This paper focuses on nonlegal plans for promoting women's educational opportunities and for overcoming institutional and psychological constraints that are discriminatory. The areas covered in this discussion include: continuing education programs; the open university and external degrees; education for "nontraditional professions"; career education; emerging occupations; and attitudinal changes. The author believes that all levels and many aspects of education must be involved if changes are to be made in women's educational opportunities. (Author/CS)
The need to broaden women's educational opportunities stems from several important concerns. It is axiomatic that legal requirements for equal employment opportunity must be accompanied by equal educational opportunity if the requirements are to be meaningful. This practical necessity is also consistent with the principle of equal treatment for all proclaimed by our democratic society.

Efforts to extend women's education and training also support the long-run forecast by the U.S. Department of Labor's Bureau of Labor Statistics that demand for highly skilled workers will continue to grow. And since the rate of expansion in teacher demand is declining, it is reasonable for women to stretch their thinking about potential career fields to include the full gamut of possibilities. This is especially relevant since the BLS forecast for the seventies anticipates an overall balance between supply and demand in the professional job market.

Statistical evidence reflects persistent barriers which restrict women's educational opportunities. Following are the latest figures available compared with 1930, frequently cited as a high point for women's enrollment and educational attainment relative to men's.

<table>
<thead>
<tr>
<th></th>
<th>1969-70</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women college students</td>
<td>3,507,000</td>
<td>481,000</td>
</tr>
<tr>
<td>Women receiving degrees</td>
<td>433,594</td>
<td>55,266</td>
</tr>
</tbody>
</table>

Women as percent of total

<table>
<thead>
<tr>
<th></th>
<th>1969-70</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>College enrollment</td>
<td>41.3</td>
<td>43.7</td>
</tr>
<tr>
<td>Bachelor's and first professional degrees</td>
<td>41.6</td>
<td>39.9</td>
</tr>
<tr>
<td>Master's degrees</td>
<td>39.8</td>
<td>40.4</td>
</tr>
<tr>
<td>Doctorates</td>
<td>13.3</td>
<td>15.4</td>
</tr>
</tbody>
</table>

While women's representation among college students and graduates has improved considerably following a low point in the fifties, these data show that it is still generally below the 1930 level and far below the 50-50 division that would make the situation equitable.

Much less heartening for women is their persistent concentration in college courses which prepare them for the traditional women's professions. Perpetuating the "occupational segregation" of women, this trend has continued despite the remarkable increase in women's college enrollment in the past decade. Of all women receiving degrees during the earliest and latest school years for which comparable data are available, the percentages for those majoring in selected subjects are:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1968-69</th>
<th>1955-56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher education</td>
<td>39</td>
<td>49</td>
</tr>
<tr>
<td>Humanities</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Social sciences</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Health professions</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Natural sciences</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Analysis of additional data by majors supports the conclusion that the distribution of women's college majors changed to only a limited degree in the 13-year period. It is possible, of course, that the figures now being collected in the seventies may reflect more dramatically the new outlook developing among college women.

Coverage

Although Congressional bills, laws, and/or administrative orders relating to equal treatment of men and women in college admissions, scholarships, fellowships, and other educational activities have a direct influence on women's educational opportunities, they are not discussed in this paper.

This paper focuses instead on nonlegal plans for promoting women's educational opportunities and for overcoming institutional and psychological barriers that are in effect discriminatory. The plans reported are illustrative and in no way constitute a comprehensive study. In fact, it is hoped that the items described will stimulate conference participants to report other plans known to them.

Information obtained has been grouped by six major subdivisions: continuing education programs, the open university and external degrees, education for "nontraditional professions," career education, emerging occupations, and attitudinal changes. The broad coverage reflects the belief that all levels and many aspects of education must be involved if changes of consequence are to be made in women's educational opportunities.
Continuing Education for Women

Although continuing education programs for women originated in the late fifties and early sixties, the movement is still a new idea to many colleges and universities. The rationale for developing such programs is that many institutional barriers restrict mature women from taking advantage of available educational opportunities. Programs tailored to their special needs and interests are therefore necessary. The design and focus of the programs developed have varied considerably, depending on such factors as the interests and requests of adult women in the immediate area, the special talents of interested faculty or community leaders, and local labor market demands. Most of the continuing education programs for women, however, have had to be self-supporting since they are still not yet viewed as a standard educational offering of a university.

Programs and services which have stimulated many older women to return to school generally include one or more of the following features: enrollment on a part-time basis, flexible course hours, short-term courses, counseling services for adult women, financial aid for part-time study, limited residence requirements, removal of age restrictions, liberal transfer of course credits, curriculum geared to adult experiences, credit by examination, refresher courses, reorientation courses, information services, child care facilities, relaxation of time requirements for degrees, and job placement assistance.

The response of women to "their" programs has stimulated a mounting number of colleges, universities, and other organizations to develop similar programs. There is little doubt, however, that a wide gap still exists between the latent educational interests and aspirations of mature women and the existence of sufficient educational programs which meet their needs.

Interest in this subject was expressed by the Women's Action Program (WAP) of the U.S. Department of Health, Education, and Welfare (HEW) in its report to the HEW Secretary. As a result, the Office of Education financed a contract for the Educational Testing Service (ETS) to design a survey assessing existing barriers to the participation of women in education, to prepare an analytical summary of pertinent literature and statistical data, and to obtain pilot data from women and institutions. The ETS report is expected to be completed later this year.

The Open University and External Degrees

Other plans for educational reform move beyond continuing education's modifications of the current educational structure. Still in the developmental stage, they are variously designated by such terms as "external degrees," "the open university," and "university without walls." These plans envision fundamental changes in the whole educational system as it relates to instruction, examination, transfer of credits, and certification.
Learning outside the conventional instruction program would utilize such facilities as TV courses, correspondence courses, video cassettes, apprenticeships, work experience, and other teaching innovations. The learning might be validated by national examinations. Under consideration are an increase in the number of subjects for which credits could be obtained by examination and the devising of tests for "affective" qualities, formerly judged by observation. It is hoped that credits gained by examination could be transferred on a national scale, possibly through certification by a specialized institution like a National University.

A prestigious group taking a serious look at externally awarded degrees is the Commission on Non-Traditional Study, established in January 1971 by the College Entrance Examination Board and the Educational Testing Service with a grant from the Carnegie Corporation of New York. The commission has set as its primary purpose to review opportunities for college-level learning outside the usual classroom and to make recommendations concerning the recognition of such study, including the awarding of external degrees. The commission's report and recommendations are due this fall or winter.

The open university concept has been described as encompassing the development of its own curriculum and teaching materials, having a resident faculty but not resident students, and supervising a network of centers for counseling, tutoring, and testing.

An experimental project currently in operation is the "University Without Walls," funded by the Office of Education and the Ford Foundation in cooperation with about 22 colleges and universities throughout the country. Persons working for a bachelor's degree may tailor their own individual programs with a combination of conventional courses (at any of the participating colleges), independent study, and supervised internship. Although designed primarily for adults, with no age limitations, the innovative program is reported to have attracted among its 3,000 students primarily those of normal college age seeking more flexible methods of study at less cost.

New York's Empire State College also offers an external degree program with occasional on-campus study. In Massachusetts Governor Sargent has announced plans to establish a "College Without Walls," which would have no resident students, utilize television and correspondence courses, and offer external degrees.

The validation of learning obtained outside the classroom has been accepted for some years by colleges and universities which utilize the College-Level Examination Program (CLEP) administered by the College Entrance Examination Board and/or the College Proficiency Examination (CPE) Program developed by the New York State Education Department.
Also pertinent is the now widespread use of the General Education Development (GED) tests, which enable those who pass to obtain a high school diploma. It is obvious that these new plans for more flexible methods of teaching and validating learning can extend educational opportunities to many women who do not have the time, money, or energy to conform to rigid classroom and/or residential requirements.

Education for "Nontraditional Professions"

With about two-thirds of the 4-1/3 million professionally employed women concentrated in five professions (teaching, nursing, social work, library work, and dietetics), it is understandable that numerous individuals and groups are seeking to extend women's penetration into the so-called "men's professions" as well as strengthen women's influence and status in all professional fields. Although the following listing of pertinent activities is rather fragmentary, it indicates gathering momentum behind extending women's professional opportunities.

Women's caucuses and committees: More than 35 professional associations have an official committee and/or caucus group concerned about the status of women in their field. Some are formally structured, others not. The majority of demands made by women of their respective associations have been related to employment and status in the association itself. However, these committees and caucuses are also seeking to increase the number of women preparing for their profession through such ways as abolishing dual standards of admission and quota systems and by increasing scholarship and fellowship assistance to women.

Professional Women's Caucus: A broader based effort to raise women's professional status has been launched by the Professional Women's Caucus, an interdisciplinary organization set up in May 1970. Among its 11 task forces is one on education. Major targets of concern have been described as: revision of textbooks and educational materials with sexist aspects, provision of career incentives and guidance on both a group and individual basis, and the promotion of educational opportunities for vocations.

Several educational institutions and organizations have developed programs that help women to enter professions or business activities in which relatively few women are now engaged. Their encouragement can have widespread repercussions far beyond the small numbers of women enrolled in these programs.

Radcliffe Institute: A fellowship program was established in 1967 with funds from the Josiah Macy, Jr., Foundation to help women enroll in graduate and professional medical training in the Boston area either
on a full- or part-time basis. The fellowships may underwrite expenses in any area of need, including child care, household costs, and transportation.

Another method for extending women's opportunities in medicine is the shared residency plan. Two resident doctors may arrange to share their work schedules at several hospitals, including George Washington University Hospital in Washington, D.C., and Columbia University Hospital in New York City. This procedure enables women to continue with their medical career while raising a family.

Sarah Lawrence College: A graduate program leading to a master's degree in human genetics permits students to enroll full time or part time. The program was developed primarily for women who might have gone to medical school if time and money had allowed. Because the program permits the scheduling of courses on an individual basis, women with families are encouraged to enroll.

Mary Baldwin College: A business orientation program for undergraduates of this women's college in Staunton, Va., was initiated in the fall of 1971 in cooperation with business and industrial leaders. The latter serve as guest lecturers through the Department of Economics and arrange work assignments for the students during the summer and in January. The dual purpose of the program is to develop interest in and better understanding of business functions on the part of the women students and to enable business to utilize more fully the women's liberal arts college as a source of executive talent.

Graduate Business Admissions Council: Spurred on by requests from business organizations for the names of women graduates of graduate business schools, the GBAC sponsored a "Fact and Idea Finding Conference on Women in Graduate Management Education" in February 1972. Conference recommendations are now being given serious consideration by the GBAC as it considers ways of attracting more women enrollees to graduate schools of business.

Management training courses: Special short-term courses are being developed to help women enter or advance in executive, managerial, and/or supervisory positions. These are now being offered at several universities located in such widespread places as Albany, N. Y. (Cornell University); University Park, Pa. (Pennsylvania State University); District of Columbia (Georgetown University); Dallas (Southern Methodist University); and Los Angeles (University of California).

Career Education

It is pertinent to include among our plans the new focus of the Office of Education on career education for every young person. Their announced aim, as you probably know, is to insure that each boy and girl upon leaving high school has skills sufficient either to obtain employment, pursue further career education, or enter higher levels of education.
The attainment of this goal can be especially significant for girls. Too often they have been overlooked in discussions concerning the importance of career preparation. The determined and long-range objective that now embraces all youth may be expected not only to emphasize the need of girls and young women to obtain formal job preparation but also to help raise their aspirations toward long-term education for more skilled and varied career fields.

To help develop the career education concept, the Office of Education is funding "school-based models" on an experimental basis in six public school districts around the country. Monitored by Ohio State University, each of the models is structured for an operational kindergarten through 12th grade career education program around the theme of career opportunities and requirements in the world of work. They are incorporating many components which have emerged from the experience gained in the "exemplary vocational education programs," one of which has been funded on a small scale in each of the States. The Ohio project has identified and codified 15 occupational clusters which may be modified or adapted to fit local situations. It is hoped that these innovations will enable schools with partial career education programs to work toward developing comprehensive programs.

Upward mobility in home-related services: A very timely example of the career education concept is a current American Home Economics Association proposal which grew out of the feasibility study "Career Ladders and Lattices in Home Economics and Related Areas: Possibilities for Upgrading Household Employment." If this proposal is approved for funding, it would provide occupational education in home-related services based on spiral curricula with higher and higher levels of complexity. Clusters of occupations with similar technical knowledge and skills would be developed into a gridwork of ladders and lattices, allowing for both vertical mobility within an industry and horizontal mobility to similar jobs in other industries.

The home economics curricula in secondary schools and adult education would be rewritten, emphasizing training for gainful employment and containing standardized training units for sequential occupations. This would assure mobility of employees in terms not only of advancement but also a greater variety of jobs and geographical locations.

The net result could be more clear-cut and satisfying work careers for persons previously stuck in dead end jobs, far-reaching effects on vocational education in public schools, and better utilization by society of our employable members.

Sequential training for health occupations: The "exemplary project in vocational education" financed in Nevada under the Vocational Education Amendments of 1968 provides for job clusters and sequential approaches in another occupational field employing many women—the health field. The coordinated model program being developed in Washoe County starts with courses concerning the "World of Work" in the fifth and sixth grades; follows with exploratory programs in health occupations for junior high
school students; and provides intensive vocational counseling, cooperative (work-study) training for selected health occupations, and an active placement service at the high school level. Additional cooperative training for health occupations is also available in postsecondary schools.

**Women in apprenticeships:** The small number of women among the approximately 275,000 trainees currently learning an apprenticeable trade has stimulated development of several demonstration projects for women in apprenticeship or apprenticeship-type positions. These are joint undertakings of the Department of Labor and the local YWCA or another community organization. Projects are now underway in Denver and Philadelphia. Funding has been approved for two more but the locations have not yet been selected.

In "Better Jobs for Women--Denver," developed first among the four projects, women trainees have been placed in such nontraditional trades for women as meat cutting, office machine repair, auto mechanic work, shoe repair, carpentry, leather work, spray finishing, and prosthetic appliance repair. The most challenging part of the project has been encouraging employers to develop on-the-job training slots for women. There has been little difficulty in locating women trainees since many applicants are from the target group of low-income minority women heads of households. All, however, must have a high school diploma or the equivalent.

Another effort to foster acceptance of women apprentices has been made in Wisconsin. The Wisconsin State Bureau of Apprenticeship and the University of Wisconsin's Department of Photography have collaborated on preparing the film "Never Underestimate the Power of a Woman." Copies may be rented for a nominal fee.

The training projects and the film are helping prove women's capability and suitability in apprenticeable trades seldom filled by women in the past. They also help stimulate young women to consider these fields among their career possibilities.

In addition, publication in 1970 of the career leaflet "Why Not Be an Apprentice?" -- a cooperative effort of the Women's Bureau and the Bureau of Apprenticeship and Training in the U.S. Department of Labor--has also helped stimulate interest in apprenticeships for women among individuals and school counselors.

**Emerging Occupations**

Educational horizons for women are widening also in newly emerging job fields where employment patterns can be more fluid and need not follow previous practice. Of special concern at present is the field of ecology and the various types of workers needed to help solve our environmental problems. Also receiving current emphasis is the broad field of human services concerned with meeting the personal needs of
our citizens, especially our senior citizens who are increasing in number because of the greater longevity of the population. In addition, new legislation like the Occupational Safety and Health Act of 1970 is creating new careers in research and development as well as in basic service and production operations.

It is widely recognized that many women find new job opportunities in times of employment expansion as well as job shortages. When employers have difficulty finding experienced workers, they are often willing to hire women in jobs not opened to them previously.

Attitudinal Changes

It is apparent that improvements in women's educational and employment opportunities will require basic attitudinal changes on the part of all groups in society, including girls and women themselves, parents, teachers, counselors, employers, and union leaders. The following projects illustrate various programs currently underway or in the developmental stage. They indicate that serious attempts are being made to learn how to effect changes among some of these groups.

Role-model motivation: Inner-city girls at the junior high school level are to be "linked" on a one-to-one basis with employed women in a Washington, D.C., project aimed at exposing the girls to vocational possibilities and encouraging them to stay in school. When the project gets underway, about 300 girls will visit local offices and other job settings to see and hear about the working world in occupational fields of interest. The prevocational project, which is structured on the theory of role-model motivation, is a joint undertaking of the D.C. Public School System and the D.C. Commission on the Status of Women. The 2-year project will operate under a grant from the Law Enforcement Assistance Administration (LEAA) of the Department of Justice and funds from the school system.

Women's studies: About 600 courses in women's studies are now being offered by over 200 colleges and universities and even a few high schools. Basically, these courses seek to fill gaps in women's information about themselves, their history, and their special problems. The courses are located in various departments of colleges and universities but seem to be found most frequently in the English literature, sociology, history, psychology, and law departments. Typical courses deal with women as portrayed in literature, women as writers, women's roles in society, women heroines in history, the feminine personality, and women and the law.

A few institutions offer coordinated Women's Studies Program. One school, San Diego State College, has a Women's Studies Department. And a few institutions, like Goddard-Cambridge in Massachusetts, grant advanced degrees in women's studies.
Reports from campuses indicate that women's studies are having a major impact on the women students. The courses are revealing to them the socialization process that has restricted women to stereotyped roles in society and stimulating them to seek avenues for change.

Southeast Coalition of Women Students: This pilot project developed by the Women's Bureau seeks to establish a two-way channel of communication with young college women. The young women are being encouraged to think about long-term goals for study and work as well as the attitudinal changes needed on their part to meet women's changing status. At the same time, the Bureau is gaining a better understanding of their interests and concerns and is reevaluating its attitudes about and programs for young women.

The 200 student representatives of the Coalition come from a cross section of colleges and universities in 10 Southeastern States and the District of Columbia. In September 1971 they met in Washington, D.C., to help get the project underway and discuss topics of mutual concern with Bureau staff. The students are now developing pertinent programs on their own campuses. These sometimes consist of "rap sessions" and discussion groups to which they invite "traveling teams" of Bureau staff to serve as resource people.

Worklife planning: Several other special projects are also being developed to encourage women and girls to take a long-range view of their lifespan and then plan their career goals.

In home economics classes in Los Angeles high schools, games and role playing are the techniques being used to stimulate girls to think about life planning and vocations. In a project funded by the Rosenberg Foundation, a YWCA-selected team of adults visits each of the hourly classes every day for a week. Their use of games in which the girls anticipate some of their future problems as adults is viewed as an experiment which may be worth replication on a larger scale.

About 1,000 women are participating in the Career Planning and Counseling Program for Women in Southeast Iowa. This is a joint activity of the University of Iowa's Division of Extension Services and the Career Planning Program of the American College Testing (ACT) program. Major project activities are: collection of information about the women participants' "vocational-educational strengths and interests" through use of ACT's Career Planning Profile; distribution of profile results and information about local community resources to the participants; and individual counseling and guidance for each woman. The project is aimed at developing a procedure for providing vocational guidance to women on a large scale and at a relatively low cost.
APGA cassette series: In order to help counselors keep abreast of current issues and concerns in their field, the American Personnel and Guidance Association is initiating a new counseling media series, "Counseling: Today and Tomorrow." One of the cassette tapes in the series, "Occupational Futures for Women," is being prepared in cooperation with the Women's Bureau. Its main message to the counselors is to encourage girls and young women to think in terms of long-term planning and preparation for careers, to consider the full gamut of career possibilities, and to seek as much education as possible consistent with their energies and talents.

Student multimedia presentation: Active recruitment of women for the so-called "men's professions" has been greatly stimulated by passage of equal opportunity legislation and further emphasized by the decrease in demand for teachers, traditionally the major source of employment for professional women. Efforts to persuade women to prepare for business careers are underway at such prestigious graduate business schools as those of Harvard University and Stanford University. At Stanford a trio of women students have developed on their own a multimedia show describing the reactions of male students and faculty to their enrollment in a graduate business school. Their slide presentation "What's a Nice Girl Like You Doing in a Place Like This?" has received excellent response when shown at several colleges and high schools. Its general purpose is to help others understand the problems women encounter in a male-oriented field and affirm their interest in a business career.

Women's task forces in schools: In a growing number of colleges and universities, as well as a few public school systems, groups of women are examining institutional policies and practices for their impact on women. Some of the groups are officially recognized commissions or committees on the status of women. In addition to the employment aspects of the problem, other matters being scrutinized include sex-role stereotyping in textbooks and curriculum requirements. Awareness or consciousness-raising sessions are also being developed to acquaint teachers and related staff with the effects of stereotyped sex-role expectations and how these severely limit the options realistically open to individuals. In these various activities, women are taking an active part and pressing for change.

Public school systems in which women's task forces are at work include those in New York City; Ann Arbor, Mich.; and Berkeley, Calif.

Business-Industry-Union Consultations: Changing the attitudes of management and labor leaders toward women workers has been one of the major goals behind the demonstration consultations being conducted by the Women's Bureau in each of our administrative regions around the country. The agenda of the meetings highlight discussion on the status of women as workers and the need for employer compliance with the various Federal, State, and local laws prohibiting sex discrimination.
Action stimulated by these meetings has been reported in followup surveys made by the Bureau approximately 6 months after each consultation. Employers have reported that: activities are underway to improve attitudes about women workers; more women are being placed in nontraditional jobs; recruitment programs are seeking out more women job applicants; promotions of women are increasing; and more women are being placed in company training programs.

The demonstration meetings were initiated to encourage other community groups to hold similar consultations with management, labor, and/or other groups in their locality.

Summary

The collection of readily available information about plans for widening women's educational opportunities indicated an abundance of ideas about the subject. Those that were more than just "a gleam in the eye" have been reported, although many are still in the early stages of development. Most are viewed as exploratory or demonstration projects which may prove worthy of extensive replication.

It is apparent that many unorganized but determined efforts are also being made by individual women and groups to increase educational opportunities for women. Together they too are making an impact. And if developed more fully, some of these activities may lead to more formal and extensive plans.

However, for these various plans to be able to help women attain educational equality, it is also essential that there be major changes in our view of women's roles and potentialities. Ways need to be found to develop widespread understanding of the major implications for women of the trend toward smaller-size families, the longer worklife for women, and continuing discriminatory practices. Only with an awareness of these realities can women and girls be expected to take advantage of the emerging plans and programs described and be stimulated to press for additional changes.
Footnotes


6/ Leaflet on Professional Women's Caucus, P.O. Box 1057, Radio City Station, New York, N.Y. 10019.


