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ABSTRACT

A statistical and narrative summary of the results of the 1984-1985 Survey of Earned Doctorates is presented. Basic information, such as sex, field of study, institution, and year of Ph.D., is presented for all of the 31,201 doctorate recipients, while complete questionnaire data are included for 29,517 Ph.D. recipients. Research and applied-research doctorates in all fields are covered, excluding degrees such as the M.D., D.D.S, O.D., D.V.M., and J.D. Tables provide the following information for 1985: number of doctorate recipients by sex and subfield; number of doctorate recipients by citizenship, racial/ethnic group, and subfield; statistical profile of doctorate recipients by field of doctorate; sources of support in graduate school of doctorate recipients by sex and summary field; state of doctoral institution of doctorate recipients by sex and summary field; and statistical profile of doctorate recipients by racial/ethnic group and citizenship status. Information is also provided on the number of doctorate recipients by subfield, 1975-1985. Appended are foreign country groupings, the questionnaire, and specialties list. (SW)

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## HIGHLIGHTS

- The *total number of research doctorates* earned in 1985 was 31,201, which continues a nearly flat trend in the number of doctorates awarded by U.S. universities since the late 1970s. This number--down from the 1973 peak of 33,755--has not fluctuated by more than one percent since 1978.
- While the total number of doctorates has been virtually level, the *composition of the doctoral cohort* has been changing. The pattern of degree attainment has shifted by sex, by field, and by citizenship. In the last decade, women increased their proportion of new Ph.D.s from 23.3 percent to 34.3 percent. Significant field changes emerged: the number of recipients in life sciences grew by 14.4 percent, whereas the number in humanities declined by 29.8 percent. Finally, U.S. citizens diminished as a source of the new doctorate cohort, while temporary visa-holders increased, especially in engineering.
- Also changing is the country of citizenship of *non-U.S. recipients*. The most rapidly growing group of non-U.S. citizens is from east Asia, particularly Taiwan. The majority of this group earned degrees in physical sciences and engineering, the two fields with the largest component of foreign nationals.
- There have been changes in the last 10 years in the U.S. *employment sectors* to which new Ph.D.s make definite commitments. Losing ground has been the academic sector, which had been the employer for 60.4 percent of recipients with definite plans in 1976 but which hired only 48.3 percent in 1985. Industry gained employment commitments: in 1976 it attracted 11.7 percent of new recipients, and in 1985 it recruited 20.3 percent.
- Among the *U.S. citizen cohort*, a good deal of diversity exists between the sexes and among the races in terms of field selection, median times-to-degree, sources of graduate school support, postgraduation employment commitments, and employment sector.
- In 1985, the lowest proportion of *U.S. minorities* was found in the physical sciences (5.9 percent), and the highest was in education (13.5 percent). Asians selected engineering and the natural sciences over other fields while Hispanics, Blacks, and most women's cohorts chose education.
- In *median time-to-degree*, the gaps diminished between U.S. men and women and between Whites and minorities when data were disaggregated by field. In some cases, the gap in time-lapse--which has increased for all groups over the last decade--was reversed when field of Ph.D. was held constant.
- Overall, women and Blacks were much more likely to have relied on personal *sources of graduate support* than the other candidates; however, this difference weakens when disaggregated by field. In most fields, Asians received more university-related support than did other groups, and Blacks received less. Source of support appeared to affect time-lapse to degree.
- The greatest proportion of U.S. doctorates with *definite postgraduation plans* received their degrees in professional fields--83.1 percent. The largest proportion of graduates without definite plans were those from humanities fields--35.3 percent. Larger proportions of minority doctorates than Whites did not have definite plans.
- As an employer of new American Ph.D.s, academe declined while industry increased. The reduction of academic placements was most apparent in the *sectoral commitments* of Black men and most cohorts of women. With the exception of Hispanic women, each group increased its proportion of new Ph.D.s entering industry, especially Asian men and women.

# Summary Report 1985

## Doctorate Recipients From United States Universities

The Survey of Earned Doctorates is conducted by the
National Research Council for
the National Science Foundation,
the U.S. Department of Education,
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Susan L. Coyle
*Project Manager*

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NOTICE: The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The survey project is part of the program of the Office of Scientific and Engineering Personnel.

This report has been reviewed by a group of persons other than the author according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The National Research Council was established by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and of advising the federal government. The Council operates in accordance with general policies determined by the Academy under the authority of its congressional charter of 1863, which establishes the Academy as a private, nonprofit, self-governing membership corporation. The Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in the conduct of their services to the government, the public, and the scientific and engineering communities. It is administered jointly by both Academies and the Institute of Medicine. The National Academy of Engineering and the Institute of Medicine were established in 1964 and 1970, respectively, under the charter of the National Academy of Sciences.

This report is based on research conducted by the Office of Scientific and Engineering Personnel (OSEP) of the National Research Council, with the support of the National Science Foundation, the U.S. Department of Education, the National Institutes of Health, and the National Endowment for the Humanities under NSF Contract No. SRS-8517008. Opinions, findings, conclusions, or recommendations expressed in this publication are those of OSEP and do not necessarily reflect the views of the sponsoring agencies.

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# FOREWORD

This report presents a brief summary of the results of the 1984-1985 Survey of Earned Doctorates, which has been conducted each year since 1958 by the National Research Council's Office of Scientific and Engineering Personnel (OSEP) and its predecessor, the Commission on Human Resources. Questionnaire forms, distributed with the cooperation of the graduate deans of U.S. universities, are filled in by graduates as they complete all requirements for their doctoral degrees. The doctorates reported here were earned during the period July 1, 1984, through June 30, 1985, and include research and applied-research doctorates in all fields. Professional degrees such as the M.D., D.D.S., O.D., D.V.M., and J.D. are not covered by this survey. A full list of degrees included can be found on the inside back cover; for convenience throughout this report, "Ph.D." is used to represent any of the doctorate degrees covered by the survey.

Responses were received from 29,517, or 95 percent, of the 31,201 persons who earned the doctorate in 1985. When individuals did not complete the questionnaire, abbreviated records were compiled using information from the universities' commencement bulletins. As a result, basic information--such as sex, field, institution, and year of Ph.D.--is available for all of the 31,201 doctorate recipients.

This *Summary Report* is the nineteenth in an annual series of reports that began in 1967. Trend data from earlier periods can be found in the book *A Century of Doctorates: Data Analyses of Growth and Change* (National Academy of Sciences, 1978). All survey responses become part of the Doctorate Records File (DRF), a virtually complete data bank on doctorate recipients from 1920 to 1985. More than five-sixths of the 818,669 records now in the DRF have come from results of the 1958 to 1985 surveys. For doctorates granted during the 1920 to 1957 period, information was compiled from commencement bulletins, registrars' records, and other published material.

The conduct of the Survey of Earned Doctorates, the maintenance of the resulting data file, and the publication of this report are funded jointly by the National Science Foundation, the National Institutes of Health, the U.S. Department of Education, and the National Endowment for the Humanities. OSEP thanks these agencies for their support. The interest, aid, and counsel of Mary Golladay (NSF), the project officer for the agencies, are appreciated. In addition, Felix Lindsay of the National Science Foundation, George Bowden of the National Institutes of Health, Jeffrey Thomas of the National Endowment for the Humanities, and Charles Miller of the U.S. Department of Education have provided constructive advice on the design and analysis of the survey, a contribution that increases its relevance to national policy issues. We also express our thanks to the graduate deans in the doctorate-granting institutions for their continuing interest in and assistance to this project.

The Survey of Earned Doctorates is conducted under the administrative supervision of Susan Coyle. Delores Thurgood was responsible for the development of the summary statistics. Special appreciation also goes to Eileen Milner, who supervised the coding and editing of the data; to George Boyce, manager of OSEP's Data Processing Section; to Joseph Finan and Elise Brand, who were responsible for the computer programming and processing; to Joseph Quigley for manuscript production; and to Yupin Bae for the

generation of most graphics. Linda Dix, OSEP's reports officer, edited both the draft and final manuscripts.

OSEP is concerned with those activities of the National Research Council that contribute to the more effective development and utilization of the nation's scholars and research personnel. Its programs seek to strengthen higher education and to develop better understanding of the education process. It is hoped that reporting of the present data to education institutions, government agencies, and professional societies will facilitate planning in higher education. Suggestions for improvement of the content or format of the report, other comments, and questions are welcome.

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# INTRODUCTION

In 1985, 31,201 doctorate recipients graduated from 330 universities in the United States. A profile of these recipients--their demographic composition, degree-earning processes, and postgraduation plans--is drawn in this report, and comparisons are made to earlier cohorts to illustrate changing patterns in participation and outcomes at the doctoral level. These patterns are also examined by broad field, so that shifts within specialty areas can be noted as well.

This year's special section highlights data on American women and minority doctorate recipients. Because averages often mask the multidimensional nature of a class of doctorates, each subgroup is discussed separately so that the whole can be seen in light of each part's contributions. The contours of each subgroup are followed over the period 1975-1985, again to illustrate changing patterns of participation.

The special sections of other recent reports focused on types of U.S. baccalaureate sources of Ph.D.s, their output and their "productivity" (1984), employment plans and citizenship characteristics of recipients entering the U.S. labor force (1983), and trends in new recipients' postdoctoral study and employment plans (1982).

## TRENDS IN THE NUMBER OF DOCTORATES BY FIELD

In the recent past, the number of doctorate recipients has fluctuated only slightly, down from a high in 1973 of 33,755 Ph.D.s to a near-level pattern of about 31,400 recipients each year over the last decade. The 1985 class of 31,201 recipients continues this even trend. Table A lists the number of recipients from 1960 to 1985. Figure 1 (page 2) shows a quick rise in the first half of this period, followed by a small decline and then a steady plateau in the second half. The plateau hides at least three decade-long changes in the composition of the doctoral cohort: gender make-up, field variability, and citizenship status.

TABLE A Doctorates Awarded by U.S. Universities, 1960-1985

| Year | Number | Year | Number | Year | Number |
|---|---|---|---|---|---|
| 1960 | 9,733 | 1969 | 25,743 | 1977 | 31,716 |
| 1961 | 10,413 | 1970 | 29,498 | 1978 | 30,875 |
| 1962 | 11,500 | 1971 | 31,867 | 1979 | 31,237 |
| 1963 | 12,728 | 1972 | 33,042 | 1980 | 31,017 |
| 1964 | 14,325 | 1973 | 33,755 | 1981 | 31,353 |
| 1965 | 16,340 | 1974 | 33,047 | 1982 | 31,097 |
| 1966 | 17,949 | 1975 | 32,951 | 1983 | 31,216 |
| 1967 | 20,403 | 1976 | 32,946 | 1984 | 31,277 |
| 1968 | 22,936 | | | 1985 | 31,201 |

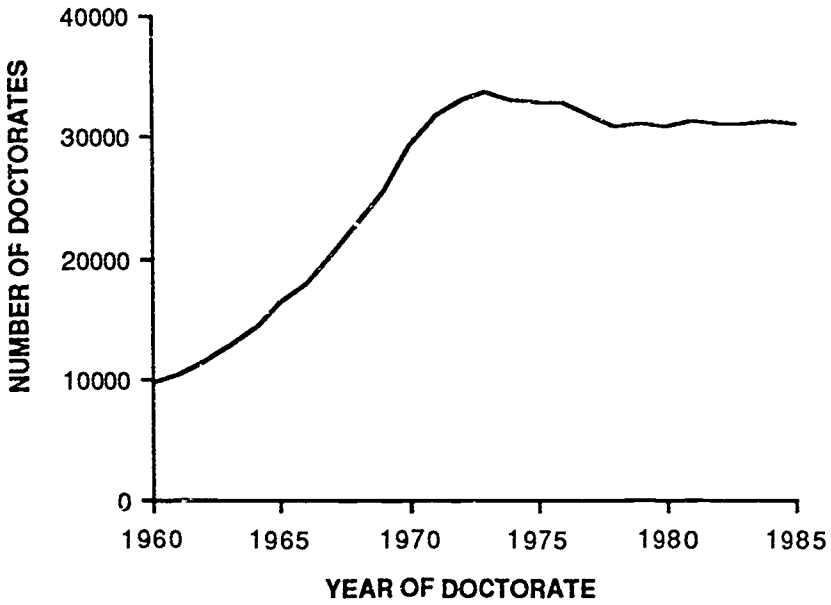


Figure 1 Doctorates awarded by U.S. universities, 1960-1985

## Men and Women Doctorate Recipients

While the number of doctorate recipients remained roughly the same over the last 10 years, the numbers of men and women earning the degree changed substantially (see Table B, page 3). In 1976, 25,262 of the recipients were men; in 1985, that number declined to 20,502--a decrease of 18.8 percent. Conversely, women doctorate recipients numbered 7,684 in 1976 and grew in number to 10,699 in 1985, an increase of 39.2 percent. During these 10 years, the proportion of men making up the doctoral cohort dropped from 76.7 percent to 65.7 percent, while the proportion of women rose from 23.3 percent to 34.3 percent.

## Field Selections

Field changes were also rather striking over the past decade. The steady plateau of degrees camouflaged the shifting distribution among broad fields. The field with the greatest growth, both in number and proportion, was the life sciences, which went from 5,026 Ph.D. degrees earned in 1976 to 5,748 in 1985, an increase of 14.4 percent (see Figure 2, page 4). This field experienced a small decline in the number of male recipients--120, a proportional decrease of 3 percent--counter-weighted by a large increase in women Ph.D.s--842, or 83.1 percent. Other fields that experienced growth were engineering and professional fields: both of these fields declined at mid-decade but demonstrated net growths of 11.7 percent and 8.5 percent, respectively, over the 10-year period. Like life sciences, professional fields saw a decline in the number of male degree earners--113, or 8.2 percent--that was offset by the increase of female Ph.D.s--259, or 77.1 percent.

TABLE B Doctorates Awarded by U.S. Universities, by Broad Field and Sex, 1976-1985

| Field | Year of Doctorate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Total All Fields | | | | | | | | | | |
| Men | 25262 | 23858 | 22253 | 22300 | 21610 | 21461 | 21006 | 20718 | 20599 | 20502 |
| Women | 7684 | 7358 | 8322 | 8937 | 9407 | 9892 | 10091 | 10498 | 10678 | 10699 |
| Physical Sciences* | | | | | | | | | | |
| Men | 4139 | 3949 | 3754 | 3803 | 3609 | 3667 | 3715 | 3809 | 3795 | 3817 |
| Women | 420 | 430 | 439 | 496 | 502 | 503 | 576 | 617 | 657 | 714 |
| Engineering | | | | | | | | | | |
| Men | 2780 | 2569 | 2370 | 2428 | 2389 | 2429 | 2522 | 2657 | 2762 | 2967 |
| Women | 54 | 74 | 53 | 62 | 90 | 99 | 124 | 124 | 151 | 198 |
| Life Sciences | | | | | | | | | | |
| Men | 4013 | 3892 | 3881 | 3952 | 4047 | 4076 | 4071 | 3827 | 3957 | 3893 |
| Women | 1013 | 1028 | 1159 | 1271 | 1414 | 1535 | 1635 | 1718 | 1790 | 1855 |
| Social Sciences | | | | | | | | | | |
| Men | 4580 | 4348 | 4178 | 3969 | 3811 | 3945 | 3679 | 3676 | 3490 | 3368 |
| Women | 1634 | 1725 | 1861 | 1992 | 2045 | 2197 | 2157 | 2382 | 2413 | 2352 |
| Humanities | | | | | | | | | | |
| Men | 3208 | 2903 | 2635 | 2547 | 2335 | 2200 | 2049 | 1965 | 1942 | 1939 |
| Women | 1673 | 1659 | 1596 | 1592 | 1532 | 1548 | 1509 | 1531 | 1590 | 1489 |
| Education | | | | | | | | | | |
| Men | 5185 | 4870 | 4339 | 4277 | 4204 | 3957 | 3712 | 3552 | 3330 | 3237 |
| Women | 2540 | 2585 | 2855 | 3108 | 3383 | 3540 | 3540 | 3611 | 3463 | 3480 |
| Professional Fields | | | | | | | | | | |
| Men | 1374 | 1511 | 1389 | 1309 | 1201 | 1160 | 1238 | 1219 | 1313 | 1261 |
| Women | 336 | 349 | 352 | 408 | 433 | 462 | 546 | 506 | 604 | 595 |

*Includes mathematics and computer sciences.

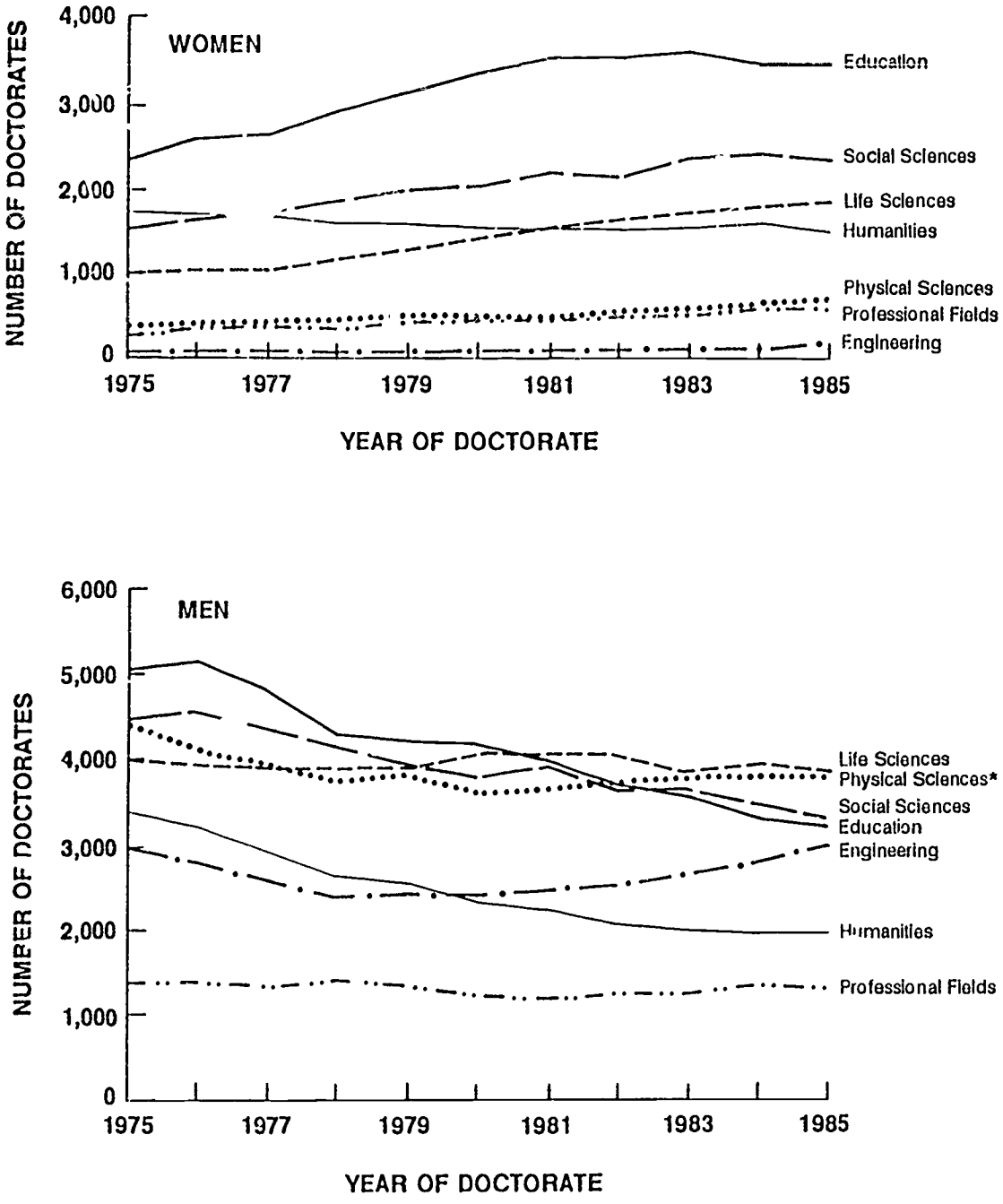


Figure 2 Doctorates awarded by U.S. universities, by broad field and sex, 1975-1985

Engineering was the only field in which both men and women increased their numbers from 1976 to 1985. The number of men increased by 187, and the number of women increased by 144. Although still a small fraction of the Ph.D.s (6.3 percent), women more than tripled their proportion of engineering recipients in the last 10 years.

The greatest decline in doctorates during this period was in the field of humanities, which went from 4,881 doctorates in 1976 to 3,428 in 1985, a loss of 29.8 percent. The number of male humanities doctorates was down from 3,208 to 1,939 recipients--a loss of 39.6 percent--and the number of females was down 11 percent, from 1,673 to 1,489 recipients. The numbers of education doctorates and social scientists were also down--by 13.1 percent and 7.9 percent, respectively. Still, education remained the field with the greatest number of doctorates: despite a steady ebb of male Ph.Ds--from 5,185 in 1976 to 3,237 in 1985, a 37.6 percent decrease--the number of women increased by 37 percent, from 2,540 to 3,480. However, women's peak number in education was achieved in 1983 at 3,611 and appears to be eroding. In social sciences, the decline came from a decrease in male recipients from 4,580 in 1976 to 3,368 in 1985, which was not fully offset by the increase in the number of women from 1,634 to 2,352.

Physical sciences was the one field that appeared stable in overall numbers between the two data points. There were 4,509 recipients in 1976 and 4,531 recipients in 1985. Nonetheless, the similarity in numbers belies a mid-decade dip to 4,111 Ph.D.s. In 1985 a decrease of 272 men recipients was counterbalanced by an increase of 294 women, which changed the gender composition of the field.

## Citizenship Status of New Doctorate Recipients

The overall stability in numbers of Ph.D.s produced by U.S. universities also masks a change in the composition of the cohort by citizenship group. Table C (page 6) shows, at five-year intervals, the number and proportion of doctorates earned by U.S. and non-U.S. citizens since 1960. While the number of Ph.D.s was growing from 1960 to the mid-1970s, the proportion of non-U.S. citizens with temporary visas remained substantially the same and the proportion of permanent visa-holders grew only modestly. A period of rapid growth in the proportion of temporary visa-holders took place, however, in the last five years, a period in which the number of Ph.D.s remained steady. In 1985, more than 20 percent of the doctorate graduates were non-U.S. citizens: 16.7 percent of the doctorates were earned by temporary residents, and another 4.2 percent were earned by non-U.S. citizens with permanent visas.

Of the 6,534 foreign nationals earning doctorate degrees at U.S. universities in 1985, 46.3 percent earned degrees in either engineering or physical sciences. The greatest numbers--1,728--were in engineering, where they constituted 54.6 percent of the Ph.D. class. Additionally, 1,296 non-U.S. citizens comprised 28.6 percent of the physical scientists. The bulk of these foreign doctorate earners had temporary visas.

Data gathered on postdoctorate location plans indicated that many non-U.S. citizens would remain in the United States after receiving their degrees. Note that these data are only for those recipients who reported that they had definite plans, either for employment or for postdoctoral study: 83.1 percent of permanent residents and 42.6 percent of temporary visa-holders had definite plans in the U.S. The greatest proportion with definite plans to stay received engineering degrees: 90.0 percent with permanent, and 56.9 percent with temporary, visas.

Finally, it can be noted that the majority of non-U.S. citizens earning doctorates in the United States are men, although the proportion of women is increasing. Women went

TABLE C Percentage Distribution of Doctorate Recipients, by Citizenship and Broad Field, 1960-1985

| | Year of Doctorate | | | | | |
|---|---|---|---|---|---|---|
| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
| Total, All Fields | | | | | | |
| U.S. Citizens | 87.0* | 84.3 | 84.5 | 82.2 | 81.3 | 74.5 |
| Non-U.S., Total | 12.1 | 14.1 | 14.0 | 15.9 | 15.9 | 20.9 |
| Permanent Visas | 2.9 | 3.4 | 5.3 | 5.2 | 4.2 | 4.2 |
| Temporary Visas | 9.2 | 10.7 | 8.7 | 10.7 | 11.7 | 16.7 |
| Physical Sciences | | | | | | |
| U.S. Citizens | 86.1 | 83.7 | 82.2 | 75.3 | 74.7 | 67.3 |
| Non-U.S., Total | 13.2 | 14.8 | 16.4 | 22.6 | 22.9 | 28.6 |
| Permanent Visas | 2.9 | 3.5 | 6.3 | 7.2 | 6.1 | 5.1 |
| Temporary Visas | 10.3 | 11.3 | 10.1 | 15.4 | 16.7 | 23.5 |
| Engineering | | | | | | |
| U.S. Citizens | 76.4 | 76.0 | 73.2 | 57.2 | 50.6 | 40.4 |
| Non-U.S., Total | 23.0 | 22.0 | 26.2 | 41.0 | 46.4 | 54.6 |
| Permanent Visas | 6.8 | 6.6 | 12.5 | 13.9 | 12.1 | 10.0 |
| Temporary Visas | 16.2 | 15.4 | 13.7 | 27.1 | 34.3 | 44.6 |
| Life Sciences | | | | | | |
| U.S. Citizens | 81.4 | 76.3 | 80.2 | 78.0 | 80.8 | 77.1 |
| Non-U.S., Total | 18.0 | 22.6 | 19.1 | 19.9 | 17.3 | 19.3 |
| Permanent Visas | 3.2 | 3.5 | 5.2 | 6.2 | 4.2 | 3.3 |
| Temporary Visas | 14.7 | 19.0 | 13.9 | 13.7 | 13.1 | 16.0 |
| Social Sciences | | | | | | |
| U.S. Citizens | 87.0 | 84.9 | 85.1 | 85.4 | 85.2 | 79.3 |
| Non-U.S., Total | 11.9 | 13.6 | 13.6 | 12.5 | 11.6 | 15.3 |
| Permanent Visas | 3.0 | 3.6 | 4.9 | 3.5 | 3.3 | 3.7 |
| Temporary Visas | 8.9 | 10.0 | 8.7 | 9.0 | 8.3 | 11.6 |
| Humanities | | | | | | |
| U.S. Citizens | 92.4 | 90.6 | 89.6 | 89.0 | 87.7 | 83.1 |
| Non-U.S., Total | 5.9 | 7.5 | 8.5 | 8.9 | 8.8 | 12.1 |
| Permanent Visas | 2.9 | 2.9 | 4.7 | 4.4 | 3.5 | 4.4 |
| Temporary Visas | 2.9 | 4.6 | 3.8 | 4.5 | 5.3 | 7.7 |
| Education | | | | | | |
| U.S. Citizens | 94.3 | 93.2 | 94.6 | 92.4 | 89.0 | 85.5 |
| Non-U.S., Total | 5.2 | 5.3 | 4.6 | 6.3 | 8.2 | 10.4 |
| Permanent Visas | 0.5 | 0.9 | 1.2 | 1.6 | 1.5 | 1.9 |
| Temporary Visas | 4.6 | 4.4 | 3.4 | 4.7 | 6.7 | 8.5 |
| Professional and Other | | | | | | |
| U.S. Citizens | 87.6 | 81.5 | 78.2 | 82.3 | 81.2 | 71.5 |
| Non-U.S., Total | 10.8 | 16.2 | 18.2 | 15.3 | 15.6 | 21.8 |
| Permanent Visas | 0.8 | 4.3 | 5.5 | 5.0 | 4.0 | 5.1 |
| Temporary Visas | 10.0 | 11.9 | 12.7 | 10.3 | 11.6 | 16.7 |

*Details do not add to 100 percent where citizenship is unknown.

from constituting 12.4 percent of all non-U.S. citizens in 1975 to 17.7 percent in 1985. Among the non-U.S. group, women were a greater proportion of the permanent visa-holders than they were of temporary visa-holders. Women made up 17.3 percent of the permanent resident Ph.D.s in 1975 and 24.4 percent in 1985. Among temporary visa holders, women earned 10 percent of the degrees in 1975; in 1985, they earned 16 percent.

## Country of Citizenship

Table D shows that the biggest group and one of the most rapidly growing cohorts of non-U.S. citizens came from eastern Asia. In 1985, 1,847 eastern Asians earned doctorate degrees from U.S. universities (23.3 percent of the non-U.S. citizens in 1985). The largest subgroup--815--was from Taiwan, and most of these--642--were here on temporary visas. The number of recipients from the African continent increased strongly as well. Conversely, Canadian citizens, who constituted the second largest foreign group in 1960, decreased their proportions of U.S.-educated doctorates: having comprised 13.7 percent of the non-U.S. citizen cohort in 1960, they were but 4.3 percent in 1985.

TABLE D Country of Citizenship of Non-U.S. Recipients, 1960-1985*

| | Year of Doctorate | | | | | |
|---|---|---|---|---|---|---|
| Country of Citizenship | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
| Total, Non-U.S. | 1176 | 2313 | 4148 | 5250 | 4934 | 6534 |
| Canada | 162 | 270 | 533 | 482 | 300 | 286 |
| Mexico/Central America | 15 | 27 | 41 | 75 | 85 | 149 |
| Cuba and Islands | 1 | 21 | 47 | 56 | 42 | 52 |
| South America | 21 | 44 | 189 | 290 | 348 | 340 |
| Europe, Northern | 50 | 119 | 289 | 259 | 198 | 230 |
| Europe, Central | 32 | 51 | 122 | 102 | 78 | 145 |
| Europe, Eastern | 26 | 41 | 88 | 85 | 100 | 134 |
| Europe, Western | 21 | 62 | 137 | 183 | 125 | 178 |
| Africa, West North | 0 | 2 | 6 | 172 | 226 | 367 |
| Africa, East North | 20 | 138 | 145 | 93 | 203 | 259 |
| Africa, South | 0 | 0 | 1 | 72 | 97 | 127 |
| Africa, Unknown | 14 | 57 | 134 | ^ | 0 | 0 |
| Asia, Eastern | 147 | 387 | 928 | 1143 | 1025 | 1847 |
| Asia, Western | 201 | 611 | 1092 | 1192 | 1125 | 1502 |
| Australasia | 55 | 107 | 220 | 217 | 186 | 223 |
| Country Unknown | 411 | 376 | 176 | 829 | 796 | 695 |

* Appendix Table C lists the countries included in each of the groupings herein.

The distribution of non-U.S. citizens among fields in 1985 can be seen in Table E. Of the recipients from Taiwan, over two-thirds of the temporary visa-holders (and over three-quarters of those with permanent visas) earned their degrees in either physical sciences or engineering. Another large group of Ph.D.s--those from western Asia--tended to concentrate in the same fields. In 1985, the plurality of Canadians studying in the U.S. earned doctorates in the field of education.

TABLE E Country of Citizenship of Non-U.S. Recipients, by Broad Field, 1985*

| Country of Citizenship | Field of Doctorate | | | | | | |
|---|---|---|---|---|---|---|---|
| | Phys. Sci. | Engi-neering | Life Sci. | Social Sci. | Human. | Educn. | Prof. Fields |
| Total, Non-U.S. | 1296 | 1728 | 1111 | 875 | 414 | 698 | 412 |
| Canada | 40 | 22 | 46 | 48 | 48 | 57 | 25 |
| Mexico/Central Am | 24 | 27 | 55 | 15 | 5 | 20 | 3 |
| Cuba and Islands | 6 | 7 | 9 | 10 | 4 | 12 | 4 |
| South America | 75 | 53 | 85 | 40 | 30 | 47 | 10 |
| Europe, Northern | 63 | 14 | 41 | 34 | 37 | 30 | 11 |
| Europe, Central | 34 | 16 | 17 | 25 | 40 | 8 | 5 |
| Europe, Eastern | 47 | 45 | 14 | 12 | 7 | 4 | 5 |
| Europe, Western | 29 | 36 | 31 | 30 | 34 | 8 | 10 |
| Africa, West North | 35 | 54 | 78 | 62 | 29 | 79 | 30 |
| Africa, East North | 33 | 66 | 69 | 40 | 4 | 28 | 19 |
| Africa, South | 8 | 15 | 28 | 23 | 11 | 31 | 11 |
| Asia, Eastern | 431 | 664 | 276 | 194 | 67 | 121 | 94 |
| Asia, Western | 292 | 512 | 196 | 201 | 38 | 132 | 131 |
| Australasia | 29 | 28 | 54 | 38 | 13 | 48 | 13 |
| Country Unknown | 150 | 169 | 112 | 103 | 47 | 73 | 41 |

* Appendix Table C lists the countries included in each of the groupings herein.

## Postgraduation Employment Commitments

The usual entrants into the U.S. labor force at the time of graduation are U.S. citizens and those non-U.S. citizens who hold permanent visas. Typically, employment choices of new doctorate recipients involve three labor market sectors: academe, industry, and government. "Academe" includes 4-year colleges and universities, junior colleges, and medical schools. "Industry" covers both industry and business, including self-employment. "Government" can mean federal, state, or local government. Finally, a fourth category of "Other" acts as an umbrella for employment with elementary and

secondary schools or with nonprofit organizations, as well as with any other type of employer not listed on the questionnaire.

In 1985, 13,651 new Ph.D.s who were either U.S. citizens or permanent residents reported that they had definite employment plans in the United States. (This number represents 55.6 percent of the combined group, nearly the same as the 1976 proportion of 56.0 percent.) The largest single fraction--48.3 percent--reported that they were joining academe. Industry recruited 20.3 percent of the cohort, and another 11.7 percent intended to enter government employment. Finally, 19.8 percent of the recipients with definite employment plans fell into the category of "Other." This outcome was quite different from a decade ago, when academe was the employer for 60.4 percent of the new recipients (a quarter more than in 1985), and industry was the employer for just 11.7 percent of the Ph.D.s. In one respect the outcome is substantially the same: in 1976, government hired 12.5 percent of the recipients, a minimal difference from 1985's 11.7 percent. Table F (page 10) shows the decade-long changes in commitments to labor market sectors.

The table also shows that the employment plans of men and women were noticeably different from one another over the period. Figure 3 (page 11) displays employment plans by sex in 1976 and again in 1985. Then and now, academe engaged a greater proportion of women, and industry recruited a greater proportion of men. In 1976, 70.4 percent of women and 57.4 percent of men made plans to enter the academic labor sector. In 1985, when fewer new recipients had definite commitments to academe, the gap narrowed but was still appreciable: 52.9 percent of women vs. 45.5 percent of men planned academic employment. Industry was becoming a more likely employment sector over the decade, but the disparity between men's and women's recruitment was still considerable. In 1976, 13.7 percent of men reported plans to go into the business sector, compared with 4.9 percent of women. By 1985, 24.9 percent of men had definite commitments to industry, compared to 12.7 percent of the new women recipients. The 1976 gap between the proportions of men and women going into government had nearly closed by 1985. In 1976, 13.8 percent of men and 8.0 percent of women said they had plans to go into government employment, whereas in 1985, 12.0 percent of men and 11.1 percent of women reported such plans.

Employment plans are re-examined in the special section on women and minorities. That section also looks at field differences in terms of field composition and field selection by minorities and women. Additionally, some of the processes and outcomes of earning the Ph.D. are reviewed: length of time-to-degree, sources of support, and the status of postgraduation plans.

TABLE F Postgraduation Employment Commitments, by Employment Sector and Sex, 1976-1985 (U.S. Citizens and Non-U.S. Citizens with Permanent Visas)

| Employment Sector | Year of Doctorate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Academe | 60.4 | 58.8 | 56.5 | 54.5 | 52.0 | 51.0 | 49.7 | 49.8 | 48.3 | 48.4 |
| Men | 57.4 | 55.5 | 53.2 | 51.3 | 48.4 | 47.9 | 46.1 | 47.1 | 45.1 | 45.5 |
| Women | 70.4 | 68.8 | 65.6 | 62.3 | 59.8 | 57.4 | 56.4 | 54.6 | 53.6 | 52.9 |
| Industry | 11.7 | 12.8 | 15.0 | 16.7 | 17.5 | 18.4 | 20.7 | 19.5 | 19.1 | 20.3 |
| Men | 13.7 | 15.3 | 17.8 | 20.2 | 20.7 | 22.4 | 25.2 | 23.7 | 22.9 | 24.9 |
| Women | 4.9 | 5.5 | 7.2 | 8.3 | 10.4 | 10.3 | 12.1 | 12.2 | 12.8 | 12.7 |
| Government | 12.5 | 13.0 | 12.4 | 13.0 | 12.5 | 12.8 | 11.2 | 11.0 | 12.1 | 11.7 |
| Men | 13.8 | 14.5 | 13.7 | 13.9 | 14.1 | 13.7 | 11.9 | 12.3 | 13.5 | 12.0 |
| Women | 8.0 | 8.5 | 8.7 | 10.9 | 8.9 | 10.9 | 9.9 | 8.7 | 9.7 | 11.1 |
| Other | 15.4 | 15.4 | 16.2 | 15.8 | 18.1 | 17.8 | 18.4 | 19.7 | 20.5 | 19.8 |
| Men | 15.1 | 14.8 | 15.3 | 14.7 | 16.8 | 16.0 | 16.8 | 17.0 | 18.5 | 17.6 |
| Women | 16.6 | 17.2 | 18.5 | 18.5 | 20.8 | 21.4 | 21.6 | 24.5 | 23.9 | 23.3 |

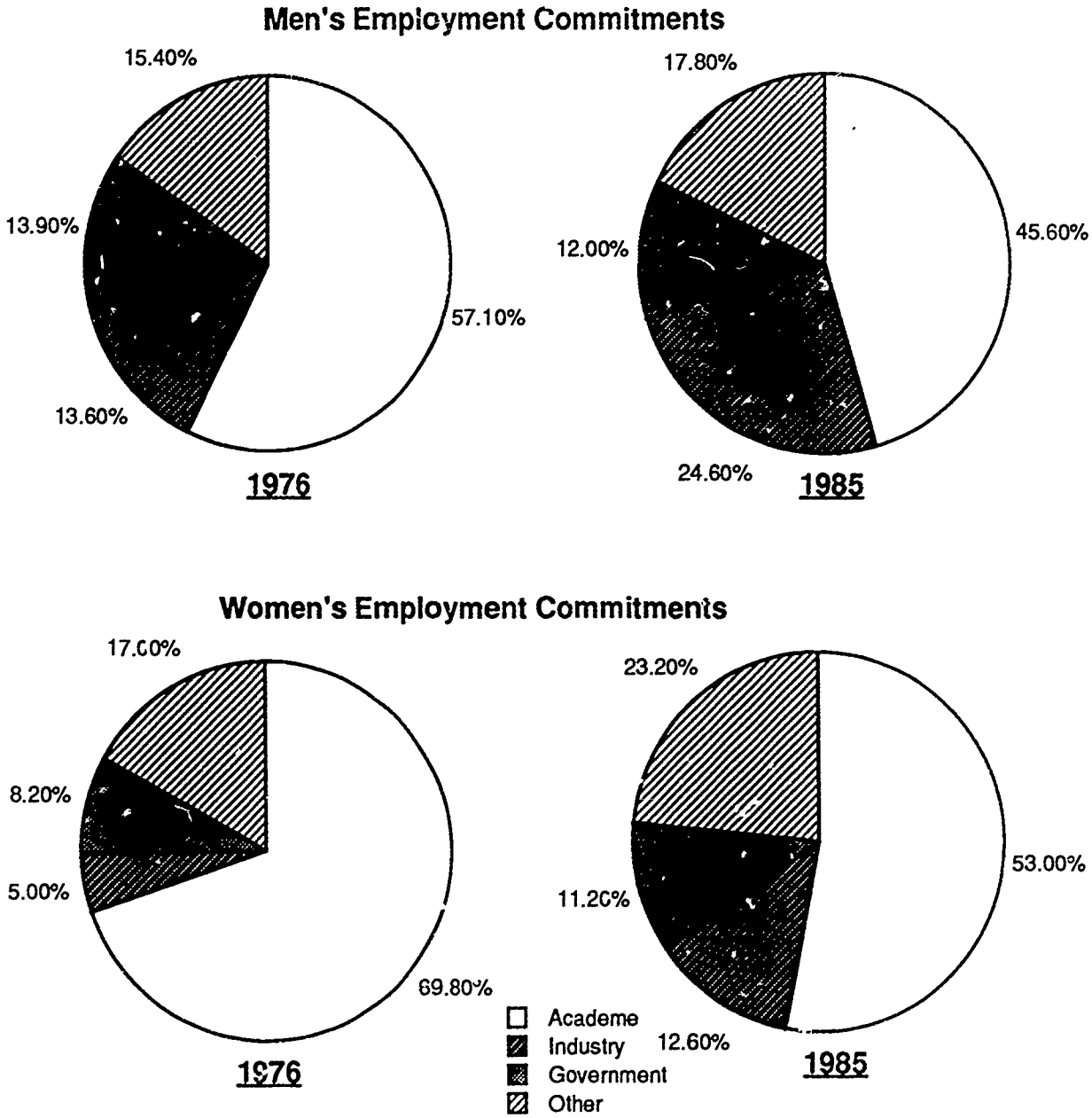


Figure 3 Definite employment commitments of new doctorate recipients, by sex, 1976 and 1985

## MINORITY AND WOMEN DOCTORATE RECIPIENTS

This year's special section focuses on American minorities and women. Foreign citizens were excluded because of their typically non-minority status in home countries and the different educational and social climates therein. Data on women have been a part of the Doctorate Records File since its starting point in 1920, but information on minorities has been collected only since 1973. Unfortunately, over a quarter of the 1973 respondents and about 13 percent of the 1974 recipients completed superseded questionnaire forms or provided unusable responses. More reliable data are from 1975 and thereafter, a period in which the racial/ethnic item response rate has been 92-95 percent. For this reason, the span of time between 1975 and 1985 will be used to review patterns in minority degree-earning and, in parallel, in women's doctorate-earning.

Data are reported on five racial/ethnic groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, White, and Hispanic. Ethnicity takes precedence over race here: if a respondent claims Hispanic heritage, he or she will be reported as Hispanic regardless of racial identification. (Questionnaire items are reproduced on pages 63-64.)

Racial/ethnic groups are distinguishable by certain educational profiles--such as their field selections, support in graduate school, and postgraduation plans--but it is important to note that these profiles do not always describe the women of these groups. Similarly, the overall profile for women doctorate recipients is not fully pertinent to each minority group. To get the sharpest picture, it is useful--where possible--to look at educational patterns separately for women within each racial/ethnic group.

### Trends in Proportions Earning Degrees

Data from 1975-1985 on race/ethnicity of U.S. citizens indicate some irregular trends in the proportions of the various groups (see Table G, page 13). Nonetheless, the net change for minorities has been in a slow, positive direction, despite small year-to-year reversals in proportions for some groups. American Indians, Asians, Blacks, and Hispanics earned 6.3 percent of the doctorates in 1975, and together they earned 9.1 percent in 1985. Some of the proportional increase, however, is attributable to the decline of Whites earning doctorate degrees.

The smallest cohort of doctorates with known race/ethnicity has historically been the American Indians. In 1975, American Indians made up 0.1 percent of all U.S. citizens earning the Ph.D. By 1985, they were 0.4 percent, their highest proportion thus far.[1] Asians comprised the next smallest group: 1.3 percent of the new U.S. doctorates in 1975 and 2.3 percent in 1985. They were the only minority group that did not experience any reverse in proportional growth over this period. Hispanics have been somewhat similar to Asians in their numbers and proportions of U.S. degree-earners: they grew from 1.2 percent of the Ph.D.s in 1975 to 2.5 percent in 1985. The largest minority component has been the Black group: they were 3.8 percent of doctorates in 1975 and 4.0 percent in 1985.

[1] The trend for American Indians, however, is quite variable because the numbers are so low. As there have been fewer than 100 American Indian doctorate recipients in any of the years 1975-1985, their proportions will not be discussed at length. The three minority groups to be highlighted in this report will be Asians, Blacks, and Hispanics.

TABLE G Race/Ethnicity of Doctorate Recipients, 1975-1985 (U.S. Citizens)

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Total Reporting Race/Ethnicity | 25976 | 26182 | 25008 | 23767 | 23947 | 23970 | 24006 | 23785 | 23704 | 23394 | 22717 |
| American Indian | 36 | 40 | 65 | 60 | 81 | 75 | 85 | 77 | 80 | 73 | 93 |
| | 0.1* | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 |
| Asian | 286 | 334 | 339 | 390 | 428 | 458 | 465 | 452 | 492 | 512 | 515 |
| | 1.1 | 1.3 | 1.4 | 1.6 | 1.8 | 1.9 | 1.9 | 1.9 | 2.1 | 2.2 | 2.3 |
| Black | 999 | 1095 | 1116 | 1033 | 1056 | 1032 | 1013 | 1047 | 921 | 953 | 909 |
| | 3.8 | 4.2 | 4.5 | 4.3 | 4.4 | 4.3 | 4.2 | 4.4 | 3.9 | 4.1 | 4.0 |
| Hispanic | 303 | 340 | 423 | 473 | 462 | 412 | 464 | 535 | 538 | 535 | 559 |
| | 1.2 | 1.3 | 1.7 | 2.0 | 1.9 | 1.7 | 1.9 | 2.2 | 2.3 | 2.3 | 2.5 |
| White | 24352 | 24373 | 23065 | 21811 | 21920 | 21993 | 21979 | 21674 | 21673 | 21321 | 20641 |
| | 93.7 | 93.1 | 92.2 | 91.8 | 91.5 | 91.8 | 91.6 | 91.1 | 91.4 | 91.1 | 90.9 |

*Percent of total U.S. citizenship doctorate recipients reporting racial/ethnic status.

However, Blacks reached their peak (4.5 percent) in 1977 but have lost a bit of ground since then. The decline appears to have slowed, but the trend has not stablilized.

As discussed earlier, the number of all women Ph.D.s increased from 7,201 (21.9 percent) in 1975 to 10,699 (34.3 percent) in 1985, a proportionate increase of 56.6 percent. While the proportion of women increased among all citizenship groups, the group showing the largest growth was U.S. women (see Table H, page 15). In 1975, women made up 23.7 percent of all U.S. citizens receiving Ph.D.s, and in 1985, they were 39.1 percent, a proportionate increase of 65 percent. In part, the proportional increase occurred because the number of male Ph.D.s declined. In 1985, the number of American women doctorates also declined, but at a slower rate than their male counterparts. Most of the U.S. women Ph.D.s in 1985 were White (88.4 percent), followed by Black (6.0 percent), Hispanic (2.9 percent), Asian (2.1 percent), and American Indian (0.6 percent).

The proportion of U.S. women differed within the different ethnic or racial cohorts. Each minority female subgroup grew in its proportion of total doctorates earned, and all women increased their percentages within the subgroups. Setting aside the variable American Indian group, Asian women constituted the smallest share of doctorates earned by U.S. citizens. Nonetheless, Asian women showed some growth during the 1975-1985 period, going from 0.2 percent of the total in 1975 to 0.8 percent in 1985. Black women also enlarged their share of Ph.D.s, earning 1.3 percent in 1975 and 2.3 percent in 1985. Hispanic women increased their proportions from 0.2 percent of the total in 1975 to 1.1 percent in 1985. White women comprised the largest share, earning 22.0 percent of the Ph.D.s conferred to U.S. citizens in 1975 and 34.7 percent in 1985.

Table H also shows the growth in the proportion of women within each ethnic group over time. Asian women, 22.4 percent of the U.S. Asian group in 1975, increased their proportion to 36.3 percent in 1985. Black women earned more than half of the doctorate degrees awarded to Black Americans in 1985: they grew from 34.9 percent within-group in 1975 to 58.4 percent in 1985. Hispanic women approached the half-way mark in their within-group growth during the period. In 1975, they made up 20.1 percent of the doctorates earned by Hispanics; by 1985 they were 46.7 percent. White women comprised the smallest within-group proportion of doctorates, 23.5 percent in 1975 and 38.2 percent in 1985.

## Field Composition

The U.S. minority composition within each of the seven broad fields in 1975 and 1985 is depicted in Figure 4 (page 16). Minorities increased their participation in every field. Their smallest presence was in physical sciences, despite their growth from 3.5 percent in 1975 to 5.9 percent in 1985. Minorities made the greatest contribution in the field of education, where they formed 13.5 percent of the degree-earners, up from 11.4 percent in 1975. The largest presence of Asian Americans was in engineering (7.4 percent), the largest of Blacks was in education (8.4 percent), and the largest of Hispanics was in humanities (3.5 percent).

These proportions do not necessarily reflect the field selection rankings by members of each minority group. Table I (page 17) compares the field distribution of all U.S. citizen doctorates with that of minority recipients in 1975 and 1985. Among all U.S. recipients with known race in 1985, the most frequently chosen field was education (25.0 percent), followed by social sciences (19.5 percent), life sciences (19.1 percent), physical sciences (13.0 percent), humanities (12.2 percent), professional fields (5.8 percent), and engineering (5.4 percent). These proportions were quite similar (within one percentage point) to the 1975 proportions, with two exceptions: at 19.1 percent, life sciences was more frequently selected (up from 14.6 percent), and humanities at 12.2 percent became less often selected (down from 16.4 percent). More than a third of the recipients chose natural sciences and engineering as their field of Ph.D.

TABLE H Women as a Proportion of Doctorate Recipients, by Race, 1975-1985 (U.S. Citizens)

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Women U.S. Citizen Ph.D.s | 6419 | 6842 | 6964 | 7355 | 7884 | 8346 | 8701 | 8828 | 9220 | 9285 | 9083 |
| Proportion of U.S. Ph.D.s | 23.7 | 25.1 | 26.7 | 29.1 | 31.0 | 33.1 | 34.7 | 36.2 | 37.9 | 38.7 | 39.1 |
| Women with Known Race/Ethnicity | 6199 | 6631 | 6709 | 6956 | 7460 | 8005 | 8403 | 8648 | 9043 | 9109 | 8924 |
| Proportion of U.S. Ph.D.s | 23.9 | 25.3 | 26.8 | 29.3 | 31.2 | 33.4 | 35.0 | 36.4 | 38.1 | 38.9 | 39.3 |
| American Indian Women | 9 | 9 | 22 | 10 | 25 | 29 | 29 | 33 | 30 | 20 | 54 |
| Proportion of U.S. Ph.D.s | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Proportion within-group | 25.0 | 22.5 | 30.8 | 16.7 | 30.9 | 38.7 | 34.1 | 42.9 | 27.5 | 27.4 | 58.1 |
| Asian Women | 64 | 90 | 88 | 103 | 117 | 145 | 150 | 171 | 180 | 174 | 187 |
| Proportion of U.S. Ph.D.s | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.7 | 0.8 |
| Proportion within-group | 22.4 | 26.9 | 26.0 | 26.4 | 27.3 | 31.7 | 32.3 | 37.8 | 36.6 | 34.0 | 36.3 |
| Black Women | 349 | 443 | 432 | 449 | 505 | 533 | 514 | 564 | 509 | 526 | 531 |
| Proportion of U.S. Ph.D.s | 1.3 | 1.7 | 1.7 | 1.9 | 2.1 | 2.2 | 2.1 | 2.3 | 2.1 | 2.2 | 2.3 |
| Proportion within-group | 34.9 | 40.5 | 38.7 | 43.5 | 47.8 | 51.6 | 50.7 | 53.9 | 55.3 | 55.2 | 58.4 |
| Hispanic Women | 61 | 87 | 113 | 156 | 154 | 156 | 189 | 191 | 250 | 222 | 261 |
| Proportion of U.S. Ph.D.s | 0.2 | 0.3 | 0.5 | 0.7 | 0.6 | 0.7 | 0.8 | 0.8 | 1.1 | 0.9 | 1.1 |
| Proportion within-group | 20.1 | 25.6 | 26.7 | 33.0 | 33.3 | 37.9 | 40.7 | 35.7 | 46.5 | 41.5 | 46.7 |
| White Women | 5716 | 6002 | 6054 | 6238 | 6659 | 7145 | 7521 | 7689 | 8074 | 8167 | 7891 |
| Proportion of U.S. Ph.D.s | 22.0 | 22.9 | 24.2 | 26.2 | 27.8 | 29.8 | 31.3 | 32.3 | 34.1 | 34.9 | 34.7 |
| Proportion within-group | 23.5 | 24.6 | 25.2 | 28.6 | 30.4 | 32.5 | 34.2 | 35.5 | 37.3 | 38.3 | 38.2 |

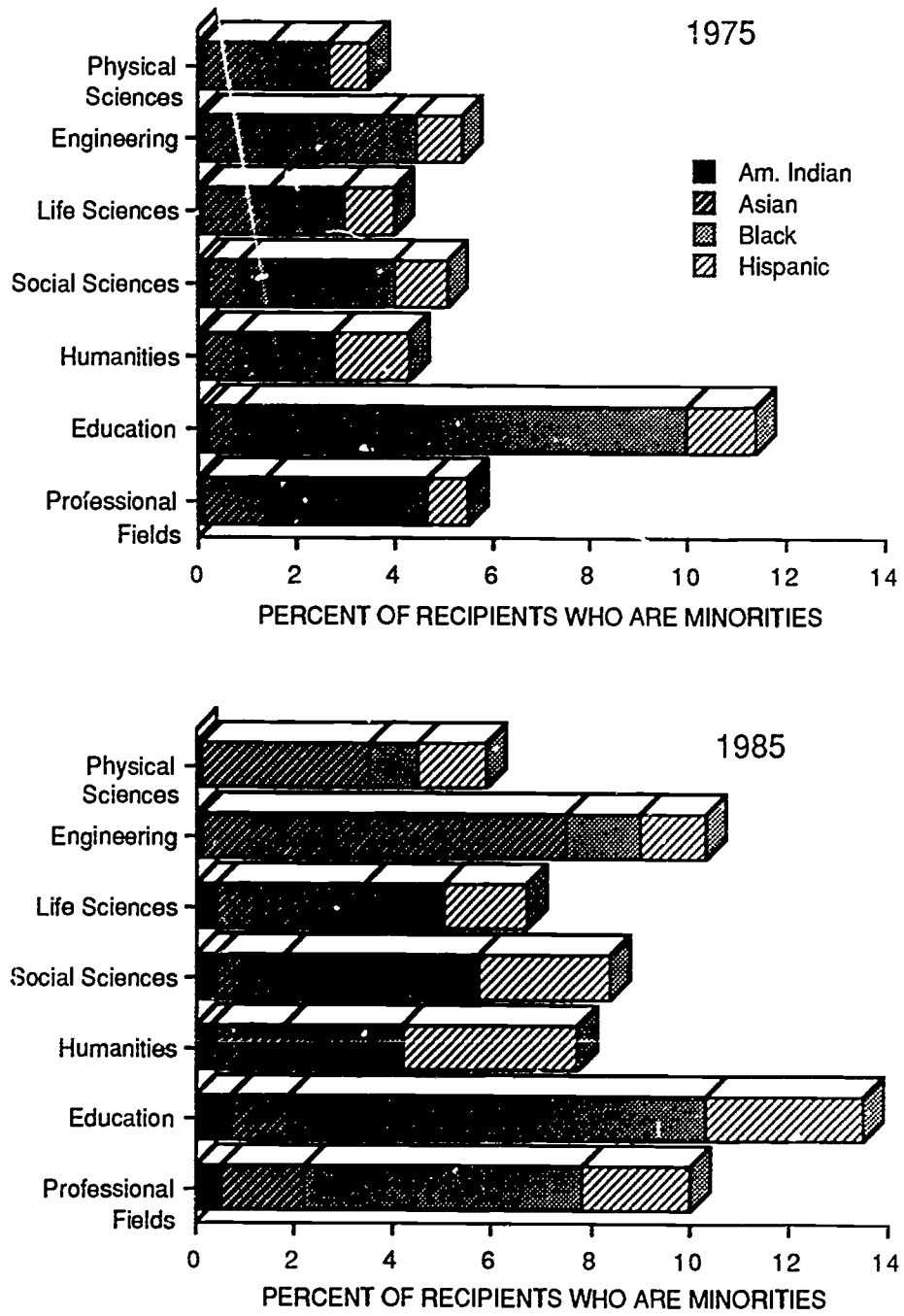


Figure 4 Field composition, by minorities, 1975 and 1985 (U.S. citizens)

TABLE I Field Selection of Minority Ph.D.s, 1975 and 1985 (U.S. Citizens)

| | Total U.S. | | Asians | | Blacks | | Hispanics | |
|---|---|---|---|---|---|---|---|---|
| | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 |
| Physical Sciences | 13.4 | 13.0 | 17.5 | 19.4 | 4.1 | 3.3 | 8.9 | 7.5 |
| Engineering | 6.3 | 5.4 | 21.3 | 17.5 | 1.1 | 2.1 | 5.0 | 2.9 |
| Life Sciences | 14.6 | 19.1 | 18.9 | 24.9 | 5.6 | 7.7 | 12.9 | 13.4 |
| Social Sciences | 19.0 | 19.5 | 12.6 | 12.0 | 15.3 | 19.1 | 18.5 | 21.6 |
| Humanities | 16.4 | 12.2 | 10.5 | 8.3 | 8.7 | 7.3 | 21.1 | 17.2 |
| Education | 25.4 | 25.0 | 13.6 | 13.4 | 61.0 | 52.3 | 30.4 | 32.2 |
| Professional Fields | 4.9 | 5.8 | 5.6 | 4.5 | 4.2 | 8.1 | 3.3 | 5.2 |
| Total* | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

*Details may not add to 100% because of rounding.

In contrast, Asian Americans tended to cluster in engineering and the natural sciences (similar to the clustering displayed by their non-U.S. counterparts). Their biggest shifts occurred between engineering and life sciences: in 1975 they selected engineering more often than other fields (21.3 percent), and in 1985 they chose life sciences more frequently (24.9 percent). Hispanics were somewhat less likely, and Blacks were quite a bit less likely, to enter the natural sciences and engineering than the "average" American Ph.D., but they were more likely to cluster in education. Over 50 percent of the Blacks received degrees in education, although the field's popularity among Black recipients eroded somewhat in the 1975-1985 period. Conversely, Hispanics' share of degrees in education was somewhat greater in 1985 than in 1975. Hispanics and Blacks followed the upward trends among all Americans in social sciences, life sciences, and professional fields.

The proportion of women in each of the seven major fields is depicted in Figure 5, and the proportion of minority women is displayed in Figure 6. (Both figures are on page 18.) Women's field selections are shown in Table J (page 19). For three of the four women's subgroups in 1985--Blacks, Hispanics, and Whites--the greatest numbers of doctorates were earned in education. Asian women were the only subgroup to vary from this pattern: the largest single fraction of Asian American women earned degrees in life sciences.

These proportionate field selections did not always reflect the proportionate presence of women in a field. For example, the largest number of Asian women (49 of 187) were in life sciences in 1985. However, their biggest proportionate share of the whole American Ph.D. cohort was slightly larger in engineering (1.1 percent) than in life sciences. For the other three subgroups, the clustering in education did correspond with the field in which their presence was highest. Of the 531 Black women who earned Ph.D.s in 1985, most--318--were in education; they comprised 5.6 percent of the degree recipients in that field. The largest fraction of Hispanic women, 98 out of 261, earned degrees in education, where they garnered 1.7 percent of the doctorates conferred in 1985. Like Black and Hispanic women, White women clustered in education, earning their largest number of degrees (2,595 of 7,891) and their highest share (45.8 percent) of all degrees awarded to U.S. citizens.

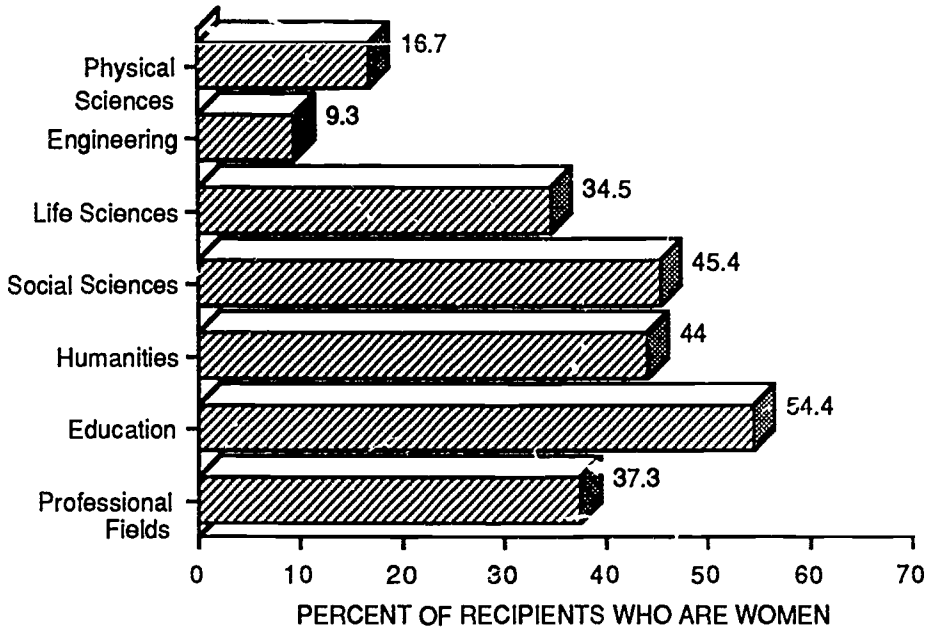


Figure 5 Field composition, by women Ph.D.s, 1985 (U.S. citizens)

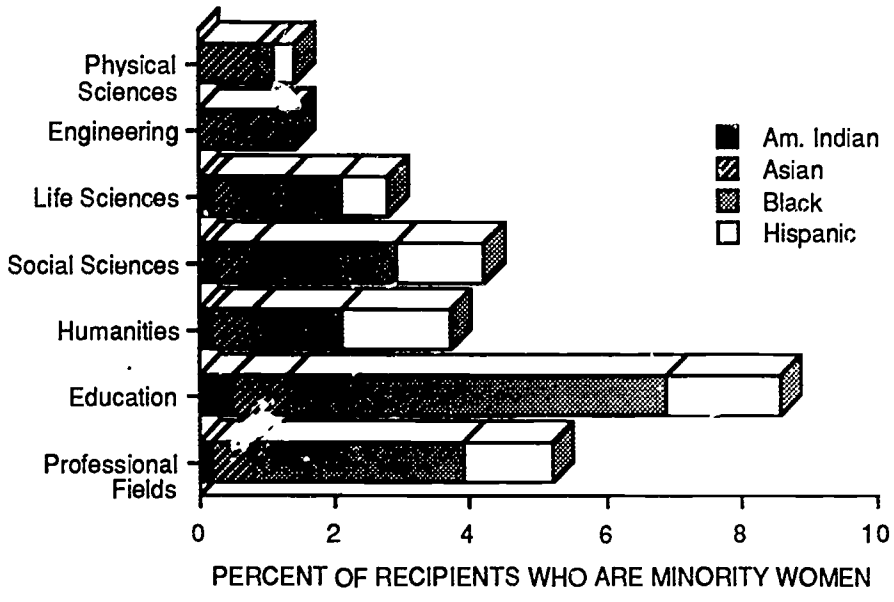


Figure 6 Field composition, by minority women, 1985 (U.S. citizens)

TABLE J Field Selection of Women Doctorate Recipients, 1975 and 1985 (U.S. Citizens)

| | Total U.S. Citizens* | | Total U.S. Women* | | Asian Women | | Black Women | | Hispanic Women | | White Women | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 |
| Physical Sciences | 3,476 | 2,947 | 277 | 493 | 4 | 26 | 5 | 5 | 2 | 10 | 266 | 452 |
| | 13.4 | 13.0 | 4.4 | 5.5 | 6.3 | 13.9 | 1.4 | 1.6 | 3.3 | 3.8 | 4.7 | 5.7 |
| Engineering | 1,641 | 1,223 | 32 | 114 | 1 | 14 | 0 | 3 | 0 | 0 | 31 | 97 |
| | 6.3 | 5.4 | 0.5 | 1.3 | 1.6 | 7.5 | 0.0 | 0.6 | 0.0 | 0.0 | 0.5 | 1.2 |
| Life Sciences | 3,801 | 4,338 | 816 | 1,497 | 21 | 49 | 19 | 33 | 5 | 32 | 770 | 1,374 |
| | 14.6 | 19.1 | 13.2 | 16.8 | 32.8 | 26.2 | 5.4 | 6.2 | 8.2 | 12.2 | 13.5 | 17.4 |
| Social Sciences | 4,935 | 4,432 | 1,326 | 2,017 | 10 | 28 | 47 | 95 | 9 | 59 | 1,258 | 1,826 |
| | 19.0 | 19.5 | 21.4 | 22.6 | 15.6 | 15.0 | 13.5 | 17.9 | 14.8 | 22.6 | 22.0 | 23.1 |
| Humanities | 4,249 | 2,780 | 1,450 | 1,224 | 13 | 17 | 27 | 36 | 24 | 45 | 1,384 | 1,120 |
| | 16.4 | 12.2 | 23.4 | 13.7 | 20.3 | 9.1 | 7.7 | 6.8 | 39.3 | 17.2 | 24.2 | 14.2 |
| Education | 6,603 | 5,668 | 2,086 | 3,083 | 12 | 45 | 233 | 318 | 20 | 98 | 1,818 | 2,595 |
| | 25.4 | 25.0 | 33.7 | 34.5 | 18.8 | 24.1 | 66.8 | 59.9 | 32.8 | 37.6 | 31.8 | 32.9 |
| Professional Fields | 1,271 | 1,329 | 212 | 496 | 3 | 8 | 18 | 41 | 1 | 17 | 189 | 427 |
| | 4.9 | 5.8 | 3.4 | 5.6 | 4.7 | 4.3 | 5.2 | 7.7 | 1.7 | 6.5 | 3.3 | 5.4 |
| Total | 25,976 | 22,717 | 6,199 | 8,924 | 64 | 187 | 349 | 531 | 61 | 261 | 5,716 | 7,891 |
| | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

*With known race/ethnicity.

## Median Time-to-Degree

The process of attaining the Ph.D. differs by racial/ethnic group and by gender, but the differences weaken when field data are examined. During the 1975-1985 period, the total time elapsed between year of baccalaureate and year of doctorate steadily increased. For U.S. citizens, the median time rose from 8.7 years to 10.5 years. In 1975, Whites had the lowest median time-to-degree: 8.6 years. They were followed by Hispanics (9.2 years), Asians (10.3 years), and Blacks (12.4 years). By 1985, Asians had reduced their time-to-degree and completed their doctorates more quickly than the others--9.7 years. Median time had increased for all other groups--Whites completed in 10.4 years, Hispanics in 11.8, and Blacks in 14.4.

Figure 7 depicts the trends in time-to-degree, by race, for U.S. citizens. The time line for Whites shows a generally smooth rise upward. The trends are somewhat irregular but upward for Blacks and Hispanics. For Asians, however, the trend is quite variable. In recent years Asians had the shortest time-lapse, but this trend has not stabilized.

The initial impression from survey data has been that women take more time than men to complete the Ph.D.; the strength of this impression, however, is diluted by examination of field data. In 1975, the median time-lapse for male U.S. citizens was 8.4 years, whereas for women it was 9.5 years. By 1985, men were taking a median 9.6 years to complete the doctorate, and women were taking 12.3 years.

Figure 8 (page 21) displays the difference in time-to-degree by all men and women and by minority men and women, 1975 to 1985. In the first part of the period, women took about 1.5 years longer than men to complete their Ph.D.s. In the 1980s, the gap widened to 2.0, then 2.5 years. By 1985 men and women were apart by 2.7 years. The gap was most apparent and widening between White men and women doctorate recipients. The gap was not as pronounced for Black and Hispanic Ph.D.s, although the women still lagged the men. Again, the Asians presented a quite variable picture, with Asian women having shorter times-to-degree than their male counterparts in 4 of the 11 years.

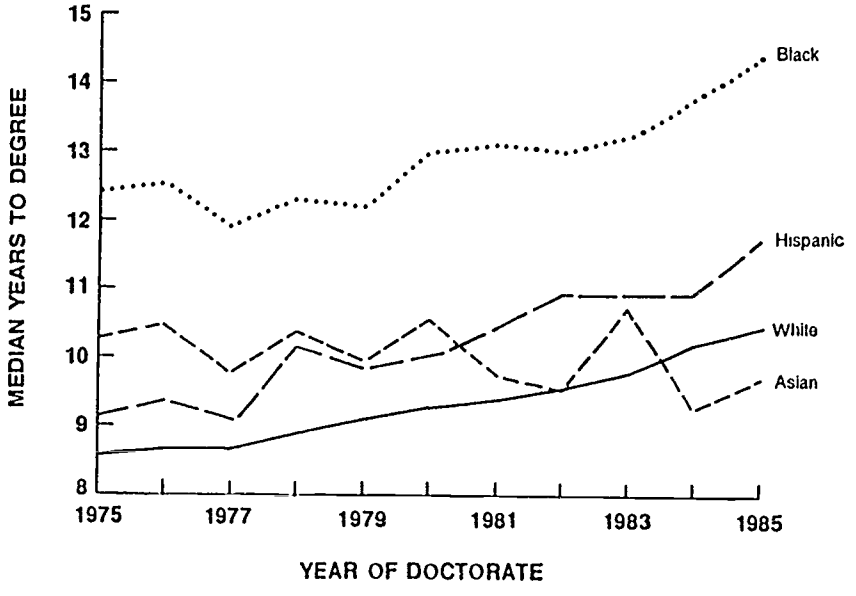


Figure 7 Median years to degree, by minority status, 1975-1985 (U.S. citizens)

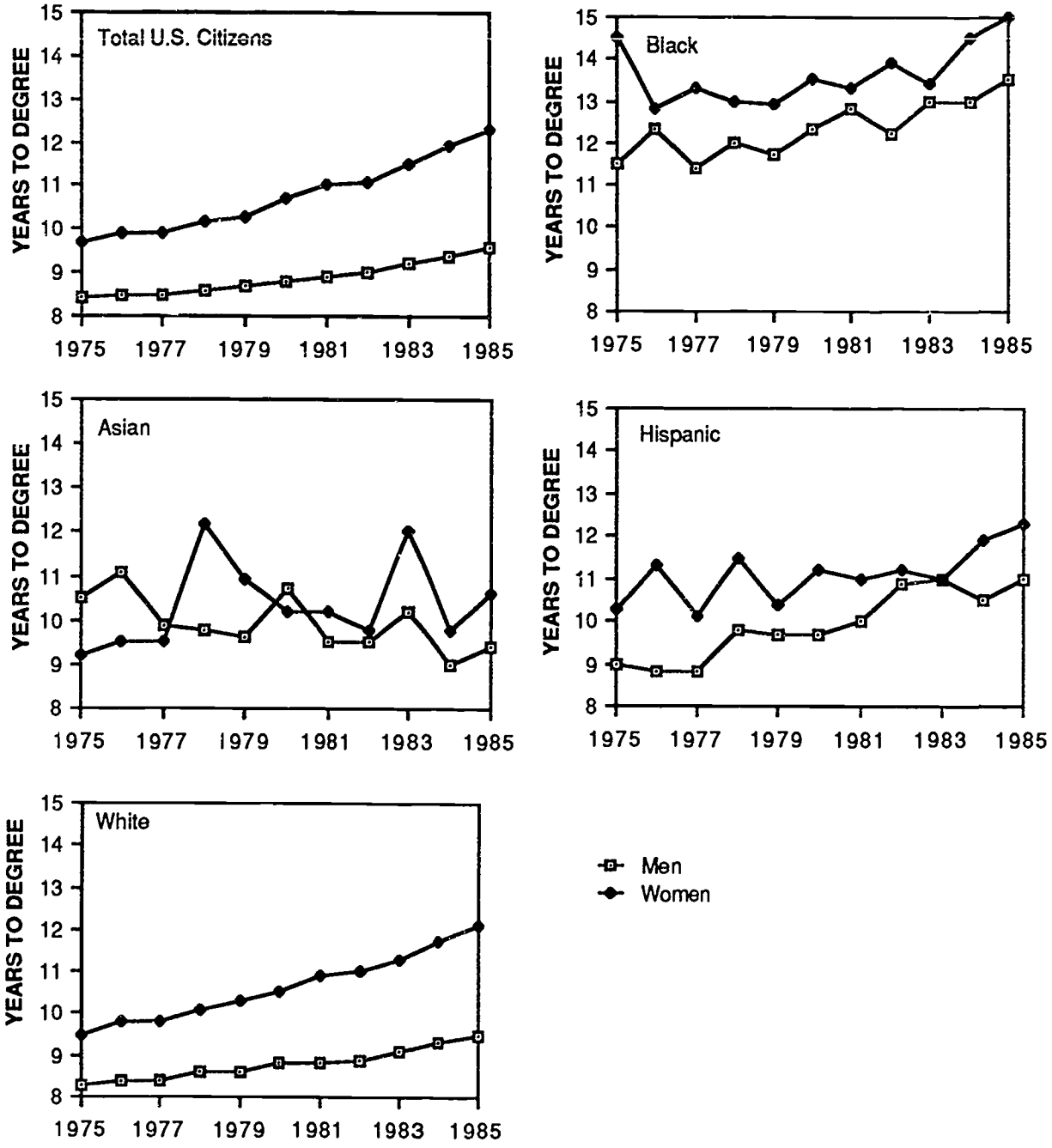


Figure 8 Median years to degree, by sex and race, 1975-1985 (U.S. citizens)

Time-to-degree appeared to be related to field choice. Table K (pages 22-23) displays time-lapse for each of the seven broad fields (labelled "Field" in the table) and for those subfields in which 2 percent or more of the new doctorates earned their degrees. When time-lapse data were disaggregated by field, considerable variation appeared. For

TABLE K Median Years to Degree, by Field, Sex, and Minority Status, 1985 (U.S. Citizens)

| | Total All Fields | Field: Physical Sciences | Physics/ Astron. | Chemistry | Math | Field: Engi-neering | Field: Life Sciences | Biolog. Sciences | Health Sciences | Agric. Sciences |
|---|---|---|---|---|---|---|---|---|---|---|
| All U.S. | 10.5 | 6.8 | 7.1 | 6.0 | 7.2 | 7.5 | 8.1 | 7.7 | 12.5 | 8.0 |
| Men | 9.6 | 6.8 | 7.1 | 6.0 | 7.2 | 7.6 | 7.8 | 7.6 | 10.9 | 8.0 |
| Women | 12.3 | 6.8 | 7.1 | 6.0 | 7.1 | 6.4 | 9.0 | 8.1 | 13.5 | 8.1 |
| Asians | 9.1 | 7.4 | 8.5 | 7.1 | 8.0 | 7.9 | 8.2 | 7.7 | 13.5 | * |
| Men | 9.4 | 7.5 | 9.0 | 7.3 | 8.0 | 8.3 | 7.9 | 7.6 | * | * |
| Women | 10.6 | 7.1 | * | 6.9 | * | 5.5 | 8.4 | 7.9 | * | * |
| Blacks | 14.4 | 8.5 | * | 6.8 | * | 8.8 | 9.3 | 8.8 | 14.0 | * |
| Men | 13.5 | 10.0 | * | 7.8 | * | 8.5 | 8.9 | 8.5 | * | * |
| Women | 15.0 | * | * | * | * | * | 11.0 | 9.0 | 14.5 | * |
| Hispanics | 11.8 | 7.2 | 7.0 | 6.0 | * | 8.2 | 8.0 | 7.6 | 14.0 | 8.0 |
| Men | 10.9 | 7.2 | 6.3 | 6.3 | * | 8.2 | 7.8 | 7.4 | * | * |
| Women | 12.3 | 7.0 | * | * | * | * | 8.2 | 7.8 | * | * |
| Whites | 10.4 | 6.7 | 7.1 | 5.9 | 7.2 | 7.5 | 8.1 | 7.7 | 12.5 | 7.9 |
| Men | 9.5 | 6.7 | 7.1 | 5.9 | 7.2 | 7.6 | 7.7 | 7.5 | 10.9 | 7.9 |
| Women | 12.1 | 6.8 | 7.1 | 5.9 | 7.2 | 6.5 | 9.1 | 8.2 | 13.5 | 7.9 |

| | Field: Social Sciences | Psychol. | Econom. | Anthro. & Socio. | Field: Human-ities | Eng.&Am. Lang&Lit | Field: Edu-cation | Field: Profess. Fields | Business & Mgmt. |
|---|---|---|---|---|---|---|---|---|---|
| **All U.S.** | 9.9 | 9.4 | 8.1 | 11.4 | 11.8 | 12.1 | 15.5 | 13.7 | 12.9 |
| Men | 9.8 | 9.4 | 8.2 | 11.0 | 11.4 | 11.2 | 15.1 | 13.3 | 12,8 |
| Women | 10.1 | 9.4 | 8.0 | 12.2 | 12.5 | 12.9 | 16.0 | 14.4 | 13.1 |
| **Asians** | 10.2 | 8.5 | * | * | 13.8 | * | 17.1 | 15.0 | 12.5 |
| Men | 11.5 | 10.8 | * | * | 15.8 | * | 15.8 | 15.3 | * |
| Women | 8.8 | 7.8 | * | * | 13.1 | * | 21.5 | * | * |
| **Blacks** | 10.8 | 10.0 | * | 12.3 | 15.1 | 16.7 | 17.1 | 14.2 | * |
| Men | 11.0 | 10.4 | * | 11.8 | 13.3 | * | 17.1 | 14.2 | * |
| Women | 10.6 | 9 8 | * | 13.0 | 15.5 | * | 17.1 | 14.2 | * |
| **Hispanics** | 9.6 | 9.5 | 9.1 | 10.0 | 12.6 | * | 14.3 | 15.7 | * |
| Men | 9.5 | 9.7 | 9.2 | 8.8 | 11.4 | * | 14.4 | 16.3 | * |
| Women | 9.7 | 9.3 | * | 10.4 | 14.5 | * | 14.2 | 14.5 | * |
| **Whites** | 9.9 | 9.4 | 8.0 | 11.4 | 11.7 | 11.9 | 15.4 | 13.5 | 12.8 |
| Men | 9.7 | 9.4 | 8.1 | 10.9 | 11.4 | 11.1 | 15.0 | 13.1 | 12.7 |
| Women | 10.1 | 9.5 | 8.0 | 12.2 | 12.2 | 12.6 | 15.9 | 14.3 | 13.1 |

* The median is not reported because N was fewer than 10.

example, in 1985 physical science doctorates were earned in the least amount of time, a median 6.8 years, and education degrees took the longest to obtain, 15.5 years. Asians had the shortest time-to-degree, but they were concentrated in the fields which have relatively short time-lapses. Conversely, Blacks, Hispanics, and most women clustered in education, where time-to-degree was lengthiest.

Table K shows how the 1985 gap in time-lapse narrowed, both between men and women and between minorities and the total, when data were examined by field. Rather than having a 2.7 year lag, women completed their doctorates more quickly than men in engineering, at the same pace in physical sciences, and between 0.3 and 1.2 years more slowly than men in all other fields. Asian Americans, who appeared to earn their Ph.D.s most quickly, are shown to be no faster than the average U.S. citizen when looked at by field. Hispanics, who had a 1.3 year gap from the average, closed the gap in all but one field and completed degrees more quickly than the average in three of the seven broad fields. The gap for Blacks--3.9 years--was also greatly reduced when each field was looked at separately: the variance was reduced to about 1.5 years.

## Sources of Support

Sources of support through graduate school may be a factor in differences in time-to-degree. A greater proportion of women than men reported their reliance on personal income--their own or their family's--as their primary means of graduate school support; in fact, the majority of women Ph.D.s said they did (52.2 percent). Moreover, a greater proportion of Blacks depended on personal sources than any other group; again, a majority did (53.5 percent). A majority of Asians (51.3 percent) reported primary support from university-related sources. These differences were partly the artifacts of field choice: as discussed above, women and Blacks tended to cluster in fields such as education, where there was little R&D funding, and Asians tended to concentrate in the natural sciences and engineering, where a greater funding pool existed. But when the data were disaggregated by field, differences in support were still apparent between the sexes and the races.

Table L (page 25) shows the differences between men and women, by field, in their primary sources of support.[2] The sexes had the greatest support differences in the fields of engineering and life sciences. Women in 1985 received proportionately more university-related support and relied less on personal income in engineering than in any other field, and this was the one field in which they completed their degrees more quickly than men. In life sciences, women were more likely to rely on personal sources and less likely to receive university support than men, and this was the field where the sexes' time-to-degree was most disparate, with women lagging men by 1.2 years. The type of support even within source categories was also somewhat variable. Typically, university-related support is offered through research assistantships or teaching assistantships. Based on primary work activities of employed scientists, research assistantships apparently would be an appropriate avenue for professional socialization, as most scientists and engineers work in the area of Research, Development, and Design.[3] Again looking at life scientists, not only did more men receive university-related contributions, but also about 10 percent more men received research assistantships than did women (33.3 percent vs. 23.2 percent).

Similarly for the racial/ethnic groups, comparisons of graduate school support by field demonstrate disparities. Table M (page 26) shows that 40.7 percent of all American recipients reported university-related support as their primary source of support through

[2] The differences in sources of support are not shown by field for minority women because of small cell counts in many fields.

[3] Betty D. Maxfield and Mary Belisle, *Science, Engineering, and Humanities Doctorates in the United States: 1983 Profile*. Tables 2-9 and 2-10, National Academy Press: Washington, D.C., 1985.

TABLE L Primary Sources of Support, by Field and Sex, 1985 (U.S. Citizens)

| Source | Total Fields | Physical Sciences | Engi-neering | Life Sciences | Social Sciences | Human-ities | Education | Professional and Other |
|---|---|---|---|---|---|---|---|---|
| Own/Family | | | | | | | | |
| Men | 39.6* | 13.7 | 23.3 | 20.8 | 47.4 | 44.6 | 77.0 | 60.6 |
| Women | 52.2 | 15.3 | 17.4 | 27.4 | 46.0 | 46.5 | 77.2 | 57.1 |
| University | | | | | | | | |
| Men | 45.7 | 76.8 | 61.0 | 55.1 | 35.5 | 45.4 | 12.4 | 28.2 |
| Women | 33.0 | 72.8 | 68.8 | 45.1 | 35.2 | 46.3 | 13.7 | 28.2 |
| Federal | | | | | | | | |
| Men | 8.9 | 6.3 | 8.4 | 21.2 | 8.0 | 4.2 | 3.6 | 4.2 |
| Women | 7.9 | 8.0 | 5.5 | 24.1 | 8.9 | 2.2 | 2.0 | 5.4 |
| Loans | | | | | | | | |
| Men | 0.7 | 0.5 | 0.0 | 1.0 | 7.2 | 2.9 | 3.6 | 2.9 |
| Women | 0.8 | 0.2 | 0.0 | 1.4 | 7.6 | 2.8 | 4.4 | 5.6 |
| Business/Industry | | | | | | | | |
| Men | 2.7 | 1.3 | 5.5 | 0.7 | 0.7 | 1.0 | 2.8 | 2.5 |
| Women | 4.2 | 1.8 | 2.8 | 1.0 | 0.3 | 0.5 | 1.5 | 1.1 |
| Nat'l Fellowship | | | | | | | | |
| Men | 1.7 | 0.9 | 1.4 | 0.8 | 0.7 | 0.8 | 0.1 | 0.4 |
| Women | 1.0 | 1.3 | 4.6 | 0.5 | 1.4 | 1.2 | 0.3 | 0.5 |
| Other | | | | | | | | |
| Men | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 1.0 | 0.6 | 1.2 |
| Women | 0.8 | 0.7 | 0.9 | 0.5 | 0.6 | 0.6 | 1.0 | 2.1 |

*Percentage with known primary source of support.

TABLE M Primary Sources of Support, by Field and Minority Status, 1985 (U.S. Citizens)

| Source | Total Fields | Physical Sciences | Engi-neering | Life Sciences | Social Sciences | Human-ities | Education | Professional and Other |
|---|---|---|---|---|---|---|---|---|
| Own/Family | 44.6* | 13.9 | 22.7 | 23.1 | 46.8 | 45.4 | 77.1 | 59.3 |
| Asian | 30.4 | 13.8 | 17.6 | 21.1 | 35.1 | 42.9 | 69.4 | 40.0 |
| Black | 53.5 | 12.5 | 27.8 | 27.4 | 38.1 | 28.3 | 70.9 | 45.2 |
| Hispanic | 40.4 | 17.5 | 18.8 | 17.2 | 40.8 | 35.1 | 61.7 | 44.4 |
| University | 40.7 | 76.1 | 61.7 | 51.6 | 35.4 | 45.8 | 13.1 | 28.2 |
| Asian | 51.3 | 77.5 | 68.9 | 48.6 | 38.6 | 45.7 | 19.3 | 40.0 |
| Black | 25.2 | 66.7 | 38.9 | 40.3 | 29.3 | 47.2 | 15.3 | 27.4 |
| Hispanic | 33.3 | 67.5 | 62.5 | 46.9 | 25.5 | 45.9 | 14.2 | 25.9 |
| Federal | 8.5 | 6.6 | 8.1 | 22.2 | 8.4 | 3.3 | 2.7 | 4.7 |
| Asian | 10.8 | 5.0 | 2.7 | 27.5 | 10.5 | 2.9 | 3.2 | 10.0 |
| Black | 11.2 | 12.5 | 22.2 | 29.0 | 19.0 | 9.4 | 4.6 | 16.1 |
| Hispanic | 14.8 | 5.0 | 12.5 | 31.3 | 14.3 | 2.7 | 16.3 | 18.5 |
| Loans | 3.3 | 0.4 | 0.0 | 1.2 | 7.4 | 2.8 | 4.0 | 3.9 |
| Asian | 2.5 | 0.0 | 0.0 | 0.0 | 8.8 | 2.9 | 6.5 | 5.0 |
| Black | 5.1 | 0.0 | 0.0 | 0.0 | 4.8 | 3.8 | 6.6 | 6.5 |
| Hispanic | 5.2 | 0.0 | 0.0 | 1.6 | 11.2 | 4.1 | 5.7 | 3.7 |
| Business/Industry | 1.4 | 1.4 | 5.2 | 0.8 | 0.5 | 0.7 | 2.1 | 2.0 |
| Asian | 2.9 | 2.5 | 6.6 | 1.8 | 3.5 | 0.0 | 1.6 | 5.0 |
| Black | 1.4 | 4.2 | 5.6 | 1.6 | 0.7 | 1.9 | 1.5 | 0.0 |
| Hispanic | 1.5 | 2.5 | 6.3 | 1.6 | 0.0 | 1.4 | 2.1 | 0.0 |
| Nat'l Fellowship | 0.8 | 1.0 | 1.7 | 0.7 | 1.0 | 1.0 | 0.2 | 0.4 |
| Asian | 0.9 | 1.3 | 2.7 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| Black | 2.7 | 4.2 | 5.6 | 1.6 | 8.2 | 5.7 | 0.5 | 1.6 |
| Hispanic | 4.1 | 5.0 | 0.0 | 1.6 | 8.2 | 8.1 | 0.0 | 7.4 |
| Other | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.8 | 0.8 | 1.5 |
| Asian | 1.1 | 0.0 | 1.4 | 0.9 | 1.8 | 5.7 | 0.0 | 0.0 |
| Black | 0.9 | 0.0 | 0.0 | 0.0 | 0 0 | 3.8 | 0.7 | 0.3 |
| Hispanic | 0.7 | 2.5 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 |

* Percentage of all U.S. citizens with known primary source of support.

graduate school. In contrast, 51.3 percent of Asian Americans reported such support, and they completed their degrees in the shortest amount of time. And while 44.6 percent of all recipients reported primary reliance on personal sources of support, only 30.4 percent of Asians did so. Conversely, the Black group, who completed their Ph.D.s over the longest period of time, had fewer members who reported institutional contributions as their primary source of support (25.2 percent) but more who indicated that they were supported by personal sources (53.5 percent).

Blacks had the lowest proportion of university-related support in the science and engineering fields. For example, 76.1 percent of all recipients in physical sciences indicated that the university was their primary source of support, but fewer Blacks so indicated--66.7 percent. Research assistantships in physical science fields were a primary support mechanism for 61.1 percent of university-supported recipients; however, they were awarded to far fewer of the Black physical scientists--31.3 percent. In contrast with the median 6.8 years to degree for all physical scientists, the median time-lapse for Blacks was 8.5 years.

This suggests that differential sources of support through graduate school may be a factor in differences in time-to-degree by gender and race. To look at this question, Table N compares time-lapse data of recipients whose primary source of support was personal

TABLE N Median Time-to-Degree, by Primary Source of Support, Field, Race, and Sex, 1985 (U.S. Citizens)

| | Total | Asian | Black | Hispanic | White | Men | Women |
|---|---|---|---|---|---|---|---|
| All Fields | | | | | | | |
| Personal | 14.1 | 14.8 | 17.1 | 14.2 | 13.9 | 13.2 | 15.3 |
| University | 8.0 | 8.1 | 11.0 | 9.0 | 7.9 | 7.6 | 9.0 |
| Physical Sciences | | | | | | | |
| Personal | 9.4 | 10.0 | * | * | 9.2 | 9.1 | 11.6 |
| University | 6.5 | 7.1 | 6.5 | 7.3 | 6.5 | 6.5 | 6.3 |
| Engineering | | | | | | | |
| Personal | 10.6 | 10.0 | * | * | 10.7 | 10.8 | 8.9 |
| University | 6.6 | 7.3 | * | 7.5 | 6.6 | 6.7 | 6.2 |
| Life Sciences | | | | | | | |
| Personal | 10.8 | 14.0 | 14.0 | 12.8 | 10.7 | 9.6 | 13.1 |
| University | 7.7 | 7.8 | 8.8 | 7.3 | 7.7 | 7.6 | 8.2 |
| Social Sciences | | | | | | | |
| Personal | 11.8 | 11.5 | 13.6 | 11.8 | 11.7 | 11.2 | 12.7 |
| University | 8.3 | 9.0 | 8.6 | 8.9 | 8.2 | 8.2 | 8.3 |
| Humanities | | | | | | | |
| Personal | 13.7 | 20.5 | 15.8 | 16.5 | 13.6 | 13.0 | 14.8 |
| University | 10.2 | 12.3 | 14.0 | 11.8 | 10.1 | 9.9 | 10.4 |
| Education | | | | | | | |
| Personal | 16.3 | 17.5 | 18.9 | 14.9 | 16.2 | 15.7 | 16.8 |
| University | 12.4 | 15.0 | 13.8 | 12.5 | 12.2 | 11.7 | 12.9 |
| Professional Fields | | | | | | | |
| Personal | 15.0 | * | 16.9 | 17.5 | 14.7 | 14.2 | 16.8 |
| University | 10.5 | * | 11.0 | * | 10.4 | 10.3 | 10.9 |

*The median is not reported because N was fewer than 10.

with those whose primary source was institutional, i.e., university-related; data are shown for each of the seven broad fields and each racial and gender group. An overall difference of 6.1 years in time-lapse appears between those Ph.D.s who relied primarily on their own or family resources and those Ph.D.s who received institutional support through the university. The size of the gap varied but was substantially the same for men, women, Asians, Blacks, Hispanics, and Whites (the range of difference was from 5.2 to 6.7 years).

In comparing the two types of primary support groups, some interesting data appear for men and women. Time-to-degree patterns of those receiving university-related support tended to converge: with the exception of education, time-lapses in all fields differed by a matter of months. But for those relying primarily on personal sources of income for their graduate school support, time-lapses diverged again: with the exception of engineers, women lagged men by 1.1 to 3.5 years. Among the racial groups, time-to-degree patterns for Ph.D.s supported by university contributions were similar in the sciences and engineering but began to vary outside those fields. When personal income was the primary source of support, the variance increased.

## Status of Postgraduation Plans

After the Ph.D. was obtained, differences between the races and between the sexes did not disappear. Outcomes also varied, such as the status of postgraduation plans and commitments to employment sectors. The "status" of plans refers to the certainty of such plans: respondents indicated either that they made a *definite* commitment, or were *negotiating* with one or more specific organizations, or were *seeking* a position. In the 1975-1985 period, about three-quarters of U.S. citizen Ph.D.s had definite postdoctorate plans, either for employment or for postdoctorate study. The low over this period was 73 percent; the high was 76 percent. This generally level trend masks differences by field, ethnicity, and sex. Trends by field over the 1975-1985 period show that the greatest percentage of new doctorates with definite plans received their degrees in professional fields, where the range was 81.5-86.2 percent. Humanities had the smallest proportion of new graduates with definite study or employment plans: 60-65 percent. Lying in between were engineering (range, 79.0-85.1 percent), physical sciences (76.4-83.1 percent), life sciences (74.1-79.0 percent), education (71.4-75.3 percent), and social sciences (68.5-75.8 percent). Although the ranges are small, solid prospects for recipients in life sciences and social sciences seem to be diminishing.

As depicted in Figure 9 (page 29), trends in postgraduation plans for minorities have been more erratic than the trend for Whites. In the early part of the period, Hispanics had slightly higher proportions of new doctorate recipients with definite plans than did the other groups; by 1977, however, all three minority groups had proportionately fewer members with definite status than did Whites. Asians tended to have the lowest such proportion, followed by Blacks and then Hispanics. To examine whether the rates were related to field choice, data were disaggregated by broad fields for 1985.

Table O (pages 30-31) displays the proportions and shows that in all fields but humanities the cohort of White doctorate recipients had more members with definite plans than did any other group. It was often the case that members of an ethnic group that had high rates of definite plans upon graduating from a given field also showed little clustering in that field, and vice versa. For example, Blacks had the highest proportion with definite postgraduation plans in humanities, yet humanities was a less popular field selection for Blacks than for any other ethnic group (see Table I, page 17). What is more, Hispanics had the lowest proportion of group members with definite plans in education and professional fields, but education was the most frequent field choice of Hispanics in 1985. Similarly, Asians trailed the other ethnic groups in having definite plans following the

receipt of the doctorate in engineering and in life and social sciences, yet life sciences was the field most frequently chosen by Asian recipients in 1985.

The differences in postgraduation plan status were not only found between the races: the sexes, too, showed disparity in plan status. The overall difference--about 6 or 7 percent more men than women had definite plans--was somewhat mitigated when data were looked at separately by field. Figure 10 (pages 32-33) shows that the gap narrowed in two fields, and in the instance of engineering was reversed. However, differences in certainty of plans persisted in some fields, with women having fewer definite plans.

Repeated for women was the phenomenon observed among minority groups-- that the less populated field choices had the highest proportion of recipients with definite plans. For example, engineering was the least frequently selected field by women in 1985, yet the highest proportion of women who had definite plans when they finished their degrees were engineers (83.8 percent). The second most popular field for women--social sciences--had the second lowest proportion with definite plans (65.1 percent).

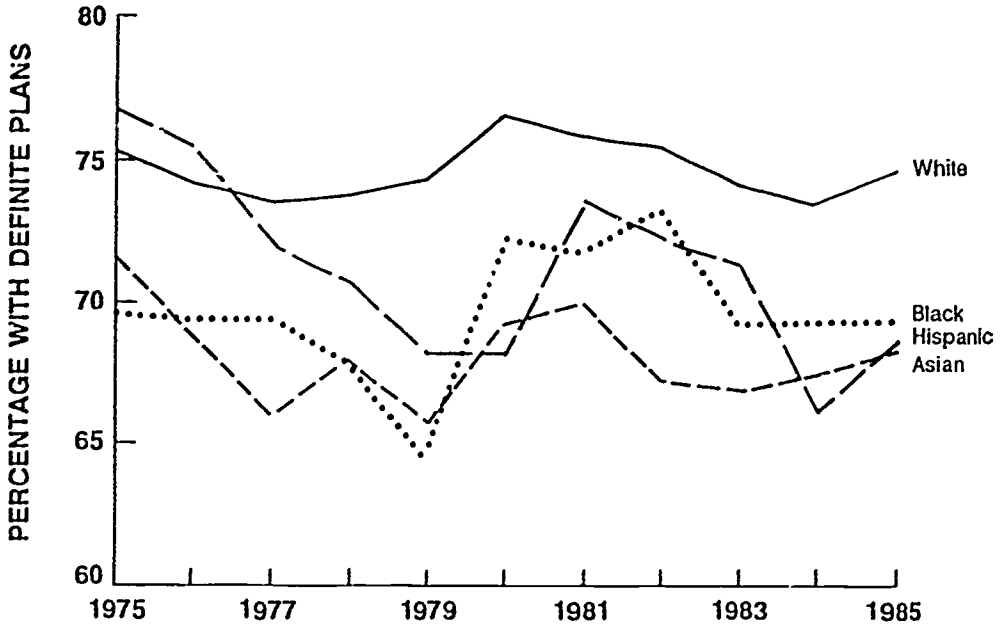


Figure 9 Percentage of new doctorates with definite postgraduation commitments, by race, 1975-1985 (U.S. citizens)

TABLE O Status of Postgraduation Plans, by Field, Sex, and Race, 1985 (U.S. Citizens)

| | Total Fields | Physical Sciences | Engi-neering | Life Sciences | Social Sciences | Human-ities | Education | Profession & Other |
|---|---|---|---|---|---|---|---|---|
| Total U.S. | | | | | | | | |
| *Definite* | 74.1 | 79.0 | 80.0 | 75.5 | 69.7 | 64.7 | 75.0 | 83.0 |
| Study | 15.7 | 29.7 | 8.0 | 44.2 | 10.6 | 3.3 | 1.8 | 1.5 |
| Employment | 58.4 | 49.4 | 72.0 | 31.3 | 59.2 | 61.3 | 73.3 | 81.6 |
| *Negotiating* | 7.7 | 8.0 | 10.8 | 8.2 | 9.2 | 6.4 | 6.5 | 5.2 |
| Study | 1.7 | 3.2 | 1.3 | 4.1 | 1.6 | 0.4 | 0.3 | 0.2 |
| Employment | 6.0 | 4.8 | 9.6 | 4.2 | 7.6 | 6.0 | 6.2 | 5.1 |
| *Seeking* | 18.2 | 12.9 | 9.2 | 16.2 | 21.1 | 28.9 | 18.4 | 11.8 |
| Study | 3.4 | 5.1 | 1.3 | 7.4 | 3.6 | 2.3 | 1.1 | 0.5 |
| Employment | 14.8 | 7.9 | 7.9 | 8.9 | 17.5 | 26.6 | 17.3 | 11.3 |
| Men | | | | | | | | |
| *Definite* | 76.7 | 79.7 | 79.6 | 76.1 | 72.7 | 66.7 | 79.3 | 88.2 |
| Study | 17.8 | 30.3 | 7.3 | 44.8 | 10.5 | 3.6 | 1.5 | 1.2 |
| Employment | 58.9 | 49.4 | 72.3 | 31.3 | 62.2 | 63.0 | 77.8 | 87.0 |
| *Negotiating* | 97.3 | 8.0 | 11.1 | 7.6 | 8.6 | 5.8 | 5.7 | 3.8 |
| Study | 1.8 | 3.1 | 1.3 | 3.8 | 1.5 | 0.5 | 0.2 | 0.0 |
| Employment | 5.5 | 4.8 | 9.8 | 3.8 | 7.1 | 5.4 | 5.5 | 3.8 |
| *Seeking* | 16.0 | 12.4 | 9.3 | 16.3 | 18.7 | 27.5 | 15.0 | 8.0 |
| Study | 3.5 | 5.2 | 1.3 | 7.5 | 3.1 | 2.2 | 0.7 | 0.4 |
| Employment | 12.4 | 7.2 | 8.0 | 8.8 | 15.6 | 25.3 | 14.3 | 7.6 |
| Women | | | | | | | | |
| *Definite* | 70.1 | 76.0 | 83.8 | 74.5 | 66.1 | 62.2 | 71.4 | 74.3 |
| Study | 12.5 | 26.5 | 14.4 | 43.1 | 10.6 | 3.0 | 2.0 | 1.8 |
| Employment | 57.6 | 49.5 | 69.4 | 31.4 | 55.5 | 59.2 | 69.5 | 72.5 |
| *Negotiating* | 8.3 | 8.3 | 8.1 | 9.5 | 9.9 | 7.1 | 7.2 | 7.6 |
| Study | 1.6 | 3.7 | 0.9 | 4.6 | 1.7 | 0.4 | 0.4 | 0.4 |
| Employment | 6.7 | 4.6 | 7.2 | 4.9 | 8.2 | 6.7 | 6.8 | 7.2 |
| *Seeking* | 21.7 | 15.7 | 8.1 | 16.0 | 23.9 | 30.7 | 21.4 | 18.1 |
| Study | 3.3 | 4.3 | 0.9 | 7.0 | 4.2 | 2.5 | 1.4 | 0.6 |
| Employment | 18.4 | 11.4 | 7.2 | 9.0 | 19.7 | 28.2 | 20.0 | 17.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Asians | | | | | | | | |
| *Definite* | 68.3 | 72.9 | 69.0 | 67.7 | 57.6 | 67.4 | 69.7 | 75.0 |
| Study | 21.2 | 28.1 | 6.0 | 51.2 | 10.2 | 0.0 | 3.0 | 0.0 |
| Employment | 47.1 | 44.8 | 63.1 | 16.5 | 47.5 | 67.4 | 66.7 | 75.0 |
| *Negotiating* | 9.3 | 4.2 | 15.5 | 11.0 | 10.2 | 4.7 | 6.1 | 15.0 |
| Study | 2.2 | 1.0 | 0.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Employment | 7.1 | 3.1 | 15.5 | 3.1 | 10.2 | 4.7 | 6.1 | 15.0 |
| *Seeking* | 22.4 | 22.9 | 15.5 | 21.3 | 32.2 | 27.9 | 24.2 | 10.0 |
| Study | 8.3 | 13.5 | 1.2 | 13.4 | 10.2 | 4.7 | 3.0 | 0.0 |
| Employment | 14.1 | 9.4 | 14.3 | 7.9 | 22.0 | 23.3 | 21.2 | 10.0 |
| Blacks | | | | | | | | |
| *Definite* | 69.3 | 58.6 | 70.6 | 74.6 | 59.9 | 83.3 | 69.5 | 78.3 |
| Study | 6.0 | 13.8 | 0.0 | 26.9 | 6.6 | 6.7 | 2.2 | 7.2 |
| Employment | 63.3 | 44.8 | 70.6 | 47.8 | 53.3 | 76.7 | 67.3 | 71.0 |
| *Negotiating* | 7.6 | 17.2 | 29.4 | 7.5 | 10.8 | 1.7 | 6.8 | 1.4 |
| Study | 0.6 | 10.3 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Employment | 7.1 | 6.9 | 29.4 | 4.5 | 10.8 | 1.7 | 6.8 | 1.4 |
| *Seeking* | 23.0 | 24.1 | 0.0 | 17.9 | 29.3 | 15.0 | 23.7 | 20.3 |
| Study | 2.2 | 3.4 | 0.0 | 4.5 | 4.8 | 1.7 | 1.3 | 0.0 |
| Employment | 20.8 | 20.7 | 0.0 | 13.4 | 24.6 | 13.3 | 22.4 | 20.3 |
| Hispanics | | | | | | | | |
| *Definite* | 68.3 | 78.6 | 75.0 | 70.7 | 66.4 | 65.2 | 67.2 | 67.9 |
| Study | 10.7 | 16.7 | 6.3 | 41.3 | 6.0 | 8.7 | 2.3 | 0.0 |
| Employment | 57.6 | 61.9 | 68.8 | 29.3 | 60.3 | 56.5 | 64.9 | 67.9 |
| *Negotiating* | 9.0 | 11.9 | 25.0 | 8.0 | 12.9 | 5.4 | 6.3 | 10.7 |
| Study | 1.7 | 2.4 | 0.0 | 4.0 | 2.6 | 0.0 | 0.6 | 3.6 |
| Employment | 7.4 | 9.5 | 25.0 | 4.0 | 10.3 | 5.4 | 5.7 | 7.1 |
| *Seeking* | 22.7 | 9.5 | 0.0 | 21.3 | 20.7 | 29.3 | 26.4 | 21.4 |
| Study | 3.9 | 0.0 | 0.0 | 8.0 | 2.6 | 6.5 | 3.4 | 0.0 |
| Employment | 18.8 | 9.5 | 0.0 | 13.3 | 18.1 | 22.8 | 23.0 | 21.4 |
| Whites | | | | | | | | |
| *Definite* | 74.6 | 79.6 | 81.1 | 75.9 | 70.3 | 64.2 | 75.9 | 83.9 |
| Study | 16.2 | 30.1 | 8.3 | 44.3 | 10.9 | 3.1 | 1.6 | 1.2 |
| Employment | 58.4 | 49.4 | 72.7 | 31.6 | 59.5 | 61.0 | 74.3 | 82.7 |
| *Negotiating* | 7.6 | 8.0 | 10.0 | 8.1 | 9.0 | 6.6 | 6.5 | 5.2 |
| Study | 1.7 | 3.2 | 1.4 | 4.0 | 1.7 | 0.4 | 0.3 | 0.1 |
| Employment | 5.9 | 4.7 | 8.6 | 4.2 | 7.4 | 6.1 | 6.2 | 5.1 |
| *Seeking* | 17.8 | 12.5 | 9.0 | 15.9 | 20.6 | 29.3 | 17.6 | 11.0 |
| Study | 3.4 | 4.8 | 1.3 | 7.2 | 3.5 | 2.2 | 1.0 | 0.5 |
| Employment | 14.4 | 7.6 | 7.7 | 8.7 | 17.2 | 27.1 | 16.6 | 10.4 |

*Details may not add to 100% because of rounding.

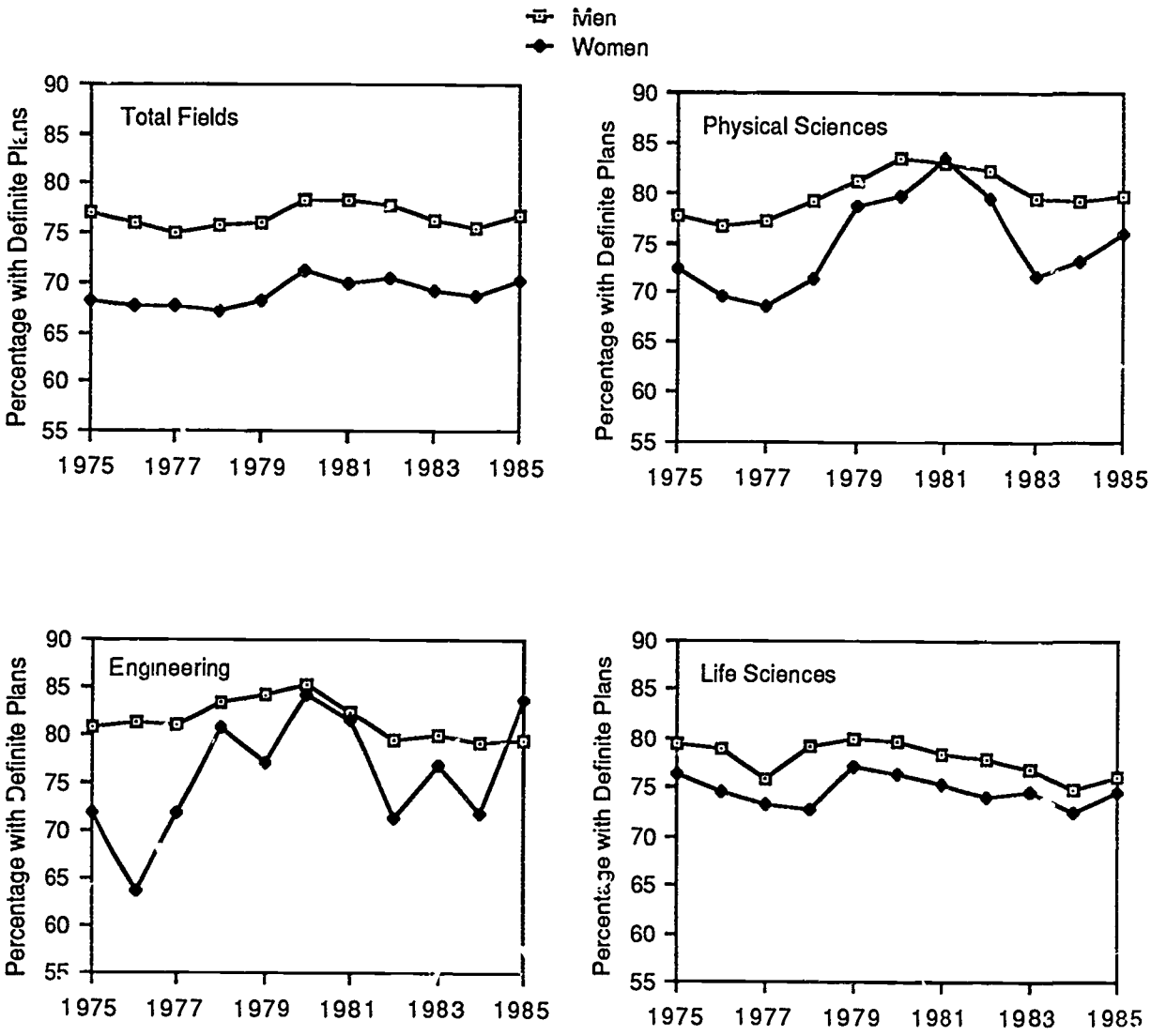


Figure 1: Percentage of new doctorates with definite postgraduation commitments, by sex and field, 1975-1985 (U.S. citizens)

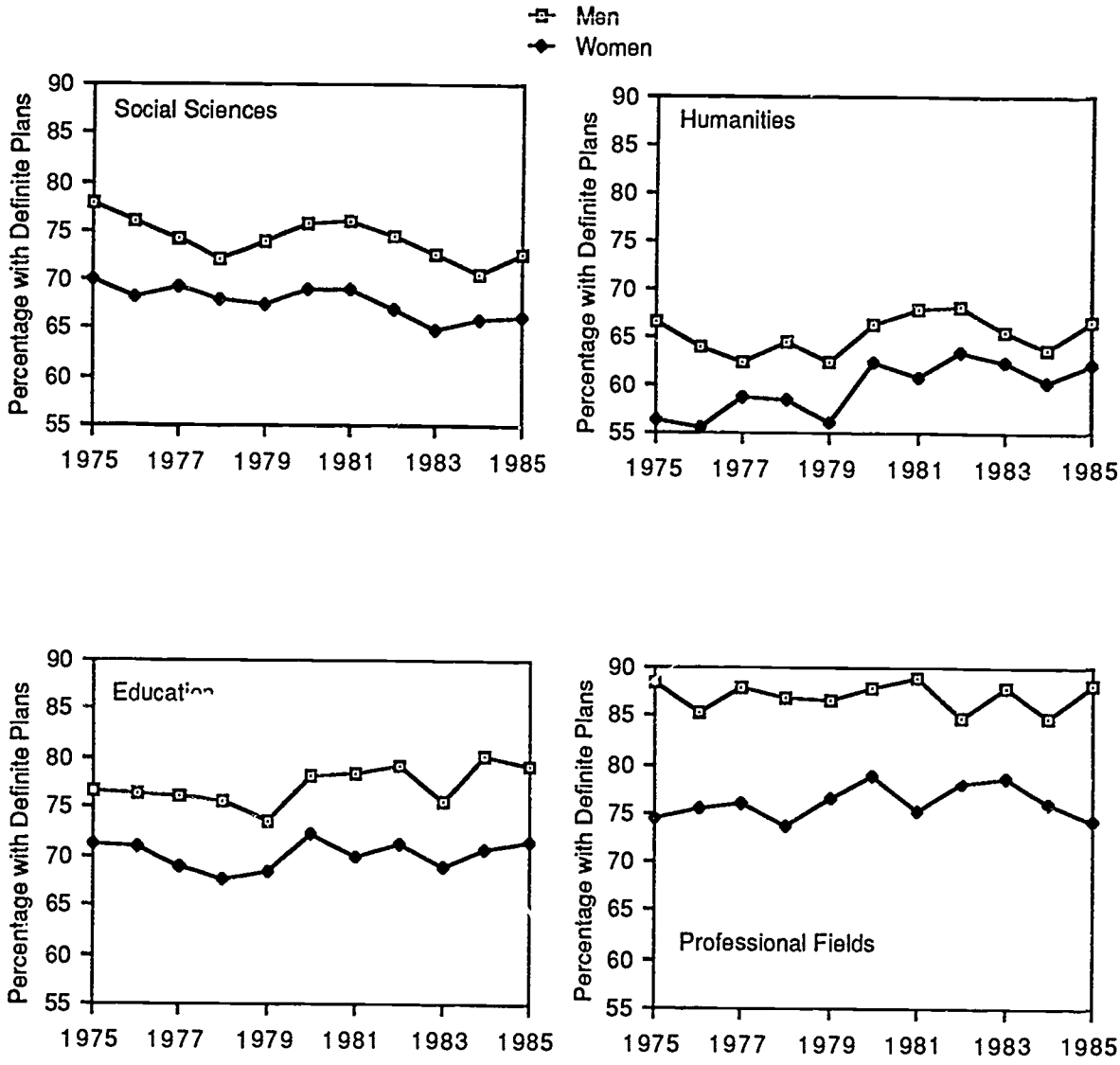


Figure 10 (continued)

## Employment Commitments

As discussed on page 8, the three major employment sectors that attract new Ph.D. recipients are academe, industry, and government. For U.S. citizens, the distribution among these sectors and the fourth category (Other) is quite similar to the distribution among U.S. citizens and non-U.S. citizens with permanent visas, described on pages 8-9. However, substantial variation appeared when the data were disaggregated by race and sex or by field. (See Tables P, below, and Q, page 35.)

The decline of academe as an employer of new doctorates coincided with the increase in new recipients joining industry or Other. The reduction of academic placements was most apparent in women's employment, especially White women's employment. In 1975, 70.9 percent of women who had definite work commitments in the U.S. intended to join academe. By 1985, the proportion had dropped over 18 points to 52.5 percent, with 7.9 percent being added to industry, 2.6 percent to government, and 7.9 percent to Other. Moreover, the reduction of academic jobs was very strongly seen in Black men's employment commitments: their proportion going to academe in 1975 had been 66.6 percent, but in 1985 it was 42.2 percent.

The sector with the largest proportionate increase of employment commitments was industry. Every group except Hispanic women increased its share going to the business sector. This was especially true among Asians, both for men and for women. The proportion of Asian men with definite commitments to industry rose from 28.0 percent in 1975 to 43.9 percent in 1985, again at the expense of both academic jobs and government

TABLE P Postgraduation Employment Commitments, by Employment Sector, Sex, and Minority Status, 1975 and 1985 (U.S. Citizens)

| | Academe | | Industry | | Government | | Other | |
|---|---|---|---|---|---|---|---|---|
| | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 |
| Total U.S. Citizens | 60.6* | 48.1 | 11.5 | 19.4 | 13.1 | 12.1 | 14.8 | 20.4 |
| Men | 57.8 | 45.4 | 13.5 | 23.7 | 14.3 | 12.5 | 14.5 | 18.3 |
| Women | 70.9 | 52.5 | 4.6 | 12.5 | 8.7 | 11.3 | 15.8 | 23.7 |
| Asian | 50.7 | 39.9 | 23.3 | 37.2 | 16.0 | 12.1 | 10.0 | 10.8 |
| Men | 48.0 | 37.2 | 28.0 | 43.9 | 15.2 | 9.5 | 8.8 | 9.5 |
| Women | 64.0 | 45.3 | 0.0 | 24.0 | 20.0 | 17.3 | 16.0 | 13.3 |
| Black | 67.6 | 49.6 | 2.5 | 6.0 | 11.9 | 13.9 | 18.0 | 30.4 |
| Men | 66.6 | 42.2 | 3.4 | 9.2 | 11.7 | 19.7 | 18.3 | 28.9 |
| Women | 69.4 | 54.6 | 0.9 | 4.0 | 12.2 | 10.1 | 17.6 | 31.4 |
| Hispanic | 70.7 | 56.7 | 10.6 | 11.4 | 8.1 | 11.1 | 10.6 | 20.8 |
| Men | 70.7 | 55.6 | 11.0 | 14.8 | 7.3 | 8.6 | 11.0 | 21.0 |
| Women | 70.6 | 57.9 | 8.8 | 7.6 | 11.8 | 13.8 | 8.8 | 20.7 |
| White | 60.3 | 48.0 | 11.8 | 19.9 | 13.2 | 12.0 | 14.7 | 20.1 |
| Men | 57.4 | 45.5 | 13.7 | 23.9 | 14.5 | 12.5 | 14.4 | 18.1 |
| Women | 71.1 | 52.2 | 4.9 | 13.2 | 8.3 | 11.2 | 15.7 | 23.4 |

* Proportion of those with definite employment commitments.

TABLE Q Postgraduation Employment Commitments, by Field of Ph.D., 1975 and 1985 (U.S. Citizens)

| | Academe | | Industry | | Government | | Other | |
|---|---|---|---|---|---|---|---|---|
| | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 | 1975 | 1985 |
| Physical Sciences | 41.4* | 32.5 | 38.2 | 53.9 | 17.4 | 11.5 | 2.9 | 2.1 |
| Engineering | 27.1 | 27.3 | 45.3 | 53.6 | 25.1 | 16.8 | 2.5 | 2.3 |
| Life Sciences | 59.0 | 54.2 | 15.3 | 25.5 | 18.7 | 14.4 | 7.0 | 5.9 |
| Social Sciences | 65.9 | 45.4 | 5.8 | 16.6 | 16.5 | 16.7 | 11.7 | 21.3 |
| Humanities | 85.6 | 76.3 | 2.3 | 6.4 | 3.4 | 3.3 | 8.6 | 14.0 |
| Education | 55.7 | 40.6 | 2.5 | 7.6 | 11.1 | 12.3 | 30.7 | 39.5 |
| Professional Flds | 78.2 | 70.9 | 6.4 | 9.5 | 5.5 | 7.1 | 9.8 | 12.5 |

* Proportion of those with definite employment commitments.

employment. The proportion of Asian women going to industry went from zero in 1975 to 24.0 percent and was drawn from all other types of sectoral commitments. White men also increased their proportion of business commitments to a sizable extent, rising from 13.7 percent in 1975 to 23.9 percent in 1985.

Despite a small reduction in the share of those having definite plans to work for government--from 13.1 percent in 1975 to 12.1 percent in 1985--some groups made more commitments to government over the period. Hispanics, Black men, and White women all raised their proportions. The category of Other also absorbed some of the commitments lost from academe.

Table Q shows that the shifts in U.S. employment sectors had varying impacts by field. The reduction of academic employment was felt in every field but engineering. The field hardest hit was social sciences, where new recipients' commitments to academe were down by 20.5 percentage points over the 1975-1985 period. Most of these Ph.D.s realigned with industry, going from 5.8 percent to 16.6 percent with business commitments. Doctorate recipients in humanities, education, and physical sciences also had far fewer academe commitments to academe.

The field where recipients had the greatest increase in work commitments to industry was physical sciences. In 1985, 53.9 percent of physical science Ph.Ds. planned to go into business, surpassing even the engineers in the percentage of new doctorates with such commitments.

## Summary

American women and minorities have made gains in their proportions among the new cohorts since 1975, the first year with reliable racial data. Some of the increase was due to the reduction in numbers of White men attaining the degree.

There was sometimes strong diversity between the sexes and among the racial/ethnic groups. Field composition and selection varied among the subgroups. The lowest proportion of minorities in 1985 was in physical sciences (5.9 percent); the largest was in education (13.5 percent). Asians tended to select engineering and the natural sciences over other fields. Hispanics, Blacks, and most of the women's subgroups tended to cluster in education.

Diversity was also apparent in median times-to-degree, with women and minorities experiencing a longer time-lapse between receipt of their baccalaureate and doctorate

degrees. However, when field was held constant, the gap in time-to-degree diminished and in some cases was reversed.

Differences among the subgroups were observed in sources of graduate school support, which almost certainly is a factor in the time-lapse diversity. Minorities and women had different sources of support than the non-minority and male candidates. This was particularly true for Blacks, who had the lowest proportion of university-related support in science and engineering. When disaggregated by field, the differences in support tapered but did not disappear. Regardless of field, the persons who relied primarily on personal sources of support took much longer to complete their degrees than did recipients who reported university contributions as their primary source of support.

In terms of status of their postgraduation plans, a greater proportion of Whites had definite plans for postdoctoral study or employment than did Asians, Blacks, or Hispanics. This outcome continued even when field was held constant, except in the case of humanities. In addition, a larger share of men than women had definite plans; again, this disparity narrowed but persisted when data were disaggregated by field.

When the employment sector of those with definite commitments was examined, a decline in academic employment over the 1975-1985 period was noted. Moreover, industry attracted a greater proportion of new recipients. Diminishing proportions of Ph.D.s with commitments to academe were seen most strongly among Black men and all women. Increasing proportions going to industry were observed especially among Asian men and women.

# APPENDIXES

## APPENDIX A: The Five Basic Tables

Table titles and headings are generally self-explanatory, but a few terms need special definition or explanation. The survey questionnaire is reproduced on pages 63-64.

| | |
|---|---|
| Table 1 | Number of Doctorate Recipients by Sex and Subfield, 1985 |
| Table 1A | Number of Doctorate Recipients by Citizenship, Racial/Ethnic Group, and Subfield, 1985 |
| Table 2 | Statistical Profile of Doctorate Recipients by Field of Doctorate, 1985 |
| Table 3 | Sources of Support in Graduate School of Doctorate Recipients by Sex and Summary Field, 1985 |
| Table 4 | State of Doctoral Institution of Doctorate Recipients by Sex and Summary Field, 1985 |
| Table 5 | Statistical Profile of Doctorate Recipients by Racial/Ethnic Group and U.S. Citizenship Status, 1985 |

*Tables 1 and 1A*: These tables display 1985 data by subfield of doctorate, corresponding to the fields specified in the Specialties List on page 65. The "general" field categories--e.g., "chemistry, general"--contain 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 included among the specialty fields.

*Table 2*: There are three two-page tables: one contains data about all doctorate recipients in 1985 and the other two present data by sex. Refer to the inside of the back cover of this report for the codes included in each broad field and to the Specialties List on page 65 for the codes and names of each subfield. Definitions are as follows:

- *Median Age at Doctorate*: One-half received the doctorate at or before this age.
- *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 Time Lapse*: "Total Time" refers to total calendar time elapsed between the year of baccalaureate and the year of doctorate; "Registered Time" refers to the total time registered in a university between baccalaureate and doctorate.

Each year's doctorate recipients provide information on postgraduation employment or study plans in response to items 20 and 21 on the survey form. Since the questionnaire is filled out at about the time the doctorate is received, these planned activities can be subject to change. However, comparisons with data from the longitudinal Survey of Doctorate Recipients have shown these data to be a reasonable predictor of actual employment status in the year following the doctorate.[4] Postgraduation plans of the doctorate recipients are grouped as follows: "Postdoctoral Study Plans" (fellowship, research associateship, traineeship, other), "Planned Employment" (educational institution, industry, etc.), or "Postdoctoral Status Unknown." The sum of these lines totals 100 percent for each column, with allowance for rounding: for example, 45.5 percent of all chemists had postdoctoral study plans, 47.4 percent planned to be employed, and 7.1 percent did not report their postgraduation plans; these total 100.0 percent. The study and employment rows are further subdivided--showing that 13.5 percent of all the chemists planned to pursue postdoctoral fellowships; 24.6 percent, research associateships; 0.6 percent, traineeships; and 0.8 percent, some other form of postdoctoral study. The employment row is similarly subdivided; the percentages, listed by type of employer (educational institution, industry, etc.), total 47.4 percent planning employment.

[4]See discussion on page 22 of the 1982 *Summary Report* and also *A Century of Doctorates: Data Analyses of Growth and Change* (Washington, D.C.: National Academy of Sciences, 1978, pp. 92-93).

The four lines of data beginning with "Definite Postdoctoral Study" distinguish between individuals who have definite postgraduation plans (item 19: "Am returning to, or continuing in, predoctoral employment" or "Have signed contract or made definite commitment") and those who are still seeking employment or postdoctoral study (item 19: "Am negotiating with one or more specific organizations," "Am seeking position but have no specific prospects," or "Other"). These four lines, when added to the prior line, "Postdoctoral Status Unknown," total 100 percent with allowance for rounding. The two lines "Definite Postdoctoral Study" and "Seeking Postdoctoral Study" add to give the percentage having "Postdoctoral Study Plans," and the two lines, "Definite Employment" and "Seeking Employment," add to give the percentage having "Planned Employment After Doctorate."

Percentages showing the distribution of doctorate recipients by work activity and by region of employment are based on those who have a definite employment commitment. They exclude those still seeking employment and those planning postdoctoral study as described above.

*Table 3:* Displayed in Table 3 are data reported from item 17 on all sources of financial support during the course of individuals' graduate education. The data in the table should be interpreted as follows: 147 male doctorate recipients in the physical sciences reported financial support from National Science Foundation fellowships during graduate school. This number is 4.1 percent of the male physical sciences doctorates who answered the question, and it is 37.4 percent of the males in all fields who reported NSF fellowship support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent.

*Table 4:* This table shows the number of persons receiving a doctorate from universities in each of the 50 states, the District of Columbia, and Puerto Rico.

*Table 5:* Table 5 contains data by racial/ethnic group (first included in the 1973 *Summary Report*) and by U.S. citizenship status for selected variables from Tables 2 and 3.

In 1977 the item on racial/ethnic group in the survey questionnaire was revised to coincide with the 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; an explanation of the effect of these changes is detailed on page 13 of the 1977 *Summary Report*. Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the White category to Asian in 1978. In 1980 two survey revisions were made: (1) the category Hispanic was subdivided into Puerto Rican, Mexican American, and Other Hispanic to provide more detail for users of the racial/ethnic data and (2) respondents were asked to check only one ethnic category. Prior to 1980, doctorate recipients could check more than one category to indicate their racial/ethnic background. However, when the data were compiled, all persons who checked Asian, American Indian, or Hispanic and also checked "White" were included in the minority-group category; and those whose responses were "Black" as well as any other category were designated as "Black."

Beginning with the 1982 survey, this item was revised to separate questions on racial and ethnic groups. Respondents are first asked to check one of the four racial group categories (American Indian, Asian, Black, or White) and then to indicate Hispanic heritage. For purposes of analysis all respondents who indicated Hispanic heritage, regardless of racial identification, are included in one of three Hispanic groups. The remaining survey respondents are then counted in the respective racial groups.

TABLE 1 Number of Doctorate Recipients by Sex and Subfield. 1985

| Subfield of Doctorate | Number of Doctorates | | |
|---|---|---|---|
| | Men | Women | Total |
| TOTAL ALL FIELDS | 20502 | 10699 | 31201 |
| PHYSICAL SCIENCES | 3817 | 714 | 4531 |
| MATHEMATICS | 583 | 106 | 689 |
| Applied Mathematics | 98 | 19 | 117 |
| Algebra | 49 | 6 | 55 |
| Analysis and Functional Analysis | 73 | 10 | 83 |
| Geometry | 33 | 2 | 35 |
| Logic | 26 | 4 | 30 |
| Number Theory | 16 | 2 | 18 |
| Probability and Math Statistics | 118 | 32 | 150 |
| Topology | 31 | 4 | 35 |
| Computing Theory and Practice | 14 | 1 | 15 |
| Operations Research | 16 | 6 | 22 |
| Mathematics. General | 73 | 12 | 85 |
| Mathematics. Other | 36 | 8 | 44 |
| COMPUTER SCIENCE | 278 | 33 | 311 |
| Computer Sciences | 230 | 20 | 250 |
| Information Sciences and Systems | 48 | 13 | 61 |
| PHYSICS AND ASTRONOMY | 976 | 102 | 1078 |
| Astronomy | 38 | 5 | 43 |
| Astrophysics | 51 | 6 | 57 |
| Acoustics | 7 | 3 | 10 |
| Atomic and Molecular | 52 | 6 | 58 |
| Electron | 3 | 1 | 4 |
| Elementary Particles | 146 | 8 | 154 |
| Fluids | 15 | 1 | 16 |
| Nuclear Structure | 79 | 7 | 86 |
| Optics | 41 | 9 | 50 |
| Plasma | 52 | 3 | 55 |
| Polymer | 8 | 3 | 11 |
| Solid State | 229 | 19 | 248 |
| Physics. General | 166 | 10 | 176 |
| Physics. Other | 89 | 21 | 110 |
| CHEMISTRY | 1474 | 362 | 1836 |
| Analytical | 223 | 62 | 285 |
| Inorganic | 204 | 47 | 251 |
| Nuclear | 6 | 1 | 7 |
| Organic | 414 | 79 | 493 |
| Pharmaceutical | 45 | 15 | 60 |
| Physical | 234 | 70 | 304 |
| Polymer | 70 | 14 | 84 |
| Theoretical | 41 | 7 | 48 |
| Chemistry. General | 169 | 45 | 214 |
| Chemistry. Other | 68 | 22 | 90 |
| EARTH. ATMOSPHERIC AND MARINE SCI | 506 | 111 | 617 |
| Atmospheric Physics and Chemistry | 15 | 1 | 16 |
| Atmospheric Dynamics | 20 | 1 | 21 |
| Meteorology | 20 | 2 | 22 |
| Atmos and Meteorological Sci. Gen | 10 | | 10 |
| Atmos and Meteorological Sci. Other | 10 | | 10 |
| Geology | 90 | 21 | 111 |
| Geochemistry | 37 | 11 | 48 |
| Geophysics and Seismology | 78 | 13 | 91 |
| Paleontology | 18 | 5 | 23 |
| Mineralogy. Petrology | 18 | 10 | 28 |
| Stratigraphy. Sedimentation | 18 | 5 | 23 |
| Geomorphology and Glacial Geology | 12 | 1 | 13 |
| Applied Geology | 8 | | 8 |
| Geological Sciences. General | 6 | 5 | 11 |
| Geological Sciences. Other | 8 | 3 | 11 |
| Environmental Sciences | 36 | 6 | 42 |
| Hydrology and Water Resources | 16 | 1 | 17 |
| Oceanography | 47 | 21 | 68 |
| Marine Sciences | 22 | 2 | 24 |
| Physical Sciences. Other | 17 | 3 | 20 |
| ENGINEERING | 2967 | 198 | 3165 |
| Aerospace. Aeronaut & Astronaut | 119 | 5 | 124 |
| Agricultural | 57 | 3 | 60 |
| Bioengineering and Biomedical | 58 | 11 | 69 |
| Ceramic | 19 | | 19 |
| Chemical | 405 | 35 | 440 |
| Civil | 339 | 18 | 357 |
| Communications | 28 | 2 | 30 |
| Computer | 51 | 5 | 56 |
| Electrical. Electronics | 603 | 28 | 631 |
| Engineering Mechanics | 84 | 4 | 88 |
| Engineering Physics | 11 | 1 | 12 |
| Engineering Science | 31 | | 31 |
| Environmental Health Engineering | 31 | 2 | 33 |
| Industrial | 86 | 6 | 92 |
| Materials Science | 165 | 23 | 188 |
| Mechanical | 402 | 22 | 424 |
| Metallurgical | 87 | 9 | 96 |
| Mining and Mineral | 16 | | 16 |
| Naval Architecture. Marine Eng | 8 | | 8 |
| Nuclear | 93 | 3 | 96 |
| Ocean | 25 | | 25 |
| Operations Research | 46 | 8 | 54 |
| Petroleum | 24 | | 24 |
| Polymer | 34 | 6 | 40 |
| Systems Engineering | 53 | 4 | 57 |
| Engineering. General | 26 | | 26 |
| Engineering. Other | 66 | 3 | 69 |
| LIFE SCIENCES | 3893 | 1855 | 5748 |
| BIOLOGICAL SCIENCES | 2537 | 1229 | 3766 |
| Biochemistry | 395 | 184 | 579 |
| Biophysics | 62 | 7 | 69 |
| Bacteriology | 13 | 4 | 17 |
| Plant Genetics | 23 | 8 | 31 |
| Plant Pathology | 30 | 8 | 38 |
| Plant Physiology | 46 | 12 | 58 |
| Botany. Other | 86 | 34 | 120 |
| Anatomy | 89 | 44 | 133 |
| Biometrics and Biostatistics | 28 | 12 | 40 |
| Cell Biology | 61 | 39 | 100 |
| Ecology | 148 | 52 | 200 |
| Embryology | 10 | 5 | 15 |
| Endocrinology | 13 | 4 | 17 |
| Entomology | 139 | 34 | 173 |
| Immunology | 68 | 53 | 121 |
| Molecular Biology | 182 | 95 | 277 |
| Microbiology | 174 | 113 | 287 |
| Neurosciences | 98 | 58 | 156 |
| Nutritional Sciences | 41 | 72 | 113 |
| Parasitology | 19 | 2 | 21 |
| Toxicology | 74 | 24 | 98 |
| Human and Animal Genetics | 56 | 49 | 105 |
| Human and Animal Pathology | 74 | 34 | 108 |
| Human and Animal Pharmacology | 155 | 74 | 229 |
| Human and Animal Physiology | 171 | 68 | 239 |
| Zoology. Other | 101 | 46 | 147 |
| Biological Sciences. General | 129 | 62 | 191 |
| Biological Sciences. Other | 52 | 32 | 84 |
| HEALTH SCIENCES | 290 | 434 | 724 |
| Audiology and Speech Pathology | 39 | 60 | 99 |
| Environmental Health | 18 | 13 | 31 |
| Public Health | 45 | 57 | 102 |
| Epidemiology | 28 | 48 | 76 |
| Nursing | 7 | 170 | 177 |
| Pharmacy | 78 | 28 | 106 |
| Veterinary Medicine | 34 | 17 | 51 |
| Health Sciences. General | 9 | 5 | 14 |
| Health Sciences. Other | 32 | 36 | 68 |
| AGRICULTURAL SCIENCES | 1066 | 192 | 1258 |
| Agricultural Economics | 126 | 21 | 147 |
| Animal Breeding and Genetics | 20 | 8 | 28 |
| Animal Nutrition | 65 | 13 | 78 |
| Animal Sciences. Other | 82 | 13 | 95 |
| Agronomy | 139 | 19 | 158 |
| Plant Breeding and Genetics | 74 | 14 | 88 |
| Plant Pathology | 65 | 24 | 89 |
| Plant Sciences. Other | 18 | 3 | 21 |
| Food Sciences | 103 | 33 | 136 |
| Soil Sciences | 90 | 7 | 97 |
| Horticulture Science | 65 | 11 | 76 |
| Fisheries Science | 31 | 5 | 36 |
| Wildlife Management | 37 | 1 | 38 |
| Forestry Science | 90 | 15 | 105 |
| Agriculture. General | 5 | | 5 |
| Agriculture. Other | 56 | 5 | 61 |

TABLE 1 (Continued)

| Subfield of Doctorate | Number of Doctorates | | |
|---|---|---|---|
| | Men | Women | Total |
| SOCIAL SCIENCES (INCL PSYCH) | 3368 | 2352 | 5720 |
| Anthropology | 172 | 181 | 353 |
| Area Studies | 14 | 5 | 19 |
| Criminology | 28 | 10 | 38 |
| Demography | 15 | 9 | 24 |
| Economics | 663 | 122 | 785 |
| Econometrics | 25 | 2 | 27 |
| Geography | 91 | 29 | 120 |
| International Relations | 62 | 16 | 78 |
| Political Science and Government | 299 | 108 | 407 |
| Public Policy Studies | 46 | 24 | 70 |
| Sociology | 227 | 234 | 461 |
| Statistics | 46 | 14 | 60 |
| Urban Studies | 55 | 21 | 76 |
| Social Sciences, General | 10 | 8 | 18 |
| Social Sciences, Other | 59 | 50 | 109 |
| PSYCHOLOGY | 1556 | 1519 | 3075 |
| Clinical | 580 | 580 | 1160 |
| Cognitive | 53 | 23 | 76 |
| Comparative | 9 | 2 | 11 |
| Counseling | 217 | 212 | 429 |
| Developmental | 63 | 113 | 176 |
| Experimental | 100 | 65 | 165 |
| Educational | 49 | 78 | 127 |
| Industrial and Organizational | 71 | 28 | 99 |
| Personality | 12 | 9 | 21 |
| Physiological | 44 | 35 | 79 |
| Psychometrics | 7 | 3 | 10 |
| Quantitative | 12 | 4 | 16 |
| School | 38 | 54 | 92 |
| Social | 73 | 93 | 166 |
| Psychology, General | 136 | 122 | 258 |
| Psychology, Other | 92 | 98 | 190 |
| HUMANITIES | 1939 | 1489 | 3428 |
| History, American | 126 | 49 | 175 |
| History, European | 86 | 56 | 142 |
| History of Science | 21 | 2 | 23 |
| History, General | 57 | 30 | 87 |
| History, Other | 75 | 41 | 116 |
| Classics | 26 | 10 | 44 |
| Comparative Literature | 53 | 80 | 133 |
| Linguistics | 85 | 91 | 176 |
| Speech and Debate | 21 | 17 | 38 |
| Letters, General | 5 | 8 | 13 |
| Letters, Other | 11 | 15 | 26 |
| American Studies | 45 | 42 | 87 |
| Archeology | 15 | 9 | 24 |
| Art History and Criticism | 41 | 96 | 137 |
| Music | 307 | 140 | 447 |
| Philosophy | 196 | 42 | 238 |
| Religion | 148 | 33 | 181 |
| Theatre | 54 | 38 | 92 |
| LANGUAGE AND LITERATURE | 525 | 638 | 1163 |
| American | 108 | 95 | 203 |
| English | 223 | 302 | 525 |
| French | 25 | 61 | 86 |
| German | 30 | 32 | 62 |
| Italian | 8 | 6 | 14 |
| Spanish | 54 | 91 | 145 |
| Russian | 13 | 15 | 28 |
| Slavic | 7 | 3 | 10 |
| Chinese | 7 | 7 | 14 |
| Japanese | 10 | 3 | 13 |
| Hebrew | 6 | 3 | 9 |
| Arabic | 4 | 1 | 5 |
| Other Languages | 30 | 19 | 49 |
| Humanities, General | 16 | 11 | 27 |
| Humanities, Other | 26 | 33 | 59 |

| Subfield of Doctorate | Number of Doctorates | | |
|---|---|---|---|
| | Men | Women | Total |
| PROFESSIONAL FIELDS | 1261 | 595 | 1856 |
| BUSINESS ADMINISTRATION | 649 | 144 | 793 |
| Accounting | 119 | 29 | 148 |
| Banking and Finance | 95 | 9 | 104 |
| Business Admin and Management | 159 | 20 | 179 |
| Business Economics | 18 | 2 | 20 |
| Marketing Management and Research | 70 | 24 | 94 |
| Business Statistics | 8 | 1 | 9 |
| Operations Research | 41 | 4 | 45 |
| Organizational Behavior | 39 | 29 | 68 |
| Business and Management, General | 40 | 10 | 50 |
| Business and Management, Other | 60 | 16 | 76 |
| COMMUNICATIONS | 155 | 111 | 266 |
| Communications Research | 25 | 30 | 55 |
| Journalism | 14 | 8 | 22 |
| Radio and Television | 12 | 7 | 19 |
| Communications, General | 58 | 31 | 89 |
| Communications, Other | 46 | 35 | 81 |
| OTHER PROFESSIONAL FIELDS | 457 | 340 | 797 |
| Architecture, Environmental Design | 24 | 12 | 36 |
| Home Economics | 13 | 77 | 90 |
| Law | 24 | 1 | 25 |
| Library and Archival Science | 33 | 39 | 72 |
| Public Administration | 82 | 27 | 109 |
| Social Work | 79 | 139 | 218 |
| Theology | 193 | 36 | 229 |
| Professional Fields, General | | | |
| Professional Fields, Other | 9 | 9 | 18 |
| EDUCATION | 3237 | 3480 | 6717 |
| Curriculum and Instruction | 323 | 500 | 823 |
| Educational Admin and Supervision | 926 | 679 | 1605 |
| Educational Media | 51 | 50 | 101 |
| Educational Statistics and Research | 31 | 43 | 74 |
| Educational Testing, Eval and Meas | 20 | 24 | 44 |
| Educational Psychology | 174 | 216 | 390 |
| School Psychology | 45 | 57 | 102 |
| Social Foundations | 75 | 59 | 134 |
| Special Education | 85 | 185 | 270 |
| Student Counseling, Personnel Serv | 186 | 209 | 395 |
| Higher Education | 298 | 288 | 586 |
| Pre-elementary Education | 10 | 57 | 67 |
| Elementary Education | 31 | 90 | 121 |
| Junior High Education | 1 | | 1 |
| Secondary Education | 31 | 38 | 69 |
| Adult and Continuing Education | 95 | 113 | 208 |
| TEACHING FIELDS | 560 | 557 | 1117 |
| Agricultural Education | 34 | 6 | 40 |
| Art Education | 18 | 25 | 43 |
| Business Education | 19 | 33 | 52 |
| English Education | 24 | 44 | 68 |
| Foreign Languages Education | 16 | 14 | 30 |
| Health Education | 27 | 62 | 89 |
| Home Economics Education | 3 | 18 | 21 |
| Industrial Arts Education | 13 | | 13 |
| Mathematics Education | 33 | 32 | 65 |
| Music Education | 57 | 23 | 80 |
| Nursing Education | 1 | 20 | 21 |
| Physical Education | 136 | 84 | 220 |
| Reading Education | 20 | 93 | 113 |
| Science Education | 49 | 39 | 88 |
| Social Science Education | 16 | 8 | 24 |
| Speech Education | 4 | 3 | 7 |
| Trade and Industrial Education | 59 | 23 | 82 |
| Other Teaching Fields | 31 | 30 | 61 |
| Education, General | 159 | 144 | 303 |
| Education, Other | 136 | 171 | 307 |
| OTHER AND UNSPECIFIED | 20 | 16 | 36 |

SOURCE: National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File

TABLE 1A Number of Doctorate Recipients by Citizenship, Racial/Ethnic Group, and Subfield, 1985

| Subfield of Doctorate | Total Doctorates | Non-U.S. Citizens Temp. Visas | U.S. Citizens and Non-U.S. with Permanent Visas Racial/Ethnic Group[1] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Amer. Ind. | Asian | Black | White | Puerto Rican | Mexican | Other Hispanic | Other & Unk |
| TOTAL ALL FIELDS | 31201[2] | 5214 | 24561 | 93 | 1067 | 1040 | 21174 | 145 | 191 | 295 | 556 |
| PHYSICAL SCIENCES | 4531 | 1066 | 3281 | 4 | 220 | 41 | 2856 | 8 | 18 | 28 | 106 |
| MATHEMATICS | 689 | 239 | 418 | | 33 | 7 | 350 | | 5 | 7 | 16 |
| Applied Mathematics | 117 | 47 | 64 | | 6 | | 51 | | 3 | 2 | 2 |
| Algebra | 55 | 21 | 34 | | 2 | | 30 | | | | 2 |
| Analysis and Functional Analysis | 83 | 27 | 56 | | 2 | | 51 | | | 1 | 2 |
| Geometry | 35 | 14 | 21 | | 1 | | 18 | | | 1 | 1 |
| Logic | 30 | 6 | 24 | | 2 | | 21 | | | | 1 |
| Number Theory | 18 | 7 | 11 | | | | 10 | | | | 1 |
| Probability and Math Statistics | 150 | 61 | 88 | | 14 | 4 | 67 | | 2 | 1 | |
| Topology | 35 | 9 | 26 | | 1 | | 24 | | | 1 | |
| Computing Theory and Practice | 15 | 2 | 13 | | | | 12 | | | | 1 |
| Operations Research | 22 | 8 | 14 | | 1 | | 13 | | | | |
| Mathematics, General | 85 | 25 | 36 | | 2 | 1 | 28 | | | 1 | 4 |
| Mathematics, Other | 44 | 12 | 31 | | 2 | 2 | 25 | | | | 2 |
| COMPUTER SCIENCE | 311 | 89 | 213 | | 17 | 3 | 177 | | 2 | 4 | 10 |
| Computer Sciences | 250 | 71 | 170 | | 16 | 3 | 141 | | 2 | 1 | 7 |
| Information Sciences and Systems | 61 | 18 | 43 | | 1 | | 36 | | | 3 | 3 |
| PHYSICS AND ASTRONOMY | 1078 | 289 | 744 | 1 | 37 | 4 | 656 | 1 | 3 | 9 | 33 |
| Astronomy | 43 | 6 | 36 | | | | 33 | | | | 3 |
| Astrophysics | 57 | 8 | 48 | | 2 | | 44 | | | | 2 |
| Acoustics | 10 | 2 | 8 | | 1 | | 7 | | | | |
| Atomic and Molecular | 58 | 15 | 43 | 1 | 1 | | 40 | | | | 1 |
| Electron | 4 | 1 | 3 | | | | 3 | | | | |
| Elementary Particles | 154 | 48 | 105 | | 7 | 1 | 94 | | 1 | 1 | 1 |
| Fluids | 16 | 5 | 11 | | | | 9 | | | 1 | 1 |
| Nuclear Structure | 86 | 22 | 64 | | 2 | | 54 | | | 2 | 6 |
| Optics | 50 | 13 | 35 | | 1 | | 34 | | | | |
| Plasma | 55 | 15 | 40 | | 2 | | 36 | | | 1 | 1 |
| Polymer | 11 | 3 | 8 | | 3 | | 5 | | | | |
| Solid State | 248 | 79 | 169 | | 10 | 1 | 149 | 1 | 1 | 2 | 5 |
| Physics, General | 176 | 45 | 95 | | 6 | 1 | 78 | | | 1 | 9 |
| Physics, Other | 110 | 27 | 79 | | 2 | 1 | 70 | | 1 | 1 | 4 |
| CHEMISTRY | 1836 | 330 | 1431 | 2 | 112 | 23 | 1242 | 7 | 5 | 5 | 35 |
| Analytical | 285 | 36 | 248 | 1 | 9 | 2 | 230 | 2 | | 1 | 3 |
| Inorganic | 251 | 38 | 211 | | 13 | 2 | 187 | 1 | 1 | 2 | 5 |
| Nuclear | 7 | 1 | 6 | | | 1 | 5 | | | | |
| Organic | 493 | 87 | 401 | | 38 | 11 | 341 | 3 | 2 | 1 | 5 |
| Pharmaceutical | 60 | 9 | 48 | | 10 | | 36 | | | | 2 |
| Physical | 304 | 54 | 248 | | 10 | 2 | 224 | 1 | 2 | | 9 |
| Polymer | 84 | 25 | 59 | | 18 | 2 | 39 | | | | |
| Theoretical | 48 | 5 | 43 | | 2 | | 40 | | | | 1 |
| Chemistry, General | 214 | 35 | 101 | | 9 | 2 | 81 | | | 1 | 8 |
| Chemistry, Other | 90 | 20 | 66 | 1 | 3 | 1 | 59 | | | | 2 |
| EARTH, ATMOSPHERIC AND MARINE SCI | 617 | 117 | 475 | 1 | 21 | 4 | 431 | | 3 | 3 | 12 |
| Atmospheric Physics and Chemistry | 16 | 1 | 15 | | 1 | | 14 | | | | |
| Atmospheric Dynamics | 21 | 6 | 15 | | 2 | | 13 | | | | |
| Meteorology | 22 | 6 | 16 | | 1 | 1 | 14 | | | | |
| Atmos and Meteorological Sci, Gen | 10 | 4 | 6 | | 1 | | 4 | | | | 1 |
| Atmos and Meteorological Sci, Other | 10 | 3 | 6 | | | | 6 | | | | |
| Geology | 111 | 22 | 86 | 1 | 2 | | 79 | | | 1 | 3 |
| Geochemistry | 48 | 9 | 39 | | | 2 | 36 | | | | 1 |
| Geophysics and Seismology | 91 | 21 | 65 | | 6 | | 56 | | 2 | | 1 |
| Paleontology | 23 | 1 | 20 | | | | 20 | | | | |
| Mineralogy, Petrology | 28 | 3 | 25 | | | | 24 | | | | 1 |
| Stratigraphy, Sedimentation | 23 | 3 | 20 | | | | 20 | | | | |
| Geomorphology and Glacial Geology | 13 | 1 | 12 | | | | 12 | | | | |
| Applied Geology | 8 | 1 | 7 | | | | 5 | | 1 | | 1 |
| Geological Sciences, General | 11 | 1 | 8 | | | | 8 | | | | |
| Geological Sciences, Other | 11 | 3 | 8 | | | | 8 | | | | |
| Environmental Sciences | 42 | 6 | 35 | | 2 | 1 | 30 | | | 2 | |
| Hydrology and Water Resources | 17 | 5 | 9 | | 2 | | 7 | | | | |
| Oceanography | 68 | 13 | 52 | | 2 | | 47 | | | | 3 |
| Marine Sciences | 24 | 4 | 20 | | | | 20 | | | | |
| Physical Sciences, Other | 20 | 4 | 11 | | 2 | | 8 | | | | 1 |
| ENGINEERING | 3165 | 1413 | 1594 | 1 | 281 | 34 | 1188 | 5 | 6 | 11 | 68 |
| Aerospace, Aeronaut & Astronaut | 124 | 51 | 70 | | 12 | 3 | 53 | | | | 2 |
| Agricultural | 60 | 34 | 26 | | 1 | 2 | 21 | 1 | 1 | | |
| Bioengineering and Biomedical | 69 | 14 | 52 | | 5 | | 45 | | | | 2 |
| Ceramic | 19 | 5 | 13 | | 1 | | 11 | | | | 1 |
| Chemical | 440 | 172 | 257 | | 48 | 4 | 190 | 1 | 1 | | 13 |
| Civil | 357 | 191 | 152 | | 24 | 4 | 114 | 2 | 1 | 4 | 3 |

1/ For an explanation of racial/ethnic groups see items 9 and 10 on questionnaire on page 63 and description on page 39.
2/ Includes 1,426 individuals who did not report their citizenship at time of doctorate.

TABLE 1A (continued)

| Subfield of Doctorate | Total Doctorates | Non-U.S. Citizens Temp. Visas | U.S. Citizens and Non-U.S. with Permanent Visas Racial/Ethnic Group[1] | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Amer. Ind. | Asian | Black | White | Puerto Rican | Mex-ican | Other His-panic | Other & Unk |
| Communications | 30 | 12 | 17 | | 5 | | 12 | | | | |
| Computer | 56 | 25 | 25 | | 12 | | 13 | | | | |
| Electrical, Electronics | 631 | 273 | 312 | 1 | 46 | 8 | 235 | | 3 | 1 | 18 |
| Engineering Mechanics | 88 | 46 | 37 | | 7 | 1 | 27 | | | | 2 |
| Engineering Physics | 12 | 4 | 8 | | 2 | | 6 | | | | |
| Engineering Science | 31 | 13 | 18 | | 4 | | 13 | 1 | | | |
| Environmental Health Engineering | 33 | 15 | 18 | | 2 | | 16 | | | | |
| Industrial | 92 | 48 | 37 | | 6 | 2 | 27 | | | | 2 |
| Materials Science | 188 | 78 | 102 | | 17 | | 81 | | | | 4 |
| Mechanical | 424 | 191 | 214 | | 51 | 2 | 149 | | | 3 | 9 |
| Metallurgical | 96 | 43 | 50 | | 10 | 2 | 37 | | | | 1 |
| Mining and Mineral | 16 | 8 | 7 | | | | 7 | | | | |
| Naval Architecture, Marine Eng | 8 | 6 | 2 | | | | 2 | | | | |
| Nuclear | 96 | 48 | 43 | | 5 | 1 | 35 | | | 1 | 1 |
| Ocean | 25 | 20 | 5 | | | | 5 | | | | |
| Operations Research | 54 | 25 | 28 | | 5 | | 21 | | | 1 | 1 |
| Petroleum | 24 | 11 | 11 | | 5 | | 6 | | | | |
| Polymer | 40 | 16 | 24 | | 7 | 2 | 15 | | | | |
| Systems Engineering | 57 | 29 | 25 | | 2 | 2 | 18 | | | | 3 |
| Engineering, General | 26 | 9 | 4 | | | | 3 | | | | 1 |
| Engineering, Other | 69 | 26 | 37 | | 4 | 1 | 26 | | | 1 | 5 |
| LIFE SCIENCES | 5748 | 922 | 4619 | 18 | 210 | 98 | 4112 | 18 | 17 | 53 | 93 |
| BIOLOGICAL SCIENCES | 3766 | 422 | 3234 | 13 | 151 | 53 | 2890 | 10 | 11 | 38 | 68 |
| Biochemistry | 579 | 69 | 498 | 2 | 34 | 6 | 439 | 1 | 1 | 6 | 9 |
| Biophysics | 69 | 9 | 58 | | 4 | | 54 | | | | |
| Bacteriology | 17 | 2 | 15 | 1 | | 1 | 13 | | | | |
| Plant Genetics | 31 | 6 | 25 | | 2 | 1 | 20 | 1 | | | 1 |
| Plant Pathology | 38 | 10 | 28 | | 2 | 2 | 24 | | | | |
| Plant Physiology | 58 | 12 | 46 | | 1 | | 43 | | 1 | | 1 |
| Botany, Other | 120 | 17 | 100 | 3 | 4 | 1 | 88 | | | 2 | 2 |
| Anatomy | 133 | 10 | 118 | | 7 | | 109 | | | 1 | 1 |
| Biometrics and Biostatistics | 40 | 6 | 33 | | 3 | 2 | 25 | | 1 | | 2 |
| Cell Biology | 100 | 7 | 90 | 1 | 4 | 1 | 80 | 1 | 1 | | 2 |
| Ecology | 200 | 17 | 182 | 1 | 5 | | 172 | 2 | | 1 | 1 |
| Embryology | 15 | | 15 | | | | 15 | | | | |
| Endocrinology | 17 | 3 | 14 | | 1 | | 12 | | 1 | | |
| Entomology | 173 | 32 | 136 | | 1 | 1 | 128 | 2 | 1 | 1 | 2 |
| Immunology | 121 | 10 | 110 | | 6 | 2 | 95 | | | 2 | 5 |
| Molecular Biology | 277 | 30 | 244 | 3 | 15 | 1 | 218 | 1 | | 2 | 4 |
| Microbiology | 287 | 38 | 241 | 1 | 8 | 5 | 222 | | 2 | 2 | 1 |
| Neurosciences | 156 | 12 | 141 | | 3 | 1 | 133 | | | 3 | 1 |
| Nutritional Sciences | 113 | 24 | 88 | | 5 | 4 | 72 | 1 | | 1 | 5 |
| Parasitology | 21 | 3 | 18 | | 1 | 2 | 14 | | | 1 | |
| Toxicology | 98 | 6 | 89 | 1 | 4 | 1 | 82 | | 1 | | |
| Human and Animal Genetics | 105 | 11 | 92 | | 5 | 3 | 78 | | | 1 | 5 |
| Human and Animal Pathology | 108 | 13 | 94 | | 2 | 1 | 89 | | | 2 | |
| Human and Animal Pharmacology | 229 | 19 | 205 | | 11 | 7 | 76 | | | 4 | 7 |
| Human and Animal Physiology | 239 | 23 | 204 | | 8 | 4 | 166 | | | 3 | 3 |
| Zoology, Other | 147 | 9 | 128 | | 6 | 5 | 115 | | | 1 | 1 |
| Biological Sciences, General | 191 | 14 | 153 | | 8 | 1 | 126 | | 2 | 2 | 14 |
| Biological Sciences, Other | 84 | 10 | 69 | | 1 | 1 | 62 | 1 | | 3 | 1 |
| HEALTH SCIENCES | 724 | 97 | 572 | 1 | 33 | 23 | 491 | 4 | 4 | 6 | 10 |
| Audiology and Speech Pathology | 99 | 3 | 96 | | | 5 | 85 | | 3 | 1 | 2 |
| Environmental Health | 31 | 3 | 28 | 1 | | | 25 | | | | 2 |
| Public Health | 102 | 11 | 80 | | 2 | 8 | 68 | | | 2 | |
| Epidemiology | 76 | 11 | 62 | | 2 | 1 | 57 | 1 | | 1 | |
| Nursing | 177 | 15 | 157 | | 3 | 4 | 146 | 2 | 1 | | 1 |
| Pharmacy | 106 | 31 | 59 | | 19 | | 34 | 1 | | 1 | 4 |
| Veterinary Medicine | 51 | 17 | 32 | | 3 | 2 | 27 | | | | |
| Health Sciences, General | 14 | 1 | 5 | | | | 5 | | | | |
| Health Sciences, Other | 68 | 5 | 53 | | 4 | 3 | 44 | | | 1 | 1 |
| AGRICULTURAL SCIENCES | 1258 | 403 | 813 | 4 | 26 | 22 | 731 | 4 | 2 | 9 | 15 |
| Agricultural Economics | 147 | 48 | 87 | | 2 | 6 | 72 | 2 | 1 | | 4 |
| Animal Breeding and Genetics | 28 | 9 | 18 | | | | 17 | | | | 1 |
| Animal Nutrition | 78 | 25 | 53 | | | | 50 | 1 | | 1 | 1 |
| Animal Sciences, Other | 95 | 28 | 64 | | 1 | 2 | 55 | | | 1 | 5 |
| Agronomy | 158 | 58 | 93 | 1 | 1 | 1 | 90 | | | | |
| Plant Breeding and Genetics | 88 | 25 | 63 | | 5 | | 56 | | 1 | 1 | |
| Plant Pathology | 89 | 25 | 63 | | 2 | 1 | 58 | 1 | | | 1 |
| Plant Sciences, Other | 21 | 8 | 12 | | | | 11 | | | 1 | |
| Food Sciences | 136 | 53 | 79 | 1 | 9 | 4 | 64 | | | 1 | |
| Soil Sciences | 97 | 41 | 54 | | 1 | 2 | 49 | | | 2 | |
| Horticulture Science | 76 | 27 | 46 | | 3 | | 42 | | | 1 | |
| Fisheries Science | 36 | 2 | 33 | | | | 33 | | | | |
| Wildlife Management | 38 | 4 | 33 | | | 1 | 32 | | | | |
| Forestry Science | 105 | 19 | 83 | 2 | 1 | 2 | 76 | | | | 2 |
| Agriculture, General | 5 | 1 | 2 | | | 1 | 1 | | | | |
| Agriculture, Other | 61 | 30 | 30 | | 1 | 2 | 25 | | | 1 | 1 |

TABLE 1A (continued)

| Subfield of Doctorate | Total Doctorates | Non-U.S. Citizens Temp. Visas | U.S. Citizens and Non-U.S. with Permanent Visas Racial/Ethnic Group[1] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Amer. Ind. | Asian | Black | White | Puerto Rican | Mexican | Other Hispanic | Other & Unk |
| **SOCIAL SCIENCES (INCL PSYCH)** | **5720** | **666** | **4747** | **17** | **118** | **205** | **4159** | **25** | **44** | **65** | **114** |
| Anthropology | 353 | 23 | 316 | 3 | 12 | 10 | 260 | 2 | 5 | 8 | 16 |
| Area Studies | 19 | 3 | 14 | | 1 | 1 | 9 | | | 2 | 1 |
| Criminology | 38 | 7 | 31 | | 2 | 2 | 27 | | | | |
| Demography | 24 | 12 | 12 | 1 | | | 9 | | 1 | | 1 |
| Economics | 785 | 269 | 481 | 2 | 26 | 14 | 405 | 2 | 3 | 9 | 20 |
| Econometrics | 27 | 10 | 17 | | 1 | 1 | 15 | | | | |
| Geography | 120 | 26 | 86 | | 4 | 1 | 77 | 1 | 1 | 1 | 1 |
| International Relations | 78 | 13 | 60 | | 1 | 4 | 46 | 1 | | 3 | 5 |
| Political Science and Government | 407 | 79 | 292 | 1 | 10 | 22 | 236 | | 2 | 4 | 17 |
| Public Policy Studies | 70 | 9 | 58 | | 1 | 4 | 53 | | | | |
| Sociology | 461 | 60 | 380 | | 8 | 26 | 323 | 5 | 7 | 5 | 6 |
| Statistics | 60 | 34 | 21 | | 4 | | 17 | | | | |
| Urban Studies | 76 | 21 | 51 | | 3 | 8 | 37 | 1 | 1 | | 1 |
| Social Sciences, General | 18 | 4 | 9 | | | 1 | 7 | | | | 1 |
| Social Sciences, Other | 109 | 14 | 89 | | 1 | 6 | 80 | 1 | | 1 | |
| **PSYCHOLOGY** | **3075** | **82** | **2830** | **10** | **44** | **105** | **2558** | **12** | **24** | **32** | **45** |
| Clinical | 1160 | 9 | 1099 | 2 | 16 | 50 | 992 | 4 | 5 | 15 | 15 |
| Cognitive | 76 | 3 | 73 | 1 | 2 | | 69 | | | 1 | |
| Comparative | 11 | | 11 | | | | 11 | | | | |
| Counseling | 429 | 7 | 415 | 3 | 4 | 17 | 376 | 1 | 4 | 6 | 4 |
| Developmental | 176 | 9 | 166 | | 3 | 4 | 152 | 1 | 1 | 3 | 2 |
| Experimental | 165 | 12 | 153 | | 1 | 2 | 147 | | | 1 | 2 |
| Educational | 127 | 3 | 120 | 1 | 2 | 5 | 108 | | 1 | 2 | 1 |
| Industrial and Organizational | 99 | 2 | 97 | 1 | 1 | 1 | 91 | | 1 | | 2 |
| Personality | 21 | | 21 | | | 2 | 18 | | | | 1 |
| Physiological | 79 | 5 | 74 | | 1 | 1 | 70 | 1 | | | 1 |
| Psychometrics | 10 | 2 | 8 | | | | 7 | | | | 1 |
| Quantitative | 16 | 1 | 15 | | 2 | 1 | 12 | | | | |
| School | 92 | 1 | 90 | | 1 | 3 | 80 | 1 | 1 | 2 | 2 |
| Social | 166 | 7 | 158 | | 4 | 11 | 140 | | 3 | | |
| Psychology, General | 258 | 11 | 171 | 1 | 2 | 4 | 143 | 3 | 4 | 2 | 12 |
| Psychology, Other | 190 | 10 | 159 | 1 | 5 | 4 | 142 | 1 | 4 | | 2 |
| **HUMANITIES** | **3** | **264** | **2998** | **8** | **67** | **75** | **2664** | **19** | **24** | **70** | **71** |
| History, American | 175 | 7 | 168 | 1 | 1 | 10 | 152 | | 1 | 1 | 2 |
| History, European | 142 | 6 | 135 | | | | 130 | 1 | | 1 | 3 |
| History of Science | 23 | 4 | 18 | | | | 17 | | | | 1 |
| History, General | 87 | 10 | 54 | 1 | | 2 | 45 | 1 | 1 | | 4 |
| History, Other | 116 | 14 | 100 | | 5 | 6 | 84 | 1 | 1 | 1 | 2 |
| Classics | 44 | 5 | 38 | | | | 36 | | | | 2 |
| Comparative Literature | 133 | 19 | 108 | | 3 | 5 | 91 | 1 | | 6 | 2 |
| Linguistics | 176 | 46 | 122 | 1 | 11 | 2 | 99 | 2 | 1 | 2 | 4 |
| Speech and Debate | 38 | | 38 | | | 4 | 30 | | | 3 | 1 |
| Letters, General | 13 | | 13 | | | | 12 | | | | 1 |
| Letters, Other | 26 | 2 | 23 | 2 | | 1 | 20 | | | | |
| American Studies | 87 | 5 | 79 | | 1 | 2 | 72 | | 2 | | 2 |
| Archeology | 24 | 3 | 21 | | | | 21 | | | | |
| Art History and Criticism | 137 | 8 | 123 | | 3 | 3 | 108 | | 2 | 3 | 4 |
| Music | 447 | 21 | 394 | 1 | 8 | 9 | 360 | 1 | 2 | 4 | 9 |
| Philosophy | 238 | 19 | 209 | | 7 | 4 | 190 | | 1 | 2 | 5 |
| Religion | 181 | 10 | 165 | | 7 | 5 | 146 | | | 3 | 4 |
| Theatre | 92 | 7 | 81 | | 2 | 2 | 76 | | | | 1 |
| **LANGUAGE AND LITERATURE** | **1163** | **69** | **1044** | **1** | **18** | **19** | **917** | **12** | **12** | **44** | **21** |
| American | 203 | 13 | 189 | | 1 | 4 | 178 | | 3 | 1 | 2 |
| English | 525 | 23 | 476 | 1 | 8 | 6 | 449 | 1 | 2 | 2 | 7 |
| French | 86 | 5 | 78 | | | 6 | 71 | 1 | | | |
| German | 62 | 8 | 51 | | | | 48 | | | | 3 |
| Italian | 14 | 1 | 13 | | | | 13 | | | | |
| Spanish | 145 | 10 | 128 | | | 2 | 72 | 8 | 6 | 38 | 2 |
| Russian | 28 | | 28 | | | | 27 | | | | 1 |
| Slavic | 10 | 1 | 8 | | | | 7 | | | | 1 |
| Chinese | 14 | 2 | 12 | | 4 | | 7 | | | | 1 |
| Japanese | 13 | 2 | 10 | | 4 | | 6 | | | | |
| Hebrew | 9 | 1 | 8 | | | | 8 | | | | |
| Arabic | 5 | 1 | 4 | | | | 4 | | | | |
| Other Languages | 49 | 2 | 39 | | 1 | 1 | 27 | 2 | 1 | 3 | 4 |
| Humanities, General | 27 | | 22 | 1 | 1 | 1 | 18 | | | | 1 |
| Humanities, Other | 59 | 9 | 43 | | | | 40 | | 1 | | 2 |

TABLE 1A (continued)

| Subfield of Doctorate | Total Doctorates | Non-U.S. Citizens Temp. Visas | U.S. Citizens and Non-U.S. with Permanent Visas Racial/Ethnic Group[1] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Amer. Ind. | Asian | Black | White | Puerto Rican | Mex-ican | Other His-panic | Other & Unk |
| PROFESSIONAL FIELDS | 1856 | 313 | 1419 | 5 | 72 | 81 | 1206 | 13 | 9 | 9 | 24 |
| BUSINESS ADMINISTRATION | 793 | 169 | 579 | 2 | 47 | 12 | 503 | 2 | 1 | 3 | 9 |
| Accounting | 148 | 25 | 121 | | 10 | 5 | 101 | | | 1 | 4 |
| Banking and Finance | 104 | 34 | 69 | | 8 | 1 | 59 | 1 | | | |
| Business Admin and Management | 179 | 28 | 122 | | 6 | 1 | 111 | | 1 | 2 | 1 |
| Business Economics | 20 | 8 | 12 | | 1 | 1 | 9 | | | | 1 |
| Marketing Management and Research | 94 | 12 | 81 | 1 | 7 | 2 | 71 | | | | |
| Business Statistics | 9 | 3 | 6 | | 2 | | 4 | | | | |
| Operations Research | 45 | 23 | 21 | | 5 | | 16 | | | | |
| Organizational Behavior | 68 | 6 | 62 | 1 | | 1 | 59 | | | | 1 |
| Business and Management, General | 50 | 16 | 23 | | 1 | 1 | 19 | | | | 2 |
| Business and Management, Other | 76 | 14 | 62 | | 7 | | 54 | 1 | | | |
| COMMUNICATIONS | 266 | 48 | 206 | 1 | 4 | 18 | 176 | 1 | 2 | 1 | 3 |
| Communications Research | 55 | 9 | 46 | | 1 | 5 | 39 | | | | 1 |
| Journalism | 22 | 7 | 15 | | 2 | 1 | 12 | | | | |
| Radio and Television | 19 | 6 | 13 | | | 3 | 10 | | | | |
| Communications, General | 89 | 12 | 72 | 1 | | 6 | 62 | | 1 | | 2 |
| Communications, Other | 81 | 14 | 60 | | 1 | 3 | 53 | 1 | 1 | 1 | |
| OTHER PROFESSIONAL FIELDS | 797 | 96 | 634 | 2 | 21 | 51 | 527 | 10 | 6 | 5 | 12 |
| Architecture, Environmental Design | 36 | 15 | 16 | | 1 | 2 | 12 | 1 | | | |
| Home Economics | 90 | 6 | 82 | | 3 | 3 | 72 | 2 | 1 | 1 | |
| Law | 25 | 14 | 7 | | | | 6 | | | | 1 |
| Library and Archival Science | 72 | 17 | 52 | | 2 | 6 | 41 | | | | 3 |
| Public Administration | 109 | 12 | 86 | | | 14 | 67 | 2 | 2 | | 1 |
| Social Work | 218 | 9 | 175 | 2 | 8 | 22 | 130 | 4 | 2 | 4 | 3 |
| Theology | 229 | 19 | 203 | | 6 | 4 | 188 | | 1 | | 4 |
| Professional Fields, General | | | | | | | | | | | |
| Professional Fields, Other | 18 | 4 | 13 | | 1 | | 11 | 1 | | | |
| EDUCATION | 6717 | 570 | 5872 | 39 | 98 | 503 | 4963 | 57 | 73 | 59 | 80 |
| Curriculum and Instruction | 823 | 81 | 728 | 5 | 13 | 58 | 596 | 17 | 15 | 9 | 15 |
| Educational Admin and Supervision | 1605 | 86 | 1460 | 9 | 20 | 167 | 1216 | 6 | 18 | 12 | 12 |
| Educational Media | 101 | 22 | 76 | 1 | 2 | 3 | 69 | 1 | | | |
| Educational Statistics and Research | 74 | 9 | 61 | 1 | 1 | 3 | 50 | | 1 | 3 | 2 |
| Educational Testing, Eval and Meas | 44 | 6 | 38 | | 3 | 2 | 30 | 1 | | 2 | |
| Educational Psychology | 390 | 25 | 357 | 2 | 7 | 14 | 323 | 2 | 2 | 4 | 3 |
| School Psychology | 102 | | 101 | | 1 | 6 | 91 | 1 | 1 | 1 | |
| Social Foundations | 134 | 15 | 116 | | 3 | 13 | 91 | 1 | 2 | 4 | 2 |
| Special Education | 270 | 12 | 256 | 2 | 3 | 17 | 230 | 2 | 1 | | 1 |
| Student Counseling, Personnel Serv | 395 | 21 | 365 | 1 | 2 | 25 | 319 | 3 | 5 | 3 | 7 |
| Higher Education | 586 | 58 | 511 | 7 | 6 | 42 | 441 | 3 | 5 | 5 | 2 |
| Pre-elementary Education | 67 | 3 | 57 | | | 3 | 53 | | | | 1 |
| Elementary Education | 121 | 6 | 114 | | 1 | 12 | 98 | 1 | 1 | 1 | |
| Junior High Education | 1 | | 1 | | | | 1 | | | | |
| Secondary Education | 69 | 12 | 51 | | 1 | 2 | 46 | | 2 | | |
| Adult and Continuing Education | 208 | 17 | 185 | 1 | 3 | 11 | 163 | 2 | 3 | 1 | 1 |
| TEACHING FIELDS | 1117 | 131 | 957 | 3 | 18 | 78 | 812 | 11 | 6 | 11 | 18 |
| Agricultural Education | 40 | 9 | 31 | | 1 | 4 | 26 | | | | |
| Art Education | 43 | 7 | 36 | | | 1 | 32 | 1 | | | 2 |
| Business Education | 52 | 4 | 47 | | | 8 | 38 | 1 | | | |
| English Education | 68 | 7 | 61 | | 1 | 5 | 51 | 1 | | 2 | 1 |
| Foreign Languages Education | 30 | 9 | 21 | | 2 | 1 | 14 | 2 | | 2 | |
| Health Education | 89 | 5 | 77 | | 1 | 3 | 66 | 1 | 2 | 2 | 2 |
| Home Economics Education | 21 | 3 | 17 | | | 5 | 12 | | | | |
| Industrial Arts Education | 13 | | 13 | | | 1 | 12 | | | | |
| Mathematics Education | 65 | 13 | 52 | 1 | 3 | 3 | 42 | | 1 | 2 | |
| Music Education | 80 | 4 | 73 | | 1 | 6 | 66 | | | | |
| Nursing Education | 21 | 1 | 20 | | 2 | 2 | 16 | | | | |
| Physical Education | 220 | 28 | 185 | 2 | 1 | 9 | 169 | | | | 4 |
| Reading Education | 113 | 4 | 106 | | 1 | 7 | 93 | 2 | 1 | 1 | 1 |
| Science Education | 88 | 18 | 68 | | 3 | 6 | 54 | 1 | 1 | 1 | 2 |
| Social Science Education | 24 | 4 | 19 | | | 5 | 12 | | | | 2 |
| Speech Education | 7 | 2 | 4 | | | | 4 | | | | |
| Trade and Industrial Education | 82 | 10 | 71 | | 1 | 8 | 58 | | 1 | | 3 |
| Other Teaching Fields | 61 | 3 | 56 | | 1 | 4 | 47 | 2 | | 1 | 1 |
| Education, General | 303 | 33 | 178 | 1 | 6 | 25 | 130 | 2 | 4 | 2 | 8 |
| Education, Other | 307 | 33 | 260 | 6 | 8 | 22 | 204 | 4 | 7 | 1 | 8 |
| OTHER AND UNSPECIFIED | 36 | 2 | 31 | 1 | 1 | 3 | 26 | | | | |

SOURCE. National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File.

TABLE 2 Statistical Profile of Doctorate Recipients by Field of Doctorate, 1985 1/

Total All Doctorates

| | 1985 Total | Physics and Astronomy | Chemistry | Earth, Atmospheric and Marine Sciences | Physical Sciences | Mathematics | Computer Sciences | Engineering | EMP Fields | Biochemistry | Other Biosciences | Biosciences | Health Sciences | Agricultural Sciences | Life Sciences |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number in Field | 31201 | 1078 | 1836 | 617 | 3531 | 689 | 311 | 3165 | 7696 | 579 | 3187 | 3766 | 724 | 1258 | 5748 |
| Male % | 65.7 | 90.5 | 80.3 | 82.0 | 83.7 | 84.6 | 89.4 | 93.7 | 88.1 | 68.2 | 67.2 | 67.4 | 40.1 | 84.7 | 67.7 |
| Female | 34.3 | 9.5 | 19.7 | 18.0 | 16.3 | 15.4 | 10.6 | 6.3 | 11.9 | 31.8 | 32.8 | 32.6 | 59.9 | 15.3 | 32.3 |
| U.S. Citizenship % | 74.5 | 64.6 | 73.2 | 72.0 | 70.3 | 54.6 | 60.8 | 40.4 | 56.2 | 81.2 | 83.3 | 83.0 | 74.3 | 60.9 | 77.1 |
| Non-U.S., Permanent Visa | 4.2 | 4.5 | 4.7 | 5.0 | 4.7 | 6.1 | 7.7 | 10.0 | 7.1 | 4.8 | 2.5 | 2.9 | 4.7 | 3.7 | 3.3 |
| Non-U.S., Temporary Visa | 16.7 | 26.8 | 18.0 | 19.0 | 20.8 | 34.7 | 28.6 | 44.6 | 32.2 | 11.9 | 11.1 | 11.2 | 13.4 | 32.0 | 16.0 |
| Unknown | 4.6 | 4.2 | 4.1 | 4.1 | 4.1 | 4.6 | 2.9 | 5.0 | 4.5 | 2.1 | 3.1 | 2.9 | 7.6 | 3.3 | 3.6 |
| Married % | 58.3 | 89.8 | 50.7 | 57.4 | 51.6 | 51.4 | 58.8 | 59.6 | 55.1 | 51.5 | 55.3 | 54.7 | 56.5 | 67.3 | 57.7 |
| Not Married | 35.6 | 44.7 | 44.7 | 37.0 | 43.4 | 42.2 | 37.0 | 33.5 | 39.0 | 44.2 | 40.3 | 40.9 | 33.7 | 28.2 | 37.2 |
| Unknown | 6.1 | 5.5 | 4.6 | 5.7 | 5.1 | 6.4 | 4.2 | 6.9 | 5.9 | 4.3 | 4.5 | 4.4 | 9.8 | 4.5 | 5.1 |
| Median Age at Doctorate | 33.3 | 29.8 | 28.9 | 31.3 | 29.5 | 30.4 | 31.0 | 30.9 | 30.2 | 29.1 | 30.9 | 30.5 | 35.2 | 32.2 | 31.3 |
| Percent with Bacc in Same Field as Doctorate | 55.9 | 78.1 | 81.6 | 49.8 | 75.0 | 73.3 | 19.6 | 74.2 | 72.3 | 28.7 | 65.0 | 59.4 | 52.2 | 58.6 | 58.3 |
| Percent with Masters | 80.0 | 64.7 | 37.4 | 75.5 | 52.4 | 74.2 | 81.4 | 86.7 | 69.6 | 29.7 | 54.3 | 50.6 | 83.7 | 92 4 | 63.9 |
| Median Time Lapse From Bacc to Doct | | | | | | | | | | | | | | | |
| Total Time Yrs | 10.2 | 7.4 | 6.4 | 6.8 | 7.1 | 8 | 9.0 | 8.1 | 7.5 | 6.8 | 8.1 | 7.9 | 11.8 | 8.9 | 8.4 |
| Registered Time | 6.8 | 6.5 | 5.5 | 6.7 | 6.0 | [illegible] | 6.3 | 5.8 | 5.9 | 6.0 | 6.5 | 6.4 | 6.6 | 6.1 | 6.3 |
| Postdoctoral Study Plans % | 20.8 | 49.6 | 45.5 | 37.6 | 45.4 | 17.6 | 11.9 | 15.7 | 29.3 | 83.4 | 63.4 | 66.5 | 14.8 | 20.4 | 4 .9 |
| Fellowship | 10.1 | 15.8 | 19.5 | 16.2 | 17.8 | 8.4 | 2.6 | 4.2 | 10.8 | 52.0 | 36.4 | 38.8 | 8.3 | 6.7 | 27.9 |
| Research Assoc | 8.4 | 32.9 | 24.6 | 20.3 | 26.4 | 7.7 | 7.4 | 9.4 | 17.0 | 23.5 | 20.3 | 20.8 | 5.2 | 12.3 | 17.0 |
| Traineeship | 1.0 | .3 | .6 | .8 | .5 | .7 | 1.0 | 1.6 | 1.0 | 1.7 | 1.8 | 1.8 | .6 | 1.0 | 1.5 |
| Other Study | .3 | .6 | .8 | .3 | .7 | .7 | 1.0 | .4 | .6 | 6.2 | 4.9 | 5.1 | .7 | .5 | 3.5 |
| Planned Employment After Doctorate | 41.2 | 43.2 | 47.4 | 54.9 | 47.5 | 74.3 | 7 | 73.3 | 61.8 | 12.6 | 30.5 | 27.7 | 75.1 | 72.7 | 43.6 |
| Educ Institution | 41.3 | 12.0 | 6.0 | 24.3 | 12.0 | 54.1 | 43.7 | 26.0 | 22.8 | 4.7 | 15.7 | 14.0 | 46.1 | 36.5 | 23.0 |
| Industry/Business | 14.2 | 22.8 | 35.3 | 16.0 | 28.1 | 12.3 | 30.9 | 35.6 | 29.9 | 6.0 | 7.6 | 7.4 | 11.2 | 16.0 | 9.7 |
| Government | 7.5 | 6.3 | 2.7 | 11.0 | 5.3 | 4.9 | 2.3 | 8.2 | 6.3 | 1.0 | 4.5 | 4.0 | 8.3 | 14.4 | 6.8 |
| Nonprofit | 4.7 | 1.4 | .5 | .8 | .8 | .9 | 1.0 | 1.4 | 1.1 | .3 | 1.5 | 1.3 | 5.8 | 1.6 | 1.9 |
| Other & Unknown | 3.4 | .7 | 1.0 | 2.8 | 1.2 | 2.0 | 2.9 | 2.2 | 1.8 | .5 | 1.2 | 1.1 | 3.7 | 4.3 | 2.1 |
| Postdoc Status Unknown % | 8.0 | 7.1 | 7 1 | 7.5 | 7.2 | 8.1 | 7.4 | 11.0 | 8.8 | 4.0 | 6.1 | 5.8 | 10.1 | 6.8 | 6.5 |
| Definite Postdoctoral Study | 14. | 37.4 | 34.4 | 25.0 | 33.6 | 11.5 | 7.1 | 9.1 | 20.5 | 71.2 | 49.3 | 52.7 | 9.5 | 11.2 | 38.2 |
| Seeking Postdoctoral Study | 6.1 | 12.2 | 11.1 | 12.6 | 11.7 | 6.1 | 4.8 | 6.6 | 8.8 | 12.3 | 14.1 | 13.8 | 5.2 | 9.2 | 11.7 |
| Definite Employment | 51.7 | 32.3 | 37.6 | 41.7 | 36.7 | 56.6 | 62.1 | 53.1 | 46.2 | 9.7 | 20.6 | 19.0 | 57.0 | 51.6 | 30.9 |
| Seeking Employment | 19.6 | 10.9 | 9.9 | 13.3 | 10.8 | 17.7 | 18.6 | 20.2 | 15.6 | 2.9 | 9.9 | 8.8 | 18.1 | 21.1 | 12.7 |
| Employment Activity After Doctorate Primary Activity | | | | | | | | | | | | | | | |
| R & D % | 27.5 | 71.6 | 77.7 | 49.0 | 70.3 | 41.5 | 63.7 | 64.5 | 64.1 | 60.7 | 48.5 | 49.4 | 35.6 | 56.2 | 48.7 |
| Teachir | 36.9 | 16.4 | 13.3 | 32.7 | 18.0 | 48.5 | 26.4 | 22.8 | 24.1 | 23.2 | 28.0 | 27.6 | 39.0 | 31.2 | 26.8 |
| Admini on | 13.5 | .9 | .7 | 2.7 | 1.2 | 1.0 | 2.1 | 1.8 | 1.5 | .0 | 4.4 | 4.1 | 7.7 | 2.3 | 4.3 |
| Prof. ces | 12.8 | 3.7 | 2.6 | 5.2 | 3.6 | 2.3 | 2.1 | 3.8 | 3.5 | 7.1 | 10.0 | 9.8 | 11.1 | 7.9 | 9.4 |
| Other | 3 | 1.7 | 1.7 | 5.1 | 2.4 | 1.3 | 1.0 | 1.8 | 1.9 | .0 | 3.3 | 3.1 | 1.9 | 7.4 | 4.4 |
| Activity Unknown | 6.3 | 5.7 | 3.9 | 4.3 | 4.5 | 5.4 | 4.7 | 5.3 | 5.0 | 8.9 | 5.8 | 6.0 | 4.6 | 8.0 | 6.4 |
| Secondary Activity | | | | | | | | | | | | | | | |
| R & D | 25.4 | 14.7 | 10.7 | 29.2 | 15.4 | 40.3 | 24.9 | 21.6 | 21.6 | 21.4 | 26.7 | 26.3 | 32.2 | 20.8 | 25.7 |
| Teaching | 13.0 | 7.8 | 4.1 | 12.5 | 6.7 | 23.8 | 23.3 | 13.1 | 12.5 | 3.6 | 14.4 | 13.6 | 18.2 | 20.3 | 17.1 |
| Administration | 9.4 | 6.0 | 15.2 | 5.8 | 10.9 | 3.1 | 7.3 | 8.5 | 8.7 | 12.5 | 10.6 | 10.8 | 10.7 | 10.0 | 10.5 |
| Prof. Services | 7.9 | 4.3 | 5.8 | 5.4 | 5.3 | 4.1 | 3.6 | 5.1 | 5.0 | .0 | 7.0 | 6.4 | 9.4 | 7.1 | 7.4 |
| Other | 2.1 | 2.0 | 1.0 | .8 | 1.2 | .8 | 1.0 | 1.0 | 1 | .0 | 1.2 | 1.1 | 1.9 | 2.5 | 1.8 |
| No Secondary Activity | 36.7 | 59.5 | 59.3 | 42.0 | 55.9 | 22.6 | 35.2 | 45.4 | 46.2 | 53.6 | 34.2 | 35.7 | 23.0 | 31.3 | 31.1 |
| Unknown | 6.3 | 5.7 | 3.9 | 4.3 | 4.5 | 5.4 | 4.7 | 5.3 | 5.0 | 8.5 | 5.8 | 6.0 | 4.6 | 8.0 | 6.4 |
| Region of Employment After Doctorate | | | | | | | | | | | | | | | |
| New England % | 5.8 | 6.9 | 7.0 | 3.9 | 6.3 | 9.7 | 14.5 | 5.4 | 6 7 | 7.1 | 4.9 | 5.0 | 4.1 | 2.6 | 3.9 |
| Middle Atlantic | 15.3 | 18.1 | 24 8 | 10.1 | 20.1 | 16.7 | 22.8 | 14.5 | 17.2 | 25.0 | 12.3 | 13.5 | 17.9 | 6.5 | 11.9 |
| East No Central | 13.9 | 8.6 | 19.7 | 9.3 | 14.7 | 15.9 | 10.4 | 13.5 | 14.0 | 19.6 | 14.1 | 14.7 | 15.0 | 9.7 | 12.9 |
| West No Central | 6.7 | 4.3 | 6.5 | 6.2 | 5.9 | 7.2 | 2.6 | 4.4 | 5.1 | 16.1 | 8.8 | 9.4 | 5.6 | 10.2 | 8.8 |
| South Atlantic | 14 6 | 12.9 | 15.8 | 11.7 | 14.2 | 12 3 | 8 8 | 12.8 | 13.0 | 3.6 | 16.1 | 15.1 | 13.8 | 13.4 | 14.2 |
| East So Central | 3.9 | .9 | 2.0 | 1.9 | 1.7 | 4.4 | 2.1 | 2.7 | 2.5 | .0 | 4.1 | 3.8 | 4.8 | 4.9 | 4.4 |
| West So Central | 7.7 | 6.0 | 5.1 | 13.6 | 7.0 | 4.9 | 6.2 | 5.8 | 6 2 | 3.6 | 5.9 | 5.7 | 10.4 | 6.6 | 7.2 |
| Mountain | 4.6 | 3.3 | 2.0 | 7.0 | 4.7 | 2.6 | 3.1 | 5.8 | 4.9 | 1.8 | 3.6 | 3.5 | 4.6 | 4.3 | 4.1 |
| Pacific & Insular | 10.3 | 21.0 | 7.8 | 17 5 | 13.3 | 10.0 | 15.5 | 13.3 | 13.1 | 10.7 | 12.2 | 12.0 | 7.7 | 5.4 | 8.6 |
| Foreign | 10.3 | 6.9 | 4.6 | 16.7 | 7.6 | 11.5 | 10.9 | 16.1 | 12.2 | 10.7 | 14.6 | 14.3 | 11.1 | 31.1 | 19.7 |
| Region Unknown | 7.0 | 6.0 | 4.6 | 1.9 | 4.5 | 4.9 | 3.1 | 5.8 | 5.1 | 1.8 | 3.3 | 3.2 | 4.8 | 5.2 | 4.3 |

1/ Refer to explanatory note on pages 38-39 and the description of doctoral fields inside back cover.

TABLE 2 (Continued)

Total All Doctorates

| Psychology | Economics | Anthropology and Sociology | Political Sci. and International Rel. | Other Social Sciences | Social Sciences Incl. Psychology | Total Sciences | History | Eng. and Amer. Lang. and Lit. | Foreign Lang. and Lit. | Other Humanities | Humanities | Business and Management | Other Professional Fields | Education | Total Non-Sciences | Other or Unspecified 2/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3075 | 812 | 814 | 485 | 534 | 5720 | 19164 | 543 | 728 | 435 | 1722 | 3428 | 793 | 1063 | 6717 | 12001 | 36 |
| 50.6 | 84.7 | 49.0 | 74.4 | 68.2 | 58.9 | 73.3 | 67.2 | 45.5 | 44.6 | 60.9 | 56.6 | 81.8 | 57.6 | 48.2 | 53.6 | 55.6 |
| 49.4 | 15.3 | 51.0 | 25.6 | 31.8 | 41.1 | 26.7 | 32.8 | 54.5 | 55.4 | 39.1 | 43.4 | 18.2 | 42.4 | 51.8 | 46.4 | 44.4 |
| 90.1 | 53.3 | 81.7 | 67.6 | 62.7 | 79.3 | 69.4 | 84.2 | 88.9 | 76.6 | 81.9 | 83.1 | 64.8 | 76.2 | 85.5 | 82.6 | |
| 1.9 | 7.4 | 3.8 | 4.9 | 6.7 | 3.7 | 4.9 | 3.3 | 2.5 | 10.6 | 3.9 | 4.4 | 8.2 | 2.8 | 1.9 | 3.1 | |
| 2.7 | 34.4 | 10.2 | 19.0 | 24.3 | 11.6 | 21.2 | 7.6 | 4.9 | 7.6 | 8.9 | 7.7 | 21.3 | 13.5 | 8.5 | 9.6 | |
| 5.3 | 4.3 | 4.3 | 8.5 | 6.2 | 5.4 | 4.5 | 5.0 | 3.7 | 5.3 | 5.2 | 4.8 | 5.7 | 7.4 | 4.1 | 4.7 | |
| 50.5 | 57.0 | 54.5 | 56.7 | 60.9 | 53.5 | 55.4 | 57.6 | 56.0 | 56.1 | 55.5 | 56.0 | 65.1 | 59.2 | 66.9 | 63.0 | |
| 42.7 | 35.3 | 40.0 | 31.8 | 30.9 | 39.3 | 38.5 | 35.2 | 39.1 | 36.6 | 37.6 | 37.4 | 28.0 | 32.3 | 27.8 | 30.9 | |
| 6.8 | 7.6 | 5.4 | 11.5 | 8.2 | 7.2 | 6.1 | 7.2 | 4.8 | 7.4 | 7.0 | 6.6 | 6.9 | 8.6 | 5.3 | 6.1 | |
| 32.5 | 31.6 | 35.0 | 34.0 | 35.1 | 33.0 | 31.3 | 34.9 | 34.7 | 35.2 | 34.6 | 34.7 | 35.0 | 37.3 | 36.7 | 37.2 | |
| 65.4 | 62.3 | 53.8 | 57.3 | 21.7 | 58.5 | 64.0 | 60.4 | 71.4 | 55.6 | 53.7 | 58.8 | 38.8 | 24.2 | 38.7 | 43.2 | |
| 81.5 | 75.9 | 88.7 | 86.4 | 89.7 | 82.9 | 71.9 | 90.6 | 87.0 | 86.0 | 88.3 | 88.1 | 89.7 | 92.9 | 96.0 | 93.0 | |
| 9.4 | 8.8 | 11.4 | 10.4 | 11.5 | 9.9 | 8.5 | 11.6 | 11.9 | 11.9 | 11.7 | 11.7 | 11.8 | 13.8 | 15.1 | 13.8 | |
| 6.9 | 6.5 | 8.5 | 7.6 | 7.4 | 7.1 | 6.4 | 8.8 | 8.3 | 8.7 | 8.1 | 8.3 | 7.0 | 7.5 | 7.6 | 7.8 | |
| 18.9 | 5.8 | 13.4 | 7.0 | 9.0 | 14.3 | 31.0 | 9.0 | 3.3 | 6.9 | 6.9 | 6.5 | 1.9 | 3.5 | 4.0 | 4.5 | |
| 11.3 | 2.6 | 8.8 | 3.1 | 5.4 | 8.5 | 15.2 | 6.1 | 2.1 | 3.2 | 4.1 | 3.9 | .4 | 1.3 | 1.4 | 2.0 | |
| 3.4 | 2.1 | 3.2 | 2.9 | 3.2 | 3.1 | 12.8 | 1.1 | .3 | 1.4 | 1.5 | 1.1 | 1.1 | .9 | 1.3 | 1.2 | |
| 2.9 | .2 | .6 | .6 | .2 | 1.8 | 1.4 | .2 | .3 | .0 | .0 | .1 | .4 | .1 | .6 | .4 | |
| 1.3 | .9 | .7 | .4 | .2 | 1.0 | 1.6 | 1.7 | .7 | 2.3 | 1.4 | 1.4 | .0 | 1.1 | .7 | .9 | |
| 73.7 | 84.7 | 79.2 | 78.6 | 81.6 | 77.2 | 60.9 | 80.8 | 89.6 | 83.0 | 84.7 | 84.9 | 89.4 | 85.4 | 89.3 | 87.7 | |
| 26.1 | 53.9 | 49.3 | 54.0 | 46.3 | 37.6 | 27.3 | 57.8 | 75.7 | 68.0 | 64.3 | 66.2 | 74.3 | 52.7 | 63.1 | 63.8 | |
| 15.1 | 10.8 | 8.7 | 6.8 | 10.3 | 12.4 | 18.6 | 4.8 | 6.5 | 5.3 | 6.6 | 6.1 | 11.0 | 8.3 | 7.1 | 7.2 | |
| 11.1 | 11.8 | 7.7 | 11.5 | 21.0 | 10.8 | 7.8 | 6.4 | 1.2 | 2.5 | 1.7 | 2.5 | 2.3 | 7.9 | 10.0 | 7.1 | |
| 16.1 | 2.5 | 6.4 | 2.3 | 5.6 | 10.6 | 4.2 | 5.9 | 1.5 | 1.6 | 7.7 | 5.3 | .6 | 13.5 | 5.1 | 5.6 | |
| 5.2 | 5.7 | 7.1 | 3.9 | 8.4 | 5.7 | 3.1 | 5.9 | 4.7 | 5.5 | 4.4 | 4.8 | 1.3 | 3.0 | 4.0 | 4.0 | |
| 7.4 | 9.5 | 7.4 | 14.4 | 9.4 | 8.5 | 8.1 | 10.1 | 7.1 | 10.1 | 8.4 | 8.6 | 8.7 | 11.1 | 6.8 | 7.8 | |
| 13.0 | 3.4 | 6.8 | 4.3 | 4.9 | 9.3 | 22.4 | 5.3 | 1.6 | 3.7 | 3.5 | 3.4 | 1.3 | 2.0 | 2.1 | 2.4 | |
| 5.9 | 2.3 | 6.6 | 2.7 | 4.1 | 5.1 | 8.6 | 3.7 | 1.6 | 3.2 | 3.4 | 3.1 | .6 | 1.5 | 1.9 | 2.1 | |
| 52.1 | 67.4 | 47.5 | 51.5 | 53.4 | 53.7 | 43.9 | 54.1 | 56.5 | 57.0 | 54.8 | 55.3 | 78.6 | 66 3 | 66.5 | 64.1 | |
| 21.6 | 17.4 | 31.7 | 27.0 | 28.3 | 23 5 | 17.1 | 26.7 | 33.1 | 26.0 | 29.9 | 29.6 | 10.8 | 19.1 | 22.7 | 23.6 | |
| 16.0 | 38.6 | 31.3 | 18.8 | 24.2 | 22.9 | 45.8 | 9.5 | 4.1 | 4.8 | 8.1 | 7.0 | 20.9 | 10.5 | 5.5 | 7.6 | |
| 16.9 | 43.9 | 45.2 | 52.0 | 45.3 | 30 8 | 27.1 | 60.5 | 80.8 | 79.4 | 69.8 | 72.0 | 63.2 | 48.5 | 35.0 | 47.7 | |
| 6.2 | 2.0 | 9.6 | 9.6 | 9.8 | 6.5 | 3.9 | 12.9 | 5 1 | 2.8 | 4.3 | 5.6 | 5.5 | 14.0 | 36.0 | 24.0 | |
| 55.0 | 3.5 | 6.7 | 3.2 | 7.4 | 31.0 | 14.8 | 5.8 | 2.4 | 2.0 | 6.7 | 5.0 | 2.7 | 15.7 | 13.2 | 10.6 | |
| 2.1 | 3.7 | 3.4 | 7.6 | 5.3 | 3.3 | 2.9 | 5.1 | 2.7 | 2.8 | 5.1 | 4.3 | 2.1 | 4.4 | 2.4 | 3.0 | |
| 3.8 | 8.4 | 4.4 | 8.8 | 8.1 | 5.5 | 5.5 | 6.1 | 4.9 | 8.1 | 6.0 | 6.1 | 5.6 | 6.8 | 7.8 | 7.1 | |
| 20.7 | 38.2 | 34.9 | 36.8 | 36.5 | 28.4 | 24.9 | 38.1 | 39.2 | 42.3 | 34 3 | 37.0 | 51.4 | 29.9 | 17.1 | 25.9 | |
| 15.2 | 18.6 | 11.4 | 12.0 | 13.7 | 14.9 | 14 4 | 9.9 | 6.6 | 5.2 | 8.6 | 7.9 | 19.6 | 12.9 | 11.7 | 11.5 | |
| 12.3 | 4.9 | 11.1 | 6.4 | 5.3 | 9.7 | 9.4 | 7.5 | 8.0 | 4.4 | 8.0 | 7.4 | 4.5 | 10.1 | 10.8 | 9 4 | |
| 9.9 | 3.8 | 5.9 | 2.0 | 6.0 | 7.3 | 6.3 | 3.1 | 2.2 | .8 | 5.4 | 3.7 | 1.9 | 9.5 | 10.1 | 7.8 | |
| 3.4 | .7 | 2.3 | .8 | .7 | 2.3 | 1.7 | 1.7 | 3.2 | .8 | 5.7 | 3.9 | 1 3 | 2.3 | 2.3 | 2.6 | |
| 34.8 | 25.2 | 30.0 | 33.2 | 29.8 | 31.9 | 37.8 | 33.7 | 36.0 | 38.3 | 32.0 | 34.0 | 15.7 | 28.5 | 40.2 | 35.6 | |
| 3.8 | 8.4 | 4.4 | 8.8 | 8.1 | 5.5 | 5.5 | 6.1 | 4.9 | 8.1 | 6.0 | 6.1 | 5.6 | 6.8 | 7.8 | 7.1 | |
| 6.7 | 5.7 | 6.5 | 6.0 | 6.3 | 6.4 | 6.0 | 9.2 | 5.4 | 12.1 | 8.5 | 8.4 | 5.1 | 4.0 | 4.6 | 5. | |
| 20.7 | 15.0 | 16.0 | 19.2 | 11.9 | 18.2 | 16 4 | 14.6 | 13.1 | 15.3 | 15.4 | 14.8 | 12.0 | 14.9 | 13.8 | 14.0 | |
| 14.1 | 14.3 | 14.7 | 10.4 | 14.4 | 13.9 | 13.7 | 11.2 | 15.8 | 13.7 | 13.5 | 13.7 | 17.5 | 14.2 | 13.7 | 14.1 | |
| 7.1 | 4.6 | 4.1 | 4.0 | 3.2 | 5.7 | 6.1 | 5.4 | 7.8 | 10.5 | 8.1 | 7.9 | 5.8 | 5.8 | 7.5 | 7.3 | |
| 13.1 | 19.9 | 14.0 | 17.6 | 15.4 | 15.0 | 14.0 | 14.3 | 17.5 | 15.3 | 10.7 | 13.3 | 14.3 | 15.0 | 16.3 | 15.3 | |
| 3.5 | 2.6 | 2 6 | 2.4 | 3.2 | 3.1 | 3.1 | 6.1 | 4.9 | 4.4 | 3.9 | 4.5 | 5.1 | 5.0 | 4.8 | 4.8 | |
| 7.8 | 4.0 | 4.4 | 7.6 | 6.3 | 6.5 | 6.5 | 7.1 | 9.5 | 4.4 | 8.4 | 7.9 | 13.2 | 10.4 | 8.8 | 9.1 | |
| 4.1 | 3.3 | 6.7 | 3.2 | 3.5 | 4.1 | 4.4 | 6.1 | 3.9 | 1.6 | 3.9 | 4.0 | 3.9 | 3.3 | 5.6 | 4.8 | |
| 12.5 | 6.2 | 13.2 | 7.6 | 9.5 | 10.8 | 11.3 | 12.2 | 10.2 | 9.7 | 9.4 | 10.1 | 9.8 | 9.8 | 8.5 | 9.1 | |
| 2.3 | 19.2 | 11.6 | 15.2 | 17.5 | 9.0 | 12.6 | 7.1 | 4.9 | 2.4 | 9.5 | 7.2 | 9.3 | 11.3 | 7.2 | 7.7 | |
| 8.1 | 5.3 | 6.2 | 6.8 | 8.8 | 7.3 | 5.7 | 6.5 | 7.1 | 10.5 | 8.7 | 8.2 | 4.0 | 6.4 | 9 3 | 8.3 | |

2/ Statistics are not presented for this group because too few records contained the specific data.

SOURCE: National Research Council, Office of Scientific and Engineering Personnel. Doctorate Records File.

TABLE 2 Statistical Profile of Doctorate Recipients by Field of Doctorate, 1985 1/

Doctorates: Men

| | | 1985 Total | Physics and Astronomy | Chemistry | Earth, Atmospheric and Marine Sciences | Physical Sciences | Mathematics | Computer Sciences | Engineering | LMP Fields | Biochemistry | Other Biosciences | Biosciences | Health Sciences | Agricultural Sciences | Life Sciences |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Male | | 20502 | 976 | 1474 | 506 | 2956 | 583 | 278 | 2967 | 6784 | 395 | 2142 | 2537 | 290 | 1066 | 3893 |
| Male as a Percent of Total Doctorates | % | 65.7 | 90.5 | 80.3 | 82.0 | 83.7 | 84.6 | 89.4 | 93.7 | 88.1 | 68.2 | 67.2 | 67.4 | 40 | 84.7 | 67.7 |
| U.S. Citizenship | % | 69.1 | 65.0 | 73.5 | 70.4 | 70.1 | 52.5 | 59.4 | 39.1 | 54.6 | 81.8 | 83.1 | 82.9 | 59.0 | 59.4 | 74.7 |
| Non-U.S., Permanent Visa | | 4.9 | 4.3 | 4.7 | 5.3 | 4.7 | 5.1 | 8.6 | 10.0 | 7.2 | 4.1 | 2.1 | 2.4 | 8.3 | 3.8 | 3.2 |
| Non-U.S., Temporary Visa | | 21.4 | 26.5 | 18.0 | 20.6 | 21.2 | 37.2 | 29.1 | 45.7 | 33.7 | 12.2 | 11.3 | 11.5 | 21.0 | 33.5 | 18.2 |
| Unknown | | 4.7 | 4.2 | 3.8 | 3.8 | 3.9 | 5.1 | 2.9 | 5.1 | 4.5 | 2.0 | 3.4 | 3.2 | 11.7 | 3.4 | 3.9 |
| Married | % | 61.8 | 49.5 | 52.9 | 59.5 | 52.9 | 50.3 | 57.6 | 60.3 | 56.1 | 52.7 | 58.9 | 57.9 | 59.0 | 69.9 | 61.3 |
| Not Married | | 31.9 | 45.0 | 42.7 | 35.0 | 42.2 | 42.7 | 38.1 | 32.7 | 37.9 | 42.8 | 36.4 | 37.4 | 26.6 | 25.5 | 33.3 |
| Unknown | | 6.3 | 5.5 | 4.3 | 5.5 | 4.9 | 7.0 | 4.5 | 7.0 | 6.0 | 4.6 | 4.8 | 4.7 | 14.5 | 4.6 | 5.4 |
| Median Age at Doctorate | | 32.5 | 29.8 | 28.9 | 31.5 | 29.6 | 30.5 | 30.9 | 31.0 | 30.3 | 29.0 | 30.8 | 30.5 | 33.3 | 32.2 | 31.1 |
| Percent with Bacc in Same Field as Doctorate | | 57.9 | 78.5 | 82.6 | 49.0 | 75.5 | 72.4 | 20.9 | 75.2 | 72.9 | 31.4 | 64.6 | 59.4 | 36.6 | 61.1 | 58.2 |
| Percent with Masters | | 78.2 | 64.1 | 37.4 | 77.3 | 53.0 | 72.9 | 79.9 | 66.7 | 70.6 | 29.1 | 55.3 | 51.2 | 76.2 | 92.5 | 64.4 |
| Median Time Lapse From Bacc to Doct | | | | | | | | | | | | | | | | |
| Total Time | Yrs | 9.5 | 7.4 | 6.4 | 8.8 | 7.1 | 7.8 | 8.8 | 8.2 | 7.6 | 6.7 | 7.9 | 7.7 | 10.4 | 9.0 | 8.1 |
| Registered Time | | 6.6 | 6.4 | 5.5 | 6.6 | 6.0 | 6.3 | 6.3 | 5.8 | 5.9 | 6.0 | 6.4 | 6.4 | 6.5 | 6.1 | 6.3 |
| Postdoctoral Study Plans | % | 22.5 | 49.8 | 46.7 | 37.5 | 46.2 | 18.0 | 11.5 | 15.4 | 28.9 | 83.3 | 62.1 | 65.4 | 14.8 | 19.1 | 49.0 |
| Fellowship | | 10.5 | 15.5 | 20.2 | 16.0 | 17.9 | 8.7 | 2.2 | 4.0 | 10.4 | 52.7 | 34.5 | 37.3 | 8.3 | 6.5 | 26.7 |
| Research Assoc | | 9.7 | 33.3 | 25.3 | 20.6 | 27.1 | 7.7 | 7.2 | 9.4 | 16.9 | 22.5 | 20.0 | 20.4 | 4.8 | 11.5 | 16.8 |
| Traineeship | | 1.0 | .3 | .3 | .6 | .4 | .7 | 1.1 | 1.7 | 1.0 | 1.5 | 2.0 | 1.9 | 1.0 | .8 | 1.5 |
| Other | | 1.4 | .7 | .9 | .4 | .7 | .9 | 1.1 | .4 | .6 | 6.6 | 5.6 | 5.8 | .7 | .4 | 3.9 |
| Planned Employment After Doctorate | % | 69.3 | 43.1 | 46.8 | 55.1 | 47.0 | 73.4 | 81.3 | 73.5 | 62.3 | 12.4 | 31.7 | 28.7 | 70.0 | 74.1 | 44.2 |
| Educ Institution | | 38.4 | 10.9 | 7.1 | 24.9 | 11.4 | 52.3 | 43.2 | 26.0 | 22.6 | 3.8 | 16.0 | 14.1 | 33.4 | 36.7 | 21.7 |
| Industry/Business | | 16.4 | 24.1 | 35.6 | 15.6 | 28.4 | 13.0 | 32.4 | 35.9 | 30.5 | 6.6 | 8.3 | 8.0 | 17.6 | 16.6 | 11.1 |
| Government | | 7.7 | 6.3 | 2.7 | 11.1 | 5.3 | 5.3 | 2.5 | 8.2 | 6.4 | 1.3 | 4.7 | 4.1 | 10.0 | 15.3 | 7.6 |
| Nonprofit | | .2 | 1.2 | .4 | 1.0 | .8 | 1.0 | .7 | 1.4 | 1.1 | .5 | 1.5 | 1.4 | 3.4 | 1.6 | 1.6 |
| Other & Unknown | | 2.7 | .7 | .9 | 2.6 | 1.2 | 1.7 | 2.5 | 2.1 | 1.7 | .3 | 1.2 | 1.0 | 5.5 | 3.9 | 2.2 |
| Postdoc Status Unknown | % | 8.2 | 7.1 | 6.4 | 7.3 | 6.8 | 8.6 | 7.2 | 11.1 | 8.8 | 4.3 | 6.3 | 6.0 | 15.2 | 6.8 | 6.9 |
| Definite Postdoctoral Study | | 16.1 | 37.8 | 35.5 | 25.1 | 34.5 | 11.1 | 6.8 | 8.8 | 20.1 | 72.2 | 48.6 | 52.3 | 9.0 | 10.3 | 37.6 |
| Seeking Postdoctoral Study | | 6.4 | 12.0 | 11.3 | 12.5 | 11.7 | 6.9 | 4.7 | 6.6 | 8.8 | 11.1 | 13.4 | 13.1 | 5.9 | 8.8 | 11.4 |
| Definite Employment | | 51.7 | 32.3 | 37.9 | 41.5 | 36.7 | 56.3 | 63.3 | 53.2 | 46.7 | 10.4 | 22.1 | 20.3 | 53.1 | 53.0 | 31.7 |
| Seeking Employment | | 17.6 | 10.9 | 8.9 | 13.6 | 10.4 | 17.2 | 18.0 | 20.3 | 15.6 | 2.0 | 9.5 | 8.4 | 16.9 | 21.1 | 12.5 |
| Employment Activity After Doctorate Primary Activity | | | | | | | | | | | | | | | | |
| R & D | % | 33.3 | 73.0 | 79.2 | 50.0 | 71.8 | 43.0 | 68.2 | 64.3 | 64.8 | 65.9 | 51.1 | 52.2 | 45.5 | 56.8 | 53.5 |
| Teaching | | 34.0 | 15.2 | 11.8 | 32.9 | 16.9 | 47.0 | 22.7 | 22.7 | 23.2 | 14.6 | 24.5 | 23.7 | 27.3 | 17.5 | 21.3 |
| Administration | | 12.3 | 1.0 | .9 | 2.9 | 1.3 | 1.2 | 1.7 | 1.8 | 1.6 | .0 | 4.6 | 4.3 | 3.2 | 2.5 | 3.3 |
| Prof. Services | | 10.7 | 3.8 | 2.1 | 4.8 | 3.1 | 1.8 | 1.7 | 3.9 | 3.3 | 7.3 | 11.0 | 10.7 | 13.6 | 7.6 | 9.6 |
| Other | | 3.1 | 1.6 | 1.3 | 4.3 | 1.9 | 1.5 | 1.1 | 1.8 | 1.8 | .0 | 3.2 | 2.9 | 3.9 | 7.4 | 5.1 |
| Activity Unknown | | 6.7 | 5.4 | 4.7 | 5.2 | 5.0 | 5.5 | 4.5 | 5.5 | 5.3 | 12.2 | 5.7 | 6.2 | 6.5 | 8.1 | 7.1 |
| Secondary Activity | | | | | | | | | | | | | | | | |
| R & D | | 24.2 | 13.3 | 9.7 | 27.6 | 14.2 | 39.6 | 22.2 | 21.5 | 20.9 | 17.1 | 24.3 | 23.7 | 20.1 | 20.2 | 21.6 |
| Teaching | | 13.3 | 7.3 | 4.3 | 13.3 | 6.9 | 24.4 | 25.0 | 13.2 | 12.9 | 4.9 | 16.2 | 15.3 | 18.2 | 20.7 | 18.2 |
| Administration | | 9.7 | 6.0 | 15.9 | 6.2 | 11.2 | 3.0 | 6.8 | 8.6 | 8.8 | 17.1 | 13.1 | 13.4 | 14.3 | 10.1 | 12.0 |
| Prof. Services | | 6.4 | 4.8 | 6.4 | 5.7 | 5.8 | 3.7 | 3.4 | 4.9 | 5.0 | .0 | 7.2 | 6.6 | 10.4 | 7.1 | 7.3 |
| Other | | 1.8 | 2.2 | .9 | .5 | 1.2 | .3 | 1.1 | 1.2 | 1.0 | .0 | 1.1 | 1.0 | 1.9 | 2.8 | 1.9 |
| No Secondary Activity | | 37.9 | 61.0 | 58.1 | 41.4 | 55.7 | 23.5 | 36.9 | 45.2 | 46.1 | 48.8 | 32.5 | 33.8 | 28.6 | 31.0 | 31.8 |
| Unknown | | 6.7 | 5.4 | 4.7 | 5.2 | 5.0 | 5.5 | 4.5 | 5.5 | 5.3 | 12.2 | 5.7 | 6.2 | 6.5 | 8.1 | 7.1 |
| Region of Employment After Doctorate | | | | | | | | | | | | | | | | |
| New England | % | 5.6 | 7.0 | 6.6 | 2.4 | 5.9 | 9.8 | 13.6 | 5.3 | 6.4 | 9.8 | 4.9 | 5.2 | 5.2 | 2.3 | 3.9 |
| Middle Atlantic | | 14.9 | 18.4 | 24.5 | 9.0 | 19.7 | 16.2 | 23.9 | 14.3 | 16.9 | 24.4 | 12.7 | 13.6 | 19.5 | 6.5 | 11.1 |
| East No Central | | 14.1 | 8.3 | 20.8 | 10.0 | 15.0 | 15.2 | 11.4 | 13.7 | 14.2 | 19.5 | 13.7 | 14.2 | 17.5 | 9.0 | 12.2 |
| West No Central | | 6.7 | 4.1 | 6.6 | 6.7 | 5.9 | 7.0 | 2.8 | 4.4 | 5.1 | 19.5 | 9.3 | 10.1 | 7.1 | 10.6 | 10.0 |
| South Atlantic | | 13.6 | 12.7 | 15.0 | 11.0 | 13.6 | 11.9 | 8.5 | 12.2 | 12.4 | 2.4 | 13.7 | 12.8 | 12.3 | 13.1 | 12.9 |
| East So Central | | 3.6 | 1.0 | 2.1 | 1.9 | 1.8 | 4.6 | 1.1 | 2.7 | 2.5 | .0 | 4.2 | 3.9 | 3.2 | 4.8 | 4.2 |
| West So Central | | 7.5 | 6.0 | 5.0 | 13.3 | 6.9 | 2.2 | 5.7 | 6.0 | 6.2 | 2.4 | 6.5 | 6.2 | 7.1 | 6.5 | 6.5 |
| Mountain | | 4.7 | 8.3 | 2.5 | 7.6 | 5.2 | 1.0 | 3.4 | 6.0 | 5.3 | 2.4 | 3.4 | 3.3 | 1.9 | 4.8 | 3.8 |
| Pacific & Insular | | 10.3 | 22.2 | 7.0 | 18.6 | 13.7 | 10.4 | 15.9 | 13.2 | 13.2 | 9.8 | 11.4 | 11.3 | 7.8 | 5.1 | 8.0 |
| Foreign | | 12.7 | 6.7 | 5.0 | 18.6 | 8.1 | 11.6 | 11.4 | 16.4 | 12.8 | 7.3 | 16.7 | 15.9 | 13.6 | 32.2 | 23.1 |
| Region Unknown | | 6.2 | 5.4 | 4.8 | 1.0 | 4.2 | 5.2 | 2.3 | 6.0 | 5.1 | 2.4 | 3.6 | 3.5 | 4.5 | 5.0 | 4.3 |

1/ Refer to explanatory note on pages 38-39 and the description of doctoral fields inside back cover.

TABLE 2 (Continued)

Doctorates: Men

| Psychology | Economics | Anthropology and Sociology | Political Sci. and International Rel. | Other Social Sciences | Social Sciences Incl. Psychology | Total Sciences | History | Eng. and Amer. Lang. and Lit. | Foreign Lang. and Lit. | Other Humanities | Humanities | Business and Management | Other Professional Fields | Education | Total Non-Sciences | Other or Unspecified 2/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1556 | 688 | 399 | 361 | 364 | 3368 | 14045 | 765 | 331 | 194 | 1049 | 1939 | 649 | 612 | 3237 | 6437 | 20 |
| 50.6 | 84.7 | 49.0 | 74.4 | 68.2 | 58.9 | 73.3 | 67.2 | 45.5 | 44.6 | 60.9 | 56.6 | 81.8 | 57.6 | 48.2 | 53.6 | 55.6 |
| 88.8 | 51.7 | 75.9 | 65.7 | 56.3 | 73.7 | 64.7 | 85.2 | 86.7 | 75.8 | 81.4 | 82.5 | 61.5 | 70.9 | 80.9 | 78.5 | |
| 1.9 | 7.1 | 4.8 | 5.3 | 8.0 | 4.3 | 5.4 | 2.2 | 2.1 | 9.8 | 3.7 | 3.8 | 9.2 | 3.4 | 2.5 | 3.6 | |
| 3.5 | 36.8 | 14.3 | 21.9 | 29.7 | 16.4 | 25.2 | 8.8 | 6.3 | 8.8 | 9.3 | 8.7 | 23.4 | 18.6 | 12.4 | 13.0 | |
| 5.9 | 4.4 | 5.0 | 7.2 | 6.0 | 5.6 | 4.6 | 3.8 | 4.8 | 5.7 | 5.5 | 5.1 | 5.9 | 7.0 | 4.2 | 4.9 | |
| 54.0 | 58.3 | 60.4 | 61.5 | 67.0 | 57.9 | 58.0 | 60.3 | 58.6 | 5 .7 | 59.7 | 59.4 | 68.7 | 67.8 | 77.3 | 70.1 | |
| 38.6 | 33.9 | 33.6 | 28.3 | 25.0 | 34.4 | 35.8 | 32.6 | 35.6 | 34.5 | 33.0 | 33.5 | 24.2 | 23.7 | 17.4 | 23.5 | |
| 7.4 | 7.8 | 6.0 | 10.2 | 8.0 | 7.7 | 6.2 | 7.1 | 5.7 | 7.7 | 7.3 | 7.1 | 7.1 | 8.5 | 5.3 | 6.3 | |
| 32.3 | 31.8 | 34.0 | 33.8 | 35.1 | 32.9 | 31.1 | 34.6 | 34.0 | 35.1 | 34.4 | 34.4 | 34.9 | 36.7 | 38.2 | 36.7 | |
| 68.4 | 61.6 | 54.4 | 58.4 | 22.8 | 59.4 | 65.5 | 59.2 | 73.1 | 46.4 | 56.1 | 58.6 | 41.0 | 24.3 | 34.4 | 41.4 | |
| 80.0 | 77.0 | 88.5 | 88.1 | 90.4 | 82.4 | 71.7 | 91.0 | 85.2 | 86.1 | 88.4 | 88.1 | 89.2 | 91.8 | 95.6 | 92.4 | |
| 9.3 | 8.9 | 10.9 | 10.1 | 11.3 | 9.7 | 8.3 | 11.5 | 11.1 | 11.6 | 11.4 | 11.4 | 11.7 | 13.1 | 14.6 | 13.2 | |
| 6.9 | 6.5 | 8.2 | 7.3 | 7.3 | 7.0 | 6.3 | 8.7 | 7.9 | 8.6 | 8.0 | 8.1 | 7.0 | 7.7 | 7.7 | 7.8 | |
| 19.5 | 5.5 | 14.3 | 6.4 | 9.6 | 13.5 | 30.8 | 8.5 | 4.5 | 8.2 | 6.7 | 6.8 | 1.8 | 4.1 | 3.9 | 4.6 | |
| 11.9 | 2.2 | 9.5 | 3.0 | 5.8 | 8.0 | 14.3 | 5.5 | 2.7 | 3.6 | 3.9 | 4.0 | .3 | 1.5 | 1.3 | 2.0 | |
| 3.6 | 2.3 | 3.0 | 1.9 | 3.3 | 3.1 | 13.5 | .8 | .0 | 2.1 | 1.1 | 1.0 | 1.1 | 1.1 | 1.3 | 1.2 | |
| 2.4 | .3 | 1.0 | .8 | .3 | 1.4 | 1.2 | .3 | .6 | .0 | .0 | .2 | .5 | .2 | .7 | .5 | |
| 1.6 | .7 | .8 | .6 | .3 | 1.1 | 1.6 | 1.9 | 1.2 | 2.6 | 1.6 | 1.7 | .0 | 1.3 | .5 | .9 | |
| 72.9 | 84.6 | 78.7 | 79.8 | 31.0 | 77.6 | 60.9 | 82.5 | 87.9 | 83.0 | 84.8 | 84.7 | 89.5 | 84.6 | 89.5 | 87.6 | |
| 25.8 | 55.7 | 48.1 | 55.1 | 47.3 | 40.0 | 26.5 | 57.3 | 77.3 | 69.1 | 65.4 | 66.3 | 74.6 | 46.4 | 64.3 | 64.2 | |
| 16.2 | 10.8 | 9.8 | 6.4 | 11.3 | 12 7 | 20.9 | 5.8 | 5.4 | 4.6 | 5.7 | 5.6 | 10.2 | 7.0 | 6.5 | 6.6 | |
| 11.4 | 10.2 | 9.0 | 13.0 | 11.0 | 11.0 | 7.9 | 9.0 | .9 | 3.1 | 1.5 | 3.0 | 2.6 | 10.0 | 10.6 | 7.4 | |
| 15.5 | 2.3 | 4.8 | 2.5 | 4 7 | 9.0 | 3.1 | 4.9 | 1.2 | 3.1 | 8.4 | 6.0 | .6 | 19.3 | 5.5 | 6.5 | |
| 4.0 | 5.7 | 7.0 | 2.8 | 6 9 | 4.9 | 2.6 | 5.5 | 3.0 | 3.1 | 3.8 | 3.9 | 1.5 | 2.0 | 2.6 | 2.8 | |
| 7.6 | 9.9 | 7.0 | 13.9 | 9.3 | 8.9 | 8.3 | 9.0 | 7.6 | 8.8 | 8.5 | 8.5 | 8.6 | 11.3 | 6.6 | 7.8 | |
| 14.1 | 3.3 | 7.8 | 3.6 | 5 2 | 9.1 | 22 3 | 4.9 | 2.4 | 5.2 | 3 2 | 3.6 | 1.2 | 2.5 | 2.4 | 2 5 | |
| 5.4 | 2.2 | 6.5 | 2.8 | 4.4 | 4.5 | 8.5 | 3.6 | 2.1 | 3.1 | 3.4 | 3.2 | .6 | 1.6 | 1.7 | 2.0 | |
| 52.6 | 67.6 | 48.9 | 52.6 | 57.7 | 55 8 | 44.7 | 56.2 | 55.0 | 58.8 | 57.7 | 57.0 | 79.5 | 70.4 | 69.6 | 66.9 | |
| 20.2 | 17.0 | 29.8 | 27.1 | 23.4 | 21 8 | 16.2 | 26.3 | 32.9 | 24.2 | 27.2 | 27.7 | 10.0 | 14.2 | 19.9 | 20.7 | |
| 17.3 | 36.3 | 34.4 | 21.6 | 22.4 | 24 8 | 50.6 | 9.3 | 3.3 | 7.0 | 7.6 | 7.1 | 20.0 | 9.7 | 5.5 | 8.1 | |
| 16.8 | 44.5 | 40.5 | 51.6 | 47.1 | 33.0 | 25.8 | 59.0 | 84.1 | 78.1 | 68.4 | 70.3 | 64.1 | 45.7 | 29.8 | 45.9 | |
| 6 6 | 2.4 | 8.7 | 8.4 | 10.0 | 6.3 | 3 3 | 12.7 | 3.8 | 5.3 | 4.5 | 6.0 | 6.0 | 13.9 | 41.4 | 25.3 | |
| 53.7 | 3.7 | 5.6 | 1.6 | 7.1 | 25 9 | 11 3 | 6.8 | 1.6 | 1.8 | 7.1 | 5.6 | 2.1 | 17.9 | 12.2 | 9.9 | |
| 1.7 | 3.9 | 4.6 | 8.4 | 3.3 | 3.4 | 2.9 | 5.9 | 2 7 | 1.8 | 5.1 | 4.5 | 1.7 | 5.8 | 2.4 | 3.2 | |
| 3.8 | 9.2 | 6.2 | 8.4 | 10.0 | 6.5 | 6.0 | 6.3 | 4.4 | 6.1 | 7.3 | 6.5 | 6.0 | 7.0 | 8.7 | 7.6 | |
| 20.6 | 38.5 | 29.7 | 35.3 | 37 1 | 29.3 | 23.6 | 36 1 | 36.3 | 46.5 | 31.1 | 34.4 | 31.6 | 27.6 | 14.0 | 25.1 | |
| 14.4 | 19.4 | 9.2 | 13.7 | 12.4 | 14 8 | 14.5 | 10 2 | 5.5 | 7 0 | 8.6 | 8.2 | 18.4 | 12.5 | 11.5 | 11.6 | |
| 14.0 | 4.7 | 9.2 | 6 3 | 6.2 | 9.6 | 9.7 | 7 8 | 10.4 | 2.6 | 8.3 | 8.0 | 4.8 | 11.9 | 11.3 | 9.7 | |
| 9.6 | 3.0 | 6.2 | 2.6 | 5.2 | 6.4 | 5.9 | 3.9 | 2 2 | .9 | 5.1 | 4.0 | 1.6 | 5 | 9 7 | 7.2 | |
| 2.4 | .4 | 1.5 | .5 | 1.0 | 1.5 | 1.3 | 1.5 | 4.4 | .9 | 5.0 | 3 8 | 1.4 | 2.1 | 2.2 | 2.5 | |
| 35 0 | 24.7 | 37.9 | 33.2 | 28.1 | 31.8 | 39 0 | 34.1 | 3 .8 | 36.0 | 34.7 | 35.1 | 16.3 | 29.5 | 42.6 | 36.2 | |
| 3.8 | 9.2 | 6.2 | 8.4 | 10.0 | 6.5 | 6 0 | 6 3 | 4 4 | 6.1 | 7.3 | 6.5 | 6.0 | 7.0 | 8.7 | 7.6 | |
| 7.1 | 5.2 | 5.1 | 6.3 | 4.8 | 6.1 | 5.8 | 7.3 | 7.1 | 13.2 | 7.4 | 8.0 | 4.8 | 2.8 | 4.5 | 5.2 | |
| 20.4 | 13.5 | 12.3 | 18.4 | 10.5 | 16 6 | 15.6 | 12.7 | 13.7 | 12.3 | 15.2 | 14.2 | 13.0 | 13.0 | 14.2 | 13 9 | |
| 14.3 | 14.6 | 13.3 | 9.5 | 15.2 | 13.9 | 13.7 | 10.7 | 18.1 | 16.7 | 13.7 | 14.2 | 17.6 | 14.2 | 14.2 | 14.6 | |
| 8.7 | 4.5 | 4.1 | 4.2 | 2.9 | 6.1 | 6.3 | 6.8 | 6.6 | 9.6 | 8.3 | 7.9 | 6.0 | 5.3 | 7.5 | 7.2 | |
| 13.3 | 18.7 | 13.8 | 16.8 | 14.3 | 15 2 | 13.3 | 13.2 | 19.2 | 16.7 | 10.6 | 13.1 | 14.0 | 12.8 | 14.4 | 13 9 | |
| 2.7 | 2.6 | 3.1 | 2.1 | 3 8 | 2.8 | 2.9 | 7.8 | 2.7 | 4.4 | 4.8 | 5.0 | 4.8 | 6.0 | 4.3 | 4.7 | |
| 7.4 | 4.5 | 2.6 | 8 9 | 7 1 | 6.3 | 6.3 | 8.8 | 9 3 | 4.4 | 9.3 | 8.7 | 12.6 | 12.8 | 8.1 | 9.2 | |
| 3.9 | 3.0 | 7.2 | 2.6 | 3.8 | 3 9 | 4.6 | 7.3 | 2 7 | 3.5 | 3.5 | 4.1 | 3.9 | 2.8 | 6.2 | 5.0 | |
| 12.7 | 6.5 | 15.4 | 8.9 | 9.0 | 10.6 | 11.4 | 10.2 | 8.2 | 8.8 | 9.6 | 9.4 | 8.9 | 8.8 | 8.2 | 8.7 | |
| 2.8 | 21.1 | 15.4 | 17.4 | 19.5 | 12.0 | 14.6 | 7.8 | 5.5 | 2 6 | 9.9 | 8.0 | 10 3 | 14.6 | 10.2 | 10.1 | |
| 6.7 | 5.8 | 7.7 | 4.7 | 9.0 | 6.7 | 5 4 | 7.3 | 6.6 | 7.9 | 7.6 | 7.5 | 4 1 | 7.0 | 8.3 | 7.5 | |

2/ Statistics are not presented for this group because too few records contained the specific data.

SOURCE. National Research Council. Office of Scientific and Engineering Personnel. Doctorate Records File

TABLE 2 Statistical Profile of Doctorate Recipients by Field of Doctorate. 1985 1/

Doctorates: Women

| | 1985 Total | Physics and Astronomy | Chemistry | Earth, Atmospheric and Marine Sciences | Physical Sciences | Mathematics | Computer Sciences | Engineering | EMP Fields | Biochemistry | Other Biosciences | Biosciences | Health Sciences | Agricultural Science | Life Sciences |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Female | 10699 | 102 | 362 | 111 | 575 | 106 | 33 | 198 | 912 | 184 | 1045 | 1229 | 434 | 192 | 1855 |
| Female as a Percent of Total Doctorates % | 34.3 | 9.5 | 19.7 | 18.0 | 16.3 | 15.4 | 10.6 | 6.3 | 11.9 | 31.8 | 32.8 | 32.6 | 59.[illegible] | 15.3 | 32.3 |
| U.S. Citizenship % | 84.9 | 60.8 | 72.1 | 79.3 | 71.5 | 66.0 | 72.7 | 60.1 | 68.4 | 79.9 | 83.7 | 83.2 | 84.6 | 69.3 | 82.0 |
| Non-U.S., Permanent Visa | 3.0 | 5.9 | 4.7 | 3.6 | 4.7 | 11.3 | .0 | 8.6 | 6.1 | 6.5 | 3.3 | 3.7 | 2.3 | 3.6 | 3.4 |
| Non-U.S., Temporary Visa | 7.8 | 29.4 | 18.0 | 11.7 | 18.8 | 20.8 | 24.2 | 28.3 | 21.3 | 11.4 | 10.5 | 10.7 | 8.3 | 24.0 | 11.5 |
| Unknown | 4.3 | 3.9 | 5.2 | 5.4 | 5.0 | 1.9 | [illegible].0 | 3.0 | 4.2 | 2.2 | 2.5 | 2.4 | 4.8 | 3.1 | 3.1 |
| Married % | 51.6 | 52.9 | 41.4 | 47.7 | 44.7 | 57.5 | 69.7 | 48.0 | 47.8 | 48.9 | 47.8 | 48.0 | 54.8 | 53.1 | 50.1 |
| Not Married | 42.7 | 42.2 | 52.8 | 45.9 | 49.6 | 39.6 | 27.3 | 46.5 | 46.9 | 47.3 | 48.3 | 48.2 | 38.5 | 43.2 | 45.4 |
| Unknown | 5.7 | 4.9 | 5.8 | 6.3 | 5.7 | 2.8 | 3.0 | 5.6 | 5.3 | 3.8 | 3.8 | 3.8 | [illegible].7 | 3.6 | 4.5 |
| Median Age at Doctorate | 35.1 | 30.1 | 28.5 | 31.0 | 29.4 | 30.2 | 33.5 | 29.4 | 29.5 | 29.6 | 30.9 | 30.7 | 36.5 | 31.8 | 31.7 |
| Percent with Bacc in Same Field as Doctorate | 52.1 | 70.5 | 77.6 | 53.2 | 72.3 | 78. | 9.1 | 58.6 | 67.8 | 22.8 | 65.8 | 59.4 | 62.7 | 44.8 | 58.7 |
| Percent with Masters | 83.5 | 69.6 | 37.6 | 67.6 | 49.0 | 81.1 | 93.9 | 87.4 | 62.7 | 31.0 | 52.4 | 49.2 | 88.7 | 91.7 | 62.9 |
| Median Time Lapse From Bacc to Doct | | | | | | | | | | | | | | | |
| Total Time Yrs | 11.9 | 7.7 | 6.3 | 8.7 | 7.0 | 7.7 | 11.5 | 7.1 | 7.1 | 7.2 | 8.4 | 8.2 | 13.0 | 8.9 | 9.1 |
| Registered Time | 7.2 | 6.6 | 5.4 | 6.8 | 5.9 | 6.2 | 6.3 | 5.8 | 5.9 | 6.0 | 6.5 | 6.4 | 6.7 | 6.2 | 6.4 |
| Postdoctoral Study Plans % | 17.5 | 48.0 | 40.3 | 37.8 | 41.2 | 15.1 | 15.2 | 19.7 | 32.6 | 83.7 | 66.1 | 68.8 | 14.7 | 27.6 | 51.9 |
| Fellowship | 9.5 | 18.6 | 16.6 | 17.1 | 17.0 | 6.6 | 6.1 | 8.1 | 13.5 | 50.5 | 40.4 | 41.9 | 8.3 | 7.8 | 30.5 |
| Research Assoc | 5.9 | 29.4 | 21.5 | 18.9 | 22.4 | 7.5 | 9.1 | 10.6 | 17.7 | 25.5 | 20.9 | 21.6 | 5.5 | 16.7 | 17.3 |
| Traineeship | 1.0 | .0 | 1.7 | 1.8 | 1.4 | .9 | .0 | .5 | 1.1 | 2.2 | 1.5 | 1.6 | .2 | 2.1 | 1.3 |
| Other | 1.2 | .0 | .6 | .0 | .3 | .0 | .0 | .5 | .3 | 5.4 | 3.3 | 3.7 | .7 | 1.0 | 2.7 |
| Planned Employment After Doctorate % | 74.9 | 44.1 | 50.0 | 54.1 | 49.7 | 79.2 | 75.8 | 70.2 | 58.6 | 13.0 | 28.1 | 25.9 | 78.6 | 65.1 | 42.3 |
| Educ Institution | 47.0 | 22.5 | 11.3 | 21.6 | 15.3 | 64.2 | 48.5 | 25.3 | 24.3 | 6.5 | 15.1 | 13.8 | 54.6 | 35.4 | 25.6 |
| Industry/Business | 10.1 | 10.8 | 34.0 | 18.0 | 26.8 | 8.5 | 18.2 | 31.3 | 25.3 | 4.9 | 6.1 | 5.9 | 6.9 | 12.5 | 6.6 |
| Government | 7.2 | 6.9 | 2.8 | 10.8 | 5.0 | 2.8 | .0 | 9.1 | 5.5 | .5 | 4.2 | 3.7 | 7.1 | 9.4 | 5.1 |
| Nonprofit | 5.8 | 2.9 | .8 | .0 | 1.0 | .0 | 3.0 | 1.0 | 1.0 | .0 | 1.4 | 1.2 | 7.4 | 1.6 | 2.7 |
| Other & Unknown | 4.9 | 1.0 | 1.1 | 3.6 | 1.6 | 3.8 | 6.1 | 3.5 | 2.4 | 1.1 | 1.2 | 1.2 | 2.5 | 6.3 | 2.0 |
| Postdoc Status Unknown % | 7.6 | 7.8 | 9.7 | 8.1 | 9.0 | 5.7 | 9.1 | 10.1 | 8.9 | 3.3 | 5.7 | 5.4 | 6.7 | 7.3 | 5.9 |
| Definite Postdoctoral Study | 12.1 | 33.3 | 29.8 | 24.3 | 29.4 | 13.2 | 9.1 | 12.6 | 23.1 | 69.0 | 50.6 | 53.4 | 9.9 | 16.1 | 39.4 |
| Seeking Postdoctoral Study | 5.4 | 14.7 | 10.5 | 13.5 | 11.8 | 1.9 | 6.1 | 7.1 | 9.4 | 14.7 | 15.5 | 15.4 | 4.8 | 11.5 | 12.5 |
| Definite Employment | 51.6 | 32.4 | 36.2 | 42.3 | 36.7 | 58.5 | 51.5 | 51.5 | 43.0 | 8.2 | 17.6 | 16.2 | 59.7 | 43.8 | 29.2 |
| Seeking Employment | 20.3 | 11.8 | 13.8 | 11.7 | 13.0 | 20.8 | 24.2 | 18.7 | 15.6 | 4.9 | 10.5 | 9.7 | 18.9 | 21.4 | 13.0 |
| Employment Activity After Doctorate Primary Activity | | | | | | | | | | | | | | | |
| R & D % | 16.4 | 57.6 | 71.0 | 44.7 | 63.0 | 33.9 | 17.6 | 68.6 | 57.9 | 46.7 | 41.8 | 42.2 | 29.7 | 52.4 | 37.8 |
| Teaching | 42.6 | 27.3 | 19.8 | 31.9 | 23.7 | 56.5 | 64.7 | 24.5 | 30.9 | 46.7 | 37.0 | 37.7 | 45.9 | 22.6 | 39.3 |
| Administration | 15.9 | .0 | .0 | 2.1 | .5 | .0 | 5.9 | 1.0 | .8 | .0 | 3.8 | 3.5 | 10.4 | 1.2 | 6.5 |
| Prof. Services | 16.8 | 3.0 | 4.6 | 12.8 | 6.2 | 4.8 | 5.9 | 2.9 | 5.1 | 6.7 | 7.6 | 7.5 | 9.7 | 9.5 | 8.9 |
| Other | 2.9 | 3.0 | 3.8 | 8.5 | 4.7 | .0 | .0 | 1.0 | 2.8 | .0 | 3.8 | 3.5 | .8 | 7.1 | 2.8 |
| Activity Unknown | 5.5 | 9.1 | .8 | .0 | 1.9 | 4.8 | 5.9 | 2.0 | 2.6 | .0 | 6.0 | 5.5 | 3.5 | 7.1 | 4.8 |
| Secondary Activity | | | | | | | | | | | | | | | |
| R & D | 27.8 | 27.3 | 15.3 | 36.2 | 21.8 | 43.5 | 52.9 | 22.5 | 26.8 | 33.3 | 33.2 | 33.2 | 39.4 | 25.0 | 34.9 |
| Teaching | 12.4 | 12.1 | 3.1 | 8.5 | 5.7 | 21.0 | 5.9 | 11.8 | 9.7 | .0 | 9.8 | 9.0 | 18.1 | 17.9 | 14.8 |
| Administration | 8.9 | 6.1 | 12.2 | 4.3 | 9.5 | 3.2 | 11.8 | 7.8 | 8.2 | .0 | 4.3 | 4.0 | 8.5 | 9.5 | 7.0 |
| Prof. Services | 8.2 | .0 | 3.1 | 4.3 | 2.8 | 6.5 | 5.9 | 6.9 | 4.6 | .0 | 6.5 | 6.0 | 8.9 | 7.1 | 7.6 |
| Other | 2.7 | .0 | 1.5 | 2.1 | 1.4 | 3.2 | .0 | 1.0 | 1.5 | .0 | 1.6 | 1.5 | 1.9 | .0 | 1.5 |
| No Secondary Activity | 34.5 | 45.5 | 64.1 | 44.7 | 56.9 | 17.7 | 17.6 | 48.0 | 46.7 | 60.7 | 38.6 | 40.7 | 19.7 | 33.3 | 29.5 |
| Unknown | 5.5 | 9.1 | .8 | .0 | 1.9 | 4.8 | 5.9 | 2.0 | 2.6 | .0 | 6.0 | 5.5 | 3.5 | 7.1 | 4.8 |
| Region of Employment After Doctorate | | | | | | | | | | | | | | | |
| New England % | 6.1 | 6.1 | 8.4 | 10.6 | 8.5 | 9.7 | 23.5 | 6.9 | 8.9 | .0 | 4.9 | 4.5 | 3.5 | 4.8 | 4.1 |
| Middle Atlantic | 15.9 | 15.2 | 26.0 | 14.9 | 21.8 | 19.4 | 11.8 | 17.6 | 19.9 | 26.7 | 11.4 | 12.6 | 17.0 | 6.0 | 13.7 |
| East No Central | 13.6 | 12.1 | 15.3 | 6.4 | 12.8 | 19.4 | .0 | 9.8 | 12.5 | 20.0 | 15.2 | 15.6 | 13.5 | 14.3 | 14.4 |
| West No Central | 6.7 | 6.1 | 6.1 | 4.3 | 5.7 | 8.1 | .0 | 4.9 | [illegible].5 | 6.7 | 7.6 | 7.5 | 4.6 | 7.1 | 6.1 |
| South Atlantic | 16.7 | 15.2 | 19.1 | 14.9 | 17.5 | 14.5 | 11.8 | 22.5 | 1[illegible]. | 6.7 | 22.3 | 21.1 | 14.7 | 15.5 | 17.2 |
| East So Central | 4.4 | .0 | 1.5 | 2.1 | 1.4 | 3.2 | 11.8 | 2.9 | 2.6 | .0 | 3.8 | 3.5 | 5.8 | 6.0 | 5.0 |
| West So Central | 8.2 | 6.1 | 5.3 | 14.9 | 7.6 | 3.2 | 11.8 | 2.0 | 5.6 | 6.7 | 4.3 | 4.5 | 12.4 | 7.1 | 8.7 |
| Mountain | 4.4 | 9.1 | .0 | 4.3 | 2.4 | .0 | .0 | 2.9 | 2.0 | .0 | 4.3 | 4.0 | 6.2 | 1.2 | 4.6 |
| Pacific & Insular | 10.2 | 9.1 | 11.5 | 12.8 | 11.4 | 8.1 | 11.8 | 15.7 | 12.0 | 13.3 | 14.1 | 14.1 | 7.7 | 7.1 | 10.0 |
| Foreign | 5.5 | 9.1 | 3.1 | 8.5 | 5.2 | 11.3 | 5.9 | 10.8 | 7.7 | 20.0 | 9.2 | 10.1 | 9.7 | 23.8 | 12.0 |
| Region Unknown | 8.4 | 12.1 | 3.8 | 6.4 | 5.7 | 3.2 | 11.8 | 3.9 | 5.1 | .0 | 2.7 | 2.5 | 5.0 | 7.1 | 4.4 |

1/ Refer to explanatory note on pages 38-39 and the description of doctoral fields inside back cover.

TABLE 2 (Continued)

Doctorates: Women

| Psychology | Economics | Anthropology and Sociology | Political Sci. and International Rel. | Other Social Sciences | Social Sciences Incl. Psychology | Total Sciences | History | Eng. and Amer Lang. and Lit. | Foreign Lang. and Lit. | Other Humanities | Humanities | Business and Management | Other Professional Fields | Education | Total Non-Sciences | Other or Unspecified 2/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1519 | 124 | 415 | 124 | 170 | 2352 | 5119 | 178 | 397 | 241 | 673 | 1489 | 144 | 451 | 3480 | 5564 | 16 |
| 49.4 | 15.3 | 51.0 | 25.6 | 31.8 | 41.1 | 26.7 | 32.8 | 54.5 | 55.4 | 39.1 | 43.4 | 18.2 | 42.4 | 51.8 | 46.4 | 44.4 |
| 91.6 | 66.1 | 87.2 | 73.4 | 76.5 | 87.4 | 82.1 | 82.0 | 90.7 | 77.2 | 82.8 | 83.9 | 79.9 | 83.4 | 89.8 | 87.5 | |
| 1.9 | 8.9 | 2.9 | 4.0 | 4.1 | 2.7 | 3.6 | 5.6 | 2.8 | 11.2 | 4.3 | 5.2 | 3.5 | 2.0 | 1.4 | 2.5 | |
| 1.8 | 21.0 | 6.3 | 10.5 | 12.9 | 4.9 | 10.2 | 5.1 | 3.8 | 6.6 | 8.3 | 6.4 | 11.8 | 6.7 | 4.8 | 5.6 | |
| 4.7 | 4.0 | 3.6 | 12.1 | 6.5 | 5.0 | 4.1 | 7.3 | 2.8 | 5.0 | 4.6 | 4.5 | 4.9 | 8.0 | 4.0 | 4.5 | |
| 46.9 | 50.0 | 48.9 | 42.7 | 47.6 | 47.2 | 48.4 | 52.2 | 53.9 | 54.8 | 48.9 | 51.6 | 48.6 | 47.5 | 57.2 | 54.7 | |
| 47.0 | 43.5 | 46.1 | 41.9 | 43.5 | 46.2 | 46.0 | 40.4 | 42.1 | 38.2 | 44.7 | 42.4 | 45.1 | 43.9 | 37.5 | 39.5 | |
| 6.1 | 6.5 | 4. | 15.3 | 8.8 | 6.6 | 5.6 | 7.3 | 4.0 | 7.1 | 6.4 | 6.0 | 6.3 | 8.6 | 5.3 | 5.8 | |
| 32.7 | 30.9 | 36.1 | 34.6 | 35.0 | 33.3 | 31.9 | 35.5 | 35.8 | 35.3 | 34.8 | 35.2 | 35.2 | 38.1 | 39.3 | 38.0 | |
| 62.3 | 66.1 | 53.3 | 54.0 | 19.4 | 57.4 | 59.7 | 62.9 | 70.0 | 63.1 | 49.9 | 59.0 | 29.2 | 23.9 | 42.7 | 45.2 | |
| 83.0 | 69.4 | 88.9 | 81.5 | 88.2 | 83.6 | 72.4 | 89.9 | 88.4 | 85.9 | 88.1 | 88.0 | 91.7 | 94.5 | 96.3 | 93.8 | |
| 9.4 | 8.4 | 12.3 | 12.1 | 11.9 | 10.2 | 9.1 | 12.1 | 12.6 | 12.2 | 12.2 | 12.3 | 12.5 | 14.8 | 15.7 | 14.6 | |
| 7.0 | 6.6 | 8.8 | 8.4 | 7.5 | 7.3 | 6.7 | 9.0 | 8.8 | 8.9 | 8.2 | 8.6 | 6.9 | 7.2 | 7.5 | 7.8 | |
| 18.3 | 7.3 | 12.5 | 8.9 | 7.6 | 15.4 | 31.7 | 10.1 | 2.3 | 5.8 | 7.3 | 6.0 | 2.1 | 3.7 | 4.1 | 4.5 | |
| 10.7 | 4.8 | 8.2 | 3.2 | 4.7 | 9.1 | 17.6 | 7.3 | 1.5 | 2.9 | 4.3 | 3.7 | .7 | 3 | 1.4 | 2.0 | |
| 3.2 | .8 | 3.4 | 5.6 | 2.9 | 3.2 | 10.9 | 1.7 | .5 | .8 | 1.9 | 1.3 | 1.4 | . | 1.3 | 1.2 | |
| 3.5 | .0 | .2 | .0 | .0 | 2.3 | 1.7 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .5 | .3 | |
| 1.0 | 1.6 | .7 | .0 | .0 | .9 | 1.4 | 1.1 | .3 | 2.1 | 1.0 | 1.0 | .0 | .9 | .9 | .9 | |
| 74.5 | 85.5 | 79.8 | 75.0 | 82.9 | 76.6 | 60.9 | 77.5 | 90.9 | 83.0 | 84.4 | 85.1 | 88.9 | 86.5 | 89.0 | 87.7 | |
| 26.5 | 44.4 | 50.4 | 50.8 | 44.1 | 34.2 | 29.3 | 59.0 | 74.3 | 67.2 | 62.6 | 66.0 | 72.9 | 61.2 | 61.9 | 63.2 | |
| 14.0 | 11.3 | 7.7 | 8.1 | 8.2 | 12.0 | 12.5 | 2.8 | 7.3 | 5.8 | 8.0 | 6.9 | 14.6 | 10.0 | 7.7 | 7.8 | |
| 10.9 | 21.0 | 6.5 | 7.3 | 11.2 | 10.5 | 7.6 | 1.1 | 1.5 | 2.1 | 2.1 | 1.8 | .7 | 5.1 | 9.4 | 6.8 | |
| 16.8 | 3.2 | 8.0 | 1.6 | 7.6 | 13.1 | 7.1 | 7.9 | 1.8 | .4 | 6.5 | 4.4 | .7 | 5.8 | 4.7 | 4.6 | |
| 6.4 | 5.6 | 7.2 | 7.3 | 11.8 | 6.9 | 4.4 | 6.7 | 6.0 | 7.5 | 5.2 | 6.0 | .0 | 4.4 | 5.3 | 5.3 | |
| 7.2 | 7.3 | 7.7 | 16.1 | 9.4 | 8.0 | 7.4 | 12.4 | 6.8 | 11.2 | 8.3 | 8.9 | 9.0 | 10.9 | 6.9 | 7.8 | |
| 11.9 | 4.0 | 5.8 | 6.5 | 4.1 | 9.6 | 22.8 | 6.2 | 1.0 | 2.5 | 5.9 | 3.2 | 1.4 | 1.3 | 2.0 | 2.2 | |
| 6.4 | 3.2 | 6.7 | 2.4 | 3.5 | 5.9 | 8.9 | 3.9 | 1.3 | 3.3 | 3.4 | 2.9 | .7 | 1.3 | 2.1 | 2.2 | |
| 51.5 | 66.1 | 46.3 | 48.4 | 44.1 | 50.7 | 41.5 | 50.0 | 57.7 | 55.6 | 50.2 | 53.1 | 74.3 | 60.8 | 63.6 | 60.9 | |
| 22.9 | 19.4 | 33.5 | 26.6 | 38.8 | 25.9 | 19.4 | 27.5 | 33.2 | 27.4 | 34.2 | 32.0 | 14.6 | 25.7 | 25.3 | 26.9 | |
| 14.6 | 51.2 | 28.1 | 10.0 | 29.3 | 20.0 | 31.5 | 10.1 | 4.8 | 3.0 | 8.9 | 6.8 | 25.2 | 11.7 | 5.6 | 7.0 | |
| 17.0 | 40.2 | 50.0 | 53.3 | 40.0 | 27.2 | 31.0 | 64.0 | 78.2 | 80.6 | 72.2 | 74.4 | 58.9 | 52.9 | 40.3 | 49.9 | |
| 5.7 | .0 | 10.4 | 13.3 | 9.3 | 6.7 | 5.6 | 13.5 | 6.1 | .7 | 4.1 | 5.2 | 2.8 | 14.2 | 30.5 | 22.4 | |
| 56.3 | 2.4 | 6.8 | 8.3 | 8.0 | 39.2 | 25.2 | 3.4 | 3.1 | 2.2 | 5.9 | 4.2 | 5.6 | 12.4 | 14.3 | 11.5 | |
| 2.6 | 2.4 | 2.1 | 5.0 | 10.7 | 3.1 | 3.0 | 3.4 | 2.6 | 3.7 | 5.0 | 3.9 | 3.7 | 2.2 | 2.4 | 2.8 | |
| 3.8 | 3.7 | 2.6 | 10.0 | 2.7 | 3.9 | 3.9 | 5.6 | 5.2 | 9.7 | 3.8 | 5.4 | 3.7 | 6.6 | 7.0 | 6.5 | |
| 20.8 | 36.6 | 40.1 | 41.7 | 34.7 | 26.9 | 28.9 | 42.7 | 41.5 | 38.8 | 39.9 | 40.5 | 50.5 | 33.6 | 20.2 | 27.0 | |
| 16.0 | 14.6 | 13.5 | 6.7 | 17.3 | 15.1 | 14.0 | 9.0 | 7.4 | 3.7 | 8.6 | 7.5 | 25.2 | 13.5 | 11.8 | 11.4 | |
| 10.5 | 6.1 | 13.0 | 6.7 | 2.7 | 9.9 | 8.8 | 6.7 | 6.1 | 6.0 | 7.4 | 6.7 | 2.8 | 7.3 | 10.3 | 9.0 | |
| 10.1 | 8.5 | 5.7 | .0 | 8.0 | 8.6 | 7.6 | 1.1 | 2.2 | .7 | 5.9 | 3.4 | 3.7 | 9.5 | 10.4 | 8.5 | |
| 4.3 | 2.4 | 1 | 1.7 | .0 | 3.6 | 2.7 | 2.2 | 2.2 | .7 | 7.1 | 4.1 | .9 | 2.6 | 2.4 | 2.8 | |
| 34.5 | 28.0 | 41.9 | 33.3 | 34.7 | 32.0 | 34.1 | 32.6 | 35.4 | 40.3 | 27.2 | 32.4 | 13.1 | 27.0 | 37.8 | 34.9 | |
| 3.8 | 3.7 | 2.6 | 10.0 | 2.7 | 3.9 | 3.9 | 5.6 | 5.2 | 9.7 | 3.8 | 5.4 | 3.7 | 6.6 | 7.0 | 6.5 | |
| 6.4 | 8.5 | 7.8 | 5.0 | 10.7 | 7.0 | 6.6 | 13.5 | 3.9 | 11.2 | 10.4 | 9.0 | 6.5 | 5.8 | 4.7 | 5.8 | |
| 21.1 | 23.2 | 19.8 | 21.7 | 16.0 | 20.7 | 18.8 | 19.1 | 12.7 | 17.9 | 15.7 | 15.6 | 7.5 | 17.9 | 13.5 | 14.1 | |
| 13.9 | 12.2 | 16.1 | 13.3 | 12.0 | 14.0 | 13.8 | 12.4 | 14.0 | 11.2 | 13.0 | 12.9 | 16.8 | 14.2 | 13.3 | 13.4 | |
| 5.5 | 4.9 | 4.2 | 3.3 | 4.0 | 5.0 | 5.4 | 2.2 | 8.7 | 11.2 | 7.7 | 8.0 | 4.7 | 6.6 | 7.5 | 7.4 | |
| 12.9 | 26.8 | 14.1 | 20.0 | 18.7 | 14.8 | 16.0 | 16.9 | 16.2 | 14.2 | 10.9 | 13.7 | 15.9 | 18.6 | 18.1 | 17.1 | |
| 4.3 | 2.4 | 2.1 | 3.3 | 1.3 | 3.6 | 3.8 | 2.2 | 6.6 | 4.5 | 2.4 | 3.9 | 6.5 | 3.3 | 5.3 | 4.9 | |
| 8.2 | 1.2 | 6.3 | 3.3 | 4.0 | 6.9 | 7.1 | 3.4 | 9.6 | 4.5 | 6.8 | 6.8 | 15.9 | 6.6 | 9.5 | 8.9 | |
| 4.2 | 4.9 | 6.3 | 5.0 | 2.7 | 4.5 | 4.1 | 3.4 | 4.8 | .0 | 4.7 | 3.8 | 3.7 | 4.0 | 4.9 | 4.5 | |
| 12.3 | 4.9 | 10.9 | 3.3 | 10.7 | 11.0 | 10.9 | 16.9 | 11.8 | 10.4 | 9.2 | 11.0 | 14.0 | 11.3 | 8.8 | 9.7 | |
| 1.8 | 8.5 | 7.8 | 8.3 | 12.0 | 4.2 | 6.8 | 5.6 | 4.4 | 2.2 | 8.9 | 6.1 | 4.7 | 6.2 | 4.1 | 4.8 | |
| 9.5 | 2.4 | 4.7 | 13.3 | 8.0 | 8.3 | 6.7 | 4.5 | 7.4 | 12.7 | 10.4 | 9.2 | 3.7 | 5.5 | 10.2 | 9.4 | |

2/ Statistics are not presented for this group because too few records contained the specific data.

SOURCE: National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File.

TABLE 3 Sources of Support in Graduate School of Doctorate Recipients by Sex and Summary Field, 1985

| Sources of Support in Graduate School | | Total | Field of Doctorate: Physical Sciences[1] | Engineering | Life Sciences | Social Sciences | Humanities | Prof. Fields | Education |
|---|---|---|---|---|---|---|---|---|---|
| | | Men/Women | Men/Women | Men/Women | Men/Women | Men/Women | Men/Women | Men/Women | Men/Women |
| NSF Fellowship | N | 393/ 161 | 147/ 32 | 69/ 4 | 90/ 62 | 71/ 49 | 7/ 5 | 2/ 1 | 7/ 8 |
| | V% | 2.1/ 1.6 | 4.1/ 4.8 | 2.5/ 2.2 | 2.5/ 3.5 | 2.3/ 2.2 | .4/ .4 | .2/ .2 | .2/ .2 |
| | H%[2] | 100.0/100.0 | 37.4/ 19.9 | 17.6/ 2.5 | 22.9/ 38.5 | 18.1/ 30.4 | 1.8/ 3.1 | .5/ .6 | 1.8/ 5.0 |
| NIH Traineeship | N | 919/ 651 | 50/ 15 | 20/ 6 | 645/ 407 | 185/ 185 | 3/ 1 | 8/ 15 | 8/ 21 |
| | V% | 4.8/ 6.5 | 1.4/ 2.2 | .7/ 3.2 | 17.6/ 22.9 | 6.0/ 8.4 | .2/ .1 | .7/ 2.8 | .3/ .6 |
| | H% | 100.0/100.0 | 5.4/ 2.3 | 2.2/ .9 | 70.2/ 62.5 | 20.1/ 28.4 | .3/ .2 | .9/ 2.3 | .9/ 3.2 |
| Other Department of Health & Human Servs.[3] | N | 193/ 296 | 9/ 1 | 2/ 0 | 50/ 75 | 114/ 165 | 2/ 3 | 9/ 33 | 7/ 17 |
| | V% | 1.0/ 2.9 | .2/ .1 | .1/ .0 | 1.4/ 4.2 | 3.7/ 7.5 | .1/ .2 | 8/ 6.1 | .2/ .5 |
| | H% | 100.0/100.0 | 4.7/ .3 | 1.0/ .0 | 25.9/ 25.3 | 59.1/ 55.7 | 1.0/ 1.0 | 4.7/ 11.1 | 3.6/ 5.7 |
| Graduate & Prof. Opportunities Program | N | 95/ 96 | 15/ 14 | 11/ 4 | 23/ 27 | 21/ 20 | 9/ 12 | 5/ 5 | 11/ 14 |
| | V% | .5/ [illegible] | .4/ 2.1 | .4/ 2.2 | .6/ 1.5 | .7/ .9 | .5/ .9 | .4/ .9 | .4/ .4 |
| | H% | 100.0/ | 15.8/ 14.6 | 11.6/ 4.2 | 24.2/ 28.1 | 22.1/ 20.8 | 9.5/ 12.5 | 5.3/ 5.2 | 11.6/ 14.6 |
| Other Department of Education[4] | N | 185/ 137 | 8/ 1 | 4/ 0 | 9/ 3 | 42/ 41 | 77/ 46 | 5/ 2 | 40/ 44 |
| | V% | 1.[illegible]/ 1.4 | .2/ .1 | .1/ .0 | .2/ .2 | 1.4/ 1.9 | 4.3/ 3.3 | .4/ .4 | 1.3/ 1.3 |
| | H% | 100.[illegible]/100.0 | 4.3/ .7 | 2.2/ .0 | 4.9/ 2.2 | 22.7/ 29.9 | 41.6/ 33.6 | 2.7/ 1.5 | 21.6/ 32.1 |
| GI Bill | N | 924/ 66 | 70/ 1 | 43/ 0 | 112/ 13 | 172/ 21 | 128/ 4 | 125/ 4 | 271/ 23 |
| | V% | 4.8/ .7 | 1.9/ .1 | 1.6/ .0 | 3.0/ .7 | 5.[illegible]/ 1.0 | 7.1/ .3 | 10.8/ .7 | 8.9/ .7 |
| | H% | 100.0/100.0 | 7.6/ 1.5 | 4.7/ .0 | 12.1/ 19.7 | 18.6/ 31.8 | 13.9/ 6.1 | 13.5/ 6.1 | 29.3/ 34.8 |
| Other Federal Support | N | 728/ 366 | 118/ 19 | 128/ 7 | 171/ 85 | 135/ 99 | 72/ 64 | 37/ 15 | 66/ 76 |
| | V% | 3.8/ 3.6 | 3.3/ 2.8 | 4.7/ 3.8 | 4.7/ 4.8 | 4.4/ 4.5 | 4.0/ 4.6 | 3.2/ 2.8 | 2.2/ 2.3 |
| | H% | 100.0/100.0 | 16.2/ 5.2 | 17.6/ 1.9 | 23.5/ 23.2 | 18.5/ 27.0 | 9.9/ 17.5 | 5.1/ 4.1 | 9.1/ 20.8 |
| Nat'l Fellowship (non-federal) | N | 638/ 507 | 96/ 39 | 65/ 16 | 115/ 63 | 145/ 144 | 130/ 142 | 38/ 29 | 49/ 74 |
| | V% | 3.3/ 5.0 | 2.7/ 5.8 | 2.4/ 8.6 | 3.1/ 3.6 | 4.7/ 6.5 | 7.2/ 10.1 | 3.3/ 5.4 | 1.6/ 2.2 |
| | H% | 100.0/100.0 | 15.0/ 7.7 | 10.2/ 3.2 | 18.0/ 12.4 | 22.7/ 28.4 | 20.3/ 28.0 | 6.0/ 5.7 | 7.7/ 14.6 |
| Teaching Assistantship | N | 9330/ 4463 | 2557/ 488 | 1125/ 79 | 1452/ 724 | 1713/ 1147 | 1220/ 986 | 553/ 230 | 702/ 802 |
| | V% | 48.7/ 44.2 | 70.8/ 72.7 | 41.3/ 42.7 | 39.5/ 40.8 | 55.2/ 52.1 | 67.7/ 70.2 | 47.8/ 42.8 | 23.0/ 24.3 |
| | H% | 100.0/100.0 | 27.4/ 10.9 | 12.1/ 1.8 | 15.6/ 16.2 | 18.4/ 25.7 | 13.1/ 22.1 | 5.9/ 5.2 | 7.5/ 18.0 |
| Research Assistantship | N | 9014/ 3193 | 2672/ 463 | 1995/ 135 | 2093/ 899 | 1230/ 807 | 258/ 231 | 292/ 143 | 468/ 506 |
| | V% | 47.1/ 31.6 | 74.0/ 69.0 | 73.2/ 73.0 | 57.0/ 50.7 | 39.6/ 36.7 | 14.3/ 16.4 | 25.2/ 26.6 | 15.3/ 15.3 |
| | H% | 100.0/100.0 | 29.6/ 14.5 | 22.1/ 4.2 | 23.2/ 28.2 | 13.6/ 25.3 | 2.9/ 7.2 | 3.2/ 4.5 | 5.2/ 15.8 |
| University Fellowship | N | 3956/ 2154 | 803/ 183 | 470/ 53 | 709/ 381 | 796/ 522 | 659/ 560 | 235/ 114 | 281/ 339 |
| | V% | 20.7/ 21.3 | 22.2/ 27.[illegible] | 17.2/ 28.6 | 19.3/ 21.5 | 25.7/ 23.7 | 36.6/ 39.9 | 20.3/ 21.2 | 9.2/ 10.3 |
| | H% | 100.0/100.0 | 20.3/ 8.5 | 11.9/ 2.5 | 17.9/ 17.7 | 20.1/ 24.2 | 16.7/ 26.0 | 5.9/ 5.3 | 7.1/ 15.7 |
| College Work-Study | N | 770/ 441 | 80/ 13 | 35/ 1 | 144/ 58 | 227/ 144 | 146/ 118 | 32/ 20 | 104/ 85 |
| | V% | 4.0/ 4.4 | 2.2/ 1.9 | 1.3/ .5 | 3.9/ 3.3 | 7.3/ 6.5 | 8.1/ 8.4 | 2.8/ 3.7 | 3.4/ 2.6 |
| | H% | 100.0/100.0 | 10.4/ 2.9 | 4.5/ .2 | 18.7/ 13.2 | 29.5/ 32.7 | 19.0/ 26.8 | 4.2/ 4.5 | 13.5/ 19.3 |
| Other University Related | N | 1087/ 911 | 103/ 37 | 90/ 6 | 221/ 134 | 218/ 206 | 155/ 122 | 73/ 52 | 226/ 352 |
| | V% | 5.7/ 9.0 | 2.9/ 5.5 | 3.3/ 3.2 | 6.0/ 7.6 | 7.0/ 9.4 | 8.6/ 8.7 | 6.3/ 9.7 | 7.4/ 10.7 |
| | H% | 100.0/100.0 | 9.5/ 4.1 | 8.3/ .7 | 20.3/ 14.7 | 20.1/ 22.6 | 14.3/ 13.4 | 6.7/ 5.7 | 20.8/ 38.6 |
| Business/Employer Funds | N | 1031/ 488 | 124/ 25 | 195/ 15 | 119/ 68 | 118/ 65 | 67/ 35 | 105/ 37 | 302/ 242 |
| | V% | 5.4/ 4.8 | 3.4/ 3.7 | 7.2/ 8.1 | 3.2/ 3.8 | 3.8/ 3.0 | 3.7/ 2.5 | 9.1/ 6.9 | 9.9/ 7.3 |
| | H% | 100.0/100.0 | 12.0/ 5.1 | 18.9/ 3.1 | 11.5/ 13.9 | 11.4/ 13.3 | 6.5/ 7.2 | 10.2/ 7.6 | 29.3/ 49.6 |
| Own Earnings | N | 10925/ 6840 | 1295/ 236 | 1016/ 65 | 1716/ 853 | 2159/ 1531 | 1330/ 983 | 808/ 390 | 2588/ 2774 |
| | V% | 57.1/ 67.8 | 45.9/ 35.2 | 37.3/ 35.1 | 46.7/ 48.1 | 69.6/ 69.6 | 73.8/ 70.0 | 69.8/ 72.5 | 84.7/ 84.0 |
| | H% | 100.0/100.0 | 11.9/ 3.5 | 9.3/ 1.0 | 15.7/ 12.5 | 19.8/ 22.4 | 12.2/ 14.4 | 7.4/ 5.7 | 23.7/ 40.6 |
| Spouse's Earnings | N | 5579/ 3592 | 791/ 158 | 468/ 38 | 1200/ 558 | 991/ 742 | 667/ 554 | 371/ 192 | 1083/ 1347 |
| | V% | 29.1/ 35.6 | 21.9/ 23.5 | 17.2/ 20.5 | 32.7/ 31.5 | 31.9/ 33.7 | 37.0/ 39.4 | 32.1/ 35.7 | 35.5/ 40.8 |
| | H% | 100.0/100.0 | 14.2/ 4.4 | 8.4/ 1.1 | 21.5/ 15.5 | 17.8/ 20.7 | 12.0/ 15.4 | 6.7/ 5.3 | 19.4/ 37.5 |
| Family Support | N | 4734/ 2336 | 818/ 143 | 709/ 35 | 955/ 431 | 923/ 663 | 579/ 388 | 245/ 134 | 500/ 540 |
| | V% | 24.7/ 23.2 | 22.7/ 21.3 | 26.0/ 18.9 | 26.0/ 24.3 | 29.7/ 30.1 | 32.1/ 27.6 | 21.2/ 24.9 | 16.4/ 16.4 |
| | H% | 100.0/100.0 | 17.3/ 6.1 | 15.0/ 1.5 | 20.2/ 18.5 | 19.5/ 28.4 | 12.2/ 16.6 | 5.2/ 5.7 | 10.6/ 23.1 |
| Guaranteed Student Loans | N | 4171/ 2642 | 545/ 100 | 261/ 33 | 856/ 426 | 1118/ 830 | 456/ 350 | 251/ 159 | 679/ 745 |
| | V% | 21.8/ 26.2 | 15.1/ 14.9 | 9.6/ 12.4 | 23.3/ 24.0 | 36.0/ 37.7 | 25.3/ 24.9 | 21.7/ 29.6 | 22.2/ 22.6 |
| | H% | 100.0/100.0 | 13.1/ 3.8 | 6.3/ .9 | 20.5/ 16.1 | 26.8/ 31.4 | 10.9/ 13.2 | 6.0/ 6.0 | 16.3/ 28.2 |
| National Direct Student Loans | N | 1289/ 790 | 114/ 15 | 61/ 5 | 214/ 94 | 418/ 288 | 235/ 175 | 71/ 35 | 176/ 178 |
| | V% | 6.7/ 7.8 | 3.2/ 2.2 | 2.2/ 2.7 | 5.8/ 5.3 | 13.5/ 13.1 | 13.0/ 12.5 | 6.1/ 6.5 | 5.8/ 5.4 |
| | H% | 100.0/100.0 | 8.8/ 1.9 | 4.7/ .6 | 16.6/ 11.9 | 32.4/ 36.5 | 18.2/ 22.2 | 5.5/ 4.4 | 13.7/ 22.5 |
| Other Loans | N | 599/ 393 | 47/ 8 | 54/ 4 | 113/ 48 | 138/ 99 | 88/ 77 | 33/ 26 | 126/ 130 |
| | V% | 3.1/ 3.9 | 1.3/ 1.2 | 2.0/ 2.2 | 3.1/ 2.7 | 4.4/ 4.5 | 4.9/ 5.5 | 2.9/ 4.8 | 4.1/ 3.9 |
| | H% | 100.0/100.0 | 7.8/ 2.0 | 9.0/ 1.0 | 18.9/ 12.2 | 23.0/ 25.2 | 14.7/ 19.6 | 5.5/ 6.6 | 21.0/ 33.1 |
| Other | N | 1367/ 588 | 176/ 52 | 237/ 12 | 321/ 114 | 200/ 116 | 106/ 73 | 117/ 33 | 209/ 187 |
| | V% | 7.1/ 5.8 | 4.9/ 7.7 | 8.7/ 6.5 | 8.7/ 6.4 | 6.4/ 5.3 | 5.9/ 5.2 | 10.1/ 6.1 | 6.8/ 5.7 |
| | H% | 100.0/100.0 | 12.9/ 8.8 | 17.3/ 2.0 | 23.5/ 19.4 | 14.6/ 19.7 | 7.8/ 12.4 | 8.6/ 5.6 | 15.3/ 31.8 |
| Unduplicated Total[5] | N | 19147/10090 | 3611/ 671 | 2727/ 185 | 3673/ 1774 | 3103/ 2201 | 1803/ 1405 | 1157/ 538 | 3055/ 3301 |

1/ Includes mathematics and computer sciences.
2/ V denotes vertical percentage; H denotes horizontal percentage.
3/ Includes ADAMHA Traineeships and Fellowships.
4/ Includes Title IV Foreign Language and Area Studies Fellowships.
5/ The 1,964 Ph.D.s who did not report sources of support are omitted from this table.

SOURCE: National Research Council. Office of Scientific and Engineering Personnel, Doctorate Records File.

TABLE 4 State of Doctoral Institution of Doctorate Recipients by Sex and Summary Field, 1985

| State of Doctoral Institution | Total | | Field of Doctorate: Physical Sciences 1/ | | Engineering | | Life Sciences | | Social Sciences | | Humanities | | Prof. Fields | | Education | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men/Women | | Men/Women | | Men/Women | | Men/Women | | Men/Women | | Men/Women | | Men/Women | | Men/Women | |
| U.S Total | 20502 | 10699 | 3817 | 714 | 2967 | 198 | 3893 | 1855 | 3368 | 2352 | 1939 | 1489 | 1261 | 595 | 3237 | 3480 |
| Alabama | 145 | 116 | 13 | 2 | 17 | 1 | 38 | 31 | 14 | 11 | 6 | 6 | 10 | 3 | 47 | 62 |
| Alaska | 7 | 1 | 4 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arizona | 285 | 140 | 77 | 9 | 30 | 0 | 56 | 21 | 29 | 25 | 23 | 12 | 13 | 3 | 56 | 69 |
| Arkansas | 86 | 42 | 5 | 4 | 6 | 1 | 31 | 4 | 5 | 5 | 4 | 3 | 15 | 5 | 20 | 20 |
| California | 2379 | 1170 | 600 | 89 | 431 | 32 | 363 | 226 | 429 | 335 | 207 | 198 | 118 | 47 | 229 | 240 |
| Colorado | 397 | 161 | 85 | 10 | 56 | 3 | 87 | 20 | 48 | 37 | 25 | 27 | 15 | 15 | 81 | 49 |
| Connecticut | 287 | 171 | 59 | 14 | 29 | 3 | 55 | 37 | 56 | 33 | 59 | 48 | 5 | 5 | 24 | 31 |
| Delaware | 64 | 29 | 22 | 4 | 19 | 3 | 2 | 3 | 8 | 10 | 7 | 4 | 1 | 0 | 5 | 5 |
| D. C. | 298 | 211 | 26 | 9 | 24 | 2 | 44 | 33 | 76 | 45 | 47 | 39 | 38 | 26 | 43 | 56 |
| Florida | 638 | 369 | 74 | 15 | 53 | 3 | 114 | 28 | 93 | 64 | 28 | 30 | 65 | 23 | 211 | 206 |
| Georgia | 398 | 256 | 48 | 12 | 31 | 4 | 97 | 30 | 67 | 54 | 24 | 24 | 35 | 13 | 96 | 118 |
| Hawaii | 99 | 39 | 18 | 4 | 5 | 0 | 30 | 8 | 27 | 12 | 13 | 11 | 0 | 0 | 6 | 4 |
| Idaho | 39 | 15 | 4 | 2 | 6 | 0 | 15 | 3 | 4 | 1 | 3 | 0 | 0 | 0 | 7 | 9 |
| Illinois | 1228 | 613 | 217 | 58 | 211 | 15 | 185 | 91 | 216 | 139 | 152 | 80 | 80 | 45 | 166 | 184 |
| Indiana | 668 | 304 | 118 | 28 | 108 | 3 | 118 | 41 | 88 | 60 | 87 | 59 | 48 | 17 | 101 | 96 |
| Iowa | 410 | 138 | 65 | 13 | 62 | 2 | 111 | 35 | 32 | 15 | 50 | 23 | 20 | 4 | 70 | 46 |
| Kansas | 299 | 162 | 31 | 11 | 29 | 1 | 92 | 26 | 51 | 23 | 38 | 16 | 6 | 9 | 52 | 76 |
| Kentucky | 141 | 56 | 11 | 1 | 7 | 0 | 48 | 10 | 26 | 17 | 25 | 8 | 12 | 4 | 12 | 16 |
| Louisiana | 183 | 70 | 33 | 7 | 16 | 2 | 42 | 10 | 10 | 16 | 28 | 13 | 36 | 2 | 18 | 20 |
| Maine | 16 | 6 | 1 | 0 | 3 | 0 | 5 | 1 | 5 | 3 | 0 | 0 | 0 | 0 | 2 | 2 |
| Maryland | 367 | 304 | 90 | 25 | 46 | 9 | 83 | 81 | 56 | 59 | 43 | 29 | 8 | 18 | 37 | 81 |
| Massachusetts | 1120 | 597 | 291 | 66 | 214 | 20 | 149 | 83 | 176 | 131 | 98 | 74 | 55 | 27 | 136 | 196 |
| Michigan | 828 | 381 | 115 | 16 | 124 | 9 | 170 | 62 | 164 | 90 | 66 | 61 | 35 | 16 | 154 | 127 |
| Minnesota | 366 | 149 | 51 | 5 | 57 | 1 | 113 | 44 | 56 | 29 | 36 | 26 | 24 | 5 | 28 | 39 |
| Mississippi | 152 | 75 | 9 | 1 | 7 | 0 | 29 | 9 | 32 | 13 | 8 | 5 | 22 | 4 | 45 | 43 |
| Missouri | 355 | 167 | 44 | 6 | 47 | 1 | 74 | 27 | 65 | 42 | 32 | 22 | 24 | 12 | 69 | 57 |
| Montana | 36 | 15 | 9 | 2 | 1 | 0 | 11 | 2 | 6 | 4 | 1 | 0 | 0 | 0 | 8 | 7 |
| Nebraska | 120 | 76 | 13 | 2 | 6 | 1 | 44 | 16 | 13 | 11 | 7 | 2 | 11 | 3 | 25 | 31 |
| Nevada | 13 | 18 | 3 | 0 | 0 | 0 | 2 | 1 | 5 | 6 | 0 | 1 | 0 | 0 | 3 | 10 |
| New Hampshire | 35 | 14 | 16 | 3 | 4 | 0 | 8 | 4 | 5 | 7 | 2 | 0 | 0 | 0 | 0 | 0 |
| New Jersey | 449 | 194 | 115 | 15 | 68 | 5 | 73 | 35 | 65 | 31 | 63 | 35 | 26 | 9 | 39 | 64 |
| New Mexico | 132 | 51 | 33 | 1 | 24 | 2 | 22 | 5 | 17 | 12 | 16 | 6 | 2 | 0 | 18 | 25 |
| New York | 2010 | 1274 | 378 | 51 | 262 | 18 | 324 | 212 | 427 | 376 | 239 | 232 | 107 | 65 | 271 | 319 |
| North Carolina | 426 | 257 | 78 | 19 | 54 | 8 | 123 | 76 | 74 | 52 | 35 | 35 | 19 | 11 | 41 | 56 |
| North Dakota | 34 | 30 | 3 | 0 | 0 | 0 | 16 | 8 | 7 | 3 | 0 | 3 | 1 | 0 | 7 | 11 |
| Ohio | 814 | 443 | 145 | 38 | 131 | 4 | 132 | 54 | 129 | 106 | 69 | 54 | 54 | 39 | 150 | 145 |
| Oklahoma | 264 | 122 | 23 | 3 | 45 | 1 | 51 | 23 | 36 | 12 | 15 | 9 | 14 | 15 | 80 | 59 |
| Oregon | 248 | 121 | 47 | 7 | 18 | 1 | 85 | 23 | 33 | 23 | 10 | 14 | 7 | 5 | 47 | 47 |
| Pennsylvania | 1152 | 588 | 222 | 39 | 194 | 19 | 131 | 82 | 181 | 106 | 103 | 70 | 94 | 41 | 226 | 230 |
| Rhode Island | 137 | 63 | 55 | 12 | 15 | 0 | 20 | 15 | 16 | 19 | 31 | 17 | 0 | 0 | 0 | 0 |
| South Carolina | 148 | 66 | 36 | 6 | 23 | 1 | 31 | 10 | 17 | 11 | 7 | 8 | 15 | 4 | 19 | 26 |
| South Dakota | 34 | 14 | 0 | 0 | 0 | 0 | 10 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 21 | 10 |
| Tennessee | 323 | 201 | 23 | 6 | 43 | 1 | 68 | 27 | 63 | 43 | 28 | 20 | 19 | 6 | 79 | 98 |
| Texas | 1161 | 634 | 194 | 47 | 173 | 4 | 217 | 132 | 157 | 104 | 81 | 66 | 134 | 50 | 204 | 231 |
| Utah | 270 | 88 | 45 | 2 | 42 | 2 | 38 | 15 | 53 | 19 | 11 | 7 | 9 | 6 | 71 | 37 |
| Vermont | 13 | 15 | 5 | 2 | 2 | 0 | 3 | 4 | 3 | 7 | 0 | 2 | 0 | 0 | 0 | 0 |
| Virginia | 392 | 207 | 62 | 10 | 78 | 7 | 74 | 47 | 61 | 40 | 25 | 16 | 26 | 9 | 66 | 77 |
| Washington | 349 | 155 | 70 | 14 | 36 | 3 | 106 | 35 | 54 | 30 | 28 | 19 | 8 | 12 | 46 | 42 |
| West Virginia | 73 | 42 | 10 | 1 | 13 | 0 | 12 | 5 | 14 | 8 | 3 | 0 | 1 | 0 | 20 | 28 |
| Wisconsin | 559 | 240 | 111 | 14 | 92 | 6 | 127 | 58 | 85 | 48 | 53 | 35 | 25 | 17 | 66 | 62 |
| Wyoming | 50 | 16 | 7 | 4 | 5 | 0 | 10 | 1 | 11 | 2 | 2 | 1 | 0 | 0 | 15 | 8 |
| Puerto Rico | 5 | 13 | 3 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 0 |

1/ Includes mathematics and computer sciences.

SOURCE: National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File.

TABLE 5 Statistical Profile of Doctorate Recipients by Racial/Ethnic Group and U.S. Citizenship Status, 1985[1/]

| | Total | | | | American Indian | Asian | | | | Black | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. Perm. | Non-U.S. Temp. | Total | Total | U.S. | Non-U.S. Perm. | Non-U.S. Temp. | Total | U.S. | Non-U.S. Perm. | Non-U.S. Temp. | Total |
| Total Number | 23241 | 1320 | 5214 | 31201[2/] | 93 | 515 | 552 | 2522[2/] | 3636 | 909 | 131 | 393 | 1435[2/] |
| Male % | 60.9 | 75.6 | 84.0 | 65.7 | 41.9 | 63.7 | 79.0 | 84.6 | 80.8 | 41.6 | 89.3 | 89.6 | 59.1 |
| Female | 39.1 | 24.4 | 16.0 | 34.3 | 58.1 | 36.3 | 21.0 | 15.4 | 19.2 | 58.4 | 10.7 | 10.4 | 40.9 |
| Doctoral Field | | | | | | | | | | | | | |
| Physical Sciences[3/] % | 13.1 | 17.6 | 20.4 | 14.5 | 4.3 | 19.4 | 21.7 | 23.1 | 22.2 | 3.3 | 8.4 | 6.4 | 4.6 |
| Engineering | 5.5 | 23.9 | 27.1 | 10.1 | 1.1 | 1.5 | 34.6 | 33.6 | 31.7 | 2.1 | 11.5 | 9.7 | 5.0 |
| Life Sciences | 19.1 | 14.3 | 17.7 | 18.4 | 19.4 | 24.9 | 14.9 | 16.0 | 16.9 | 7.7 | 21.4 | 23.2 | 13.2 |
| Social Sciences | 19.5 | 15.8 | 12.8 | 18.3 | 18.3 | 12.0 | 10.1 | 11.0 | 11.0 | 19.1 | 23.7 | 17.8 | 19.2 |
| Humanities | 12.3 | 11.4 | 5.1 | 11.0 | 8.6 | 8.3 | 4.3 | 3.2 | 4.2 | 7.4 | 6.1 | 6.9 | 7.1 |
| Education | 24.7 | 9.7 | 10.9 | 21.5 | 41.9 | 13.4 | 5.3 | 7.2 | 7.8 | 52.3 | 21.4 | 27.2 | 42.6 |
| Professional/Other | 5.8 | 7.3 | 6.0 | 6.1 | 6.5 | 4.5 | 9.1 | 5.9 | 6.2 | 8.1 | 7.6 | 8.9 | 8.3 |
| Median Age at Doctorate | 33.5 | 33.1 | 32.7 | 33.3 | 35.9 | 32.6 | 32.7 | 32.4 | 32.4 | 37.7 | 34.8 | 34.9 | 36.6 |
| Median Time Lapse BA-PhD | | | | | | | | | | | | | |
| Total Time Yrs | 10.5 | 9.7 | 9.3 | 10.2 | 11.0 | 9.7 | 10.1 | 9.4 | 9.6 | 14.4 | 8.8 | 9.0 | 11.9 |
| Registered Time | 7.0 | 6.7 | 6.0 | 6.8 | 6.6 | 6.8 | 6.8 | 6.1 | 6.3 | 7.8 | 6.6 | 5.6 | 6.8 |
| Graduate School Support | | | | | | | | | | | | | |
| Federal Fellow/Trainee% | 16.0 | 5.7 | 5.8 | 13.1 | 21.5 | 21.2 | 5.3 | 4.8 | 7.2 | 18.9 | 3.8 | 10.2 | 15.1 |
| GI Bill | 4.2 | .2 | .1 | 3.1 | 5.4 | 1.4 | .2 | .0 | .2 | 3.7 | .0 | .0 | 2.4 |
| National Fellowship | 3.8 | 2.5 | 4.0 | 3.6 | 7.5 | 4.5 | 1.3 | 3.8 | 3.4 | 8.3 | 4.6 | 7.6 | 7.7 |
| Teaching Assistantship | 46.6 | 51.9 | 41.2 | 43.8 | 35.5 | 47.4 | 50.9 | 43.7 | 44.7 | 26.1 | 45.8 | 31.0 | 29.2 |
| Research Assistantship | 37.8 | 51.1 | 50.5 | 38.8 | 31.2 | 51.1 | 63.4 | 60.3 | 58.7 | 16.8 | 33.6 | 27.5 | 21.3 |
| Other University | 29.5 | 28.3 | 22.9 | 27.1 | 21.5 | 29.5 | 24.3 | 21.5 | 22.8 | 32.0 | 29.0 | 23.2 | 29.3 |
| Business/Employer | 5.5 | 2.3 | 3.6 | 4.8 | 3.2 | 5.2 | 2.4 | 2.3 | 2.7 | 5.5 | 3.8 | 6.1 | 5.5 |
| Self/Family Sources | 81.8 | 71.6 | 50.3 | 72.4 | 81.7 | 71.8 | 65.4 | 49.8 | 54.6 | 82.0 | 82.4 | 52.2 | 73.7 |
| Guaranteed Student Loan | 28.1 | 17.9 | .8 | 21.8 | 33.3 | 24.7 | 12.0 | 6 | 5.7 | 27.8 | 36.6 | 1.5 | 21.4 |
| Other Loans | 11.1 | 7.4 | 2.0 | 8.9 | 11.8 | 11.5 | 5.1 | 1.2 | 3.2 | 15.8 | 16.8 | 2.5 | 12.3 |
| Other | 3.3 | 6.5 | 20.8 | 6.2 | .0 | 2.3 | 2.9 | 12.6 | 9.5 | 3.4 | 5.3 | 29.3 | 10.7 |
| Unknown | 1.6 | 1.0 | 3.6 | 6.3 | .0 | 1.2 | .7 | 3 | 3.1 | 1.7 | 1.5 | 3.- | 2.3 |
| Postdoctoral Plans | | | | | | | | | | | | | |
| Postdoctoral Study % | 20.3 | 19.8 | 28.6 | 20.8 | 18.3 | 30.5 | 20.5 | 32.8 | 30.1 | 8.4 | 13.0 | 20.1 | 12.0 |
| Planned Employment | 76.8 | 76.5 | 64.3 | 71.2 | 78.5 | 65.6 | 77.0 | 60.8 | 63.2 | 86.7 | 83.2 | 74.8 | 83.0 |
| Educ. Institution | 44.4 | 39.6 | 39.1 | 41.3 | 49.5 | 29.9 | 28.6 | 36.5 | 33.9 | 58.5 | 51.9 | 45.0 | 54.1 |
| Industry/Business | 14.9 | 27.0 | 11.7 | 14.2 | 16.1 | 22.1 | 38.8 | 14.4 | 19.0 | 6.5 | 16.8 | 5.1 | 7.0 |
| Government | 8.2 | 2.9 | 7.9 | 7.5 | 7.5 | 6.8 | 2.7 | 5.3 | 5.1 | 11.4 | 5.3 | 15.3 | 11.9 |
| Non-profit | 5.7 | 2.7 | 2.4 | 4.7 | 5.4 | 3.9 | 2.9 | 2.2 | 2.5 | 4.4 | 1.5 | 3.8 | 4.0 |
| Other & Unknown | 3.6 | 4.2 | 3.3 | 3.4 | .0 | 2.9 | 4.0 | 2.5 | 2.7 | 5.8 | 7.6 | 5.6 | 5.9 |
| Postdoct Status Unknown % | 2.9 | 3.6 | 7.0 | 8.0 | 3.2 | 3.9 | 2.5 | 6.5 | 6.7 | 5.0 | 3.8 | 5.1 | 5.0 |
| Definite Postdoct Study % | 15.3 | 11.8 | 16.7 | 14.7 | 14.0 | 20.4 | 11.6 | 19.5 | 18.2 | 5.7 | 7.6 | 8.1 | 6.6 |
| Seeking Postdoct Study | 5.0 | 8.0 | 11.9 | 6.1 | 4.3 | 10.1 | 8.9 | 13.2 | 12.0 | 2.6 | 5.3 | 12.0 | 5.4 |
| Definite Employment | 56.5 | 45.2 | 45.5 | 51.7 | 59.1 | 45.2 | 45.5 | 42.6 | 42.9 | 40.2 | 35.1 | 46.3 | 54.0 |
| Seeking Employment | 20.3 | 31.3 | 18.8 | 19.6 | 19.4 | 20.4 | 31.5 | 18.2 | 20.3 | 26.5 | 48.1 | 28.5 | 29.0 |
| Employment Location after Doctorate | | | | | | | | | | | | | |
| U.S. %[4/] | 92.0 | 81.7 | 31.8 | 82.8 | 89.1 | 88.0 | 82.1 | 39.7 | 53.7 | 87.0 | 73.9 | 16.5 | 69.7 |
| Foreign | 1.3 | 10.9 | 59.9 | 10.3 | 0 | 4.3 | 8.8 | 50.6 | 36.9 | .2 | 23.9 | 73.1 | 18.7 |
| Unknown | 6.7 | 7.4 | 8.3 | 7.0 | 10.9 | 7.7 | 9.2 | 9.8 | 9.4 | 12.8 | 2.2 | 10.4 | 11.6 |

1/ See discussion on page 39 for description of past changes in the survey question on racial/ethnic group.
2/ Includes individuals who did not report their citizenship at time of doctorate.
3/ Includes mathematics and computer sciences.
4/ The base for this percentage is the number of doctorates in the column caption group who have found definite employment.

TABLE 5 (Continued)

| White | | | | Puerto Rican | Mexican-American | | | | Other Hispanic | | | | Other & Unknown | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U.S. | Non-U.S. Perm. | Non-U.S. Temp. | Total | Total | U.S. | Non-U.S. Perm. | Non-U.S. Temp | Total | U.S. | Non-U.S. Perm. | Non-U.S. Temp. | Total | U.S. | Non-U.S. | Total |
| 20641 | 533 | 1560 | 22750[2/] | 145 | 180 | 11 | 22 | 2132[2/] | 234 | 61 | 337 | 638[2/] | 524 | 412 | 2291[2/] |
| 61.8 | 68.9 | 81.2 | 63.3 | 44.1 | 60.0 | 72.7 | 77.3 | 62.4 | 53.8 | 68.9 | 81.9 | 69.9 | 69.7 | 88.8 | 71.5 |
| 38.2 | 31.1 | 18.8 | 36.7 | 55.9 | 40.0 | 27.3 | 22.7 | 37.6 | 46.2 | 31.1 | 18.1 | 30.1 | 30.3 | 11.2 | 28.5 |
| 13.4 | 15.9 | 20.8 | 14.0 | 5.5 | 8.3 | 27.3 | 18.2 | 10.3 | 8.1 | 14.8 | 20.8 | 15.4 | 19.5 | 15.3 | 15.1 |
| 5.3 | 17.1 | 22.9 | 6.8 | 3.4 | 2.2 | 18.2 | 18.2 | 4.7 | 3.0 | 6.6 | 17.8 | 11.1 | 10.7 | 28.4 | 13.4 |
| 19.6 | 12.2 | 16.5 | 19.2 | 12.4 | 8.9 | 9.1 | 40.9 | 12.2 | 17.5 | 19.7 | 30.9 | 24.6 | 17.6 | 14.1 | 15.3 |
| 19.7 | 18.9 | 13.7 | 19.2 | 17.2 | 23.9 | 9.1 | 13.6 | 22.1 | 22.6 | 19.7 | 10.4 | 15.8 | 20.2 | 18.4 | 21.0 |
| 12.4 | 18.4 | 7.8 | 12.3 | 13.1 | 12.2 | 18.2 | 4.5 | 11.7 | 23.5 | 24.6 | 5.3 | 14.3 | 13.0 | 4.4 | 10.5 |
| 23.8 | 10.9 | 11.5 | 22.6 | 39.3 | 39.4 | 18.2 | 4.5 | 34.7 | 22.2 | 11.5 | 13.1 | 16.5 | 14.5 | 14.6 | 17.5 |
| 5.8 | 6.6 | 6.7 | 5.9 | 9.0 | 5.0 | .0 | .0 | 4.2 | 3.0 | 3.3 | 1.8 | 2.4 | 4.6 | 4.9 | 7.2 |
| 33.3 | 33.3 | 32.1 | 33.2 | 35.1 | 36.0 | 34.3 | 34.0 | 35.7 | 34.9 | 35.9 | 34.2 | 34.5 | 32.5 | 33.5 | 33.1 |
| 10.4 | 9.5 | 8.8 | 10.2 | 12.3 | 11.8 | 9.5 | 11.5 | 11.7 | 10.6 | 9.5 | 9.5 | 9.9 | 9.6 | 9.5 | 9.9 |
| 7.0 | 6.6 | 6.0 | 6.9 | 6.9 | 7.3 | 6.8 | 6.0 | 7.2 | 7.6 | 6.3 | 5.3 | 6.2 | 7.0 | 6.2 | 6.6 |
| 15.6 | 5.8 | 6.1 | 14.7 | 26.9 | 29.4 | 18.2 | 9.1 | 26.8 | 20.5 | 13.1 | 7.1 | 12.5 | 9.9 | 5.3 | 3.2 |
| 4.3 | .2 | .1 | 3.9 | 4.1 | 3.9 | .0 | .0 | 3.3 | 3.8 | .0 | .0 | 1.4 | 1.3 | .0 | .3 |
| 3.4 | 3.0 | 3.8 | 3.5 | 7.6 | 15.6 | .0 | 4.5 | 13.6 | 6.4 | 6.6 | 5.3 | 5.8 | 4.2 | 1.5 | 1.3 |
| 48.1 | 56.3 | 46.2 | 48.1 | 39.3 | 41.1 | 36.4 | 27.3 | 39.4 | 42.7 | 47.5 | 32.6 | 37.6 | 30.7 | 23.8 | 11.5 |
| 39.0 | 45.6 | 47.5 | 39.7 | 23.4 | 25.6 | 27.3 | 50.0 | 28.2 | 29.5 | 39.3 | 41.8 | 36.7 | 27.7 | 29.6 | 11.9 |
| 29.6 | 30.8 | 26.3 | 29.4 | 37.2 | 38.3 | 27.3 | 18.2 | 35.7 | 34.2 | 41.0 | 24.9 | 29.8 | 18.7 | 18.0 | 7.6 |
| 5.6 | 2.1 | 4.7 | 5.5 | 12.4 | 4.4 | .0 | .0 | 3.8 | 4.3 | 1.6 | 7.3 | 4.7 | 3.2 | 4.4 | 1.5 |
| 82.9 | 75.2 | 57.3 | 81.0 | 73.8 | 82.8 | 90.9 | 36.4 | 78.4 | 83.3 | 73.8 | 43.0 | 61.0 | 46.8 | 32.8 | 16.7 |
| 28.2 | 18.8 | 1.0 | 26.1 | 49.7 | 34.4 | 9.1 | .0 | 29.6 | 34.2 | 23.0 | 1.5 | 15.5 | 14.3 | 2.4 | 3.7 |
| 10.7 | 7.3 | 3.1 | 10.1 | 22.1 | 14.4 | 9.1 | 4.5 | 13.1 | 16.2 | 9.8 | 4.5 | 9.2 | 8.4 | 1.0 | 2.1 |
| 3.3 | 9.2 | 25.0 | 5.0 | 5.5 | 2.8 | 36.4 | 59.1 | 10.3 | 3.8 | 11.5 | 39.2 | 23.4 | 2.1 | 26.9 | 5.3 |
| .7 | .9 | 1.3 | .7 | .0 | 1.1 | .0 | .0 | .9 | 1.7 | .0 | 1.8 | 1.7 | 38.7 | 21.6 | 71.5 |
| 20.9 | 20.5 | 27.4 | 21.3 | 11.7 | 12.8 | 27.3 | 22.7 | 14.6 | 26.5 | 26.2 | 25.5 | 23.7 | 16.0 | 17.5 | 6.9 |
| 77.2 | 75.0 | 68.1 | 76.5 | 86.9 | 85.0 | 72.7 | 72.7 | 83.1 | 75.2 | 72.1 | 70.6 | 72.3 | 47.5 | 57.3 | 21.6 |
| 44.5 | 46.7 | 41.3 | 44.3 | 57.9 | 51.1 | 54.5 | 40.9 | 50.2 | 50.9 | 50.8 | 45.7 | 48.0 | 22.3 | 35.2 | 11.7 |
| 15.4 | 19.1 | 11.4 | 15.2 | 6.9 | 10.0 | 18.2 | 9.1 | 10.3 | 6.8 | 11.5 | 8.0 | 7.8 | 12.4 | 7.8 | 4.3 |
| 8.1 | 2.3 | 9.1 | 8.1 | 9.0 | 12.8 | .0 | 18.2 | 12.7 | 5.6 | 3.3 | 10.1 | 7.8 | 4.0 | 9.5 | 2.7 |
| 5.8 | 2.8 | 2.4 | 5.5 | 7.6 | 7.2 | .0 | .0 | 6.1 | 5.6 | 4.9 | 2.7 | 3.9 | 2.3 | 1.5 | .8 |
| 3.4 | 4.1 | 3.8 | 3.5 | 5.5 | 3.0 | .0 | 4.5 | 3.8 | 6.4 | 1.6 | 4.2 | 4.7 | 6.5 | 3.4 | 2.1 |
| 1.9 | 4.5 | 4.5 | 2.2 | 1.4 | 2.2 | .0 | 4.5 | 2.3 | 4.3 | 1.6 | 3.9 | 4.1 | 36.5 | 25.2 | 71.6 |
| 12.9 | 12.8 | 16.7 | 15.9 | 7.6 | 8.3 | 18.2 | 22.7 | 10.3 | 13.7 | 16.4 | 14.8 | 14.4 | 10.3 | 8.5 | 3.9 |
| 8.0 | 7.7 | 10.7 | 5.5 | 4.1 | 4.4 | 9.1 | .0 | 4.2 | 6.8 | 9.8 | 10.7 | 9.2 | 5.7 | 9.0 | 2.9 |
| 57.3 | 46.3 | 48.8 | 56.5 | 64.1 | 60.0 | 45.5 | 59.1 | 59.2 | 47.9 | 55.7 | 54.3 | 52.0 | 29.4 | 42.2 | 14.7 |
| 19.9 | 28.7 | 19.2 | 20.1 | 22.8 | 25.0 | 27.3 | 13.6 | 23.9 | 27.4 | 16.4 | 16.3 | 20.2 | 18.1 | 15.0 | 6.9 |
| 92.5 | 83.4 | 33.1 | 88.8 | 91.4 | 91.7 | 80.0 | 7.7 | 82.5 | 85.7 | 82.4 | 17.5 | 47.6 | 83.8 | 14.4 | 47.5 |
| 1.2 | 9.7 | 60.8 | 4.9 | 1.1 | .9 | 20.0 | 76.9 | 9.5 | 3.6 | 11.8 | 78.7 | 46.1 | 1.3 | 75.9 | 40.1 |
| 6.2 | 6.9 | 6.2 | 6.2 | 7.5 | 7.4 | .0 | 15.4 | 7.9 | 10.7 | 5.9 | 3.8 | 6.3 | 14.9 | 9.8 | 12.5 |

SOURCE: National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File.

APPENDIX TABLE 3 Number of Doctorate Recipients by Fine Field, 1975-1985

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Total All Fields | 32951 | 32946 | 31715 | 30875 | 31237 | 31017 | 31353 | 31096 | 31216 | 31277 | 31201 |
| Physical Sciences | 4857 | 4509 | 4379 | 4193 | 4299 | 4111 | 4170 | 4291 | 4426 | 4452 | 4531 |
| Mathematics | 1147 | 1003 | 933 | 838 | 769 | 744 | 728 | 720 | 701 | 698 | 689 |
| Applied Mathematics | 101 | 105 | 113 | 108 | 111 | 102 | 118 | 108 | 125 | 108 | 117 |
| Algebra | 126 | 116 | 88 | 87 | 88 | 78 | 56 | 60 | 55 | 65 | 55 |
| Analysis & Functional Analysis | 180 | 141 | 153 | 118 | 111 | 91 | 105 | 98 | 76 | 71 | 83 |
| Geometry | 26 | 23 | 26 | 22 | 25 | 35 | 29 | 32 | 44 | 27 | 35 |
| Logic | 38 | 34 | 17 | 24 | 21 | 24 | 18 | 17 | 21 | 25 | 30 |
| Number Theory | 27 | 26 | 32 | 18 | 17 | 28 | 24 | 28 | 19 | 27 | 18 |
| Probability & Math Statistics | 174 | 165 | 159 | 168 | 165 | 151 | 163 | 165 | 151 | 181 | 150 |
| Topology | 94 | 72 | 70 | 56 | 61 | 57 | 55 | 45 | 44 | 42 | 35 |
| Computing Theory & Practice | 166 | 148 | 101 | 55 | 25 | 13 | 16 | 11 | 12 | 13 | 15 |
| Operations Research | 55 | 36 | 42 | 43 | 43 | 41 | 36 | 36 | 28 | 27 | 22 |
| Mathematics, General | 114 | 94 | 88 | 92 | 80 | 83 | 77 | 84 | 86 | 78 | 85 |
| Mathematics, Other | 46 | 43 | 44 | 47 | 22 | 41 | 31 | 36 | 48 | 34 | 44 |
| Computer Science | - | - | 31 | 121 | 210 | 218 | 232 | 220 | 286 | 295 | 311 |
| Computer Sciences | - | - | 31 | 121 | 210 | 218 | 232 | 220 | 264 | 256 | 250 |
| Information Sciences & Systems | - | - | - | - | - | - | - | - | 22 | 39 | 61 |
| Physics and Astronomy | 1300 | 1237 | 1150 | 1067 | 1108 | 983 | 1015 | 1014 | 1043 | 1080 | 1078 |
| Astronomy | 60 | 78 | 63 | 64 | 58 | 52 | 50 | 52 | 50 | 42 | 43 |
| Astrophysics | 71 | 72 | 57 | 74 | 57 | 69 | 59 | 50 | 65 | 56 | 57 |
| Acoustics | 12 | 9 | 12 | 14 | 13 | 23 | 13 | 11 | 14 | 21 | 10 |
| Atomic and Molecular | 140 | 116 | 105 | 88 | 72 | 69 | 66 | 96 | 71 | 77 | 58 |
| Electron | - | - | - | - | - | - | - | - | 1 | 2 | 4 |
| Electromagnetism | 10 | 12 | 9 | 10 | 6 | - | - | - | - | - | - |
| Elementary Particles | 126 | 130 | 138 | 135 | 121 | 117 | 119 | 119 | 136 | 136 | 154 |
| Fluids | 22 | 20 | 14 | 13 | 14 | 15 | 14 | 13 | 15 | 11 | 16 |
| Mechanics | 3 | 4 | - | - | - | - | - | - | - | - | - |
| Nuclear | 130 | 96 | 94 | 77 | 103 | 73 | 63 | 53 | 90 | 72 | 86 |
| Optics | 33 | 50 | 31 | 33 | 46 | 42 | 54 | 42 | 50 | 53 | 50 |
| Plasma | 53 | 75 | 72 | 68 | 62 | 59 | 65 | 69 | 72 | 73 | 55 |
| Polymer | - | - | - | - | - | - | - | - | 10 | 8 | 11 |
| Thermal | 9 | 4 | 7 | 11 | 7 | 5 | 7 | - | - | - | - |
| Solid State | 321 | 282 | 258 | 243 | 243 | 201 | 253 | 235 | 222 | 258 | 248 |
| Theoretical | - | - | - | - | - | - | - | - | - | - | - |
| Physics, General | 173 | 175 | 173 | 151 | 194 | 165 | 164 | 167 | 150 | 170 | 176 |
| Physics, Other | 137 | 114 | 117 | 86 | 112 | 92 | 88 | 107 | 97 | 99 | 110 |
| Chemistry | 1776 | 1624 | 1571 | 1544 | 1566 | 1538 | 1612 | 1680 | 1759 | 1765 | 1836 |
| Analytical | 142 | 152 | 174 | 178 | 207 | 185 | 229 | 190 | 264 | 228 | 285 |
| Agricultural and Food | 8 | 14 | 6 | 8 | 11 | - | - | - | - | - | - |
| Inorganic | 229 | 226 | 198 | 201 | 195 | 189 | 188 | 226 | 215 | 233 | 251 |
| Nuclear | 21 | 25 | 24 | 13 | 14 | 14 | 12 | 20 | 13 | 18 | 7 |
| Organic | 605 | 497 | 479 | 454 | 469 | 484 | 494 | 519 | 503 | 525 | 493 |
| Pharmaceutical | 66 | 55 | 50 | 51 | 43 | 52 | 52 | 55 | 78 | 56 | 60 |
| Physical | 393 | 355 | 339 | 310 | 326 | 282 | 275 | 324 | 311 | 329 | 304 |
| Polymer | 40 | 42 | 55 | 57 | 67 | 61 | 62 | 50 | 62 | 63 | 84 |
| Theoretical | 46 | 48 | 38 | 46 | 50 | 47 | 33 | 32 | 48 | 37 | 48 |
| Chemistry, General | 169 | 144 | 146 | 161 | 126 | 157 | 193 | 175 | 177 | 183 | 214 |
| Chemistry, Other | 57 | 66 | 62 | 65 | 58 | 67 | 74 | 89 | 88 | 93 | 90 |
| Earth, Atmospheric, and Marine Sci | 634 | 645 | 694 | 623 | 646 | 628 | 583 | 657 | 637 | 614 | 617 |
| Atmospheric Physics & Chemistry | - | 16 | 15 | 22 | 16 | 19 | 15 | 17 | 21 | 11 | 16 |
| Atmospheric Dynamics | - | 14 | 32 | 21 | 26 | 20 | 27 | 22 | 16 | 25 | 21 |
| Meteorology | 45 | 23 | - | - | - | - | - | - | 17 | 28 | 22 |
| Atmos & Meteorological Sci, General | - | - | - | - | - | - | - | - | 16 | 5 | 10 |
| Atmos & Meteorological Sci, Other | - | 23 | 46 | 34 | 42 | 51 | 33 | 26 | 27 | 12 | 10 |
| Geology | 16 | 22 | 22 | 28 | 28 | 20 | 27 | 25 | 105 | 124 | 111 |
| Geochemistry | 49 | 49 | 57 | 51 | 57 | 51 | 48 | 51 | 48 | 43 | 48 |
| Geophysics and Seismology | - | 40 | 73 | 60 | 81 | 71 | 72 | 81 | 75 | 68 | 91 |
| Geophysics, Solid Earth & Atmos | 92 | 33 | - | - | - | - | - | - | - | - | - |
| Paleontology | 41 | 42 | 26 | 31 | 36 | 21 | 19 | 24 | 17 | 35 | 23 |
| Fuel Technology, Petroleum | 9 | 4 | 5 | 2 | 4 | - | - | - | - | - | - |
| Mineralogy, Petrology | 43 | 48 | 60 | 34 | 33 | 47 | 30 | 41 | 24 | 28 | 28 |
| Stratigraphy, Sedimentation | 43 | 57 | 42 | 32 | 34 | 40 | 42 | 47 | 25 | 16 | 23 |
| Geomorphology & Glacial Geology | 30 | 29 | 22 | 24 | 14 | 15 | 13 | 21 | 10 | 9 | 13 |
| Applied Geology | 22 | 23 | 20 | 15 | 19 | 27 | 21 | 25 | 8 | 7 | 8 |
| Geological Sciences, General | 32 | 33 | 44 | 45 | 37 | 48 | 45 | 38 | 15 | 10 | 11 |
| Geological Sciences, Other | 31 | 23 | 31 | 22 | 24 | 21 | 16 | 29 | 21 | 25 | 11 |
| Environmental Sciences | 77 | 61 | 54 | 45 | 53 | 40 | 54 | 53 | 50 | 45 | 42 |
| Hydrology and Water Resources | 18 | 15 | 23 | 31 | 20 | 27 | 21 | 24 | 20 | 18 | 17 |
| Oceanography | 86 | 89 | 113 | 98 | 91 | 85 | 70 | 92 | 87 | 78 | 68 |
| Marine Sciences | - | - | 9 | 28 | 31 | 25 | 30 | 41 | 22 | 21 | 24 |
| Physical Sciences, Other | - | - | - | - | - | - | - | - | 13 | 6 | 20 |

APPENDIX TABLE B (continued)

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Engineering | 3002 | 2834 | 2643 | 2423 | 2490 | 2479 | 2528 | 2646 | 2781 | 2913 | 3165 |
| Aerospace, Aeronaut & Astronaut | 141 | 122 | 115 | 103 | 81 | 81 | 97 | 86 | 106 | 119 | 124 |
| Agricultural | 56 | 37 | 33 | 43 | 66 | 68 | 64 | 48 | 58 | 74 | 60 |
| Bioengineering & Biomedical | 76 | 73 | 75 | 79 | 69 | 68 | 64 | 59 | 74 | 70 | 69 |
| Ceramic | 22 | 24 | 30 | 24 | 24 | 24 | 24 | 20 | 24 | 25 | 19 |
| Chemical | 370 | 314 | 306 | 261 | 287 | 285 | 296 | 306 | 349 | 361 | 440 |
| Civil | 290 | 314 | 269 | 236 | 236 | 240 | 287 | 308 | 354 | 351 | 357 |
| Communications | - | - | - | - | - | - | - | - | 25 | 11 | 30 |
| Computer | 102 | 119 | 123 | 76 | 78 | 62 | 71 | 72 | 83 | 56 | 56 |
| Electrical, Electronics | 612 | 592 | 544 | 463 | 533 | 478 | 478 | 544 | 517 | 593 | 631 |
| Engineering Mechanics | 162 | 113 | 102 | 95 | 85 | 91 | 78 | 103 | 68 | 91 | 88 |
| Engineering Physics | 19 | 19 | 20 | 15 | 17 | 18 | 22 | 12 | 10 | 8 | 12 |
| Engineering Science | - | - | - | - | - | - | - | - | 30 | 28 | 31 |
| Environmental Health Engineering | 71 | 74 | 67 | 67 | 66 | 66 | 71 | 60 | 43 | 57 | 33 |
| Industrial | 92 | 67 | 73 | 51 | 82 | 77 | 66 | 79 | 86 | 84 | 92 |
| Materials Science | 132 | 117 | 125 | 125 | 125 | 143 | 113 | 147 | 157 | 168 | 188 |
| Mechanical | 325 | 304 | 270 | 282 | 281 | 293 | 282 | 334 | 311 | 336 | 424 |
| Metallurgical | 118 | 111 | 93 | 98 | 87 | 106 | 97 | 88 | 87 | 78 | 96 |
| Mining and Mineral | 7 | 6 | 2 | 7 | 4 | 4 | 8 | 7 | 22 | 16 | 16 |
| Naval Architecture, Marine Eng | - | - | - | - | - | - | - | - | 4 | 5 | 8 |
| Nuclear | 89 | 134 | 105 | 107 | 95 | 112 | 130 | 121 | 103 | 120 | 96 |
| Ocean | - | - | - | - | - | - | - | - | 12 | 11 | 25 |
| Operations Research | 89 | 82 | 76 | 84 | 67 | 63 | 80 | 58 | 44 | 50 | 54 |
| Petroleum | 17 | 17 | 18 | 19 | 24 | 31 | 21 | 27 | 22 | 17 | 24 |
| Polymer | - | - | - | - | - | - | - | - | 21 | 31 | 40 |
| Systems | 79 | 69 | 71 | 63 | 75 | 61 | 68 | 49 | 57 | 52 | 57 |
| Engineering, General | 38 | 41 | 33 | 44 | 32 | 42 | 36 | 29 | 30 | 29 | 26 |
| Engineering, Other | 95 | 85 | 93 | 81 | 76 | 66 | 75 | 89 | 84 | 72 | 69 |
| Life Sciences | 5026 | 5026 | 4920 | 5040 | 5223 | 7461 | 5611 | 5706 | 5545 | 5747 | 5748 |
| Biological Sciences | 3497 | 3573 | 3484 | 3515 | 3646 | 3803 | 3807 | 3890 | 3734 | 3872 | 3766 |
| Biochemistry | 620 | 617 | 609 | 607 | 603 | 673 | 645 | 649 | 646 | 606 | 579 |
| Biophysics | 112 | 123 | 141 | 110 | 133 | 108 | 99 | 91 | 88 | 90 | 69 |
| Bacteriology | - | - | - | - | - | - | - | - | 10 | 12 | 17 |
| Plant Genetics | - | - | - | - | - | - | - | - | 19 | 20 | 31 |
| Plant Pathology | - | - | - | - | - | - | - | - | 29 | 30 | 38 |
| Plant Physiology | 67 | 62 | 43 | 43 | 57 | 52 | 68 | 56 | 67 | 70 | 58 |
| Botany, Other | 155 | 182 | 158 | 148 | 141 | 144 | 147 | 146 | 116 | 126 | 120 |
| Anatomy | 119 | 133 | 116 | 144 | 151 | 147 | 156 | 163 | 104 | 102 | 133 |
| Biometrics & Biostatistics | 37 | 46 | 52 | 45 | 44 | 42 | 48 | 59 | 45 | 49 | 40 |
| Cell Biology | 41 | 46 | 37 | 33 | 39 | 44 | 47 | 41 | 118 | 123 | 100 |
| Ecology | 142 | 140 | 163 | 170 | 173 | 169 | 198 | 173 | 183 | 202 | 200 |
| Hydrobiology | 8 | 13 | 14 | 3 | 10 | - | - | - | - | - | - |
| Embryology | 27 | 13 | 19 | 15 | 14 | 18 | 20 | 10 | 13 | 15 | 15 |
| Endocrinology | - | - | - | - | - | - | - | - | 28 | 30 | 17 |
| Entomology | 170 | 145 | 153 | 146 | 162 | 161 | 143 | 170 | 141 | 156 | 173 |
| Immunology | 71 | 93 | 101 | 94 | 134 | 125 | 148 | 154 | 154 | 133 | 121 |
| Molecular Biology | 156 | 148 | 131 | 172 | 140 | 183 | 187 | 224 | 225 | 275 | 277 |
| Microbiology & Bacteriology | 363 | 362 | 312 | 349 | 349 | 365 | 355 | 324 | - | - | - |
| Microbiology | - | - | - | - | - | - | - | - | 309 | 344 | 287 |
| Neurosciences | - | - | - | - | - | - | - | 117 | 134 | 145 | 156 |
| Nutritional Sciences | - | 85 | 82 | 90 | 107 | 90 | 99 | 120 | 111 | 109 | 113 |
| Parasitology | 18 | 19 | 17 | 13 | 21 | 22 | 18 | 14 | 9 | 30 | 21 |
| Toxicology | - | - | - | - | - | - | - | - | 60 | 97 | 98 |
| Human & Animal Genetics | - | - | - | - | - | - | - | - | 95 | 82 | 105 |
| Genetics | 156 | 143 | 141 | 126 | 141 | 157 | 157 | 176 | - | - | - |
| Human & Animal Pathology | 67 | 94 | 99 | 90 | 85 | 108 | 106 | 97 | 96 | 87 | 108 |
| Human & Animal Pharmacology | 166 | 205 | 196 | 216 | 220 | 257 | 280 | 276 | 217 | 237 | 229 |
| Human & Animal Physiology | 332 | 285 | 321 | 315 | 314 | 340 | 327 | 309 | 245 | 237 | 239 |
| Zoology, Other | 271 | 258 | 254 | 231 | 249 | 226 | 198 | 199 | 192 | 158 | 147 |
| Biological Sciences, General | 185 | 190 | 176 | 191 | 187 | 209 | 204 | 196 | 174 | 190 | 191 |
| Biological Sciences, Other | 214 | 171 | 147 | 165 | 172 | 163 | 154 | 129 | 106 | 117 | 84 |
| Health Sciences | 462 | 503 | 511 | 512 | 568 | 586 | 657 | 686 | 639 | 720 | 724 |
| Audiology & Speech Pathology | 121 | 145 | 146 | 143 | 139 | 123 | 140 | 129 | 113 | 104 | 99 |
| Environmental Health | 20 | 28 | 25 | 31 | 40 | 40 | 44 | 39 | 38 | 40 | 31 |
| Public Health | - | - | - | 1 | - | 1 | 4 | 3 | 54 | 53 | 102 |
| Public Health & Epidemiology | 110 | 116 | 109 | 98 | 121 | 127 | 157 | 159 | - | - | - |
| Epidemiology | - | - | - | - | - | - | - | - | 76 | 103 | 76 |
| Hospital Administration | 6 | 2 | 8 | - | - | - | - | - | - | - | - |
| Medicine and Surgery | 7 | 8 | - | - | - | - | - | - | - | - | - |
| Nursing | - | - | 32 | 32 | 53 | 77 | 89 | 112 | 126 | 161 | 177 |
| Pharmacy | 69 | 63 | 49 | 72 | 69 | 70 | 69 | 81 | 81 | 102 | 106 |
| Veterinary Medicine | 25 | 37 | 24 | 27 | 41 | 41 | 41 | 41 | 45 | 46 | 51 |
| Health Sciences, General | 18 | 14 | 18 | 15 | 19 | 15 | 24 | 16 | 20 | 14 | 14 |
| Health Sciences, Other | 86 | 90 | 100 | 93 | 86 | 92 | 89 | 106 | 86 | 97 | 68 |
| Agricultural Sciences | 1067 | 950 | 925 | 1012 | 1009 | 1072 | 1150 | 1130 | 1172 | 1155 | 1258 |
| Agricultural Economics | 162 | 162 | 143 | 159 | 154 | 160 | 168 | 179 | 157 | 158 | 147 |
| Animal Breeding & Genetics | - | - | - | - | - | - | - | - | 25 | 28 | 28 |
| Animal Husbandry | 21 | 17 | 25 | 21 | 26 | 25 | 19 | 22 | - | - | - |
| Animal Nutrition | 130 | 119 | 101 | 101 | 112 | 119 | 149 | 133 | 56 | 71 | 78 |
| Animal Sciences, Other | - | - | - | - | - | - | - | - | 92 | 90 | 95 |

APPENDIX TABLE B (continued)

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Agronomy | 134 | 146 | 123 | 137 | 138 | 151 | 177 | 159 | 149 | 137 | 158 |
| Plant Breeding & Genetics | - | - | - | - | - | - | - | - | 71 | 78 | 88 |
| Plant Pathology | 100 | 83 | 82 | 89 | 88 | 118 | 99 | 114 | 92 | 57 | 89 |
| Plant Sciences, Other | - | - | - | - | - | - | - | - | 16 | 20 | 21 |
| Food Sciences | 111 | 91 | 107 | 117 | 107 | 102 | 104 | 110 | 141 | 113 | 136 |
| Soil Sciences | 97 | 69 | 72 | 97 | 71 | 79 | 90 | 83 | 85 | 99 | 97 |
| Horticulture Science | 77 | 51 | 60 | 65 | 69 | 73 | 85 | 88 | 72 | 66 | 76 |
| Fish and Wildlife | 63 | 55 | 66 | 61 | 66 | 73 | 66 | 65 | - | - | - |
| Fisheries Science | - | - | - | - | - | - | - | - | 36 | 45 | 36 |
| Wildlife Management | - | - | - | - | - | - | - | - | 31 | 31 | 38 |
| Forestry Science | 86 | 79 | 66 | 88 | 87 | 80 | 95 | 78 | 90 | 94 | 105 |
| Agriculture, General | 8 | 9 | 6 | 6 | 7 | 3 | 5 | 5 | 7 | 1 | 5 |
| Agriculture, Other | 78 | 69 | 74 | 71 | 84 | 89 | 93 | 94 | 52 | 67 | 61 |
| **Social Sciences (incl Psych)** | **6066** | **6214** | **6072** | **6039** | **5961** | **5856** | **6142** | **5836** | **6058** | **5903** | **5720** |
| Anthropology | 386 | 428 | 385 | 399 | 383 | 370 | 369 | 333 | 373 | 335 | 353 |
| Area Studies | 36 | 30 | 18 | 26 | 24 | 22 | 20 | 19 | 20 | 23 | 19 |
| Criminology | - | - | - | - | - | 30 | 35 | 36 | 49 | 41 | 38 |
| Demography | - | - | - | - | - | - | - | - | 26 | 19 | 24 |
| Economics | 868 | 855 | 811 | 778 | 780 | 745 | 808 | 737 | 792 | 767 | 785 |
| Econometrics | 27 | 30 | 29 | 23 | 22 | 22 | 17 | 24 | 21 | 27 | 27 |
| Geography | 187 | 155 | 155 | 158 | 129 | 131 | 109 | 106 | 121 | 114 | 120 |
| International Relations | 113 | 123 | 96 | 92 | 81 | 80 | 87 | 77 | 76 | 95 | 78 |
| Political Sci & Government | 1 | 628 | 614 | 603 | 522 | 505 | 445 | 459 | 397 | 419 | 407 |
| Political Sci & Public Admin | 748 | 40 | - | - | - | - | - | - | - | - | - |
| Public Policy Studies | - | - | - | - | - | - | - | - | 69 | 54 | 70 |
| Sociology | 680 | 734 | 725 | 610 | 632 | 601 | 605 | 568 | 525 | 515 | 461 |
| Statistics | 43 | 35 | 35 | 46 | 23 | 33 | 40 | 43 | 47 | 39 | 60 |
| Urban Studies | 76 | 92 | 80 | 76 | 91 | 79 | 94 | 93 | 74 | 81 | 76 |
| Social Sciences, General | 36 | 35 | 27 | 33 | 33 | 32 | 22 | 34 | 17 | 17 | 18 |
| Social Sciences, Other | 114 | 146 | 108 | 140 | 150 | 108 | 133 | 149 | 142 | 125 | 109 |
| Psychology | 2751 | 2883 | 2989 | 3055 | 3091 | 3098 | 3358 | 3158 | 3309 | 3232 | 3075 |
| Clinical | 810 | 883 | 936 | 1061 | 1069 | 1106 | 1259 | 1167 | 1210 | 1174 | 1160 |
| Cognitive | - | - | - | - | - | - | - | - | 65 | 77 | 76 |
| Comparative | 22 | 28 | 22 | 20 | 21 | 8 | 11 | 17 | 11 | 13 | 11 |
| Counseling | 231 | 267 | 269 | 278 | 315 | 299 | 351 | 348 | 432 | 463 | 429 |
| Developmental | 181 | 190 | 203 | 208 | 221 | 207 | 201 | 192 | 219 | 208 | 176 |
| Experimental | 351 | 357 | 337 | 299 | 293 | 307 | 283 | 240 | 209 | 169 | 165 |
| Educational | 134 | 124 | 136 | 145 | 163 | 177 | 180 | 140 | 154 | 210 | 127 |
| Industrial & Organizational | 63 | 73 | 81 | 74 | 87 | 66 | 87 | 83 | 90 | 106 | 99 |
| Personality | 62 | 62 | 63 | 41 | 42 | 43 | 49 | 36 | 32 | 25 | 21 |
| Physiological | 124 | 133 | 132 | 126 | 102 | 108 | 102 | 90 | 94 | 73 | 79 |
| Psychometrics | 17 | 27 | 19 | 15 | 25 | 21 | 27 | 8 | 10 | 6 | 10 |
| Quantitative | - | - | - | - | - | - | - | - | 14 | 17 | 16 |
| School | 103 | 143 | 148 | 125 | 125 | 176 | 133 | 166 | 121 | 89 | 92 |
| Social | 233 | 209 | 202 | 204 | 216 | 190 | 180 | 179 | 191 | 157 | 166 |
| Psychology, General | 244 | 218 | 262 | 299 | 207 | 210 | 279 | 242 | 287 | 265 | 258 |
| Psychology, Other | 176 | 169 | 179 | 160 | 205 | 220 | 216 | 255 | 170 | 180 | 190 |
| **Humanities** | **5046** | **4881** | **4562** | **4231** | **4139** | **3867** | **3748** | **3558** | **3496** | **3532** | **3428** |
| History, American | 430 | 383 | 342 | 321 | 302 | 285 | 228 | 271 | 224 | 240 | 175 |
| History, European | 357 | 288 | 261 | 215 | 218 | 196 | 166 | 158 | 168 | 150 | 142 |
| History of Science | 27 | 36 | 29 | 25 | 28 | 21 | 26 | 29 | 13 | 24 | 23 |
| History, General | - | - | - | - | - | - | - | - | 58 | 76 | 87 |
| History, Other | 369 | 388 | 329 | 291 | 281 | 243 | 272 | 234 | 153 | 127 | 116 |
| Classics | 93 | 79 | 60 | 67 | 56 | 54 | 62 | 60 | 44 | 57 | 44 |
| Comparative Literature | - | 157 | 152 | 114 | 144 | 107 | 132 | 118 | 124 | 133 | 133 |
| Linguistics | 194 | 152 | 190 | 175 | 156 | 182 | 176 | 191 | 164 | 160 | 176 |
| Speech and Debate | 102 | 98 | 61 | 69 | 53 | 63 | 38 | 38 | 48 | 41 | 38 |
| Letters, General | - | - | - | - | - | - | - | - | 3 | 14 | 13 |
| Letters, Other | - | - | - | - | - | - | - | 1 | 19 | 31 | 26 |
| American Studies | 65 | 86 | 93 | 82 | 84 | 81 | 87 | 64 | 99 | 76 | 87 |
| Archeology | 23 | 22 | 23 | 32 | 35 | 26 | 28 | 21 | 30 | 31 | 24 |
| Art, Applied | 8 | - | - | - | - | - | - | - | - | - | - |
| Art History & Criticism | 141 | 145 | 152 | 150 | 166 | 144 | 158 | 138 | 150 | 141 | 137 |
| Music | 381 | 353 | 404 | 368 | 419 | 402 | 368 | 402 | 391 | 445 | 447 |
| Philosophy | 374 | 382 | 331 | 290 | 278 | 255 | 277 | 251 | 241 | 215 | 238 |
| Religion | 191 | 174 | 176 | 189 | 196 | 170 | 162 | 149 | 173 | 178 | 181 |
| Theatre | - | - | 85 | 102 | 97 | 94 | 103 | 94 | 108 | 101 | 92 |
| Language and Literature | 2116 | 2049 | 1804 | 1662 | 1555 | 1486 | 1396 | 1259 | 1219 | 1226 | 1163 |
| American | 251 | 236 | 220 | 212 | 206 | 209 | 145 | 154 | 173 | 190 | 203 |
| English | 1039 | 978 | 856 | 813 | 703 | 742 | 675 | 615 | 542 | 544 | 525 |
| French | 247 | 242 | 211 | 183 | 187 | 162 | 167 | 119 | 121 | 108 | 86 |
| German | 164 | 178 | 140 | 103 | 116 | 99 | 88 | 74 | 77 | 80 | 62 |
| Italian | 17 | 24 | 22 | 23 | 20 | 10 | 16 | 17 | 22 | 17 | 14 |
| Spanish | 237 | 234 | 199 | 173 | 181 | 145 | 184 | 177 | 161 | 144 | 145 |
| Russian | 53 | 58 | 56 | 52 | 42 | 32 | 28 | 24 | 24 | 33 | 28 |
| Slavic | - | - | - | - | - | - | - | - | 9 | 12 | 10 |
| Chinese | - | - | - | - | - | - | - | - | 16 | 13 | 14 |
| Japanese | - | - | - | - | - | - | - | - | 5 | 12 | 13 |
| Hebrew | - | - | - | - | - | - | - | - | 11 | 13 | 9 |

APPENDIX TABLE B (continued)

| | Year of Doctorate | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Arabic | - | - | - | - | - | - | - | - | 0 | 0 | 5 |
| Other Languages | 108 | 99 | 100 | 103 | 100 | 87 | 93 | 79 | 50 | 52 | 49 |
| Humanities, General | 24 | 27 | 21 | 25 | 19 | 12 | 23 | 28 | 17 | 22 | 27 |
| Humanities, Other | 151 | 62 | 49 | 54 | 52 | 46 | 46 | 52 | 50 | 44 | 59 |
| **Professional Fields** | **1575** | **1710** | **1660** | **1741** | **1717** | **1634** | **1622** | **1784** | **1725** | **1917** | **1856** |
| Business Administration | 787 | 739 | 671 | 713 | 715 | 640 | 624 | 685 | 750 | 868 | 793 |
| Accounting | - | - | - | - | - | - | - | - | 163 | 164 | 148 |
| Banking and Finance | - | - | - | - | - | - | - | - | 94 | 123 | 104 |
| Business Admin & Management | - | - | - | - | - | - | - | - | 179 | 175 | 179 |
| Business Economics | - | - | - | - | - | - | - | - | 25 | 30 | 20 |
| Marketing Mgmt & Research | - | - | - | - | - | - | - | - | 73 | 126 | 94 |
| Business Statistics | - | - | - | - | - | - | - | - | 8 | 7 | 9 |
| Operations Research | - | - | - | - | - | - | - | - | 38 | 45 | 45 |
| Organizational Behavior | - | - | - | - | - | - | - | - | 53 | 70 | 68 |
| Business & Mgmt, General | - | - | - | - | - | - | - | - | 35 | 49 | 50 |
| Business & Mgmt, Other | 787 | 739 | 671 | 713 | 715 | 640 | 624 | 685 | 82 | 79 | 76 |
| Communications | 264 | 295 | 302 | 292 | 285 | 270 | 240 | 266 | 250 | 255 | 266 |
| Communications Research | - | - | - | - | - | - | - | - | 51 | 66 | 55 |
| Journalism | 20 | 15 | 18 | 22 | 17 | 17 | 18 | 18 | 20 | 17 | 22 |
| Radio and Television | - | - | - | - | - | - | - | - | 27 | 20 | 19 |
| Communications, General | - | - | - | - | - | - | - | - | 60 | 68 | 89 |
| Communications, Other | 244 | 280 | 284 | 270 | 268 | 253 | 222 | 248 | 92 | 84 | 81 |
| Other Professional Fields | 524 | 676 | 687 | 736 | 717 | 724 | 758 | 833 | 725 | 794 | 797 |
| Architecture, Environ Design | - | - | - | - | - | - | - | - | 34 | 25 | 36 |
| Home Economics | 42 | 68 | 76 | 81 | 88 | 90 | 85 | 98 | 79 | 107 | 90 |
| Law | 22 | 20 | 27 | 22 | 24 | 21 | 28 | 21 | 19 | 24 | 25 |
| Library & Archival Science | 59 | 58 | 73 | 57 | 66 | 66 | 62 | 83 | 51 | 68 | 72 |
| Public Administration | 1 | 96 | 169 | 156 | 164 | 145 | 147 | 173 | 113 | 127 | 109 |
| Social Work | 134 | 156 | 167 | 173 | 154 | 179 | 213 | 218 | 190 | 231 | 218 |
| Theology | 178 | 190 | 155 | 227 | 193 | 195 | 200 | 206 | 222 | 204 | 229 |
| Professional Fields, General | - | - | - | - | - | - | - | - | - | 2 | - |
| Professional Fields, Other | 88 | 88 | 20 | 20 | 28 | 28 | 23 | 34 | 17 | 6 | 18 |
| **Education** | **7359** | **7725** | **7455** | **7194** | **7385** | **7586** | **7497** | **7251** | **7163** | **6793** | **6717** |
| Curriculum and Instruction | 824 | 786 | 759 | 808 | 874 | 838 | 815 | 811 | 861 | 869 | 823 |
| Educational Admin & Supervision | 1508 | 1683 | 1516 | 1455 | 1500 | 1536 | 1659 | 1474 | 1622 | 1557 | 1605 |
| Educational Media | 90 | 92 | 82 | 92 | 92 | 75 | 77 | 76 | 88 | 83 | 101 |
| Educational Measures & Statistics | 117 | 104 | 118 | 97 | 104 | 89 | 90 | 94 | - | - | - |
| Educational Statistics & Research | - | - | - | - | - | - | - | - | 86 | 105 | 74 |
| Educational Testing, Eval & Meas | - | - | - | - | - | - | - | - | 51 | 56 | 44 |
| Educational Psychology | 458 | 488 | 498 | 445 | 415 | 476 | 445 | 454 | 274 | 233 | 390 |
| School Psychology | - | - | - | - | - | - | - | - | 88 | 110 | 102 |
| Social Foundations | 241 | 246 | 230 | 237 | 242 | 214 | 209 | 214 | 142 | 151 | 134 |
| Special Education | 284 | 316 | 324 | 311 | 316 | 346 | 312 | 347 | 349 | 312 | 270 |
| Student Counseling, Personnel Serv | 737 | 695 | 662 | 560 | 607 | 594 | 549 | 540 | 506 | 390 | 395 |
| Higher Education | 623 | 652 | 715 | 615 | 683 | 685 | 671 | 653 | 634 | 656 | 586 |
| Pre-elementary Education | - | - | - | - | - | 74 | 90 | 78 | 63 | 54 | 67 |
| Elementary Education | 233 | 218 | 187 | 217 | 169 | 162 | 180 | 149 | 111 | 97 | 121 |
| Junior High Education | - | - | - | - | - | - | - | - | 1 | - | 1 |
| Secondary Education | 190 | 179 | 142 | 134 | 154 | 168 | 136 | 104 | 87 | 62 | 69 |
| Adult & Continuing Education | 147 | 191 | 173 | 200 | 169 | 235 | 233 | 257 | 221 | 217 | 208 |
| Teaching Fields | 1417 | 1418 | 1439 | 1352 | 1411 | 1471 | 1437 | 1333 | 1327 | 1170 | 1117 |
| Agricultural Education | 24 | 31 | 25 | 35 | 24 | 39 | 43 | 35 | 47 | 47 | 40 |
| Art Education | 55 | 58 | 55 | 48 | 50 | 45 | 63 | 55 | 58 | 41 | 43 |
| Business Education | 96 | 72 | 65 | 62 | 66 | 52 | 50 | 44 | 62 | 52 | 52 |
| English Education | 85 | 93 | 69 | 80 | 80 | 76 | 64 | 67 | 76 | 72 | 68 |
| Foreign Languages Education | 25 | 30 | 36 | 39 | 35 | 36 | 29 | 31 | 25 | 25 | 30 |
| Physical Educ, Health & Rec | 331 | 337 | 333 | 323 | 346 | 365 | 368 | 351 | - | - | - |
| Health Education | - | - | - | - | - | - | - | - | 99 | 93 | 89 |
| Home Economics Education | 37 | 28 | 31 | 26 | 29 | 27 | 25 | 33 | 25 | 26 | 21 |
| Industrial Arts Education | 51 | 45 | 39 | 43 | 29 | 27 | 27 | 39 | 19 | 27 | 13 |
| Mathematics Education | 108 | 96 | 98 | 57 | 85 | 74 | 62 | 50 | 62 | 64 | 65 |
| Music Education | 106 | 99 | 89 | 85 | 88 | 110 | 76 | 103 | 112 | 92 | 80 |
| Nursing Education | - | - | - | - | - | 41 | 23 | 25 | 17 | 21 | 21 |
| Physical Education | - | - | - | - | - | - | - | - | 235 | 219 | 220 |
| Reading Education | - | 112 | 134 | 142 | 151 | 160 | 193 | 153 | 169 | 142 | 113 |
| Science Education | 105 | 106 | 128 | 101 | 93 | 96 | 107 | 86 | 78 | 77 | 88 |
| Social Science Education | 52 | 54 | 49 | 46 | 65 | 52 | 49 | 29 | 39 | 22 | 24 |
| Speech Education | 16 | 25 | 14 | 20 | 16 | 10 | 12 | 12 | 2 | 10 | 7 |
| Trade & Industrial Education | 175 | 175 | 211 | 137 | 201 | 229 | 213 | 191 | 138 | 117 | 82 |
| Other Teaching Fields | 151 | 57 | 63 | 48 | 53 | 32 | 33 | 29 | 6 | 23 | 61 |
| Education, General | 294 | 416 | 396 | 425 | 410 | 427 | 405 | 419 | 349 | 311 | 303 |
| Education, Other | 196 | 241 | 214 | 246 | 239 | 196 | 189 | 248 | 303 | 360 | 307 |
| **Other and Unspecified** | **20** | **47** | **24** | **14** | **23** | **22** | **35** | **24** | **22** | **20** | **36** |

SOURCE: National Research Council, Office of Scientific and Engineering Personnel, Doctorate Records File.

## APPENDIX C: Foreign Country Groupings

CANADA

MEXICO AND CENTRAL AMERICA
- Belize (British Honduras)
- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Central America, Other

CUBA AND ISLANDS
- Bahamas
- Barbados
- Bermuda
- Cuba
- Dominican Republic
- Guadeloupe
- Haiti
- Jamaica
- Martinique
- Netherlands Antilles
- Trinidad and Tobago
- Caribbean Islands, Other

SOUTH AMERICA
- Argentina
- Bolivia
- Brazil
- Chile
- Colombia
- Ecuador
- French Guiana
- Guyana
- Paraguay
- Peru
- Surinam
- Uruguay
- Venezuela
- South America, Other

EUROPE, NORTHERN
- Denmark
- England
- Finland
- Iceland
- Ireland, Northern
- Ireland, Republic of
- Ireland, Unspecified
- Norway
- Scotland
- Sweden
- Wales
- Northern Europe, Other

EUROPE, CENTRAL
- Austria
- Germany, East
- Germany, West
- Germany, Unspecified
- Italy
- Liechtenstein
- Malta
- Central Europe, Other

EUROPE, EASTERN
- Albania
- Bulgaria
- Czechoslovakia
- Greece
- Hungary
- Poland
- Romania
- USSR, Estonia, Latvia and Lithuania
- Yugoslavia
- Eastern Europe, Other

EUROPE, WESTERN
- Andorra
- Belgium
- France
- Gibraltar
- Luxembourg
- Monaco
- Netherlands, The
- Portugal
- Spain
- Switzerland
- Western Europe, Other

ASIA, EASTERN
- Burma
- China, Peoples Republic of
- China, Republic of (Taiwan)
- China, Unspecified
- Hong Kong
- Japan, Okinawa and Ryukyus
- Khmer Republic (Cambodia)
- Korea, North
- Korea, Republic of
- Korea, Unspecified
- Laos
- Macao
- Malaysia
- Mongolian People's Republic
- Singapore
- Thailand (Siam)
- Viet-Nam, Democratic Republic of
- Viet-Nam, Republic of
- Viet-Nam, Unspecified
- Eastern Asia, Other

ASIA, WESTERN
- Afghanistan
- Bahrain
- Bangladesh
- Bhutan
- Cyprus
- India
- Iran
- Iraq
- Israel
- Jordan
- Palestine
- Kuwait
- Lebanon
- Maldives, Republic of
- Oman
- Nepal
- Pakistan
- Qatar
- Saudi Arabia
- Sikkim
- Sri Lanka (Ceylon)
- Syrian Arab Republic
- Turkey
- United Arab Emirates
- Yemen Arab Republic
- Yemen, Peoples Republic of
- Yemen, Unspecified
- Western Asia, Other

AUSTRALASIA
- Australia
- Brunei
- Fiji
- French Aust. Lands
- French Polynesia
- Indonesia, Republic of
- Nauru
- New Caledonia
- New Zealand
- Papua - New Guinea
- Philippines, Republic of the
- Solomon Islands
- Tonga
- Western Samoa
- Australasia, Other

WEST NORTH AFRICA
- Algeria
- Benin (Dahomey)
- Burkina-Faso (Upper Volta)
- Cameroon
- Equatorial Guinea
- Gambia, The
- Ghana
- Guinea
- Guinea-Bissau (Port. Guinea)
- Ivory Coast
- Liberia
- Mali
- Mauritania
- Morocco
- Niger
- Nigeria
- Senegal
- Sierra Leone
- Spanish Sahara
- Togo
- Tunisia
- West North Africa, Other

EAST NORTH AFRICA
- Arab Republic of Egypt
- Central African Republic
- Chad
- Djibouti (Fr. Afars & Issas)
- Ethiopia
- Libyan Arab Republic
- Somali Democratic Republic
- Sudan, The
- East North Africa, Other

SOUTH AFRICA

Angola
Botswana
Burundi
Congo, Peoples Republic of
Gabon
Kenya
Lesotho
Malagasy Republic
(Madagascar)
Malawi
Mauritius
Mozambique
Rwanda
Seychelles
South Africa, Republic of
South West Africa (Namibia)
Swaziland
Tanzania
Uganda
Zaire, Democratic Republic of
Zambia
Zimbabwe (Rhodesia)
South Africa, Other
Africa, Other

Form Approved
OMB No. 3145-0019
Approval Expires 1/87

# SURVEY OF EARNED DOCTORATES, 1984-85

This form is to be returned to the GRADUATE DEAN, for forwarding to ..... .....

The Office of Scientific and Engineering Personnel
National Research Council
2101 Constitution Avenue, Washington, D.C 20418

**Please print or type.**

1. Name in full: _____
   *Last Name* *First Name* *Middle Name*

   Cross Reference: Maiden name or former name legally changed _____

2. Permanent address through which you could always be reached: (Care of, if applicable) _____

   _____
   *Number* *Street* *City*

   _____ _____ _____
   *State* *Zip Code* *Or Country if not US*

3. U.S. Social Security Number: _ _ _ – _ _ – _ _ _ _

4. Date of birth: _____ (10-14)
   *Month* *Day* *Year*
   Place of birth: _____ (15-16)
   *State* *Or Country if not US*

5. Sex. 1 ☐ Male 2 ☐ Female (17)

6. Marital status:
   1 ☐ Married
   2 ☐ Not married (including widowed, divorced) (18)

7. Citizenship:
   0 ☐ U.S. native
   1 ☐ U.S. naturalized
   2 ☐ Non-U.S., Immigrant (Permanent Resident)
   3 ☐ Non-U.S., Non-Immigrant (Temporary Resident) (19)

   If Non-U.S., indicate country of present citizenship.

   _____ (20-21)

8. Are you physically handicapped? ☐ Yes ☐ No
   If yes, is it:
   1 ☐ Visual 2 ☐ Orthopedic
   3 ☐ Auditory 4 ☐ Vocal
   5 ☐ Other (Specify) _____ (80)

9. What is your racial background? (Check only one)
   0 ☐ American Indian or Alaskan Native
   1 ☐ Asian or Pacific Islander
   2 ☐ Black
   3 ☐ White (22)

10a. Is your ethnic heritage Hispanic? ☐ Yes ☐ No (23)

10b. If yes, is it:
   0 ☐ Mexican American
   1 ☐ Puerto Rican
   2 ☐ Other Hispanic (24)

11. Number of dependents. _____ Do not include yourself (Dependent = someone receiving at least one half of his or her support from you) (25)

## EDUCATION

12. Location of high school last attended: _____ (26-27)
    *State* *Or Country if not US*

    Year of graduation from high school: _____ (28-29)

13. List in the table below all collegiate and graduate institutions you have attended including 2-year colleges and each degree earned. List chronologically, and include your doctoral institution as the last entry.

| Institution Name | Location | Years Attended From | Years Attended To | Major Field Use Specialties List Name | Major Field Use Specialties List Number | Degree (if any) Title of Degree | Degree Granted Mo. | Degree Granted Yr. |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

14. Enter below the title of your doctoral dissertation and the most appropriate classification number and field. If a project report or a musical or literary composition (not a dissertation) is a degree requirement, please check box. ☐ (12)

    Title _____

    Classify using Specialties List

    Number _____ Name of field _____

15. Name the department (or interdisciplinary committee, center, institute, etc.) and school or college of the university which supervised your doctoral program: _____ _____ _____
    *Department/Institute/Committee/Program* *School*

16. Name of your adviser for dissertation, project report or music/literary composition: _____
    *Last Name* *First Name* *Middle Initial*



*continued on next page*

17. Please enter a "1" beside your primary source of support during graduate study. Enter a "2" beside your secondary source of support during graduate study. **Check** (✓) all other sources from which support was received. (Enter only **one** source as "1" and one source as "2")

Own/Family Resources
- a ___ Own Earnings
- b ___ Spouse's Earnings
- c ___ Family Contributions

University-Related
- d ___ Teaching Assistantship
- e ___ Research Assistantship
- f ___ University Fellowship
- g ___ College Work-Study
- h ___ Other

Specify

Federal Support
- i ___ NIH Traineeship
- j ___ ADAMHA Traineeship
- k ___ ADAMHA Fellowship
- l ___ Other HHS
- m ___ NSF Fellowship
- n ___ Title VI Foreign Language and Area Studies Fellowship
- o ___ Graduate & Professional Opportunities Pgm Fellowship (G*POP)
- p ___ Other Dept of Ed
- q ___ Veterans Administration (G I. Bill, etc)
- r ___ Other Federal

Specify

U.S. Nationally Competitive Fellowships (Non-Federal)
- s ___ Ford Foundation
- t ___ Rockefeller Foundation
- u ___ Other Fellowship

Specify

Student Loans
- v ___ Guaranteed Student Loan
- w ___ National Direct Student Loan
- x ___ Other Loan

Specify

Other Sources
- y ___ Business/Employer Funds
- z ___ Other

Specify (26-40)

18a. Please check the category which most fully describes your status during the year immediately preceding the award of the doctorate.
- 0 ☐ Full-time employed (Go to item "18b")
- 1 ☐ Held fellowship
- 2 ☐ Held assistantship
- 3 ☐ Part-time employed
- 4 ☐ Not employed
- 5 ☐ Other (specify) _____

18b. If full-time employed, what type of position did you hold?
- 6 ☐ College or university, faculty
- 7 ☐ College or university, non-faculty
- 8 ☐ Elem. or sec. school, teaching
- 9 ☐ Elem. or sec. school, non-teaching
- (11) ☐ Industry or business
- (12) ☐ Other (specify) _____

(50)

[redacted]

19. What is the status of your current postgraduate plans?
- 0 ☐ Am returning to, or continuing in, predoctoral employment
- 1 ☐ Have signed contract or made definite commitment
- 2 ☐ Am negotiating with one or more specific organizations
- 3 ☐ Am seeking position but have no specific prospects
- 4 ☐ Other (specify) _____ (51)

20. What best describes your immediate postgraduate plans?
- 0 ☐ Postdoctoral fellowship
- 1 ☐ Postdoctoral research associateship
- 2 ☐ Traineeship
- 3 ☐ Other study (specify) _____

→ Go to item "21"

- 4 ☐ Employment (other than 0,1,2,3)
- 5 ☐ Military service
- 6 ☐ Other (specify) _____ (52)

→ Go to item "22"

21. If you plan to have a postdoctoral fellowship, associateship, traineeship, or otherwise undertake further study

A. What was the **most** important reason for taking a postdoctoral appointment? (Check only one.)
- 0 ☐ To obtain additional research experience in my doctoral field
- 1 ☐ To work with a particular scientist or research group
- 2 ☐ To switch into a different field of research
- 3 ☐ Could not obtain the desired type of employment position
- 4 ☐ Other reason (specify) _____ (53)

B. What will be the field of your postdoctoral study? Please enter number from Specialties List _____ (54-56)

C. What will be the primary source of research support?
- 0 ☐ U.S. Government
- 1 ☐ College or university
- 2 ☐ Private foundation
- 3 ☐ Nonprofit, other than private foundation
- 4 ☐ Other (specify)

_____

- 6 ☐ Unknown (57)

Go to item "23"

22. If you plan to be employed, enter military service, or other—

A. What will be the type of employer?
- a ☐ U.S. 4-year college or university other than medical school
- b ☐ Foreign university
- c ☐ Medical school
- d ☐ Jr. or community college
- e ☐ Elem. or sec. school
- f ☐ Foreign government
- g ☐ U.S. Federal government
- h ☐ U.S. state government
- i ☐ U.S. local government
- j ☐ Nonprofit organization
- k ☐ Industry or business
- l ☐ Self-employed
- m ☐ Other (specify) _____ (58)

B. Indicate what your **primary** work activity will be with "1" in appropriate box; **secondary** work activity (if any) with "2" in appropriate box.
- 0 ☐ Research and development
- 1 ☐ Teaching
- 2 ☐ Administration
- 3 ☐ Professional services to individuals
- 5 ☐ Other (specify) _____ (59-60)

C In what field will you be working? Please enter number from Specialties List _____ (61-63)

D Did you seriously consider undertaking postdoctoral study?
Yes ____ No ____ (64)
If yes, why did you decide against the postdoctoral?
- 0 ☐ No postdoctoral appointment available
- 1 ☐ Felt that I would derive little or no benefit from a postdoctoral appointment
- 2 ☐ Postdoctoral available but stipend inadequate
- 3 ☐ Had more attractive employment opportunity
- 4 ☐ Other (specify) _____ (65)

Go to item "23"

23. What is the name and address of the organization with which you will be associated?

_____ _____
Name of Organization

_____
Street City, State Or Country if not U S (66-71)

[redacted]

24. Please indicate, by circling the highest grade attained, the education of

| | | Elementary School | High School | College | Graduate | | |
|---|---|---|---|---|---|---|---|
| *your father:* | none | 1 2 3 4 5 6 7 8 | 9 10 11 12 | 1 2 3 4 | MA, MD PhD | Postdoctoral | (72) |
| *your mother:* | none 0 | 1 2 3 4 5 6 7 8 | 9 10 11 12 | 1 2 3 4 | MA, MD PhD | Postdoctoral (11) | (73) |

Signature _____ Date _____ (74-76)



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## SPECIALTIES LIST

**Instructions:** The following field listing is to be used in responding to items 13, 14, 21b, and 22c. If a field marked with an asterisk (*) is chosen in item 13 or 14, please write in your field of specialization in the space provided.

### AGRICULTURE

000 Agricultural Economics

005 Animal Breeding & Genetics
010 Animal Nutrition
019 Animal Sciences, Other*

020 Agronomy
025 Plant Breeding & Genetics
030 Plant Path. (See also 120)
039 Plant Sciences, Other*

040 Food Sciences
045 Soil Sciences
050 Horticulture Science
055 Fisheries Sciences
060 Wildlife Management
065 Forestry Science

098 Agriculture, General
099 Agriculture, Other*

### BIOLOGICAL SCIENCES

100 Biochemistry
105 Biophysics

110 Bacteriology
115 Plant Genetics
120 Plant Path. (See also 030)
125 Plant Physiology
129 Botany, Other*

130 Anatomy
133 Biometrics & Biostatistics
136 Cell Biology
139 Ecology
142 Embryology
145 Endocrinology
148 Entomology
151 Immunology
154 Molecular Biology
157 Microbiology
160 Neurosciences
163 Nutritional Sciences
166 Parasitology
169 Toxicology
170 Genetics, Human & Animal
175 Pathology, Human & Animal
180 Pharmacology, Human & Animal
185 Physiology, Human & Animal
189 Zoology, Other*

198 Biological Sciences, General
199 Biological Sciences, Other*

### HEALTH SCIENCES

200 Audiology & Speech Pathology
210 Environmental Health
215 Public Health
220 Epidemiology
230 Nursing
240 Pharmacy
250 Veterinary Medicine
298 Health Sciences, General
299 Health Sciences, Other*

### ENGINEERING

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

### COMPUTER AND INFORMATION SCIENCES

400 Computer Sciences*
410 Information Sci. & Systems*

### MATHEMATICS

420 Applied Mathematics
425 Algebra
430 Analysis & Functional Anal.
435 Geometry
440 Logic (See also 785)
445 Number Theory
450 Probability & Math. Statistics (See also 690)
455 Topology
460 Computing Theory & Practice
465 Operations Research (See also 363, 930)
498 Mathematics, General
499 Mathematics, Other*

### PHYSICAL SCIENCES

#### Astronomy

500 Astronomy
505 Astrophysics

#### Atmospheric & Meteorological Sciences

510 Atmospheric Physics & Chem.
512 Atmospheric Dynamics
514 Meteorology
518 Atmos. & Meteorol. Sci., Gen.
519 Atmos. & Meteorol. Sci., Other*

#### Chemistry

520 Analytical
522 Inorganic
524 Nuclear
526 Organic
528 Pharmaceutical
530 Physical
532 Polymer
534 Theoretical
538 Chemistry, General
539 Chemistry, Other*

#### Geological Sciences

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

#### Physics

560 Acoustics
561 Atomic & Molecular
562 Electron
564 Elementary Particle
566 Fluids
568 Nuclear
569 Optics
570 Plasma
572 Polymer
574 Solid State
578 Physics, General
579 Physics, Other*

#### Other Physical Sciences

580 Environmental Sciences
585 Hydrology & Water Resources
590 Oceanography
595 Marine Sciences
599 Physical Sciences, Other*

### PSYCHOLOGY

600 Clinical
603 Cognitive
606 Comparative
609 Counseling
612 Developmental
615 Experimental
618 Educational (See also 822)
621 Industrial & Organizational (See also 935)
624 Personality
627 Physiological
630 Psychometrics
633 Quantitative
636 School (See also 825)
639 Social
648 Psychology, General
649 Psychology, Other*

### SOCIAL SCIENCES

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

### HUMANITIES

#### History

700 History, American
705 History, European
710 History of Science
718 History, General
719 History, Other*

#### Letters

720 Classics
723 Comparative Literature
729 Linguistics
732 Literature, American
733 Literature, English
734 English Language
736 Speech & Debate
738 Letters, General
739 Letters, Other*

#### Foreign Languages and Literature

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

#### Other Humanities

770 American Studies
773 Archeology
776 Art History & Criticism
780 Music
785 Philosophy (See also 440)
790 Religion (See also 984)
795 Theatre
798 Humanities, General
799 Humanities, Other*

### EDUCATION

800 Curriculum & Instruction
805 Educ. Admin. & Superv.
810 Educational Media
815 Educ. Stat. & Research
820 Educ. Testing, Eval. & Meas.
822 Educational Psychology (See also 618)
825 School Psych. (See also 636)
830 Social Foundations
835 Special Education
840 Student Counseling & Personnel Services
845 Higher Education

#### Teacher Education

850 Pre-elementary
852 Elementary
854 Junior High
856 Secondary
858 Adult & Continuing

#### Teaching Fields

860 Agricultural Educ.
861 Art Educ.
862 Business Educ.
864 English Educ.
866 Foreign Languages Educ.
868 Health Educ.
870 Home Economics Educ.
872 Industrial Arts Educ.
874 Mathematics Educ.
876 Music Educ.
878 Nursing Educ.
880 Physical Educ.
882 Reading Educ.
884 Science Educ.
885 Social Science Educ.
886 Speech Educ.
888 Trade & Industrial Educ.
889 Teacher & Educ. Specific Subject Areas, Other*

898 Education, General
899 Education, Other*

### PROFESSIONAL FIELDS

#### Business & Management

900 Accounting
905 Banking & Finance
910 Business Admin. & Management
915 Business Economics
920 Marketing Mngmnt. & Research
925 Business Statistics
930 Operations Research (See also 363, 465)
935 Organiz. Beh. (See also 621)
938 Business & Mngmnt., General
939 Business & Mngmnt., Other*

#### Communications

940 Communications Research
945 Journalism
950 Radio & Television
958 Communications, General
959 Communications, Other*

#### Other Professional Fields

960 Architec. & Environ. Design
964 Home Economics
968 Law
972 Library & Archival Science
976 Public Administration
980 Social Work
984 Theology (See also 790)
988 Professional Fields General
989 Professional Fields, Other*

998 OTHER FIELDS*