DOCUMENT RESUME

ED 187 296 HE 012 806

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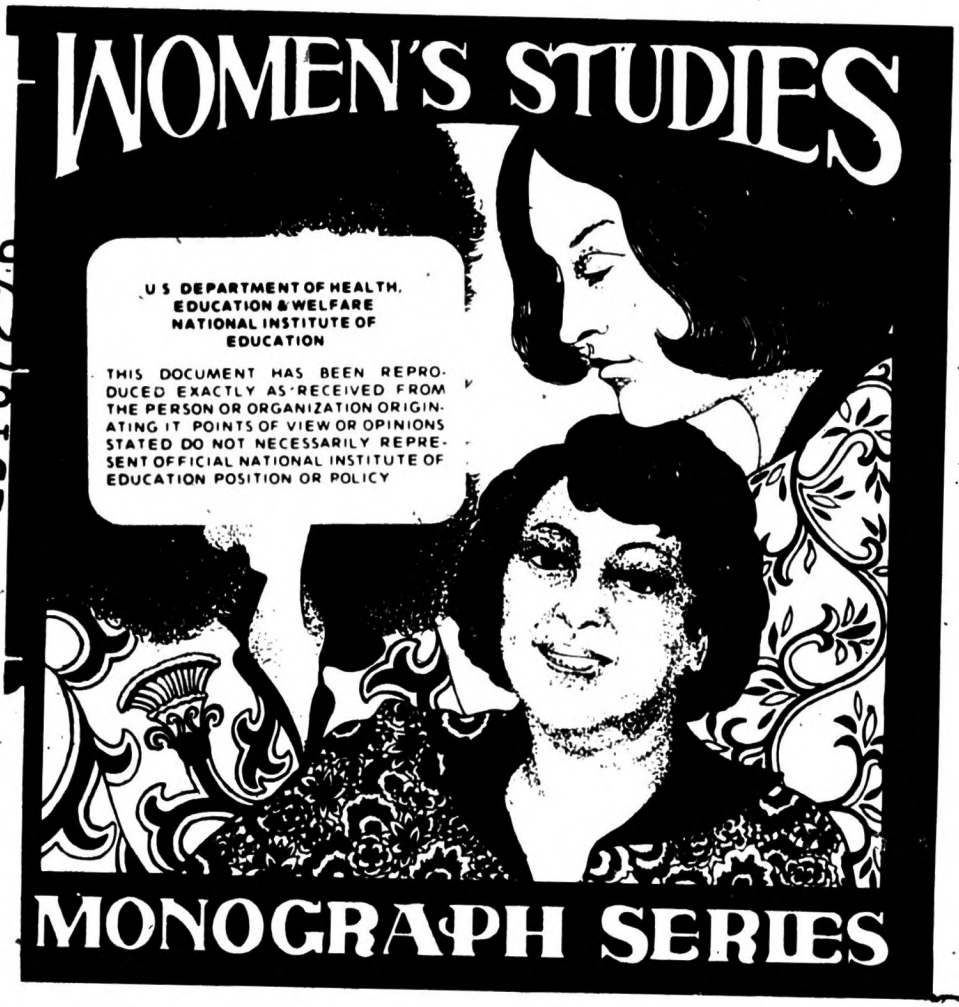
TITLE The Relationship Between Women's Studies, Career Development, and Vocational Choice. Women's Studies Monograph Series.
INSTITUTION National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Feb 80
NOTE 71p.
AVAILABLE FROM Social Processes/Women's Research Team, National Institute of Education, Mail Stop 7, 1200 19th Street, N.W., Washington, DC 20208

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Career Choice; *Career Development; *Education Work Relationship; *Females; Higher Education; Information Needs; *Occupational Aspiration; Research Projects; Vocational Adjustment; Vocational Interests; *Womens Studies

ABSTRACT

The literature on the relationship of women's studies to career development and vocational outcomes is reviewed, and needs and strategies for future research are considered. The sociological studies of women's career aspirations tend to stress the importance of family background variables. Most of the sociological data examine whether women choose paid employment, rather than the kind of employment. Studies in guidance counseling, vocational education, and continuing education agree that more support programs and/or institutional services will be needed if women are to develop nontraditional vocational choices. Few research projects at a national level have sought to examine women's studies programs, and there are no systematic data available on the variety or frequency of career formats. Studies on services of women's studies programs, the impact of these programs on graduates, and the impact of one or more courses are cited. It is concluded that the data pool currently is too small and not systematic enough to answer accurately the detailed questions on career development, aspirations, and vocational outcomes that were sought in the present research. Four policy issues that relate to research on women's studies and career development are discussed, and a bibliography is presented. (SW)

The Relationship Between Women's Studies, Career Development, & Vocational Choice



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THE RELATIONSHIP BETWEEN WOMEN'S STUDIES, CAREER DEVELOPMENT, AND VOCATIONAL CHOICE

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February 1980

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

This study was conducted for the National Institute of Education, Department of Health, Education, and Welfare, under purchase order number NIE-P-79-0012. The opinions expressed in this report do not necessarily reflect NIE position or policy, and no official endorsement by NIE or HEW should be inferred.

PREFACE

This monograph is part of a series of eight, commissioned by the National Institute of Education (NIE), following recommendations presented in Seven Years Later: Women's Studies Programs in 1976 by Florence Howe.

Seven Years Later was commissioned and published by the National Advisory Council on Women's Educational Programs. It was the first federally financed investigation of women's studies. Howe visited and reported on 15 mature women's studies programs, in the context of national trends and directions within women's studies. She focused on some areas (funding and faculty, for example, in 4-year colleges and universities) and excluded others (community colleges, for example) entirely.

The eight new monographs take up some of the questions Howe explored; they also initiate explorations of untouched areas. All are concerned primarily with higher education.

Each monograph reviews literature relevant to its focus produced during this first decade of women's studies. Each also attempts to provide definition to a field in the process of development, a complex interdisciplinary area of scholarship and curriculum that is also a strategy for educational change. Beyond definition, each monograph recommends research essential for the future development of women's studies and important to educational research more broadly.

While producing these eight monographs, the researchers met for 2 days to compare perspectives and conclusions. As a group, we agreed to offer four formal recommendations to the National Institute of Education and to all other Federal agencies and private foundations that might pursue and support research and development in women's studies.

1. The need for future monographs. We recognize the importance of continuing the development of information about relatively unexplored aspects of women's studies. Among those aspects that need examination, the following are especially important:

   a. Graduate programs and graduate education in women's studies.

   b. Schools of education and women's studies activities.

   c. Women's studies in the elementary and secondary schools.

   d. Noncredit curriculum development in women's centers, continuing education for women, and community-based centers.

2. The need for a data base on women's studies. All eight monographs recommend the development of a data base on women's studies as a necessary prelude to research design and activity. Since women's studies has developed in different ways and at different rates on almost all campuses throughout the country, such a data base must be longitudinal in design. While we are recommending its development in higher education, such a data base eventually will need to be extended to all areas of education. We recommend that annual updates be built into the data base to ensure its proper maintenance and continued usefulness.

3. The qualifications of research personnel in women's studies. We believe that the distinctive and complex nature of women's studies, as well as the fact that it is still a developing field, makes it essential that researchers be thoroughly informed about

women's studies and be prepared to involve women's studies practitioners in every aspect of research design and process. We are hopeful that NIE and other Federal agencies, private foundations, and research institutions will place responsibility for research in women's studies in the hands of those experienced and knowledgeable about the area.

4. Considerations significant to evaluation research and methodology. We believe that the evaluation of women's studies in higher education will be an important activity of the coming decade. Such evaluation will serve the researcher interested in the processes of changing higher education, as well as those charged with administering institutions. Such evaluation should, on principle, also clearly serve the developmental needs of women's studies programs, engaging them in the design and processes of research, as well as in the determination of the uses to which research will be put. Evaluations should be conducted onsite, with the cooperation of program participants, and within a framework of longitudinal data about that program and others nationally. Researchers and evaluators should be sensitive to the work of the National Women's Studies Association in this regard, and its activities serving the needs of women's studies programs.

Detailed, further recommendations appear in each of the eight monographs.

We wish to express our appreciation to the National Institute of Education for pursuing this

research, and particularly to C.B. Crump, who directed the Women's Studies Planning Studies project.

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SUMMARY

The general purposes of this study are to review the literature on the relationship of women's studies to career development and vocational outcomes, and to define needs and outline strategies for future research in this area.

We begin by reviewing sociological studies of women's career aspirations, and find that these tend to stress the importance of family background variables. For a middle-class young woman, a mother's paid employment increases the likelihood of the daughter's holding a job. Although the evidence is mixed, it appears that the higher the mother's education, the higher the daughter's aspirations. Working-class daughters are more likely to be work-oriented than are middle-class women, and are more likely to aim at sex-stereotyped fields of work. Although parental occupation and other background variables cannot be changed by educational institutions, we might expect that, as more women re-enter the work force, we will find more daughters who aim at careers themselves.

Unfortunately, most of the sociological data look at whether or not women choose paid employment, rather than at the kind of employment. Yet we do find that peer aspirations affect students such that an all-female environment may raise the status of occupational goals. Experience in nontraditional jobs also increases the likelihood that this kind of job will become a woman's occupational choice. Finally, we know that attitudes of the student, parents, and peers are influential and malleable. This is clearly an arena within which women's studies might expect to have much impact. Specific structures that support attitude change need much more investigation than has previously occurred.

Studies in guidance counseling, vocational education, and continuing education all agree that more support programs and/or institutional services will be needed if women are to develop nontraditional vocational choices. Counseling needs to be improved, and hands-on experiences such as internships, skills courses, or other diverse forms of occupational education are useful and necessary. Within traditional women's vocational education, there is a dearth of material and theories that focus on women's unique concerns.

Most of our knowledge about women's studies and career development comes through research explicitly on women's studies. There are few national-level studies, however, and only one of these touches on occupational issues. Most of the other studies are on the impact of individual courses or are followups of program graduates, and there is only a handful of the latter type of study.

However, we can say that women's studies courses are associated with an increased sense of self-worth and independence, and are probably associated with feminist commitment, career orientation, and supportive attitudes toward women's rights. In many cases, the courses seem to have enhanced such attitudes. In other cases, those involved seem to have had these attributes, in varying degrees, before the courses began. Further research will be needed to unravel the process. It is quite possible that these studies were done with courses of differing student compositions: introductory courses might be expected to have more of an impact than those courses populated by advanced women's studies students. In the future, we will want to do more toward pinpointing what types of coursework produce which changes in students and contribute to which types of specific career goals.

After examining the data sources, we conclude that the data pool currently is too small and not systematic enough to answer accurately the detailed

questions on career development, aspirations, and vocational outcomes that we posed initially. Given the interdisciplinary nature and multisetting of programs, no good overview material exists, even though we are certain that 2-year and 4-year colleges, as well as community-based settings, utilize different strategies. Future research in this area must include:

1. Systematic followup of jobs secured by women's studies graduates, and particularly by graduates from programs with a variety of structures and from a variety of settings. We need to know which factors affected their attitudes and aspirations, the structure of the tracks or streams in women's studies that they followed, and the nature of the support services they utilized.

2. Study of the variety of structures (concentrations, streams, tracks, core requirements, internships, or special skills workshops) utilized by women's studies programs, and the frequency with which they are found.

3. Examination of the effectiveness of various program and institutional support services.

4. Examination of how student aspirations change or become more specific as programs themselves add skills components.

In doing this research, we will also want to know whether women's studies students are self-selected to be more nontraditional, resulting in less observable impact of programs on students who are already innovative. This question speaks to a methodological consideration for future research. Our studies will need to ask if the course the students are in, or service they use, is their first women's studies experience, so that we can dissect the impacts of previous women's studies experience from that of "first-timers." We will also need to have comparison

and control groups, as well as pre- and post-test designs. Comparison groups will tell us what comparable social science, humanities, or science students did with career training that did not include a women's studies component. Another important comparison group would be Black or Puerto Rican studies, whose programs are also new, interdisciplinary ones that derive from contemporary social movements.

With these considerations in mind, we suggest a two-tiered strategy for future research:

1. A national-level survey, probably mailed questionnaires with followups, that could gather information on: (a) core requirements, tracks, and internships; and (b) vocational support services.

2. Followup work, probably based on local onsite interviewing and gathering of mailing lists of graduates, for a subset of programs in a variety of settings.

In all cases, programs should be asked to participate in studies by presenting their initial and current goals for career development and for raising the aspirations and occupational choice of their students. However, because programs are understaffed, they should not be asked to do the research themselves. Our basic premise is that we need to establish a systematic data base on women's studies in order to gauge its impact on career development and aspirations.

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CONTENTS

1. INTRODUCTION

Career development and vocational choice cover the many processes involved in selecting, preparing for, and actually entering an occupation or career line. Vocational choice, in the strictest sense, is the actual selection of a job and its related career paths, usually upon leaving a training or educational program. It is the most measurable outcome of education. Career development is a less tangible process. It includes how one chooses and plans for job training,* the kind of training received, choice of first job, and plans made to attain later jobs either within the same or a different career path. Choice of future job, in turn, is based on the influence of family background, individual career aspirations, structure and content of the education system entered, and available support systems such as counseling and career guidance structures.

Need for Dual Focus in Studies

When the issue of the relationship between women's studies and career development or vocational choice was first raised (Howe, 1977), it was conceptualized as significant because women's studies had begun to develop streams or concentrations within both graduate and undergraduate programs that could lead students to particular vocational choices. Other research (Bose et al., 1977) indicated that women's studies graduates felt that their job choices had been affected by their program participation, primarily in terms of modified and raised career aspirations. However, the precise mechanisms by which this occurred were not clear. Therefore, it is certain that any

*Selection of training in a specific occupation such as plumbing, law or secretarial work is also labeled vocational choice. For our purposes, we do not use this definition.

exploration of the relationship between women's studies programs and their students' occupational outcomes should focus both on the structural forms influencing job choice and the social processes influencing an individual's attitudes and aspirations.

Several types of processes and structures should be examined. Program structures, such as those mentioned by Howe (1977), are an important category. Streams, tracks, or concentrations within a program can emphasize different career outcomes. Tracks can emphasize academic research or social change skills; they can emphasize one discipline (such as history) over another, as is common within women's studies graduate programs; or they can emphasize particular careers, such as feminist counseling. Required internships or independent study courses can also be used to give students hands-on placement in an occupation or social-change-oriented community group. Thus, academic programs can influence occupational choice through several types of structures.

Women's studies components in vocational schools (particularly those having programs for nontraditional careers for women) and in continuing education divisions often use different structures. Vocational schools and some community college programs direct women into specific occupations based on the program apprenticeship models (carpentry, plumbing, computer science). Further, the intent to help older, returning women quickly re-establish their labor force goals (common in community colleges, in continuing education, and in community-based programs) leads many programs and institutions to develop a system of support structures that help students focus on career possibilities (Hersh, 1980). Such structures include counseling offices, workshops on careers and resume writing, and development of skills in writing and overcoming mathematics anxiety. The availability of scholarships and funding in particular fields also helps direct students to particular fields.

Finally, program content can affect individual career goals. Learning of the achievements of other women in an environment supportive to women's aspirations can elevate student career goals, independent of any skills taught or program of study followed.

Given the multitude of ways in which women's studies can affect career plans and outcomes, we examine (in section 2) the literature from several fields in order to accurately judge the impact of women's studies. These areas include: sociological studies of career choice and aspirations; guidance counseling, vocational education, and continuing education resources; and women's studies, particularly research on students in programs and interdisciplinary research on program structures.

Women's studies, as defined by the National Women's Studies Association, is feminist education. It exists in a variety of settings, all of which are examined in this planning study. From the review of structures and processes above, one should not be surprised that those settings encompass academic and community-based institutions aimed at persons of all ages and educational levels. Thus, women's studies can be found in women's centers, educational components of women's social change institutions, high schools, community colleges, public and private 4-year colleges, and graduate schools.

The majority of the literature comes from 2- and 4-year colleges, thus delimiting currently available knowledge. In fact, most women's studies programs currently exist at 2- and 4-year colleges or at graduate schools. The fall 1978 "List of Women's Studies Programs," provided in the Women's Studies Newsletter, contained 301 programs, found entirely in academic institutions, among which more than half offered minors, majors, and graduate degrees.

The population on which we focus is also delimited, this time to students -- the group whose

career choice is most affected by women's studies programs. Although faculty and staff undoubtedly are touched by their women's studies experiences, it is the students whose future career development and choice are most influenced. Most of these students are women. Thus, it is appropriate to compare the aspirations of women's studies students with the general sociological literature on women and career aspirations.

The student population in women's studies includes students who have taken only one or two courses, as well as those with a certificate, minor, or major in the field. The impacts on each of these groups may be different, with more career development occurring for those in the latter group. Yet a common finding in early research on women's studies courses indicated raised career aspirations and increased self-confidence from minimal contact with programs. Therefore, the inclusion of such students in our population definition seems justified.

Significance of Career Research Within Women's Studies

Women's studies did not originate and develop because of employers' demands for persons trained in this field. Rather, with the rise of contemporary women's movements in the late 1960s, the lack of basic information on women in all disciplines was recognized and a new field of knowledge was born. The information on women's lives has provided documentation of the long history of working women, as well as role models of women at work in all realms. In fact, the mere availability of this information has probably provided role models and raised career aspirations for many women. Further, women's studies presentation of this knowledge usually is in a manner indicating that individual women need not feel personal failure when met by institutional barriers that affect all women. This approach can prevent students from attributing group obstacles to individual problems and encourage them to continue to work for their goals.

In the last decade, women's studies research has resulted in enough material for courses in most of the traditional discipline areas. Women's studies training is recognized as important for careers in occupations as diverse as therapy and counseling, library science, and law, and it can be considered a qualifying degree for work in women's organizations such as rape crisis centers. Women's studies itself is now a field in which it is possible to be employed. Yet we do not know exactly what use our graduates make of their women's studies skills. Further, although we know that students feel that women's studies influences their career goals, we do not know by what processes this occurs.

The answers to these questions are important for several reasons. Obviously, when the job market is tight, students want to know what they can "do" with a degree, and those students deserve an answer. Certainly, the number of majors in the field will be influenced by the variety of options available. There are other reasons as well. Many practitioners in the field believe that attitudes are changed and career aspirations raised as a result of program participation. We need to ascertain if this is true, or if perhaps women's studies students are self-selected toward higher goals. Further, assuming that career goals are affected by women's studies, we need to study how the structures, requirements, and forms of courses or services impact career choice. Are role models, course format, course content, specific skills, occupational training and internships, or counseling more important in bringing about change? Once the relevant mechanisms are understood, improvement can be made in imparting skills and raising aspirations.

Research to date has focused on students in individual courses or on the graduates of a few programs. All indicate some impact in the predicted direction of raised aspirations. No study specifies or systematically examines the mechanisms, and no

study has clearly summarized the national trend in recommended tracks or streams within women's studies. Therefore, the comprehensive data to improve programs and monitor national trends currently are not available and are needed.

2. REVIEW OF THE PERTINENT LITERATURE

Sociological Literature on Women and Career Aspirations

Sociological research on women and career aspirations has the potential to provide a research model for parallel work within women's studies. Much of this research is based on the status attainment tradition, which began in the late 1960s using large-scale data sets. Status attainment models usually focus on how family background variables such as father's occupation and education influence a subject's education, first job, and current job status.

Until the early 1970s, this research focused on men. Since then, similar models have been used for women. These models have two obvious problems. First, they often assume that the family is the unit of analysis, and thereby leave out single adults. Second, they assume that a woman's status is derived from her husband's. Therefore, they do not count the impact of her employment on the family status or on her children's occupational status. Only recently have studies begun to look at mothers' as well as fathers' impacts on daughters' careers. Further, new studies in the area of sex roles have begun to focus on how women develop career aspirations.

Impact of Family Background Variables

The earliest studies focus on maternal influences on daughters' career aspirations. For example, Almquist and Angrist (1971) studied how family influence on women aspiring to high status professions differed from that on women college students who did not plan to pursue a career. It was found that having a mother with paid employment predisposes a daughter toward higher status occupational choices. At the same time, Fogarty, Rapoport, and Rapoport (1971)

reported that both maternal work status and satisfaction with that work are more predictive together than are either work status or satisfaction separately, at least for college-educated daughters.

In 1972, Tangri's research further supported the importance of maternal employment for increasing the likelihood that a daughter will hold a high-status occupation. She also found that neither parent's education related to male or female children choosing a "role innovative" career. The only exception to this was for the daughters of women with graduate degrees. In this case, the mother's education predicted the daughter's propensity for nontraditional career choice.

However, an important implication of Tangri's research is that the effect of having a working mother operates in different ways for women of varying educational and social class standings. Having a working mother may predict the likelihood of a daughter's working among the middle class,* but less research has been done on the impact among working-class women. The different imagery presented by a working mother from each class probably relates to the mother's satisfaction with work, type of work, and whether or not she was able to choose to work or not. Aspirations of parents for their daughters' achievement appears to vary by class as well. Therefore, the homogeneity of class background (primarily middle-class) in these early studies precludes generalizing to all women.

In a later study by Klemmack and Edwards (1973), a mother's employment status was found to predict a

*Even among the middle class, results are not definitive. In a study of upper-management-level women, Hennig and Jardim (1976) found only 1 of 25 women with a working mother. All 25 women in the sample felt strong attachments to their fathers.

daughter's occupational interest, but was not related to her choice of a typically male or female job. Mothers' working predicts the likelihood of working daughters, and perhaps the level of career aspirations, but not the type of job chosen.

More recent studies have attempted to apply the Wisconsin model of status attainment to high school students (Rey, Noell, and Woelfel, 1976). It was found that female educational aspirations can be explained by parental expectations in a manner similar to that for males. Female occupational aspirations were also weakly explained on the basis of social class, the mother's occupational experience, and the daughter's own degree of career orientation. Unlike males, females' occupational aspirations were unrelated to educational aspirations -- a surprising finding.

Attitudinal variables, such as the parental expectations mentioned above, are often found to influence women's career choices. Parsons et al. (1978) found that, while socialization variables in general were unimportant, attitudinal variables were predictive. High aspirations help improve women's self-concept. Certainty of career plans solidifies aspirations, while situational factors such as how men (fathers, boyfriends) feel can raise or dampen aspirations. Thus, male support for aspirations is important. Women's support is also important, and appears to be a predictor of aspirations when women are in structured groups. A mother's influence is still found to be strong too. Dissatisfaction of working or nonworking mothers is highly predictive of a daughter's higher aspirations. In all cases where higher aspirations are supported, they are likely to relate to nontraditional behavior and values.

Another attitudinal measure -- daydreams -- has been found for women's occupational aspirations (Touchton and Magoon, 1977). Daydreams, as a form of mental imagery, apparently can predict academic major among college women. While thoughts and daydreams may

not be easily subject to change and, thus, are of less interest for structuring women's studies, change in daydreams over time might help evaluate the impact of a women's studies course on student career aspirations.

The most recent review of adolescent aspirations (Marini, 1978) concludes that, while the processes influencing aspirations are the same for boys and girls, the factors within that process operate differently for each gender. Education and occupational aspirations are strongly related among boys; for girls, the two are only weakly related. Marini feels that women's educational aspirations may reflect the desire for other social rewards. Further, women's income tends to fall in such a narrow range that it is difficult for education to predict very much about the occupational aspirations of women. The differential reward structure provides less incentive for women and, thus, the relationship between social class resources and occupational ambition is expected to be weaker for women.

Again, we find that parental encouragement and mother's employment positively affect women's career aspirations. The effect of class still remains unclear. But, Marini notes, for all of these variables our current knowledge is based on outdated information. There is every reason to believe that elements of the situation have improved for women, since much of the data we reviewed came from studies in the 1960s and early 1970s. Marini suggests that future research should give more attention to such demographic and structural variables as number of siblings, mother's occupational status, peer aspirations, and participation in school activities.

From the above discussion, it should be clear that almost all of these models predicting career aspirations focus on family background variables. We can only indirectly infer the impacts of the educational structures involved. For example, we find that peer aspirations are an important influence on

students. Therefore, we might guess that a program attracting women with high aspirations would reinforce those aspirations in all participants. Further, it seems likely that encouragement and positive self-image presented from peers and faculty (such as in women's studies) would enhance the female student's career aspirations.

However, there is little an educational program can do directly to affect the prime variables of parental education or occupational status. Thus, while it is fascinating that mother's work status and satisfaction is the largest determinant of a daughter's occupational aspirations, this does not tell us how predetermined the system is or how much additional independent impact an educational program might have on aspirations.

Unfortunately, studies to date also tend to be limited to the issue of whether daughters will or will not enter the paid labor force. They do not examine the variety of occupations which they might enter. Only a few studies examine traditional versus nontraditional or high versus low status job goals, and most of these studies have been done with middle-class college women who are not necessarily representative of all women. Further, the literature indicates little about the connection between career aspirations or plans and actual behavior (Almquist, 1977). Therefore, in many ways, these sociological studies are not helpful for evaluating the relationship of women's studies to career aspirations and vocational choice.

Impact of Institutional Settings

Several other sociological studies do examine the impacts of varying institutional settings on women's career aspirations, and these are more useful for our purposes. For example, some research has been done on the impact of women's colleges as compared with coeducational environments. Farley (1978) found that students at women's colleges are the happiest with

their institutional choice. She also found that women at coed institutions are most likely to expect life satisfactions from family relationships rather than from a career. She concluded, as do others, that women on coed campuses would benefit from participation in women's groups, such as women's studies or any of a variety of women's activities, in order to maintain professional aspirations.

Farley's work is echoed by Oates and Williamson (1978), who compared graduates of women's colleges with those from coed schools. They found that a greater proportion of women high-achievers come from a specific subgroup of women's colleges known as the Seven Sister Schools -- a finding that appears to reflect social class rather than sex segregation. She also found, however, that women's colleges in general do not produce a greater number of atypical career women than do coed schools. In fact, women's colleges produce more liberal arts achievers, while coeducational schools produce achievers excelling in "certifiable skills." This difference probably reflects the structural emphases of the programs in each type of institution.

Other institution-focused studies have looked at women in 2-year college settings (Moore and Veres, 1975), which emphasize vocational training. In a study of 1,341 women and men enrolled in public and private 2-year institutions, Moore and Veres found that the women were similar to those attending 4-year colleges: they were young, single, and white, with parents who had completed some college. The most common majors at the 2-year schools were secretarial science, health science, and liberal arts. But, unlike their counterparts in 4-year institutions, these women's occupational choices resembled those of their fathers rather than of their mothers. Further, they anticipated continuous commitment to work, and chose careers that reflected their own special interests, such as working with people or having the opportunity to be creative. However, role innovative

behavior was shown by only 20 percent of the women sampled. This study was also unusual in examining student perceptions of counseling services, and the authors recommend that such services be improved.

Moore and Veres' conclusions parallel the predicted conclusions in a study proposal by Guttmacher (1974), to the extent that 2-year college students may be more likely to be working class (Cross, 1971). Cross predicts that working-class women will be more career-oriented than middle-class women owing to parental definitions of the relative importance of education and job. However, working-class women will also be more socialized into women's appropriate sex role occupational choices, and will choose careers that traditionally have been female dominated.

Among 4-year college students, attitudes toward traditional sex roles appear more liberal (Leo and Chow, 1975). A survey of over 100 American university students found that the sexes are equally likely to devalue the importance of behaving according to sex-role stereotypes. Those students who are less concerned about sex roles are more likely than others in principle to favor entering the other sex's traditional occupational realm. However, men are much less likely to aspire to women's traditional jobs than vice versa. Interestingly, the women who aspire to traditionally male occupations are less achievement oriented than women who aspire to traditionally female occupations, but the innovative women are less likely to expect their major satisfaction to come from family alone. It may be risky enough for women to aspire to careers in nontraditional areas; therefore, high achievement goals may not be set.

Impact of Supportive Structures Within Institutions

Not only do settings affect students, but the particular supportive structures available within

these institutions have an impact as well. Unfortunately, there has been relatively little sociological research in this area. We do know that mathematics anxiety, which often serves to keep women out of traditionally male-dominated fields, can be lowered through retraining. But we do not know much about how this attitude change impacts career development.

Counseling and advisement also influence women. Here, we know that many of the tests used in the past for student guidance were highly sex biased, as well as race and class biased. (Many of these tests have been updated.) However, while we know that guidance is influential, we do not know its impact on vocational choice and career preparation relative to other influences. Affirmative action procedures, which can range from changes in textbooks to funding for women's sports or training in nontraditional fields for both sexes, also have resulted in the development of new structures that can affect career choices.

A thorough study by Wirtenberg (1979) carefully examined the impact of Title IX implementation in two different schools. In one school, the experimental group was required to take six coed study units in metal, wood/drafting, electric work, graphic arts, sewing, or cooking. The comparison school had no such requirements. In each case, the children and parents were interviewed, teachers were given attitude measures, and the actual performance of the children was monitored.

There were many significant differences between the experimental and comparison groups in Wirtenberg's study. In the experimental group, both boys and girls attributed more competence to girls in traditionally male domains and perceived fewer differences between boys and girls in general. The girls in the experimental group attributed to themselves significantly more traditionally male personality characteristics, such as assertiveness or logic, than did the girls in

the comparison group. And the experimental girls indicated a greater liking for activities and occupations in the mechanical, science, and enterprising areas. Although the students' self-perceptions were fairly easily and positively impacted by this innovative program, teachers and parents were not as affected. Teachers were still making sex-role stereotyped remarks and were still more likely to interact with boys than with girls in the instructional and approval areas. Parents retained expectations that their children would be successful in the occupations appropriate for that child's traditional sex role. However, parents also had additional expectations for their children that were strongly associated with the child's own assessment of her/his occupational interests and sense of competency. Therefore, as the child's assessment changed, so did that of the parents. The author concluded that institutionalized and programmatic changes such as these can induce immediate changes in self-perceptions about competence and interests.

Although Wirtenberg's assertion may somewhat overstate the case, it does give strong indication of the importance of nontraditional and/or professional job internships for women's studies and other programs. The findings indirectly imply the significance of direct experience and positive self-image in validating student competence and modifying career goals. Certainly, we can see that occupational sex role stereotypes can be modified through courses and program structures.

This inference is supported by the research of Ruble et al. (1975), who find that awareness of sex discrimination and traditional beliefs regarding sex roles are more susceptible to influence than are other types of variables. Their data show that consciousness can be raised and sex role attitudes changed through participation in women's studies classes.

Summary of Sociological Studies

In sum, we find that sociological studies of women's career aspirations tend to stress the importance of family background variables. For middle-class daughters, a mother's paid employment increases the likelihood of a daughter's entering paid employment. Although the evidence is mixed, it also appears that, the higher the mother's education, the higher and possibly the more nontraditional will be her daughter's aspirations. Working-class daughters are more likely to be work oriented than middle-class women, and are more likely to aim at sex-stereotyped fields of work.

Although parental occupation cannot be changed by educational institutions, as more women re-enter the work force we can expect more daughters to aim at careers themselves. What educational institutions can do is provide an environment that is supportive of women's entry into nontraditional careers. Unfortunately, most of the sociological data look at whether or not women choose paid employment, rather than at what types of employment.

Studies to date also indicate that peer aspirations affect students and that an all-female environment may raise the status of occupational goals. Experience in nontraditional jobs also will increase the likelihood of such work becoming a woman's vocational choice.

Finally, attitudes of the student, parents, and peers are influential and malleable. This is clearly an arena within which women's studies might expect to have much impact. Specific structures that support such attitude change need much additional investigation. For example, although we know that women's enrollments in professional schools have been increasing, we do not know if the cause is increased student aspirations or the result of a change in institutional policies (Almquist, 1977).

Guidance Counseling, Vocational Education, and Continuing Education

Perhaps because women's studies began in 4-year colleges, there is still relatively little information on it in other settings. Research on women's studies and/or women's vocational development in 2-year colleges and in vocational education, continuing education, and community settings is sparse. (For existing literature, see Hersh, 1980, and Elovson, 1980.)

Literature in this area does, however, stress institutional support structures that will attract and keep women in programs. For example, many studies have found that low cost, location close to home, and scheduling around child care or job hours are important to maintaining a high enrollment of women. Unfortunately, these studies tell us relatively little about the career aspirations or vocational choice of women in these settings.

What we do know is that the allied counseling services are not always helpful to women. A 1973 study (Bingham and House) concluded that male counselors, in particular, are uninformed about the factors important to supporting the goals of working women. Counselors are not aware of the general abilities of women or of the length of time women are likely to serve in the labor force. At the same time, another study (Harmon, 1973) indicates that sex-role bias still remains in tests used to measure worker interest in various fields. Therefore, it should be no surprise that many women's studies programs are setting up their own structures for career counseling. This has become increasingly important since the career choices of women are now being made predominantly on the basis of opportunities for advancement, potential income, and preparation for specialization and educational planning, and much less on the basis of security or chance to serve others (Sherman and Jones, 1976).

What is happening at the various levels of occupational education for women? In the most comprehensive study to date, Wirtenberg (1978) tells us that very little of the literature on occupational development is directly relevant to women. Most of "the theories and the tests of the theories are focused on male occupational development. Female occupational development is either ignored in this literature, or is treated as a 'trivial corollary to men's career development.'"

Wirtenberg goes on to indicate that some preliminary theories describing women's occupational development now exist, and that these provide either structural or developmental perspectives. The former stress how men and women are distributed across occupations, while the latter look at the series of decisionmaking processes that occur in different stages of life development. The two approaches are not only quite compatible, but mutually enhancing. Wirtenberg has also found that, while all students show a tremendous lack of knowledge about the world of work, women's occupational potential is further limited by their low self-concept, lack of motivation to aim toward a wide range of occupational goals, and a narrow range of educational experiences.

Wirtenberg recommends that steps be taken to provide women with an opportunity to develop a sense of competency, motivation, and a variety of educational experiences, and then highlights some of the educational interventions that have successfully attempted to do so. At the elementary school level, at least eight different forms of interventions were successful in modifying occupational sex-role stereotypes. These included nonsexist models presented in books and films, instruction in nonsexist occupational role concepts, nonsexist teacher training, and occupational units that give exposure to a large range of occupations. These techniques were most effective in the fourth and fifth grades, and in modifying girls' sex-typed attitudes. At the junior high level, few

interventions were tried and only one proved successful. At the high school level, many methods have been used successfully, such as reading sex-linked vocational information, consciousness-raising curriculum, courses on women in literature, and a career awareness course.

Unfortunately, the impact of these innovative methods has yet to reach vocational education institutions. Many vocational schools continue to separate programs by sex, and men and women are still enrolled in vocational programs that conform to traditional sex stereotypes. In fact, in 1976, when Lewis and Kaltreider tried to find 10 "pace-setter" secondary schools that could be said to be actively encouraging women to train for occupations in traditionally male-dominated fields, they were unable to locate any such programs. Only in the last few years have projects such as the Tompkins Cortland Community College (Dryden, New York) Project Open, which encourages and aids women into nontraditional fields, sprung up. Although these developments are few and belated, the positive effects of the interventions described by Wirtenberg lead us to expect that such hands-on experience will indeed enhance women's career potential and development in these new areas.

Other methods of support will be helpful in 2-year colleges as well. Several authors feel that the new community college population of re-entry women will be particulary well served by women's studies programs (Bulpitt, 1977; Hursey, 1978; Rubaii, 1978). Other researchers, such as Moore and Veres (1976), indicate that counselors need to give greater attention to life planning and needs assessment of women students, particularly since most of these students are now planning the complicated life of combining paid employment with family life. Students need to be prepared to deal with the attendant problems. Further, women aiming at both traditional and nontraditional vocations need more specialized help than they are now obtaining. Women in nontraditional careers at

2-year schools report many problems and feel unsupported by counseling staff. On the other hand, women in traditional tracks need to be prepared for the fact that their chosen paths may, in the long run, lead to technological unemployment, and that they should have other backup career plans.

Older, "returning women" have special problems as well (Blaha; Hersh, 1980). They are low in self-confidence, fear authority, worry about competing with younger students, and tend to put others' needs ahead of their own. They will need financial aid, help from social service coordinators, counseling in study skills and achievement development, and support systems such as blocks of core classes to ease the transition.

In sum, these studies agree that more support services are needed if women are to develop nontraditional vocational choices. Counseling needs to be improved (Bingham and House, 1973; Ott, 1978), and hands-on experiences and/or diverse forms of occupational education are useful and necessary (Wirtenberg, 1978). These can take many forms, including classroom books, films, or lectures; inservice teacher training; special programs (conferences, seminars, workshops, summer programs, or residency programs); and special recruiting materials (Association of American Colleges, 1977). Further, even within traditional women's vocational education, there is a dearth of materials and theories dealing with concerns that are uniquely women's.

Interdisciplinary Research on Women's Studies Programs

National Studies

Few research projects at a national level have sought to examine women's studies programs. Early studies (Astin and Parelman, 1973; Richardson, 1975) were focused primarily on uncovering trends in the rapidly growing women's studies movement. Generally,

they examined types of course offerings, institutional characteristics, social change orientation, and strengths or weaknesses of programs. Their data usually were drawn from the programs themselves, although none of these surveys included all programs in existence.

In 1976, Howe reported that programs were formalizing their curriculums and that increasing numbers of programs were developing minors or degrees in women's studies. Tracks that might lead to career outcomes were beginning to emerge. At the founding convention for the National Women's Studies Association in January 1977, questionnaires were collected from all program and other group members of the association. Except for the portions on characteristics of individuals attending the conference, the data on programs as yet have not been analyzed. However, they probably will not answer all our questions about women's studies career development structures and the forms that these majors and minors are taking.

Yet we know that certificate, minor, major, and degree programs have begun to structure their courses in various ways into tracks or streams that focus around disciplines, professions, or themes. These tracks direct students toward certain career outcomes. For example, several certificate and major programs focus around an interdisciplinary core. Majors at the University of North Carolina at Chapel Hill must chose six courses from at least two departments, which will define the women's studies focus. One model centers on English and history; a second model has anthropology and sociology as its core. Comparably, the University of Florida at Gainesville requires a topical approach to the study of women, with a concentration in three to four disciplines, among other courses, for its minor.

Some programs have even more directed degrees. The Florida State University Women's Studies Program is applying for a grant that would support training in

the human services area directed toward helping rural elderly women. This program would require 9 hours in gerontology, plus a field internship, and would lead to several social service jobs. Oregon State University has a certificate program in women's studies that includes two options: a technical option and a graduate study preparatory option. Each of these options requires 7 hours of course work. The former, recommended for students planning a career in affirmative action, emphasizes data processing and practical experience; the latter requires a thesis. A more detailed series of tracks, including streams in education, social change, and human services, is being developed by the University of Washington Women's Studies Program.

The most discipline-specific programs appear to be at the graduate level. For example, although Sarah Lawrence College offers an M.A. and S.U.N.Y./ Binghamton offers a Ph.D., both are in women's history (within or in conjunction with the history departments), rather than in women's studies.

Marketability of Women's Studies Degree. Women's studies programs are becoming increasingly career focused. Unfortunately, there are no systematic data available on the variety or frequency of the formats being used. Concurrently, students have become concerned about the extent and nature of the marketability of a women's studies degree. Students are convinced that women's studies is academically respectable, not simply a fad. They are interested in taking courses, but shy away from the area as a major (Bravy and Sedlacek, 1976). Yet we can speculate that at least half of all women's studies majors enter graduate or professional schools, and that many complete dual majors or do women's studies work with a particular occupational goal in mind.

Although many graduates want to work in areas that will serve women and that are often traditional

women's fields, about half choose to enter nontraditional areas such as science or business (Howe, 1977, based on interviews with members of 15 mature women's studies programs). Others enter the new "female careers" that developed out of the women's movement, such as rape crisis counseling, child development, and women's center organization work. These might be termed "activist" employment opportunities. Further, lists of occupational opportunities for students with a major in women's studies have been compiled by two California institutions (California State at Northridge and San Francisco State University). Jobs include staff of commissions on the status of women, editors of women's publications, instructors of inservice teaching, counselors and therapists for women, and design engineers for items used by women.

There are probably several reasons for the disjuncture between general student perceptions that women's studies is not marketable and the actual employment of women's studies majors. The most readily apparent is an "image" problem: students fear that either no skills are taught in the programs or that they will be labeled as activists. Another reason may be that women's studies self-selects students who are already oriented toward nontraditional careers. We cannot now be sure if this is true. But it is certainly hinted at in Bravy and Sedlacek's (1976) findings that students having employed mothers are more likely to be interested in taking women's studies. These are the very students that previous research indicates are more likely to be employed themselves and to enter nontraditional careers.

A third reason is that women's studies is a relatively new field, and its wide occupational usefulness is only now being recognized, although women have done so for quite a while. Finally, women's studies programs themselves have only recently begun to examine explicitly the career outcomes of their students, to structure formal means to aid

vocational choice, and to develop tracks within programs that have clear career outcomes. While Howe's study (1977) is indicative of the trends in women's studies student career plans, it was not intended to obtain data broken down into fine occupational categories, was not able to cover all the structures supporting career development, and focused on 15 rather mature programs. The study represents a solid foundation that is in need of further elaboration.

Services of Women's Studies Programs. The largest and most recent national-level survey of women's studies programs was conducted by Donna Wood, who, during the 1977/78 academic year, mailed questionnaires to the 270 institutions listed in the summer 1977 issue of the Women's Studies Newsletter as having programs. The questionnaire, which asked many detailed questions on program structure, achieved an excellent 60 percent response rate. Some of the results were printed in a 1978 report to coordinators and directors (Wood, 1978).

For our purpose, Wood's sections on program functions, which begin to delineate some of the varied services that programs provide both to students and the women's community at large, are the most applicable. She indicates that 41.6 percent of the responding schools had minors or second fields available through women's studies; dual or independent majors were found in 19.3 percent of the programs, and 19.9 percent had a regular undergraduate major. This information gives us a sense of the large numbers of programs that have grown enough to be able to regularize curriculum and establish methods of formal certification within women's studies. However, it does not tell us about the evolving tracks, internships, or requirements within these programs that might be focused on a career or substantive area.

Wood's report also examines supportive program and institutional services. Counseling services,

which include anything from faculty advisement and course selection to career planning and job placement, were found in 51.2 percent of the responding institutions. Research-oriented help (8.4 percent), professional meetings and study groups (5.8 percent), general educational services (44.2 percent), adult education programs (5.8 percent), special referrals, internships, and resource centers (18.8 percent), and training in math anxiety, assertiveness, study skills, consciousness raising, and career planning (3.9 percent) are all services she reports in varying percentages across the many institutions. The percentages in general are low, although 43.4 percent of all programs have at least one of these services. However, given low levels of funding, this figure is remarkably high, and the variety of content and form of services is exciting.

Again, however, for our purposes, we must obtain a finer breakdown to ascertain which of these services are oriented toward career development and which are program-based as opposed to institution-based. Followup research on the impact of each of these forms is essential.

Program Studies

Several individual women's studies programs have examined the impact of their programs on their graduates. Initial studies were informal, such as the interviews reported with seven graduates from Portland State University (Hoffman, 1973). Hoffman found that PSU students were both confident in themselves and made realistic assessments of opportunities for women. She viewed this as a result of the implicit curriculum of women's studies, where the form is to identify and act on one's own needs and the needs of other women.

Later studies have been based on mail questionnaires to graduates and certificate holders. One of the first of these, carried out in 1975, involved

mailed questionnaires to the graduates of the University of Washington women's studies program (Bose, Steiger, and Victorine, 1977). Twenty-one graduates and 32 currently enrolled students were interviewed, and, in most instances, their responses coincided. Almost all the students reported a positive change in self-image, an increased awareness of their own needs, and more faith in their ability to fulfill those needs. Students felt that they had obtained much factual information that aided them in understanding women's lives and social roles. However, some also stated a need for "marketable" skills -- what they called job survival skills.

> Although the teaching of job or social action skills is not perceived to be the primary goal of women's studies, graduates also had hoped to gain more in these areas than they actually received. Women's studies influenced job plans of most of the graduates, primarily through developing an awareness of jobs newly opened to women, helping assess skills realistically, improving self-concepts, and providing a new understanding of power structures within jobs. Women's studies, students indicated, had little impact on their acquisition of jobs - in such areas as providing job listings or developing new skills for particular careers. (Bose et al., 1977, p. 6)

Thus, we see that the information and consciousness-raising elements of women's studies greatly impact women's career development by raising horizons and fostering an accurate assessment of potential. In 1975, however, programs were not providing counseling, job search help, or other "salable" skills. At that point, the University of Washington did not have various career tracks or substreams in women's studies that might have provided specialization in an area and thus a skill. However, graduates did seem to be

entering nontraditional areas. Six were in supervisory or managerial jobs, five were graduate students, and two worked in law and shipping. Four were in traditional women's jobs, and two had jobs directly related to women's studies training. Several of the women in traditional jobs held positive attitudes about the possibilities of organizing co-workers for social change. This social change element seems to have been a component of all graduates' experience, no matter what field they entered.

In 1976, Sarah Lawrence College did a followup study on its graduates. Nearly all of the 19 who responded were active in community affairs. Their occupational distribution was as follows: four studying for a Ph.D.; seven teaching college; one teaching high school; four in academic administration; and three in assorted other jobs. This seems to indicate that a large percentage of the graduates went into higher education in one form or another. One might assume that the women faculty role models were instrumental in this outcome or that their program was aimed toward an academic career, but we cannot be sure.

During the fall of 1977, the University of Pittsburgh (Frieze, 1978) surveyed 1 graduate and 15 women's studies certificate holders from its program. Three were counselors, two were in office administration, one in Federal Government, and one in the armed services, while one each was in community relations, legal assistant, or librarian jobs. Although none of the jobs seemed to require women's studies training, the students reported that their classes in the program were helpful in getting those jobs. As at the University of Washington, an awareness of women's roles and problems was mentioned by nearly everyone, as were personal growth and improved self-concept.

In the summer of 1978, the University of Oregon interviewed 37 of its women's studies certificate holders. Five of the 15 who were employed were working in women-related jobs, and another 6 were in

graduate school. (Four of the graduate students were in programs allowing continued study of women.) Although not all of these had used their certificates to obtain work or school entry, 9 of the 15 who were working said they planned to use their certificates in finding future jobs.

Several other 4-year programs, including those of the University of Massachusetts at Boston (Mangione and Wiersma, 1974), the George Washington University (Streicher, 1977), and S.U.N.Y. at New Paltz (Gambill, 1979), have done followups of their graduates or impact on current students. (See Reuben and Strauss, 1979, which reviews these studies in more detail.) This handful of studies does not tell us very much about women's studies and career development or vocational choice in 4-year settings. We do know that career and educational aspirations have been raised and that more accurate self-assessments are being made by students. We can also tell that some students are entering nontraditional careers upon graduation, an outcome that undoubtedly has to do with course content, positive role models, and positive feedback from instructors. As career training is increasingly instituted in programs and as streams are developed, such hands-on experiences should show an impact. However, the studies to date came too early in the development of women's studies to be able to provide such a determination.

From one study in a 2-year college (McKim, 1976), we find other avenues worth exploring. This study indicates that, at Santa Anna College, students are encouraged to combine women's studies with job training programs or with the proper electives to transfer to a 4-year institution. Nontraditional careers are emphasized as models of working women's lives, and general skills of communication and creative expression are seen as necessary to prepare women for such occupations. However, data are needed to know the impact of these strategies on actual career development.

Course Evaluations

Many programs have evaluated the impact of one or more of their courses. These evaluations primarily consider attitude change using Spence or Bem scales of androgyny and other social-psychological concepts. Of the studies that have been published, most use pre- and post-test designs, and a few use experimental versus control group comparisons. Most do not deal with career issues, although some touch on such issues or aspirations in general.

Brush et al. (1977) studied changes in women's studies student attitudes in courses during the period 1973-75, using a pre-/post-test design. They found that effects may not show up until sometime after a course is taken, and that the particular teaching techniques that are effective could not be pinpointed. However, students were found to value independence and self-sufficiency and to gain self-acceptance through the courses. In other areas, women's studies courses appeared to validate pre-existing beliefs, making it difficult to measure change. This lends support to our earlier hypothesis that women's studies students may be self-selected as those with nontraditional goals.

However, an earlier work by the same group of authors (White et al., 1974) found that students did develop an increased commitment to a feminist orientation, shifting away from traits that are stereotypically male toward those that are more female. This is confirmed in a study by Borod et al. (1973), which found that students in an advanced women's studies class became more pro-feminist and less stereotypic in their perceptions of themselves over a 1-year period. This change can probably be attributed to the utility and value placed on women's heritage and culture within women's studies, as well as to exposure to the milieu created by the women's movement.

Data on the issue of self-selection of women's studies students become more mixed in reviewing other studies. An unpublished study by Ruble et al. (1974) indicated that women who enroll in women's studies courses are more feminist, career-oriented, and androgynous in their self-concepts at the start of the course than are other students. Later work by Scott et al. (1977), however, found that students in women's studies classes become more liberal in their attitudes toward women than do students in control group classes. Speizer (1975) also found significant change in the attitudes of women in a women's studies course when compared to the control group. These changes did not appear to be related either to having mothers who worked or to other nontraditional histories. And Abernathy (1977) found that consciousness-raising modules in high school curriculums serve, even in a short period of time, to increase girls' liberalism in beliefs about women's rights and result in more self-actualization.

In sum, women's studies courses are associated with an increased sense of self-worth and independence, and are probably associated with feminist commitment, career orientation, and supportive attitudes toward women's rights. In many cases, the courses seem to have enhanced such attitudes, while in others, the group seems to have had these attributes in varying degrees before the class began. Further research will be needed to unravel the processes involved. Quite possibly, the studies were done with courses of differing student compositions: introductory women's studies courses might be expected to have more of an impact than those courses populated by students who have already taken several women's studies courses. We will want to do more toward pinpointing what types of coursework produce which changes in students, and we need to know more about changes in specific career goals over time. (For more details on courses and teaching effectiveness, see Porter and Eiléenchild, 1980.)

Special Projects

Two types of special projects are most noteworthy for women's studies career education: workshops and internships. Several workshops on women and the sciences have been sponsored, particularly with National Science Foundation funds, and these appear to have been highly successful in affecting student career goals.

In 1977, the University of Arizona held two sets of workshops, one for first-year and sophomore women and the other for juniors and seniors. The first was a 2-day workshop with nine women in science and engineering who spoke on a variety of career options in their fields to an audience of 105 self-selected students (Dinnerstein, 1977a). The workshop attracted those who had already decided on study in the field. (Apparently most women make these decisions early on, perhaps in high school.) However, all participants reported that their self-confidence was increased and that they had acquired a better definition of career goals; 80 percent indicated an interest in followup activities.

Six months later, a followup questionnaire indicated that the workshop had reinforced or raised the women's aspirations for graduate school or a professional career. Clearly, increased information on job options is a powerful tool. Dinnerstein also infers that the workshop mode captures important images and intangibles such as enthusiasm, confidence, ambition, determination, and satisfaction, which are important to transmit to those students who, if lacking such encouragement, might later waver in career commitment.

The workshop for older students was equally as successful (Dinnerstein, 1977b). Students were selected by major to participate in this 1-day event. Evaluation of the panels and discussions indicated that the impact was high: the number of students planning to attend graduate school increased; over 3

percent completely changed their career goals; and 14.3 percent said their goals were clarified. Almost all said that their knowledge of career options had increased, and 7.7 percent planned to take supplementary courses. Dinnerstein concluded that the most successful career counseling comes from those already successful in the field and that the workshop format is a particularly valuable tool in geographically isolated areas.

Pomona College (1977) reports on a similar women-in-science workshop that attracted 125 women, most of whom were juniors and seniors majoring in the sciences, from 9 colleges. Participants reported feeling encouraged to pursue a science career and excited at finding role models and obtaining otherwise unavailable concrete information. As a result of the workshop, 33.3 percent changed their plans to include graduate or professional school. Similar projects have met with success at San Diego and at the University of Oregon.

Internships (service learning, field placements, practicums, and cooperative education) are becoming an increasingly common method for women's studies students to gain career education. A preliminary study by the National Women's Studies Association found that one-quarter of the 301 programs identified in 1978 now offer such courses under varying titles. We do not yet know what their impact has or can be on career development and vocational choice in this field.

There is only one major study of cooperative education programs that examines the impact on women (Brown, 1978). The author found that women participating in 12 coop education programs were more likely to choose nontraditional careers upon graduation. Women not in the program who eventually chose nontraditional jobs did so after gaining work experience in traditional fields. While women majoring in social sciences and humanities often found themselves

employed in post-college jobs unrelated to their major, coop participants with these majors were more likely to find jobs closely related to their major. And alumnae who had undergraduate job experiences relating to their major tended to perceive their career preparation favorably.

This coincides with other women's studies research. "Project WELD" (Formative Evaluation Research Associates, 1977), an important study of eight schools with a high commitment to the development of women's studies, examined the impact on students of three educational options: internships; women's studies programs; and skills development courses. It was found that internships not only provided career exposure, but increased self-confidence, openness, and assertiveness. Internships had particular impact on professional/technical skills, professional role models, and professional potential, probably in part because they are most unlike the typical educational experience. Within the three types of programs, students in internships reported being the most career oriented. They may, of course, also have begun with the highest job motivation.

These two research reports lead us to believe that internships will provide an important model for women's studies programs that will attract and maintain students, particularly in a time when they are seeking salable skills.

Methodology

Although the studies reported above use no uniform methodology, women's studies researchers do seem to agree on the principles outlined by Tobias et al. (1973), which are substantially based on Guttentag's (1973) decision-theoretic approach. Evaluation of women's studies impact should be in terms of the program's own goals as set down in 5-year plans, program proposals, and other pre-established guidelines. The impact of the institution on the program, as well as of the program on its students,

should be examined. The aim should be feedback to help improve service. The research should thus not focus on the traditional success versus failure model, but on gaining information about which methods best achieve a goal such as career development. Research should, therefore, vary by locality or be decentralized, since not all programs share the same goals.

A prime need is to continue collecting information on all types of programs on a broad range of variables in order to develop a data base. In this spirit, we mailed a letter requesting information on career development to the 301 women's studies programs known to exist as of 1978 (as listed in the Women's Studies Newsletter, fall 1978). We received references to specific reports, some of which are included in this review. We also gained a wide variety of materials including catalogues, flyers, syllabi, annual reports, final reports to sponsoring agencies, proposals for majors and programs, program reviews, general summarizing letters, and letters from students. The number of programs responding to this general call was 48, or 16 percent of our population. The number may seem low, but the request was a general one to gauge the variety of materials available for a future study in this area, and in this goal we were successful.

Career counseling facilities were found to include women and science workshops, career conferences, use of a career planning specialist, use of senior seminars to investigate career options, cooperative education programs, career development courses, and a counseling center for women located in an off-campus setting. Structures within programs that help track or stream women into jobs include emphases on community service, cultural/historical core requirements, human services tracks, education tracks, a certification in gerontology, graduate specializations in history, and a variety of internship programs.

These results lead us to assert that a wide net must be cast in searching for aids to career development. They also lead us to advise that more onsite research is necessary. Programs seem to be generally understaffed and cannot do detailed studies themselves. Further, while it seems possible to gain some background on the nature of structures within a program, such as career tracks, which affect vocational choice, the actual effects on career development and aspirations can be judged only with more data and closer content analysis. Not all program or institutional structures that aid in career development are reported in a "checklist" series of responses; and some projects, while not directly within a women's studies program, may actually be unreported program "spin-offs." Onsite research would provide research staff and uncover the full range of program or institutional supports for the career development of women's studies students.

Although programs generally are interested in the career development of their students, the structures by which this is done and the skills imparted appear to be less specific than can be gleaned from annual reports. We know that workshops and internships are likely to be useful, but we do not know how nor do we have enough data on other projects to know which further new techniques have an impact. We also know that women's studies seemed to be impacting careers before internships and workshops were available; therefore, we need to search for previous techniques.

Existing Relevant Data Sources

The existing relevant data sources, most of which have been reviewed in the subsections above, are shown in summary form on table 1 beginning on the following page. This table indicates the principal researcher(s), the date of publication of the study, the sample size, the key study findings, and a brief commentary on the findings.

Table 1

Summary of Data Sources

Researcher	Date	Sample	Findings/Evaluations
Abernathy, Roger	1977	29 high school students	Found increased self-actualization in 20 days of consciousness-raising sessions. / Although attitudes toward women improved, we do not know what this means for vocational choice; limited local sample.
Astin, Helen, and Alison Parelman	1973	11 women's studies programs	Looked at trends in course offerings, institutional characteristics, and program structure. / No information on tracks or counseling.
Bose, Christine, John Steiger, and Philomina Victorine	1977	18 program graduates, University of Washington women's studies	Found increased aspirations; many nontraditional job holders; need for concrete job skills. / Good preliminary work; needs more information on particular program structures useful to students.
Bravy, Sharon, and William Sedlacek	1976	310 women and 283 men students at University of Maryland	Focused on popular student image of women's studies; confirms concerns with marketability of skills and understanding that women's studies is not a fad. / Good on image of women's studies, but needs to be linked to what program actually does.
Brown, Sylvia	1978	1,426 students in coop education, national sample	Reviewed general effects of coop education on choice of traditional versus nontraditional careers. / Needs to be linked to specifically women's programs.

Table 1

Summary of Data Sources (Cont'd.)

Researcher	Date	Sample	Findings/Evaluations
Brush, Lorelei, Alice Gold, and Marnie White	1978	Pre- and post-test on attitudes of women's studies course students	Found that students gain independence and self-acceptance, but specific techniques not clear; courses seem to validate some pre-existing beliefs. / Excellent model for course evaluation not focused on occupational goals.
Farley, Jennie	1978	Undergraduate students at 6 colleges	Compared all-women's colleges with others; suggests importance of all-women environments. / Need to compare these generalizations for women's studies and other woman-dominated majors.
Frieze, Irene	1978	University of Pittsburgh women's studies graduates	Found all felt women's studies helpful in attaining jobs, largely through raising aspirations and self-confidence. / Interesting study; no further data available for use; parallel to other graduates surveys.
Gambill, Susan	1979	Survey of S.U.N.Y. at New Paltz women's studies graduates	Lists jobs. / Useful in comparison with other graduate studies.
Girard, Kathryn	1978	380 feminists	Found women's own active exploration of individual issues is greatest resource. / Programs need to know how to institutionalize this if findings are valid.
Guttmacher, Mary	1974 proposal	289 women in 4-year colleges	Findings on social class differences and career commitment not available.

Table 1

Summary of Data Sources (Cont'd.)

Researcher	Date	Sample	Findings/Evaluations
Howe, Florence	1977	Various participants in 15 women's studies programs	Provided overview of curriculum forms, student concerns, faculty and administrative personal and program concerns, impact on curricular change; noted new depth and organization to curriculum, but latter lacks detail; noted that half of majors seem to enter nontraditional jobs. / Provides excellent guidance for follow-up in areas of streams and tracks.
Lawson, Joanne	1978	Survey of 37 women's studies certificate holders at University of Oregon	Ascertained jobs of graduates, found interest in gaining skills; increased self-esteem. / Comparable to other program studies of grads.
Mangione, T.W., and Geertje Wiersma	1974	Survey of current women's studies students at University of Massachusetts at Boston	Based on Wesleyan Conference model, primarily on course effectiveness.
Moore, Kathryn, and Helen Veres	1975	1,341 male and female students in 2-year colleges	Found women showed continuous commitment to work, but little role innovation. / Good model to relate to 4-year women's studies programs.

Table 1

Summary of Data Sources (Cont'd.)

Researcher	Date	Sample	Findings/Evaluations
Oates, Mary, and Susan Williamson	1978	1,735 women entries in Who's Who	Found those from women's colleges not in more roles atypical for women; seven sister schools produce large proportion of achievers; women's college achievers in liberal arts, while others in skills areas. / Solid study, implies differences in career orientations in varying settings.
Parsons, Jacquelynne, Irene Frieze, and Diane Ruble	1978	169 females, college juniors and seniors	Found those with high aspirations are also high on self-concept variables; satisfaction of mother and male/female support for careers are important determinants. / Suggests more work necessary on role of peers in career aspirations.
Ruble, Diane, J. Croke, I. Frieze, and J. Parsons	1975	106 women's studies and 72 psychology undergraduates; pre- and post-tests	Found consciousness can be raised through women's studies courses and sex-role attitudes can be changed.
Scott, Ruth, Ann Richards, and Marie Wade	1977	176 women's studies and psychology students; pre- and post-test	Found women's studies students became more liberal in sex-role awareness over time, and others showed no change.
Shueman, Sharon, and William Sedlacek	1977	429 students in University of Maryland women's studies courses and 72 in psychology courses	Found few salient career differences. / Comparison group probably too similar to women's studies group; results incompatible with previous two studies.

Table 1

Summary of Data Sources (Cont'd.)

Researcher	Date	Sample	Findings/Evaluations
Speizer, Jeanne	1975	38 women's studies courses students and 123 in control group	Found women's studies students show considerable attitude change on Spence scale; changes not related to usual demographic variables. / Similar to several other studies.
Streicher, Arline	1977	Survey of 46 women's studies graduates from George Washington University	Provided detailed employment history, used as relates to student demography and program experience. / Excellent model.
Talburtt, Peg (Project WELD)	1977	8 schools with high degrees of commitment to women's studies (270 students, 50 faculty and administrators, 25 interns)	Provided review of impact of internships, women's studies courses, and skills classes on students; each achieves the goals it promises. / Excellent model for review of career development structure; good development of new terminology.
Wirtenberg, Jeana	1978	Overview of vocational education field	Provided excellent literature review on interventions used in elementary through high school to improve occupational education. / Illustration of several successful modes including special sessions, teacher preparation, etc.

Table 1

Summary of Data Sources (Cont'd.)

Researcher	Date	Sample	Findings/Evaluations
Wood, Donna	1978	162 women's studies programs	Is one of two women's studies national surveys; covers program details and place in institution; details percentage of programs with counseling aid and other forms of potentially occupation-related services. / Excellent in its breadth; little information on aspirations, student employment, career tracks, or nature of services.

3. ASSESSMENT OF DATA GATHERING NEEDS

Examination of the data sources in table 1 indicates that they fall within a few areas: national studies, usually stressing structure; local studies of program graduates or course effects on sexist attitudes; and a few studies on aspirations and achievement. The data pool is too small for local program assessments and not sufficiently systematic to accurately answer the detailed questions on career development, aspirations, and vocational choice that were posed in section 1. The few national studies, such as that by Wood, ask only a smattering of the relevant structural questions about programs, and they do not seem to examine the career aspiration or developmental effects of these structures.

Given the interdisciplinary nature and multilocation of programs, systematic information is so difficult to find that one must conclude that it does not exist. Yet within colleges, 2- and 4-year institutions deal differently with vocational development. Among women's studies programs in general, community-based and academic settings are likely to have very different strategies -- although this is hard to ascertain from the paucity of data on community-based women's studies/centers.

This suggests that research needs will vary by the institutional setting of women's studies programs. On the whole, the best data are available for 4-year colleges. However, we need greater depth of information on 4-year colleges and graduate programs, and we probably need proportionately comparable samples from the growing 2-year college programs. Pre-K through 12 programs and community-based women's centers require more preliminary groundwork and, therefore, might be a special subsample within a future research project, where the dimensions of vocational education and career development are sampled. Further, women in coed schools seem to have greater need for women's

studies than do students in women's colleges. Therefore, a subsample of women's schools might also be advisable as a comparison.

Research Recommendations

More data are required on several specific research issues. First, systematic followups on the jobs held by women's studies graduates, particularly graduates from programs with a variety of structures and from several settings, are needed. Graduates should be queried about factors affecting their attitudes and aspirations, the structure of the tracks or streams in women's studies that they followed, and the nature of the program and the institutional support services they utilized or ignored. Data on these factors will establish the effects of various structures and services and will provide a uniform data base.

Second, we need to identify the variety of structures (concentrations, streams, tracks, core requirements, internships, and special skills workshops) utilized by programs and the frequency with which they are found. Although the National Women's Studies Association plans to do a study of service-learning formats in programs, there are as yet no plans for a national-level examination of the exact nature of program tracks. Inventories of courses exist, but these do not provide a sense of the typical program or its options for a women's studies major or minor. We need to also know the frequency with which each track is taken by students, and if there is any attrition.

Third, program and institutional support services need further examination. Which vocational development aids occur at which types of institutions? How many different types of services occur at each institution? If only one type can be economically supported, which is most effective in each setting -- workshops, career counseling, career development courses, or others? Who should be supporting these

services -- women's studies programs or institutions? How do workshops and internships compare in effectiveness? Would other structures perform the same function? We know that workshops on the sciences are useful in 4-year colleges; they serve to encourage students within those fields and even raise their aspirations. But we do not know if such workshops are useful in 2-year colleges or community settings.

Fourth, we probably know the most about women's studies' impact on general career aspirations, even though some of the data show conflicting results. To follow up on this early work, we should try to determine if student aspirations become more specific as programs themselves add skills components.

There are two other areas of interest that we noted earlier, but whose implications for data needs are not parallel with those listed above. The first is the image of women's studies not being skill-oriented. We expect that, as more general research on women's studies and career development is carried out and the results publicized, this image will be dispelled. Further, as programs themselves develop career components, the word is likely to spread via clearinghouses, government publications, and women's studies organizations, particularly the National Women's Studies Association.

The second concern is whether or not women's studies students are self-selected to be more non-traditional -- resulting in a lack of observable impact of programs on students who are already innovative. This question speaks to a methodological consideration for future research. Our studies need to ask students if the course they are in or service they use is their first women's studies experience. We can then dissect the impacts of previous women's studies experience from "first-timers." The question also speaks to the need for comparison and/or control groups, as well as for pre- and post-test designs. Comparison groups will tell us what comparable social science, humanities, or science students did with

career training that did not include a women's studies component. Useful comparisons can then be made with American studies, Black studies, or other contemporary interdisciplinary programs, particularly those related to social movements. Additionally, the question implies the need to review the literature on women's studies and pre-K through 12 curriculum to determine likely previous experience with the material and the impact of that experience.

Approach to Future Research

Answering the research questions outlined above requires a two-tiered strategy:

1. A national-level survey, probably mailed questionnaires with followups, could gather information on core requirements, tracks, and internships and on vocational development support services.

2. Followup work, probably based on local onsite interviewing and gathering of mailing lists, of a subset of programs in a variety of settings would occur at the second level. Information would be gathered on graduates' career paths and on the impacts of a variety of tracks, services, or courses on current and past students. Onsite work would relieve the research burden on programs. It would also serve to: (a) check the accuracy of reporting on structures in the national survey; (b) allow the collection of mailing lists of graduates, minors, and certificate holders; (c) use instruments to assess the current impacts of tracks and services; and (d) identify forms of women's studies curricula that might not be reported in a survey format. These are all tasks that cannot be carried out by understaffed local programs, but that are best performed by a team of researchers who would be able to see cross-national comparisons.

At both levels of research, several considerations are important. First, programs should participate in prestating their goals in the areas of career development and of raising educational or occupational aspirations. Women's studies is an interdisciplinary field whose goals do not always fit previous disciplinary models; therefore, they must be ascertained. Thus, participant-based methodology is essential.

Second, program effectiveness must be evaluated in the light of institutional support and resources provided. Although women's studies programs theoretically may have the options of using various traditional or innovative career development approaches, their effectiveness will depend on the availability of institutional support.

Third, the research questions asked should be policy relevant, providing results that are useful in helping programs and/or institutions improve the career development of women's studies students. Finally, the data base constructed needs to be based on bias-free instruments and be longitudinal, looking for changes and improvement over time based on feedback from previous research. To do this, age and origin data on programs need to be taken into account to indicate the social and political climate in which an individual program sets its own goals.

4. POLICY ISSUES: RECOMMENDATIONS AND IMPLICATIONS

There are four policy issues that relate to research on women's studies and career development. The first is the general concern raised at the end of the previous section: who evaluates women's studies programs and according to what standards? The programs themselves need to articulate how they intend to aid in career development, and this needs to be done for both the national and local levels of any research work. This will be facilitated by the presence of knowledgeable personnel at various funding agencies who understand the goals of women's studies curricula and, thus, sanction only research that is based on appropriate methodology and questions.

The second issue revolves around the nature of the services or tracks that programs might use to enhance career development. If it could be assumed that all programs had similar goals in this area and that some services should prove more effective than others in meeting these goals, should all programs use these same services or remain diverse? Presumably, the goals of individual programs will prove to be diverse enough that this will not be a problem.

The third issue involves the nature of the careers for which we prepare our students. Even though participants in women's studies might not agree on the major vocational goals held for students, there are consistently held core values. Most frequently mentioned are providing information to raise consciousness, increasing self-confidence, and raising career aspirations. Other goals include improving the ability to realistically assess one's strengths and needs and giving students the skills to be independent. Sometimes, nontraditional career aspirations are explicitly mentioned as a goal, particularly in the context of changing sex-role stereotypes and providing role models. If women's studies does prove effective in this, one policy outcome would be to recommend a women's studies component in all courses.

Much discussion has centered on whether or not women's studies students are nontraditional at the outset. But we also assume the value of raising aspirations toward nontraditional vocations for women. It might well be argued that this means providing access to traditionally male-dominated jobs, where women are likely to remain a minority at least in the short run, and where women may be co-opted away from working to change the system that sets up male and female jobs. Minimally, research on career outcomes of women's studies programs on students should include an assessment of the social change component graduates attribute to themselves in any employment and should look to see if graduates who are going into traditional fields go with the intent of changing them. Graduates could have this activist approach whether they are in traditional male jobs, traditional female jobs, or the "new female jobs" born of the women's movement, such as affirmative action officer, rape crisis center counselor, or editor of a feminist newspaper.

The fourth issue focuses on the needs for research as outlined in section 3. Women's studies needs research support to develop a coordinated and uniform data base that will improve our knowledge about women's studies and career development or occupational outcomes. Once these data are compiled, they will need to be distributed. Useful ways to do this include indexing materials done under contracts and grants, publishing a handbook of program strategies useful for various forms of career development, and continuing to promote/explain women's studies curriculum to employers and graduate schools. A central data clearinghouse and technical advisement center, possibly at the NWSA, that would aid in setting up career planning structures would also make the research gathered useful to programs and students.

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