A study analyzed attitudinal and demographic factors that influence women's choices of traditional and nontraditional training programs. A career choice survey was constructed, based on results of responses by four focus groups to questions regarding training program selection. The survey was completed by 532 women students in 15 technical colleges. Surveys were grouped according to respondent's training program—traditional, nontraditional, or gender balanced. Study subjects were 204 women students who had previously participated in a preenrollment women's project; the control group consisted of 328 respondents who had not received special career planning services. Survey results uncovered few differences among the three groups of students. Nontraditional students had significantly higher levels of career and life-style self-efficacy and indicated greater knowledge of nontraditional careers and training opportunities. Although all three groups believed others supported their occupational choice, nontraditional students perceived greater encouragement to explore nontraditional classes. Nontraditional students' scores on the occupational attractiveness subscale were significantly higher. A chi-square revealed a relationship between participation in a preenrollment project and subsequent choice of training program. Recommendations were made regarding recruitment of women, use of Brooks' motivational model of occupational choice, use of role models, and effect of sex equity project participation on enrollment in nontraditional training. (Contains 17 references.)
WOMEN'S CAREER CHOICES:
VTAE STUDENTS' SELECTION OF
TRADITIONAL AND NONTRADITIONAL PROGRAMS

Summary Report

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1991
Acknowledgements

This study was conducted under the auspices of the Wisconsin Board of Vocational, Technical, and Adult Education and supported by Title II VEA funding. The cooperation of Displaced Homemaker, Single Parent/Homemaker and Sex Equity Project staff in Wisconsin’s sixteen VTAE districts was instrumental in the success of this project, and is gratefully acknowledged. Special thanks are due Beth Pierce and Karen Showers, Blackhawk Technical College, and Mary Jo Coffee, Waukesha County Technical College, who assisted with the focus group process. Technical assistance in data analysis was provided by the Center for Vocational, Technical, and Adult Education at the University of Wisconsin-Stout. Their assistance, under the direction of Orville Nelson, is greatly appreciated. Finally, the tireless efforts of project assistants Lori Gardow and Karen Strasburg in the preparation of this manuscript should be acknowledged.
SUMMARY REPORT

Women's Career Choices: VTAE Students' Selection of Traditional and Nontraditional Programs

During the past decade numerous projects sponsored by Wisconsin's Vocational, Technical, and Adult Education System have encouraged women to enter higher paying, nontraditional occupations. However, there has been little overall change in enrollment patterns in VTAE training programs; many remain divided by traditional sex role stereotypes.

This two-stage investigation analyzed attitudinal and demographic factors which influence women's choices of traditional and nontraditional training programs. First, four focus groups were conducted at three technical colleges in Wisconsin. Separate groups of students enrolled in traditional and nontraditional training programs answered six questions regarding their selection of training program. Next, a career choice survey was constructed, based on results of the focus groups and review of related literature. The survey was completed by 532 women students representing fifteen technical colleges. Surveys were grouped according to respondent's training program, either traditional, nontraditional, or gender balanced. The survey contained four subscales, which represented different aspects of occupational motivation. Subscale results for the three types of training programs were analyzed to identify differences between the groups.

Of the 532 women students who completed the career choice survey, 204 had previously participated in a pre-enrollment women's project. They were the subjects of the study. The control group consisted of 328 survey respondents who had not received special career planning services for women. A chi square was utilized to determine whether a relationship exists between participation in a pre-enrollment project and choice of training program. Finally, demographic differences between women in various training programs were analyzed.
This report contains a summary of the findings of the study and implications for pre-enrollment projects which serve women. The reader is referred to the final report of the study (Read, 1991) for more detailed information.

Results of the Study

Focus Group Results
Focus Group Question #1: Reasons for career choice. Nontraditional students frequently named one or more of the following as reasons for selecting their training program: high wages, previous experience in the area, rejection of typical women's jobs, results of career assessment which supported nontraditional options, and challenge offered by the occupation. Responses of traditional students were fewer and more general in nature.

Focus Group Question #2: Disadvantages of the occupation. Many traditional and nontraditional students perceived no obvious disadvantage to their chosen field. The drawback mentioned most often was nontraditional students' concern that they would have to prove their competence to male co-workers during the initial phases of employment.

Focus Group Question #3: Influences of childhood experiences. Nontraditional students named several types of childhood experiences which later influenced their selection of career, including male role models and encouragement to try boys' activities. Most of the nontraditional students had lived on a farm or in a rural setting. In contrast, traditional students mentioned few specific links between childhood experiences and selection of a particular training program.

Focus Group Question #4: Managing home and job. Almost no traditional or nontraditional student anticipated difficulties combining work in their chosen field with multiple responsibilities of parenting and/or managing a home. Most, in fact, believed that managing home and job would be less stressful than their current roles of student, parent, and homemaker.
Focus Group Question #5: Support or lack of support for decision. Virtually all students in both traditional and nontraditional programs expressed the opinion that others currently supported their occupational choice. Those students who felt a lack of support from friends or family sought other sources of support, such as classmates, college instructors or counselors.

Focus Group Question #6: Previous work experience. Most focus group participants described prior employment in a low-paying field as a primary factor in their decision to return to school. Many nontraditional students mentioned a dislike of typical women's jobs as contributing to their choice of nontraditional training.

Results of Career Choice Survey

Research Question #1: Are there demographic differences between women who choose traditional and nontraditional occupations? There were few demographic differences between traditional, nontraditional, and gender balanced students. The most striking contrast between the groups was the virtual lack of women over age 45 in nontraditional programs, while 20% of students in gender balanced programs were over 45. Concerning marital status and number of dependent children, there were only minor differences between women enrolled in the three types of training.

Research Question #2: Are there different motivational factors for women's choices of traditional or nontraditional occupation? The four parts of this research question were addressed by different subscales of the career choice survey, as described in the following section.

Research Question #2a: Do women students in traditional and nontraditional training differ in their career and lifestyle self-efficacy? Nontraditional students had significantly higher levels of career and lifestyle self-efficacy, or the perception that one can succeed in school and on the job. Nontraditional students rated themselves higher on ability to handle problems that arise, risk-taking, and succeeding through their own efforts rather than by luck. Subscale scores of students in gender balanced programs and
traditional programs were nearly identical, and lower that the nontraditional students' ratings. However, all student groups viewed their return to school as positive and exciting.

Research Question #2b: Are there differences in perceived structure of opportunity for women choosing traditional and nontraditional occupations? There were significant differences between the three groups of students on the structure of opportunity subscale, with nontraditional students scoring highest, followed by similar results for the gender balanced and traditional groups. Nontraditional students' higher scores indicated greater knowledge of nontraditional careers and training opportunities. In addition, nontraditional students perceived themselves as likely to become employed in male-dominated fields. However, all groups responded that women in general would probably not be hired in nontraditional jobs.

Research Question #2c: Do perceptions of environmental support vary for women in traditional and nontraditional training programs? All three groups of students responded that they believe others currently support their occupational choice. However, nontraditional students perceived that they had received greater encouragement in the past to explore nontraditional classes and activities, as compared with the remaining groups. Therefore, overall scores for the perceived support subscale were significantly higher for nontraditional students than gender balanced and traditional students.

Research Question #2d: Are there different perceptions of occupational attractiveness for women enrolled in traditional and nontraditional training programs? The nontraditional students' scores on the occupational attractiveness subscale were significantly higher than those of the gender balanced and traditional groups. All three groups, and particularly nontraditional students, disagreed with the premise that working in nontraditional occupations is unfeminine. In addition, over half of nontraditional students rejected typical women's occupations. Salary was not a major factor in the career decision of any of the groups.
Research Question #3: Is there a relationship between participation in VTAE-sponsored women’s projects and selection of traditional or nontraditional training program? The chi square which was utilized to answer this question revealed a relationship between participation in a pre-enrollment project and subsequent choice of training program. The strongest link was between participation in a sex equity project and enrollment in a nontraditional field. Concomitantly, sex equity project participants tended to avoid traditional programs. Another relationship emerged between participation in a displaced homemaker or single parent/homemaker project and later enrollment in a gender balanced training program. Most displaced homemakers and single parent/homemaker project participants did not choose nontraditional occupations. There was no apparent relationship with any of the three training areas for the control group.

Conclusions

To a great extent, results of the career choice survey confirmed the qualitative analyses of focus group data. Relationships between the two phases of the study are described in the section that follows.

The first subscale of the motivational model of occupational choice, as adapted from Brooks (1988) was career and lifestyle self-efficacy. High scores on this subscale suggest expectations of success in school and on the job. Nontraditional women's significantly higher self-efficacy scores are consistent with attitudes expressed by focus group members who were nontraditional students. These focus group participants repeatedly mentioned a desire to prove their competence. A factor in their career choice was the challenge offered by nontraditional work, and they described their eagerness to accept that challenge. These attitudes were confirmed by survey scores in which nontraditional students rated themselves as employable in their field, able to handle problems that arise, do well in school, and take reasonable risks. Nontraditional students overwhelmingly rejected the notion of success being attributed to luck and disagreed that they were helpless regarding
career decisions. The profile of nontraditional students that emerged from both focus group and survey results was a confident, self-sufficient decisionmaker who welcomed the opportunity to prove herself in school and on the job. In contrast, students in traditional programs who participated in focus groups were more tentative about their ability to succeed in a range of occupations. They named few specific reasons for choosing a certain training program. Instead, they referred to a more general desire to return to school for self-improvement. Indeed, traditional students' responses to survey items concerning past successes in school and current positive attitudes about school matched or exceeded the ratings of nontraditional students. However, on items regarding perceptions of ability to handle problems, risk-taking, and women's ability to work in a range of jobs, traditional students' survey ratings were lower than the nontraditional students. While traditional students felt confident about returning to school, their remaining perceptions about their own as well as other women's success in all types of occupations were less positive than those of nontraditional students. Therefore, observations of differences between traditional and nontraditional students in focus groups were confirmed by the self-efficacy subscale of the career choice survey.

The structure of opportunity subscale was the second component of the motivational model (Brooks, 1988) which was the framework for the career choice survey. Structure of opportunity refers to perceptions about training and employment opportunities for women, as well as knowledge of labor market information. Only limited comparison of structure of opportunity subscale results with focus group results is possible, since no focus group question addressed these concerns specifically. However, when asked about potential disadvantages to their occupational choice, focus group members did not cite concerns about getting hired. The students anticipated finding employment in their field, although they realized that they might have to relocate to find better opportunities. This is consistent with the survey item which dealt with expectations about getting hired after finishing school. Most survey respondents in all groups agreed with this statement.
Another commonality between focus group and survey results was nontraditional students' perception of greater opportunities in their fields. The potential for higher earnings was named frequently by focus group members who were nontraditional students, and was not mentioned by traditional students. Similarly, nontraditional student responses to the career choice survey indicated greater knowledge of nontraditional labor market information and training opportunities than the remaining student groups.

One survey item dealt with the likelihood of employers hiring women for nontraditional jobs. Agreement with this item by all groups was very low, although nontraditional students' ratings were slightly higher than traditional or gender balanced students. Meanwhile, a majority of all groups expected to find a high-paying job and rated themselves likely to be hired in a nontraditional field. It appears that many students in all groups perceived themselves as employable, even in nontraditional jobs, while simultaneously rating other women's chances in nontraditional areas as limited.

A third subscale of the career choice survey, perceived support from others, revealed differences among the traditional, nontraditional, and gender balanced students, with nontraditional students receiving significantly higher scores. That is, nontraditional students perceived higher levels of support and encouragement from others for their training program choices. Upon closer examination, it became apparent that the greatest differences in ratings between nontraditional and the remaining groups were on items concerning past support for exploring nontraditional activities, classes, and careers. Nontraditional students perceived that they had been encouraged to explore nontraditional activities by parents, teachers, and counselors more often than the gender balanced and traditional groups.

Verbal confirmation of this difference between nontraditional and other students occurred in the focus groups. Nontraditional students frequently mentioned specific people and experiences from their childhood which fostered an interest in nontraditional occupations. The most common link between childhood background and current nontraditional training program was described
by the students who grew up in a rural or farm environment. Specifically, students mentioned early experiences in operating farm equipment and helping with chores. However, survey items which posited a link between rural background and later choice of nontraditional training revealed no apparent relationship.

Concerning present levels of support from others for career decisions, both focus group and survey results indicated that most students perceived encouragement from friends, family, and college staff. No differences between traditional and nontraditional students' perceptions of support were detected in analysis of focus group results. Virtually all focus group members described one or more sources of support, once they had begun their training program. However, several mentioned that family members and friends had initially discouraged them from returning to school. It appears that once a student makes a commitment to return to school, she perceives that support from others is forthcoming.

A fourth subscale of the career choice survey measured students' perceptions of occupational attractiveness, or appeal of nontraditional occupations. Although nontraditional students' scores on this subscale were significantly higher than gender-balanced and traditional groups, all three groups rejected the notion that working in nontraditional jobs is unfeminine, or that femininity is associated with employment in traditional areas.

One aspect of occupational attractiveness measured by this subscale was interest in female-dominated jobs. As expected, a majority of nontraditional students responded that they disliked typical women's work, while many women in traditional and gender-balanced programs reacted favorably toward women's work. This result confirmed statements made by students who participated in the focus groups. Many nontraditional students named prior, negative experiences in traditional occupations as a reason for choosing their current career. Traditional students, meanwhile, enjoyed this type of work and wanted to enhance their skills by returning to school.
One survey item on the occupational attractiveness subscale concerned openness to careers where sexual harassment might occur. As anticipated, most women in all types of training programs agreed that they would not consider working in such jobs. However, more than twice as many nontraditional as traditional students responded that they would at least consider the option. This is consistent with nontraditional students' higher rating on the item concerning risk taking, which appears on the self-efficacy subscale. It also reflects the reality that many nontraditional students will encounter some form of harassment while working in their fields.

It is not possible to compare survey results regarding sexual harassment with focus group analyses, since this issue was not mentioned during the discussions. Even when asked about potential drawbacks to their career, no nontraditional student raised the issue of sexual harassment. Rather, they anticipated that they would need to prove themselves to male co-workers upon beginning a new job. Yet the prevalence of sexual harassment has been described in related studies (Marshall, 1989; Tully & Wacker, 1989; Warner, 1989). These studies stress that harassment in nontraditional occupations is far more common than women had anticipated prior to entering the field. Therefore, it is possible that in their enthusiasm for the new career choice, nontraditional students may not be fully aware of the prevalence of sexual harassment.

Finally, survey respondents were asked about the importance of salary as a factor in career selection. Fewer than one-fourth of all groups of students agreed that salary was the main reason for their choice. Surprisingly, the traditional students scored higher ratings on this item than the other two groups, despite the fact that, overall, female-dominated jobs pay substantially less than male-dominated fields. However, focus group members who were enrolled in nontraditional programs did name high wages as a reason for choosing their program. Apparently salary is an important factor in the career decision for some women. For most women, however, salary appears to be
A major goal of the study was to identify whether a relationship exists between participation in VTAE-sponsored pre-enrollment activities and subsequent choice of training program. The results of the chi square indicated several links between specific pre-enrollment projects and type of training program chosen. The strongest relationship was between sex equity project participation and enrollment in nontraditional training areas. Furthermore, sex equity project participants tended not to choose traditional training programs. These results are consistent with comments made during focus groups as well as responses to specific career choice survey items. Many participants in the nontraditional focus groups represented sex equity projects. Members of these focus groups mentioned disliking typical women's jobs in response to the question concerning reasons for career choice. Likewise, a majority of sex equity project participants agreed with the survey item regarding dislike of "women's work".

A relationship also existed between participation in displaced homemaker or single parent/homemaker projects and later enrollment in gender balanced training programs. These higher enrollments were accompanied by correspondingly lower enrollment rates for displaced homemakers and single parents in nontraditional programs. The purpose of displaced homemaker and single parent/homemaker projects is longterm economic self-sufficiency for women who must support themselves and their dependents. Therefore, these projects incorporate exploration of higher-paying occupations into their career planning activities. The gender balanced training options selected most often by respondents to the career choice survey were data processing and marketing, both of which offer opportunities for advancement and eventual higher salaries. Careers in these fields, as well as other gender balanced programs, could lead to economic self-sufficiency for displaced homemakers and single parents.
Meanwhile, most displaced homemakers and single parents rejected nontraditional training programs. Their preference for gender balanced areas may be influenced by a perception that gender balanced fields do not involve some of the potential risks of nontraditional occupations, such as discrimination, harassment, and other stressors which come with working in a male-dominated field. Displaced homemakers and single parents may select gender balanced programs as a reasonable middle ground between traditional and nontraditional occupations. That is, these fields may be viewed as providing relatively strong employment and salary opportunities, as compared with many traditional fields, yet without the risks which could accompany nontraditional jobs. These observations are consistent with displaced homemakers' and single parents' lower scores, as compared with controls and sex equity participants, on survey items focusing on prior encouragement to explore nontraditional occupations, openness to jobs with possible sexual harassment, and risk-taking.

The career choices of the control group were also examined for patterns. As anticipated, members of the control group selected traditional, nontraditional, and gender balanced training programs in proportionate numbers; there was no clear preference for one type of training over another. Therefore, it can be concluded that the control groups's decisions represented a cross section of women's career choices. Regarding nontraditional programs specifically, it should be noted that a greater proportion of the control group chose these careers than women who participated in displaced homemaker and single parent/homemaker projects. That is, women who did not participate in activities to encourage exploration of higher-paying careers still chose nontraditional options more often than the displaced homemaker and single parent/homemaker participants.
Recommendations

Based on results obtained from focus group discussions and a statewide career choice survey, the following recommendations regarding women's career choices are offered.

1. Since demographic differences between women enrolled in traditional, nontraditional, and gender balanced training programs are slight, there is apparently no single demographic profile of a typical student in any of these areas. Efforts to encourage women of various ages and backgrounds to explore a wider range of career options should continue. Few women over age 45, however, chose nontraditional training. It is unclear from this study why this age group avoided nontraditional occupations. Lack of information, weak self-efficacy, lack of interest and/or other factors could explain these low enrollments. Pre-enrollment projects which serve older women, especially displaced homemakers, should examine their success rates in encouraging older women to explore nontraditional careers. There may be significant barriers, such as physical limitations, unwillingness to relocate, or employer resistance, which render these occupations unrealistic for many older women at the present time.

2. Brooks' (1988) motivational model of occupational choice provided a useful framework from which to examine the complexities of women's career choices. Since nontraditional students scored significantly higher than other student groups on each of the four components of the model, it appears that the model accurately captures many of the forces which impact women's decisions of whether or not to consider nontraditional options. Projects which encourage women to explore a range of career options would benefit from addressing each of the four types of motivation in their curricula. Specific recommendations for each motivational area follow.

3. Nontraditional students scored higher on measures of career and lifestyle self-efficacy, or perceptions that one can complete training
requirements and perform job-related tasks successfully. In order to consider nontraditional options, a woman must be confident of her abilities and aptitudes for these careers. Since low self-esteem is a concern of many women returning to school after a long absence, displaced homemaker, single parent/homemaker, and sex equity projects are uniquely positioned to strengthen women’s self-efficacy. Small group workshops on self-esteem, assertiveness, and personal growth can provide an essential foundation for all areas of occupational training. Skill areas specific to nontraditional training should also be addressed, e.g., math anxiety, use of tools, computers and other equipment, and physical conditioning.

4. Women may lack motivation to explore nontraditional occupations due to perceptions that opportunities for women are limited. Nontraditional options may not be seriously considered due to misinformation or lack of information regarding salaries, types of jobs available, and opportunities to train for these occupations. Although salary is apparently not an overriding criterion in women’s career decisions, all women should become knowledgeable regarding potential earnings in a range of occupations. Opportunities to meet with role models who currently work in nontraditional occupations can help prospective students realize that women have, indeed, made inroads into many male-dominated fields.

5. Women will continue to avoid nontraditional occupations while perceptions exist that employers will not hire women for many jobs. This study found that most women, whether currently training for traditional, nontraditional, or gender balanced careers, believed that employers still discriminate against female applicants for male-dominated jobs. Projects which encourage women to explore nontraditional occupations cannot be fully successful unless ongoing efforts are made to ensure employment upon completion of training. Indeed, employer involvement and commitment to equity in the workplace are crucial prerequisites to implementation of successful sex equity projects. As Warner (1989) urges, sex equity projects must begin with
placement strategies and employer contact rather than recruitment of participants.

6. The perception of others' support is another essential element in career decision making. Unless a source of support and encouragement is readily available, nontraditional options may not be considered. Specifically, childhood experiences apparently have far reaching consequences on adult women's willingness to explore a range of occupational choices. For instance, this study found that a minority of women in all areas of training remembered being encouraged by teachers to take math and science classes in high school. Limited background in these areas continues to restrict women's career options. Therefore, it is important that educators of young girls reinforce gender equity in all aspects of their educational programming.

7. While it may not be possible to change childhood experiences which limit career options, technical colleges can provide several sources of ongoing support for women interested in nontraditional occupations. Encouragement can be offered on an individual basis by women's project staff, instructors, and counselors. Since few women in the control group (16%) felt that counselors had encouraged them to explore nontraditional programs, it appears that some technical college counselors may not be providing prospective female students with a full range of training options.

Administrative support could be demonstrated by offering more flexible class scheduling, self-paced coursework, and part-time options, which would make nontraditional programs more accessible to displaced homemakers and single parents. Peer support can also be provided, through support groups, tutors, and mentoring relationships. Concurrent efforts to promote sensitivity to issues of gender equity among all technical college staff also serve to support enrollment and retention of women in nontraditional training programs.

8. Projects which encourage women to explore higher-paying careers should not succumb to recruiting women into careers if they lack the requisite abilities, aptitudes or interests. However, some women eliminate
nontraditional options on the basis of inadequate information. In these cases, pre-enrollment projects can assist women in making informed career choices. Opportunities to explore careers through hands-on activities, as well as career assessment, can provide objective information about one's aptitudes and interests. This information may contradict deeply entrenched low opinions of capabilities; it may open new possibilities for further career exploration and higher aspirations.

9. The career choice survey found that a large percentage of women who participated in sex equity projects later enrolled in nontraditional training programs. It should be noted that sex equity projects may attract women who are already predisposed to nontraditional occupations. Even though a self selection process may occur prior to approaching the project, it appears that sex equity projects are fulfilling their purpose of encouraging women to consider nontraditional careers. However, Wisconsin's sex equity projects are not currently available in all parts of the state. Indeed, there are few projects in heavily rural areas. Since farm or rural background may be linked to willingness to consider male-dominated fields, expansion of sex equity projects into more rural districts could reach larger numbers of likely candidates for nontraditional training. However, the strength of the connection between growing up in a rural area and later exploration of nontraditional careers was not determined by this study. The area merits further investigation.

10. A purpose of displaced homemaker and single parent/homemaker projects is to encourage women to enter occupations which will enable them to become economically self-sufficient. The career choice survey found that substantial numbers of displaced homemakers and single parents chose gender balanced training areas. Some of these training programs, e.g., data processing, may lead to higher-paying jobs as compared with many female-dominated occupations. Meanwhile, the percentage of displaced homemakers and single parents choosing nontraditional occupations was lower than the control group. Therefore, it appears that most displaced homemakers and single parents continue to avoid nontraditional fields. Utilizing the four part
motivational model described in this study, discussions and information concerning nontraditional occupations could be incorporated into the curriculum of all displaced homemaker and single parent/homemaker projects. Since efforts are currently underway to standardize the curriculum for all displaced homemaker and single parent/homemaker projects in the state, the opportunity exists for increased emphasis on exploration of nontraditional options. The motivational model of occupational choice would provide a comprehensive yet practical paradigm for development of specific curricular strategies.
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