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ABSTRACT

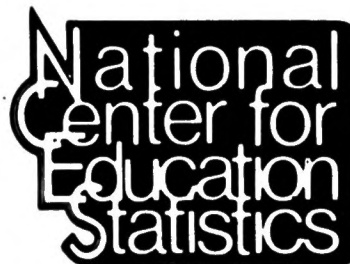
An update, as of 1977, of four National Center for Education Statistics reports concerned with changing patterns in degree awards to women is presented. Separate chapters are devoted to bachelor's, master's, doctoral, and first-professional degrees. Each chapter consists of an overview, an examination by field of study of the percentage representation of women among degree recipients in 1977 as compared with 1971, and an examination of the relative popularity of different fields of study for men and for women, and how this has changed between 1971 and 1977. An overall finding of the report is that most of the trends identified in the four small reports continue to be evident in the 1977 data. Among findings are that at all four degree levels women continued to increase their percentage representation among degree recipients; that in 1977 women accounted for 46.2 percent of the bachelor's degrees, 47.1 percent of the master's degrees, 24.3 percent of the doctoral degrees, and 18.7 percent of the first-professional degrees; and that at both the bachelor's and master's levels women tended to show the greatest increases in those fields in which they have traditionally had small representation. (Author/PHR)

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**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE**  
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**NATIONAL CENTER FOR EDUCATION STATISTICS**

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

## FOREWORD

During 1978, NCES published four small reports describing the changes which took place between 1971 and 1976 in the representation of women among recipients of bachelor's, master's, doctoral, and first professional degrees. Degree award data have recently become available for the academic year ending June 1977. The present report devotes one chapter to each of the four degree levels, and in each case examines the trends in degree awards to women between 1971 and 1977.

The data on which this report is based were collected through the annual Survey of Degrees and Other Formal Awards Conferred (part of the Higher Education General Information Survey (HEGIS)).

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## Chapter 1

### EXECUTIVE SUMMARY

This report constitutes an update, as of the academic year 1977,<sup>1/</sup> of four NCES reports concerned with changing patterns in degree awards to women. Separate chapters are devoted to bachelor's, master's, doctoral, and first professional degrees, respectively. Each chapter consists of: (a) an overview, (b) an examination by field of study of the percentage representation of women among degree recipients in 1977 as compared with 1971, and (c) an examination of the relative popularity of different fields of study for men and for women, and how this has changed between 1971 and 1977.

An overall conclusion emerging from this report is that most of the trends evident in the four small reports published last year continue to be evident in the 1977 data. Some of the principal highlights of the findings are:

- (1) At all four degree levels, women continued to increase, at least slightly, their percentage representation among degree recipients.
- (2) In 1977 women accounted for 46.2 percent of the bachelor's degrees, 47.1 percent of the master's degrees, 24.3 percent of the doctoral degrees, and 18.7 percent of the first professional degrees.
- (3) At both the bachelor's and master's degree levels, women tended to show the greatest increases in percentage representation in those fields in which they have traditionally had small representation. Their representation in traditionally female fields, such as home economics, letters, etc., remained virtually unchanged.
- (4) At the doctoral degree level, the opposite trend was evident, viz. women's gains were greatest in the traditionally female fields and least in the traditionally non-female fields.

<sup>1/</sup>

In this report, academic years will generally be referred to by their terminal year. For example, the academic year 1976-77 is referred to as 1977.

- (5) Education continued to be the most popular degree field for women at the bachelor's, master's, and doctoral degree levels. For men, business and management was the most popular field for bachelor's degrees, while education was the most popular field for advanced degrees.
- (6) Women continued to increase their percentage representation in all eight of the first professional fields, such as medicine, law, etc., in which trends could be measured, but are still a distinct minority in all fields.
- (7) The two fields of law and medicine together accounted for 85 percent of all first professional degrees awarded to women and 71.4 percent of all professional degrees awarded to men.

## Chapter II

### BACHELOR'S DEGREES

#### Overview

In 1971, the total number of bachelor's degrees awarded in the United States<sup>1/</sup> was 846,110, and 43.4 percent of these were awarded to women. In 1977, the total number of bachelor's degrees awarded was 928,256, and the women's percentage had risen to 46.2. This was a minute increase over 1976, when the women's percentage was 45.6 and represents a continuation of the trend evident then. In fact, if the data are examined on a year-by-year basis (see appendix A) it is evident that the women's percentage representation increased, at least slightly, in each of the 7 years under consideration.

If this trend continues, within a few years women will account for half of all bachelor's degrees awarded.

#### Field of Study

Table 1 shows the percentage representation of women among bachelor's degree recipients in 1971 and 1977, categorized by discipline division, i.e., by field of study. The general character of this table is quite similar to the corresponding table in the earlier report using 1976 data. Women still predominate (account for more than half the degrees awarded) in those fields where they have traditionally been dominant: area studies, education, fine and applied arts, foreign languages, health professions, home economics, letters, and library science. In addition, it should be noted that psychology has been a predominantly female field since 1974, when the women's percentage among psychology degree recipients reached 50.5. This percentage has continued to grow and reached 56.7 in the 1977 data.

In 1971, there were eight fields in which women accounted for less than 20 percent of the bachelor's degrees awarded. These were: agriculture and natu-

1/

Here and throughout this report, statements about the number of degrees awarded refer to the aggregate United States, which includes outlying territories such as Guam and Puerto Rico. These outlying territories account for less than 1 percent of the total number of degrees awarded.

Table 1.--Percentage of women among bachelor's degree recipients, by discipline division: Aggregate United States, 1971 and 1977

| Discipline division                   | 1971                             |                          | 1977                             |                          | Percentage point change |
|---------------------------------------|----------------------------------|--------------------------|----------------------------------|--------------------------|-------------------------|
|                                       | Total bachelor's degrees awarded | Percent awarded to women | Total bachelor's degrees awarded | Percent awarded to women |                         |
| All discipline divisions              | 846,110                          | 43.4                     | 928,256                          | 46.2                     | 2.8                     |
| Agriculture and natural resources     | 12,710                           | 4.2                      | 21,531                           | 22.2                     | 18.0                    |
| Architecture and environmental design | 5,578                            | 12.0                     | 9,252                            | 21.4                     | 9.4                     |
| Area studies                          | 2,497                            | 52.9                     | 2,970                            | 56.0                     | 3.1                     |
| Biological sciences                   | 36,033                           | 29.3                     | 54,193                           | 36.4                     | 7.1                     |
| Business and management               | 116,709                          | 9.3                      | 153,783                          | 23.6                     | 21.4                    |
| Communications                        | 10,802                           | 35.3                     | 23,221                           | 44.3                     | 30.4                    |
| Computer and information sciences     | 2,388                            | 13.6                     | 6,426                            | 23.9                     | 10.3                    |
| Education                             | 177,638                          | 74.4                     | 145,398                          | 72.2                     | - 2.2                   |
| Engineering                           | 50,357                           | .8                       | 49,677                           | 4.5                      | 3.7                     |
| Fine and applied arts                 | 30,447                           | 59.7                     | 42,102                           | 61.4                     | 1.7                     |
| Foreign languages                     | 20,433                           | 74.8                     | 14,302                           | 76.2                     | 1.4                     |
| Health professions                    | 25,484                           | 77.2                     | 57,845                           | 79.2                     | 2.0                     |
| Home economics                        | 11,271                           | 97.3                     | 17,567                           | 95.9                     | - 1.4                   |
| Law                                   | 545                              | 5.0                      | 559                              | 27.5                     | 22.5                    |
| Letters                               | 73,398                           | 61.0                     | 47,502                           | 56.7                     | - 4.3                   |
| Library science                       | 1,013                            | 92.0                     | 781                              | 90.9                     | - 1.1                   |
| Mathematics                           | 24,918                           | 38.1                     | 14,303                           | 41.6                     | 3.5                     |
| Military science                      | 357                              | .3                       | 992                              | .3                       | 0                       |
| Physical sciences                     | 21,549                           | 14.0                     | 22,618                           | 20.1                     | 6.1                     |
| Psychology                            | 38,154                           | 44.7                     | 47,794                           | 56.7                     | 12.0                    |
| Public affairs and services           | 9,303                            | 49.1                     | 36,745                           | 45.1                     | - .4                    |
| Social sciences                       | 156,698                          | 37.0                     | 118,322                          | 39.4                     | 2.6                     |
| Theology                              | 3,744                            | 27.2                     | 6,136                            | 25.7                     | - 1.5                   |
| Interdisciplinary studies             | 14,084                           | 29.2                     | 34,237                           | 47.0                     | 17.8                    |

ral resources, architecture and environmental design, business and management, computer and information sciences, engineering, law, military science, and physical sciences. In 1977, the women's percentages had risen to above 20 for all except two of these fields. The exceptions were engineering and military science.

The 1976 data, compared with the 1971 data, had indicated percentage point gains by women in all but 5 of the 24 fields. The "declining fields" (which actually declined by only trivial amounts) were: education, home economics, letters, and public affairs and services. (Military science was unchanged at zero percent.) It is evident that these "declining fields" are the ones that are generally regarded as women's fields. The 1977 data show that these same fields continued their slight decline and that two others also declined trivially: library science (1.1 percent) and theology (1.5 percent).

The 1977 data, like the 1976 data, reveal an inverse relationship between the size of the women's representation in 1971 and the amount of gain evident in the later year. In the tabulation below, the fields have been grouped on the basis of percentage representation of women in 1971, and the average percentage point change evident in 1977 is shown for each group. It is quite apparent that women are continuing to make their greatest gains in those fields in which traditionally they have been least represented. In contrast, they show minimal decreases or no change, in their representation in the traditionally female fields.

| Women's percentage representation in 1971 | Discipline division   | Average percentage point change in 1977 |
|---|---|---|
| 80 - 99                                   | Home economics, library science   | -1.2                                    |
| 60 - 79                                   | Education, foreign languages, health professions, letters   | - .7                                    |
| 40 - 59                                   | Area studies, fine and applied arts, psychology, public affairs and services  | 3.2                                     |
| 20 - 39                                   | Biological sciences, communications, interdisciplinary studies, mathematics, social sciences, theology  | 9.9                                     |
| 0 - 19                                    | Agriculture and natural resources, architecture and environmental design, business and management, computer and information sciences, engineering, law, military science, physical sciences | 11.4                                    |



## Relative Popularity of Different Fields

The previous section examined the extent to which women were represented among all of the bachelor's degree recipients in each field. In this section, we shall consider all women degree recipients and examine their distribution across fields of study (see table 2) for indications of the relative popularity among women of the various bachelor's degree fields. For comparison purposes, table 2 also includes 1971 data for women, and both 1971 and 1977 data for men.

It is evident in table 2 that education continues to be the most popular field for women. It accounted for 25 percent of all bachelor's degrees awarded to women in 1977, down from 36 percent in 1971. This decline is a continuation of that evident in our earlier report. The continuing slump in the market demand for teachers is probably a significant factor in this decline.

In 1971 the six top ranking fields for women accounted for about 79 percent of women's degrees. In 1977, the corresponding percentage was 67 (it was 68 in 1976). Thus, there is a slow, but continuing, increase in the diversification of women's fields of study. It is interesting to note that business and management ranked 4th in the 1977 data, as compared with 9th position in the 1971 data.

Looking at the data for men in table 2, we see that business and management was the most popular field both in 1971 and 1977, accounting for 22.1 percent and 23.5 percent, respectively. The second most popular field for men, in 1977, was social sciences, which accounted for 14.4 percent of the men's degrees, down from 20.6 percent in 1971.

The six top ranking fields for men in 1977 accounted for 66.5 percent of all degrees awarded to men. The corresponding figure for women was 67.1 percent. It is clear that, on the basis of this index, men and women are essentially equal with regard to their extent of diversification across fields of study.



Table 2.--Distribution of bachelor's degrees, by sex and discipline division:  
Aggregate United States, 1971 and 1977

| Discipline division                   | Percentage of degrees awarded to: |       |      |       |
|---------------------------------------|-----------------------------------|-------|------|-------|
|                                       | Women                             |       | Men  |       |
|                                       | 1971                              | 1977  | 1971 | 1977  |
| All discipline divisions              | 99.6                              | 100.2 | 99.7 | 100.0 |
| Agriculture and natural resources     | .1                                | 1.1   | 2.5  | 3.4   |
| Architecture and environmental design | .2                                | .5    | 1.0  | 1.5   |
| Area studies                          |                                   | .4    |      | .3    |
| Biological sciences                   | 2.9                               | 4.6   | 5.3  | 6.9   |
| Business and management               | 2.9                               | 8.4   | 22.1 | 23.5  |
| Communications                        | 1.0                               | 2.4   | 1.5  | 2.6   |
| Computer and information sciences     |                                   | .4    | .4   | 1.0   |
| Education                             | 36.0                              | 24.5  | 9.5  | 8.1   |
| Engineering                           | .1                                | .5    | 10.6 | 9.5   |
| Fine and applied arts                 | 4.9                               | 6.0   | 2.6  | 3.3   |
| Foreign languages                     | 4.2                               | 2.5   | 1.1  | .7    |
| Health professions                    | 5.4                               | 10.7  | 1.2  | 2.4   |
| Home economics                        | 3.0                               | 3.9   | .1   | .1    |
| Law                                   | (*)                               | (*)   | .1   | .1    |
| Letters                               | 12.2                              | 6.3   | 6.0  | 4.1   |
| Library science                       | .3                                | .2    | (*)  | (*)   |
| Mathematics                           | 2.6                               | 1.4   | 3.2  | 1.7   |
| Military science                      | (*)                               | (*)   | .1   | .2    |
| Physical sciences                     | .8                                | 1.1   | 3.9  | 3.6   |
| Psychology                            | 4.6                               | 1.3   | 4.4  | 4.1   |
| Public affairs and services           | 1.2                               | 3.9   | 1.0  | 4.0   |
| Social sciences                       | 15.8                              | 10.9  | 20.6 | 14.4  |
| Theology                              | .3                                | .4    | .6   | .9    |
| Interdisciplinary studies             | 1.1                               | 3.8   | 2.1  | 3.6   |

\*Less than .05 percent.

NOTE.--Totals may not add to 100.0 percent because of rounding.

## Chapter III

### MASTER'S DEGREES

#### Overview

In 1971, 231,486 master's degrees were awarded in the United States; 40.1 percent of these were awarded to women. In 1977, 318,241 master's degrees were awarded, and the women's percentage had grown to 47.1 percent (up slightly from 46.4 percent in the previous year). The year-by-year data, presented in appendix B, reveal that the women's percentage of master's degree recipients increased every year between 1971 and 1977.

#### Field of Study

Table 3 shows the total number of master's degrees awarded and the percentage awarded to women in each of 24 discipline divisions for 1971 and 1977. This table also shows the change in percentage points for each of the 24 fields.

Table 3 shows that women's percentage representation increased between 1971 and 1977 in all but 4 of the 24 fields. The exceptions were: home economics (-2.8 percent); library science (-1.7 percent); public affairs and services (-3.3 percent); and biological sciences which remained unchanged at 33.8 percent.

The 1971 data showed women predominating in six fields: education, foreign languages, health professions, home economics, letters, and library science. The 1977 data, like the 1976 data, showed women still predominating in the same six fields plus one additional field: fine and applied arts. All of these fields have traditionally been regarded as women's fields. With the exception of health professions, none of them would appear to offer good prospects for employment today.

Although women continue to predominate in the same fields, it is of interest to examine the pattern of increases and decreases among the 24 fields. Are the increases concentrated in the traditionally female fields or elsewhere?

Table 3.—Percentage of women among master's degree recipients, by discipline division: Aggregate United States, 1971 and 1977

| Discipline division                   | 1971                           |                          | 1977                           |                          | Percentage point change |
|---------------------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|-------------------------|
|                                       | Total master's degrees awarded | Percent awarded to women | Total master's degrees awarded | Percent awarded to women |                         |
| All discipline divisions              | 231,486                        | 40.1                     | 318,241                        | 47.1                     | 7.0                     |
| Agriculture and natural resources     | 2,458                          | 5.9                      | 3,735                          | 14.6                     | 8.7                     |
| Architecture and environmental design | 1,724                          | 14.1                     | 3,219                          | 22.5                     | 8.4                     |
| Area studies                          | 1,017                          | 39.0                     | 989                            | 46.9                     | 7.9                     |
| Biological sciences                   | 5,756                          | 33.8                     | 7,154                          | 33.8                     | 0                       |
| Business and management               | 26,654                         | 3.9                      | 46,650                         | 14.3                     | 10.4                    |
| Communications                        | 1,856                          | 34.6                     | 3,092                          | 44.4                     | 9.8                     |
| Computer and information sciences     | 1,588                          | 10.3                     | 2,793                          | 16.7                     | 6.4                     |
| Education                             | 89,067                         | 52.2                     | 126,730                        | 65.8                     | 13.6                    |
| Engineering                           | 16,457                         | 1.1                      | 16,251                         | 4.4                      | 3.3                     |
| Fine and applied arts                 | 6,678                          | 47.4                     | 8,638                          | 51.2                     | 3.8                     |
| Foreign languages                     | 4,779                          | 65.4                     | 3,178                          | 69.5                     | 4.1                     |
| Health professions                    | 5,902                          | 55.4                     | 13,092                         | 67.9                     | 12.5                    |
| Home economics                        | 1,453                          | 93.9                     | 2,340                          | 91.1                     | -2.8                    |
| Law                                   | 955                            | 4.8                      | 1,574                          | 13.2                     | 8.4                     |
| Letters                               | 12,743                         | 57.5                     | 10,495                         | 59.5                     | 2.0                     |
| Library science                       | 7,028                          | 81.3                     | 7,592                          | 79.6                     | -1.7                    |
| Mathematics                           | 5,201                          | 29.3                     | 3,698                          | 35.1                     | 5.8                     |
| Military science                      | 2                              | 0                        | 43                             | 2.3                      | 2.3                     |
| Physical sciences                     | 6,386                          | 13.4                     | 5,345                          | 16.6                     | 3.2                     |
| Psychology                            | 4,438                          | 37.2                     | 8,320                          | 48.1                     | 10.9                    |
| Public affairs and services           | 8,406                          | 48.8                     | 19,696                         | 45.5                     | -3.3                    |
| Social sciences                       | 16,522                         | 28.3                     | 15,489                         | 32.9                     | 4.4                     |
| Theology                              | 2,710                          | 24.4                     | 3,625                          | 31.4                     | 7.0                     |
| Interdisciplinary studies             | 1,706                          | 35.2                     | 4,498                          | 37.1                     | 1.9                     |

To answer this question, the various fields<sup>1/</sup> were grouped on the basis of women's percentage representation in 1971, and the average change in women's percentage representation was computed for each. The results were as follows:

| Women's percentage representation in 1971 | Discipline division   | Average percentage point change in 1977 |
|---|---|---|
| 80 - 99                                   | Home economics, library science   | -2.2                                    |
| 60 - 79                                   | Foreign languages   | 4.1                                     |
| 40 - 59                                   | Education, fine and applied arts, health professions, letters, public affairs and services  | 5.7                                     |
| 20 - 39                                   | Area studies, biological sciences, communications, mathematics, psychology, social sciences, theology, interdisciplinary studies                          | 5.9                                     |
| 0 - 19                                    | Agriculture and natural resources, architecture and environmental resources, business and management, computer and information sciences, engineering, law | 7.0                                     |

It is clear that the traditionally feminine fields of home economics and library science showed minute declines. There appears to be a slight tendency for women's percentage representation to have increased most in those fields

<sup>1/</sup> Military science was omitted from these calculations because of its extremely small size. There were 2 degrees in this field in 1971 and 43 in 1977.

where, in 1971, they had a rather small representation. This tendency is not <sup>2/</sup> as marked in this chart as it was in the analogous chart in the earlier report.

#### Relative Popularity of Different Fields

Table 4 shows how the master's degrees awarded to women were distributed across the various fields, both in 1971 and 1977. For comparison purposes, analogous data are presented for men.

As has been true for many years, education continues to be the most popular fields for women, by far. It accounted for more than half the master's degrees awarded to women in both of the years being examined. (It was 53.8 percent in 1971, and 55.6 percent in 1977.) No other field accounted for more than 8 percent of the total. Thus, women are still highly concentrated in the education field in spite of the relatively poor job market for teachers. It should be noted, however, that for men, too, education is the most popular field for master's degrees.

It appears, from table 4, that men are somewhat more diversified than women in their choice of degree fields. For men, the second most popular field is business and management, which is almost as popular as education (approximately 24 percent vs. 26 percent). For the women, there are only three fields which account for more than 5 percent representation; while for the men, there are five such fields.

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<sup>2/</sup> George H. Brown, Master's Degree Awards to Women, U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, NCES 78-336C.



Table 4.--Distribution of master's degrees, by sex and discipline division:  
Aggregate United States, 1971 and 1977

| Discipline division                   | Percentage of degrees awarded to: |       |       |       |
|---------------------------------------|-----------------------------------|-------|-------|-------|
|                                       | Women                             |       | Men   |       |
|                                       | 1971                              | 1977  | 1971  | 1977  |
| All discipline divisions              | 99.9                              | 100.0 | 100.0 | 100.0 |
| Agriculture and natural resources     | .2                                | .4    | 1.7   | 1.9   |
| Architecture and environmental design | .3                                | .5    | 1.1   | 1.5   |
| Area studies                          | .4                                | .3    | .4    | .3    |
| Biological sciences                   | 2.1                               | 1.6   | 2.8   | 2.8   |
| Business and management               | 1.1                               | 4.5   | 18.5  | 23.8  |
| Communications                        | .7                                | .9    | .9    | 1.0   |
| Computer and information sciences     | .2                                | .3    | 1.0   | 1.4   |
| Education                             | 53.8                              | 55.6  | 28.2  | 25.7  |
| Engineering                           | .2                                | .5    | 11.7  | 9.2   |
| Fine and applied arts                 | 3.4                               | 2.9   | 2.5   | 2.5   |
| Foreign languages                     | 3.4                               | 1.5   | 1.2   | .6    |
| Health professions                    | 3.5                               | 5.9   | 1.0   | 2.5   |
| Home economics                        | 1.5                               | 1.4   | .1    | .1    |
| Law                                   | (*)                               | .1    | .7    | .8    |
| Letters                               | 7.9                               | 4.2   | 3.9   | 2.5   |
| Library science                       | 6.1                               | 4.0   | .9    | .9    |
| Mathematics                           | 1.6                               | .9    | 2.7   | 1.4   |
| Military science                      | 0                                 | 0     | (*)   | (*)   |
| Physical sciences                     | .9                                | .6    | 4.0   | 2.7   |
| Psychology                            | 1.8                               | 2.7   | 2.0   | 2.6   |
| Public affairs and services           | 4.4                               | 6.0   | 3.1   | 6.4   |
| Social sciences                       | 5.1                               | 3.4   | 8.5   | 6.2   |
| Theology                              | .7                                | .8    | 1.5   | 1.5   |
| Interdisciplinary studies             | .6                                | 1.1   | .8    | 1.7   |

\*Less than .05 percent.

NOTE.--Totals may not add to 100.0 percent because of rounding.

## Chapter IV

### DOCTORAL DEGREES

#### Overview

In 1971, the total number of doctoral degrees awarded in the United States was 32,113 of which 14.3 percent were awarded to women. Seven years later, in 1977, the total number of doctoral degrees awarded was up slightly, to 33,244 and the women's percentage was up to 24.3 percent, a gain of 10 percentage points.

The year-by-year data, (see table 5 and appendix C), show that the women's percentage representation increased every year between 1971 and 1977. However, women still account for only about one-fourth of all doctoral degrees awarded, although, at the bachelor's and the master's degree levels, they account for almost one-half.

It is also interesting to note that the absolute number of women doctoral degree recipients increased each year between 1971 and 1977. With respect to men, the absolute number of recipients fluctuated somewhat but was appreciably smaller in 1977 than in 1971 (25,150 vs. 27,534).

#### Field of Study

Table 5 shows, by discipline division, the total number of doctoral degrees awarded and the percentage of these that were awarded to women, for the years 1971 and 1977.

The 1971 data indicate that women predominated in only one field: home economics, where they accounted for 61 percent of the doctoral degrees. The 1977 data show the women predominating in three fields: foreign languages (51.5 percent); home economics (77.0 percent); and library science (53.3 percent). All of these are generally regarded as women's fields and, it might be noted, these are very small fields in terms of number of degrees awarded. The three fields together accounted for only 987 doctoral degrees in 1977 (men and women combined), out of a grand total of 33,244 degrees.

Again, as with the 1976 data, we find at least nominal increases in women's



Table 5.--Percentage of women among doctoral degree recipients, by discipline division: Aggregate United States, 1971 and 1977

| Discipline division                   | 1971                           |                          | 1977                           |                          | Percentage point gain |
|---------------------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|-----------------------|
|                                       | Total doctoral degrees awarded | Percent awarded to women | Total doctoral degrees awarded | Percent awarded to women |                       |
| All discipline divisions              | 32,113                         | 14.3                     | 33,244                         | 24.3                     | 10.0                  |
| Agriculture and natural resources     | 1,086                          | 2.9                      | 893                            | 6.9                      | 4.0                   |
| Architecture and environmental design | 36                             | 8.3                      | 73                             | 15.1                     | 6.8                   |
| Area studies                          | 149                            | 17.4                     | 153                            | 32.0                     | 14.6                  |
| Biological sciences                   | 3,645                          | 16.3                     | 3,403                          | 21.4                     | 5.1                   |
| Business and management               | 810                            | 2.8                      | 869                            | 6.3                      | 3.5                   |
| Communications                        | 145                            | 13.1                     | 171                            | 24.0                     | 10.9                  |
| Computer and information sciences     | 128                            | 2.3                      | 216                            | 8.8                      | 6.5                   |
| Education                             | 6,398                          | 21.2                     | 7,955                          | 34.8                     | 13.6                  |
| Engineering                           | 3,638                          | .6                       | 2,586                          | 2.8                      | 2.2                   |
| Fine and applied arts                 | 621                            | 22.2                     | 662                            | 32.5                     | 10.3                  |
| Foreign languages                     | 781                            | 38.0                     | 752                            | 51.5                     | 13.5                  |
| Health professions                    | 466                            | 16.5                     | 538                            | 32.0                     | 15.5                  |
| Home economics                        | 123                            | 61.0                     | 160                            | 77.0                     | 16.0                  |
| Law                                   | 20                             | 0                        | 60                             | 13.3                     | 13.3                  |
| Letters                               | 2,416                          | 23.5                     | 2,202                          | 38.2                     | 14.7                  |
| Library science                       | 39                             | 28.2                     | 75                             | 53.3                     | 25.1                  |
| Mathematics                           | 1,199                          | 7.8                      | 823                            | 13.2                     | 5.4                   |
| Physical sciences                     | 4,391                          | 5.6                      | 3,344                          | 9.6                      | 4.0                   |
| Psychology                            | 1,782                          | 24.0                     | 2,761                          | 35.9                     | 11.9                  |
| Public affairs and services           | 178                            | 24.2                     | 335                            | 32.8                     | 8.6                   |
| Social sciences                       | 3,659                          | 13.9                     | 3,784                          | 22.1                     | 8.2                   |
| Theology                              | 312                            | 1.9                      | 1,125                          | 2.8                      | .9                    |
| Interdisciplinary studies             | 91                             | 15.4                     | 304                            | 30.6                     | 15.2                  |

percentage representation in 23 fields. The largest percentage point gain (25.1) occurred in library science which, as was noted above, is a traditionally women's field. Substantial percentage point gains are also apparent in home economics (16.0); health professions (15.5); and area studies (14.6). To better discern any overall trends with regard to the pattern of increases and decreases, the 23 fields<sup>1/</sup> were grouped on the basis of the women's percentage representation in 1971, and the average gain in percentage points evident in 1977 was calculated for each group. This resulted in the following tabulation.

| Women's percentage representation in 1971 | Number of disciplines | Average percentage point gain in 1977 |
|---|-----------------------|---------------------------------------|
| 30 or more                                | 2                     | 14.7                                  |
| 20 - 29.9                                 | 6                     | 14.0                                  |
| 10 - 19.9                                 | 6                     | 11.6                                  |
| Less than 10                              | 9                     | 6.2                                   |

With respect to doctoral degrees, women are making their greatest gains, in terms of percentage representation, in those fields where they have traditionally been most numerous. It is evident that the smaller their representation in 1971, the smaller their percentage point gain in 1977. This is the exact opposite of the relationship observed with respect to the bachelor's and master's degree data. It may be conjectured that the complex sociocultural forces which are influencing women to enter nontraditional fields of study have not been operating long enough to be manifest at the highest degree levels. If this is so, then the trends already observed at the bachelor's and master's degree levels may soon be evident at the doctoral degree level.

Relative Popularity of Different Fields

The distribution of women's doctoral degrees across discipline divisions in

<sup>1/</sup> Military science was omitted from these calculations because no degrees were awarded in this field in 1977.

1971 and in 1977 is shown in table 6. For comparison purposes, similar data are presented for men.

The most popular field for both women and men, for both years being examined, is education, which accounted for one-third of the women's doctorates in 1977 and one-fifth of the men's. The second most popular field for women was psychology at 12.2 percent. The only other fields which accounted for at least 10 percent of the women's doctorates were: letters (10.4 percent) and social sciences (10.3 percent).

The top six fields for women in 1977 were the same favorites as had been shown in the 1971 data. These six fields - education, psychology, letters, social sciences, biological sciences, and foreign languages - accounted for approximately 80 percent of all doctoral degrees awarded to women.

The data for men are not radically different. Four fields - biological sciences, education, letters, and social sciences - appeared among the top six fields for both men and women. The other two fields were engineering and physical sciences which are far more popular with men, while foreign languages and letters are more popular with women.

Table 6.--Distribution of doctoral degrees, by sex and discipline division:  
Aggregate United States, 1971 and 1977

| Discipline division                   | Percentage of degrees awarded to: |      |       |      |
|---------------------------------------|-----------------------------------|------|-------|------|
|                                       | Women                             |      | Men   |      |
|                                       | 1971                              | 1977 | 1971  | 1977 |
| All discipline divisions              | 100.0                             | 99.9 | 100.0 | 99.7 |
| Agriculture and natural resources     | (*)                               | .8   | 3.8   | 3.3  |
| Architecture and environmental design | (*)                               | .1   | (*)   | .2   |
| Area studies                          | (*)                               | .6   | (*)   | .4   |
| Biological sciences                   | 13.0                              | 9.0  | 11.1  | 10.6 |
| Business and management               | (*)                               | .7   | (*)   | 3.2  |
| Communications                        | (*)                               | .5   | (*)   | .5   |
| Computer and information sciences     | (*)                               | .2   | (*)   | .8   |
| Education                             | 29.6                              | 34.2 | 18.3  | 20.6 |
| Engineering                           | (*)                               | .9   | 13.1  | 10.0 |
| Fine and applied arts                 | 3.0                               | 2.7  | 1.7   | 1.8  |
| Foreign languages                     | 6.4                               | 4.8  | 1.7   | 1.5  |
| Health professions                    | 1.7                               | 2.1  | 1.4   | 1.5  |
| Home economics                        | 1.6                               | 1.5  | (*)   | .1   |
| Law                                   | 0                                 | .1   | (*)   | .2   |
| Letters                               | 12.4                              | 10.4 | 6.7   | 5.4  |
| Library science                       | (*)                               | .5   | (*)   | .1   |
| Mathematics                           | 2.0                               | 1.3  | 4.0   | 2.8  |
| Physical sciences                     | 5.3                               | 4.0  | 15.0  | 12.0 |
| Psychology                            | 9.3                               | 12.2 | 4.9   | 7.0  |
| Public affairs and services           | (*)                               | 1.4  | (*)   | .9   |
| Social sciences                       | 11.0                              | 10.3 | 11.4  | 11.7 |
| Theology                              | (*)                               | .5   | 1.0   | 4.3  |
| Interdisciplinary studies             | (*)                               | 1.1  | (*)   | .8   |

(\*) Less than 0.5 percent.

NOTE.--Totals may not add to 100.0 percent because of rounding.

## Chapter V

### FIRST PROFESSIONAL DEGREES

#### Overview

A first professional degree is defined as one which meets all three of the following criteria:

(1) it signifies completion of the academic requirements to begin practice in the profession; (2) it is based on a program which requires at least 2 years of college work prior to entrance; and (3) a total of at least 6 academic years of college work is required to complete the degree program, including prior required college work plus the length of the professional curriculum itself. This chapter examines changes which took place between 1971 and 1977 in the representation of women among recipients of first professional degrees. Degree award data for the years 1972 through 1977 are presented in appendix D.

Traditionally, NCES has collected data on degree awards in eight professions: dentistry, medicine, optometry, osteopathic medicine, podiatry, veterinary medicine, law, and theology. The small number of degrees awarded in other professions were grouped into an "other" category. Starting in 1976, pharmacy and chiropractic were removed from the "other" category and given individual reporting status. It is obviously not possible to include these two professions when comparing the data for 1971 and 1977.

#### Field of Study

Table 7 shows the percentage representation of women among first professional degree recipients in 1971 and 1977, and also shows the changes in percentage points between these two years. Again, as was the case with the 1971-76 comparison in a previous report, at least modest gains in women's percentage representation are evident in all eight fields in which trends can be examined. Women are still a distinct minority in all of the fields, however. They are most highly represented in pharmacy (27.5 percent); veterinary medicine (22.8 percent); law (22.5 percent); and medicine (19.2 percent).

Perhaps it should be pointed out that the pharmacy degree referred to in table 7 is the Doctor of Pharmacy which entitles the recipient to immediately take the licensing examination and enter the profession. A total of only 527 Doctor of Pharmacy degrees were awarded in 1977. The vast majority of pharmacists enter the profession by a different route. They first obtain a bachelor's degree in pharmacy, and then serve one year as an apprentice before being eligible to take the licensing examination. In 1977, a total of 7,702 bachelor's degrees in pharmacy were awarded, of which 33.5 percent were awarded to women.

Table 7.--Percentage of women among first professional degree recipients, by field of study: Aggregate United States, 1971 and 1977

| Field                                    | 1971                                     |                          | 1977                                     |                          |                         |
|--|--|--------------------------|--|--------------------------|-------------------------|
|  | Total first professional degrees awarded | Percent awarded to women | Total first professional degrees awarded | Percent awarded to women | Percentage point change |
| Total                                    | 38,276                                   | 6.5                      | 64,807                                   | 18.7                     | 12.2                    |
| Chiropractic (D.C.)                      |  |                          | 1,368                                    | 8.5                      |                         |
| Dentistry (D.D.S. or D.M.D.)             | 3,777                                    | 1.2                      | 5,187                                    | 7.4                      | 6.2                     |
| Law, general (L.L.B. or J.D.)            | 17,652                                   | 7.3                      | 34,390                                   | 22.5                     | 15.2                    |
| Medicine (M.D.)                          | 8,986                                    | 9.2                      | 13,574                                   | 19.2                     | 10.0                    |
| Optometry (O.D.)                         | 531                                      | 2.4                      | 953                                      | 11.0                     | 8.6                     |
| Osteopathic medicine (D.O.)              | 472                                      | 2.3                      | 852                                      | 8.8                      | 6.5                     |
| Pharmacy (D. Pharm.)                     |  |                          | 527                                      | 27.5                     |                         |
| Podiatry or podiatric medicine (Pod. D.) | 240                                      | 2.1                      | 486                                      | 3.3                      | 1.2                     |
| Theological professions, general         | 5,055                                    | 2.3                      | 5,861                                    | 9.5                      | 7.2                     |
| Veterinary medicine (D.V.M.)             | 1,252                                    | 7.8                      | 1,586                                    | 22.8                     | 15.0                    |
| Other                                    | 311                                      | 21.2                     | 23                                       | 47.8                     | 26.6                    |



It is clear that via both routes, women are becoming increasingly prominent in the profession of pharmacy.

Disregarding the small "other" category in table 7, it is evident that women made their largest gains in percentage representation in veterinary medicine (15) and medicine (10). They now account for roughly one-fifth of all degrees awarded in each of these fields.

For the years 1971-1977, NCES collected data regarding the number of first year enrollments in first professional fields. These data, some of which were presented in an earlier report,<sup>1/</sup> show that women's percentage representations among first-year enrollments increased every year during this period, in almost all of these fields. (Minor exceptions to this generalization occurred with respect to podiatry and optometry, although here, too, the trend was distinctly upward.) It, therefore, seems likely the women's percentage representation among degree recipients will continue to increase at least for the next few years.

#### Relative Popularity of Different Fields

The distributions of women's first professional degrees across fields, for both 1971 and 1977, are shown in table 8 with comparable data for men.

Looking first at the women's data, we see that law is by far the most popular field, accounting for 63.9 percent of all the women's first professional degrees in 1977. Law is up about 12 percentage points from its value in the 1971 data, but up only .4 percentage points from 1976. The only other field which accounted for a substantial fraction of the women's degrees is medicine, at 21.4 percent, down about 12 percentage points from its 1971 value. Clearly, law is increasing in relative popularity while medicine is declining. (This, incidentally, is the same conclusion drawn in the earlier published report.)

Law and medicine together account for 85 percent of all first professional degrees awarded to women. (The corresponding value evident in the 1976 data was 86 percent.) The other fields account for quite small percentages of first professional degrees awarded to women. Pharmacy accounts for only 1.2 percent,

<sup>1/</sup>

Brown, George H., First Professional Degree Awards to Women, U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, NCES 78-336D.



Table 8.--Distribution of first professional degrees, by sex and field of study: Aggregate United States, 1971 and 1977

| Field                                    | Percentage of degrees awarded to: |       |       |       |
|--|-----------------------------------|-------|-------|-------|
|  | Women                             |       | Men   |       |
|  | 1971                              | 1977  | 1971  | 1977  |
| Total                                    | 100.0                             | 100.0 | 100.0 | 100.0 |
| Chiropractic (D.C.)                      | -                                 | 1.0   | -     | 2.4   |
| Dentistry (D.D.S. or D.M.D.)             | 1.8                               | 3.2   | 10.4  | 9.1   |
| Law, general (L.L.B. or J.D.)            | 52.2                              | 63.9  | 45.7  | 50.6  |
| Medicine (M.D.)                          | 33.4                              | 21.4  | 22.8  | 20.8  |
| Optometry (O.D.)                         | .5                                | .9    | 1.4   | 1.6   |
| Osteopathic medicine (D.O.)              | .4                                | .6    | 1.3   | 1.5   |
| Pharmacy (D. Pharm.)                     | -                                 | 1.2   | -     | .7    |
| Podiatry or podiatric medicine (Pod. D.) | .2                                | .1    | .7    | .9    |
| Theological professions, general         | 4.8                               | 4.6   | 13.8  | 10.1  |
| Veterinary medicine (D.V.M.)             | 4.0                               | 3.0   | 3.2   | 2.3   |
| Other                                    | 2.7                               | .1    | .7    | 0     |

NOTE.--Absence of data is denoted by -.

which might seem a bit surprising in view of the fact that women accounted for 27.5 percent of all Doctor of Pharmacy degrees. The explanation lies in the fact that the total number of first professional degrees awarded in pharmacy was quite small: 527.

Now, looking at the men's data in table 8, we see they are not greatly different from the women's. With both sexes, the three top ranking fields are law, medicine, and theology, in that order. It appears that in choosing a profession, women are more attracted to law than are men, while men are more attracted to dentistry than are women.

Law and medicine together account for 71.4 percent of the men's first professional degrees. The corresponding value for women was 85.3 percent. Thus, it appears that men are somewhat more diversified than women in their choice of field of professional training.

APPENDIXES

Appendix A.--Percentage of women among bachelor's degree

| Discipline division                   | 1971-72                          |                          | 1972-73                          |                          |
|---------------------------------------|----------------------------------|--------------------------|----------------------------------|--------------------------|
|                                       | Total bachelor's degrees awarded | Percent awarded to women | Total bachelor's degrees awarded | Percent awarded to women |
| All discipline divisions              | 894,110                          | 43.7                     | 930,272                          | 43.9                     |
| Agriculture and natural resources     | 13,560                           | 5.5                      | 14,819                           | 7.4                      |
| Architecture and environmental design | 6,452                            | 12.0                     | 6,980                            | 13.2                     |
| Area studies                          | 2,797                            | 52.5                     | 3,080                            | 52.3                     |
| Biological sciences                   | 37,638                           | 29.6                     | 42,672                           | 30.1                     |
| Business and management               | 123,306                          | 9.7                      | 128,244                          | 10.8                     |
| Communications                        | 12,340                           | 35.5                     | 14,317                           | 36.6                     |
| Computer and information sciences     | 3,402                            | 13.6                     | 4,305                            | 14.9                     |
| Education                             | 192,368                          | 74.1                     | 195,640                          | 73.5                     |
| Engineering                           | 51,465                           | 1.0                      | 51,613                           | 1.2                      |
| Fine and applied arts                 | 33,886                           | 59.9                     | 36,109                           | 60.4                     |
| Foreign languages                     | 19,359                           | 75.1                     | 19,502                           | 76.0                     |
| Health professions                    | 28,893                           | 75.7                     | 33,932                           | 77.0                     |
| Home economics                        | 12,165                           | 96.5                     | 13,640                           | 96.3                     |
| Law                                   | 503                              | 6.6                      | 474                              | 8.4                      |
| Letters                               | 73,556                           | 60.1                     | 71,298                           | 58.9                     |
| Library science                       | 989                              | 93.3                     | 1,160                            | 94.4                     |
| Mathematics                           | 23,848                           | 39.1                     | 23,223                           | 40.2                     |
| Military science                      | 379                              | 0                        | 272                              | 0                        |
| Physical sciences                     | 20,887                           | 15.1                     | 20,809                           | 15.0                     |
| Psychology                            | 43,421                           | 46.4                     | 48,096                           | 47.8                     |
| Public affairs and services           | 12,746                           | 47.9                     | 18,009                           | 46.9                     |
| Social sciences                       | 159,594                          | 36.3                     | 157,702                          | 36.3                     |
| Theology                              | 3,882                            | 27.8                     | 3,548                            | 25.7                     |
| Interdisciplinary studies             | 16,674                           | 31.1                     | 20,810                           | 34.1                     |

recipients, by discipline division: 1971-72 through 1976-77

| 1973-74                          |                          | 1974-75                          |                          | 1975-76                          |                          | 1976-77                          |                          |
|----------------------------------|--------------------------|----------------------------------|--------------------------|----------------------------------|--------------------------|----------------------------------|--------------------------|
| Total bachelor's degrees awarded | Percent awarded to women | Total bachelor's degrees awarded | Percent awarded to women | Total bachelor's degrees awarded | Percent awarded to women | Total bachelor's degrees awarded | Percent awarded to women |
| 954,376                          | 44.4                     | 931,663                          | 45.4                     | 934,443                          | 45.6                     | 928,256                          | 46.2                     |
| 16,303                           | 9.7                      | 17,573                           | 14.1                     | 19,460                           | 18.3                     | 21,531                           | 22.2                     |
| 7,840                            | 14.8                     | 8,238                            | 17.4                     | 9,169                            | 19.2                     | 9,252                            | 21.4                     |
| 3,203                            | 54.3                     | 3,066                            | 55.1                     | 3,111                            | 55.5                     | 2,970                            | 56.0                     |
| 48,856                           | 31.5                     | 52,236                           | 33.3                     | 54,913                           | 34.8                     | 54,193                           | 36.4                     |
| 133,905                          | 13.1                     | 135,455                          | 16.4                     | 145,035                          | 19.8                     | 153,783                          | 23.6                     |
| 17,096                           | 38.4                     | 19,249                           | 40.5                     | 21,282                           | 41.5                     | 23,221                           | 44.3                     |
| 4,757                            | 16.4                     | 5,039                            | 19.0                     | 5,664                            | 19.8                     | 6,426                            | 23.9                     |
| 186,623                          | 73.5                     | 168,749                          | 73.3                     | 156,528                          | 72.8                     | 145,398                          | 72.2                     |
| 50,693                           | 1.6                      | 47,303                           | 2.2                      | 46,717                           | 3.2                      | 49,677                           | 4.5                      |
| 40,016                           | 60.2                     | 41,061                           | 61.9                     | 42,371                           | 60.9                     | 42,102                           | 61.3                     |
| 19,479                           | 76.4                     | 18,172                           | 77.0                     | 15,587                           | 76.4                     | 14,302                           | 76.2                     |
| 41,869                           | 77.4                     | 49,476                           | 77.8                     | 54,339                           | 78.8                     | 57,845                           | 79.2                     |
| 15,433                           | 96.4                     | 16,873                           | 96.0                     | 17,523                           | 95.9                     | 17,567                           | 95.9                     |
| 494                              | 10.5                     | 436                              | 14.2                     | 531                              | 18.8                     | 559                              | 27.5                     |
| 65,325                           | 58.0                     | 57,933                           | 57.3                     | 52,292                           | 56.9                     | 47,502                           | 56.7                     |
| 1,164                            | 92.6                     | 1,069                            | 92.5                     | 843                              | 93.1                     | 781                              | 90.9                     |
| 21,813                           | 41.0                     | 18,346                           | 42.0                     | 16,085                           | 40.7                     | 14,303                           | 41.6                     |
| 328                              | 0.3                      | 390                              | 0                        | 1,206                            | 0.2                      | 992                              | .3                       |
| 21,287                           | 16.6                     | 20,896                           | 18.4                     | 21,559                           | 19.2                     | 22,618                           | 20.1                     |
| 52,256                           | 50.5                     | 51,436                           | 52.7                     | 50,363                           | 54.4                     | 47,794                           | 56.7                     |
| 24,264                           | 43.5                     | 28,597                           | 45.6                     | 33,592                           | 43.7                     | 36,745                           | 45.1                     |
| 152,203                          | 36.6                     | 136,773                          | 37.4                     | 127,936                          | 37.9                     | 118,322                          | 39.4                     |
| 4,231                            | 28.1                     | 4,818                            | 27.4                     | 5,537                            | 27.3                     | 6,136                            | 25.7                     |
| 24,938                           | 37.1                     | 28,479                           | 42.2                     | 32,800                           | 45.0                     | 34,237                           | 47.0                     |

Appendix B.--Percentage of women among master's degree

| Discipline Division                   | 1971-72                        |                          | 1972-73                        |                          |
|---------------------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|
|                                       | Total master's degrees awarded | Percent awarded to women | Total master's degrees awarded | Percent awarded to women |
| All discipline divisions              | 252,774                        | 40.6                     | 264,525                        | 41.4                     |
| Agriculture and natural resources     | 2,691                          | 7.1                      | 2,822                          | 7.9                      |
| Architecture and environmental design | 1,928                          | 14.6                     | 2,319                          | 15.7                     |
| Area studies                          | 978                            | 40.7                     | 1,032                          | 37.0                     |
| Biological sciences                   | 6,126                          | 33.1                     | 6,294                          | 30.6                     |
| Business and management               | 30,511                         | 3.9                      | 31,239                         | 4.9                      |
| Communications                        | 2,200                          | 34.4                     | 2,406                          | 35.7                     |
| Computer and information sciences     | 1,977                          | 11.4                     | 2,113                          | 10.6                     |
| Education                             | 98,280                         | 57.3                     | 105,646                        | 58.2                     |
| Engineering                           | 16,966                         | 1.6                      | 16,632                         | 1.7                      |
| Fine and applied arts                 | 7,540                          | 46.3                     | 7,254                          | 44.8                     |
| Foreign languages                     | 4,640                          | 65.1                     | 4,323                          | 64.3                     |
| Health professions                    | 7,361                          | 56.4                     | 8,504                          | 57.5                     |
| Home economics                        | 1,666                          | 92.7                     | 1,679                          | 90.7                     |
| Law                                   | 932                            | 5.8                      | 1,071                          | 7.5                      |
| Letters                               | 12,759                         | 57.7                     | 12,384                         | 57.1                     |
| Library science                       | 7,435                          | 79.9                     | 7,743                          | 78.1                     |
| Mathematics                           | 5,209                          | 29.8                     | 5,033                          | 29.9                     |
| Military science                      | 2                              | 0                        | 0                              | 0                        |
| Physical sciences                     | 6,307                          | 14.1                     | 6,274                          | 13.5                     |
| Psychology                            | 5,293                          | 38.4                     | 5,882                          | 40.2                     |
| Public affairs and services           | 9,608                          | 47.0                     | 11,190                         | 46.7                     |
| Social sciences                       | 17,469                         | 28.2                     | 17,361                         | 27.6                     |
| Theology                              | 2,755                          | 23.4                     | 2,778                          | 26.7                     |
| Interdisciplinary studies             | 2,143                          | 39.2                     | 2,546                          | 45.6                     |



recipients, by discipline division: 1971-72 through 1976-77

| 1973-74                        |                          | 1974-75                        |                          | 1975-76                        |                          | 1976-77                        |                          |
|--------------------------------|--------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|
| Total master's degrees awarded | Percent awarded to women | Total master's degrees awarded | Percent awarded to women | Total master's degrees awarded | Percent awarded to women | Total master's degrees awarded | Percent awarded to women |
| 278,259                        | 43.1                     | 293,651                        | 44.8                     | 313,001                        | 46.4                     | 318,241                        | 47.1                     |
| 2,939                          | 9.8                      | 3,076                          | 11.8                     | 3,351                          | 14.3                     | 3,735                          | 14.6                     |
| 2,733                          | 18.4                     | 2,953                          | 20.3                     | 3,215                          | 20.8                     | 3,219                          | 22.5                     |
| 1,142                          | 38.9                     | 1,140                          | 43.2                     | 945                            | 45.3                     | 989                            | 46.9                     |
| 6,581                          | 30.6                     | 6,591                          | 30.0                     | 6,621                          | 31.8                     | 7,154                          | 33.8                     |
| 32,820                         | 6.6                      | 36,450                         | 8.4                      | 42,728                         | 11.6                     | 46,650                         | 14.3                     |
| 2,642                          | 36.8                     | 2,796                          | 42.1                     | 3,128                          | 41.8                     | 3,092                          | 44.4                     |
| 2,276                          | 12.9                     | 2,299                          | 14.7                     | 2,603                          | 14.5                     | 2,798                          | 16.7                     |
| 112,739                        | 59.9                     | 120,233                        | 62.2                     | 128,410                        | 64.3                     | 126,730                        | 65.8                     |
| 15,385                         | 2.3                      | 15,359                         | 2.4                      | 16,349                         | 3.6                      | 16,251                         | 4.4                      |
| 8,001                          | 45.9                     | 8,363                          | 46.8                     | 8,820                          | 48.9                     | 8,638                          | 51.2                     |
| 3,991                          | 66.1                     | 3,826                          | 66.9                     | 3,541                          | 66.7                     | 3,178                          | 69.5                     |
| 9,741                          | 60.2                     | 10,842                         | 61.8                     | 12,696                         | 66.5                     | 13,092                         | 67.9                     |
| 1,869                          | 91.1                     | 1,901                          | 89.3                     | 2,187                          | 91.5                     | 2,340                          | 91.1                     |
| 1,181                          | 7.1                      | 1,245                          | 8.0                      | 1,442                          | 12.0                     | 1,574                          | 13.2                     |
| 12,165                         | 56.6                     | 11,873                         | 58.8                     | 11,356                         | 58.3                     | 10,495                         | 59.5                     |
| 8,185                          | 77.8                     | 8,123                          | 78.8                     | 8,084                          | 78.3                     | 7,592                          | 79.6                     |
| 4,840                          | 31.0                     | 4,338                          | 32.9                     | 3,863                          | 34.0                     | 3,698                          | 35.1                     |
| 0                              | 0                        | 0                              | 0                        | 0                              | 0                        | 43                             | 0                        |
| 6,087                          | 14.6                     | 5,830                          | 14.5                     | 5,485                          | 15.0                     | 5,345                          | 16.6                     |
| 6,616                          | 39.8                     | 7,104                          | 42.9                     | 7,859                          | 46.7                     | 8,320                          | 48.1                     |
| 12,694                         | 45.3                     | 15,505                         | 44.6                     | 17,333                         | 45.3                     | 19,696                         | 45.5                     |
| 17,297                         | 28.8                     | 16,942                         | 30.0                     | 15,902                         | 31.6                     | 15,489                         | 32.9                     |
| 2,898                          | 27.2                     | 3,230                          | 30.9                     | 3,292                          | 32.1                     | 3,625                          | 31.4                     |
| 3,437                          | 45.8                     | 3,632                          | 47.7                     | 3,791                          | 46.5                     | 4,498                          | 37.1                     |

Appendix C.--Percentage of women among doctoral degree

| Discipline division                   | 1971-72                        |                          | 1972-73                        |                          |
|---------------------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------|
|                                       | Total doctoral degrees awarded | Percent awarded to women | Total doctoral degrees awarded | Percent awarded to women |
| All discipline divisions              | 33,369                         | 14.3                     | 34,790                         | 15.8                     |
| Agriculture and natural resources     | 971                            | 2.7                      | 1,059                          | 2.6                      |
| Architecture and environmental design | 50                             | 14.0                     | 58                             | 6.9                      |
| Area studies                          | 159                            | 18.2                     | 165                            | 29.1                     |
| Biological sciences                   | 3,654                          | 17.0                     | 3,637                          | 19.5                     |
| Business and management               | 902                            | 2.2                      | 932                            | 5.7                      |
| Communications                        | 111                            | 13.5                     | 139                            | 18.0                     |
| Computer and information sciences     | 167                            | 7.2                      | 196                            | 7.7                      |
| Education                             | 7,041                          | 23.6                     | 7,314                          | 24.8                     |
| Engineering                           | 3,671                          | .6                       | 3,492                          | 1.5                      |
| Fine and applied arts                 | 572                            | 25.2                     | 616                            | 27.1                     |
| Foreign languages                     | 841                            | 37.5                     | 991                            | 40.3                     |
| Health professions                    | 442                            | 18.1                     | 646                            | 25.0                     |
| Home economics                        | 104                            | 71.2                     | 165                            | 75.8                     |
| Law                                   | 40                             | 2.5                      | 37                             | 2.7                      |
| Letters                               | 2,589                          | 27.2                     | 2,754                          | 30.1                     |
| Library science                       | 64                             | 43.8                     | 102                            | 41.2                     |
| Mathematics                           | 1,128                          | 7.9                      | 1,068                          | 9.6                      |
| Physical sciences                     | 4,103                          | 6.7                      | 4,016                          | 6.9                      |
| Psychology                            | 1,881                          | 24.8                     | 2,089                          | 29.0                     |
| Public affairs and services           | 211                            | 21.8                     | 219                            | 19.2                     |
| Social sciences                       | 4,079                          | 14.7                     | 4,230                          | 15.6                     |
| Theology                              | 441                            | 4.8                      | 666                            | 3.3                      |
| Interdisciplinary studies             | 148                            | 14.9                     | 199                            | 17.1                     |



recipients, by discipline division: 1971-72 through 1976-77

| 1973-74                                 |                                   | 1974-75                                 |                                   | 1975-76                                 |                                   | 1976-77                                 |                                   |
|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|
| Total<br>doctoral<br>degrees<br>awarded | Percent<br>awarded<br>to<br>women | Total<br>doctoral<br>degrees<br>awarded | Percent<br>awarded<br>to<br>women | Total<br>doctoral<br>degrees<br>awarded | Percent<br>awarded<br>to<br>women | Total<br>doctoral<br>degrees<br>awarded | Percent<br>awarded<br>to<br>women |
| 33,826                                  | 19.1                              | 34,086                                  | 21.3                              | 34,076                                  | 22.9                              | 33,244                                  | 24.3                              |
| 930                                     | 3.6                               | 991                                     | 3.3                               | 928                                     | 6.6                               | 893                                     | 6.9                               |
| 69                                      | 5.8                               | 69                                      | 15.9                              | 82                                      | 15.9                              | 73                                      | 15.1                              |
| 163                                     | 27.6                              | 166                                     | 22.9                              | 182                                     | 31.9                              | 153                                     | 32.0                              |
| 3,440                                   | 20.3                              | 3,384                                   | 22.0                              | 3,397                                   | 21.5                              | 3,403                                   | 21.4                              |
| 983                                     | 5.1                               | 1,011                                   | 4.1                               | 956                                     | 5.4                               | 869                                     | 6.3                               |
| 175                                     | 16.6                              | 165                                     | 27.9                              | 204                                     | 24.5                              | 171                                     | 24.0                              |
| 198                                     | 4.6                               | 213                                     | 6.6                               | 244                                     | 9.4                               | 216                                     | 8.8                               |
| 7,293                                   | 27.1                              | 7,443                                   | 30.9                              | 7,769                                   | 33.4                              | 7,955                                   | 34.8                              |
| 3,312                                   | 1.7                               | 3,108                                   | 2.1                               | 2,821                                   | 2.3                               | 2,586                                   | 2.8                               |
| 585                                     | 24.8                              | 649                                     | 31.3                              | 620                                     | 27.9                              | 662                                     | 32.5                              |
| 923                                     | 43.7                              | 857                                     | 47.0                              | 864                                     | 47.9                              | 752                                     | 51.5                              |
| 578                                     | 22.7                              | 618                                     | 28.6                              | 577                                     | 28.8                              | 538                                     | 32.0                              |
| 136                                     | 66.2                              | 156                                     | 67.3                              | 178                                     | 71.3                              | 160                                     | 77.0                              |
| 27                                      | 3.7                               | 21                                      | 0                                 | 76                                      | 3.9                               | 60                                      | 13.3                              |
| 2,633                                   | 32.1                              | 2,498                                   | 34.0                              | 2,452                                   | 36.5                              | 2,202                                   | 38.2                              |
| 60                                      | 40.0                              | 56                                      | 41.1                              | 71                                      | 45.0                              | 75                                      | 53.3                              |
| 1,031                                   | 9.7                               | 975                                     | 11.3                              | 856                                     | 11.0                              | 823                                     | 13.2                              |
| 3,631                                   | 7.0                               | 3,628                                   | 8.3                               | 3,433                                   | 8.7                               | 3,344                                   | 9.6                               |
| 2,339                                   | 29.5                              | 2,442                                   | 30.9                              | 2,581                                   | 31.7                              | 2,761                                   | 35.9                              |
| 230                                     | 22.2                              | 285                                     | 24.2                              | 319                                     | 32.0                              | 335                                     | 32.8                              |
| 4,126                                   | 18.0                              | 4,209                                   | 20.8                              | 4,160                                   | 21.6                              | 3,784                                   | 22.1                              |
| 768                                     | 2.9                               | 872                                     | 3.8                               | 1,033                                   | 4.1                               | 1,125                                   | 2.8                               |
| 196                                     | 26.0                              | 270                                     | 27.4                              | 273                                     | 32.2                              | 304                                     | 30.6                              |

Appendix D.--Percentage of women among first professional degree

| Field                                    | 1971-72                                  |                          | 1972-73                                  |                          |
|--|--|--------------------------|--|--------------------------|
|  | Total first professional degrees awarded | Percent awarded to women | Total first professional degrees awarded | Percent awarded to women |
| Total                                    | 43,774                                   | 6.3                      | 50,435                                   | 7.1                      |
| Chiropractic (D.C.)                      |  |                          |  |                          |
| Dentistry (D.D.S. or D.M.D.)             | 3,894                                    | 1.2                      | 4,086                                    | 1.4                      |
| Law, general (L.L.B. or J.D.)            | 22,017                                   | 7.2                      | 27,484                                   | 8.1                      |
| Medicine (M.D.)                          | 9,331                                    | 9.0                      | 10,398                                   | 9.0                      |
| Optometry (O.D.)                         | 670                                      | 2.2                      | 771                                      | 2.6                      |
| Osteopathic medicine (D.O.)              | 484                                      | 3.5                      | 523                                      | 2.9                      |
| Pharmacy (D. Pharm.)                     |  |                          |  |                          |
| Podiatry or podiatric medicine (Pod. D.) | 279                                      | .3                       | 278                                      | .3                       |
| Theological professions, general         | 5,568                                    | 1.9                      | 5,291                                    | 3.4                      |
| Veterinary medicine (D.V.M.)             | 1,247                                    | 9.4                      | 1,299                                    | 10.2                     |
| Other                                    | 284                                      | 20.8                     | 305                                      | 11.8                     |

recipients, by field of study: 1971-72 through 1976-77

| 1973-74                                  |                          | 1974-75                                  |                          | 1975-76                                  |                          | 1976-77                                  |                          |
|--|--------------------------|--|--------------------------|--|--------------------------|--|--------------------------|
| Total first professional degrees awarded | Percent awarded to women | Total first professional degrees awarded | Percent awarded to women | Total first professional degrees awarded | Percent awarded to women | Total first professional degrees awarded | Percent awarded to women |
| 54,278                                   | 9.9                      | 56,259                                   | 12.5                     | 63,061                                   | 15.6                     | 64,807                                   | 18.7                     |
|  |                          |  |                          | 1,577                                    | 9.3                      | 1,368                                    | 8.5                      |
| 4,478                                    | 2.0                      | 4,809                                    | 3.1                      | 5,478                                    | 4.5                      | 5,187                                    | 7.4                      |
| 29,652                                   | 11.5                     | 29,497                                   | 15.1                     | 32,535                                   | 19.2                     | 34,390                                   | 22.5                     |
| 11,447                                   | 11.2                     | 12,550                                   | 13.2                     | 13,540                                   | 16.2                     | 13,574                                   | 19.2                     |
| 791                                      | 4.2                      | 792                                      | 5.0                      | 975                                      | 7.7                      | 953                                      | 11.0                     |
| 685                                      | 2.8                      | 665                                      | 5.3                      | 818                                      | 7.2                      | 852                                      | 8.8                      |
|  |                          |  |                          | 439                                      | 29.6                     | 527                                      | 27.5                     |
| 371                                      | 1.1                      | 351                                      | 1.1                      | 428                                      | 2.6                      | 486                                      | 3.3                      |
| 5,048                                    | 5.5                      | 5,098                                    | 6.8                      | 5,709                                    | 7.6                      | 5,861                                    | 9.5                      |
| 1,384                                    | 11.2                     | 1,415                                    | 15.9                     | 1,532                                    | 18.1                     | 1,586                                    | 22.8                     |
| 422                                      | 26.1                     | 1,082                                    | 11.0                     | 30                                       | 10.0                     | 23                                       | 47.8                     |

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