

Women in Nontraditional Career and Technical Education

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Abstract: The purpose of this research is to outline several of the issues that serve as barriers to women participating in nontraditional career and technical education in an effort to prompt solution based strategies on the part of career and technical instructors, adult education practitioners, and administrators.

Career and technical education (CTE) programs can provide means for students to achieve starting salaries commensurate with those students who attend 2-year or baccalaureate programs. Not all CTE programs will result in positions with high salaries; however, many of the programs dominated by men have considerably higher salaries than those programs customarily held by women. Along with higher salaries, these positions often have more options for growth. Occupational segregation has secured male dominance in many of the higher-paying vocational fields, while women largely participate in unpaid domestic services within the family (Bagilhole, 2002) or careers composed of low-mobility, low wage, and low-skilled jobs (Mastracci, 2004). Numerous career and technical education areas have remained gender segregated with significantly different earning potential. Low-wage and part-time positions filled by women do not provide viable income for females to support families.

Numerous males in the workforce are shifting to other industries or aging out of their traditional vocations. The lessening availability of qualified labor workers can be supplemented by female workers. Women offer a critical difference to the employment atmosphere beyond just a partial remedy to the shortfall of numbers. For the most part, females are socialized to build and maintain relationships through cooperation. Characteristics that were once termed as “feminine” and negative in the workplace have found their place in business and industry leadership. These beneficial talents of women are concentrated in a handful of traditional occupations. Increasing the occupational skills and employment possibilities of women is a pragmatic, economical approach to fairness that can be accomplished through CTE (Gordon, 2008). In the current environment of global competitiveness and an increasingly diverse population, vocational career paths cannot afford to have individuals in any segment of the population consider themselves ineligible for any career field because of their race/ethnicity, gender, disability or other characteristics (Lufkin, 2009).

Institutional barriers exist in schools and present limitations to career development. Some difficulties are beyond the control of the institution. However, many of the barriers can be mediated by awareness. Women are at a disadvantage in selecting and completing nontraditional training that would prepare them for higher paying jobs (Gordon, 2008) because they are not presented the option. Economic and societal factors have caused stark inequities in some CTE programs, some of which can be overcome with the willingness of educators and administrators. The purpose of this paper is to discuss the following: (a) career and technical education, (b) traditional and non-traditional careers, (c) barriers women encounter to those careers, and (d) recommendations to reduce these barriers. The barriers presented here are in no manner exhaustive. This list represents those barriers that can most be influenced by instructors and administrators through training and awareness.

A positive factor that should prompt instructors and administrators to promote the advancement of females in CTE is the income stream it could provide to the educational institutions. Decreased numbers of students participating in programs can be detrimental to an institution. A remedy would be to solicit female students. The point is not to simply shuttle women into programs for the numbers, but rather to redress the problems of sex-role segregation and provide training so that women are in the best position to make career choices.

What is Career and Technical Education?

CTE education prepares students for jobs that are based on manual or practical activities, customarily non-academic and specifically related to a precise trade, occupation or vocation. Vocational education has more recently come to be referred to as CTE. According to the 2006 Carl D. Perkins Career and Technical Education Improvement Act, CTE provides technical knowledge and skills aligned with academic standards that are needed to prepare for careers. Prior to 2006, most organizations referred to their programs as vocational education; once the Perkins Act changed its language to career and technical education, most institutions followed suit. Several leading organizations and governing bodies changed their names to include some form of the term career/technical education.

CTE programs are often offered in high schools and undergraduate institutions across all levels and sectors, such as at 4-year, 2-year, and less-than-2-year institutions in the public, private not-for-profit, and private for-profit sectors. The programs offered in CTE are directly related to current or emerging occupations that do not require a baccalaureate degree (Gordon, 2008). A number of occupational paths fall under CTE, including agriculture, business, mechanics, construction, childcare, food service, health care, and various types of production. The types of credentials awarded vary by institution. Upon completion of CTE programs students may be awarded certificates, associate's degrees, or bachelor's degrees (Levesque et al., 2008). CTE student demographics and enrollment characteristics vary with each career path. CTE covers a wide spectrum of fields; therefore, it is difficult to create a profile of a typical student. Students entering CTE programs are not limited to those who have completed high school (or obtained a GED); some certificate granting programs will admit those without diplomas.

What is Traditional and Nontraditional?

The terms traditional and nontraditional are dynamic and context based. The definitions can vary with industry demands or changes in the economic structure, such as the Industrial Revolution or the Technology Boom. Nontraditional careers are typically defined as occupations with less than 30% of workers of the same sex (Perrone, 2009). Examples of nontraditional careers for women include science, engineering, and careers in the trades and construction. Examples of nontraditional careers for men include social work, nursing, elementary education, and full-time fathering. Bagilhole (2002) defines nontraditional occupations as any occupation which is, or has been, traditionally undertaken by a man. Similarly, Gordon (2008) addresses the concept as nontraditional students are those program enrollees, both male and female, who enroll in areas of study traditionally considered appropriate for the opposite sex.

Policies, such as Title IX, have attempted to address the issue inequalities in education. Since the creation of Title IX, females have made very little progress in "blue-collar" technology and trades occupations. Male students continue to dominate in courses that lead to high-skill, high-wage jobs, while female students fill the low-wage, low-skill tracks (National Coalition for Woman and Girls in Education, 2008). Changes have occurred in the composition of some fields, yet many vocations continue to resemble pre Title XI figures. In October 2005, the

National Women's Law Center published *Tools of the Trade*, a report examining CTE enrollment patterns in twelve geographically diverse states. This report revealed that girls make up almost 90% of the students enrolled in classes leading to traditionally female occupations and only 15% of those taking classes in traditionally male fields. Conversely, female students make up 98% of the students enrolled in cosmetology, 87% of childcare students, and 86% of those in health-related courses. Correspondingly, females are largely absent from traditionally male courses, comprising only 4% of heating, A/C and refrigeration students, 5% of welding students, 6% of electrician and plumber/pipefitter students, and 9% of automotive students.

Barriers

In relation to nontraditional education, what are the barriers female students encounter? Those outside the educational institution are peer pressure, parental pressure, lack of role models in the media, and a lack of information about consequences and benefits of career decisions (Bagilhole, 2002; Gordon, 2008; Lufkin, 2009). The collective structures within which women make decisions are largely shaped by men, with men's interests as paramount (Bagilhole, 2002). This emphasizes that males are usually the administrators, instructors, and designers of CTE programs; therefore, they may not have women's concerns in mind when creating and implementing programs.

Image and perception problems have plagued the CTE. These programs have been perceived to provide poor quality education for the worst students (Gaunt & Palmer, 2005) and have been marketed as an alternative to those who were not bound for college or a university, as well as those with low grades or incomplete high school educations. CTE is also an option for high performing students. Image is an issue for women in nontraditional vocation. Students deal with concerns of femininity, propriety, or questioned sexuality. Women in nontraditional fields are often subjected to harassment and ridicule. Female students and workers in male dominated fields often attempt to minimize their visibility, particularly their sexual attributes, in an effort to avoid harassment (Whitlock, 2000).

There are numerous barriers once a woman does choose to pursue an education in a nontraditional CTE program. These barriers can include (a) sex bias, (b) inadequate career counseling, (c) inequitable curriculum design, (d) lack of mentorship, and (e) marginal job placement assistance. It is the responsibility of CTE instructors and administrators to ensure the equity of education for all students. It is also in the best interest of the institution to be aware of the effects these barriers have on their enrollment and subsequent success as an institution.

Sex Bias

Sex bias in CTE takes on several forms. According to Gordon (2008), some of the problems associated with sex equity are sex stereotyping, sex-role spillover, pack mentality, and somebody else's problem. Each is a different method of sex bias. Sex role stereotyping is an issue that permeates educational settings. Sex bias does not only occur in CTE, but it is more pronounced in the arena of sex-segregated industries. Ideas of sex roles limit the opportunities of both men and women, but are most restrictive to women. Individuals who assume nontraditional roles often face discrimination and encounter obstacles to achieving success and satisfaction in their roles (Perrone, 2009). Gender role socialization facilitates the division of labor in the home, often leaving the woman with the majority of the family obligations. Many women have domestic responsibilities that largely preclude them from following employment patterns permitted to men (Bagilhole, 2002). Often women do not have the same freedom of working odd shift hours, overtime, or relocating for work due to familial obligations.

Inadequate Career Counseling

An individual's gender is principal in determining how one selects jobs but also how jobs select the individual (Woodfield, 2007). Before the 1970s, the CTE system in the United States intentionally segregated students by gender. Educational institutions routinely denied female students admission into classes deemed "improper" for them. Vocational high schools and technical colleges providing training in areas such as aviation and maritime trades were reserved exclusively for male students (NCWGE, 2008). Often nontraditional jobs are not presented to women as an option; therefore, career choice is not a choice of all options, but the select few presented as gender appropriate. When appropriate, career counselors should help individuals construct family-friendly careers and pursue flexible work options, not centered on traditional gender stereotypes, as well as advocate for social change in education and workplace policies that would support all people (Perrone, 2009).

Inequitable Curriculum Design

Instructors (male and female) must be aware of their role in the classroom, socially conscious, and sensitive to the perceptions of those around them. A student's ability to thrive and be successful in a classroom environment is affected by the instructional materials provided to the students, such as books, videos, and curricula. Instructors and administrators must consider that most school materials are gender biased. Textbooks, specifically older materials, often use the pronoun "he," predominantly use pictures of males, and use male specific gender related labor titles (i.e., serviceman, fireman). Males and females are generally treated differently by teachers. Research has shown that even when male and female teachers hold liberal, non-sexist attitudes, their actual behavior indicates that they have sexist practices and do treat students different by gender (Haefeli, 2008).

Lack of Mentorship

One factor that has been identified as a way of encouraging female students to participate in nontraditional fields is the presence of role models. A student's choice to participate in a nontraditional CTE program can be reinforced by having a role model. Role modeling is a passive form of providing an example, while mentorship is a more active form of guidance. Mentorship has been shown to have a significant influence on women's retention and progression in nontraditional areas of study (Bagilhole, 2002). A key component in many CTE training programs is on-the-job experience. This experience of obtaining occupational competence is often achieved in the form of an apprenticeship. Apprentices who complete all phases of the prescribed training earn a certificate of completion. This is a crucial component of CTE because it allows the student to demonstrate skills and build competency. Sex bias often creates a challenge for women trying to secure apprentice positions. Once in the positions women may find it more difficult to develop a mentoring relationship. Bagilhole (2002) quotes a female construction engineer stating, "It's very hard to get in with the good old boys network when you are not old and you are not a boy."

Marginal Job Placement Assistance

CTE programs are designed to make students ready for work. A major concern of women in nontraditional programs is whether they will be able to find employment. Informal recruitment processes, or word of mouth, is one of the major manners that gender discrimination can exclude well trained women from obtaining employment (Bagilhole, 2002). Employers often indicate that consumers or clients would be uncomfortable with nontraditional workers, when they themselves are also uncomfortable due to their own sex-bias (Gordon, 2008). CTE

educators and administrators must take an active role in encouraging potential employers to hire nontraditional students.

Barrier Reduction

Instructors and the training institution play an integral role in the process of women being successful in nontraditional vocations; therefore, the institution should serve as the front running agency for change. Young people who have chosen a nontraditional career path often cite a teacher who provided them with the encouragement they needed to be successful in the field (Lufkin, 2008). Instructors are primed to serve as role models in training programs. Administrative agencies and educational institutions all have an important role to play in achieving gender equity, along with students, parents and teachers (National Coalition for Women and Girls in Education, 2008). Instructors need training and support which is interconnected with the institutions standards and equality initiatives (Haefeli, 2008). Schools should incorporate gender awareness into professional development for faculty and administrators to address the subconscious ways that they may treat women and men differently. Individual teachers, especially female instructors in nontraditional vocations who have personal relationships with students, can attempt to dispel pessimistic attitudes and the negative images of women participating in nontraditional vocations (Whitlock, 2000).

Peer support is also a vital dimension of the institutional structure that can promote success. A helpful strategy for promoting learning is the use of peers as mentors. Finding ways to consistently nurture these positive relationships between students should be a focus of the administrators and instructors of CTE education programs. Student support groups should be created on campuses so that student in nontraditional CTE classes have an arena to voice concerns and develop camaraderie.

Changes must be enacted to broaden the range of nontraditional opportunities for women in CTE. Gordon (2008) reports that in 1997, the U.S. Agency for International Development identified six major interventions to address gender issues in CTE training, including awareness raising and promotional/advocacy campaigns, career information services, and parental involvement. Institutions must become more aggressive about informing families on nontraditional careers so that they may guide their young women into these beneficial career paths. Educators must take measures to make certain that neither sex discrimination nor bias affect students' attitudes toward, access to, enrollment in, or completion of nontraditional CTE programs that may lead to higher paying jobs (Gordon, 2008).

Lufkin (2009) provides the following practical strategies: (a) use parallel terminology in describing both genders, (b) intervene when male students show disrespect for female students, (c) use small groups to foster cooperative rather than competitive learning, and (d) examine your teaching behavior and be aware of your actions. The instructors must also be aware of the environments they create. Continued emphasis should be placed upon equity within the educational community in order to sensitize individuals to subtle gender role stereotyping embedded in the school systems. The ability to have a true choice in education and future would have benefits for women, men, families, and the economic structure. It is essential to keep in mind that the most fundamentally important choice that we can make is the choice to value and respect the decisions of women and men, even if they are outside the norm or nontraditional for their gender (Perrone, 2009).

Conclusion

The social and political climate can present significant limitations; the willingness of career and technical educators to be innovative in their recruitment and retention activities can

make a difference in the lives of many. If a more equitable culture is to be developed, a conscious effort must be made by educators to liberate people from many same sex stereotypes that dictate our choices in society. The goal is to have both sexes become self-determining people with favorable economic options, who are able to choose their future vocations after considering all available possibilities. The viability of many families is dependent upon a woman's ability to secure work in higher-paying occupations. The pathway to numerous high-quality occupations is CTE. These training programs have the potential to reduce some of the financial challenges many women face and provide a better economic foundation for society. In addition to economics, the societal implications for more women participating in nontraditional occupations are far reaching. The elimination of sex bias in CTE and the labor based workplace essentially would render dialogues such as this void, as terms such as traditional and nontraditional would become obsolete.

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