26           |
| Clemson U.                                | 115        | 7                   | 11        | 0                                | 3           | 3                 | 34          | 7                               | 4               | 7  | 1          | 6                     | 0       | 0                   | 0                             | 0                | 26        | 6            |
| Medical U. SC                             | 35         | 0                   | 1         | 0                                | 1           | 0                 | 0           | 30                              | 3               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| SC State U.                               | 38         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 38        | 0            |
| U. SC                                     | 243        | 3                   | 11        | 7                                | 6           | 3                 | 26          | 27                              | 38              | 1  | 19         | 13                    | 6       | 6                   | 4                             | 12               | 41        | 20           |
| SOUTH DAKOTA                              | 81         | 0                   | 3         | 5                                | 0           | 0                 | 3           | 12                              | 0               | 5  | 6          | 4                     | 0       | 1                   | 0                             | 1                | 41        | 0            |
| SD School of Mines & Technology           | 9          | 0                   | 0         | 5                                | 0           | 0                 | 3           | 1                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| SD State U.                               | 18         | 0                   | 3         | 0                                | 0           | 0                 | 0           | 6                               | 0               | 5  | 0          | 4                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. SD                                     | 54         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 5                               | 0               | 0  | 6          | 0                     | 0       | 1                   | 0                             | 1                | 41        | 0            |
| TENNESSEE                                 | 699        | 7                   | 32        | 0                                | 8           | 6                 | 75          | 118                             | 32              | 16                                       | 65         | 48                    | 7       | 4                   | 6                             | 53               | 182       | 40           |
| East TN State U.                          | 34         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 4                               | 1               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 29        | 0            |
| Meharry Medical C.                        | 18         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 17                              | 1               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Mid-America Baptist Theological Seminary  | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 1            |
| Middle TN State U.                        | 14         | 0                   | 1         | 0                                | 0           | 0                 | 0           | 0                               | 1               | 0  | 0          | 4                     | 1       | 1                   | 2                             | 2                | 2         | 0            |
| TN State U.                               | 46         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 3                               | 0               | 0  | 3          | 0                     | 0       | 0                   | 0                             | 0                | 40        | 0            |
| TN Technological U.                       | 14         | 0                   | 0         | 0                                | 0           | 0                 | 8           | 0                               | 0               | 3  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| U. Memphis                                | 103        | 0                   | 5         | 0                                | 3           | 2                 | 4           | 1                               | 2               | 0  | 23         | 3                     | 3       | 0                   | 0                             | 10               | 35        | 12           |
| U. TN Health Science Ctr.                 | 38         | 0                   | 1         | 0                                | 0           | 0                 | 3           | 17                              | 17              | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. TN, Chattanooga                        | 1          | 0                   | 0         | 0                                | 0           | 0                 | 1           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. TN, Knoxville                          | 214        | 4                   | 8         | 0                                | 3           | 2                 | 38          | 22                              | 9               | 12                                       | 24         | 22                    | 2       | 1                   | 1                             | 4                | 43        | 19           |
| Vanderbilt U.                             | 214        | 3                   | 17        | 0                                | 2           | 2                 | 21          | 54                              | 1               | 1  | 15         | 19                    | 1       | 2                   | 3                             | 35               | 30        | 8            |
| TEXAS                                     | 2,791      | 81                  | 110       | 56                               | 80          | 62                | 488         | 454                             | 124             | 77                                       | 192        | 156                   | 37      | 16                  | 26                            | 235              | 436       | 161          |
| Baylor C. of Medicine                     | 60         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 60                              | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Baylor U.                                 | 51         | 2                   | 2         | 0                                | 3           | 0                 | 0           | 5                               | 0               | 0  | 1          | 2                     | 1       | 0                   | 1                             | 8                | 26        | 0            |
| Dallas Theological Seminary               | 8          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 6                | 0         | 2            |
| Lamar U.                                  | 9          | 0                   | 0         | 0                                | 0           | 0                 | 6           | 0                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 3         | 0            |
| Prairie View A&M                          | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 2                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Rice U.                                   | 137        | 11                  | 14        | 6                                | 12          | 2                 | 48          | 17                              | 0               | 0  | 6          | 7                     | 0       | 1                   | 0                             | 13               | 0         | 0            |
| St. Marys U.                              | 14         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 10         | 0                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| Sam Houston State U.                      | 13         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 0          | 13                    | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Southern Methodist U.                     | 40         | 0                   | 0         | 2                                | 6           | 2                 | 15          | 2                               | 0               | 0  | 1          | 7                     | 1       | 0                   | 0                             | 4                | 0         | 0            |
| Southwestern Baptist Theological Seminary | 20         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 0  | 4          | 0                     | 0       | 0                   | 0                             | 6                | 1         | 9            |
| Stephen F. Austin State U.                | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                               | 0               | 1  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| TX A&M U.                                 | 511        | 6                   | 33        | 19                               | 22          | 10                | 145         | 59                              | 8               | 54                                       | 24         | 24                    | 2       | 2                   | 2                             | 2                | 63        | 36           |
| TX A&M U. System-Health Science Ctr.      | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 9                               | 0               | 0  | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                                | 2005 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 | Other fields |
|--|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| TX A&M U.-Commerce                         | 32         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 2          | 0                     | 0       | 1                   | 0                             | 0                | 29        | 0            |
| TX A&M U.-Corpus Christi                   | 6          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 5         | 0            |
| TX A&M U.-Kingsville                       | 33         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 31        | 0            |
| TX Christian U.                            | 16         | 1                   | 3         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 6          | 0                     | 3       | 0                   | 0                             | 3                | 0         | 0            |
| TX Southern U.                             | 11         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 2               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 9         | 0            |
| TX State U.-San Marcos                     | 8          | 0                   | 0         | 3                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 0                             | 0                | 4         | 0            |
| TX State U.-Southwest TX State U.          | 176        | 3                   | 8         | 2                                | 5           | 1                 | 30          | 11                             | 5               | 14                                      | 15         | 7                     | 4       | 0                   | 3                             | 26               | 26        | 16           |
| TX Tech U.                                 | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 7                              | 3               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| TX Tech U. Health Sciences Ctr.            | 67         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 6                              | 28              | 0                                       | 12         | 0                     | 0       | 0                   | 0                             | 5                | 13        | 3            |
| TX Womens U.                               | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 1                     | 0       | 0                   | 1                             | 1                | 0         | 0            |
| U. Dallas                                  | 213        | 11                  | 7         | 6                                | 5           | 2                 | 39          | 18                             | 7               | 0                                       | 21         | 9                     | 7       | 2                   | 8                             | 14               | 45        | 12           |
| U. Houston                                 | 146        | 2                   | 5         | 0                                | 2           | 8                 | 4           | 9                              | 1               | 2                                       | 31         | 6                     | 2       | 3                   | 0                             | 11               | 53        | 7            |
| U. North TX                                | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 8                              | 0               | 0                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. North TX, Health Science Ctr. Ft. Worth | 1          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 0            |
| U. St. Thomas                              | 37         | 0                   | 0         | 0                                | 0           | 0                 | 1           | 23                             | 8               | 0                                       | 0          | 2                     | 0       | 0                   | 0                             | 3                | 0         | 0            |
| U. TX Medical Branch-Galveston             | 90         | 2                   | 3         | 0                                | 4           | 8                 | 28          | 8                              | 0               | 0                                       | 6          | 4                     | 2       | 0                   | 1                             | 7                | 0         | 17           |
| U. TX-Arlington                            | 716        | 29                  | 28        | 13                               | 16          | 14                | 143         | 61                             | 20              | 0                                       | 38         | 64                    | 14      | 3                   | 8                             | 113              | 102       | 50           |
| U. TX-Austin                               | 93         | 6                   | 5         | 1                                | 5           | 13                | 21          | 10                             | 1               | 0                                       | 1          | 7                     | 1       | 4                   | 2                             | 10               | 0         | 6            |
| U. TX-Dallas                               | 32         | 0                   | 1         | 4                                | 0           | 1                 | 7           | 3                              | 0               | 6                                       | 1          | 0                     | 0       | 0                   | 0                             | 0                | 9         | 0            |
| U. TX-El Paso                              | 100        | 3                   | 0         | 0                                | 0           | 0                 | 0           | 60                             | 35              | 0                                       | 2          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. TX-Health Science Ctr.-Houston          | 28         | 4                   | 0         | 0                                | 0           | 0                 | 0           | 18                             | 6               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. TX-Health Science Ctr.-San Antonio      | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 6         | 3            |
| U. TX-Pan American                         | 12         | 0                   | 0         | 0                                | 0           | 1                 | 1           | 3                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 7         | 0            |
| U. TX-San Antonio                          | 68         | 1                   | 1         | 0                                | 0           | 0                 | 0           | 57                             | 0               | 0                                       | 9          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. TX-Southwestern Medical Ctr.-Dallas     | 371        | 11                  | 37        | 7                                | 9           | 8                 | 79          | 50                             | 15              | 8                                       | 55         | 25                    | 5       | 1                   | 5                             | 8                | 24        | 24           |
| UTAH                                       | 73         | 2                   | 9         | 0                                | 1           | 1                 | 13          | 5                              | 6               | 0                                       | 29         | 1                     | 0       | 0                   | 0                             | 0                | 6         | 0            |
| Brigham Young U.                           | 231        | 7                   | 26        | 7                                | 6           | 7                 | 50          | 34                             | 9               | 0                                       | 18         | 16                    | 5       | 1                   | 5                             | 8                | 12        | 20           |
| U. UT                                      | 67         | 2                   | 2         | 0                                | 2           | 0                 | 16          | 11                             | 0               | 8                                       | 8          | 8                     | 0       | 0                   | 0                             | 0                | 6         | 4            |
| UT State U.                                | 62         | 0                   | 3         | 0                                | 3           | 0                 | 4           | 13                             | 0               | 1                                       | 13         | 0                     | 0       | 0                   | 0                             | 3                | 21        | 1            |
| VERMONT                                    | 3          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 3                | 0         | 0            |
| Middlebury C.                              | 59         | 0                   | 3         | 0                                | 3           | 0                 | 4           | 13                             | 0               | 1                                       | 13         | 0                     | 0       | 0                   | 0                             | 0                | 21        | 1            |
| U. VT                                      | 1,066      | 32                  | 38        | 18                               | 27          | 55                | 177         | 124                            | 40              | 44                                      | 86         | 75                    | 20      | 6                   | 8                             | 51               | 212       | 53           |
| VIRGINIA                                   | 50         | 9                   | 1         | 4                                | 0           | 8                 | 1           | 2                              | 0               | 0                                       | 0          | 0                     | 2       | 1                   | 0                             | 8                | 14        | 0            |
| C. of William and Mary                     | 158        | 3                   | 1         | 2                                | 6           | 23                | 4           | 7                              | 12              | 9                                       | 21         | 35                    | 1       | 0                   | 0                             | 3                | 30        | 1            |
| George Mason U.                            | 2          | 1                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 1               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| Hampton U.                                 | 2          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 2            |
| Norfolk State U.                           | 62         | 0                   | 0         | 8                                | 2           | 5                 | 14          | 5                              | 1               | 0                                       | 6          | 6                     | 0       | 0                   | 0                             | 0                | 9         | 6            |
| Old Dominion U.                            | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 1                | 0         | 9            |
| Regent U.                                  |            |                     |           |                                  |             |                   |             |                                |                 |   |            |                       |         |                     |                               |                  |           |              |

APPENDIX TABLE A-8. Institutions granting research doctorates, by major field of study, 2005

| Institution                           | 2005 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 | Other fields |
|---------------------------------------|------------|---------------------|-----------|----------------------------------|-------------|-------------------|-------------|--------------------------------|-----------------|---|------------|-----------------------|---------|---------------------|-------------------------------|------------------|-----------|--------------|
| Union Theological Seminary-PSCE       | 4          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 2                | 0         | 2            |
| U. VA                                 | 341        | 11                  | 17        | 3                                | 5           | 6                 | 47          | 49                             | 9               | 1                                       | 26         | 18                    | 17      | 5                   | 7                             | 31               | 85        | 4            |
| VA Commonwealth U.                    | 107        | 0                   | 5         | 0                                | 0           | 0                 | 10          | 32                             | 14              | 0                                       | 15         | 2                     | 0       | 0                   | 1                             | 5                | 14        | 9            |
| VA Polytechnic Institute and State U. | 330        | 8                   | 14        | 1                                | 14          | 13                | 101         | 29                             | 3               | 34                                      | 18         | 14                    | 0       | 0                   | 0                             | 1                | 60        | 20           |
| WASHINGTON                            | 728        | 24                  | 29        | 27                               | 21          | 19                | 101         | 127                            | 45              | 39                                      | 32         | 67                    | 17      | 9                   | 11                            | 53               | 87        | 20           |
| Gonzaga U.                            | 7          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 1          | 1                     | 0       | 0                   | 0                             | 0                | 5         | 0            |
| Seattle Pacific U.                    | 9          | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 3          | 0                     | 0       | 0                   | 0                             | 0                | 6         | 0            |
| Seattle U.                            | 21         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 21        | 0            |
| U. WA                                 | 511        | 22                  | 22        | 25                               | 16          | 18                | 74          | 99                             | 42              | 14                                      | 14         | 45                    | 7       | 8                   | 8                             | 47               | 38        | 12           |
| WA State U.                           | 180        | 2                   | 7         | 2                                | 5           | 1                 | 27          | 28                             | 3               | 25                                      | 14         | 21                    | 10      | 1                   | 3                             | 6                | 17        | 8            |
| WEST VIRGINIA                         | 163        | 3                   | 6         | 0                                | 2           | 5                 | 20          | 26                             | 7               | 9                                       | 17         | 20                    | 3       | 0                   | 0                             | 4                | 40        | 1            |
| Marshall U.                           | 10         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 5                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 5         | 0            |
| WV U.                                 | 153        | 3                   | 6         | 0                                | 2           | 5                 | 20          | 21                             | 7               | 9                                       | 17         | 20                    | 3       | 0                   | 0                             | 4                | 35        | 1            |
| WISCONSIN                             | 842        | 34                  | 45        | 11                               | 29          | 16                | 95          | 133                            | 34              | 42                                      | 41         | 84                    | 18      | 11                  | 17                            | 82               | 103       | 47           |
| Cardinal Stritch U.                   | 15         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 0                              | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 15        | 0            |
| Marquette U.                          | 58         | 0                   | 9         | 0                                | 1           | 0                 | 6           | 3                              | 1               | 0                                       | 10         | 1                     | 1       | 1                   | 3                             | 16               | 5         | 1            |
| Medical C. WI                         | 17         | 0                   | 0         | 0                                | 0           | 0                 | 0           | 17                             | 0               | 0                                       | 0          | 0                     | 0       | 0                   | 0                             | 0                | 0         | 0            |
| U. WI-Madison                         | 664        | 30                  | 30        | 11                               | 26          | 15                | 81          | 109                            | 27              | 41                                      | 23         | 63                    | 17      | 8                   | 9                             | 64               | 71        | 39           |
| U. WI-Milwaukee                       | 88         | 4                   | 6         | 0                                | 2           | 1                 | 8           | 4                              | 6               | 1                                       | 8          | 20                    | 0       | 2                   | 5                             | 2                | 12        | 7            |
| WYOMING                               | 52         | 1                   | 7         | 3                                | 2           | 1                 | 8           | 3                              | 0               | 4                                       | 5          | 2                     | 0       | 0                   | 0                             | 0                | 16        | 0            |
| U. WY                                 | 52         | 1                   | 7         | 3                                | 2           | 1                 | 8           | 3                              | 0               | 4                                       | 5          | 2                     | 0       | 0                   | 0                             | 0                | 16        | 0            |

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

APPENDIX TABLE A-9. Top 50 doctorate-granting institutions, 2005

| Rank  | Institution                           | Number |
|-------|---------------------------------------|--------|
| 1.    | U. CA, Berkeley                       | 802    |
| 2.    | U. TX-Austin                          | 716    |
| 3.    | U. MI                                 | 711    |
| 4.    | U. WI-Madison                         | 664    |
| 5.    | U. CA, Los Angeles                    | 651    |
| 6.    | U. MN                                 | 644    |
| 7.    | Stanford U.                           | 642    |
| 8.    | U. IL-Urbana-Champaign                | 637    |
| 9.    | PA State U., The                      | 606    |
| 10.   | OH State U., The                      | 591    |
| 11.   | MA Institute of Technology            | 581    |
| 12.   | U. FL                                 | 574    |
| 13.   | U. Southern CA                        | 554    |
| 14.   | Purdue U.                             | 522    |
| [ 15. | TX A&M U.                             | 511    |
| 15.   | U. WA                                 | 511    |
| 17.   | Harvard U.                            | 510    |
| 18.   | U. MD                                 | 499    |
| 19.   | MI State U.                           | 475    |
| 20.   | Columbia U.                           | 472    |
| 21.   | U. PA                                 | 464    |
| 22.   | U. NC Chapel Hill                     | 458    |
| 23.   | Cornell U.                            | 452    |
| 24.   | U. GA                                 | 424    |
| 25.   | IN U.                                 | 409    |
| 26.   | U. CA, Davis                          | 389    |
| [ 27. | U. AZ                                 | 387    |
| 27.   | NY U.                                 | 387    |
| 29.   | Johns Hopkins U.                      | 386    |
| 30.   | GA Institute of Technology            | 364    |
| 31.   | NC State U.                           | 343    |
| 32.   | U. VA                                 | 341    |
| 33.   | SUNY U. Buffalo                       | 331    |
| 34.   | VA Polytechnic Institute and State U. | 330    |
| 35.   | U. Pittsburgh                         | 329    |
| [ 36. | Yale U.                               | 327    |
| 36.   | U. Chicago, The                       | 327    |
| 38.   | AZ State U.                           | 321    |
| [ 39. | U. IA                                 | 306    |
| 39.   | Rutgers U.                            | 306    |
| 41.   | U. CA, San Diego                      | 301    |
| 42.   | Graduate School & U. Ctr., CUNY       | 296    |
| 43.   | Northwestern U.                       | 295    |
| [ 44. | U. CA, Santa Barbara                  | 287    |
| 44.   | Duke U.                               | 287    |
| 46.   | Boston U.                             | 281    |
| 47.   | FL State U.                           | 278    |
| 48.   | Princeton U.                          | 277    |
| [ 49. | U. KY                                 | 275    |
| 49.   | U. MO-Columbia                        | 275    |

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

## APPENDIX B: Trend Tables, 1995-2005

Appendix B includes the following two tables:

B-1: Number of doctorate recipients, by subfield of study, 1995-2005

B-2: Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1995-2005

**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.

**TABLE B-2:** Table B-2 displays, by sex and citizenship, data on the race/ethnicity of doctorate recipients for 1995-2005. 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 other 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 racial categories or “Native Hawaiians and other Pacific Islanders” since 2001).

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                           | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>TOTAL-ALL-FIELDS<sup>a</sup></b>         | 41,747 | 42,437 | 42,535 | 42,637 | 41,092 | 41,361 | 40,651 | 39,953 | 40,740 | 42,117 | 43,354 |
| <b>PHYSICAL SCIENCES</b>                    | 6,727  | 6,592  | 6,582  | 6,669  | 6,224  | 5,982  | 5,856  | 5,600  | 5,831  | 6,048  | 6,699  |
| <b>MATHEMATICS</b>                          | 1,190  | 1,122  | 1,123  | 1,177  | 1,083  | 1,050  | 1,007  | 919    | 993    | 1,076  | 1,203  |
| Applied mathematics                         | 211    | 230    | 242    | 265    | 252    | 238    | 214    | 226    | 223    | 264    | 291    |
| Mathematics, algebra                        | 82     | 78     | 78     | 75     | 84     | 82     | 68     | 65     | 69     | 97     | 97     |
| Mathematics, analysis & functional analysis | 99     | 100    | 103    | 130    | 86     | 81     | 91     | 74     | 85     | 99     | 111    |
| Mathematics, geometry                       | 45     | 72     | 70     | 54     | 65     | 59     | 40     | 52     | 48     | 95     | 96     |
| Mathematics, logic                          | 35     | 16     | 23     | 16     | 23     | 19     | 24     | 14     | 17     | 15     | 26     |
| Mathematics, number theory                  | 35     | 42     | 46     | 46     | 50     | 40     | 35     | 26     | 46     | 39     | 62     |
| Mathematics, statistics                     | 205    | 178    | 181    | 204    | 174    | 195    | 198    | 167    | 191    | 226    | 267    |
| Mathematics, topology                       | 51     | 55     | 62     | 65     | 65     | 50     | 54     | 40     | 49     | 52     | 51     |
| Mathematics, computing theory & practice    | 14     | 18     | 14     | 19     | 14     | 17     | 11     | 11     | 8      | 10     | 16     |
| Mathematics, operations research            | 36     | 21     | 20     | 17     | 21     | 19     | 14     | 19     | 19     | 25     | 23     |
| Mathematics, general                        | 305    | 233    | 153    | 162    | 116    | 151    | 155    | 133    | 150    | 81     | 104    |
| Mathematics, other                          | 72     | 79     | 131    | 124    | 133    | 99     | 103    | 92     | 88     | 73     | 59     |
| <b>COMPUTER &amp; INFORMATION SCIENCES</b>  | 997    | 920    | 909    | 927    | 856    | 860    | 825    | 807    | 866    | 948    | 1,136  |
| Computer science                            | 913    | 836    | 828    | 821    | 741    | 723    | 687    | 672    | 699    | 767    | 955    |
| Information science & systems               | 84     | 84     | 81     | 106    | 115    | 137    | 81     | 80     | 65     | 106    | 85     |
| Computer & information science, other       | ---    | ---    | ---    | ---    | ---    | ---    | 57     | 55     | 102    | 75     | 96     |
| <b>ASTRONOMY</b>                            | 173    | 192    | 198    | 206    | 159    | 185    | 186    | 141    | 167    | 165    | 186    |
| Astronomy                                   | 89     | 84     | 71     | 91     | 59     | 78     | 89     | 52     | 69     | 68     | 72     |
| Astrophysics                                | 84     | 108    | 127    | 115    | 100    | 107    | 97     | 89     | 98     | 97     | 114    |
| <b>ATMOSPHERIC SCI. &amp; METEOROLOGY</b>   | 130    | 125    | 149    | 125    | 124    | 143    | 116    | 117    | 139    | 126    | 144    |
| Atmospheric chemistry and climatology       | 27     | 22     | 45     | 38     | 43     | 39     | 33     | 39     | 39     | 29     | 42     |
| Atmospheric physics and dynamics            | 16     | 21     | 25     | 24     | 17     | 17     | 17     | 13     | 21     | 33     | 28     |
| Meteorology                                 | 25     | 35     | 28     | 25     | 22     | 34     | 20     | 15     | 25     | 22     | 20     |
| Atmospheric science/meteorology, general    | 44     | 33     | 36     | 22     | 32     | 36     | 34     | 27     | 33     | 24     | 29     |
| Atmospheric science/meteorology, other      | 18     | 14     | 15     | 16     | 10     | 17     | 12     | 23     | 21     | 18     | 25     |
| <b>CHEMISTRY</b>                            | 2,162  | 2,149  | 2,147  | 2,216  | 2,132  | 1,989  | 1,981  | 1,921  | 2,041  | 1,987  | 2,127  |
| Chemistry, analytical                       | 317    | 346    | 350    | 383    | 333    | 326    | 334    | 302    | 338    | 323    | 364    |
| Chemistry, inorganic                        | 258    | 249    | 279    | 287    | 279    | 221    | 279    | 248    | 264    | 240    | 255    |
| Chemistry, nuclear                          | 5      | 5      | 8      | 6      | 10     | 9      | 4      | 9      | 4      | ---    | ---    |
| Chemistry, organic                          | 483    | 507    | 567    | 598    | 563    | 525    | 523    | 523    | 556    | 542    | 600    |
| Chemistry, medicinal/pharmaceutical         | 96     | 96     | 105    | 114    | 131    | 107    | 115    | 99     | 110    | 113    | 110    |
| Chemistry, physical                         | 338    | 300    | 334    | 279    | 310    | 271    | 285    | 302    | 321    | 264    | 298    |
| Chemistry, polymer                          | 116    | 121    | 110    | 122    | 95     | 107    | 107    | 102    | 110    | 116    | 119    |
| Chemistry, theoretical                      | 40     | 57     | 48     | 41     | 56     | 52     | 40     | 48     | 49     | 54     | 57     |
| Chemistry, general                          | 458    | 396    | 260    | 285    | 196    | 261    | 202    | 203    | 186    | 198    | 195    |
| Chemistry, other                            | 51     | 72     | 86     | 101    | 159    | 110    | 92     | 85     | 103    | 137    | 129    |
| <b>GEOLOGICAL &amp; EARTH SCIENCES</b>      | 430    | 421    | 446    | 469    | 420    | 344    | 348    | 391    | 348    | 371    | 379    |
| Geology                                     | 186    | 162    | 165    | 171    | 157    | 123    | 115    | 132    | 119    | 98     | 107    |



APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                         | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Geochemistry                              | 42    | 49    | 49    | 58    | 55    | 50    | 41    | 70    | 53    | 38    | 55    |
| Geophysics & seismology                   | 93    | 101   | 108   | 106   | 100   | 70    | 88    | 91    | 75    | 87    | 92    |
| Paleontology                              | 20    | 14    | 23    | 23    | 15    | 31    | 16    | 21    | 18    | 25    | 29    |
| Mineralogy & petrology                    | 19    | 23    | 19    | 14    | 14    | 5     | 15    | 13    | 8     | 17    | 8     |
| Stratigraphy & sedimentation              | 16    | 12    | 23    | 24    | 17    | 13    | 13    | 7     | 16    | 19    | 15    |
| Geomorphology & glacial geology           | 11    | 11    | 26    | 20    | 18    | 14    | 10    | 15    | 20    | 22    | 12    |
| Geological & earth sciences, general      | 21    | 27    | 16    | 13    | 9     | 20    | 16    | 12    | 9     | 23    | 24    |
| Geological & earth sciences, other        | 22    | 22    | 17    | 40    | 35    | 18    | 34    | 30    | 30    | 42    | 37    |
| <b>PHYSICS</b>                            | 1,479 | 1,485 | 1,401 | 1,378 | 1,271 | 1,204 | 1,197 | 1,123 | 1,081 | 1,186 | 1,334 |
| Physics, acoustics                        | 18    | 19    | 19    | 18    | 16    | 10    | 10    | 18    | 24    | 17    | 25    |
| Physics, atomic/molecular/chemical        | 110   | 129   | 106   | 100   | 100   | 110   | 81    | 82    | 74    | 82    | 87    |
| Physics, elementary particle              | 183   | 176   | 170   | 173   | 169   | 147   | 121   | 154   | 134   | 163   | 188   |
| Biophysics                                | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 55    | 72    |
| Physics, fluids                           | 18    | 21    | 24    | 26    | 23    | 10    | 8     | 15    | 9     | ---   | ---   |
| Physics, nuclear                          | 91    | 87    | 106   | 92    | 77    | 74    | 80    | 76    | 67    | 74    | 70    |
| Physics, optics/phototonics               | 98    | 129   | 123   | 105   | 98    | 117   | 107   | 107   | 95    | 120   | 145   |
| Physics, plasma/fusion                    | 46    | 48    | 39    | 55    | 49    | 38    | 39    | 29    | 32    | 37    | 54    |
| Physics, polymer                          | 23    | 33    | 19    | 24    | 28    | 21    | 18    | 22    | 13    | 18    | 29    |
| Physics, condensed matter/low temp        | 371   | 364   | 328   | 314   | 307   | 279   | 295   | 298   | 273   | 277   | 314   |
| Applied physics                           | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 71    | 101   |
| Physics, general                          | 355   | 323   | 255   | 190   | 202   | 224   | 206   | 171   | 170   | 141   | 129   |
| Physics, other                            | 166   | 156   | 212   | 281   | 202   | 174   | 232   | 151   | 190   | 131   | 120   |
| <b>OCEAN/MARINE SCIENCES</b>              | 166   | 178   | 209   | 171   | 179   | 207   | 196   | 181   | 196   | 189   | 190   |
| Hydrology & water resources               | 24    | 31    | 43    | 35    | 32    | 43    | 45    | 35    | 26    | 49    | 41    |
| Oceanography                              | 83    | 107   | 114   | 94    | 100   | 99    | 85    | 86    | 98    | 66    | 74    |
| Marine sciences                           | 32    | 27    | 30    | 18    | 30    | 36    | 36    | 42    | 36    | 59    | 61    |
| Ocean/marine sciences, other              | 27    | 13    | 22    | 24    | 17    | 29    | 30    | 18    | 36    | 15    | 14    |
| <b>ENGINEERING</b>                        | 6,008 | 6,309 | 6,114 | 5,921 | 5,330 | 5,323 | 5,508 | 5,077 | 5,279 | 5,775 | 6,404 |
| <b>AEROSPACE/AERONAUTICAL ENGINEERING</b> | 252   | 287   | 273   | 241   | 206   | 214   | 203   | 209   | 200   | 201   | 219   |
| <b>CHEMICAL AND RELATED ENGINEERING</b>   | 708   | 798   | 767   | 776   | 674   | 726   | 730   | 705   | 648   | 725   | 875   |
| Chemical engineering                      | 602   | 681   | 662   | 669   | 576   | 619   | 636   | 607   | 567   | 637   | 774   |
| Petroleum engineering                     | 48    | 52    | 51    | 48    | 45    | 45    | 37    | 45    | 36    | 34    | 50    |
| Polymer & plastics engineering            | 58    | 65    | 54    | 59    | 53    | 62    | 57    | 53    | 45    | 54    | 51    |
| <b>CIVIL AND RELATED ENGINEERING</b>      | 656   | 698   | 655   | 650   | 584   | 556   | 595   | 627   | 673   | 673   | 757   |
| Civil engineering                         | 572   | 600   | 592   | 587   | 506   | 480   | 501   | 539   | 551   | 547   | 621   |
| Environmental health engineering          | 84    | 98    | 63    | 63    | 78    | 76    | 94    | 88    | 122   | 126   | 136   |
| <b>ELECTRICAL AND RELATED ENGINEERING</b> | 1,731 | 1,741 | 1,720 | 1,595 | 1,478 | 1,543 | 1,577 | 1,393 | 1,465 | 1,650 | 1,852 |
| Communications engineering                | 29    | 32    | 33    | 40    | 39    | 42    | 47    | 22    | 36    | 34    | 27    |
| Computer engineering                      | 189   | 208   | 227   | 210   | 203   | 172   | 186   | 161   | 191   | 228   | 277   |
| Electrical & electronics engineering      | 1,513 | 1,501 | 1,460 | 1,345 | 1,236 | 1,329 | 1,344 | 1,210 | 1,238 | 1,388 | 1,548 |
| <b>INDUSTRIAL ENGINEERING</b>             | 284   | 259   | 246   | 229   | 211   | 176   | 206   | 230   | 214   | 217   | 222   |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                              | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>MECHANICAL AND RELATED ENGINEERING</b>      |       |       |       |       |       |       |       |       |       |       |       |
| Engineering mechanics                          | 1,025 | 1,052 | 1,022 | 1,022 | 855   | 864   | 953   | 827   | 814   | 852   | 978   |
| Mechanical engineering                         | 108   | 105   | 93    | 86    | 69    | 57    | 75    | 56    | 62    | 98    | 86    |
|  | 917   | 947   | 929   | 936   | 786   | 807   | 878   | 771   | 752   | 754   | 892   |
| <b>MATERIALS/METALLURGICAL ENGINEERING</b>     |       |       |       |       |       |       |       |       |       |       |       |
| Ceramic sciences engineering                   | 588   | 574   | 582   | 565   | 469   | 451   | 497   | 396   | 474   | 511   | 540   |
| Materials science engineering                  | 39    | 41    | 39    | 24    | 33    | 22    | 17    | 13    | 18    | 14    | 14    |
| Metallurgical engineering                      | 476   | 472   | 483   | 482   | 393   | 404   | 448   | 364   | 437   | 475   | 493   |
|  | 73    | 61    | 60    | 59    | 43    | 25    | 32    | 19    | 19    | 22    | 33    |
| <b>OTHER ENGINEERING</b>                       |       |       |       |       |       |       |       |       |       |       |       |
| Agricultural engineering                       | 764   | 900   | 849   | 843   | 853   | 793   | 747   | 690   | 791   | 946   | 961   |
| Bioengineering & biomedical engineering        | 73    | 104   | 79    | 74    | 59    | 60    | 52    | 49    | 54    | 60    | 47    |
| Engineering physics                            | 189   | 220   | 211   | 208   | 245   | 252   | 232   | 246   | 281   | 369   | 417   |
| Engineering science                            | 17    | 37    | 24    | 15    | 28    | 26    | 22    | 16    | 28    | 28    | 27    |
| Mining & mineral engineering                   | 56    | 52    | 45    | 49    | 49    | 34    | 53    | 31    | 39    | 58    | 42    |
| Nuclear engineering                            | 19    | 31    | 33    | 21    | 18    | 11    | 10    | 8     | 14    | 9     | 12    |
| Ocean engineering                              | 105   | 113   | 102   | 94    | 76    | 98    | 75    | 64    | 75    | 59    | 71    |
| Operations Research engineering                | 21    | 26    | 34    | 29    | 16    | 18    | 28    | 23    | 12    | 21    | 18    |
| Systems engineering                            | 48    | 74    | 74    | 62    | 67    | 51    | 55    | 66    | 81    | 72    | 87    |
| Engineering, general                           | 47    | 47    | 49    | 68    | 42    | 34    | 47    | 45    | 45    | 58    | 56    |
| Engineering, other                             | 60    | 60    | 51    | 29    | 40    | 43    | 25    | 20    | 19    | 29    | 53    |
|  | 129   | 136   | 147   | 194   | 213   | 166   | 148   | 122   | 143   | 183   | 131   |
| <b>LIFE SCIENCES</b>                           |       |       |       |       |       |       |       |       |       |       |       |
|  | 7,998 | 8,337 | 8,421 | 8,612 | 8,204 | 8,624 | 8,366 | 8,472 | 8,505 | 8,813 | 9,306 |
| <b>AGRICULTURAL SCIENCES/NATURAL RESOURCES</b> |       |       |       |       |       |       |       |       |       |       |       |
| Agricultural economics                         | 1,293 | 1,289 | 1,212 | 1,267 | 1,216 | 1,180 | 1,132 | 1,129 | 1,179 | 1,155 | 1,161 |
| Agricultural business & management             | 173   | 169   | 133   | 156   | 149   | 138   | 154   | 119   | 118   | 110   | 123   |
| Animal animal breeding                         | 3     | 2     | 1     | 2     | 2     | 5     | 3     | 1     | 1     | ----  | ----  |
| Animal nutrition                               | 19    | 12    | 24    | 18    | 21    | 22    | 16    | 14    | 21    | 13    | 14    |
| Dairy science                                  | 50    | 54    | 55    | 45    | 47    | 45    | 45    | 49    | 41    | 47    | 51    |
| Poultry science                                | 14    | 9     | 14    | 10    | 12    | 9     | 2     | 7     | 18    | ----  | ----  |
| Animal sciences, other                         | 11    | 11    | 9     | 11    | 8     | 9     | 11    | 10    | 18    | 21    | 14    |
| Agromony & crop science                        | 85    | 90    | 62    | 60    | 70    | 73    | 71    | 70    | 88    | 75    | 71    |
| Agricultural & horticultural plant breeding    | 114   | 110   | 77    | 97    | 106   | 69    | 75    | 74    | 55    | 63    | 79    |
| Plant pathology (Agricultural)                 | 72    | 63    | 67    | 69    | 44    | 68    | 37    | 59    | 50    | 36    | 35    |
| Plant sciences, other                          | 52    | 90    | 65    | 66    | 66    | 63    | 52    | 53    | 48    | 56    | 71    |
| Food science                                   | 30    | 21    | 20    | 37    | 38    | 29    | 26    | 27    | 29    | 34    | 31    |
| Food science and technology, other             | 7     | 7     | 11    | 13    | 7     | 10    | 14    | 7     | 11    | 94    | 93    |
| Soil chemistry/microbiology                    | 135   | 142   | 175   | 153   | 137   | 142   | 130   | 129   | 157   | 74    | 48    |
| Soil sciences, other                           | 27    | 29    | 32    | 27    | 29    | 26    | 23    | 29    | 24    | 21    | 24    |
| Horticulture science                           | 72    | 78    | 56    | 74    | 67    | 64    | 56    | 55    | 50    | 52    | 52    |
| Fishing and fisheries science & management     | 67    | 73    | 44    | 60    | 66    | 55    | 37    | 46    | 54    | 46    | 49    |
| Forest sciences and biology                    | 49    | 46    | 45    | 30    | 38    | 43    | 44    | 53    | 47    | 38    | 34    |
| Forest engineering                             | 24    | 19    | 22    | 20    | 14    | 22    | 27    | 19    | 16    | 36    | 29    |
| Forest/resources management                    | 4     | 0     | 13    | 2     | 1     | 3     | 0     | 3     | 3     | ----  | ----  |
| Wood science & pulp/paper technology           | 20    | 22    | 21    | 27    | 17    | 13    | 13    | 15    | 18    | 26    | 40    |
| Natural resources/conservation                 | 26    | 18    | 25    | 25    | 21    | 11    | 20    | 29    | 19    | 19    | 15    |
|  | 24    | 13    | 17    | 25    | 25    | 19    | 32    | 27    | 47    | 45    | 64    |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                     | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Forestry & related science, other     | 71    | 55    | 50    | 69    | 50    | 54    | 48    | 57    | 47    | 34    | 24    |
| Wildlife/range management             | 50    | 64    | 50    | 56    | 44    | 56    | 41    | 37    | 46    | 42    | 44    |
| Environmental science                 | 81    | 83    | 96    | 72    | 99    | 95    | 119   | 113   | 136   | 130   | 129   |
| Agriculture, general                  | 6     | 5     | 10    | 8     | 8     | 10    | 2     | 4     | 2     | 6     | 10    |
| Agricultural science, other           | 7     | 4     | 18    | 35    | 30    | 27    | 34    | 23    | 15    | 37    | 17    |
| <b>BIOLOGICAL/BIOMEDICAL SCIENCES</b> |       |       |       |       |       |       |       |       |       |       |       |
| Biochemistry                          | 5,376 | 5,724 | 5,788 | 5,846 | 5,581 | 5,853 | 5,693 | 5,690 | 5,693 | 5,939 | 6,368 |
| Biomedical sciences                   | 824   | 794   | 831   | 800   | 759   | 776   | 728   | 782   | 772   | 703   | 692   |
| Biophysics                            | 93    | 141   | 158   | 182   | 176   | 155   | 155   | 220   | 181   | 182   | 248   |
| Biotechnology                         | 155   | 142   | 147   | 166   | 173   | 164   | 162   | 151   | 161   | 130   | 144   |
| Bacteriology                          | 4     | 6     | 11    | 12    | 19    | 14    | 9     | 13    | 24    | 26    | 23    |
| Bacteriology                          | 13    | 16    | 13    | 13    | 13    | 15    | 17    | 12    | 6     | 15    | 13    |
| Plant genetics                        | 35    | 41    | 30    | 40    | 31    | 35    | 31    | 57    | 38    | 54    | 50    |
| Plant pathology (Biological)          | 32    | 38    | 33    | 18    | 36    | 25    | 31    | 24    | 27    | 25    | 31    |
| Plant physiology                      | 55    | 73    | 47    | 61    | 54    | 39    | 45    | 43    | 32    | 24    | 38    |
| Botany/plant biology                  | 102   | 105   | 91    | 113   | 67    | 92    | 75    | 84    | 80    | 135   | 87    |
| Anatomy                               | 64    | 47    | 50    | 35    | 33    | 39    | 29    | 20    | 33    | 13    | 23    |
| Biometrics & biostatistics            | 67    | 80    | 84    | 75    | 76    | 92    | 90    | 81    | 84    | 100   | 130   |
| Cellular biology and histology        | 236   | 233   | 251   | 300   | 281   | 337   | 315   | 302   | 301   | 292   | 316   |
| Ecology                               | 203   | 245   | 255   | 293   | 273   | 296   | 338   | 311   | 347   | 366   | 412   |
| Developmental biology/embryology      | 64    | 96    | 115   | 127   | 108   | 112   | 107   | 93    | 126   | 141   | 162   |
| Endocrinology                         | 20    | 24    | 17    | 30    | 19    | 20    | 18    | 14    | 21    | 22    | 29    |
| Entomology                            | 121   | 136   | 123   | 138   | 114   | 137   | 90    | 113   | 111   | 108   | 103   |
| Immunology                            | 190   | 238   | 214   | 246   | 223   | 239   | 265   | 278   | 261   | 347   | 343   |
| Molecular biology                     | 617   | 651   | 775   | 736   | 716   | 706   | 711   | 621   | 614   | 726   | 726   |
| Microbiology                          | 426   | 444   | 410   | 383   | 383   | 382   | 396   | 383   | 363   | 393   | 430   |
| Neuroscience                          | 308   | 404   | 437   | 413   | 431   | 495   | 485   | 490   | 472   | 584   | 689   |
| Nutritional sciences                  | 136   | 142   | 124   | 139   | 102   | 150   | 135   | 141   | 127   | 131   | 163   |
| Parasitology                          | 14    | 22    | 17    | 15    | 13    | 19    | 22    | 17    | 15    | 20    | 21    |
| Toxicology                            | 126   | 138   | 180   | 155   | 114   | 123   | 133   | 122   | 122   | 105   | 102   |
| Genetics, human & animal              | 202   | 212   | 217   | 197   | 216   | 227   | 199   | 225   | 226   | 257   | 287   |
| Pathology, human & animal             | 109   | 135   | 106   | 90    | 120   | 106   | 116   | 115   | 101   | 98    | 93    |
| Pharmacology, human & animal          | 278   | 316   | 300   | 255   | 254   | 267   | 257   | 268   | 275   | 287   | 315   |
| Physiology, human & animal            | 262   | 275   | 227   | 258   | 244   | 241   | 217   | 208   | 215   | 207   | 208   |
| Zoology, other                        | 145   | 100   | 97    | 111   | 126   | 133   | 103   | 122   | 127   | 94    | 103   |
| Biology/biomedical sciences, general  | 348   | 292   | 209   | 217   | 182   | 200   | 193   | 184   | 194   | 188   | 189   |
| Biology/biomedical sciences, other    | 127   | 138   | 219   | 228   | 225   | 217   | 221   | 196   | 237   | 166   | 198   |
| <b>HEALTH SCIENCES</b>                |       |       |       |       |       |       |       |       |       |       |       |
| Speech-Language pathology & audiology | 1,329 | 1,324 | 1,421 | 1,499 | 1,407 | 1,591 | 1,541 | 1,653 | 1,633 | 1,719 | 1,777 |
| Environmental health                  | 106   | 94    | 88    | 95    | 86    | 106   | 92    | 100   | 94    | 95    | 97    |
| Environmental toxicology              | 51    | 58    | 67    | 54    | 69    | 52    | 56    | 49    | 53    | 56    | 42    |
| Health systems/service administration | 62    | 60    | 66    | 62    | 62    | 59    | 51    | 54    | 57    | 66    | 70    |
| Public health                         | 152   | 156   | 138   | 154   | 173   | 207   | 216   | 219   | 205   | 260   | 279   |
| Epidemiology                          | 153   | 149   | 151   | 165   | 179   | 191   | 168   | 198   | 231   | 217   | 229   |
| Kinesiology/exercise science          | 118   | 105   | 105   | 130   | 104   | 129   | 151   | 149   | 145   | 164   | 153   |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                                | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Nursing science                                  | 354   | 354   | 420   | 399   | 353   | 415   | 365   | 435   | 413   | 394   | 418   |
| Pharmacy   | 144   | 145   | 142   | 156   | 137   | 164   | 148   | 160   | 118   | 161   | 168   |
| Rehabilitation/therapeutic services              | 20    | 26    | 34    | 35    | 26    | 40    | 37    | 70    | 69    | 67    | 66    |
| Veterinary medicine                              | 55    | 65    | 47    | 49    | 49    | 50    | 60    | 56    | 48    | 54    | 47    |
| Health sciences, general                         | 35    | 22    | 45    | 17    | 32    | 49    | 35    | 39    | 40    | 33    | 46    |
| Health sciences, other                           | 79    | 90    | 118   | 183   | 137   | 129   | 162   | 124   | 160   | 124   | 120   |
| <b><u>SOCIAL SCIENCES AND PSYCHOLOGY</u></b>     | 6,635 | 6,822 | 7,041 | 7,070 | 7,040 | 7,109 | 6,778 | 6,621 | 6,776 | 6,788 | 6,837 |
| <b>PSYCHOLOGY</b>                                | 3,429 | 3,494 | 3,557 | 3,673 | 3,668 | 3,616 | 3,385 | 3,197 | 3,273 | 3,327 | 3,327 |
| Psychology, clinical                             | 1,290 | 1,326 | 1,255 | 1,344 | 1,441 | 1,352 | 1,226 | 1,216 | 1,189 | 1,216 | 1,158 |
| Psychology, cognitive & psycholinguistics        | 104   | 128   | 166   | 113   | 143   | 141   | 141   | 121   | 132   | 145   | 147   |
| Psychology, comparative                          | 4     | 3     | 6     | 6     | 11    | 7     | 5     | 2     | 4     | 6     | 5     |
| Psychology, counseling                           | 471   | 465   | 487   | 448   | 460   | 475   | 474   | 469   | 435   | 512   | 469   |
| Psychology, developmental & child                | 152   | 188   | 215   | 266   | 193   | 203   | 193   | 173   | 178   | 186   | 223   |
| Psychology, human development and family studies | 150   | 151   | 126   | 119   | 135   | 147   | 137   | 139   | 149   | 144   | 172   |
| Psychology, experimental                         | 151   | 128   | 146   | 149   | 139   | 133   | 134   | 112   | 119   | 88    | 120   |
| Psychology, educational                          | 74    | 92    | 61    | 61    | 64    | 97    | 48    | 54    | 52    | 75    | 81    |
| Psychology, family                               | 57    | 51    | 63    | 51    | 56    | 54    | 45    | 67    | 62    | 32    | 25    |
| Psychology, industrial & organizational          | 155   | 162   | 187   | 189   | 158   | 188   | 173   | 154   | 157   | 157   | 184   |
| Psychology, personality                          | 16    | 24    | 26    | 25    | 16    | 23    | 11    | 17    | 17    | 18    | 14    |
| Psychology, physiological/psychobiology          | 92    | 80    | 77    | 92    | 87    | 89    | 92    | 88    | 86    | 84    | 85    |
| Psychology, psychometrics                        | 10    | 11    | 11    | 9     | 15    | 13    | 2     | 9     | 7     | ----  | ----  |
| Psychology, psychometrics and quantitative       | 13    | 19    | 17    | 15    | 14    | 8     | 10    | 13    | 11    | 29    | 23    |
| Psychology, school                               | 91    | 82    | 84    | 106   | 121   | 99    | 101   | 88    | 102   | 87    | 108   |
| Psychology, social                               | 155   | 170   | 181   | 186   | 176   | 207   | 198   | 179   | 202   | 163   | 183   |
| Psychology, general                              | 306   | 281   | 319   | 300   | 235   | 238   | 223   | 145   | 224   | 221   | 187   |
| Psychology, other                                | 138   | 133   | 130   | 194   | 204   | 142   | 172   | 151   | 147   | 164   | 143   |
| <b>SOCIAL SCIENCES</b>                           | 3,206 | 3,328 | 3,484 | 3,397 | 3,372 | 3,493 | 3,393 | 3,424 | 3,503 | 3,461 | 3,510 |
| Anthropology                                     | 375   | 397   | 434   | 425   | 462   | 446   | 411   | 495   | 472   | 531   | 455   |
| Area studies                                     | 27    | 28    | 10    | 14    | 11    | 14    | 19    | 25    | 12    | 18    | 6     |
| Criminology                                      | 44    | 60    | 49    | 55    | 51    | 66    | 62    | 56    | 77    | 69    | 96    |
| Demography/population studies                    | 15    | 11    | 24    | 30    | 28    | 20    | 12    | 20    | 15    | 19    | 20    |
| Economics  | 952   | 979   | 999   | 976   | 911   | 933   | 914   | 893   | 909   | 941   | 1,031 |
| Econometrics                                     | 27    | 29    | 31    | 25    | 15    | 15    | 13    | 14    | 23    | 18    | 30    |
| Geography  | 150   | 165   | 149   | 154   | 144   | 197   | 186   | 197   | 167   | 190   | 196   |
| International relations/affairs                  | 73    | 99    | 88    | 96    | 119   | 77    | 91    | 83    | 98    | 99    | 106   |
| Political science & government                   | 599   | 622   | 665   | 662   | 655   | 669   | 658   | 605   | 660   | 586   | 619   |
| Public policy analysis                           | 94    | 104   | 127   | 96    | 125   | 137   | 139   | 147   | 146   | 145   | 162   |
| Sociology  | 540   | 517   | 577   | 549   | 544   | 617   | 565   | 546   | 597   | 580   | 535   |
| Statistics (Social Sciences)                     | 48    | 48    | 56    | 61    | 72    | 60    | 49    | 54    | 48    | 31    | 22    |
| Urban affairs/studies                            | 103   | 108   | 92    | 77    | 57    | 79    | 80    | 92    | 78    | 85    | 81    |
| Social sciences, general                         | 35    | 26    | 26    | 30    | 25    | 37    | 26    | 33    | 28    | 32    | 32    |
| Social sciences, other                           | 124   | 135   | 157   | 147   | 153   | 126   | 168   | 164   | 173   | 117   | 119   |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                          | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>HUMANITIES</b>                          | 5,062 | 5,114 | 5,433 | 5,515 | 5,460 | 5,634 | 5,596 | 5,392 | 5,415 | 5,464 | 5,349 |
| <b>HISTORY</b>                             | 889   | 857   | 965   | 990   | 1,010 | 1,061 | 1,028 | 1,030 | 941   | 976   | 924   |
| History, American                          | 344   | 355   | 373   | 408   | 418   | 443   | 425   | 422   | 416   | 402   | 372   |
| History, Asian                             | 43    | 54    | 54    | 70    | 68    | 51    | 51    | 66    | 66    | 66    | 64    |
| History, European                          | 185   | 187   | 245   | 230   | 235   | 243   | 246   | 232   | 190   | 222   | 211   |
| History, African                           | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 21    | 18    |
| History, Latin American                    | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 47    | 45    |
| History/philosophy of science & technology | 41    | 37    | 35    | 44    | 50    | 42    | 40    | 47    | 46    | 48    | 43    |
| History, general                           | 148   | 101   | 82    | 86    | 75    | 102   | 75    | 81    | 72    | 56    | 77    |
| History, other                             | 128   | 123   | 176   | 152   | 164   | 180   | 191   | 182   | 151   | 114   | 94    |
| <b>LETTERS</b>                             | 1,749 | 1,723 | 1,793 | 1,820 | 1,767 | 1,842 | 1,720 | 1,647 | 1,640 | 1,662 | 1,601 |
| Classics                                   | 62    | 72    | 53    | 85    | 77    | 64    | 55    | 57    | 75    | 70    | 61    |
| Comparative literature                     | 191   | 164   | 181   | 164   | 166   | 187   | 203   | 174   | 165   | 175   | 180   |
| Folklore                                   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 22    | 18    |
| Linguistics                                | 201   | 230   | 244   | 220   | 251   | 230   | 230   | 193   | 224   | 254   | 211   |
| Literature, American                       | 327   | 314   | 408   | 389   | 372   | 460   | 385   | 369   | 362   | 351   | 406   |
| Literature, English                        | 706   | 621   | 534   | 543   | 517   | 544   | 469   | 520   | 436   | 426   | 417   |
| English language                           | 46    | 78    | 152   | 146   | 133   | 66    | 124   | 86    | 132   | 157   | 137   |
| Speech & rhetorical studies                | 139   | 155   | 138   | 169   | 150   | 143   | 126   | 137   | 151   | 128   | 98    |
| Letters, general                           | 43    | 28    | 23    | 22    | 19    | 55    | 34    | 31    | 27    | 16    | 19    |
| Letters, other                             | 34    | 61    | 60    | 82    | 82    | 93    | 94    | 80    | 68    | 63    | 54    |
| <b>FOREIGN LANGUAGES &amp; LITERATURE</b>  | 639   | 605   | 652   | 643   | 626   | 642   | 620   | 625   | 622   | 587   | 609   |
| French                                     | 151   | 142   | 150   | 137   | 148   | 143   | 141   | 121   | 102   | 124   | 113   |
| German                                     | 93    | 88    | 82    | 106   | 90    | 84    | 84    | 68    | 100   | 56    | 76    |
| Italian                                    | 35    | 24    | 23    | 33    | 20    | 16    | 16    | 23    | 33    | 39    | 19    |
| Spanish                                    | 209   | 196   | 249   | 207   | 201   | 218   | 233   | 244   | 239   | 241   | 241   |
| Russian                                    | 28    | 37    | 39    | 43    | 25    | 29    | 27    | 26    | 28    | 25    | 21    |
| Slavic (other than Russian)                | 16    | 11    | 9     | 15    | 17    | 14    | 12    | 19    | 11    | 8     | 13    |
| Chinese                                    | 20    | 29    | 23    | 19    | 27    | 21    | 16    | 22    | 24    | 15    | 22    |
| Japanese                                   | 7     | 10    | 19    | 11    | 10    | 18    | 17    | 15    | 20    | 14    | 23    |
| Hebrew                                     | 11    | 12    | 7     | 8     | 4     | 11    | 6     | 8     | 5     | ---   | ---   |
| Arabic                                     | 8     | 6     | 4     | 9     | 12    | 15    | 6     | 5     | 4     | 7     | 6     |
| Other languages & literature               | 61    | 50    | 47    | 55    | 72    | 73    | 62    | 74    | 56    | 58    | 75    |
| <b>OTHER HUMANITIES</b>                    | 1,785 | 1,929 | 2,023 | 2,062 | 2,057 | 2,089 | 2,228 | 2,090 | 2,212 | 2,239 | 2,215 |
| American studies                           | 94    | 115   | 84    | 100   | 98    | 113   | 127   | 97    | 94    | 115   | 104   |
| Archeology                                 | 35    | 21    | 35    | 34    | 26    | 36    | 39    | 26    | 33    | 34    | 44    |
| Art history/criticism/conservation         | 181   | 177   | 188   | 221   | 188   | 228   | 223   | 217   | 254   | 248   | 211   |
| Music                                      | 713   | 696   | 727   | 696   | 768   | 746   | 788   | 760   | 873   | 848   | 904   |
| Philosophy                                 | 298   | 369   | 444   | 410   | 389   | 364   | 412   | 359   | 392   | 365   | 354   |
| Religion                                   | 248   | 317   | 304   | 327   | 334   | 348   | 339   | 348   | 303   | 387   | 369   |
| Drama/theater arts                         | 80    | 103   | 116   | 92    | 99    | 82    | 104   | 93    | 86    | 93    | 88    |
| Humanities, general                        | 25    | 39    | 25    | 23    | 24    | 40    | 29    | 19    | 27    | 17    | 25    |
| Humanities, other                          | 111   | 92    | 100   | 159   | 131   | 132   | 167   | 171   | 150   | 132   | 116   |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study   | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>EDUCATION</b>  | 6,648 | 6,785 | 6,573 | 6,569 | 6,546 | 6,432 | 6,332 | 6,491 | 6,638 | 6,633 | 6,229 |
| <b>EDUCATION ADMINISTRATION</b>                           | 1,974 | 2,165 | 2,050 | 2,066 | 2,044 | 2,030 | 2,066 | 2,343 | 2,355 | 2,340 | 2,170 |
| Educational administration & supervision                  | 1,086 | 1,172 | 1,020 | 950   | 895   | 813   | 839   | 791   | 773   | 742   | 731   |
| Educational leadership                                    | 888   | 993   | 1,030 | 1,116 | 1,149 | 1,217 | 1,227 | 1,552 | 1,582 | 1,598 | 1,439 |
| <b>EDUCATION RESEARCH</b>                                 | 2,576 | 2,699 | 2,692 | 2,584 | 2,730 | 2,665 | 2,630 | 2,769 | 2,717 | 2,802 | 2,668 |
| Curriculum & instruction                                  | 896   | 899   | 917   | 884   | 993   | 966   | 885   | 990   | 1,000 | 971   | 984   |
| Educational/instructional media design                    | 121   | 107   | 92    | 91    | 123   | 137   | 140   | 171   | 128   | 193   | 124   |
| Educational statistics/research methods                   | 63    | 76    | 58    | 56    | 57    | 56    | 65    | 67    | 62    | 64    | 59    |
| Educational assessment/testing/measure                    | 19    | 32    | 30    | 35    | 39    | 44    | 44    | 31    | 47    | 57    | 56    |
| Educational psychology                                    | 297   | 309   | 359   | 327   | 298   | 278   | 282   | 301   | 285   | 261   | 249   |
| School psychology   | 71    | 114   | 118   | 112   | 108   | 137   | 119   | 169   | 124   | 113   | 111   |
| Social/philosophical foundations of education             | 130   | 125   | 138   | 129   | 125   | 135   | 141   | 127   | 146   | 135   | 154   |
| Special education   | 254   | 278   | 270   | 247   | 262   | 260   | 229   | 213   | 215   | 288   | 240   |
| Counseling education/counseling & guidance                | 268   | 278   | 207   | 271   | 260   | 214   | 210   | 257   | 220   | 182   | 177   |
| Higher education/evaluation & research                    | 457   | 481   | 503   | 432   | 465   | 438   | 515   | 443   | 490   | 538   | 514   |
| <b>TEACHER EDUCATION</b>                                  | 390   | 371   | 291   | 342   | 292   | 261   | 294   | 262   | 240   | 271   | 264   |
| Education, pre-elementary/early childhood                 | 70    | 81    | 43    | 54    | 49    | 34    | 49    | 51    | 70    | 38    | 36    |
| Education, elementary                                     | 61    | 46    | 56    | 62    | 59    | 53    | 55    | 52    | 34    | 64    | 56    |
| Education, secondary                                      | 24    | 34    | 27    | 54    | 31    | 23    | 22    | 21    | 19    | 26    | 22    |
| Education, adult & continuing                             | 235   | 210   | 165   | 172   | 153   | 151   | 168   | 138   | 117   | 143   | 150   |
| <b>TEACHING FIELDS</b>                                    | 924   | 864   | 919   | 954   | 892   | 823   | 721   | 685   | 714   | 759   | 664   |
| Teaching, agricultural education                          | 35    | 32    | 38    | 25    | 38    | 22    | 22    | 28    | 25    | 18    | 25    |
| Teaching, art education                                   | 39    | 41    | 30    | 46    | 47    | 31    | 31    | 30    | 34    | 38    | 34    |
| Teaching, business education                              | 21    | 20    | 26    | 31    | 45    | 37    | 19    | 14    | 6     | 7     | 7     |
| Teaching, English education                               | 60    | 57    | 62    | 53    | 64    | 44    | 56    | 53    | 47    | 45    | 55    |
| Teaching, foreign languages education                     | 60    | 45    | 47    | 73    | 62    | 43    | 47    | 41    | 46    | 62    | 80    |
| Teaching, health education                                | 99    | 90    | 58    | 70    | 58    | 71    | 64    | 39    | 54    | 43    | 44    |
| Teaching, family & consumer sci./home economics education | 15    | 13    | 13    | 8     | 10    | 14    | 8     | 9     | 4     | 15    | 11    |
| Teaching, technology & industrial arts ed                 | 15    | 11    | 19    | 30    | 21    | 21    | 16    | 7     | 13    | ----  | ----  |
| Teaching, mathematics education                           | 92    | 100   | 93    | 115   | 101   | 90    | 80    | 88    | 80    | 91    | 89    |
| Teaching, music education                                 | 96    | 91    | 101   | 93    | 79    | 79    | 63    | 80    | 74    | 94    | 61    |
| Teaching, nursing education                               | 18    | 23    | 21    | 14    | 22    | 11    | 5     | 7     | 8     | 10    | 10    |
| Teaching, physical education & coaching                   | 104   | 101   | 109   | 109   | 115   | 83    | 81    | 72    | 75    | 68    | 49    |
| Teaching, reading education                               | 85    | 66    | 70    | 76    | 68    | 89    | 72    | 66    | 60    | 86    | 74    |
| Teaching, science education                               | 73    | 96    | 77    | 110   | 58    | 60    | 72    | 60    | 69    | 86    | 67    |
| Teaching, social science education                        | 14    | 12    | 26    | 15    | 9     | 35    | 12    | 10    | 10    | 21    | 15    |
| Teaching, technical education                             | 20    | 24    | 32    | 17    | 27    | 20    | 10    | 23    | 24    | ----  | ----  |
| Teaching, trade & industrial education                    | 13    | 12    | 16    | 14    | 14    | 12    | 7     | 5     | 5     | 18    | 6     |
| Teacher education & prof. dev.                            | 65    | 30    | 81    | 55    | 54    | 61    | 56    | 53    | 80    | 57    | 37    |
| <b>OTHER EDUCATION</b>                                    | 784   | 686   | 621   | 623   | 588   | 653   | 621   | 432   | 612   | 461   | 463   |
| Education, general  | 429   | 353   | 336   | 232   | 196   | 251   | 255   | 154   | 312   | 188   | 220   |
| Education, other  | 355   | 333   | 285   | 391   | 392   | 402   | 366   | 278   | 300   | 273   | 243   |

APPENDIX TABLE B-1. Number of doctorate recipients, by subfield of study, 1995-2005

| Subfield of study                                 | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <u>OTHER FIELDS</u>                               |       |       |       |       |       |       |       |       |       |       |       |
| BUSINESS MGMT./ADMINISTRATIVE SERVICES            | 2,669 | 2,478 | 2,371 | 2,281 | 2,288 | 2,257 | 2,215 | 2,300 | 2,296 | 2,596 | 2,530 |
| Accounting  | 1,330 | 1,279 | 1,245 | 1,175 | 1,108 | 1,065 | 1,053 | 1,103 | 1,034 | 1,253 | 1,168 |
| Banking/financial support services                | 168   | 156   | 150   | 154   | 154   | 111   | 115   | 111   | 106   | 130   | 129   |
| Business administration & management              | 163   | 114   | 69    | 83    | 74    | 72    | 66    | 76    | 79    | 106   | 83    |
| Business/manegetrial economics                    | 341   | 393   | 426   | 348   | 315   | 321   | 347   | 342   | 338   | 369   | 300   |
| Business/manegetrial economics                    | 37    | 38    | 48    | 57    | 42    | 52    | 50    | 39    | 44    | 60    | 55    |
| International business/trade/commerce             | 23    | 36    | 39    | 33    | 34    | 32    | 29    | 24    | 44    | 31    | 28    |
| Management information systems/business data      | 111   | 95    | 100   | 87    | 83    | 85    | 98    | 90    | 86    | 94    | 94    |
| Marketing management & research                   | 153   | 153   | 153   | 142   | 127   | 141   | 113   | 132   | 111   | 134   | 142   |
| Human resources development                       | ----  | ----  | ----  | ----  | ----  | ----  | ----  | ----  | ----  | 86    | 101   |
| Operations research                               | 60    | 64    | 45    | 57    | 52    | 61    | 40    | 36    | 26    | 52    | 48    |
| Organizational behavior                           | 101   | 110   | 123   | 105   | 101   | 99    | 118   | 173   | 113   | 124   | 120   |
| Business management/administration serv., general | 92    | 67    | 28    | 38    | 49    | 36    | 20    | 34    | 18    | 24    | 28    |
| Business management/administration serv., other   | 81    | 53    | 64    | 71    | 77    | 55    | 57    | 46    | 69    | 43    | 40    |
| COMMUNICATIONS                                    | 381   | 389   | 332   | 373   | 379   | 389   | 389   | 397   | 415   | 450   | 486   |
| Communications research                           | 40    | 60    | 51    | 52    | 50    | 53    | 60    | 63    | 63    | 60    | 63    |
| Mass communications                               | 121   | 137   | 117   | 142   | 153   | 154   | 153   | 156   | 161   | 187   | 214   |
| Communication theory                              | 53    | 37    | 40    | 48    | 47    | 39    | 40    | 43    | 42    | 49    | 54    |
| Communications, general                           | 78    | 81    | 74    | 62    | 69    | 77    | 78    | 70    | 89    | 75    | 76    |
| Communications, other                             | 89    | 74    | 50    | 69    | 60    | 66    | 58    | 65    | 60    | 79    | 79    |
| FIELDS NOT ELSEWHERE CLASSIFIED                   | 929   | 763   | 714   | 669   | 697   | 746   | 722   | 737   | 788   | 842   | 846   |
| Architectural environmental design                | 55    | 61    | 66    | 52    | 65    | 61    | 66    | 67    | 69    | 66    | 76    |
| Family/consumer sci./human sci., general          | 31    | 28    | 36    | 18    | 23    | 23    | 19    | 24    | 21    | 44    | 51    |
| Law   | 38    | 24    | 27    | 31    | 37    | 41    | 34    | 50    | 52    | 56    | 40    |
| Library science                                   | 47    | 49    | 40    | 34    | 39    | 45    | 40    | 32    | 42    | 23    | 30    |
| Parks/sports/rec./leisure/fitness                 | 54    | 29    | 24    | 37    | 29    | 45    | 41    | 52    | 38    | 82    | 72    |
| Public administration                             | 128   | 103   | 95    | 104   | 117   | 103   | 96    | 103   | 120   | 116   | 103   |
| Social work                                       | 303   | 256   | 247   | 235   | 225   | 257   | 258   | 237   | 273   | 305   | 325   |
| Theology/religious education                      | 273   | 213   | 179   | 158   | 162   | 171   | 168   | 172   | 173   | 150   | 149   |
| FIELDS NOT LISTED ABOVE                           | 29    | 47    | 80    | 64    | 104   | 57    | 51    | 63    | 59    | 51    | 30    |

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.

<sup>a</sup> Includes respondents missing data for doctoral field: 1 in 1997; 4 in 1998; 1 in 1999; 4 in 2000; 3 in 2001; 3 in 2003.

SOURCE: NSF/NIH/USED/INEH/USDA/NASA, 2005 Survey of Earned Doctorates.

APPENDIX TABLE B-2a. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1995-2005 - Total all doctorates

| Citizenship status by race/ethnicity      | Year of doctorate |        |        |        |        |        |        |        |        |        |        |
|---|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | 1995              | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
| Total all doctorates <sup>a</sup>         | 41,747            | 42,437 | 42,535 | 42,637 | 41,092 | 41,361 | 40,651 | 39,953 | 40,740 | 42,117 | 43,354 |
| U.S. citizens                             | 27,740            | 27,777 | 28,151 | 28,533 | 27,992 | 27,986 | 26,975 | 25,998 | 26,499 | 26,466 | 26,312 |
| Permanent residents                       | 4,317             | 3,765  | 2,932  | 2,662  | 2,310  | 1,950  | 1,825  | 1,652  | 1,630  | 1,538  | 1,600  |
| Temporary visa holders                    | 8,831             | 9,733  | 9,191  | 9,458  | 9,057  | 9,660  | 9,800  | 9,731  | 10,589 | 11,617 | 12,824 |
| Unknown citizenship                       | 859               | 1,162  | 2,261  | 1,984  | 1,733  | 1,765  | 2,051  | 2,572  | 2,022  | 2,496  | 2,618  |
| Total known race/ethnicity                | 40,344            | 40,705 | 38,910 | 39,392 | 38,694 | 38,805 | 37,961 | 36,763 | 37,686 | 38,719 | 40,054 |
| U.S. citizens                             | 27,444            | 27,444 | 27,075 | 27,614 | 27,533 | 27,431 | 26,500 | 25,512 | 25,791 | 25,844 | 25,916 |
| Permanent residents                       | 4,275             | 3,732  | 2,869  | 2,576  | 2,271  | 1,898  | 1,791  | 1,605  | 1,588  | 1,496  | 1,568  |
| Temporary visa holders                    | 8,565             | 9,421  | 8,850  | 9,054  | 8,802  | 9,368  | 9,473  | 9,371  | 10,139 | 11,130 | 12,452 |
| Unknown citizenship                       | 60                | 108    | 116    | 148    | 88     | 108    | 197    | 275    | 168    | 249    | 118    |
| American Indian <sup>b</sup>              | 148               | 188    | 167    | 190    | 214    | 169    | 163    | 154    | 142    | 135    | 142    |
| U.S. citizens                             | 148               | 185    | 167    | 189    | 214    | 169    | 148    | 146    | 134    | 129    | 139    |
| Permanent residents <sup>c</sup>          | 0                 | 1      | 0      | 0      | 0      | 0      | 2      | 3      | 3      | 2      | 1      |
| Temporary visa holders <sup>c</sup>       | 0                 | 2      | 0      | 0      | 0      | 0      | 12     | 5      | 5      | 4      | 2      |
| Unknown citizenship                       | 0                 | 0      | 0      | 1      | 0      | 0      | 1      | 0      | 0      | 0      | 0      |
| Asian <sup>d</sup>                        | 9,693             | 9,803  | 9,006  | 8,564  | 7,996  | 8,060  | 8,092  | 7,877  | 8,281  | 9,063  | 10,222 |
| U.S. citizens                             | 1,129             | 1,066  | 1,295  | 1,185  | 1,305  | 1,365  | 1,411  | 1,364  | 1,372  | 1,451  | 1,493  |
| Permanent residents                       | 3,168             | 2,608  | 1,814  | 1,543  | 1,192  | 909    | 769    | 746    | 671    | 608    | 688    |
| Temporary visa holders                    | 5,384             | 6,115  | 5,865  | 5,806  | 5,470  | 5,763  | 5,890  | 5,736  | 6,214  | 6,961  | 8,003  |
| Unknown citizenship                       | 12                | 14     | 32     | 30     | 29     | 23     | 22     | 31     | 24     | 43     | 38     |
| Black/African-American                    | 1,807             | 1,825  | 1,761  | 1,912  | 2,052  | 2,096  | 2,006  | 2,028  | 2,095  | 2,382  | 2,178  |
| U.S. citizens                             | 1,293             | 1,305  | 1,336  | 1,485  | 1,630  | 1,631  | 1,611  | 1,665  | 1,708  | 1,881  | 1,688  |
| Permanent residents                       | 168               | 141    | 139    | 118    | 133    | 119    | 117    | 87     | 88     | 103    | 107    |
| Temporary visa holders                    | 336               | 367    | 276    | 297    | 281    | 334    | 264    | 255    | 265    | 357    | 380    |
| Unknown citizenship                       | 10                | 12     | 10     | 12     | 8      | 12     | 14     | 21     | 34     | 41     | 3      |
| Hispanic <sup>e</sup>                     | 1,544             | 1,632  | 1,695  | 1,880  | 1,899  | 1,963  | 1,899  | 2,024  | 2,217  | 2,023  | 2,272  |
| U.S. citizens                             | 922               | 957    | 1,064  | 1,209  | 1,184  | 1,182  | 1,122  | 1,237  | 1,280  | 1,178  | 1,294  |
| Permanent residents                       | 142               | 156    | 135    | 121    | 140    | 128    | 143    | 131    | 149    | 121    | 132    |
| Temporary visa holders                    | 475               | 516    | 484    | 541    | 561    | 647    | 619    | 646    | 781    | 710    | 842    |
| Unknown citizenship                       | 5                 | 3      | 12     | 9      | 14     | 6      | 15     | 10     | 7      | 14     | 4      |
| White                                     | 27,078            | 27,156 | 26,247 | 26,786 | 26,419 | 26,389 | 25,390 | 24,279 | 24,454 | 24,607 | 24,704 |
| U.S. citizens                             | 23,888            | 23,846 | 23,181 | 23,494 | 23,098 | 22,970 | 21,869 | 20,757 | 20,872 | 20,762 | 20,845 |
| Permanent residents                       | 795               | 823    | 781    | 792    | 802    | 741    | 749    | 630    | 664    | 657    | 627    |
| Temporary visa holders                    | 2,362             | 2,409  | 2,223  | 2,404  | 2,482  | 2,611  | 2,646  | 2,679  | 2,816  | 3,042  | 3,166  |
| Unknown citizenship                       | 33                | 78     | 62     | 96     | 37     | 67     | 126    | 213    | 102    | 146    | 66     |
| Other/unknown race/ethnicity <sup>f</sup> | 1,477             | 1,833  | 3,659  | 3,305  | 2,512  | 2,684  | 3,101  | 3,591  | 3,551  | 3,907  | 3,836  |
| U.S. citizens                             | 360               | 418    | 1,108  | 971    | 561    | 669    | 814    | 829    | 1,133  | 1,065  | 853    |
| Permanent residents                       | 44                | 36     | 63     | 88     | 43     | 53     | 45     | 55     | 55     | 47     | 45     |
| Temporary visa holders                    | 274               | 324    | 343    | 410    | 263    | 305    | 369    | 410    | 508    | 543    | 431    |
| Unknown citizenship                       | 799               | 1,055  | 2,145  | 1,836  | 1,645  | 1,657  | 1,873  | 2,297  | 1,855  | 2,252  | 2,507  |

<sup>a</sup> Total includes doctorate recipients for whom sex was not reported.

<sup>b</sup> Includes Alaska Natives.

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

<sup>d</sup> Includes native Hawaiians/other Pacific islanders through 2000, but excludes them in 2001–2005.

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

<sup>f</sup> 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, 2005 Survey of Earned Doctorates.



APPENDIX TABLE B-2b. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1995-2005 - Total males

| Citizenship status by race/ethnicity      | Year of doctorate |        |        |        |        |        |        |        |        |        |        |
|---|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | 1995              | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
| Total all doctorates                      | 25,160            | 25,285 | 24,937 | 24,628 | 23,434 | 23,161 | 22,719 | 21,750 | 22,244 | 22,959 | 23,731 |
| U.S. citizens                             | 14,964            | 14,721 | 15,044 | 14,918 | 14,518 | 14,157 | 13,630 | 12,845 | 13,085 | 12,993 | 12,791 |
| Permanent residents                       | 2,907             | 2,483  | 1,835  | 1,644  | 1,380  | 1,135  | 996    | 871    | 813    | 752    | 782    |
| Temporary visa holders                    | 6,855             | 7,473  | 6,973  | 6,983  | 6,631  | 6,851  | 7,001  | 6,753  | 7,253  | 7,905  | 8,747  |
| Unknown citizenship                       | 434               | 608    | 1,085  | 1,083  | 905    | 1,018  | 1,092  | 1,281  | 1,093  | 1,309  | 1,411  |
| Total known race/ethnicity                | 24,307            | 24,274 | 23,014 | 22,728 | 22,075 | 21,632 | 21,208 | 20,061 | 20,504 | 21,004 | 21,880 |
| U.S. citizens                             | 14,758            | 14,498 | 14,437 | 14,374 | 14,226 | 13,828 | 13,343 | 12,556 | 12,671 | 12,617 | 12,557 |
| Permanent residents                       | 2,881             | 2,461  | 1,796  | 1,586  | 1,353  | 1,102  | 975    | 845    | 792    | 727    | 766    |
| Temporary visa holders                    | 6,642             | 7,241  | 6,716  | 6,691  | 6,447  | 6,648  | 6,772  | 6,502  | 6,968  | 7,555  | 8,491  |
| Unknown citizenship                       | 26                | 74     | 65     | 77     | 49     | 54     | 118    | 158    | 73     | 105    | 66     |
| American Indian <sup>a</sup>              | 80                | 102    | 79     | 104    | 96     | 76     | 77     | 71     | 56     | 61     | 59     |
| U.S. citizens                             | 80                | 101    | 79     | 104    | 96     | 76     | 66     | 66     | 52     | 56     | 56     |
| Permanent residents <sup>b</sup>          | 0                 | 0      | 0      | 0      | 0      | 0      | 2      | 2      | 1      | 2      | 1      |
| Temporary visa holders <sup>b</sup>       | 0                 | 1      | 0      | 0      | 0      | 0      | 8      | 3      | 3      | 3      | 2      |
| Unknown citizenship                       | 0                 | 0      | 0      | 0      | 0      | 0      | 1      | 0      | 0      | 0      | 0      |
| Asian <sup>c</sup>                        | 7,095             | 7,198  | 6,425  | 6,029  | 5,529  | 5,350  | 5,420  | 5,144  | 5,444  | 5,819  | 6,556  |
| U.S. citizens                             | 662               | 603    | 741    | 661    | 766    | 740    | 760    | 746    | 744    | 728    | 761    |
| Permanent residents                       | 2,197             | 1,787  | 1,143  | 979    | 711    | 501    | 421    | 375    | 332    | 276    | 312    |
| Temporary visa holders                    | 4,227             | 4,798  | 4,522  | 4,373  | 4,031  | 4,093  | 4,222  | 4,004  | 4,354  | 4,788  | 5,462  |
| Unknown citizenship                       | 9                 | 10     | 19     | 16     | 21     | 16     | 17     | 19     | 14     | 27     | 21     |
| Black/African-American                    | 877               | 929    | 857    | 819    | 909    | 881    | 865    | 853    | 837    | 973    | 907    |
| U.S. citizens                             | 487               | 531    | 528    | 524    | 609    | 561    | 591    | 612    | 597    | 645    | 593    |
| Permanent residents                       | 125               | 107    | 108    | 85     | 91     | 82     | 84     | 61     | 55     | 71     | 66     |
| Temporary visa holders                    | 261               | 287    | 212    | 203    | 204    | 233    | 185    | 176    | 177    | 240    | 246    |
| Unknown citizenship                       | 4                 | 4      | 9      | 7      | 5      | 5      | 5      | 4      | 8      | 17     | 2      |
| Hispanic <sup>d</sup>                     | 914               | 935    | 980    | 1,061  | 991    | 1,069  | 1,016  | 1,039  | 1,169  | 1,087  | 1,191  |
| U.S. citizens                             | 463               | 480    | 544    | 613    | 510    | 546    | 497    | 538    | 595    | 542    | 548    |
| Permanent residents                       | 79                | 87     | 81     | 72     | 69     | 63     | 71     | 61     | 71     | 54     | 58     |
| Temporary visa holders                    | 370               | 366    | 349    | 373    | 405    | 458    | 443    | 435    | 500    | 486    | 585    |
| Unknown citizenship                       | 2                 | 2      | 6      | 3      | 7      | 2      | 5      | 5      | 3      | 5      | 0      |
| White                                     | 15,306            | 15,062 | 14,657 | 14,682 | 14,500 | 14,198 | 13,625 | 12,768 | 12,758 | 12,822 | 12,929 |
| U.S. citizens                             | 13,036            | 12,744 | 12,530 | 12,443 | 12,202 | 11,854 | 11,268 | 10,446 | 10,489 | 10,448 | 10,413 |
| Permanent residents                       | 479               | 480    | 464    | 449    | 479    | 455    | 393    | 343    | 325    | 322    | 323    |
| Temporary visa holders                    | 1,780             | 1,781  | 1,632  | 1,739  | 1,803  | 1,858  | 1,885  | 1,849  | 1,897  | 1,997  | 2,153  |
| Unknown citizenship                       | 11                | 57     | 31     | 51     | 16     | 31     | 79     | 130    | 47     | 55     | 40     |
| Other/unknown race/ethnicity <sup>e</sup> | 888               | 1,059  | 1,939  | 1,933  | 1,409  | 1,587  | 1,716  | 1,875  | 1,980  | 2,197  | 2,089  |
| U.S. citizens                             | 236               | 262    | 622    | 573    | 335    | 380    | 448    | 437    | 608    | 574    | 420    |
| Permanent residents                       | 27                | 22     | 39     | 59     | 30     | 34     | 25     | 29     | 29     | 27     | 22     |
| Temporary visa holders                    | 217               | 240    | 258    | 295    | 188    | 209    | 258    | 286    | 322    | 391    | 299    |
| Unknown citizenship                       | 408               | 535    | 1,020  | 1,006  | 856    | 964    | 985    | 1,123  | 1,021  | 1,205  | 1,348  |

<sup>a</sup> Includes Alaska Natives.

<sup>b</sup> In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

<sup>c</sup> Includes native Hawaiians/other Pacific islanders through 2000, but excludes them in 2001–2005.

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

<sup>e</sup> 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, 2005 Survey of Earned Doctorates.

APPENDIX TABLE B-2c. Number of doctorate recipients, by sex, race/ethnicity, and citizenship, 1995-2005 - Total females

| Citizenship status by race/ethnicity      | Year of doctorate |        |        |        |        |        |        |        |        |        |        |
|---|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | 1995              | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
| Total all doctorates                      | 16,416            | 16,955 | 17,241 | 17,848 | 17,481 | 18,126 | 17,855 | 18,117 | 18,496 | 19,157 | 19,564 |
| U.S. citizens                             | 12,774            | 13,056 | 13,075 | 13,603 | 13,474 | 13,826 | 13,345 | 13,152 | 13,414 | 13,473 | 13,519 |
| Permanent residents                       | 1,409             | 1,282  | 1,096  | 1,002  | 930    | 813    | 829    | 781    | 817    | 786    | 818    |
| Temporary visa holders                    | 1,959             | 2,247  | 2,203  | 2,455  | 2,422  | 2,808  | 2,798  | 2,973  | 3,336  | 3,712  | 4,073  |
| Unknown citizenship                       | 274               | 370    | 867    | 788    | 655    | 679    | 883    | 1,211  | 929    | 1,186  | 1,154  |
| Total known race/ethnicity                | 16,029            | 16,426 | 15,883 | 16,639 | 16,618 | 17,171 | 16,753 | 16,701 | 17,182 | 17,715 | 18,171 |
| U.S. citizens                             | 12,686            | 12,946 | 12,635 | 13,237 | 13,307 | 13,602 | 13,157 | 12,955 | 13,120 | 13,227 | 13,357 |
| Permanent residents                       | 1,393             | 1,271  | 1,072  | 982    | 918    | 796    | 816    | 760    | 796    | 769    | 802    |
| Temporary visa holders                    | 1,917             | 2,176  | 2,125  | 2,350  | 2,354  | 2,720  | 2,701  | 2,869  | 3,171  | 3,575  | 3,960  |
| Unknown citizenship                       | 33                | 33     | 51     | 70     | 39     | 53     | 79     | 117    | 95     | 144    | 52     |
| American Indian <sup>a</sup>              | 68                | 86     | 88     | 86     | 118    | 93     | 86     | 83     | 86     | 74     | 83     |
| U.S. citizens                             | 68                | 84     | 88     | 85     | 118    | 93     | 82     | 80     | 82     | 73     | 83     |
| Permanent residents <sup>b</sup>          | 0                 | 1      | 0      | 0      | 0      | 0      | 0      | 1      | 2      | 0      | 0      |
| Temporary visa holders <sup>b</sup>       | 0                 | 1      | 0      | 0      | 0      | 0      | 4      | 2      | 2      | 1      | 0      |
| Unknown citizenship                       | 0                 | 0      | 0      | 1      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Asian <sup>c</sup>                        | 2,591             | 2,600  | 2,574  | 2,519  | 2,466  | 2,710  | 2,672  | 2,733  | 2,837  | 3,244  | 3,664  |
| U.S. citizens                             | 467               | 463    | 553    | 523    | 539    | 625    | 651    | 618    | 628    | 723    | 731    |
| Permanent residents                       | 970               | 821    | 671    | 557    | 481    | 408    | 348    | 371    | 339    | 332    | 376    |
| Temporary visa holders                    | 1,151             | 1,313  | 1,337  | 1,426  | 1,438  | 1,670  | 1,668  | 1,732  | 1,860  | 2,173  | 2,540  |
| Unknown citizenship                       | 3                 | 3      | 13     | 13     | 8      | 7      | 5      | 12     | 10     | 16     | 17     |
| Black/African-American                    | 930               | 896    | 904    | 1,091  | 1,143  | 1,215  | 1,141  | 1,175  | 1,258  | 1,409  | 1,271  |
| U.S. citizens                             | 806               | 774    | 808    | 961    | 1,021  | 1,070  | 1,020  | 1,053  | 1,111  | 1,236  | 1,095  |
| Permanent residents                       | 43                | 34     | 31     | 32     | 42     | 37     | 33     | 26     | 33     | 32     | 41     |
| Temporary visa holders                    | 75                | 80     | 64     | 93     | 77     | 101    | 79     | 79     | 88     | 117    | 134    |
| Unknown citizenship                       | 6                 | 8      | 1      | 5      | 3      | 7      | 9      | 17     | 26     | 24     | 1      |
| Hispanic <sup>d</sup>                     | 630               | 697    | 715    | 817    | 908    | 893    | 883    | 985    | 1,048  | 936    | 1,081  |
| U.S. citizens                             | 459               | 477    | 520    | 595    | 674    | 635    | 625    | 699    | 685    | 636    | 746    |
| Permanent residents                       | 63                | 69     | 54     | 49     | 71     | 65     | 72     | 70     | 78     | 67     | 74     |
| Temporary visa holders                    | 105               | 150    | 135    | 167    | 156    | 189    | 176    | 211    | 281    | 224    | 257    |
| Unknown citizenship                       | 3                 | 1      | 6      | 6      | 7      | 4      | 10     | 5      | 4      | 9      | 4      |
| White                                     | 11,771            | 12,094 | 11,584 | 12,099 | 11,919 | 12,190 | 11,765 | 11,510 | 11,696 | 11,785 | 11,775 |
| U.S. citizens                             | 10,852            | 11,102 | 10,649 | 11,050 | 10,896 | 11,116 | 10,601 | 10,310 | 10,383 | 10,314 | 10,432 |
| Permanent residents                       | 316               | 343    | 316    | 343    | 323    | 286    | 356    | 287    | 339    | 335    | 304    |
| Temporary visa holders                    | 582               | 628    | 588    | 661    | 679    | 753    | 761    | 830    | 919    | 1,045  | 1,013  |
| Unknown citizenship                       | 21                | 21     | 31     | 45     | 21     | 35     | 47     | 83     | 55     | 91     | 26     |
| Other/unknown race/ethnicity <sup>e</sup> | 426               | 582    | 1,376  | 1,236  | 927    | 1,025  | 1,308  | 1,631  | 1,571  | 1,709  | 1,690  |
| U.S. citizens                             | 122               | 156    | 457    | 389    | 226    | 287    | 366    | 392    | 525    | 491    | 432    |
| Permanent residents                       | 17                | 14     | 24     | 21     | 13     | 17     | 20     | 26     | 26     | 20     | 23     |
| Temporary visa holders                    | 46                | 75     | 79     | 108    | 72     | 95     | 110    | 119    | 186    | 152    | 129    |
| Unknown citizenship                       | 241               | 337    | 816    | 718    | 616    | 626    | 812    | 1,094  | 834    | 1,046  | 1,106  |

<sup>a</sup> Includes Alaska Natives.

<sup>b</sup> In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

<sup>c</sup> Includes native Hawaiians/other Pacific islanders through 2000, but excludes them in 2001–2005.

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

<sup>e</sup> 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, 2005 Survey of Earned Doctorates.

## Appendix C: Technical Notes

Appendix C includes the following three tables:

- C-1. Survey response rates, 1970-2005
- C-2. Profiles of respondents versus nonrespondents for critical item data, by source of response, 2005
- C-3. Item response rates, 1995-2005

### 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 the survey contractor 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 2005)
- 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.

### **Survey Eligibility**

The Survey of Earned Doctorates collects information on *research* doctorate recipients only. While typically a Ph.D., the research doctorate is a doctoral degree that (1) requires an original contribution of knowledge to the field (typically, though not always, in the form of a written dissertation) and (2) is not primarily intended for the practice of a profession. (See Appendix E for a full listing of eligible research doctorate degree types.) Doctoral programs are not static entities and changes in the focus of programs over time may make the designation as a research doctoral program more or less appropriate. That is, as doctoral programs evolve to meet the needs of students, the orientation of some may change from research to professional and vice versa. Survey staff review individual doctoral programs to ensure that designation as a research doctoral program and inclusion in the SED is still appropriate. During program review this round, survey staff identified several programs that shifted from research-oriented programs to professionally-oriented programs and graduates from these programs were not included in the survey<sup>1</sup>.

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<sup>1</sup> Among the programs that were excluded from the SED this round because they were found to have changed focus to a professional doctoral program were two programs that granted a large number of doctorates in the past. A particularly noteworthy fact about these programs is that they granted doctorates to a large number of blacks in the past (a total of 166 between both programs in 2004). Excluding these programs resulted in a decrease in the number of black research doctorate recipients in 2005 relative to previous years.

The population eligible for the 2005 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, 2005. The total universe consisted of 43,354 persons in more than 400 institutions that conferred research doctorate awards in 2005.

## **Data Collection**

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 survey 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). Survey staff have augmented the Mapping the World list of non-U.S. institutions of higher education with over three thousand additional institutions from the *Europa World of Learning*, published by Routledge - Taylor & Francis group.

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

## **Survey Response Rates**

Of the 43,354 new research doctorates granted in 2005, 92 percent of research doctorate 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; one percent of the 416 doctorate-granting institutions accounted for 13 percent of the total nonrespondents and the ten percent of institutions with the highest nonresponse accounted for 60 percent of the total nonrespondents.

APPENDIX TABLE C-1. Survey response rates, 1970-2005 <sup>a</sup>

| Year | Self-report rate | Year | Self-report rate |
|------|------------------|------|------------------|
| 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 | 94.2             |
| 1978 | 91.0             | 1996 | 92.9             |
| 1979 | 91.0             | 1997 | 91.6             |
| 1980 | 96.2             | 1998 | 91.9             |
| 1981 | 95.7             | 1999 | 91.9             |
| 1982 | 95.3             | 2000 | 92.4             |
| 1983 | 95.5             | 2001 | 92.7             |
| 1984 | 95.1             | 2002 | 91.3             |
| 1985 | 94.8             | 2003 | 91.5             |
| 1986 | 93.5             | 2004 | 91.2             |
| 1987 | 93.1             | 2005 | 92.1             |

<sup>a</sup> The rates for 1970–2004 reflect late responses. The rate for 2005 may increase slightly in the next year if additional questionnaires are received after survey closure.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 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 doctorate records whether complete or skeletal; thus the reported total number of doctorate recipients for 2005 (43,354) 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 eight of the

nine critical item variables. Nonrespondents appear to be slightly older than respondents. Among U.S. citizens nonrespondents are more likely to be non-white. Nonrespondents appear to be less likely to be U.S. citizens than respondents. Related to the observed citizenship status differences between respondents and nonrespondents, respondents appear more likely to have attended a U.S. baccalaureate institution and more likely to remain in the U.S. after graduation than nonrespondents. 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, 2005

| Critical item variable                                | Respondents<br>(percent self-reported) | Nonrespondents (percent<br>institution-provided) | Percent<br>difference |
|---|--|--|-----------------------|
| Year of birth *                                       |  |  |                       |
| Missing data  | 1.2                                    | 8.8  |                       |
| Before 1972 <sup>a</sup>                              | 49.7                                   | 51.9   | -2.2                  |
| 1972 and later  | 50.3                                   | 48.1   | 2.2                   |
| Sex   |  |  |                       |
| Missing data  | 0.0                                    | 0.2  |                       |
| Male  | 54.9                                   | 54.6   | 0.2                   |
| Female  | 45.1                                   | 45.4   | -0.2                  |
| Citizenship status *                                  |  |  |                       |
| Missing data  | 0.5                                    | 17.7   |                       |
| U.S. citizen  | 64.8                                   | 57.3   | 7.5                   |
| Permanent resident                                    | 3.9                                    | 3.5  | 0.5                   |
| Temporary visa holder                                 | 31.3                                   | 39.3   | -8.0                  |
| Country of citizenship (for non-U.S. citizens only) * |  |  |                       |
| Country reported                                      | 97.5                                   | 62.1   | 35.4                  |
| Country not reported                                  | 2.5                                    | 37.9   | -35.4                 |
| Race/ethnicity * (U.S. citizens only)                 |  |  |                       |
| Missing data  | 0.6                                    | 7.5  |                       |
| American Indian <sup>b</sup>                          | 0.5                                    | 0.4  | 0.2                   |
| Asian   | 5.7                                    | 4.7  | 1.0                   |
| Black   | 6.3                                    | 15.2   | -8.9                  |
| Hispanic <sup>c</sup>                                 | 4.9                                    | 8.4  | -3.6                  |
| White   | 80.0                                   | 68.1   | 11.9                  |
| Other <sup>d</sup>                                    | 2.5                                    | 3.2  | -0.6                  |
| Broad field of doctorate *                            |  |  |                       |
| Physical sciences <sup>e</sup>                        | 15.6                                   | 13.4   | 2.2                   |
| Engineering   | 14.8                                   | 16.1   | -1.3                  |
| Life sciences   | 21.7                                   | 19.1   | 2.5                   |
| Social sciences                                       | 15.6                                   | 20.7   | -5.1                  |
| Humanities  | 12.3                                   | 11.8   | 0.5                   |
| Education   | 14.2                                   | 13.7   | 0.4                   |
| Professional/other fields                             | 5.7                                    | 5.1  | 0.7                   |
| Bachelor's institution *                              |  |  |                       |
| Missing data  | 3.0                                    | 28.1   |                       |
| U.S.  | 67.1                                   | 61.8   | 5.3                   |
| Non-U.S.  | 32.9                                   | 38.2   | -5.3                  |
| Year of bachelor's degree *                           |  |  |                       |
| Missing data  | 5.3                                    | 34.6   |                       |
| Before 1995 <sup>f</sup>                              | 48.2                                   | 46.6   | 1.7                   |
| 1995-after  | 51.8                                   | 53.4   | -1.7                  |
| Postgraduation location *                             |  |  |                       |
| Missing data  | 0.9                                    | 54.3   |                       |
| U.S.  | 89.3                                   | 81.4   | 7.9                   |
| Non-U.S.  | 10.7                                   | 18.6   | -7.9                  |

\* 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.

<sup>a</sup> 1972 is the median year of birth of 2005 doctorate recipients. <sup>b</sup> Includes Alaska Natives.

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

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

<sup>e</sup> Includes computer science and mathematics. <sup>f</sup> 1995 is the median year of baccalaureate of 2005 doctorate recipients.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.



## Item Response Rates

Item nonresponse rates in 2005 for the main SED demographic variables ranged from 0.1 percent for sex to 7.4 percent for postgraduation location. No imputation was performed for missing data items.

| <u>Key variable</u>     | <u>Item response rate</u> |
|-------------------------|---------------------------|
| Sex                     | 99.9                      |
| Citizenship             | 94.0                      |
| Race/ethnicity          | 93.5                      |
| Country of citizenship  | 93.5                      |
| Postgraduation location | 92.6                      |

**TABLE C-3:** Table C-3 on the following pages shows the response rates for each item in the Survey of Earned Doctorates for 1995 through 2005. 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.

| Variable Name | Variable description                            | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|---------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AMERIND       | American Indian/Alaska Native race indicator    | 95.6  | 94.8  | 90.2  | 90.8  | 92.4  | 92.4  | 93.8  | 91.9  | 92.8  | 91.9  | 92.4  |
| ASIAN         | Asian race indicator                            | 95.6  | 94.8  | 90.2  | 90.8  | 92.4  | 92.4  | 93.8  | 91.9  | 92.8  | 91.9  | 92.4  |
| BAFIELD       | B.A. field                                      | 92.5  | 90.9  | 83.3  | 84.8  | 85.1  | 86.9  | 87.5  | 86.6  | 86.6  | 87.6  | 87.0  |
| BAINST        | B.A. institution                                | 97.4  | 96.5  | 89.6  | 91.2  | 92.5  | 91.2  | 93.0  | 91.9  | 92.5  | 91.9  | 93.1  |
| BAMONTH       | Month of B.A.                                   | 90.0  | 88.6  | 82.3  | 83.0  | 83.7  | 85.1  | 85.3  | 84.4  | 84.0  | 84.0  | 84.0  |
| BANONE        | No B.A./no M.A. indicator                       | 9.7   | 11.4  | 6.9   | 8.1   | 8.0   | 2.7   | 9.5   | 10.1  | 9.5   | 12.2  | 11.6  |
| BAPLACE       | Place of baccalaureate                          | 97.4  | 96.5  | 89.6  | 91.2  | 92.5  | 91.2  | 93.0  | 91.9  | 92.5  | 91.9  | 93.2  |
| BAYEAR        | Year of B.A.                                    | 97.1  | 96.4  | 88.7  | 90.7  | 92.3  | 90.5  | 92.5  | 91.3  | 92.0  | 89.5  | 90.5  |
| BIRTHMO       | Month of birth                                  | 97.5  | 96.7  | 92.7  | 92.9  | 95.0  | 95.2  | 94.5  | 93.1  | 93.9  | 92.4  | 93.1  |
| BIRTHPL       | Place of birth                                  | 96.8  | 95.8  | 93.8  | 93.8  | 94.3  | 94.3  | 93.7  | 92.4  | 93.5  | 92.5  | 93.4  |
| BIRTHYR       | Year of birth                                   | 97.5  | 96.8  | 92.9  | 92.8  | 95.1  | 95.3  | 94.6  | 93.3  | 94.3  | 92.7  | 93.5  |
| BLACK         | Black race indicator                            | 95.6  | 94.8  | 90.2  | 90.8  | 92.4  | 92.4  | 93.8  | 91.9  | 92.8  | 91.9  | 92.4  |
| CEPLACE       | Place of college entry                          | 92.2  | 90.6  | 82.6  | 90.4  | 90.6  | 89.9  | 92.0  | 92.3  | 93.7  | ---   | ---   |
| CEYEAR        | Year of college entry                           | 91.3  | 89.2  | 82.7  | 88.8  | 89.1  | 87.3  | 89.5  | 87.8  | 87.5  | 85.8  | 84.6  |
| CITIZ         | Type of citizenship                             | 97.9  | 97.3  | 94.7  | 95.3  | 95.8  | 95.7  | 95.0  | 93.6  | 95.0  | 94.1  | 94.0  |
| CNTRYCIT      | Country of citizenship                          | 97.9  | 97.1  | 94.3  | 95.0  | 95.5  | 95.5  | 94.7  | 93.2  | 94.6  | 93.8  | 93.5  |
| DEBTIND       | Debt level indicator                            | 92.3  | 91.3  | 89.3  | 89.7  | 90.6  | 91.1  | ---   | ---   | ---   | ---   | ---   |
| DEPENDS       | Number of dependents                            | 89.4  | 89.5  | 88.3  | 88.8  | 89.1  | 89.4  | ---   | ---   | ---   | ---   | ---   |
| DEPEND5       | Number of dependents - ages 5 or younger        | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 89.1  | 89.2  | 88.4  | 87.7  |
| DEPEND18      | Number of dependents - ages 6-18                | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 89.1  | 89.2  | 88.4  | 87.7  |
| DEPEND19      | Number of dependents - ages 19 and older        | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 89.1  | 89.2  | 88.4  | 87.7  |
| DOCCODE       | Type of doctorate                               | ---   | ---   | ---   | ---   | ---   | ---   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| EDFATHER      | Fathers education                               | 92.3  | 91.5  | 89.5  | 89.8  | 90.5  | 90.9  | 90.9  | 89.8  | 90.0  | 89.9  | 89.3  |
| EDMOTHER      | Mothers education                               | 92.2  | 91.7  | 89.8  | 90.0  | 90.8  | 91.1  | 91.1  | 90.0  | 90.2  | 90.0  | 89.4  |
| GDEBTLVL      | Graduate debt level                             | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 89.4  | 89.8  | 89.6  | 89.4  |
| GEYEAR        | Year of graduate entry                          | 87.4  | 85.7  | 77.4  | 81.4  | 84.8  | 83.6  | 84.3  | 83.3  | 82.0  | 88.3  | 90.1  |
| HANDICAP      | Handicapped status                              | 93.3  | 91.8  | 90.1  | 90.1  | 90.4  | 90.9  | 91.0  | 89.9  | 90.1  | 90.0  | 89.5  |
| HAWAIIAN      | Native Hawaiian/Pacific Islander race indicator | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 91.3  | 92.7  | 91.9  | 92.4  |
| HISPANIC      | Hispanic origin indicator                       | 97.1  | 96.4  | 93.1  | 93.7  | 95.1  | 94.8  | 92.2  | 91.4  | 92.0  | 91.3  | 92.1  |
| HISPORIG      | Hispanic origin specified                       | 96.4  | 95.6  | 92.3  | 92.6  | 94.1  | 93.7  | 91.0  | 90.3  | 90.1  | 89.8  | 90.4  |
| HSPLACE       | Place of high school                            | 93.5  | 92.2  | 90.3  | 90.9  | 91.4  | 91.9  | 91.0  | 90.2  | 90.5  | 89.7  | 90.3  |
| JRCOLL        | Junior college indicator                        | 92.4  | 90.6  | 91.5  | 91.9  | 91.8  | 92.3  | 92.1  | 90.9  | 91.0  | 90.0  | 89.7  |
| MAFIELD       | Masters field                                   | 83.6  | 84.6  | 75.4  | 78.1  | 78.3  | 73.8  | 80.5  | 80.2  | 80.1  | 83.9  | 82.7  |
| MAINST        | Masters institution                             | 86.3  | 87.3  | 79.1  | 80.7  | 80.6  | 76.0  | 82.5  | 82.3  | 82.0  | 85.4  | 85.4  |
| MAMONTH       | Month of masters                                | 79.8  | 81.0  | 73.4  | 75.3  | 75.8  | 71.3  | 77.5  | 77.6  | 77.5  | 80.0  | 79.5  |
| MARITAL       | Marital status                                  | 91.0  | 91.7  | 89.3  | 90.3  | 90.8  | 91.2  | 91.1  | 90.0  | 90.3  | 90.0  | 89.4  |
| MAYEAR        | Year of masters                                 | 84.7  | 85.6  | 77.8  | 80.4  | 79.6  | 75.0  | 81.3  | 81.3  | 81.2  | 83.1  | 82.6  |
| MEDDENT       | Earn(ing) professional medical or dental degree | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 89.7  |
| MSPREREQ      | Master's degree prerequisite for doctorate      | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | ---   | 88.3  |
| PDEMPLOY      | Postdoctoral employer type                      | 85.6  | 85.8  | 82.7  | 84.8  | 84.2  | 86.0  | 87.1  | 87.1  | 87.4  | 88.5  | 88.7  |
| PDLOC         | Post-graduation location                        | 94.2  | 92.7  | 83.7  | 89.6  | 92.1  | 92.3  | 92.5  | 91.3  | 92.8  | 91.7  | 92.6  |
| PDOCPLAN      | Post-graduation plans                           | 69.0  | 69.6  | 66.3  | 68.4  | 70.0  | 71.4  | 72.9  | 72.7  | 72.9  | 88.5  | 88.9  |
| PDOCSTAT      | Post-graduation status                          | 91.0  | 91.0  | 89.0  | 89.7  | 90.5  | 91.2  | 91.1  | 90.0  | 90.4  | 89.7  | 89.7  |
| PDSTDSUP      | Postdoctoral study support                      | 91.8  | 91.6  | 88.6  | 88.8  | 90.3  | 91.1  | 91.1  | 90.0  | 90.4  | 88.3  | 88.6  |
| PDUSFOR       | Post-graduation location: U.S. or foreign       | 100.0 | 100.0 | 100.0 | 89.6  | 92.1  | 92.3  | 92.5  | 91.3  | 92.8  | 91.7  | 92.6  |
| PDWK1ED       | Edited primary work activity                    | 81.1  | 84.9  | 83.0  | 84.0  | 83.9  | 85.6  | 85.3  | 85.0  | 85.4  | 87.9  | 87.9  |
| PDWK2ED       | Edited secondary work activity                  | 62.9  | 72.6  | 74.2  | 75.2  | 73.6  | 74.9  | 73.0  | 74.3  | 76.0  | 77.5  | 76.9  |
| PDWKPRIM      | Primary work activity                           | 81.1  | 84.9  | 83.0  | 84.0  | 83.9  | 85.6  | 85.3  | 85.0  | 85.4  | 87.9  | 87.9  |
| PDWKSEC       | Secondary work activity                         | 62.9  | 72.6  | 74.2  | 75.2  | 73.6  | 74.9  | 73.0  | 74.3  | 76.0  | 77.5  | 76.8  |
| 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                              | 92.4  | 92.2  | 89.2  | 90.2  | 91.0  | 91.5  | 91.5  | 90.5  | 90.9  | 90.7  | 90.3  |
| PHDENTRY      | First year entry PHDINST after B.A.             | 86.5  | 85.6  | 79.1  | 83.7  | 86.0  | 85.3  | 85.3  | 83.8  | 83.7  | 88.9  | 89.1  |
| 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 | 100.0 |
| PHDTYPE2      | Applied research doctorate type                 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

| Variable Name | Variable description                   | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003  | 2004  | 2005 |
|---------------|--|------|------|------|------|------|------|------|------|-------|-------|------|
| POSTDOC       | Intention to take postdoc position     | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---   | ---   | 88.5 |
| PROFDEG       | Type of professional doctorate         | 1.8  | 1.9  | 1.9  | 1.2  | 2.0  | 2.2  | 1.8  | 2.1  | 1.9   | 1.3   | 1.2  |
| PROFYEAR      | Year of professional doctorate         | 1.8  | 1.9  | 1.8  | 2.8  | 2.8  | 2.2  | 1.8  | 2.1  | 1.9   | 1.3   | 1.2  |
| QUESTYR       | Year questionnaire filled out          | 94.1 | 92.9 | 91.5 | 91.9 | 91.9 | 92.3 | 92.3 | 91.2 | 91.5  | 83.1  | 82.2 |
| RACE          | Edited race/ethnic code                | 97.1 | 96.4 | 93.1 | 93.7 | 95.1 | 94.9 | 94.2 | 93.0 | 93.6  | 93.3  | 93.5 |
| RACEOTH       | Other/multiple race indicator          | 95.6 | 94.8 | 90.2 | 90.8 | 92.4 | 92.0 | ---  | ---  | ---   | ---   | ---  |
| REGTTD        | Registered time to degree              | 88.8 | 87.1 | 77.1 | 81.0 | 84.8 | 83.3 | 85.4 | 84.9 | 84.3  | 70.1  | 83.2 |
| SEX           | Sex of student                         | 99.6 | 99.5 | 99.2 | 99.6 | 99.6 | 99.8 | 99.8 | 99.8 | 100.0 | 100.0 | 99.9 |
| SRCE1ED       | Edited primary source of support       | 74.9 | 88.0 | 87.9 | 88.6 | 89.9 | 90.2 | 90.2 | 88.7 | 87.4  | 89.2  | 88.9 |
| SRCEPRIM      | Primary source support                 | 74.9 | 88.0 | 87.9 | 88.7 | 89.9 | 90.2 | 90.2 | 88.7 | 88.9  | 89.2  | 88.9 |
| TOTTTD        | Total time-to-degree                   | 96.0 | 94.9 | 86.5 | 87.9 | 91.0 | 89.4 | 91.1 | 89.7 | 90.3  | 87.9  | 88.8 |
| TTDGETOT      | Graduate school time-to-degree         | 87.2 | 85.5 | 76.6 | 80.4 | 84.3 | 83.0 | 83.6 | 82.6 | 81.2  | 87.0  | 89.2 |
| TUITREMS      | Tuition remission - full or partial    | ---  | ---  | ---  | ---  | ---  | ---  | ---  | 87.3 | 88.3  | 87.0  | 88.2 |
| UDEBTLVL      | Undergraduate debt level               | ---  | ---  | ---  | ---  | ---  | ---  | ---  | 89.4 | 89.9  | 89.7  | 89.4 |
| WHITE         | White race indicator                   | 95.6 | 94.8 | 90.2 | 90.8 | 92.4 | 92.4 | 93.8 | 91.9 | 92.8  | 91.9  | 92.4 |
| YRSCOURS      | Years of coursework                    | ---  | ---  | ---  | ---  | ---  | ---  | ---  | 90.0 | 90.2  | 88.6  | 88.0 |
| YRSDISST      | Years preparing dissertation           | ---  | ---  | ---  | ---  | ---  | ---  | ---  | 90.2 | 90.4  | 88.8  | 88.1 |
| YRSGRAD       | Years from graduate entry to doctorate | ---  | ---  | ---  | ---  | ---  | ---  | ---  | 89.8 | 89.7  | ---   | ---  |

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. Similarly, variables MEDDENT, MSPREREQ, and POSTDOC appeared for the first time on the 2004 survey form and response rates for these variables are first reported in 2005.

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, 2005 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 31. 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 codes   |
|---|---|
| Physical sciences*                        | GE 400 and LE 599   |
| Physics & astronomy                       | (GE 500 and LE 506) or (GE 560 and LE 579)                        |
| Chemistry                                 | GE 520 and LE 539   |
| Earth, atmospheric and marine sciences    | (GE 510 and LE 519) or (GE 540 and LE 559) or (GE 580 and LE 599) |
| Mathematics                               | GE 420 and LE 499   |
| Computer science                          | GE 400 and LE 419   |
| Engineering*                              | GE 300 and LE 399   |
| Aerospace/Aeronautical engineering        | 300   |
| Chemical and related engineering          | 312, 366, 369   |
| Civil and related engineering             | 315,336   |
| Electrical and related engineering        | 318, 321, 324   |
| Industrial engineering                    | 339   |
| Mechanical and related engineering        | 327, 345  |
| Materials/Metallurgical engineering       | 309, 342, 348   |
| Other engineering                         | All fields GE 300 and LE 399 not listed above                     |
| Life sciences*                            | GE 000 and LE 299   |
| Biological sciences                       | GE 100 and LE 199   |
| Health sciences                           | GE 200 and LE 299   |
| Agricultural sciences/natural resources   | GE 000 and LE 099   |
| Social sciences*                          | GE 600 and LE 699   |
| Psychology                                | GE 600 and LE 649   |
| Anthropology                              | 650   |
| Economics                                 | GE 666 and LE 668   |
| Political science/international relations | GE 674 and LE 679   |
| Sociology                                 | 686   |
| Other social sciences                     | All fields GE 600 and LE 699 not listed above                     |
| Humanities*                               | GE 700 and LE 799   |
| History                                   | GE 700 and LE 719   |
| American literature                       | 732   |
| English language & literature             | 725,726,733,734   |
| Foreign language & literature             | GE 740 and LE 769   |
| Other humanities                          | All fields GE 700 and LE 799 not listed above                     |
| Education*                                | GE 800 and LE 899   |
| Education administration                  | 805, 807  |
| Education research                        | 800 or (GE 810 and LE 845)  |
| Teacher education                         | GE 850 and LE 858   |
| Teaching fields                           | GE 860 and LE 889   |
| Other education                           | All fields GE 800 and LE 899 not listed above                     |
| Other fields*                             | (GE 900 and LE 999) or missing field                              |
| Business & management                     | GE 900 and LE 939   |
| Communications                            | GE 940 and LE 959   |
| Fields not elsewhere classified           | GE 960 and LE 989   |
| Fields not listed above                   | 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 Federal Information Processing Standards (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 and 3 indicate that the respondent was still seeking to determine postdoctoral placement; codes 4 and 5 are considered 'other' codes and fall outside of the definite versus seeking structure.

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") 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 1997-2003 records if three out of four variables – BIRTHPL, HSPLACE, CEPLACE, PDLOC – were non-U.S. locations. Due to changes in the survey form beginning in 2004, CEPLACE was no longer available for respondents who used forms from 2004 and later. For those doctorates, BAPLACE was used instead of CEPLACE for assigning the citizenship status. 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**

The 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 on the questionnaire). The resulting variables identify seven ranges of debt for each referent (undergraduate or graduate). To estimate overall debt, the midpoint of the chosen range for undergraduate and for graduate debt was selected and summed to yield a total debt amount. Where mean debt levels are presented in this report (i.e., tables 21 and 22), the individual values for debt are assigned as the midpoint of the chosen range for graduate and undergraduate debt. Doctorate recipients who chose the lowest debt category (No debt) were assigned a value of \$0 for the computation of mean debt levels. Doctorate recipients who chose the uppermost category (\$50,001 and up) were assigned a value of \$55,000 for the computation of mean debt levels. All valid responses, including 'No debt' were included in the computation of all average debt figures in this report. See item A-7 in Appendix D for a complete listing of the ranges on which the midpoint figures were based.

## **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 2005). The report as well as the *Summary Reports* for 1997-2004 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 2005 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 2004-2005**

*Please print your name in full:*

---

|                   |                    |                  |                           |
|-------------------|--------------------|------------------|---------------------------|
| <b>First Name</b> | <b>Middle Name</b> | <b>Last Name</b> | <b>Suffix (e.g., Jr.)</b> |
|-------------------|--------------------|------------------|---------------------------|

---

**Cross reference: Birth name or former name legally changed**

---

|                                     |                       |
|-------------------------------------|-----------------------|
| <b>Name of Doctoral Institution</b> | <b>City or Branch</b> |
|-------------------------------------|-----------------------|

---

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

---

## *Survey of Earned Doctorates*

*July 1, 2004, to June 30, 2005*

*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.

## 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

| <u>Undergraduate</u>                           | <u>Graduate</u>                                |
|--|--|
| 0 <input type="checkbox"/> None                | 0 <input type="checkbox"/> None                |
| 1 <input type="checkbox"/> \$10,000 or less    | 1 <input type="checkbox"/> \$10,000 or less    |
| 2 <input type="checkbox"/> \$10,001 - \$20,000 | 2 <input type="checkbox"/> \$10,001 - \$20,000 |
| 3 <input type="checkbox"/> \$20,001 - \$30,000 | 3 <input type="checkbox"/> \$20,001 - \$30,000 |
| 4 <input type="checkbox"/> \$30,001 - \$40,000 | 4 <input type="checkbox"/> \$30,001 - \$40,000 |
| 5 <input type="checkbox"/> \$40,001 - \$50,000 | 5 <input type="checkbox"/> \$40,001 - \$50,000 |
| 6 <input type="checkbox"/> \$50,001 or more    | 6 <input type="checkbox"/> \$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 first bachelor's degree.**

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

**A9. Excluding those above, have you attained any additional 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 any program or capacity, in any 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 → **GO TO B4**
- 1  Have signed contract or made definite commitment for other work or study → **GO TO B4**
- 2  Negotiating with one or more specific organizations → **SKIP TO C1**
- 3  Seeking position but have no specific prospects → **SKIP TO C1**
- 4  Do not plan to work or study
- 5  Other - Specify

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

Mark (X) one

### FURTHER TRAINING OR STUDY

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

### EMPLOYMENT

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

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

Mark (X) one

- 0  U.S. Government
- 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 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| Teaching                             | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| Management or administration         | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> |
| Professional services to individuals | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> |
| Other - Specify                      | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> |

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 | <input type="text"/> |
| 6 to 18 years             | <input type="text"/> |
| 19 years or older         | <input type="text"/> |

**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 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| High/secondary school graduate                               | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| Some college   | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> |
| Bachelor's degree  | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> |
| Master's degree<br>(e.g., MA, MS, MBA, MSW, etc.)            | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Professional degree<br>(e.g., JD, LLB, D.Min, MD, DDS, etc.) | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| Doctoral degree  | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> |
| Not applicable   | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> |

**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  **SKIP TO C9**  
1  Naturalized

**NON-U.S. CITIZEN**

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

**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@norcmil.uchicago.edu](mailto:4800-sed@norcmil.uchicago.edu) or phone at 1-800-248-8649.





**To the Doctorate Recipient:**

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

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

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

Best wishes,

Dr. Lynda 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:     |      |
| PROCESSING         |      |                  |      |                |      |
| <b>Receipt</b>     |      | <b>Editing</b>   |      | <b>CADE</b>    |      |
| Initials           | Date | Initials         | Date | Initials       | Date |
| <b>Ver. Adjust</b> |      | <b>Retrieval</b> |      | <b>Updates</b> |      |
| Initials           | Date | Initials         | Date | Initials       | Date |

## 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's Specialties List. Appendix Tables A-4, A-5, and A-6 show data by seven broad fields only. Appendix Tables A-3 and A-8 include the additional field groupings indicated below.

### SCIENCES

#### Physical Sciences (400-599)

Physics and Astronomy (500-506, 560-579)\*\*  
 Astronomy (500-506)\*  
 Atmospheric Sciences and Meteorology  
 (510-519)\*  
 Chemistry (520-539)  
 Earth, Atmospheric, and Marine Sciences  
 (510-519, 540-559, 580-599)\*\*  
 Geological and Earth Sciences (540-559)\*  
 Physics (560-579)\*  
 Mathematics (420-499)  
 Computer Sciences (400-419)

#### Engineering (300-399)

Aerospace/Aeronautical engineering (300)\*  
 Chemical and related engineering (312, 366, 369)\*  
 Civil and related engineering (315,336)\*  
 Electrical and related engineering (318, 321, 324)\*  
 Industrial engineering (339)\*  
 Mechanical and related engineering (327, 345)\*  
 Materials/Metallurgical engineering (309, 342, 348)\*  
 Other engineering  
 (303, 306, 330, 333, 351-363, 372-399)\*

#### 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 (674-679)  
 Other Social Sciences  
 (652-662, 670, 672, 682)

### 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 -8\*\*

#### Education (800-899)

Research and Administration (800-845)\*  
 Teacher Education (850-858)\*  
 Teaching Fields (860-889)\*  
 Other Education (898,899)\*

#### Other Fields (900-999)

Business and Management (900-939)  
 Communications (940-959)\*  
 Fields not elsewhere classified (960-989)  
 Fields not listed above (999)\*

*NOTE: Doctorate recipients indicate their fields of specialty. The 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-8 only

### Types of Research Doctoral Degrees

The vast majority of research doctoral degrees are doctors of philosophy, Ph.D.s; of the 43,354 new research doctorates granted in 2005 over 90 percent were Ph.D.s. The next most frequently occurring type of research doctorate was the doctor of education, Ed.D., which accounted for seven percent. Doctors of musical arts accounted for one percent of the 2005 doctorate cohort.

No other type of doctorate accounted for as much as one half of one percent of the new research doctorates in 2005. (See table E-1.)

APPENDIX TABLE E-1. Research degrees included in the Survey of Earned Doctorates, 2005 <sup>a</sup>

| Research degree         | Degree title  | Count  | Percent |
|-------------------------|---|--------|---------|
| All research doctorates |   | 43,354 | 100.0   |
| PhD                     | Doctor of Philosophy                                | 39,129 | 90.3    |
| EdD                     | Doctor of Education                                 | 3,033  | 7.0     |
| DMA                     | Doctor of Musical Arts                              | 612    | 1.4     |
| DSc/ScD                 | Doctor of Science                                   | 116    | 0.3     |
| DPH                     | Doctor of Public Health                             | 97     | 0.2     |
| DBA                     | Doctor of Business Administration                   | 86     | 0.2     |
| DNSC                    | Doctor of Nursing Science                           | 65     | 0.1     |
| DA                      | Doctor of Arts                                      | 55     | 0.1     |
| DM                      | Doctor of Music                                     | 53     | 0.1     |
| Deng/DESc/DES           | Doctor of Engineering/Doctor of Engineering Science | 36     | 0.1     |
| JSD/SJD                 | Doctor of Juridical Science                         | 21     | < 0.1   |
| DPA                     | Doctor of Public Administration                     | 16     | < 0.1   |
|                         | All other research doctorates                       | 35     | 0.1     |

<sup>a</sup> Only research doctorate types with ten or more doctorate recipients in 2005 are included in this table.

SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2005 Survey of Earned Doctorates.

The Survey of Earned Doctorates collects information on research doctorate recipients only. Research doctoral degrees are distinguished from professional doctoral degrees in that research doctoral degrees are oriented toward preparing students to make original contributions to knowledge in a field and typically entail writing a dissertation. The Survey of Earned Doctorates recognizes 24 distinct types of research doctoral degrees (listed below).

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



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