

DOCUMENT RESUME

ED 162 580

HE 010 669

TITLE The Fund for the Improvement of Postsecondary Education Projects/Women. Reports from the Fund.

INSTITUTION Fund for the Improvement of Postsecondary Education (DHEW), Washington, D.C.

PUB DATE Feb 77

NOTE 17p.

AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Stock Number 017-080-01831-4)

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Adult Learning; Adult Students; Counseling Programs; Educational Change; Educational Problems; Experiential Learning; \*Federal Aid; Federal Programs; \*Females; Futures (of Society); Grants; Higher Education; Instructional Materials; \*Nontraditional Students; \*Postsecondary Education; Program Descriptions; Sex Discrimination; \*Womens Education; Womens Studies

IDENTIFIERS Education and Work; \*Fund for Improvement of Postsecondary Education; Reentry

ABSTRACT

The history of women's programs of the Fund for the Improvement of Postsecondary Education is outlined, giving information on the kinds and scope of proposals received. Funding patterns are explained, and general and specific program areas are discussed: counseling programs, recognizing prior learning, integrating curriculum and career needs, materials for women's studies, and nonsexist institutions. The overview reveals promising efforts to solve problems in postsecondary education that have significance for all learners, not just women. Women's projects constitute an unusually promising approach to system improvement by having brought to the fore and begun to solve important educational and social problems. (MSE)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*

3

REPRINT HE

(No Sell List ERIC 017-080-01831-4)

Reports from the Fund Projects/Women

THE FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

ED162580

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

HE 010669

### **DISCRIMINATION PROHIBITED**

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or be so treated on the basis of sex under most education programs or activities receiving Federal assistance.

**Reports from the Fund**

**Projects/Women**

THE FUND FOR THE  
IMPROVEMENT OF  
POSTSECONDARY  
EDUCATION

013432

**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE**  
Joseph A. Califano, Jr., *Secretary*

**Education Division**  
Mary F. Berry, *Assistant Secretary for Education*

**Fund for the Improvement of Postsecondary Education**  
Ernest Bartell, c.s.c., *Director*

## FOREWORD

The Fund for the Improvement of Postsecondary Education was established by the Education Amendments of 1972. "Improvement," as interpreted by the Fund, includes not only aid to colleges and universities enabling them to offer more effective educational experiences for present students, but help for potential learners to determine their educational goals and select programs to meet them. Support is given to existing institutions to reform their policies and practices to serve new and returning learners, and to establish new institutions and agencies where needed to supply services not currently provided.

Funding agencies have learned that improvements initiated with "soft" Federal dollars often disappear after the Federal support ceases. This seems particularly true of improvements for which responsibility is perceived to rest in Washington and not in institutions or States; for ideas originating with funders rather than with practitioners; and for cases in which the stakes for lasting success are higher for the funding agency than for the grant recipient.

Knowing this, the Fund's earliest solicitation of projects sought to avoid support of "made in Washington" improvements. A

decision was made not to support categorical programs targeted at specific client groups, such as Indians, women, Hispanics, and adults. We did require, though, that projects demonstrate "benefit to learners," and since the named client groups tend to be the least well served in postsecondary education, many of the improvements proposed to the Fund and many of those actually funded benefited these groups of learners. Some projects were explicitly designed by the applicants to aid one or more of these groups of learners.

When a funding agency eschews categorical solicitations, it incurs a responsibility after the fact to analyze the problems and solutions addressed by its grants. Because of this, the Fund has established a series called *Reports from the Fund*. Each report will discuss a particular concern in postsecondary education and describe Fund grants related to that concern. This, the first in the series of *Reports from the Fund* results from the efforts on the entire Fund staff, but special thanks for work on this report go to Alison Bernstein, Lynn Demeester, and Carol Stoel. This report will review Fund projects designed to improve education experiences for women beyond high school.

Virginia B. Smith  
Director  
February 1, 1977

## TABLE OF CONTENTS

Introduction—Women's Concerns .....	1
What Was Submitted .....	1
What Was Funded .....	3
College Programs for the Returning Woman Student .....	3
Counseling Programs Outside Colleges .....	4
Recognizing Prior Learning .....	5
Integrating Curriculum and Career Needs .....	6
Materials for Women's Studies .....	8
Non-Sexist Institutions .....	9
Conclusions and Future Directions .....	10

## INTRODUCTION

The early interaction between the women's movement and American higher education was characterized largely by women's studies programs and affirmative action efforts. But the movement had not significantly contributed to a modification of the structure of higher education nor to enhancing the relationship of colleges and universities to the broader group of potential women students outside the gates.

By 1970, however, two phenomena occurred in higher education which had profound impact on the women's movement on campus. One was a new Federal and State commitment to equal access and mass higher education which imposed a new group of learners upon previously more selective institutions and contributed to the extraordinary growth of the community college sector. This new commitment expanded the concept of "Open Admissions." Postsecondary education became a "right," not a privilege, and it was extended to minorities and economically disadvantaged persons in both urban and rural communities. The second phenomenon was the increasing economic plight of private colleges and universities.

A number of academic feminists committed to expanding access to postsecondary education saw increased access as a way to strengthen and broaden the base of the women's movement on campus. Working women, mothers, and older women would help frame the political issues as well as enrich the educational experiences of others. Furthermore, some faculty perceived these women as catalysts for fundamental changes in the curriculum and structure of American higher education.

Running parallel to the concerns of feminists were those of administrators facing declining enrollments. New "clienteles" had to be found. Women over age 22 seemed the most likely applicant pool—especially women who could afford to pay for their education. And so the administrators seized upon the rhetoric of the movement and urged women to

explore new life options through their colleges. "Special" programs for women re-entering or entering college for the first time were inaugurated. Some were old programs with new titles; a few actually attempted to address special needs of adult women. By the time the Fund solicited its first proposals, women in higher education had come to be perceived as a pool of potential college recruits, but these recruits might themselves force changes in programs and policies.

## WHAT WAS SUBMITTED

In its first 3 years of operation, the Fund received scores of proposals describing the problems of older women students and proposing strategies for dealing with them. Proposals came from all sectors of postsecondary education, and—since the Fund is authorized to award grants to non-accredited institutions—a number of proposals came from newly established community groups seeking more effective use of recently opened avenues to higher education. The proposals represented a diversity of approaches and methodologies. The most promising ones pointed to the fact that the current system of postsecondary education did not adequately serve the needs of this new female population.

The least competitive proposals sought funds to dress up brochures, hire counselors (usually part-time women not on the tenure ladder), and provide orientation sessions for women students newly arrived on campus. At best, these proposals promised improved information dissemination; at worst they used feminism as a guise for a new recruitment strategy. They argued that access alone was the problem, that present offerings, practices, and policies served women well. The nature of the institution—its class schedules, financial aid system, faculty composition, and programs of study—could remain untouched. Major adjustments would have to come from the women.

Two reasons led the Fund to turn these proposals down. The Fund had determined

that its scarce funds should not be used to expand access alone, but to provide support for projects that went beyond access to improve the educational experience itself. The second reason developed from what some practitioners and women's groups told the Fund in their proposals: that more than the brochures would have to be changed if returning women were to be well served.

The problems described by the practitioners (mostly female) working in this field were legion. Older women were isolated from information about a variety of educational opportunities. They did not receive adequate counseling *prior* to making a decision about whether and where to go for an education. Poor women lacked funds for many types of programs and did not know how to receive governmental or State financial assistance. For these women, "access" barriers transcended what could be handled in a brochure. Additionally, once in institutions, women faced new sets of barriers, ones of sexism, often coupled with racism. A great many women suffered from inadequate preparation for "college-level" work. These women had poor high school experiences, had been discouraged from aspiring to go to college, had been away from the cloistered groves of *academe*. And finally, the best proposals called attention to the lack of fit between a woman's educational goals and the prescribed programs of study offered by most institutions.

Traditional higher education had been designed primarily for white, male youth. Despite significant numbers of female students, the character of most co-educational colleges and universities (and even a number of women's colleges) was shaped by male visions: marriage, childbearing, childrearing, and work were not accommodated within the male-dominated model. Older students and especially older women students deserved new educational models tailored to their needs.

Some excellent proposals tackled problems associated with serving traditional students age 18-22. Feminist scholars expressed concern about the widening gap between

existing curriculum (which did not reflect the world of women) and the new "knowledge explosion" in women's studies. Many women faculty and (some male faculty) in women's liberal arts colleges worried about preparing their traditional students for work after college. These persons submitted proposals linking liberal arts education to field experience in business, industry, and the professions. Women scientists wishing to enlarge their numbers identified problems in the retention of women in mathematics and the natural sciences.

Half of the proposals submitted sought funds to provide some form of counseling for older women. These proposals ranged from the institution-based recruitment-counseling proposals mentioned earlier, to community-based counseling programs that included advocacy to colleges on behalf of women students, and continuing counseling support for students once accepted into collegiate programs. The second largest category of proposals asked for support to hire faculty to teach women's studies courses. Some proposals asked for operating funds to establish a women's center which would serve as an information clearinghouse, counseling and referral agency, and center of feminist activity on campus. A few proposals sought to increase research about women.

Unfortunately, many of these proposals showed all too clearly that they in fact were "add ons" to the institution. Few showed how the added women's studies faculty would be supported after Federal funding ceased or how the functions of women's centers would impact on other aspects of the institution, especially since the centers were separated both in terms of personnel and geography from the mainstream of campus activities. In short, these requests were not viewed by the institutions as start-up funds for priority improvements of a comprehensive nature.

Over the last 3 years, some of our most interesting proposals came from the non-collegiate sector. Proposals submitted by the National Council of Negro Women, the Women's Inner City Educational Resources

Center (WINNERS), the Women's History Library, and the Women's Institute of Alternative Psychotherapy all fell within the Fund's broad eligibility requirements. Each of these proposals argued for significant changes in the ways women relate to postsecondary education, and the way education relates to the world of work.

Yet, despite this seeming diversity of proposals, a number of problem areas were not addressed by applicants. In its first 3 years, the Fund did not receive proposals which focused on leadership development—how to improve postsecondary education by infusing qualified female leadership at the highest levels. Another unaddressed problem area concerned the redesign of faculty workloads to accommodate part-time contributions of women staff. While many institutions have found ways to accommodate female faculty who wish to teach part-time, campus employment procedures continue to be hostile to and exploit part-timers. The relationship of affirmative action to tenure has not been tackled by any applicant. And finally, although some alternative models of women's institutions have been funded, the Fund has yet to receive a proposal which seeks to evaluate whether a traditional institution has achieved a "non-sexist" climate.

## WHAT WAS FUNDED

In the last 3 years, the Fund has committed nearly \$1.3 million for projects designed to help older women determine their educational goals prior to enrolling in educational programs and attain them while enrolled. These projects have constituted the largest single category of grants related to women's educational needs. Grants have been made to a diversity of organizations and reflect a variety of strategies. Support has gone to Barat College, a small women's college located in the northern suburbs of Chicago; the Women's Inner City Educational Resources Center, a Black women's community group located in the Roxbury section of Boston, Mass.; Temple University in Philadelphia; the

Regional Learning Service of Syracuse, an independent "brokerage" agency supported in part by a consortium of postsecondary educational institutions in western New York State; San Jose City College, a public community college in Calif.; and finally, the Educational Testing Service of Princeton, N.J.

## College Programs for Returning Women Students

The collegiate institutions are focusing on ways to accommodate older women within new or already existing programs. Barat was determined to eliminate barriers preventing older students from enrolling and sought funds to speed its conversion from a predominantly residential college for 18-22-year-olds into a postsecondary institution also serving needs of returning community women. With Fund support, Barat accomplished a transformation so that over 40 percent of its students are 25 or older. Initially Barat experienced stress as its 18-22-year-old, residential culture rather suddenly was hit by an influx of older commuting women. One locus of tension was the classroom; some older students taking their first course in years felt insecure in the more free-wheeling, innovative style of today's college classroom; some younger students were put off by the newcomers' desire for more structure and drive for the affirmation afforded by high grades. Teachers were accused of favoring either the older or the younger group. A variety of methods was then used to promote better understanding and exchange. As a result, almost everyone in the college now believes there is a far healthier mix of students, perspectives, and learning styles in the "cross-generational" classroom.

Barat also had to deal with its own institutional arrangements insofar as they presumed a younger, residential student body. Initially, returning community women were served, prior to and after enrollment, by a separate, Fund-supported office combining counseling, services and advocacy functions. The office performed valuable service in promoting equity for part-time, older women, prompting more convenient scheduling of

classes, year-round course offerings, car pools, better child care, rearranged office hours, and changes in matters as mundane as mail boxes and vending machines. Eventually, however, the office came to be resented for the "separate and special" aura it put on the women it served and for the ways in which its existence allowed "regular" college offices to continue unchanged. Barat therefore abolished the office, folded its functions and personnel into existing offices, then undertook self-study and retraining to assure that the total college acted throughout to serve the needs of enrolled women of all ages.

The Regional Continuing Education for Women Program (RCEWP) is a Philadelphia network of college offices serving adult women. Formed by Temple University's Office of Continuing Education for Women, members also include coordinators at Bucks County Community College, Community College of Philadelphia, Delaware County Community College, and Montgomery County Community College. During RCEWP's first 2 years, the institutions have informed numerous women of educational opportunities through widespread radio, newspaper, and television publicity about RCEWP programs and services. The use of the media was considered crucial if the project was to have impact on the more than one million adult women living in the greater Philadelphia area. The project has produced a series "Highlighting Opportunities for Women" in cooperation with the Philadelphia public libraries; a number of programs featuring women in a variety of career fields, the publication of a "Guide to Higher Education Resources" and a "Guide to Day Care Services and Early Education Programs." An important RCEWP contribution has been 16 training seminars to sensitize professional staff and interested faculty at member institutions to the needs and concerns of adult students. The network has also embarked on research to assess the academic and service needs of adult women students at the colleges.

The San Jose City College project differs from the other collegiate efforts in two important ways. First, it is an intensive, 1-year aca-

ademic program for Chicanas. It is not attempting to alter the structure and services of the institution for all women students, but rather, work within the confines established by the college. Secondly, it is geared to the special needs of Spanish-speaking women. Its purpose is to ease the transition of these women from home-based activities to the academic world. A few of the more than 100 women participating have been away from school for 40 years and the average number of years absent from formal learning environments is 16. The foundation of the program is a 10-unit course of study in general education. One strategy of the program encompasses "block scheduling" so that women proceed through their courses and counseling with the same group. The low attrition rate of women in the project attests to the supportive atmosphere resulting from close association with peers. After its third and final year of funding, the project was absorbed into the regular budget of the college.

### Counseling Programs Outside Colleges

Two significant departures from the college-based adult counseling and education program are the Regional Learning Service (RLS) project in Syracuse and the Women's Inner City Educational Resources (WINNERS) project in Boston. Both RLS and WINNERS "broker" educational services for student consumers. Because they do not rely on support from a particular institution, they are free to match student needs with the most appropriate postsecondary educational activity, or in some cases, suggest alternatives to formal education.

In central New York, RLS has identified five groups with particularly urgent needs for educational and career counseling. These are women, persons without high school diplomas, persons without college degrees, persons contemplating career changes, and disadvantaged populations. In response, RLS has created inventories of community-based educational resources, trained part-time counselors, and initiated an ongoing service which runs from 9 in the morning to 9 in the evening.

Over 900 persons have already availed themselves of the RLS individual counseling services (and close to 70 percent of these are women). To maintain services, beyond the expiration of start-up funding, RLS has experimented with fee structures and is looking for support from new combinations of State and private funding sources.

The uniqueness of RLS lies in its "no strings attached" philosophy of counseling. Students are consumers to be served; RLS' success is not tied to recruitment. Clients are encouraged and informed to choose from a wide array of educational possibilities, including traditional or nontraditional programs, 2-year or 4-year, public or private, vocational or academic institutions, and part-time or full-time attendance. RLS does not assume that any one program or institution is appropriate for everyone, but rather that everyone is entitled to an opportunity to find what suits him or her best.

While RLS has served clients chiefly through individual counseling, it has also offered a number of workshops, particularly for women, which participants have found helpful. Workshops have taken various forms, from a day-long program on nontraditional occupations for 200 women to several series of 4-6 weeks each in churches, libraries or other community settings. Featuring one or more aspects of educational and/or career concerns, these workshops have presented information, guidance, and peer support—a combination which often sparks further academic or vocational pursuits.

At WINNERS the accent is on community self-help. Established with a \$209,890 grant from the Fund in 1972, WINNERS' staff, who are themselves women from the community, assist other predominantly urban Black women to develop and implement their postsecondary educational and career goals. The service was designed to meet the identified needs of nontraditional learners—women who have the potential for college but who are not aware of the availability of resources or the steps they must follow to make use of them.

The WINNERS program includes aggressive dissemination about the services; information about alternative educational and career options; educational planning, counseling, and referral; advocacy at the institutional level once the woman is enrolled; skill development; scholarship and financial aid counseling; and temporary child care. Since 1973, WINNERS has served over 1,000 women in the central Boston area, many of whom are now enrolled in postsecondary education.

As an advocate for urban women, WINNERS has helped sensitize the institutions to the particular needs and strengths of its students and has worked with local colleges to develop new programs for occupational mobility for minority women. It is currently working with Boston State College to establish a training curriculum in business and general office skills for disadvantaged urban women. Supported for 3 years by the Fund, WINNERS has established itself as a vital service organization, and is concentrating in its fourth year of a scaled down Fund grant on developing a sound financial base.

### Recognizing Prior Learning

One project takes a very different cut at the problems of reentry or first entry of older women into postsecondary education. Two researchers at Educational Testing Service (ETS), Dr. Ruth Ekstrom and Dr. Marlaire Lockheed, are helping older women who have had extensive experience in volunteer and domestic work demonstrate their competencies as a basis for obtaining academic credit.

Ekstrom and Lockheed are developing workbooks designed to relate competencies women have acquired as a result of nonclassroom experiences to certain competencies acquired in the academic world. Without this approach older women have typically spent time ostensibly learning once again, skills or concepts that they have already acquired. This is both costly and time consuming for the individual as well as society.

In the first year the ETS project developed a three-dimensional taxonomy of volunteer and domestic skills. The dimensions included: 1) the setting of the activity; 2) the function performed; and 3) substance of the activity (e.g., persons, ideas, or things). In its final year of funding the ETS project is field testing the workbooks developed with an advisory board of eight colleges and with volunteer groups. The materials will then be disseminated to an even larger educational and working community. The primary objective of the grant is to help facilitate the entry of women into postsecondary education by linking learning acquired outside academic classrooms to the woman's eventual course of study.

### **Integrating Curriculum and Career Needs**

The relationship between career needs and liberal education has been the focus of much current discussion. High rates of unemployment have led some to question the value of less vocationally oriented education. Others are seeking ways of meshing the two:

Three Fund grants working specifically with women are developing new ways to link work concerns with learning which preserve the need for general education while facing the problems of employability. At Northeastern University, an institution with a reputation for cooperative educational programs with industry, a special project was funded to "translate" traditional degree transcripts into appropriate skills training for available jobs. At Mills College in Oakland, Calif., traditional counseling was made a part of a larger career and life planning center. In New York City, The National Council of Negro Women developed a joint project with Pace University to help minority employees trapped in low-level clerical jobs receive a work-based Associate in Arts degree combining skills training and general education courses. These three Fund grantees are exploring ways of connecting education to the increasing role of women in the labor force.

Prior to requesting a grant, Northeastern University found through a survey that a number of barriers prevent mature women from finding suitable employment. Many women had dropped out of liberal arts programs to raise families and were having difficulty completing these course requirements to obtain baccalaureate degrees. In addition, even women with B.A. degrees in traditional fields were rejected by employers who cited inadequate career training.

The issue for these women was how to obtain a "relevant" education to get a job. Hence, the goal of the Northeastern grant is to develop "Career Competence Curricula Portfolios" as short term alternatives to more time-consuming degree programs. Ten major employers in the Boston area are working with Northeastern faculty to develop 60 career "modules" based on skills thought needed for predicted job vacancies. Women will then select a particular module which will prepare them for *actual* jobs. The women participating in the program will include college and noncollege graduates, unemployed as well as employed women wishing to upgrade their skills. The Northeastern program, in addition to identifying skills appropriate for specific jobs, helps women identify their competencies acquired in a number of learning environments and works closely with the ETS grant on translating volunteer and domestic experiences into academic credit.

With a grant from the Fund, Mills College established the Center for Career and Life Planning which provides a variety of career services for women undergraduates. The Center designed a career counseling program emphasizing the philosophy that career goals are reached through a developmental process that involves students, faculty, and Center staff in a cooperative venture.

During its first year, the Center developed a number of tools and techniques for use in this process: a career resource library that contains a broad range of printed material on women and career opportunities; vocational interest tests and personal counseling; panels and group discussions focusing on preparation

for specific careers; information on graduate school requirements and review sessions for admission exams; workshops on resume writing, job interviewing; and other placement techniques; and a series of speakers featuring women professionals as role models. In addition, the Center for Career and Life Planning coordinates the college internship program, which has become a valuable part of liberal arts education at Mills. By the end of the Center's second year, Mills women had received academic credit for participating in over 300 diverse off-campus internships.

Some results of Mills' intensive exploration of the relationship among career preparation, the liberal arts tradition, and the education of women were curricular changes at Mills. The project also resulted in reinvigorating the liberal arts curriculum and a sharper focus on career planning and guidance within it. The project has demonstrated that a liberal arts education does provide certain highly-marketable skills in communication, articulation, the ability to analyze and synthesize, and in organizational ability. The experience of the Center has been that unless career guidance is coordinated with the academic program, the impact of attempts to involve women in early career and life planning is greatly weakened. For this reason, faculty and members of the administrative staff have supported the Center's efforts to blend effective career planning with the academic development of students throughout their years at Mills.

The National Council of Negro Women (NCNW), project is a model of cooperation between community groups and educational institutions to enhance the career opportunities for women (and in this case, mature Black women), in low-paying jobs. A 60-hour Associate in Arts degree awarded through Pace University is being designed to move women into management, sales, and administrative positions. NCNW's role is to administer the project and link the resources of the college to the businesses involved. Pace provides the actual instruction. Eight companies are participating with students and faculty in conducting a task analysis of competencies

required for jobs and are jointly developing a curriculum that reflects these competencies. First year activities included the development of the curriculum and the selection of 75 women to participate in the program. This project tests a new approach to curriculum development through the collaboration of a community group interested in the career advancement of its constituency, an educational institution, and the business sector.

Both Purdue University and Wesleyan University have distinguished reputations for training students for careers in the mathematics, engineering, and science fields. Over the last few years, faculty and administration at these institutions have been attempting to solve the problem of the underrepresentation of women in the mathematics and science curricula with two distinct approaches. At Purdue, efforts have been directed at increasing the retention rate of women who had already selected these disciplines, while at Wesleyan, the emphasis has been on increasing the number of women initially selecting the mathematics and science fields of study.

Although the enrollment of women in science curricula at Purdue University had been steadily increasing over a 10-year period, the attrition rate for women was significantly higher than the attrition rate for men. With a Fund grant, Purdue implemented a 2-year project to increase the retention rate among freshman and sophomore women (where attrition had been the greatest) in the science disciplines. The basic assumption of the project was that the women were leaving the sciences by choice rather than academic failure, and therefore, could be influenced by an intervention program.

Incorporating several elements that previously had been shown to play important roles in the career choices of undergraduates, the project offered intensive counseling, a special course which had as its primary purpose the exposure of women science students to viable role models (women scientists), and small group faculty-student research projects. Analyses of the results of the intervention strategy showed that the project

significantly increased the retention rate of women participating in the programs to the same levels as that of male students, providing support for the hypothesis that women were leaving the sciences by choice and that their choice could be influenced. In addition, it was found that the greater the participation of the students in the project, the higher the retention rate. For example, the retention rate after 2 years for students who received intensive counseling, enrolled in the special course and participated in the faculty-student project, was 60 percent as compared to 39 percent for students who did not participate in any of the project elements. These results appear to demonstrate that intervention can be effective in increasing the numbers of women in the science curriculum by retaining a greater percentage of women after they have selected one of the science disciplines.

At Wesleyan University, the approach to increase the number of women in mathematics and science courses has been different. A group of faculty and administrators at Wesleyan, formerly a male liberal arts college which recently became coeducational, noted that women students were not electing mathematics and natural science courses. These women seemed to be suffering from what can be called, "math anxiety", a feeling that one's aptitude in mathematics is inadequate to permit her to take further math courses leading to science professions or even do quantitative work in the social sciences. The greater flexibilities of baccalaureate requirements in recent years have allowed students to go through college without taking a single math course and without having to challenge their fear of the subject. Wesleyan received support from the Fund to tackle the problem of "math anxiety". The project is studying the origins and manifestations of "math anxiety" while searching for solutions through pilot courses, diagnostic tests, and counseling offered in a "math anxiety" clinic for undergraduates and community people.

The clinic has five functions: 1) to run minicourses utilizing new teaching techniques for undergraduates; 2) to run similar courses for adults; 3) to sponsor workshops and

seminars on the role of mathematics in society and its utility for certain professions; 4) to furnish a computational skills laboratory for students having difficulty in quantitative courses outside of mathematics; and 5) to disseminate findings and information about successful interventions to combat "math anxiety" at two regional conferences on the subject for educators at all levels.

The clinic has been operating a little over a year and has already received widespread support and interest. The project was the subject of a report on National Educational Television and it has served as a catalyst to encourage other institutions to mount efforts of this type on their own campuses. Although the project stemmed originally from a concern about women undergraduates, the clinic is developing courses and strategies which will aid any student who has suffered from early negative educational experiences with mathematics.

### **Materials for Women's Studies**

In its first year of operation, the Fund sponsored two unusual and cost-effective approaches to disseminating information about women to postsecondary education institutions and their students. The School of Law of Seton Hall University in Newark, N.J. received \$49,572 to produce a color video-cassette law school course on *Women and the Law*. Fourteen color video-cassette programs were produced on selected aspects of the law as it affects women. Outstanding legal scholars were invited to develop the materials for each segment. The course encompassed such topics as the Equal Rights Amendment, constitutional law, employment discrimination, credit discrimination, rape, and the correctional justice system.

The video-cassette "course" was not intended to take the place of class activities, but rather to form the basis of seminar discussion. It has been widely praised and has been used in over 300 colleges, junior colleges, and universities across the country. This grant provided a cost-effective way to

deliver an educational activity in an area acknowledged as being important and yet unexamined in traditional law school curricula.

Another early grant went to the Women's History Research Center in Berkeley, Calif. It requested funds for its libraries, and to help train teachers and women's centers organizers in the collection, preservation, and dissemination of documents relating to women's history. Librarians/interns were selected from all parts of the country and given inservice training on new bibliographic techniques for making available the past and contemporary history of women, and they, in turn, put these new skills to work when they returned to their own colleges or women's centers. It is also worth noting that through the Fund's intervention the Women's History Research Center was helped to find a permanent home at the University of Wyoming (the subject files) and at Northwestern University (the periodicals), and given a setting in which further collecting and research, supported by the universities, can take place. Furthermore, the interns cataloged the material which the Center published on microfilm and this material is now available through 200 institutions in the United States and six other countries.

### **Non-sexist Institutions**

Perhaps the Fund's boldest grants are those which are creating new non-sexist models of education at the postsecondary level. Over the last 3 years, the Fund has given nearly a half million dollars to Alverno College, a women's liberal arts institution in Milwaukee, Wis. The Alverno grant was made to help the college establish a new liberal arts curriculum and implement a comprehensive performance-based learning approach to the awarding of a baccalaureate degree. The impetus for this new approach came from an awareness that women students needed to acquire special competencies to overcome certain forms of societal conditioning. Women had to develop skills in oral communication, group process, managerial skills, and analytical problem-solving. An explicit goal of the

grant was the creation of an environment free from the traditional stereotypes and biases which have hindered female undergraduates in the past. While intellectual curiosity and critical thinking are prized in the Alverno model, they are not assumed to be acquired solely through the learning of a "set" body of knowledge and the accumulation of exposure units in specialized disciplines. It is too early to tell whether Alverno is an authentic new kind of women's college but early reports suggest that because they have started their reform with the most basic question—what is it students ought to be when they graduate—they have discarded much of the baggage which weighs heavily on women in male-oriented institutions.

The Women's Institute of Alternative Psychotherapy in Boulder, Colo, was formed to respond to several problems at the professional level. Many therapists promote "normative" societal values and counsel women, regardless of race, socio-economic role, or personality type, to adjust to the traditional model of the middle class female. The practice ignores the value systems among women of culturally different backgrounds. Doctoral training programs do little to correct this practice. Currently, there is no graduate program which educates licensed therapists with a special expertise and sensitivity to the needs of women. The Women's Institute received a grant from the Fund which has established a graduate school in alternative psychotherapy, which will grant experience-based degrees. Negotiations are now under way for full accreditation. The Institute is developing masters and doctoral programs as well as continuing education for practicing professionals. New degree models are based on intensive clinical training, as well as thorough grounding in emerging psychological theories of women. The Institute itself is a model of the values it promotes, and is organized around a horizontal structure that allows students, staff, and faculty to participate equally in decision-making. All persons, regardless of degree attainment are regarded as learners and have opportunities for self-development.

## CONCLUSIONS AND FUTURE DIRECTIONS

This review of projects, focused primarily on women, reveals promising efforts to solve problems in postsecondary education that have significance for all learners, not just women.

A growing proportion of students in postsecondary education is beyond the traditional 18-22 year age range. Older men and women seek to continue their education, but their potential contributions and special needs are often ignored by traditional credentialing procedures; their educational programs are often unconnected to their home or work situations; and their sense of self-worth is often undermined by the insensitivity of other students and faculty. Older minority and low-income students have even more difficulty trying to accommodate to the academic and social mores of *academe* and they are frequently unable to get useful pre-enrollment counseling to help them identify the best possible learning environments. Older women have now been able to dramatize these concerns and focus enough attention on them to gain support both within and without institutions for dealing effectively with them. The solutions developed will aid *all* older students and will aid colleges and universities that wish to serve them.

Unfortunately, some of the most effective of the counseling, advocacy, and assessment

programs (such as RLS and WINNERS) have found it difficult to obtain a solid base of continuing financial support. If they are to become a stable and significant part of the postsecondary education system, Federal and State-level funding agencies must recognize their importance.

Over the years, educators have sought effective change forces for higher education, forces which encourage crossing disciplinary lines, which reexamine the worth of education programs for today's learners, and which experiment with new teaching technologies. Women's projects have shown that a focus on women may constitute a highly effective force for wider change. With the goal of addressing the problems of women, institutions have redesigned degree programs, developed new interdisciplinary materials on women, and thereby enriched the content of several disciplines, linked career and liberal education in new ways, and have gained new acceptance for out-of-class learning. Seeking improved outcomes for women in postsecondary education has led to a candid reappraisal of the adequacy of present education efforts for all learners. As such, women's projects constitute an unusually promising approach to system improvement. The full value of the Fund's investment can only be realized if these pilot efforts are built on through further research and diffusion efforts.

### THE FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

400 Maryland Avenue S.W.  
Washington, D.C. 20202

**FUND GRANTS FOR WOMEN'S PROJECTS  
1973-1975**

<u>Recipient</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<b>Women's Inner City Educational Resource Center</b> 90 Warren Street, Roxbury, Mass. 02119	\$209,890	\$198,161	\$155,000
<b>Educational Testing Service</b> Princeton, N.J. 08540		95,055	58,970
<b>Women's Re-Entry Program</b> San Jose City College San Jose, Calif. 95128	51,781	52,161	57,312
<b>Temple University</b> Office of Continuing Education Philadelphia, Pa. 19122		50,125	69,000
<b>National Council of Negro Women</b> 815 Second Avenue, Suite 901 New York, N.Y. 10017			77,769
<b>Northeastern University</b> Office of Adult Day Programs Boston, Mass. 02115			50,918
<b>Math Anxiety Clinic</b> Wesleyan University, Middletown, Conn. 06457			28,484
<b>Women's Institute of Alternative Psychotherapy</b> Boulder, Colo. 80302			46,000
<b>Formative Evaluation Research Associates'</b> Project on "Women's Programs: Do They Matter" 1130 Hill Street Ann Arbor, Mich. 48104			33,998
<b>Purdue University</b> West Lafayette, Ind. 47907	60,596	39,341	
<b>Mills College</b> Oakland, Calif. 94613	75,600	25,000	
<b>Women's History Research Center</b> Berkeley, Calif.	50,457	38,000	
<b>Barat College</b> Lake Forest, Ill. 60045	49,572		
<b>School of Law</b> Seton Hall University Newark, N.J. 07102	46,994		
<b>Regional Learning Service</b> Syracuse, N.Y. 13213		118,000	75,000
<b>Alverno College</b> Milwaukee, Wis. 53215	96,856	247,916	151,928