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ABSTRACT

In order to learn more about the pattern and effects of fellowship competition on women, the Association of American Colleges undertook a survey of fellowship programs. Beginning in June 1972, 68 different fellowship programs sponsored by 28 government agencies, private organizations and foundations were asked to provide data on the numbers and percentages of women applicants and women recipients, recruiting and selection procedures, content of application forms, the number of women on selection boards, and policies against sex discrimination. Programs were selected for study mainly on the basis of size and national visibility. Results include: (1) In 1972-73 about 80% of the nation's most prestigious fellowships and awards will go to men. In some of the most competitive programs (Guggenheim Fellowships and White House Fellows) over 90% will be held by men. (2) In a few fellowship programs women have comprised 30% or above of the recipients. (3) Far fewer women than men apply or are nominated for fellowships. (4) The success of women who do apply or are nominated varies widely. (5) Women play an insignificant part in the selection, with many panels having no female members. Appendices contain tables of results of the survey and the programs surveyed. (Author/PG)

project on the status and education of **women**

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WOMEN IN FELLOWSHIP AND TRAINING PROGRAMS

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CYNTHIA L. ATTWOOD spent the summer and fall of 1972 researching and writing the following report. Ms. Attwood is a member of the Minnesota Law Review and will receive her Juris Doctor degree from the University of Minnesota in June 1973. Ms. Attwood, a 1969 honors graduate of Oakland University, worked in the Graduate Fellowship Office of the University of Minnesota in 1970-71. As a senior law student, she holds a Fellowship for American Women in the Professions from the American Association of University Women.

THE PROJECT ON THE STATUS AND EDUCATION OF WOMEN of the Association of American Colleges began operations in September of 1971. The Project provides a clearinghouse of information concerning women in education and works with institutions, government agencies, other associations and programs affecting women in higher education. In addition, the Project from time to time sponsors short-term result-oriented studies or activities, such as this report and the conference which followed it. The Project is funded by the Carnegie Corporation of New York, the Danforth Foundation, and the Exxon Education Foundation.

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PREFACE

The author wishes to thank the Exxon Education Foundation for its financial support of this project.

This report could not have been completed without the aid of Judith Nies McFadden, who served as a consultant to the report and the conference. Ms. McFadden is also the former Director of the Fellowships and Foundations Project of the Women's Equity Action League (WEAL).

In addition, the author wishes to thank Bernice Sandler, Margaret Dunkle, and Francelia Gleaves of the staff of the Project on the Status and Education of Women at the Association of American Colleges for their generous assistance.

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The opinions expressed in this report are those of the author and may not represent the policy of the Association of American Colleges or the Exxon Education Foundation.

I. INTRODUCTION

> At the time I applied I had completed the course work for a Ph.D. in mathematics; had worked for AT&T in a very responsible position; was the first woman professional to be employed by the Navy in communications analysis and had briefed Admiral X during a military crisis; and I had published a number of papers in my field. Yet during the personal interview I was asked several questions about who was going to take care of the children, and how did I see my division of responsibility between husband, home and job.
>
> *Taken from interview with a former candidate for White House Fellows Program.*

The thousands of graduate fellowships[1] and traineeships annually granted in the United States are of great importance to both men and women. As well as providing financial aid, these programs provide opportunities to gain specialized knowledge, to develop leadership skills, to make political contacts, and to increase personal growth and awareness of developments in one's own field. Thus, in providing such "qualifications," fellowships and traineeships play a critical role in the development of the country's most successful scholars, professionals and leaders. They also represent a unique opportunity to break down many of the biases which presently operate against women in both higher education and the job market.

In order to learn more about the pattern and effects of fellowship competition on women, the Association of American Colleges undertook a survey of fellowship programs. Beginning in June 1972, 68 different fellowship programs sponsored by 28 government agencies, private organizations and foundations were asked to provide data on the numbers and percentages of women applicants and women recipients, recruiting and selection procedures, content of application forms, the number of women on selection boards, and policies against sex discrimination. Programs were selected for study mainly on the basis of size and national visibility.[2] Some personal interviews were conducted. Additional information was made available by the Project on Fellowships and Foundations of the Women's Equity Action League (WEAL). All but a few program sponsors responded with the information requested. Several programs replied that they had never compiled data on female applicants. Among these were the Nieman Foundation and the Guggenheim Foundation.

II. SURVEY RESULTS

A. How Many Women Receive Awards?

In 1972-73 about 80 percent of the nation's most prestigious fellowships and awards will go to men. In some of the most competitive programs, such as Guggenheim Fellowships, White House Fellows and Nieman Fellows, well over 90 percent will be held by men. Only in a few fellowship programs, such as the Graduate Fellowships in City Planning and Urban Studies (administered by the Department of Housing and Urban Development) and the Woodrow Wilson Dissertation Fellowships, have women comprised 30 percent or above of the recipients.

In twelve of the forty programs which provided data on the number of applicants, less than ten percent of the applicants were women. In all but eleven programs, women represented less than 25 percent of the applicants. Programs in the humanities and social sciences generally had a higher level of female applicants than programs in the natural sciences and educational administration. In short, far fewer women than men apply or are nominated for fellowships.

B. Are Women Likely to Receive Awards When They Apply?

The success of women who do apply or are nominated varies widely. In about 28 percent of the programs, the percentage of women recipients was *less* than the percentage of women applicants in the most recent year reported (usually 1971-72). A good example is the White House Fellows Program in which women were ten percent of the applicants, but only six percent of the recipients. In about 28 percent of the programs the percentage of women applicants closely approximated the percentage of female recipients. In the remaining 45 percent of the programs, the percentage of women recipients was significantly *higher* than that of applicants. An interesting example of this phenomenon was found in the Congressional Fellows Program (administered by the American Political Science Association), which for several years had *no* women recipients. This year 15 of the 200 applicants were women: four of these women received fellowships. Thus women were 7.5 percent of the applicants and 26.7 percent of the recipients.

C. Are Women Involved in the Selection Process?

Women seemed to play an insignificant part in the selection process. In the programs we were able to study, many selection panels had no female members. Most programs had less than 15 percent female selection board members. In only four programs did women represent more than one-third of the selection committee members, the highest (41 percent) being the Ford Foundation's Graduate Fellowships for Black Students.

III. PRINCIPAL QUESTIONS ABOUT WOMEN IN FELLOWSHIP PROGRAMS

A. Why Do So Few Women Apply? Why Are So Few Nominated?

1. *Is There a Shortage of "Qualified" Women?* The question of eligible women applicants cannot be adequately discussed without looking at the general educational situation of women. Although the percentage of women receiving baccalaureate and post-baccalaureate degrees has increased slightly over the last few years, the record of women in higher education is *worse* today than it was in 1930, when women were 47 percent of undergraduates, and 28 percent of doctorates. In 1968, women made up 43.4 percent of those receiving B.A. degrees, and 12.6 percent of those awarded doctorates.[3] It is estimated that only one of 300 women in the United States today who has the potential to earn a Ph.D. does so, while one of every 30 men with that potential receives a Ph.D.[4] Witnesses testifying before the U.S. House of Representatives Committee on Education and Labor attributed the sharp decline in the percentage of women at the highest levels of education to "the reality and fear of higher admission standards," to the channeling of women into "women's fields," and to discouraging encounters between female students and professors and admissions officers.[5]

Moreover, the reasons for the generally low rate of application for fellowships by women may vary from program to program, and are in part related to the size of the pool of eligibles. Women make up a very small percentage of scientists in the United States (6.7 percent of Ph.D.'s in 1970), while the percentage of women in the humanities and education is substantial (20.7 percent of Ph.D.'s in 1970). Therefore it is not surprising that fewer women apply for fellowships and grants in the sciences than in the humanities. Across the board, the higher the educational level, the fewer women there are. However, because of new federal laws which prohibit discrimination in admission to graduate schools and the rapidly changing career patterns of women, the number of women with graduate degrees is expected to increase.

2. *Are "Qualified" Women Less Likely to Apply Than Men?* The number of women in the eligible population is often *greater* than their participation rates in fellowship programs. For example, although women are 11.4 percent of the Ph.D.'s in political science, until 1972 only four percent of the applicants for the Congressional Fellows Program were women. And from 1968 to 1972 (1973 showed a large jump in female recipients) women have averaged four percent of the awards. The disparity of these figures is typical of many programs. Generally, a smaller percentage of women apply than their proportion of the pool of eligibles would indicate.

One explanation for the fact that women do not apply in as great numbers as would be expected is that a great deal of information concerning available

fellowship and grant funds is spread informally throughout undergraduate and graduate departments: since women are often outside of these informal channels they may not receive word of the opportunities available. Other factors, such as lack of encouragement or poor counseling, undoubtedly contribute to the relatively poor application rate.

3. *Does the Requirement of Full-Time Study Keep Women Out?* One of the most important factors, particularly in the area of graduate fellowships, is that most fellowships and grants require the recipient to devote full time to his or her studies. Because women in our society are for the most part the primary child rearers, a large proportion of women pursuing graduate education must do so on a part-time basis.[6] *They are therefore ineligible for almost every form of fellowship and grant aid available.*

4. *Do Age Requirements Keep Women Out?* Many highly talented women who postpone their education or who enter the workforce late because of child-rearing responsibilities, also find themselves ineligible for some of the most valuable fellowships because they are past the maximum *age* requirement. Women generally begin and complete their advanced education at a later age than men. Therefore programs which require an applicant to be under thirty or thirty-five years of age exclude a higher proportion of otherwise qualified female candidates than male candidates.

5. *Do Some Programs Inadvertently Discourage Women from Applying?* Although few programs officially exclude women applicants, some programs may give the inadvertent impression that they are "male" enterprises. The consistent use of the word "he" when referring to applicants in informational brochures may give the reader the impression that women are not welcome as applicants. Similarly, pictures of male recipients only, and questions about one's wife (rather than one's spouse), particularly in programs which have traditionally been overwhelmingly masculine, may have the unintended effect of discouraging female applicants. In an announcement recently distributed at the Library of Congress, the Woodrow Wilson International Center for Scholars described itself as "a place where *men of letters* and *men of public affairs* . . . work together on topics of mutual interest for brief or sustained periods of time." [Emphasis added] Such phrases give the impression, however unintended, that the program is male-oriented.

B. Why Do Women Who Apply Have Greater Success in Some Programs Than in Others?

1. *Are the Women Who Apply More Qualified Than the Men Who Apply?* The data collected show that women applicants are less likely to receive awards than male applicants in about 28 percent of the programs studied; women are *more* likely to be successful than their male counterparts in 45 percent of the programs. The fact that female applicants fare better than male applicants in these programs is not as surprising as it might at first seem. Although fewer women than men attend college and graduate school, those women who do pursue a higher education are highly motivated and often have better academic records than their male counterparts. Women enter college with slightly higher high school records than men. Similarly a 1965 sampling of graduate

degree-credit students showed that 68 percent of women students, compared to 54 percent of men students, had B or better college averages.[7] And at the University of Chicago women's grade point averages are, on the average, significantly higher than men's: 9.1 percent of the women, compared with 6.8 percent of the men, had straight A averages; 24.9 percent of the women had A- averages, while 20.1 percent of the men reported such averages; 32.2 percent of the women had B+ averages compared with 31.6 percent of the men. And 41 percent of the men had grade averages of B or lower, compared with 30 percent of the women.[8] As a group female Ph.D.'s have higher IQ's, higher G.P.A.'s, and higher class rank than male Ph.D.'s.[9] Therefore it is not unlikely that female fellowship applicants are more qualified than male applicants as a group.

Another factor which contributes to the high quality of female applicants is that a more rigorous process of self-selection occurs among potential female applicants than among males. Given the obstacles which women face in higher education, it is probable that they are less likely than men to put themselves forward for programs or positions where the likelihood of success is small. Therefore only those women with the most impeccable qualifications are likely to apply to the "high risk" programs.

Another factor to be considered is that in programs *in* which potential recipients must be nominated, it is possible that nominators put forward women candidates who are significantly better qualified that the average male-nominee. The old adage, "a woman has to be twice as good as a man to succeed," may well apply to the nomination process. Even in the non-nominating programs, the informal advice to apply for a fellowship is likely to be directed to a woman who is clearly superior to available male candidates.

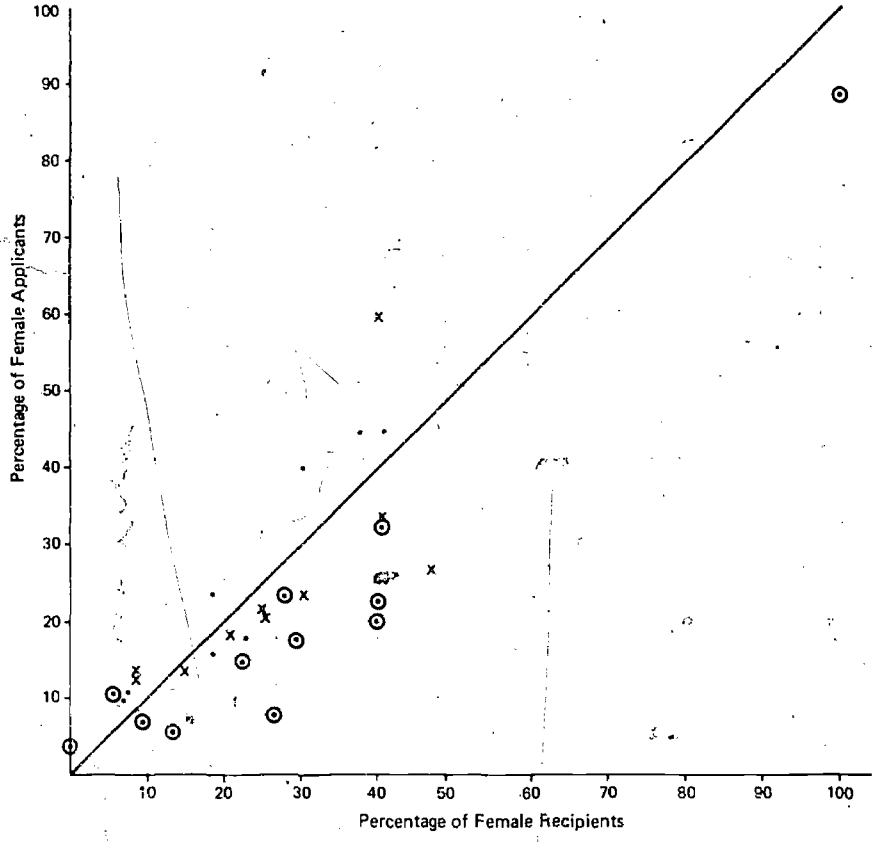
All of these factors support the notion that women applicants are as a group somewhat more likely to be more highly qualified than male applicants. It comes as no surprise therefore that women applicants have a greater likelihood of success than male applicants in some programs; indeed that is exactly what one would expect. In contrast, it *is* difficult to explain why women are much *less* likely to be recipients than men in almost one-third of the programs studied.

2. *Does the Size of the Program and the Percentage of Women Applicants Make a Difference?* Two interesting conclusions can be drawn from the data collected: 1) Women who apply to small programs are more likely to be successful than women who apply to large programs; and 2) In programs with very small and very large percentages of female applicants, women fare less well than in programs where women make up 15 to 29 percent of the applicants. Graph 1 illustrates the first point. It shows that, in six out of seven of the largest programs, women represent a smaller percentage of the total recipients than they do of the total applicants.[10] In three out of ten medium-sized programs women fare less well than men, while in ten of the twelve smallest programs studied women constituted a larger percentage of the total recipients than of the total applicants. The larger the program, the less successful women are, as a ratio of recipients to applicants.

The reasons for women's relatively greater success in the smaller fellowship programs are not clear. These programs are diverse: they aid students, scholars and professionals in such fields as history, political science, anthropology, health, physics, and educational administration, and are aimed at graduate students,

Graph 1

Success of Female Applicants by Program Size (For Most Recent Year Reported)



• = More than 200 recipients (total)
x = 65-200 recipients (total)
⊙ = 0-64 recipients (total)

Explanation: All points above the diagonal line represent programs in which the percentage of female recipients was smaller than the percentage of female applicants. All points below the diagonal line represent programs in which the percentage of female recipients was greater than the percentage of female applicants.

postdoctoral researchers, and other professionals. In short they have nothing in common except their size. Why size should play a significant role in the success of female applicants is open to speculation.

Graph 2 illustrates the second conclusion: that women fare less well in programs where there is a very large or very small percentage of women applicants than they do in programs with a medium number of women applicants. It shows that there is a correlation between the number of female applicants as a percentage of total applicants and the success of female applicants. In programs where women represent either a very large or a very small proportion of the applicants, those applicants are less likely to receive awards than their male counterparts. However, in programs where women make up a medium percentage of applicants, women are more likely to succeed than men.

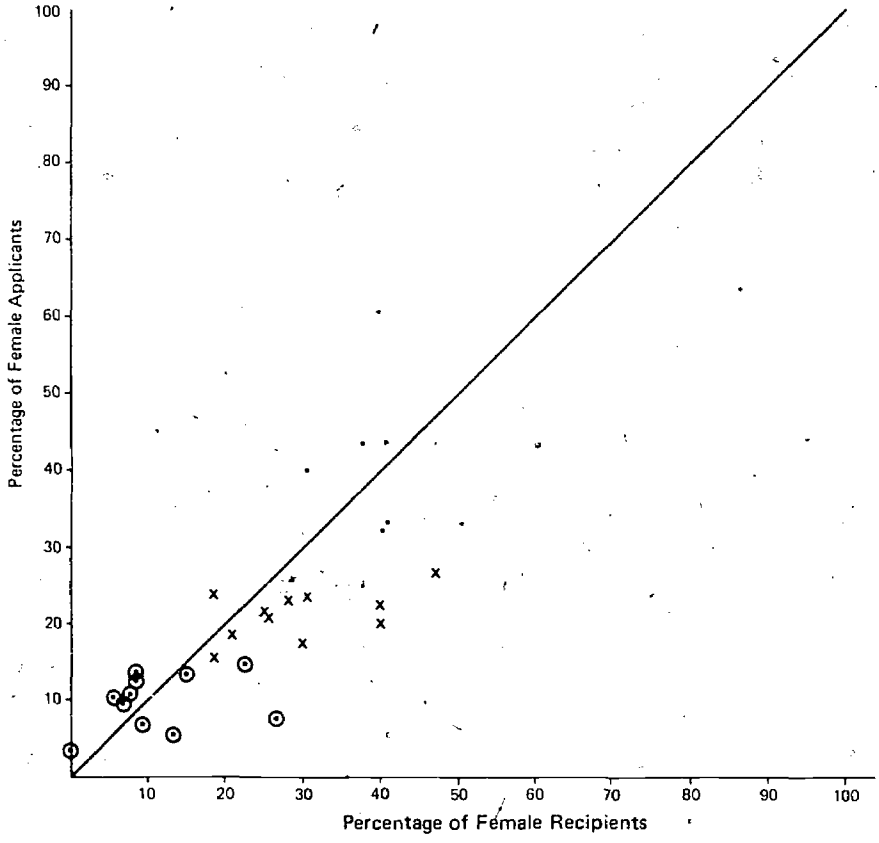
The reasons for this pattern in success rates are not altogether clear. Three of the six programs with low female application rates and in which women fare less well than men are in the natural sciences, while none of the five programs in which women exceed men are in the sciences. However, of the two science programs in the category with medium female application rates, in one the female acceptance rate is better than the male rate, while in the other the reverse is true. No science program attracts more than 30 percent female applicants; so it is difficult to draw conclusions from the data on science programs in the first two categories. However, it may be that in programs that attract very few female applicants, particularly in the natural sciences, women applicants are more closely scrutinized than their male counterparts because of assumptions about women's ability to excel in what is conceived of as a man's field.

3. *Are There Social Barriers That Lower Women's Participation?* Graph 2 shows that more female applicants does not necessarily mean more female recipients. In programs which attract a large proportion of women applicants, women may suffer from a conscious or unconscious desire on the part of selection panels to limit the number of female recipients. This desire might stem from general attitudes on the part of both men and women that *a "really* rigorous program" is more appropriate for men than for women, or that fellowship aid for a woman is a bad risk.

The myth that a woman, even when highly qualified, is a bad risk, either for employment or fellowship aid, is one that dies hard. There is substantial evidence, however, that such myths adversely affect women throughout their educational careers and employment. For example, there have been recent studies which demonstrate that female undergraduates, although their qualifications are on average better than those of male undergraduates and their financial need is equivalent, have greater difficulty in obtaining financial aid, and must therefore rely more heavily on loans than male students.[11] There is some indication that this pattern may continue on the graduate level. For example, Astin in a study of the career profiles of women doctorates,[12] noted that women were less likely to receive aid from the government or their institutions, and were therefore more likely to rely on their own savings or support from their families and/or spouses.

Graph 2

Success of Female Applicants by Percentage of Female Applicants (For Most Recent Year Reported)



• = Female Applicants represent 30-100 percent of Total Applicants
x = Female Applicants represent 15-29 percent of Total Applicants
⊙ = Female Applicants represent 0-14 percent of Total Applicants

Explanation: All points above the diagonal line represent programs in which the percentage of female recipients was smaller than the percentage of female applicants. All points below the diagonal line represent programs in which the percentage of female recipients was greater than the percentage of female applicants.

Table 1

Sources of Stipend Support for Doctorates of 1950-1960[13]
(In Percentages)

Source	Women (N = 482)	Men (N = 5,757)
Government	12	22
Institution	34	36
Own savings or support from family or spouse	50	42
Other	4	No information
	100	100

While 58 percent of the men received financial support from the government or from their institution, only 46 percent of the women received such aid.

Without further research it is difficult to speculate how great a part "bad risk" assumptions play in the evaluation of female candidates in the programs studied. It is clear, however, that fears that women will "drop out" of their professions to raise a family are unfounded. A 1968 study of women who received their doctorates in 1957 and 1958 showed that *91 percent* of those doctorates were working. Of those who were working at the time of the survey, 79 percent had *never* interrupted their careers; only 18 percent had experienced career interruptions lasting 11 to 15 months, a figure which is comparable to the length of interruption men experience because of military obligations.[14]

4. *How Does the Selection Process Affect Women As Recipients?* The structure of the selection process also has a direct, if unquantifiable, effect on women. Many of the most prestigious fellowship programs use a multi-level selection process in which applicants are screened and eliminations are made at both the regional and national level. Because of the difficulties in obtaining data on the numbers of women and men eliminated at each level of competition, the study was only able to secure such information from the White House Fellows Program. However, because the structure of the selection process may play a large part in the relative success or failure of female applicants, data on the White House Fellows Program are included to provide some insight into this aspect of the business of awarding fellowships.

In 1972, women comprised 10 percent of the total applicants for the White House Fellows Program, 12.9 percent of the semi-finalists, 14.6 percent of the regional finalists, 15.2 percent of the national finalists. Yet, at the *final* selection level, when the recipients were announced there was *only one woman out of 17 fellows, or six percent,* which is nine percentage points lower than the number of women finalists. A similar pattern was found for 1971. In both years relatively few women applied. Yet as the fellowship candidates moved higher in the selection process the percentage of women increased. In other words, a higher percentage of women than men survived the initial levels of competition. What is striking is that although women were 16.7 percent and 15.2 percent of the finalists in 1971 and 1972 respectively, only 12.5 percent of the Fellows in 1971

were women, while only 5.9 percent in 1972 were women. Without greater knowledge of the mechanics of the final selection process it is difficult to speculate why the percentage of female recipients was below that of the finalists. However, a similar analysis of all multi-level selection processes might yield vital information about the real distance between being a "qualified applicant" and a fellowship reject.

IV. RECOMMENDATIONS* FOR INCREASING THE PARTICIPATION OF WOMEN

Any increase in the number of women participants in fellowship, traineeship, and internship programs is limited by the size of the pool of eligible women. However, that pool is increasing yearly, as more women seek graduate educations and enter professional fields. Even within the present constraints much can be done to ensure that more qualified women apply for and receive awards.

A. Increasing the Number of Women Who Apply

Women need to know about fellowships and that they are welcome to apply. Those people in a position to nominate and/or inform future participants need to know that the fellowship policy is one which encourages women.

1. *Develop an Affirmative Action Plan to Increase the Participation of Women.* A number of non-profit organizations (such as the Institute of Educational Management and the White House Fellows) have hired women consultants or designated one person to act as recruiter for women applicants. Having such a person helps ensure that policies and practices are evaluated, initiated or changed if necessary.

2. *Redesign Informational and Promotional Materials* so that they encourage the nomination and promotion of women applicants. For example, references to candidates and program participants should be changed from "he" to "he or she." This seemingly minor change makes it clear to potential applicants and others that *both female and male* applicants are welcomed. Pictures and stories about women recipients, statements of nondiscriminatory policy (including statements about the program's interest in recruiting women) are also likely to be helpful. *Serious consideration should be given to the inclusion on all informational materials of a positive statement, such as "Women and minorities (including minority women) are encouraged to apply."*

3. *Generate Greater Publicity about the Fellowship Program Where Women Are Likely to Learn about It.* For example, announcements of the program, and the interest of the program in recruiting women could appear in the newsletters of the professional women's caucuses and organizations, as well as in other women's newsletters and journals. Letters of recruitment that are routinely circulated among professors and government officials should also specifically be sent to women professionals and leaders. *In some instances, notices in alumnae*

*The reader is reminded that these recommendations are those of the writer and do not necessarily reflect the view of the Association of American Colleges or the Exxon Education Foundation. The recommendations and elaborations in italics were added as a result of the conference.

and alumni magazines and campus newspapers might also be appropriate. Special efforts should be made to publicize the program and recruit women on campuses which are predominantly female or which have a significant number of women students. (It should not be underestimated how difficult it is going to be to change the image of some programs. At a recent meeting of a professional women's association, the announcement that one national fellowship program was sincerely seeking women was greeted with cynical laughter and disbelief.)

4. *Specifically Call Attention to the Program's Interest in Women.* Contacts with traditional sources of applications, *e.g.* university department heads, deans and presidents, need to specify that the program is actively interested in seeking women. The American Council on Education dramatically increased the number of female lay participants from six percent in 1972 to 23 percent in 1973 by asking potential nominators by letter "to respond to the special need for nominations of qualified women and minority group members." Program sponsors can also place announcements in educational and professional journals, as well as in the general press, about the program's interest in recruiting women applicants. (The White House Fellowships Program has recently done this with good results.)

5. *Provide for More Flexible Requirements.* Because many women hit their stride later than men, low age limits have a disproportionate effect in excluding women. Many women otherwise qualified are ineligible to apply for fellowships because of the maximum age requirements. *In addition, there should be no regulations forbidding married couples from both receiving fellowships simultaneously.*

6. *Allow for Part-Time Use of Awards.* Many women have family commitments that may force them to complete their education on a part-time basis. The requirement that fellowship recipients work full time has a disproportionate effect in excluding women. Allowing women to spread a one year award over a two year period would lend much needed flexibility to such programs. (At least two sponsors have experimented with part-time grants. The Woodrow Wilson National Fellowship Foundation some years ago allowed a small number of Fellows to use their one year awards over a two year period, in order to attend graduate school part time. The National Science Foundation in 1970 allowed universities the option to use new or continuation traineeships for several part-time students. One university utilized two traineeships to support five part-time trainees, all of whom were women.) Sponsors should give consideration to formulating similar part-time plans.

B. Increasing the Number of Women Who Receive Awards

1. *Develop an Official Policy Forbidding Discrimination on the Basis of Sex.* The policy should be communicated to nominators and to those persons involved in the selection process. (Many programs already forbid discrimination on the basis of race, color, national origin and religion.)

2. *Increase the Number of Women on Selection Boards and Throughout the Selection Process.* There is no evidence that greater numbers of women in the selection process will produce favoritism toward women candidates. However,

women on the selection boards will improve the image of receptivity to women candidates, and would enlarge the circle of women professionals who know about the program. *Programs might well use the resources and rosters of women's caucuses and organizations to find qualified women to serve on selection committees.*

3. *Review Selection Procedures and Policies.* An increase in the proportion of women applicants will not result in more women recipients if there is bias against women at the selection level. Such bias does not often take obvious forms, but may be couched in unverified assumptions that application reviewers inadvertently make about women. One staff member of a major fellowship program reported that there had been times when a woman was ranked lower on the list of potential recipients because of the assumption that, as she was married, her husband could support her, and that therefore her need for a fellowship was not great. Similarly, a single or divorced woman may be turned down because it is assumed that she will marry and quit professional work. Questions about what a woman will do with her young children, or how her husband will feel if she has to travel in order to take advantage of her grant, are rarely asked of male applicants. In any event, they are irrelevant for judging qualifications. Although it is difficult to pinpoint these assumptions and attitudes, program sponsors should nevertheless make it clear to their selection committee members that such attitudes about women in general should play no part in the selection of individuals.

4. *Compliance with the New Federal Law.* Many federal programs allow local universities and colleges to select federal fellowship and traineeship recipients. Such programs now have a new tool to ensure that institutions of higher education do not discriminate on the basis of sex. Although federal agencies have previously informed institutions that they cannot discriminate on the basis of race, color or national origin under the provisions of Title VI of the Civil Rights Act of 1964, participating institutions have not been requested to choose recipients without regard to sex.[1-5] Title IX of the Education Amendments Act of 1972 (Higher Education Act), effective July 1, 1972, provides:

> No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. . . .

Thus no college or university which receives any form of federal financial assistance may discriminate on the basis of sex in *any* of the public or privately sponsored fellowship programs in which it is involved. In order to be in compliance with the law, the institution may not discriminate on the basis of sex in the process of nominating or recommending candidates. Sponsors of all fellowship and other awards programs which rely on such input can aid institutions in the administration of the nomination process by informing them of their new responsibility under the law.

5. Dependency Allowances *should be reviewed to determine if they are awarded to women and men on an unequal basis.*

C. Recruiting Minority Women

Recruiting for women should in no way diminish efforts to recruit minorities. Programs for minorities and for women need to pay special attention to

minority women. Staff and selection committee members need to keep in mind that "minority" does not mean minority *males* only, and that "women" does not mean *white* women only.

D. Establish Networks to Communicate the Names of Qualified Female Applicants to Universities and Other Fellowship Programs

Few fellowship programs can ever award fellowships to all qualified candidates. In addition, fellowship sponsors often get applications from highly qualified candidates who *ought* to get funding from someone but who for some reason or other do not fit within the scope of the program applied to. A method of transmitting the names of such people to interested organizations might be devised. For many years The Ford Foundation employed such a procedure with its applicants for graduate fellowships for minority students. Ford would annually send a list of the names, addresses, and educational affiliations of all minority applicants to all major graduate schools throughout the country. Many graduate schools would then use this list to recruit minority graduate students.

A system similar to the one employed by The Ford Foundation could be set up for women applicants for fellowship aid. Fellowship sponsors could prepare lists and distribute them to other interested fellowship sponsors and universities. In this way more women will be put in touch with appropriate sources of fellowship aid.

V. SUMMARY

There is little doubt that the participation of women in fellowship programs needs to be increased. Such fellowships, traineeships, and internships play a large part in the process of educating the best American scholars, professionals, and business and government leaders. Until women achieve a higher participation rate in these programs, many qualified women will lack one of the more important credentials necessary for career upward mobility. They will always be less "qualified." The participation of women in fellowship and award programs may be coming to a test because several of the largest federal programs have been suspended, or are being phased out. As this process continues, more and more qualified students and scholars will be turning to private sources of funding. Whether or not women achieve parity with their male colleagues as recipients of fellowship aid in a period where the demand for such aid far exceeds the supply, is dependent in large part on whether fellowship sponsors determine that funding female students and professionals is an important goal.

NOTES

[1]This report uses "fellowship" as an umbrella term to include leadership training programs, fellowships, grants, internships. While not precise there is no one term which accurately conveys the full range of these programs.

[2]The programs surveyed are listed in Appendix A. For a table of the results see Appendix B.

[3]Murray, P., "Economic and Educational Inequality Based on Sex: An Overview," *Valparaiso University Law Review,* Vol. 5, No. 2, 1971, p. 255.

[4]*Ibid.,* p. 257, n. 66.

[5]*Ibid.*

[6]Astin, Helen, *The Woman Doctorate in America,* Hartford, The Russell Sage Foundation, 1969, p. 33.

[7]Hearings before the Special Subcommittee on Education of the Committee on Education and Labor, House of Representatives, on Section 805 of H.R. 16098, 91st Cong., 2d Sess., p. 642-3.

[8]Hearings, *Ibid.,* p. 247.

[9]Hearings, *Ibid.,* p. 249.

[10]A graph based on the size of program by total number of applicants yielded similar results.

[11]Haven, Elizabeth W. and Horch, Dwight H., *How Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores in 1969-70,* New York College Entrance Examination Board, January, 1972, abstract printed in 118 *Cong. Rec.* S2699 (daily ed., February 28, 1972).

[12]Astin, Helen, "Career Profiles of Women Doctorates," from Rossi and Calderwood, ed., *Academic Women on the Move,* to be published by Russell Sage Foundation, p. 7-32.

[13]Astin, *Ibid.,* p. 7-33.

[14]Astin, Helen, *The Woman Doctorate in America, op. cit.,* p. 58.

[15]The reader is reminded that minority women are also protected from discrimination on the basis of their race by Title VI of the 1964 Civil Rights Act.

Appendix A

PROGRAMS SURVEYED

American Association of Collegiate Schools of Business
- Federal Faculty Fellowship Program

American Council on Education
- Academic Administration Internships

American Political Science Association
- Congressional Fellowships
- Fellowships in Congressional Operations for Executives

Atomic Energy Commission
- AEC Special Fellowships in Nuclear Science and Engineering
- AEC Special Fellowships in Health Physics
- Traineeships for Graduate Students in Nuclear Engineering
- Laboratory Graduate Participants

Committee on International Exchange of Persons (Senior Fulbright-Hays)
- Advanced Research Program
- University Lecturing Program

Danforth Foundation
- Post Graduate Black Studies Fellowships
- Danforth Underwood Fellowships
- Danforth Campus Ministry Fellowships
- Graduate Fellowships for Women
- Harbison Award for Gifted Teachers
- Kent Fellowships
- Short-Term Leave Grants for College and University Administrators
- Danforth Graduate Fellowships
- Metropolitan Fellowships

Eagleton Institute
- Policy Research Associate Awards

The Ford Foundation
- Graduate Fellowships for Black Americans—Advanced Study
- Advanced-Study Fellowships for American Indians
- Advanced-Study Fellowships for Mexican American Students and Puerto Ricans
- Doctoral Fellowships for Mexican American Students and Puerto Ricans
- Dissertation Fellowships in Ethnic Studies
- Faculty Fellowships for Research in Economics, Political Science and Sociology

Department of Housing and Urban Development
- Graduate Fellowships in City Planning and Urban Studies

The Institute for Educational Management
Management Development Program for College and University Administrators

Institute of International Education
Fulbright-Hays Graduate Study Program

National Aerospace Administration
NASA Postdoctoral and Senior Postdoctoral Resident Research Associateships

National Endowment for the Arts
Undergraduate Student Travel Fellowships (Architecture)
Graduate Thesis Fellowships (Architecture)
Choreography Commissions (Dance)
Distinguished Service Awards (Literature)
Discovery Awards (Literature)
Individual Grants (Literature)
Individual Fellowships (Literature)
Museum Training Fellowships
Jazz Program Commissions
Jazz Program Travel Study
Public Media Fellowships and Commissions
State Arts Council Internships
Visual Arts Fellowships
Photography Fellowships
Art Critics Fellowships
Works of Art in Public Places Commissions

National Endowment for the Humanities
Fellowships for Younger Humanists
Fellowships for Junior College Teachers
Senior Fellowships
Summer Stipends for Younger Humanists
Research Grants

National Institutes of Health
Special Fellowships
Research Career Development Awards
Postdoctoral Fellowships
Predoctoral Fellowships

National Science Foundation
Science Faculty Fellowships
Research Participation for College Teachers
Senior Postdoctoral Fellowships
Graduate Fellowships
Postdoctoral Fellowships
Graduate Traineeships

Academic Year Institutes for College Teachers
Doctoral Dissertation Research Grants in Social Science

Nieman Foundation
Nieman Fellows

Office of Education
Graduate Fellowships Program (NDEA Title IV)
Higher Education Personnel Fellowships Program
Fulbright-Hays Exchange Program for Elementary and Secondary Teachers

Alfred P. Sloan Foundation
Sloan Research Fellowships

The Smithsonian Institution
Visiting Research Student Program
Pre and Postdoctoral Fellowship Program

The White House Fellows Commission
White House Fellows

John Hay Whitney Foundation
Opportunity Fellowships

Woodrow Wilson International Center for Scholars
Fellowships and Guest Scholar Programs

Woodrow Wilson National Fellowship Foundation
Woodrow Wilson Dissertation Fellowships

Woodrow Wilson School of Public and International Affairs
Stipends

Appendix B

TABLE OF RESULTS

Program	Year	No. of Appl.	No. of Female Appl.	% of Female Appl.	No. of Recip.	No. of Female Recip.	% of Female Recip.	% of Women on Sel. Comm.
American Association of Collegiate Schools of Business: Federal Faculty Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	95	5	5.3	15	2	13.3	14.3
	1972-73	*	*	*	*	*	*	
American Council on Education: Academic Administration Internships	1968-69	59	2	3.4	49	2	4.1	
	1969-70	82	7	8.5	48	4	8.3	
	1970-71	70	9	11.4	35	6	17.1	18.8
	1971-72	94	7	7.4	35	2	5.7	
	1972-73	94	14	14.8	40	9	22.5	
American Political Science Association: Congressional Fellows	1968-69	225(est.)	10(est.)	4.4	16	0	0.0	
	1969-70	225(est.)	10(est.)	4.4	17	0	0.0	
	1970-71	225(est.)	10(est.)	4.4	16	2	12.6	5.0
	1971-72	225(est.)	10(est.)	4.4	16	1	6.3	
	1972-73	200(est.)	15(est.)	7.5	15	4	26.7	
American Political Science Association and Civil Service Commission: Fellowships in Cong. Operations for Executives	1968-69	*	*	*	24	1	4.2	
	1969-70	*	*	*	25	4	16.0	
	1970-71	*	*	*	18	2	11.1	33.3
	1971-72	*	*	*	28	7	25.0	
	1972-73	*	*	*	26	4	15.4	
Atomic Energy Commission Special Fellowships in Nuclear Science and Engineering	1968-69	567	19	3.4	224	4	1.8	
	1969-70	501	13	2.6	195	4	2.1	
	1970-71	423	5	1.2	139	3	2.2	0.0
	1971-72	0	0	0.0	0	0	0.0	
	1972-73	0	0	0.0	0	0	0.0	
AEC Special Fellowships in Health Physics	1968-69	163	21	12.9	73	9	12.3	
	1969-70	138	12	8.7	59	9	12.9	
	1970-71	143	18	12.6	48	7	14.6	20.0
	1971-72	97	12	12.4	37	5	13.5	
	1972-73	0	0	0.0	0	0	0.0	
Committee on International Exchange of Persons (Senior Fulbright-Hays): Advanced Research Program	1968-69	496	*	*	152	7	4.6	
	1969-70	803	*	*	56	3	5.4	
	1970-71	323	*	*	72	1	1.4	12.1
	1971-72	395	*	*	112	6	5.4	
	1972-73	658	*	*	90	7	7.8	
CIEP: University Lecturing Program	1968-69	683	*	*	486	31	6.4	
	1969-70	1458	*	*	277	19	6.9	
	1970-71	1023	*	*	349	25	7.2	12.1
	1971-72	1402	130	9.3	467	30	6.4	
	1972-73	1642	173	10.4	353	28	7.9	
Danforth Foundation: Campus Ministry Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	43	3	14.3	
	1971-72	*	*	*	38	2	5.3	23.1
	1972-73	*Program no longer in existence*			34	5	14.7	
Danforth Graduate Fellowships	1968-69	*	*	*	122	34	27.9	
	1969-70	*	*	*	113	26	23.0	
	1970-71	*	*	*	107	24	22.4	13.3
	1971-72	*	*	*	107	30	28.0	
	1972-73	*	*	*	97	34	35.1	
Danforth Underwood Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*				
	1971-72	*	*	*	10	0	0.0	
	1972-73	105	8	7.6	14	0	0.0	23.1
					22	2	9.1	

*Unavailable

Program	Year	No. of Appl.	No. of Female Appl.	% of Female Appl.	No. of Recip.	No. of Female Recip.	% of Female Recip.	% of Women on Sel. Comm.
Danforth Harbison Award for Gifted Teachers	1968-69	112	*	*	20	*	*	
	1969-70	184	*	*	19	1	5.3	
	1970-71	204	*	*	10	1	10.0	11.5
	1971-72	209	*	*	10	1	10.0	
	1972-73	241	*	*	12	3	25.0	
		Program no longer in existence						
Danforth Kent Fellowships	1968-69	*	*	*	43	12	27.9	
	1969-70	*	*	*	34	10	29.1	
	1970-71	*	*	*	37	11	29.7	14.7
	1971-72	*	*	*	40	12	30.0	
	1972-73	*	*	*	41	14	34.1	
Danforth Metropolitan Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	100	20	20.0	25	7	28.0	
	1970-71	145	29	20.0	20	6	30.0	37.9
	1971-72	150	30	20.0	20	3	15.0	
	1972-73	190	38	20.0	20	8	40.0	
Danforth Post Graduate Black Studies Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	19	5	26.3	10	2	20.0	
	1970-71	74	11	14.9	23*	4	17.4	0.0
	1971-72	79	18	22.3	20	8	40.0	
	1972-73	*Program no longer in existence*						
Danforth Short-Term Leave Grants for College and University Administrators	1968-69	*	*	*	20	1	5.0	
	1969-70	*	*	*	21	0	0.0	
	1970-71	*	*	*	20	1	5.0	0.0
	1971-72	*	*	*	20	0	0.0	
	1972-73	*	*	*	20	0	0.0	
Eagleton Institute: Policy Research Associate Awards	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	3	0	0.0	1	0	0.0	25.0
	1972-73	26	23	88.4	3	3	100.0	
The Ford Foundation: Advanced Study Fellowships for American Indians	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	6	2	33.3	4	2	50.0	0.0
	1971-72	23	6	26.1	8	0	0.0	
	1972-73	39	9	23.1	25	7	28.0	
		Program terminated						
Ford Advanced Study Fellowships for Black Students	1968-69	476	154	32.4	75	18	24.0	
	1969-70	465	103	22.1	104	26	25.0	
	1970-71	290	100	34.5	80	37	46.3	41.2
	1971-72	518	376	72.6	117	49	41.9	
	1972-73	1006	602	59.7	180	72	40.0	
		Program terminated						
Ford Advanced Study Fellowships for Mexican American and Puerto Rican Students	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	16	3	18.8	10	2	20.0	25.0
	1971-72	177	33	18.6	25	3	12.0	
	1972-73	285	64	22.5	111	26	23.4	
Dissertation Fellowships in Ethnic Studies (Ford)	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	153	31	20.3	80	16	20.0	11.1
	1971-72	247	94	38.1	93	38	41.0	
	1972-73	202	66	32.7	93	29	31.0	
Doctoral Fellowships for Mexican American and Puerto Rican Students	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	150	50	33.3	18	6	33.3	25.0
	1971-72	161	65	40.4	23	8	34.8	
	1972-73	211	70	33.2	66	27	40.9	
Ford Faculty Fellowships for Research in Economics, Political Science, and Sociology	1968-69	122	4	3.3	34	1	2.9	
	1969-70	124	5	4.0	43	3	7.0	
	1970-71	181	6	3.7	38	2	5.3	11.1
	1971-72	149	6	4.0	32	1	3.1	
	1972-73	*Program terminated*						
Department of Housing and Urban Development: Graduate Fellowships in City Planning and Urban Studies	1968-69	454	*	*	99	22	22.2	
	1969-70	680	*	*	107	28	26.2	
	1970-71	1235	*	*	101	25	24.8	11.1
	1971-72	800	*	*	111	36	32.4	
	1972-73	1500	399	26.6	104	49	47.0	

*Unavailable

Program	Year	No. of Appl.	No. of Female Appl.	% of Female Appl.	No. of Recip.	No. of Female Recip.	% of Female Recip.	% of Women on Sel. Comm.
Institute for Educational Management: Mgt. Development Program for College and University Administrators	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	7	0	0.0	0.0
	1971-72	*	*	*	18	2	11.1	
	1972-73	*	*	*	38	18	47.4	
Institute of International Education: Fulbright-Hays Graduate Study Program	1968-69	4400	2100	47.7	723	290	40.1	
	1969-70	2030	980	48.3	273	104	38.8	
	1970-71	1940	800	41.2	286	103	36.0	15.0
	1971-72	2150	950	44.2	300	113	37.7	
	1972-73	2980	1320	44.3	*Information incomplete*			
Law Enforcement Assistance Administration Visiting Fellows Program	1968-69	*	*	*	*	*	*	
	1969-70	5	3	60.0	5	2	40.0	
	1970-71	26	1	3.8	2	0	0.0	25.0
	1971-72	23	1	4.3	*	*	*	
	1972-73	*	*	*	*	*	*	
NASA: Postdoctoral and Senior Postdoctoral Resident Research Associateships	1968-69	311	8	2.6	111	3	2.7	
	1969-70	430	12	2.8	143	2	1.4	
	1970-71	391	9	2.3	117	3	2.6	3.8
	1971-72	446	9	2.0	133	5	3.8	
	1972-73	*	*	*	*	*	*	
National Endowment for the Arts: Architecture Awards	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	122[a]	15	12.2	*
	1971-72	*	*	*	*	*	*	
	1972-73	*	*	*	38[b]	4	10.5	
National Endowment for the Arts: Choreography Commissions	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	15	3	20.0	
	1970-71	*	*	*	2	1	50.0	58.9
	1971-72	*	*	*	17	5	29.4	
	1973-74	*	*	*	44	20	45.5	
National Endowment for the Arts: All Awards in the Field of Literature	1968-69	*	*	*	53[c]	19	35.8	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	41[d]	11	26.8	
	1971-72	*	*	*	2[e]	0	0.0	*
	1972-73	*	*	*	39[f]	10	25.6	
National Endowment for the Arts: Museum Training Fellowships	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	*	*	*	*	*	*	
	1972-73	*	*	*	42	19	45.2	0.0
National Endowment for the Arts: All Awards in the Field of Music	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	*	*	*	11[g]	1	9.1	20.0
	1972-73	*	*	*	36[h]	2	5.6	5.3
National Endowment for the Arts: Public Media Fellowships and Commissions	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	*	*	*	5	1	20.0	
	1972-73	*	*	*	6	0	0.0	9.1
National Endowment for the Arts: State Arts Council Internships	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	*	*	*	
	1971-72	*	*	*	*	*	*	
	1972-73	*	*	*	3	1	33.3	
National Endowment for the Arts: All Fellowships and Commissions in the Visual Arts	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	*	*	*	2[i]	1	*	
	1971-72	*	*	*	43[i]	5	11.4	
	1972-73	*	*	*	10[k]	5	50.0	13.3
National Endowment for the Humanities: Fellowships for Junior College Teachers	1968-69	*	*	*	*	*	*	
	1969-70	*	*	*	*	*	*	
	1970-71	174	45	25.9	25	5	20.0	30.4
	1971-72	242	56	23.1	79	24	30.4	
	1972-73	*	*	*	*	*	*	
National Endowment for the Humanities: Fellowships for Younger Humanists	1968-69	299	26	8.7	68	8	11.7	
	1969-70	302	33	10.9	85	4	4.7	
	1970-71	436	60	13.8	80	8	10.0	13.8
	1971-72	388	55	14.2	110	15	13.6	
	1972-73	848	131	15.4	208	39	18.8	

*Unavailable

[a]Undergraduate Student Travel Fellowships.
[b]Graduate Thesis Fellowships.
[c]Distinguished Service Awards and Individual Grants.
[d]Discovery Awards.
[e]Discovery Awards.
[f]Individual Fellowships.
[g]Jazz Program Commissions.
[h]Jazz Program Travel Study.
[i]Works of Art in Public Places.
[j]Visual Arts Fellowships and Photography Fellowships.
[k]Art Critics Fellowships.

Program	Year	No. of Appl.	No. of Female Appl.	% of Female Appl.	No. of Recip.	No. of Female Recip.	% of Female Recip.	% of Women on Sel. Comm.
National Endowment for the Humanities: Research Grants	1968-69	*	*	*	*	*	*	
	1969-70	341	51	14.9	130	18	13.8	
	1970-71	802	106	13.2	133	20	15.0	8.3
	1971-72	687	107	15.6	*	*	*	
	1972-73	*	*	*	*	*	*	
National Endowment for the Humanities: Senior Fellowships	1968-69	600	61	10.2	36	5	13.9	
	1969-70	*	*	*	*	*	*	
	1970-71	327	51	15.6	40	6	15.0	9.8
	1971-72	457	50	10.9	50	6	12.0	
	1972-73	715	96	13.4	92	8	8.7	
National Endowment for the Humanities: Summer Stipends for Younger Humanists	1968-69	311	33	10.6	117	9	7.7	
	1969-70	329	40	12.2	100	10	10.0	
	1970-71	483	76	15.7	100	10	10.0	13.8
	1971-72	340	50	14.7	110	14	12.7	
	1972-73	738	154	20.8	150	30	20.0	
National Institutes of Health: Special Fellowships	1968-69	*	*	*	586	59	10.1	
	1969-70	1179	*	*	846	195	23.0	
	1970-71	1206	*	*	709	177	25.0	Varies
	1971-72	1036	*	*	766	228	29.8	
	1972-73	*	*	*	*	*	*	
National Institutes of Health: Research Career Development Awards	1968-69	*	*	*	996	70	7.0	
	1969-70	*	*	*	1026	60	5.8	
	1970-71	1442	*	*	986	43	4.4	Varies
	1971-72	1412	*	*	1001	69	6.9	
	1972-73	*	*	*	*	*	*	
National Institutes of Health: Postdoctoral Fellowships	1968-69	*	*	*	1079	137	12.7	
	1969-70	2116	*	*	1226	177	14.4	
	1970-71	2220	*	*	832	127	15.3	Varies
	1971-72	1867	*	*	1090	173	15.9	
	1972-73	*	*	*	*	*	*	
National Institutes of Health: Predoctoral Fellowships	1968-69	*	*	*	1566	291	18.6	
	1969-70	2393	*	*	1513	298	19.7	
	1970-71	2134	*	*	1044	242	23.2	Varies
	1971-72	1140	*	*	722	188	26.0	
	1972-73	*Program suspended*						
National Science Foundation: Science Faculty Fellowships	1968-69	1083	40	3.7	223	18	8.1	
	1969-70	1048	61	5.8	212	23	10.8	
	1970-71	994	51	5.1	212	23	10.8	7.0
	1971-72	982	69	7.0	214	15	7.0	
	1972-73	*Program suspended*						
National Science Foundation: Research Participation for College Teachers	1968-69	1130	130	11.5	468	54	11.5	
	1969-70	1066	100	9.4	369	28	7.6	
	1970-71	1166	111	9.5	383	47	12.5	
	1971-72	1445	140	9.6	428	31	7.0	
	1972-73	*Program suspended*						
National Science Foundation: Postdoctoral Fellowships	1968-69	384	10	2.9	55	1	1.8	
	1969-70	*	*	*	*	*	*	
	1970-71	338	11	3.3	58	1	1.7	0.0
	1971-72	395	14	3.5	54	0	0.0	
	1972-73	*Program suspended*						
National Science Foundation: Graduate Fellowships	1968-69	8814	1589	18.0	2500	258	10.3	
	1969-70	7231	1537	21.3	2500	348	13.9	
	1970-71	8201	1786	21.8	2582	444	17.2	4.9
	1971-72	9315	2238	24.0	1972	371	13.6	
	1972-73	6199	1451	23.4	1550	290	18.7	
National Science Foundation: Postdoctoral Fellowships	1968-69	1162	102	8.8	120	8	6.7	
	1969-70	1087	104	9.6	130	8	6.2	
	1970-71	1294	143	11.1	169	9	5.3	1.7
	1971-72	1546	194	12.5	105	16	8.6	
	1972-73	*Program suspended*						
National Science Foundation: Graduate Traineeships	1968-69	*	*	*	5884	788	13.4	
	1969-70	*	*	*	5491	864	15.7	
	1970-71	*	*	*	5554	896	16.1	
	1971-72	*	*	*	3655	581	15.9	
	1972-73	*	*	*	*	*	*	

*Unavailable

Program	Year	No. of Appl.	No. of Female Appl.	% of Female Appl.	No. of Recip.	No. of Female Recip.	% of Female Recip.	% of Women on Sel. Comm.
National Science Foundation: Doctoral Dissertation Research Grants in Social Science	1968-69	243	•	•	110	•	•	16.7
	1969-70	253	•	•	120	•	•	
	1970-71	310	•	•	114	•	•	
	1971-72	354	•	•	141	•	•	
	1972-73	•	•	•	•	•	•	
Office of Education: Graduate Fellowships Program (NDEA Title IV)	1968-69	•	•	•	15,328	4292	28.0	•
	1969-70	•	•	•	12,233	3303	27.0	
	1970-71	•	•	•	8,603	2151	25.0	
	1971-72	•	•	•	8,345	2170	26.0	
	1972-73	•	•	•	4650	1209	26.0	
Office of Education: Higher Education Personnel Fellowship Program	1968-69	•	•	•	•	•	•	•
	1969-70	•	•	•	415	178	42.9	
	1970-71	•	•	•	960	470	49.0	
	1971-72	•	•	•	903	388	43.0	
	1972-73	•	•	•	912	392	43.0	
Office of Education: Fulbright-Hays Exchange Program for Elementary and Secondary Teachers	1968-69	1935	•	•	293	136	46.1	34.0
	1969-70	1798	•	•	243	102	42.0	
	1970-71	1890	•	•	292	111	38.0	
	1971-72	1987	819	46.3	269	111	41.3	
	1972-73	2233	990	44.3	255	104	40.8	
Alfred P. Sloan Foundation: Sloan Research Fellowships	1968-69	•	•	•	73	0	0.0	0.0
	1969-70	•	•	•	73	0	0.0	
	1970-71	•	•	•	76	2	2.6	
	1971-72	•	•	•	77	0	0.0	
	1972-73	•	•	•	79	2	2.5	
Smithsonian Institution: Visiting Research Student Program	1968-69	•	•	•	73	26	35.6	12.5
	1969-70	110	62	56.4	68	27	39.7	
	1970-71	144	75	52.1	35	23	65.7	
	1971-72	117	52	44.4	53	23	43.4	
	1972-73	115	37	32.1	64	26	40.6	
Smithsonian Institution: Pre and Postdoctoral Fellowship Program	1968-69	•	•	•	31	4	12.9	12.5
	1969-70	105	11	10.5	52	5	9.6	
	1970-71	176	29	16.5	48	12	25.0	
	1971-72	145	21	14.5	57	12	21.1	
	1972-73	172	30	17.4	54	16	29.6	
Commission on White House Fellows: White House Fellows Program	1968-69	•	•	•	•	•	•	•
	1969-70	•	•	•	18	2	11.1	
	1970-71	•	•	•	17	1	5.9	
	1971-72	997	93	9.3	16	2	12.5	
	1972-73	1509	153	10.1	17	1	5.9	
John Hay Whitney Foundation: Opportunity Fellowships	1968-69	500	•	•	28	10	35.7	Varies
	1969-70	500	•	•	38	13	34.2	
	1970-71	650	•	•	41	8	19.5	
	1971-72	900	•	•	57	21	36.8	
	1972-73	*Program terminated*						
Woodrow Wilson International Center for Scholars Program	1968-69	•	•	•	•	•	•	0.0
	1969-70	•	•	•	•	•	•	
	1970-71	122	5	4.1	33	1	3.0	
	1971-72	151	12	7.9	46	4	8.9	
	1972-73	130	9	6.9	32	3	9.4	
Woodrow Wilson National Fellowship Foundation: Woodrow Wilson Fellowships	1968-69	8094	•	•	1128	327	28.9	8.7
	1969-70	8123	•	•	1106	335	30.3	
	1970-71	7803	•	•	1157	356	30.8	
	1971-72	7681	•	•	1058	319	30.2	
	1972-73	•	•	•	•	•	•	
Woodrow Wilson National Fellowship Foundation: Dissertation Fellowships	1968-69	324	83	25.6	146	40	27.4	2.5
	1969-70	414	97	23.4	217	57	26.3	
	1970-71	579	164	28.1	231	67	29.0	
	1971-72	504	145	28.5	215	67	31.2	
	1972-73	510	156	30.6	223	72	32.3	
Woodrow Wilson School of Public and International Affairs	1968-69	382	•	•	59	7	11.9	0.0
	1969-70	398	•	•	76	8	10.5	
	1970-71	420	•	•	74	9	12.2	
	1971-72	500	101	20.2	73	14	19.2	
	1972-73	531	111	20.9	75	19	25.3	
Nieman Fellowship Foundation: Nieman Fellowships	1968-69	•	•	•	12	0	0.0	•
	1969-70	•	•	•	13	0	0.0	
	1970-71	•	•	•	12	1	8.3	
	1971-72	•	•	•	11	1	9.1	
	1972-73	•	•	•	12	0	0.0	

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CONFERENCE REPORT

Representatives from some of the largest and best known fellowship programs participated in a conference on "Women in Fellowship and Training Programs" held at Airlie House (Airlie, Virginia) on November 27-28, 1972. (A list of conference participants is attached.) The conference was jointly sponsored by the Association of American Colleges' Project on the Status and Education of Women, the American Association of University Women and the American Council on Education. Both the conference and the fellowship report were funded by the Exxon Education Foundation.

The keynote address, *Recycling Women's Options: Awards As Incentives and Vice Versa,* was delivered by Dr. David Truman, President of Mount Holyoke College. A copy of his remarks follows this report.

During the plenary sessions and workshops, conference participants elaborated on some of the recommendations made in the report by Cynthia Attwood. These additions have been added (in italics) to Part IV of the report, "Recommendations for Increasing the Participation of Women." (See page 11.)

There was a general concensus that the recommendations in the report be carefully studied by all fellowship and training programs. The conferees recommended that there be further study of the participation of women in fellowship and training programs. In particular, they recommended that any further studies on this subject specifically focus on the effect of marriage, children, age and race on women's participation in these programs. The conference also recommended that there be a Task Force on Women's Participation in Fellowship and Training Programs.

CONFERENCE PARTICIPANTS

Ms. Elinor Barber, The Ford Foundation
Mr. Walter Beach, American Political Science Association
Ms. Joan K. Benziger, President's Commission on White House Fellows
Ms. Mariam K. Chamberlain, The Ford Foundation
Dr. Douglas S. Chapin, National Science Foundation
Mr. George W. Courtney, Jr., United States Atomic Energy Commission
Mr. Edward S. Davidson, Smithsonian Institution
Dr. Harry M. Doukas, National Institutes of Health
Dr. L.H. Fannholt, Alfred P. Sloan Foundation
Dr. Lawrence W. Friedrich, United States Office of Education
Ms. Gretchen Gayle, Smithsonian Institution
Ms. Ruth Greenstein, Woodrow Wilson School of Public & International Affairs
Dr. Guinevere Griest, National Endowment for the Humanities
Mr. Richard A. Humphrey, American Council on Education
Ms. Caryn G. Korshin, Exxon Education Foundation
Mr. Michael Lacey, Woodrow Wilson International Center for Scholars
Ms. Lucinda Haynes, American Assembly of Collegiate Schools of Business
Mr. Bernard Loeffke, President's Commission on White House Fellows
Dr. H.W. Magoun, National Research Council
Ms. Janet Mitchell, Woodrow Wilson National Fellowship Foundation
Dr. Ruth M. Oltman, American Association of University Women
Ms. Judith L. Pinch, Woodrow Wilson National Fellowship Foundation
Dr. A. Henry Schilling, Woodrow Wilson School of Public & International Affairs
Mr. Paul W. Upson, Institute for Educational Management
Dr. Dorothy Williams, Department of Housing and Urban Development

CONFERENCE STAFF

Ms. Cynthia Attwood, Author of *Women in Fellowship and Training Programs*
Ms. Margaret Dunkle, Project on the Status and Education of Women
Ms. Arvonne Fraser, Conference Director
Ms. Francelia Gleaves, Project on the Status and Education of Women
Ms. Judith Nies McFadden, Consultant
Dr. Bernice Sandler, Project on the Status and Education of Women

RECYCLING WOMEN'S OPTIONS: AWARDS AS INCENTIVES AND VICE VERSA

Address Delivered By:

President David B. Truman
Mount Holyoke College
South Hadley, Massachusetts

November 27, 1972

I come before you tonight as the representative of a new or, I should say, a rejuvenated industry of great importance to the quality of life for everyone in the society. I am in the recycling business—not glass or paper or plastics or scrap metal, but young women. And the "recycling" is essentially aimed at avoiding the waste of our greatest resource, human talent. It is waste that occurs because the initial processing is aimed at a single purpose. That single purpose in turn is inappropriate because it takes no account of additional purposes of at least equal importance to the society. The results are obstruction of additional, full use of the resource and tragic waste.

I don't want to push my analogy too far, but I should note that this current enterprise is not new, though it is different in scope and in context from its predecessors. The college that I have the honor of heading was founded nearly 140 years ago by a remarkable woman, Mary Lyon, who was determined to eliminate the waste of talent resulting from the belief that women were so nearly uneducable and of so slight value to the society, beyond the reproductive and ornamental, that they should be denied the benefits of higher education. For her determination Mary Lyon encountered not merely obstruction and disbelief, but ridicule and contempt for her "unwomanly" conduct. As she sought assistance from influential men and toured the region for financial support, she met scorn and derision. Though she also achieved success, it was still the case that she was obliged to wait in the anteroom while the otherwise sympathetic men who were the institution's first trustees decided whether her promising venture should go forward. As a contemporary "recycler," I think of myself as a latter-day associate in her endeavor, only one, of course, of a great many efforts of comparable purpose.

So the enterprise is not new, but in significant ways it is different. Some understanding of those differences and of their origins is important, not to its ultimate success, for that is inevitable, but for its early success, its early effectiveness in the reduction of waste.

We speak easily of "the changing role of women," but that phrase, like most of its kind, obscures more than it reveals. Roles don't just change because some people decide that they should, because some people perceive that on some principled grounds they ought to change. The alteration comes rather because

the conditions supporting those roles are no longer the same. Requirements and, in a special sense, opportunities shift. Only then do the expectations and prescriptions that defined a social role undergo substantial change. But the lag between the two modes of change is often long, and the responsive shifts often occur in spurts, followed not infrequently by set-backs traceable to associated but essentially extraneous factors, such as the social-psychological responses to major wars and their terminations.

The contemporary movement to alter the options genuinely available to women is a response, a very late response, to a century and more of industrial and commercial upheaval in this country. As we need not be reminded, but often forget or ignore, nothing so fundamentally affects the roles and relations within a society as a profound shift in the ways in which it makes a living. In an essentially agricultural society the division of labor between the sexes was functional and relatively non-exploitative, at least in the sense that hard labor for a common family product was characteristically everyone's lot, including children along with women. Move the economic function out of the family, however, as well as reduce family independence, and these role differentials lose their functionality and much of their meaning.

The adjustments are sometimes sharp and often apparently anomalous. How many people know, for instance, that in the early years of the textile industry in southern New England it was the men in the family who were the supernumeraries, not the women? Some of these early manufacturers actually made work, presumably part-time, for husbands, in order to be able to recruit their wives as operators in the mills. That was atypical, of course, but worth noting. Rosie the Riveter had a great grandmother whom she never knew.

More important, no matter how sharp the occupational shift, perspectives and expectations change more slowly. Manners have a semi-independent life, as do ideas and aspirations, and they may persist long after the facts that gave them root. The United States has been primarily an urban-industrial country for about a century, but how many of our myths, our idioms, the symbols of our greeting cards are still, if not purely agricultural, essentially rural or at best anti-urban? If these things persist in the face of altered facts, how much stronger is the persistence of the attitudes and perspectives that bear on the more fundamental relations of woman and man and the role that each is expected to play in the society.

Underlying facts change; myths and attitudes persist. Women now constitute about 40 percent of the work force, but the common perception is that this is a much lower figure; the working woman is still felt to be the exception. More than half of the mothers of school-age children are employed, and 60 percent of all working women are married, but the notion remains that most women workers are spinsters, relicts, or young women waiting to get married. Absenteeism and turnover are no greater among women than among men at a given level of job, but the myth persists that women are less reliable as employees than men.

Women are a major component of the labor force, but historically and currently they have been relegated to the less responsible and lower paying positions in the economy. Without getting into the essentially false argument over whether the current woman's movement is representative of women from

all social classes or is primarily a middle-class effort, one can assert that a major aspect of the movement's objectives has to do with the middle class. For the fact is that, although discrimination against women exists at all job levels, women are most conspicuously under-represented in the more prestigious and responsible middle- and upper-middle-class occupations in the society. These are the professional and executive positions. Women today account for less than four percent of the lawyers, about seven percent of the physicians, a tiny fraction of professors, and a comparably small proportion of corporate executives.

This under-representation is where the waste shows. No evidence exists that would permit one to conclude that talent is unevenly distributed between the sexes. Yet the talents of women are, to put the matter gently, systematically under-utilized in the society.

This situation will change—eventually. Not simply because of the existence of a vigorous women's movement, but because of underlying factors that help to give the movement strength and purpose. It is clear that in the years ahead childbearing and childrearing will absorb a smaller fraction of women's lives than at present or at any time in the past. Most women will be wives and mothers, as always, but most of them will need and want to do something else with their lives as well. At 30 most women will have borne their last child, and by 35 their children will be in school. These women will look to employment—before, during, and after motherhood—for the same reason as men do: economic need and, more important, the fulfillment that comes with a complete utilization of one's talents and interests. Their children, moreover, need not suffer, given the evidence that children of mothers who choose to work are better adjusted than are those of mothers who do not work or, especially, who want to work but cannot. Adequate child-care facilities and, among other things, adjustments in career patterns and work schedules to accommodate working mothers will become normal.

These changes will occur—in the long run. But, in the immortal words of Lord Keynes, "In the long run we shall all be dead." The problem is not if, but when. It is a problem of whether, out of a concern for not merely equity but the intelligent use of human resources, the long run can be made appreciably and acceptably shorter.

This problem is not a simple one and not one that can be met by any single action or policy. Overt discrimination is, of course, a part of it. It is unmistakable that the average full-time woman employee earns sixty cents for every dollar earned by her male counterpart. It is clear that two-thirds of employed women work in the low-paid occupations. It is evident that a woman graduate of a first-class college will be asked by a prospective employer, "Can you type?" Her male contemporary will be asked no comparable question. It is also true that many statutes, especially in the states, discriminate against women and treat them as dependent incompetents.

But overt discrimination is only the most obvious—and therefore the most manageable—part of the problem. Unconscious discrimination that, like its manifestations everywhere, rests on stereotyping is far more extensive and more difficult to handle. How many employers with an opening to fill ask their acquaintances if they know of a "good man" for the job? How many, somewhat more sensitive to the issues, reassure themselves over a male appointment by

saying that no qualified woman applied for the job but fail to ask whether the procedures that developed the applicant pool systematically discouraged or excluded women?

Stereotyping results in, among other things, a kind of occupational segregation by sex. Despite an increasing number of women in the labor force, over the decades little change has occurred in the conventional assumption that certain jobs and occupations are "feminine" and that others—most of the more rewarding ones—are for men. The system in effect says that it is acceptable for women to work, provided that they know their place. And one encounters this persistent attitude in the most unlikely places. Recently I heard one of my faculty, a woman, say that we should urge more of our students to consider going into a particular occupation because it provided very good jobs for women. Apparently male chauvinism is an affliction that, somewhat like male baldness, can be transmitted through the female.

As this example suggests, moreover, unconscious discrimination based on stereotyping is not just the imposition of restrictions directly by a male-dominated society. It involves as well and at least equally a kind of self-stereotyping by women themselves. This can take many forms. It is not as apparent as it once was, perhaps, in the feeling that women should not be employed, but it shows in acceptance of the conventional definitions of appropriate "feminine" jobs. It certainly appears in the unexamined feeling of many young women that they have only two mutually exclusive options, a career or housewifery. More subtly it shows in the strong tendency for young women to delay choices that have occupational implications—whether to attend college, what to select among major fields, whether to go to graduate or professional school, as well as what kind of job to seek. Such delays not only have complicated psychological roots; they also reflect a series of accepted handicaps: a lack of confidence in one's talents, a lack of encouragement to aspire, often a residual but strong sense of guilt at the wish to act contrary to the prevailing stereotype, an associated anxiety, and what has been called a fear of success.

Such debilitating self-stereotyping begins very early, certainly soon after birth, and it testifies to the existence of a problem that is far more extensive and far more intractable than overt economic and occupational discrimination against adult women. Ask any three-year-old girl if she would like to be a doctor when she grows up, and the odds are better than two-to-one that she will reply: "Only boys can be doctors. Girls must be nurses." In fact, if you ask such a question, you will be acting atypically. We—the society, parents, grandparents, aunts, uncles, teachers—do not encourage the girl to aspire. We normally insist that the boy do so. We constantly ask him what he wants to be when he grows up. Normally we don't ask the girl because we just assume that she should have only one, exclusive expectation—to be a wife and mother and nothing else. These expectations are fixed in a variety of ways. For example, a number of standard psychological tests for children penalize the girl for giving what are regarded as "masculine" answers (and the boy if he happens to give "feminine" responses). The expectations are fixed and they tend to be reinforced by varying but recurring experiences throughout the woman's life. What range of conditioning is tapped by the question, "Can you type?"

Is it astonishing that I am concerned with recyling? Is it surprising for one in my position to say that the women's college, aware of the waste that threatens its students and the society that they are entering, has a mission at least as important today as that of Mary Lyon and her contemporaries? I know that mission in good measure can be accomplished because I have seen it accomplished.

But the front on which constructive action is required is far broader even than the one on which I am working. Part of it, an important part, is the matter on which this conference is focused. Given the self-stereotyping, the insecurities and accepted constraints on aspiration that are built into the typical experience of women from early childhood onward in our society, a major aspect of any corrective action must involve altered patterns of incentives and rewards, of rational aspirations and supportive reinforcements. The patterns that are now followed, however unconsciously, tell the woman not to value her talents, not to aspire, and the confirming reinforcements that she receives, combined with the discrimination she encounters at almost every turn, indicate to her that those self-disesteeming instructions were correct. The negative cycle generates self-fulfilling prophecies. The resulting waste of talent, of human life, is indefensible.

Almost any person, especially a young person, experiences self-doubt that is objectively unwarranted. If its potentially destructive consequences are to be avoided, the individual must from time to time receive indications, some evidence, that the doubt is not warranted or at least not fully so. The evidence can be direct, as when something in the environment, perhaps preferably someone, says in effect, "You can do it," and, trying, the individual discovers that indeed he or she can, perhaps not brilliantly, but still at a satisfying level of performance. Such a cycle also generates self-fulfilling prophecies. Positive, its effects are frequently generalizable to quite different kinds of challenges.

The evidence against self-doubt can be and very often is quite indirect and need be no less productive on that account. Thus to receive indications that others who are like one's self, other women, can do and have done what one wants to dare to try is positive in its effects. The evidence here is plentiful. For instance, I have recently seen a study by a colleague and friend of mine, a woman who has been much interested in the circumstances producing "women achievers," whom she defines for investigative purposes as those listed in *Who's Who of American Women*. For the thirty-year period from 1910 to 1940 she related, by educational institution, the proportion of women achievers per thousand women enrolled or graduated to the proportion of women faculty per thousand women enrolled or graduated. The correlation was positive and practically perfect, above .95. A number of inferences can be drawn from such data, and a variety of questions can be put to them, but surely it is clear that an environment in which women of accomplishment are visible is an environment associated with the emergence of women who achieve. The indirect effect surely is as significant here as the direct one.

Fellowship awards, especially of prestigious and visible fellowships, can have both direct and indirect impacts. I use the plural deliberately. The person—let me rather say the woman—who is chosen receives positive reassurance of her capacities from the award, its standing, and the competitive process by which

the decision was made. As the recipient of an award, moreover, she is likely to acquire a visibility that will add to the effectiveness of a career, since she will be marked as a potential leader by the fact of her certification through the fellowship. The woman who sees or learns of the award is herself in turn reinforced by the observation that her own aspirations may not be unreasonable. But the effects can go beyond these obvious ones. The visibility of women achievers can help to break down the stereotype in men's minds concerning the talents, capacities, and accomplishments of women. Further, women recognized by fellowship certification are likely to acquire contacts in the informal networks of influential people that can bring other able women into visible and important positions. That too is a part of the recycling.

I have not studied the report that you will discuss tomorrow and I am, of course, unfamiliar with all the constraints and problems under which you operate. I hope, however, that the comments I have made tonight may be useful in your discussions and even in your future operations. At the least I hope that you will not take the "out" of the partially sensitive employer: "No qualified women applied." Given the circumstances, they may not apply. But they are there and they should be sought, at least until the cycle begins to move more positively. The waste has gone on too long.