

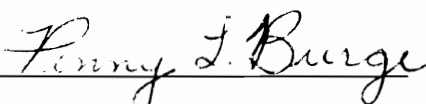
**ELICITING WOMEN'S VOICES:
CHOOSING AND EXPERIENCING
A NONTRADITIONAL OCCUPATIONAL PROGRAM**

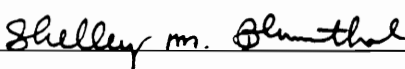
M. Beth Stephenson

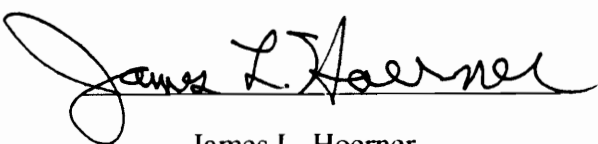
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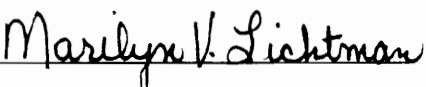
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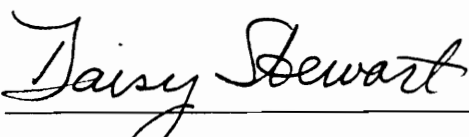
APPROVED:


Penny L. Burge, Chair


Shelley M. Blumenthal


James L. Hoerner


Marilyn V. Lichtman


Daisy L. Stewart

April 25, 1996

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ELICITING WOMEN'S VOICES:
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by

M. Beth Stephenson

Committee Chair: Penny L. Burge

(ABSTRACT)

The trend for women to follow gender-traditional educational and occupational pathways has been resistant to change, even in the face of decreased income potential. Scholars have tested hypotheses regarding women's avoidance of nontraditional occupations, but have given scant attention to the experience of women who have exited the traditional path. This research employed a qualitative methodology within a feminist theoretical framework to elicit the voices of women in nontraditional programs.

The purpose of this research was to elucidate (a) the career choice process and (b) the educational environment experienced by women in gender-nontraditional programs at the community college level. It was performed at a community college in the southeastern United States. Enrollment data revealed five associate degree programs with a female enrollment of 25% or less. Eight women were selected to participate in qualitative interviews to approach an understanding of educational choice and environment from the female students' perspective. Data from interviews with instructors, site visits, and analysis of relevant documents contributed to the research findings.

Findings revealed a description of the site where institutional policies, administrators, instructors, and counselors contributed to a positive learning environment

for female students in nontraditional programs. Seventeen themes emerged from interviews with research participants in response to the two main research questions. These were: (1) why women work, (2) a habit of individualism, (3) role models/early influences, (4) children: effects of/on, (5) the significant other, (6) instructors: an ethic of caring, (7) instructors: negative, (8) classes and peers, (9) language, (10) earlier educational environment, (11) the subtle nature of discrimination, (12) not so subtle, (13) evolution: educational, (14) evolution: personal, (15) being allowed (16) perseverance, and (17) internalized sexism.

The study resulted in a description of the women's educational environment as a place where the infrequent incidents of discrimination were far outweighed by the feeling of welcome and encouragement framed by the instructors and other faculty. The facilitators of instructor support and a positive campus climate were more than sufficient to help the women who demonstrated intrinsic strength and self-reliance overcome barriers of early educational discrimination and negative input from peers.

ACKNOWLEDGMENTS

In the beginning, I sat on my floor and thought, "I can't do this," and cried.
And I sat on the floor in the dissertation section of the library and thought the same thing,
and cried some more.

But then, Penny said, "There's just no way you can fail at this."

and Jessica wrote me a note

and Jodi said, "Shut that door and get to work."

and Michele said, "You poor thing, it's going to be OK."

Gale sent those beads

and Aunt Kate held my hand and Aunt Polly fed me dinner and Granny did, too

Peggy and Sandra and Uncle Milt all sent their best wishes

and Billy took care of Willy

and Mom said, "My kids are the most important thing in my life."

Kirsten smiled up at me from under the sunflower and Lee wore my skirt and his own
lipstick, and Johnna said, "I love you," and so did Mark and Dawn and Gale and Lisa and
Mike, and Wendy said I had charisma.

I'm loving you all. These things, in turn, I will do for you.

DEDICATION

This effort is dedicated to my Dad.
Who died before I was ready to do without him.

TABLE OF CONTENTS

Chapter One

Introduction	1
The Theoretical Model	3
Statement of the Problem	5
Purpose of the Study	6
Definition of Terms	7
Significance of the Study	10
Summary	11

Chapter 2

Literature Review	13
Women As Earners: Why Women Work	13
Vocational Choice	17
Women's Educational Environment	21
Women's Work Environment	24
Characteristics of Women in Nontraditional Occupations	27
Legislation Affecting Women's Education for Employment	31
Summary	34

Chapter 3

Methodology	36
Research Design	36
Data Sources and Collection	39
Participant Selection	40

Interview Procedures	44
Data Analysis	46
Trusting the Data	48
Limitations	52
Summary	52

Chapter 4

Findings	53
Introduction	54
Descriptive Data of the Community College	54
Data from Instructor Interviews	58
The Co-Researchers	59
Themes	73
Choice of Nontraditional Program	74
Why Women Work	74
A Habit of Individualism	77
Role Models, Early Influences	77
Children: Effects Of/On	78
The Significant Other	79
Environment within Nontraditional Program	80
Instructors: An Ethic of Caring	81
Instructors: Negative	84
Classes and Peers	85
Language	86
Earlier Educational Environment	87
The Subtle Nature of Discrimination	88

Not So Subtle	88
Evolution: Educational	90
Evolution: Personal	92
Problematized Themes	93
Summary	97
Chapter 5	
Discussion	99
Summary of the Study.	99
Discussion of Site and Participants	101
Discussion of Findings	102
Recommendations for Practice	115
Implications for Future Research	116
Parting Gifts from the Co-Researchers	118
References	121
Appendix A: Letter to Instructors	130
Appendix B: Cover Letter	131
Appendix C: Questionnaire	132
Appendix D: Interview Guide; Students	133
Appendix E: Interview Guide; Instructors	135
Appendix F: Observation Schedule	136
Appendix G: Informed Consent Form	137
Appendix H: Approval from Institutional Review Board	139
Appendix I: Sexual Assault Policy	140
Appendix J: Sexual Misconduct Policy & Procedures	141
Appendix K: Sexual Harassment Policy & Procedures	143

Vita	146
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LIST OF TABLES

Table 1	Barriers to Women's Career Development	8
Table 2	Southeastern Community College Academic Programs Studied and their Associated Occupations	42
Table 3	The Co-Researchers: Information from the Questionnaire	55
Table 4	Co-Researchers: Facilitators and Barriers to Nontraditional Career Path	108

CHAPTER 1

INTRODUCTION

Forty-six percent of the labor force is female (U. S. Department of Labor, 1993). This statistic bears out a trend of increased employment of women from 30% of the workforce in 1950 to 43% in 1982 (Burge, 1990). The U.S. Department of Labor projected that women's share of the labor force will reach 48% by the year 2005 (1993). This equates to 71.8 million working women. Despite this increasing balance in the composition of the American labor force, most women remain clustered in a limited number of traditional occupations. As their choice and access are limited, so is their occupational distribution, and also their incomes.

An American woman can expect to earn approximately two-thirds the monetary income of her male counterpart (U. S. Bureau of Census, 1992). A primary agent of this discrepancy is the pay disparity between traditionally male and traditionally female occupations (Gray, Huang & Li, 1993). Discrimination within career fields, high turnover rates for women, and less seniority within a given occupation also contribute to this earnings gap (U. S. Department of Labor, 1991). Not only are more women working outside the home, they are also more likely than ever to carry financial responsibilities for the family. The image of the stay-at-home housewife and breadwinner husband characterizes only 7% of American families (Way & Rossman, 1994). The number of single parent families headed by women has grown from 11% in 1970 to 16% in 1985. A predictable corollary to lesser earning power is poverty. Fifty-one percent of these households exist below the poverty level (Sohoni, 1993). They are four times as likely to be impoverished than those headed by men or couples. Struggle with economic distress continues into their later years as women over the age of 65 average about 60% of the income of men in the same age group (National Organization for Women Legal Defense and Education Fund, 1988).

Factors that influence this clustering into a narrow occupational spectrum include social and familial influences, a lack of awareness regarding nontraditional options, and an unwelcoming environment in many male-dominated fields (Burge & Culver, 1994). These barriers channel women into traditional paths through their leverage over women's career development during the educational process. They are as influential in choice of secondary school educational pathways as they are in job selection (Burge & Culver, 1994). The trend of avoiding nontraditional courses or occupations begins to emerge early in a woman's career development, and continues to limit her range of choices and potential earnings if she does not negotiate her way through existing barriers. Barriers can be categorized as environmental or individual, external or internal (Walsh & Osipow, 1994). They are erected before women early, and reinforced throughout school, college, and at work. The landmark study, How Schools Shortchange Girls, exposed how impoverished is girls' experience with schooling compared with that of boys (American Association of University Women, 1992). When the state of Georgia took a look at the issue of equity in vocational education, it found that despite efforts to create a more fair system in response to Title IX and the Vocational Education Amendments, little progress had been made. The committee found only a handful of its 29 post-secondary schools "worthy of emulation," and recommended looking outside the state for models (Looney, 1980). These conditions, blended with legislation and labor force demands, shape a mandate for increased equity in programs which empower women to earn a living.

This study is framed within feminist theory which postulates that women have been oppressed or denied power, and calls for views of equality between women and men, and their ability to earn. Increased income potential for women is tied to accessing opportunities in traditionally male fields. Achievement of gender-based financial equality is more likely to occur when there is a balance in the male-to-female ratio in occupations. Opportunities for progress toward occupational equity emerge as individuals begin to

prepare for work. Betz (1994a, p. 7) suggested that "under representation of women in traditionally male careers is mirrored in and, worse, perpetuated by their continued low college and graduate school enrollments in those fields." The educational process thus leads to and mirrors patterns of inequality that have become entrenched.

The Theoretical Model

The theoretical model guiding this research was derived from liberal feminist theory. Structuring research with feminist theory addresses the concern of feminist epistemology that Griffiths (1995) offered as improving knowledge and removing sexist distortions. Feminism is committed to the dual goals of understanding and changing women's position. This position of oppression, holding less power, is evidenced in women's token status among the legislative, executive and judicial branches of our government and in corporate leadership (Chew, 1991). It is revealed in their descent into poverty and by their secondary earning status. The liberal feminists see education as a tool for acquiring power, and work for equal access as a means of achieving their goals. Liberal feminism embraces the emancipatory ideals of the Enlightenment that individual freedom and power can be reached through knowledge (Nicholson, 1989, p.197). Feminism also exposes the difference in the level of power possessed by individuals based on their gender. These differences stem from patriarchy as the power broker in our society. This brokerage might be identified as the web of four interactive loci of power Dumhoff (1990) offers as ideological, economic, military, and political. These institutions and the class system, in Dumhoff's view, ration power in our society. The primary locus of power studied here is economic.

Liberal feminist theory would explain women's inequality as stemming from unequal rights and learned reluctance to exercise them (Andersen, 1993). One basic tenet of liberal feminism is that knowledge and power are linked. Equal access to education and

occupational opportunities is another major theme of liberal feminism. Liberal feminists seek to work within existing educational systems to accomplish equal opportunities for women (Melenyzer, 1991). Increasing female participation in nontraditional occupations will raise the level of gender equity in education and the labor force. Via acquisition of knowledge, power can be claimed. This approach to effecting equality through education is echoed by Baber and Allen (1992, p. 215).

The most effective way of developing the ability to care for oneself is through education. Young women must be convinced that they need to educate themselves to the point that they can provide adequately for themselves. Obstacles to receiving such an education must be removed.

Lather (1991, p. ix) challenged critical intellectuals to shift from "being universalizing spokespersons to acting as cultural workers whose task is to take away the barriers that prevent people from speaking for themselves". In answering this call as researchers, our task changes from discovering, relating, and constructing knowledge to simply facilitating our subjects' voices. Action toward equality, is critical to understanding feminism. Feminists seek not only to understand the power differential, but to claim authority for women. Baber and Allen (1992, p. 177) stated that, "equality will be achieved only through women's acquisition of the material and nonmaterial resources provided by paid work." This particular pathway fits well with the liberal feminism which frames this research. In accepting the belief that knowledge is power and subscribing to feminist theory, the researcher is deposed and the subjects ascend to the seat of authority. Framing this research with feminist theory and methodology will assign power to the female subjects in this construction of knowledge, thereby paralleling the societal goal of transferring educational and economic power to women.

Access to knowledge was at issue in this study. Its precursor, construction of knowledge, is also an area where women have historically been excluded. This research

was driven by feminist societal goals. In conducting the process within a feminist framework, voices which may have been excluded will come to the fore. The knowledge generated from their inclusion should open doors to education and acquisition of power.

Statement of the Problem

Educational programs are stratified by gender, following patterns found in the labor force. This tradition perpetuates financial gender inequity by facilitating female enrollment in lower paying occupations. Choice of school subjects and choice of career are strongly linked (Melamed, 1995). Nontraditional jobs for women are those jobs in which men make up 75% or more of the labor force (National Commission on Working Women of Wider Opportunities for Women, 1991).

Women already enrolled in nontraditional programs face discriminatory practices, token status, lack of opportunity for advancement, and unequal pay as they prepare to enter the labor force (Ehrhart & Sandler, 1987). Women employed in the same occupations as men still earn less. The National Commission on Working Women of Wider Opportunities for Women in 1991 reported that women's wages as mechanics lagged \$49.00 per week behind those of their male counterparts; female construction workers earned \$88.00 less each week. Lakes (1991) identified sexual harassment as a major problem for female students enrolled in nontraditional shop courses. Over 20% of women have quit a job, been fired or transferred, or have quit applying for a job because of sexual harassment (Morrow, McElroy & Phillips, 1994). While men can rely on informal networks and less relevant assets to succeed within a career, women do not enjoy the same avenues; they face barriers not experienced by men and are evaluated under stricter criteria (Melamed, 1995).

There has been a series of efforts since the early 1970s to enhance gender equity throughout the public education system and specifically in education. The most notable pieces of legislation are Title IX of the Educational Amendments of 1972, the Women's

Educational Equity Act, the 1976 Vocational Education Amendments, and the Carl Perkins Vocational and Applied Technology Education Act of 1990 (American Association of University Women, 1993). Understanding how women reach the decision to enter a nontraditional occupational program and knowledge of the environment they face there can help educators design programs to increase enrollment and retention in such areas.

‡ Several studies have been conducted to assess characteristics of women in nontraditional fields (Mazen & Lemkau, 1990; Parr & Neimeyer, 1994; Read, 1994). Few have offered a thorough view of the climate there from the female student's perspective. Long (1989) studied women's sex-role orientation and their comfort in nontraditional jobs. Mazen and Lemkau (1990) looked at their personality profiles. Scheye and Gilroy (1994) examined the high school and college environments' relationship to level of self-efficacy in male- or female-dominated occupations. Pfof and Fiore (1990) asked whether women fail to choose nontraditional occupations because they might be perceived less favorably as romantic partners. Women in nontraditional fields have been studied, but they have been offered few opportunities to speak.

Purpose of the Study

The central purpose of this study is to give voice to women in nontraditional post-secondary occupational programs to discover how they came to the decision to pursue a nontraditional course and what the environment is like for them there. Data collection and analysis have been designed to explore the following research questions:

1. What decision-making factors and processes did females follow when deciding to enroll in gender-nontraditional post-secondary vocational programs at community college?
2. What psychosocial conditions did these women experience within their educational programs?

Definition of Terms

The following is a list of terms used within this research and their operational definitions for the purpose of this study.

‡ Barrier: "Barriers to choice are variables and/or forces leading to or related to the tendency to make gender-stereotypic, traditionally female choices." (Betz, 1994a, p. 10). See Table 1 for examples of barriers in women's career development process.

Career: For the purposes of this research, Donald Super's (1976, p. 20) definition of career will be used.

...the sequence of major positions occupied by a person throughout his [or her] pre-occupational, occupational, and post-occupational life; includes work-related roles such as those of student, employee, and pensioner, together with complementary vocational, familial, and civic roles. Careers exist only as people pursue them; they are person-centered.

Co-researcher: Rubin and Rubin (1995, p.10) referred to participants in qualitative research studies as "conversational partners". The research participants in this study will be addressed as co-researchers.

‡ Feminist: A feminist: (a) believes that women are oppressed in a system that affords power to more valued groups, particularly males, (b) is committed to working to empower women and improve the conditions of their lives, (c) acknowledges women's experiences, values, and ways of knowing as meaningful (Acker, Barry & Esseveld, 1983).

Gender: Psychological, cultural, social differences or assumptions about differences between women and men (Thompson, 1993).

Internalized Sexism: Biases of the dominant culture justifying women's oppression which have been made a part one's personal belief system (Baber & Allen, 1992).

Table 1

Barriers to Women's Career Development

Environmental (External)	Individual (Internal)
Gender-role stereotypes	Family-career conflict
Occupational stereotypes	Low self esteem
Gender bias in education	Math avoidance
Barriers in higher education	Weak expectations of self-efficacy
Lack of role models	Low expectancies for success
The null environment	
Gender-biased career counseling	
Race discrimination	

Note. From "Basic Issues and Concepts in Career Counseling for Women" (p. 12), by N. Betz, 1994, in W. Walsh & S. Osipow (Eds.), Career Counseling for Women. Copyright 1994 by Lawrence Erlbaum Associates Inc. Adapted with permission of the author.

Nontraditional Occupation: The U.S. Department of Labor, Women's Bureau (1991, p. 1,2) defined nontraditional occupations as, ". . .those in which women comprise 25 percent or less of the workers in a particular occupation. Nontraditional jobs are more likely to offer higher wages, greater benefits, a wider variety of work schedules, and better job security and may be more personally rewarding than traditionally female jobs."

Psychosocial Conditions: Aspects of the educational setting which enhance or diminish the student's self efficacy. Examples include presence of mentors, counseling and other support services, bias, and sexual harassment(Ancis, 1995; Chew, 1991).

Self-Efficacy: A student's beliefs about his or her ability to successfully perform a given behavior. Self-efficacy can be expressed through career-enhancing behaviors such as pursuing nontraditional occupations, academic achievement, and persistence in a chosen major (Ancis, 1995).

Sex: The property of being either female or male, classified by biological differences in reproductive function (American Heritage Dictionary, 1985).

Sexual Harassment:

The Equal Employment Opportunity Commission (1994) defines sexual harassment as:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment,

Submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or

Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment.

Significance of the Study

This study investigated the educational experience of women at the community college level to derive implications for improving access to and equity within nontraditional occupational programs. Findings will be useful to community colleges and other post-secondary institutions in creating an equitable environment. School counselors can use the results of this study to prepare students for nontraditional pathways. College counselors will benefit from a higher consciousness level regarding issues facing their students as they configure support for them. This study will provide one more tool for teacher educators as they prepare the instructors, counselors and administrators of the future. Response patterns of women studied may highlight subtle sex discrimination, bias, or stereotyping which currently go unnoticed. Their responses indicate psychosocial factors, such as secondary school experiences, institutional support, and personal characteristics that have contributed to their intention to pursue a nontraditional career. Narratives of factors in occupational choice have implications for career counseling of women as they decide on a course of study. Postsecondary education has provided an avenue to increased earnings and a buffer against declining incomes. The real income of women who attended college has increased over the last decade, while that of other women and most men has declined (U.S. Department of Labor, 1994). Information gathered in this study can contribute to women's access to these income-enhancing occupational preparation programs by contributing to proactive recruitment and retention strategies. These structures carry "important implications for change because many of them are amenable to intervention" (Walsh & Osipow, 1994, p. x). The study supplies another tool for use in effecting a more

equitable occupational distribution. It addresses Nicholson's (1989, p. 204) goal of "making sure that no serious voices are left out of the great conversation that shapes our curriculum and our civilization" by eliciting women's voices through a qualitative research design grounded in feminist theory.

To be effective, according to Lincoln (1985, p. 16), "research methods. . . must be congruent with the multiple realities of organizations and implementation." This realization is leading to changes in the research paradigms that we use to study and evaluate organizations. This research is aimed at identifying the culture of the organization called education, more specifically community college programs that enroll mostly men. The work is focused from and on the reality of the female students within that organization. It adds to the existing knowledge about that reality and challenges existing assumptions. As an examination of the women's world it serves as a basis for further studies.

Summary

Women's participation remains high in traditionally female occupations which historically pay less than male fields. This standing is the biggest single reason that women earn less than men. Using qualitative methods to provide a deeper view of the choice process and post-secondary educational experience, the results of this study will illuminate the choice process and educational environment of women who are enrolled in nontraditional occupational programs at the community college level. The theoretical framework originates in liberal feminist theory which explores the link between knowledge and power, and regards education as a tool for claiming and equalizing power between women and men. The liberal feminists identify the cause of women's oppression as their "individual or group lack of opportunity and education," (Ollenburger & Moore, 1992, p. 17). Guided by this theoretical framework, the research applies feminist principles to the enterprise of inquiry by implementing fitting methodology. This research will serve as a

resource to improve the educational and workplace experience of women. It is conducted in pursuit of the feminist ethics Ollenburger and Moore (1992, p. 66) outlined as, "[analyzing] social oppression in order to empower women and minorities."

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of the literature concerning women and the work they do. Its purpose is to more fully describe the literature pertinent to women's choice of a nontraditional occupational preparation program and educational experiences there. The first section describes the American labor force and the reasons women work. Section two discusses vocational choice. The third main area of the literature review deals with characteristics of women in nontraditional careers. The fourth and fifth sections describe women's educational and work environments, respectively. The sixth outlines federal legislation on women's education for work.

Women As Earners: Why Women Work

All Women Work. Today, most adult females are employed in paid positions outside the home. Recent literature that highlights the trend of increased employment of women can occlude the historical vision of women as pre-industrial revolution household partners. It was only during the era ranging from approximately 1860 to 1920 that the breadwinner husband and stay-at-home wife predominated American culture (Skolnick, 1991). The concept of the "traditional family" arose with industrialization (Blau & Ferber, 1986, p.102). As the population moved from an agrarian to an industrial society during the nineteenth century, men's and women's work saw increased polarization. Men pursued paid labor in industry while women were relegated to meeting the household needs of the family. Hochschild (1983, p. 251) termed this, "women's partial displacement from the labor force during industrialization." Working class families were more resistant to this trend as the more urgent need for wages sent married women of that socio-economic class into the workforce (Coontz, 1992). Skolnick (1991, p. 108) identified a working wife as a "badge of lower class status" for a pre-World War II family. This same basic need for the

resources to support life intersected with women's desire to work and labor force needs felt hardest during World War II to rescind the gender bifurcation of work (Coontz, 1992).

As women's paid employment ebbs and flows, their work at home, though often invisible, remains constant. Whether or not they are employed outside the home, women do the majority of household work (Baber & Allen, 1992). Work at home is stratified by gender as are paid occupations. Women complete over 75% of the cooking, cleaning, laundry and ironing while men do most of the outdoor chores and repairs (Baber & Allen, 1992).

Women as Workers in the Paid Labor Force. Blau and Ferber (1986, p. 12) described the demand for labor as "derived from consumer demand for the goods and services that the workers produce." Social, political and economic forces have driven the demand for labor such that women's enrollment in the work force has climbed 200% since World War II, and women will account for 64% of entrants into the labor market through the year 2000 (Chew, 1991). Sohoni (1993, p.6) illustrated this trend, "According to current estimates, women's participation in the paid labor force more than doubled between 1900 and 1940, and more than tripled between 1940 and the late 1980s." During the 1950s when women's work was performed in the home more so than any time before or since, women actually spent more time on housework despite the availability of new appliances and convenient foodstuffs. Housework temporarily became the medium for personal expression during that decade (Coontz, 1992).

Women Want to Work. When Betty Friedan's The Feminine Mystique was published in 1963, its message resonated with women across the country. Friedan articulated for many American women, "the problem that has no name" (p. 15) when she called attention to the void many women felt in their lives as homemakers. She bespoke the dissatisfaction women experienced from defining themselves primarily via their relationships with men. One woman is quoted, "The problem is always being the children's mommy, or the

minister's wife and never being myself" (Friedan, 1963, p. 28). This text spotlighted the costs of failing to explore and fulfill personal potential, avoiding growth experiences, seeking happiness as a product of another human rather than constructing it. The final chapter, "A New Life Plan for Women"(Friedan, 1963, p.338), prescribed education, career, and integration of multiple life roles for the insidious despondency afflicting women of the fifties and sixties. Adding the role of worker to other life roles expands the basis of an individual's identity. Eccles (1994, p.603) concurred with other researchers when she stated that:

In contrast, several investigators have pointed out that this conflict results, in part, from the fact that women have multiple roles and multiple goals (e.g., Baruch et al., 1983; Baruch & Barnett, 1987; Crosby, 1987, 1991; Eccles, 1987; Frieze, Parsons, Ruble, Johnson & Zellman, 1978; Grossman & Chester, 1990). These multiple roles are healthier both mentally and physically than women with few roles and healthier than men in general.

Working not only provides economic life support, but contributes to a person's power within the family unit and society at large (Baber & Allen, 1992).

Betz (1994a, p. 3) cautioned career counselors about the potential consequences for women who do not work outside the home:

The evidence is very strong that homemakers who do not have other outlets for achievement and productivity are highly susceptible to psychological distress, particularly as children grow and leave home. For example, of the women in the Terman gifted sample, when followed up in their 60s (Sears & Barbie, 1977), the women who reported the highest levels of life satisfaction were the employed women. Least satisfied with their lives were those who'd been housewives all of their adult lives. The most psychologically disturbed women were those with exceptionally high IQs (above 170) who had not worked outside the home.

Women Have to Work. "By the mid-1980's, a full two-thirds of all women in the labor force sought paid work due to economic need, primarily arising from their status as single parents or displaced homemakers" (Read, 1994, p. 239). When Ms. magazine profiled two women from a construction education program, both said that they had chosen a nontraditional field as a pathway out of the welfare system they had found themselves in after being unable to support their children on pay earned in full-time, traditionally female jobs (Cantrell, 1996). The costs of poverty are great, and women shoulder them more often than do men. Female-headed families are much more likely than those headed by men or two parents to fall below the poverty level. When writing the Nontraditional Employment for Women Act (U.S. Congress, 1991), Congress' first statement was, "over 7,000,000 families in the United States live in poverty, and over half of those families are single parent households headed by women." When parents divorce, women's income and standard of living fall precipitously as men's rise. As women reenter the labor force to offset this shortage and support their children, they are often without skills necessary to enter jobs with high earning capacities (Sohoni, 1993). Higher earnings are associated with traditionally male occupations. "Over half of all female-headed households with children are officially categorized as poor" (Sohoni, 1993). Coontz (1992, p. 269) presented a partial summary of the problems facing the poor:

Today one in eight American children is hungry. Twenty-six percent of pregnant women have no insurance coverage in the early months of their pregnancy; 15 percent have not managed to obtain it by the time of delivery. Between eight and eleven million children in America are completely uninsured, and large numbers go without needed medical and dental care. Economic loss creates other risks for families as well. One study in Wisconsin found that cases of child abuse increased by an average of 123 percent in counties where the unemployment rate had risen by 3.1 percent or more; counties in which unemployment declined had reduced reports

of abuse. Outside the family, the United States has seen a sharp increase in child labor law violations over the past ten years; they more than doubled between 1983 and 1989.

The feminization of poverty is a term which expresses women's increasing economic burdens and decreasing economic power. Poverty stems from unpaid labor for women, discrimination, low wages, divorce, widowhood, motherhood with no economic partner. Its results are felt by the women who lack economic resources, their children, extended families, and governmental and other support agencies (Ollenburger & Moore, 1992).

Vocational Choice

"Occupational choice is probably the most important career decision and one of the most influential determinants of career success. Dead-end jobs and jobs that are not congruent with the personal characteristics of the individual are likely to result in job dissatisfaction" (Melamed, 1995, p. 41). As individuals strive to integrate individual interests, abilities, and life roles into their choice of vocation, this process expands from finding a way to procure sufficient economic resources into a complex process with multiple goals. Choice of one's work carries implications for one's socioeconomic status, geographic location, constellation of colleagues, leisure, and personal fulfillment. "A vocational decision implies a lifestyle decision" (Weinrach, 1979, p. xiii). The majority of contemporary studies of vocational choice and interventions for women aim to expand their options and support and inform the choice process (Fitzgerald & Rounds, 1994).

Donald Super's (1979) theory of vocational development involves a life-span approach which allows for fluidity of roles. He posited that individuals are qualified for a number of occupations based on their unique abilities and interests. Super theorized that a person's career path evolves from his or her personal qualities and the opportunities to

which he or she is exposed. He proposed that people strive to develop and then implement a self concept through their vocational choices. There exists an extremely high possibility for limiting women's vocational choice at these junctures. Myra and David Sadker reported in 1982 that the majority of girls identified only two careers, teaching and nursing, when asked about their career aspirations. Ten years later, the American Association of University Women study, How Schools Shortchange Girls (1992) publicized significant gender differences in career plans of girls and boys. High school girls continue to avoid math and science careers, even those who are well prepared with advanced coursework. They are socialized to strengthen or extinguish interests and abilities based on societal expectations (American Association of University Women, 1992). Women's confidence in their ability and attempts to implement a self concept in their career is at risk (Ancis, 1995). Females are exposed to differential educational and occupational opportunities than are men. They are usually channeled into a group of several traditional occupations, rather than being exposed to the full range of potential occupations (Walsh & Osipow, 1994). Sex segregation by curriculum shows up in high school as males choose advanced science and math courses at higher rates than do girls. It continues through postsecondary education as students select gender traditional majors (Shakeshaft, 1995).

Research on vocational differentiation failed to include the effect of gender until the late 1980s (Parr & Neimeyer, 1994). Too often the research on women and nontraditional career choice focuses on some deficit within the female subjects that inhibits them from freer career routes, focusing on the question, "Why aren't women more like men?" (Eccles, 1994, p. 586). Similarly, studies often ask "Why do women avoid nontraditional careers?" A needed addition to the existing body of research is data organized around the question, "Why do some women select a nontraditional career?" A 1994 study by Scheye and Gilroy found that women are more likely to exhibit high career self-efficacy and choose a nontraditional occupation when they cite a male high school teacher as influential,

especially if they have attended a single sex high school. Women enrolled in nontraditional occupational preparation programs can expect most or all of their instructors to be male. These men can have a significant impact on the educational experience and career development of their gender-nontraditional students. The positive influence of a male role model upon nontraditional career choice has been a consistent theme in the literature (Hawley, 1971, 1972; Lee & Bryk, 1986; Rubinfeld & Gilroy, 1991; Scheye & Gilroy, 1994; Tidball, 1980).

Women's influence as role models for nontraditional career choice is an emerging theme in the literature (Betz, 1994a, 1994b; Eccles, 1994; Freedman, Podsakoff, & MacKenzie, 1993). Nontraditional female role models encourage and empower women to resist society's messages about women's roles. Eccles (1994) offered that role models legitimize novel or deviant career options. Their presence adds to the pool of information from which advances a woman's self-efficacy, her expectations of meeting with success in her chosen field. Freedman et al.'s (1993) study of occupational sex stereotypes revealed no significant difference in attitudes based on whether or not a respondent's mother worked, but found the nature of the mother's work to be important. They posited that having a mother employed in a traditional occupation might serve to reinforce gender role stereotypes. Much of the lament over the "chilly climate" in post-secondary educational settings has to do with the scarcity of women in positions where they can model achievement, power, and self-efficacy for others (Betz, 1994a). Secondary school faculties present a balanced male-female participation, but are stratified into stereotypic subject areas (Betz, 1994b).

Gati, Osipow, and Givon (1995) found that women and men make career decisions differently. Women tend to ascribe more importance to the activities within a given career than do men as they navigate the career decision-making process (Gati et al., 1995). These activities involve being connected with people and helping. Males tend to place more

importance on wealth, power, and prestige (Stonewater, 1991). Existing theories of career development have been developed for and tested on predominately male populations and do not accurately reflect women's experience. To address the distance between classical career development theories, such as Super's (1979), and the female population, women's vocational choice needs to be viewed as involving implementing a sense of self, connections to others, and integrating multiple life roles and relationships (Stonewater, 1991).

Occupational success outside the constraints of gender stereotypes brings negative consequences. When Pfof and Fiore (1990) studied pursuit of nontraditional occupations, they found that men and women viewed women in traditionally male occupations as the least preferable heterosexual romantic partners and friends. The researchers posited that women may avoid nontraditional careers out of fear of not being chosen as friends or lovers. Men who pursued traditionally female occupations were not judged as harshly by women on the same item regarding desirability as mates in this study. This finding runs contrary to the predominant trend found in literature on men in nontraditional occupations. Men who enter traditionally female occupations face even greater prejudice than do women in nontraditional fields. Men are more likely than women to judge men harshly for making a nontraditional vocational choice (Chusmir, 1990). Although men in nontraditional occupations tend to face more severe societal reaction to their departure from the norm, they meet with more success within their jobs. Men frequently form male enclaves within a traditionally female occupation such as specializing in urology as nurses (Hayes, 1986). They also rise more quickly to positions of leadership or greater earnings than do women when they enter a nontraditional occupation. Research reveals that as men enter traditionally female occupations, the pay and prestige of those fields rises (Chusmir, 1990).

Women account for approximately 16% of engineering undergraduate students. When Anderson (1995) interviewed women in this nontraditional educational program,

they reported deficiencies in their vocational choice process that could have been addressed through improved counseling and career information. While 30% of the female engineering students in a 1991 study by Hewitt and Seymour reported their perception that their professors did not care about them, none of the men gave that response. This perceiving no ethic of caring from faculty contributes to the high attrition rate in that field. A female faculty member cited the loss of self-esteem as the biggest problem women face in engineering preparation programs (Anderson, 1995).

When some women enter traditional areas of work, they do so against the grain of their individual interests and aptitudes. This persistence in following the crowd can lead to personal dissonance and lower levels of satisfaction, and carries societal costs such as the loss of women's talent in many occupations (Eccles, 1994). Entry into nontraditional occupations translates into increased earning ability for women who currently endure lesser earning status. Sohoni (1993) cited one estimate which offered that half the families now living in poverty would not be poor if women simply earned the same income as similarly qualified men.

The scarcity of gender-sensitive career counseling contributes to barriers in the choice process. Persons with a greater variety of perspectives and the resultant higher vocational differentiation possess better tools for making appropriate career decisions (Parr & Neimeyer, 1994).

Women's Educational Environment

Girls and boys are not treated equally in our nation's public schools. Girls face fewer opportunities to participate in class, less content-based feedback on their contributions, stricter behavioral and lower achievement expectations. Teacher interaction with female pupils promotes docility and leads to lower initiative and learned helplessness among that population (Sadker & Sadker, 1982; 1990). Textbooks represent men and

women following traditional roles through text and graphic representations, males are depicted more often than are females. This gender bias exists from preschool right through the postsecondary educational experience (American Association of University Women, 1992). Myra and David Sadker (1990) witnessed that, "Content analysis studies of college textbooks document the omission and stereotyping of women and their contributions."

Ancis (1995) studied the relationship between female college students' experience with academic gender bias and their self-efficacy ratings regarding agency, the tendency to create educational and opportunities rather than simply respond to them. She reported that, "women who perceive a greater degree of gender bias in their undergraduate experiences also report lower agentic self-efficacy expectations." Examples of gender bias in school settings include a scarcity of female mentors and role models, the perception among faculty that female students are less serious, women being called on and rewarded for class contributions less than men, and sexual harassment. These discriminatory practices correlate with negative self-estimates of academic abilities and reduced faith in themselves to create career opportunities. Ancis (1995) recommended research using interview methods to explore any direct link between academic gender bias and these negative effects.

When Scheye and Gilroy (1994) looked at the relationship between college women's educational environments and their career self-efficacy, they found that attendance at a single-sex high school or college increased women's confidence and willingness to choose nontraditional careers. The students from this group who cited a male teacher as influential demonstrated very high career self-efficacy with respect to nontraditional career choice.

Females whose job it is to construct knowledge and facilitate learning suffer inequality as do those who are in the process of claiming an education. Women in higher education fill the roles of lecturer and instructor at almost equal proportions to men. The ratio declines as rank increases. Women number 38% of assistant professors; 24% of

associate professors, and 12% of full professors (Andersen, 1993). "Assessment of staffing patterns reveal that not only do men outnumber women at all professional ranks and in administrative positions, but the higher the rank or position, the more dramatic the imbalance"(Sadker & Sadker, 1990). Gender inequality faced by female postsecondary faculty negatively impacts student's educational experience. The lack of female role models created by the scarcity of women faculty creates a void in mentoring and networking processes of students and other faculty (Sandler, 1992).

For many people both male and female, the issue of equity at colleges is a moot point. They believe that discrimination against women on campuses has ended (Sandler, 1991). Visible change has included passage of Title IX, establishment of sexual harassment policies, and limited increases in female faculty (Jaschik-Herman & Fisk, 1995). This perception of progress is disproportionate to the actual status of women in postsecondary education. "Chilly campus climate" is the term often used to describe subtle ways in which women are made to feel and appear as lesser citizens and contributors. The percentage increase of male tenured faculty exceeds that of women. Female faculty remained clustered in departments or positions of lower prestige. "At every rank, in every field, at every type of institution, women still earn less than their male counterparts" (Sandler, 1991, p. 2).

Sexual harassment is a problem for students and faculty. Sandler (1992) cited the figures that 20-50% of women faculty members have been sexually harassed. She offers strategies to fight this behavior such as keeping records, familiarizing oneself with the institution's policy, confronting the harasser verbally or through written communication, and by clearly labeling the behavior as sexual harassment. Although sexual harassment is common in educational and work settings, women often fail to label harassing behavior as such. People's differing perspectives on what constitutes sexual harassment were evident during the 1991 Clarence Thomas/Anita Hill hearings. This case with its nationwide

publicity raised the consciousness of many Americans regarding this complex issue. Jaschik-Herman and Fisk (1995) reported that the undergraduate women they studied in 1992 were more likely to label certain behaviors as harassment than women in 1989.

Persistence of the chilly climate for women in education is an institutional problem. Yet, too often, recommendations for change focus upon what an individual woman can do to combat the forces that marginalize her (Sandler, 1991). This trend places responsibility for correcting pathology on the female victims. Membership in the population of women on campus implies a position of lesser power. The strength to address these issues rests with the institution. The movement to address these issues awaits the birth and growth of an ethic of caring at the academy (Paludi, 1991).

Women's Work Environment

The environment in which women perform their labor has evolved through three main stages from the seventeenth century to the present. Production and the daily labor of women and men occurred primarily in the home during the era of the family-based economy. During the industrial revolution, survival and success became more tied to the ability to earn a wage outside the home (Gordon, 1984). This family wage economy pressed men into work in industry and relegated women to caretaking responsibilities at home. The current system, the family-consumer economy, is an extension of the second stage, yet offers increased wage-earning opportunities for women. Women have historically experienced economic inequality and a devaluation of their labor both inside and outside the home, a trend which continues today. Women have not yet reached parity in number of job opportunities, rank, or pay (Andersen, 1993).

Women's experience at work is affected by the proportions in which they exist there. "...the structure of groups themselves influences the organizational structure and climate of occupational settings." (Andersen, 1993). Kanter (1977) identified three types

of groups within the organizational culture which carry different implications for their members. The uniform group is 100% made of members of one cultural group, for example, men or whites. Skewed groups exhibit a ratio of approximately 85:15. Within this type group, the effect of tokenism becomes felt. Tilted groups carry more balance as their ratios approach 65:35% membership. "Most women entering traditionally male-dominated occupations find themselves in skewed groups where they are tokens" (Andersen, 1993).

When women enter male dominated occupations and account for 35% or more of the total population, their mere presence in numbers can transform the working experience for all members of that occupation (Andersen, 1993). Until then, tokenism serves to underline majority culture rather than effect change (Kanter, 1977). Tokens get attention, both positive and negative. Their presence tends to polarize groups by increasing awareness of the dominant group and what makes it a class. Dominants tend to stress their commonality and keep the token outside. Tokens experience pressure to not make the dominants look bad. This pressure, coupled with the scrutiny under which they perform, contributes to an often contradictory and stressful work environment (Kanter, 1977). On the brighter side of the token status women experience in nontraditional occupations, Kanter (1977, p. 240) offered,

There is a small positive psychological side to tokenism: the self-esteem that comes from mastering a difficult situation and from getting into places that traditionally exclude others of one's kind. If the token can segregate conflicting expectations and has strong outside support groups with which to relax, then perhaps a potentially stress-producing situation can be turned into an opportunity for ego enhancement.

Sex segregation at work is a reality in American society. Most jobs are thought of as men's work or women's work. This separation is created in a social context based not

on basic biological differences between women and men, but on the social construction on gender (Williams, 1989). Gender refers to psychological, cultural, social differences between women and men or assumptions about those differences. This construct is related to stratification and sustenance of a hierarchy in our society which places women in a subordinate position of power in most areas (Thompson, 1993). The maintenance of this belief in difference serves to exclude women and men from opportunities in nontraditional areas at work and at home.

"Peer harassment exists in high schools, colleges and universities, and traditional and nontraditional occupations" (Lakes, 1991, p.19). This behavior persists across all occupations, yet women in nontraditional programs are outnumbered and often face male students who act collectively, or instructors who can not recognize harassment or do little to stop it (Lakes, 1991). Hotelling titled her article in the 1991 (p. 497) Journal of Counseling and Development, "Sexual Harassment: A Problem Shielded by Silence," to illustrate the complexity of this issue that, despite increased legal and popular attention, remains entrenched in cultural institutions. Sexual harassment remains difficult to define. Andersen (1993, p. 130) paraphrased previous definitions to offer, "Sexual harassment is defined as the unwanted imposition of sexual requirements in the context of a relationship of unequal power." Victims frequently fail to label harassing behaviors as such. When they do speak out, they are often accused of soliciting the behavior, misunderstanding, are ignored or discredited (Andersen, 1993). They often feel responsible for eliciting the harassment, or fail to report out of fear of retaliation (Hotelling, 1991). Simply ignoring or avoiding the harasser is the most popular strategy for students handling this behavior. This carries costs for victims who are excluded from educational opportunities ranging from being unable to take a class offered by a known harasser to changing majors or leaving school (Gutek, 1993; Hotelling, 1991). Andersen (1993, p. 130) reported, "Sexual

harassment occurs in every kind of work setting and can deeply influence women's perceptions of themselves as workers."

One factor that moderates job success is occupational work ethic. Petty and Hill (1994) found gender differences on this construct when they investigated gender as compared by work ethic. Women scored higher on all four subscales of dependable, ambitious, considerate, and cooperative. Significant differences by occupational classification were found for two groups. Women in the group including administrative, engineering, scientific, teaching, and artists scored higher on ambition. Women working in clerical, sales, and technical occupations scored highest on the subscale measuring considerate behavior. People work not only for survival, but to integrate personal characteristics and add meaning to their lives. Gender differences on work ethic could affect individuals' success on the job and in their training programs. Worker attitudes are significant determinants of job success. Awareness of gender differences in this affective domain can improve the performance of instructors and supervisors.

In addition to a higher work ethic, women in Luzzo's (1994) study exhibited a stronger commitment to the role of work in their lives than did men. His results were consistent with previous studies that have shown that "women attending college are more significantly committed to work than are men attending college" (Luzzo, 1994, p. 38). He proposed that women in the process of preparing for a career by attending college may demonstrate greater levels of commitment to the role of work in their lives in response to a higher number of perceived barriers, the pressure to integrate multiple life roles, or awareness of the limited number of opportunities available to women versus men.

Characteristics of Women in Nontraditional Occupations

Blau and Ferber (1986, p.13) postulated that as women gain access to nontraditional occupations, fewer will be available to fill existing traditional jobs, the

resulting shift in supply and demand will mean that, ". . . improved opportunities for women in traditionally male jobs can potentially improve the economic welfare even of those women who remain in traditionally female pursuits."

Women's choice of nontraditional occupations has been linked with masculine personality characteristics (Bem, 1974), working mothers (Almquist, 1974; Betz, 1994), less traditional attitudes toward women (Murrell, Frieze & Frost, 1991), and socio-economic status (Mau, Domnick & Ellsworth, 1995). One characteristic that nearly all women in nontraditional occupations can expect to share is that their instructor or supervisor will be a man. Gender differences between supervisors or instructors and female workers or students imply different habits of communicating, work ethic, socialization patterns, educational experience, and perception of the workplace (Andersen, 1993; Lakes, 1991; Matsui, 1994; Melamed, 1995; Petty & Hill, 1994;). Gender differences on the affective construct of occupational work ethic imply that men's and women's reasons for working and perception of the workplace differ. Knowledge of how members of the other gender tend to view work can lead to greater success on the job or in the occupational preparation stage (Petty & Hill, 1994).

As women prepare to enter nontraditional occupations and associated preparation programs, the ability to dialogue across genders becomes important to their success. With an eye to this situation, Petty and Hill (1994) studied the occupational work ethic of women and men. They found that women's work ethic is higher and that women and men have different expectations of work. They recommended informing instructors and vocational counselors on gender differences to facilitate student success and to ease the school-to-work transition for nontraditional students.

Preparation for a nontraditional career does not always translate into persistence in that goal. In a longitudinal study, Farmer, Wardrop, Anderson and Risinger, (1995) found that of high school students who expressed interest in a science career, 46% of men and

36% of women had persisted ten years later. Women in the study who expressed high career commitment were more likely to have switched to a more traditionally female occupation. Mau et al. (1995) identified the transitions from high school to college as the greatest point of loss for women who expressed early commitment to science and engineering careers. They found educational aspirations, perceived parental expectations, grade point average, and science achievement scores to be the best predictors among eighth grade girls of nontraditional career aspirations. They suggested early career development interventions to increase commitment to nontraditional careers given the number of students who change aspirations before college, and the fact that the majority of high school students will not complete a four year degree. These findings reinforce the importance of nontraditional occupational preparation programs at the secondary school and community college level.

When Lyson (1984, p. 143) studied factors related to choice of sex-typical or sex-atypical college major by women and men, he found that individuals, both female and male, selected college majors along the lines of their SAT scores. Subjects with higher scores tended to enter traditionally male fields. Lyson identified the implications of these findings:

. . .traditionally male areas of study attract students with more academic potential (as measured by SAT scores), especially in the area of quantitative skills, and that the failure to develop these skills in women during their early school years may seriously restrict their ability to compete for slots in traditionally male programs. The present results take on added meaning when compared to recent research by England and her colleagues (1982), which shows that male and female occupations average nearly equal demands for cognitive skills and formal schooling. It appears, then, that by sorting on cognitive ability in college, men and women are conveniently tracked into sex segregated career lines, even though, on

the average, male and female jobs do not differ appreciably along this dimension.

Students with high SAT scores are expected to succeed academically. Such tests can function to influence rather than simply measure achievement. Ancis (1995) defined self-efficacy as, "an individual's beliefs about his or her ability to successfully perform a given behavior." Scheye and Gilroy (1994, p.245) studied women's self-efficacy estimates in traditional or nontraditional careers and their academic environments. Their model was based on Bandura's concept that individual's efforts to learn are supported or undermined by their perceptions of their performance capabilities. Person's beliefs about these capabilities are structured from four sources of information: performance accomplishments, vicarious learning, verbal persuasion, and emotional arousal. SAT results can function to raise or lower self-efficacy consequently impacting performance.

A review of the literature on women in nontraditional occupations reveals evidence of their high self-esteem and internal locus of control, compared to women in traditional fields (Mazen & Lemkau, 1990; Betz & Fitzgerald, 1987; Chusmir, 1983; Lemkau, 1979). Lemkau (1979) reported that women who made nontraditional career choices were more emotionally healthy. Chusmir (1983) related their high level of autonomy. An internal locus of control contributes to women's abilities to resist external sex-role stereotypes (Ellerman & Johnston, 1988). High self-esteem coupled with autonomy implies high self-efficacy, a more recent phenomenon of focus. Though the roots of self-efficacy are theorized to come from one's thoughts about his or her potential to perform (Bandura, 1977) the construct of self-efficacy, one's belief in his or her performance ability, resembles autonomy plus self-esteem. Betz and Fitzgerald's (1987) concept of instrumentality blends self-efficacy with agency, the tendency to create educational and career opportunities (Ancis, 1995).

Mazen and Lemkau (1990) focused their research on comparisons of women in nonprofessional level occupations, traditional versus nontraditional. Members of this

population had been under-represented in research, since more than three-fourths of the labor force is without a four year degree, yet most studies of women in nontraditional occupations focus on college-educated women. They found that women who pursued a nontraditional career path scored higher on scales of masculinity/femininity, indicating high levels of ambition, persistence, confidence, and the ability to be blunt; and hypothesized that such traits contribute to a woman's resistance to conventional thinking and behavior. Their findings were constant with those of similar studies involving women with college degrees.

Some women may avoid nontraditional occupations because of pressure to conform to societal norms. Pfost and Fiore (1990) found that members of both genders perceived women in male-dominated occupations as unfavorable romantic partners. Level of success within the occupation did not affect this outcome. These results evidenced the costs of structuring a career outside traditional paths. The study did not address the response of the women in nontraditional occupations to their decreased perceived desirability. The results seem to reinforce earlier findings that women who pursue nontraditional careers hold fewer traditional societal views (Murrell et al., 1991).

Read (1994) studied women in nontraditional technical college programs to find that they exhibited high vocational self-efficacy, perceived strong personal support for their goals, and saw greater opportunities for women in nontraditional versus traditional fields. The second major finding of this study revealed the importance of career development services at the college. Participation in a gender equity career planning project was correlated with enrollment in a nontraditional training program.

Legislation Affecting Women's Education for Employment

An historical analysis of legislation impacting women's education for work reveals a bifurcation in policy evident in the early 1960s. The earlier pieces of legislation had the

effect of excluding women from educational opportunities, and later of partitioning education programs into male- and female-dominated areas following social and labor force patterns. A fundamental shift in this trend was reflected in the Vocational Education Act of 1963 which authorized funds for gender equity programs. The passage of this act heralded the second major legislative direction of working to provide equal educational opportunities for women.

The Morrill Act of 1862 provided resources for each state to establish land grant agricultural and mechanical colleges. Women were excluded from these schools at that time (Gordon, 1984). State legislation followed this national trend of exclusion and stratification. In 1907, Wisconsin passed a law that provided for cities to operate trade schools for boys age 16 and older. Indiana, in 1917, established local public schools for teaching agriculture, mechanical arts, and homemaking. This act provided separate and different programs for males and females. This policy was replicated by New York in 1911 (McGrath, 1976).

In 1917, Congress passed the Smith-Hughes Act. It offered vocational preparation in distinct service areas. Women participated in homemaker training and did not cross over into men's occupational areas: neither did the men enter the women's trades. The course of partitioning vocational education programs into service areas thus reinforcing the occupational tracking of women into traditional occupations was continued through the George Reed Act of 1929, and the George Ellzey Act of 1934 (McGrath, 1976).

The most visible shift from this early trend to the current legislative direction of equity and balance male-female occupational enrollment occurred with the passage of the Vocational Education Act of 1963. One section of this legislation mandates that each state employ a full time gender equity coordinator. Since 1976, it has included authorization for gender equity programs. They are, however, funded at low levels (American Association of University Women, 1993). Another member of this family of legislation is the Equal

Pay Act of 1963 that requires equal pay for equal work. Continuing this trend toward equity is the Civil Rights Act of 1964. Section VII prohibits discrimination in employment practices (Gordon, 1976).

Since 1963, federal policy including vocational education has maintained some focus on promoting gender equity. This under-funded endeavor has as its job to change the conditions propagated by 101 years of legislation, and centuries of stereotypes.

In the 1970s there were a number of federal initiatives that attempted to promote educational equity. With the policy tools available to them, all three branches of government tried to encourage local school districts to provide more equal opportunities to a variety of minorities and the disadvantaged.

Title IX was passed by Congress during the 1970s. Part of the 1972 Educational Amendments, it was designed to prohibit sex discrimination in educational institutions that received federal funding. The act stated that, "No person. . .shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. . .(Metha, 1984, p.640).

The Women's Educational Equity Act of 1974 was designed to promote and ensure equal opportunity for women in education, as part of the Educational Amendments of 1974 (NOW, 1988). Through grants and contracts it supported projects designed to encourage educational equity for women in education. This act was originally authorized at \$20 million and increased to \$80 million in 1978, yet has never been funded for more than \$10 million and in 1993 had only \$500,000 (Tabakin, 1993).

In 1976, the Vocational Education Amendments sent federal policy a step further by appropriating the first funds to eliminate sexism in vocational programs. Title II provides for the development and implementation of programs to eliminate sex discrimination, sex

bias, and sex role stereotyping, and to advance equal educational opportunities for males and females in vocational education.

The Carl Perkins Vocational and Applied Technology Education Act of 1984 was considered a "Landmark statute for women and girls" (Seaward & Redmann, 1987). In providing programs for people with special needs, it outlined in detail who some of these populations might be. Single parents, teen parents, and homemakers were among the groups targeted for assistance. The Carl Perkins Vocational and Applied Technology Education Act of 1990 continued to fund programs to eliminate gender-related barriers in education. It clarified and strengthened the role of the state sex equity coordinator established through the Vocational Education Act of 1963 (Coyle-Williams, M. & Maddy-Bernstein, C., 1992).

The Nontraditional Employment for Women Act of 1991 targeted women pursuing occupational education under the Job Training and Partnership Act. It provided incentives for recruiting women into traditionally male fields. Section 2. (a) read, ". . . employment in traditionally male occupations leads to higher wages, improved job security, and better long-range opportunities than employment in traditionally female-dominated fields."

Sex-stereotyped vocational enrollment patterns persist in the face of these efforts (American Association of University Women, 1993). Legislation presently before Congress will most likely channel funds directly to states in the form of block grants to be assigned as states see fit. This mechanism will replace the formulas set down in the 1984 and 1990 Perkins Acts, and in the Nontraditional Employment for Women Act of 1991 (Cantrell, 1996), which guarantee some level of support for women's education for work.

Summary

A review of the literature surrounding women and their work, specifically in nontraditional occupations, brings to light a deficiency in the fabric of research. This

review of literature describes women's reasons for working which include labor force trends, economic necessity, and personal fulfillment (Chew, 1991; Eccles, 1994; Friedan, 1963; Sohoni, 1990). It outlines research on vocational choice and the effect of gender in that process. This literature review also describes women's educational and work environments, focusing upon gender bias, differential opportunities, sexual harassment and tokenism (American Association of University Women, 1993; Kanter, 1977; Sadker & Sadker, 1990; Sandler, 1992). Characteristics of women in nontraditional occupations are presented some of which are high levels of achievement and self-efficacy, and a strong work ethic (Ancis, 1995; Lyson, 1984; Petty & Hill, 1994; Read, 1994). The final section highlights federal legislation affecting women's education for work.

The persistence of Horner's 1968 position that a sex-linked personality trait causes women's inhibited achievement highlights the dearth of research from women's perspective, in their voice (Eccles, 1994). Scholars continue to test hypotheses about women's avoidance of nontraditional career paths (Long, 1989; Mazon & Lemkau, 1990; Parr & Neimeyer, 1994; Read, 1994). The focus on women and nontraditional occupations must be extended beyond choice to include a study of the environment awaiting them there. There is room in the discourse for women who do choose nontraditional occupational programs to tell how they made that decision and what the environment in that program is like for them in a voice not limited by a survey instrument.

CHAPTER 3

METHODOLOGY

Introduction

The trend for learners to follow gender-traditional educational and occupational pathways has been resistant to change. Even in the face of significantly decreased income potential, women continue to choose against entering a field that is gender nontraditional. As discussed in chapters 1 and 2, there is little research-based information about why some women pursue nontraditional occupations and what their experience is like in them. This deficiency is further compounded by the scarcity of information in women's own voices. "Positivism, especially as seen in survey research, denies the significance of context and standardizes questions and responses, so that there is little room for individual voice" (Rubin & Rubin, 1995, p. 32). The goal of this research was to give voice to women in nontraditional occupational programs at the community college level to approach an understanding of their career choice process and educational environment. A qualitative methodology has been employed to arrive at a deeper understanding from the participants' viewpoints than quantitative methods allow. This chapter will describe the research design, participant selection, data sources, interview procedures, and data analysis.

Research Design

This research was designed to achieve a deeper understanding of the choice process and environment as seen through the filter of the subjects' lived experience. Approaching this sort of knowledge called for a qualitative investigation. Guided by liberal feminist theory, this study enabled women in a community college setting to share their views of the journey outside tradition. The following research questions were addressed through qualitative interviews:

1. What decision-making factors and processes did females follow when

deciding to enroll in gender-nontraditional post-secondary vocational programs at community college?

2. What psychosocial conditions did these women experience within their educational programs?

Harding (1987, p. vii) made the discrimination between method and methodology: "method refers to techniques for gathering empirical evidence; methodology is the theory of knowledge and the interpretive framework that guides a particular research project." The methodology of this research was grounded in feminist theory. This methodological approach dictated that the information be gathered and interpreted with the supposition that systems of inequity mediate our lives and have resulted in women owning less power in our society. Investigation of economic power guided this research. When women choose traditionally male occupations, their power to earn increases (Cantrell, 1996). Qualitative methods were employed to gather evidence. These methods are more effective in unearthing perspectives, voices, that do not reflect the view of the dominant group; voices that have been silenced (Lincoln, 1985).

More than forty years ago, Simone de Beauvoir quite bluntly claimed that "Representation of the world, like the world itself, is the work of men; they describe it from their own point of view, which they confuse with absolute truth" (de Beauvoir, 1952, p. 24). More recent discourse on ways of measuring and representing the world hold that science "reflects the social values and concerns of dominant groups" (Campbell & Schram, 1995, p. 87). Women have little opportunity for access to this site of dominance. It would follow, then, that women's ways of representing the world have been overlooked. A feminist epistemology is concerned with improving knowledge and removing sexist distortions (Griffiths, 1995).

Lather (1992, p. 88) labeled this ". . . a dizzying and an exciting time in which to do social inquiry. It is a time of openness and questioning of established paradigms in

intellectual thought." Researchers in critical social science aim to understand the world and gain power to change it (Lather, 1992). Recent decades have seen a loosening of the grip of positivist methods of inquiry. Those involved in constructing knowledge have taken a more critical look at empiricism, the process of arriving at the one truth through objective, quantitative processes. They have grown open to the existence of multiple realities and have begun to trust in qualitative, naturalistic, ethnographic, subjective methods of inquiry (Trifonas, 1995). Critics of these methodologies lament the lost chance for objectivity, yet recent events in the natural sciences call into question the very existence of that prized state (Lather, 1992).

Phenomenological research methods are typically qualitative, involving storytelling and interviews to approach a deeper understanding of everyday, lived experience. Phenomenology as a research tradition dates back to the philosophical movement of the same name begun circa 1905 by the German philosopher Edmund Husserl. It focuses upon the nature of human experience and how it is interpreted (Giorgi, Barton & Maes, 1971).

McCracken offered the qualitative interview as a method of gaining access to the way in which one culture construes the world (1988). He posited that qualitative research mines the terrain rather than surveying it. As the goal of this research was to view and understand the nontraditional occupational program from the female student's vantage point, the qualitative interview served as the primary research tool. Kelchtermans and Schratz (1994, p. 242) placed the interview as "the most widely used instrument in educational qualitative research." One reason for its popularity with feminist researchers is that most existing inventories measure and represent men's life events better than they do women's (Breese & O'Toole, 1995). When Ancis (1995) found an inverse correlation between academic gender bias and female college students' self-efficacy estimates, she

recommended using qualitative interviews to further explore the link and to develop theories of causality.

Data Sources and Collection

The four sources of data included (1) completed student questionnaires, (2) descriptive data about the setting obtained from the admissions and counseling offices including, enrollment data, the sexual harassment policy, college mission, and student services and policies (see Appendix F), (3) interviews with instructors guided by the schedule in Appendix E, and (4) in-depth interviews with eight students using the interview guide in Appendix D. Fictitious names have been assigned to the research participants and the site to protect confidentiality. The site where the research was conducted has been assigned the name of Southeastern Community College

On several visits to the campus the researcher collected relevant documents and made observations about the site. A 1995-96 college handbook was obtained from the admissions office. A visit to the student counseling center resulted in the acquisition of the student handbook and a copy of the newly-printed 1996-97 college catalog. These documents were examined for their treatment of campus climate issues, including sexual harassment. The researcher toured occupational laboratories including those for electronics, drafting, and instrumentation programs.

All instructors in the five programs identified for this study were invited to participate in interviews to provide their views of the context in which these women are pursuing their occupational goals. Of the five, four consented to be interviewed, each one in his office or laboratory. The interview guide used with these instructors is presented in Appendix E. Interviews were performed after the interviews with co-researchers were completed. They were audio-taped and transcribed. The researcher made field notes during each interview. Interviewing instructors contributed to triangulation of data and the

resultant trustworthiness of the research. This element of the research design helped to highlight differences in choice and experience as well as common themes (Breese & O'Toole, 1995).

Participant Selection

A first step in participant selection was to identify women in nontraditional post-secondary occupational programs. Lincoln (1985) observed that education in the United States has fallen from its historical pursuit of educating citizens to participate in the democratic process of shaping their world. This preparation involves encouraging critical thinking skills and active exercise of one's voice in public affairs and ordinary life. Instead, she claimed that students are fitted into existing structures, statuses, and roles (Lincoln, 1985). Eliciting student voices directs researchers to identification of better educational practices, the goal of educational research (Trifonas, 1995).

Most of the literature on women in nontraditional occupations involves students in a bachelor's or graduate program, or professional women (Cantrell, 1996; Mazen & Lemkau, 1990; Read, 1994).

"We've had substantial integration of women into nontraditional professions like law and medicine," says Diane Pearce, director of the Women and Poverty Program of Wider Opportunities for Women (WOW), a Washington, D.C.-based advocacy group that connects women with blue-collar training programs. "But that's been counterbalanced by losses or lack of progress among much larger groups of craft occupations." (Cantrell, 1996, p.34).

Little is known about women in blue-collar or nonprofessional fields (Mazen & Lemkau, 1990), though they constitute 17% of that labor force. Less than 25% of occupations require a bachelor's degree or higher, yet most do require some formal education after high school (Hull & Parnell, 1991). Hull and Parnell reported (1991, p. 18), "Post-secondary education and training have become integral to a majority of the work force," and stated,

"Key to this new educational thrust will be the associate degree." This study focused on community college associate degree programs. The participants in this research project were women enrolled in gender-nontraditional associate degree programs at a southeastern United States community college.

The Coordinator of Institutional Research at Southeastern Community College has supplied enrollment data for current and previous terms. The Director of the Industrial Services Division has provided permission and access to instructors and students.

Enrollment figures for each curriculum offered at this community college Spring term, 1995, categorized by sex have been examined. Associate degree programs with at least 75% male students have been identified. They were drafting and design, electrical technology, electronics technology, instrumentation, and machine technology. A description of the occupations associated with each program is presented in Table 2. The research participants were drawn from the available pool of 27 women who were enrolled across these curriculums.

Instructors for all five programs concerned were contacted by the researcher through a packet which was distributed by the office of the Division Director of Industrial Services. The packet included a letter to the instructor (see Appendix A) and student letters and questionnaires (see Appendixes B & C). Both the student and instructor letters were written on Virginia Tech letterhead. The purpose of the letter to the instructors was to inform them of the research purpose and procedures, have them distribute a student letter and questionnaire to the 27 students of interest, and to ask them to participate in an individual interview. The researcher followed up with a phone call to each instructor to make sure the request was clear and to address any questions the instructors might have.

Instructors addressed their classes in which the 27 female students were enrolled at the beginning of the class period following the procedures laid out in their letter (see Appendix A). They distributed the letter to students with attached questionnaire (see

Table 2

Southeastern Community College Academic Programs Studied and Related Occupations

Program/ Degree Awarded	Median Weekly Earnings	Projected Growth through 2005	Occupations
Drafting and Design associate degree	\$528	Slower than average	CAD specialist, drafter, designer, industrial illustrator.
Electrical Technology associate degree	\$667	Average	Electrical equipment maintenance or electrical technicians; power plant, power distribution, or service technicians
Electronics Technology associate degree	\$521	Rapid	Communications, computer, electron- ics, electronic instru- mentation, industrial electronics, labora- tory, or radio and television technician
Instrumentation Technology associate degree	Data not available	Much faster than average	Duties will include: create and maintain control and measur- ing devices for manufacturing and research industries
Machine Technology Machine Shop Operations associate degree diploma	\$492	Slow growth, but plentiful opportu- nities due to a shortage of appli- cants	Inspector, machine shop supervisor, machine tool opera- tor, machinist, meth- ods or planning technician

Note. Earnings and job growth data are from the Occupational Outlook Handbook, by the U. S. Department of Labor. Copyright 1995 by the author. Degree program and related occupations are from the Southeastern Community College 1995-96 Catalog.

Appendixes B & C). The questionnaire was modeled after Breese and O'Toole's (1995, p. 25) from their study of adult women college students. Completed questionnaires were handed back to the instructor during class or dropped off in the Division of Industrial Services office on campus. The researcher collected completed questionnaires from the Division office receptionist. These responses were grouped by degree program and based on the number of semesters respondents had been enrolled in that degree program.

McCracken (1988, p. 17) addressed the suitable number of respondents by writing: It is more important to work longer, and with greater care, with a few people than more superficially with many of them. For many research projects, eight respondents will be perfectly sufficient. The quantitatively trained social scientist reels at the thought of so small a "sample," but it is important to remember that this group is not chosen to represent some part of the larger world. It offers, instead, an opportunity to glimpse the complicated character, organization, and logic of culture.

As recommended by McCracken, (1988) eight respondents were chosen for the interview from the pool of 12 who responded to the questionnaire. Initially one student, the most senior, from each academic program was selected, the remaining participants were selected by virtue of seniority. When the remaining group of volunteers was equal with regard to seniority, the researcher selected participants who differed from one another based on race, age, or marital status. Women in their fourth semester of study in the nontraditional program were chosen first, then those in their third, second, or first, in that order. This participant selection process ensured that all traditionally male associate degree programs with female students were represented in the group of research participants, and that female students with the most experience in the program were heard.

The eight women who participated in this study will be referred to interchangeably as participants and co-researchers. The second term communicates their role as active

collaborators in unearthing and presenting a profound picture of women's experience in nontraditional community college programs. It assigns them authority and increases the power of their voice. Rubin and Rubin (1995, p.10) referred to participants in qualitative research studies as "conversational partners," when they wrote:

Unlike survey interviews, in which those giving information are relatively passive and are not allowed the opportunity to elaborate, interviewees in qualitative interviews share in the work of the interview, sometimes guiding it in channels of their own choosing. They are treated as *partners* rather than as objects of research.

Interview Procedures

Interviews were conducted by the researcher at the community college and in participants' homes. The respondent chose the site. One individual conducted all interviews to ensure consistency. At the beginning of each interview, the researcher briefly went over her interest in hearing their stories. Then followed an explanation of the university's informed consent procedure. After the co-researcher had read and signed the consent form, the interview proceeded through demographic questions to elucidate the context of her lived experience and then into the two research question areas. The researcher used the primary questions found in Appendix D to begin and to ensure that topics pertinent to the research questions were covered, but allowed the co-researcher to otherwise set the agenda. This format maintained consistency while allowing for rich and diverse data to be heard. Rubin and Rubin (1995, p. 38) encouraged openness of interview design.

Like the interpretive social researchers, we prefer to let ideas emerge from the interviews, from the lives and examples of the interviewees, rather than to categorize answers initially according to preexisting categories from an academic literature. Like the feminists, we argue that interviewers should not dominate the

interview relationship, and also like the feminists, we argue that interviewers cannot be completely neutral, and need to consider their own beliefs, needs, and interests as they work out questions and try to understand answers.

The researcher strove to remain non-directive and keep any element of judgment out of the interview. Words with strongly positive or negative connotations were kept from the interview schedule. Examples of this effort are found in the Interview Guide (Appendix D) where phrases such as ". . .affected by the fact that you are a woman," "Tell me about a time when it didn't [or, did] matter if you were a man or a woman.," and "How is it different (or the same) for the men?"

Interviews were audio-taped and transcribed onto computer disk. Each participant was assigned a fictional name for use in the results and discussion sections. This aided in ensuring confidentiality of the response while assisting in giving each person a voice.

In addition to taping, the researcher took field notes during the interview after asking the co-researcher if she would be comfortable with that activity. The notes included key words which assisted in locating quotes standing out as especially important to examine. They also provided a place to record significant aspects of the environment, observations regarding the co-researcher's affect, and occurrences during the interview such as interruptions. Directly after each interview, the researcher added further impressions of the interaction to the written notes.

A summary statement was typed for each research participant. It included written field notes about the setting, the participant's affect, the researcher's major impressions, and key quotes from the transcript. The participant's real name and fictional assigned name were recorded on each summary statement along with her demographic data from the questionnaire. This summary statement was presented to each participant for her reaction regarding the accuracy with which it reflected the content of the interview. The researcher presented the summary to the co-researchers in person, except for one to whom she read it

over the phone at the co-researcher's request. Additions to the summary statements were made as needed, given the response of the co-researchers. A member of the local educational community listened to brief portions of each tape and checked them against the written transcripts for accuracy. Storage files were created for the completed questionnaires, transcripts, summary statements, and tapes which remain in the possession of the researcher to protect the confidentiality of respondents.

Data Analysis

"The purpose of the data analysis is to organize the interviews to present a narrative that explains what happened or provide a description of the norms and values that underlie cultural behavior" (Rubin & Rubin, 1995). Given that the goal of this study was to see the choice process and conditions in nontraditional programs for women at community college through their eyes, themes illustrate the context of the students' experiences, and the major issues involved in the pursuit of their educational programs.

Transcripts and notes from interviews were color-coded by respondent. Strong affect expressed by the co-researchers was reflected by printing the word or phrase in bold type. These artifacts were then reviewed extensively. In the first stage of analysis, each statement was treated as discrete and grouped into categories based on its overt message without consideration for the number of times it appeared or its relation to other subjects.

During the second stage of analysis, links between categories were examined, as well as the co-researcher's affect, and the frequency with which concepts appeared within an interview or across interviews. Data were reviewed to identify basic ideas or concepts, to group similar information together, and to identify themes and affective content to provide answers for the two main research questions and to identify other areas pertinent to the study. Concepts can be marked by frequently repeated nouns or phrases, vocabulary that indicates difference, or by looking for the corollary or contrary concept to one already

identified (Rubin & Rubin, 1995). Sentences or phrases of comparable meaning that appeared at least twice within one interview or were expressed by at least two co-researchers were identified as a theme. Establishing a criteria of only two occurrences aligned with the research aim of ensuring that information from silenced voices was not excluded. The original list of categories was refined into themes which began to emerge at this time. They were organized around the two question areas. Ely (1991, p. 150) defined a theme as, "a statement of meaning that (1) runs through all or most of the pertinent data, or (2) one in the minority that carries heavy emotional or factual impact." During this stage, the original interview tapes were again reviewed. This activity assisted the researcher in "listening" for patterns to emerge from the data, both taped and written. Listening again to interview tapes brought the fluid, interactive nature of the inquiry again to the fore of the investigation process. Failure to maintain consciousness of the human interaction involved in interviewing can defeat the purpose of performing qualitative research,

The transcribed text of the interview becomes data in a sense very similar to quantitative data. The physical, nonverbal aspects of communication disappear. The variations in tone, intensity, and rhythm disappear. Even the pauses often disappear. The modernist representation is not sheer fabrication, but all of the juice of the lived experience has been squeezed out (Scheurich, 1995, p. 240-241).

Direct quotations have been used to illustrate the themes and identify the participants' voices. Relating direct quotes also serves to involve the reader vicariously in the subject and generate hypotheses for further research and implications for improved practice (Trifonas, 1995).

The third stage of analysis involved analyzing themes for cultural content. This process called for applying feminist theory to the review of the data. It moved the researcher to listen critically, when in the first and second stages she had listened carefully.

This third phase of examination of the data amplified women's voices and overt references to societal forces around the construct of gender. It attuned the listener to similar messages which might be embedded within the data. Themes with covert gender-based messages were problematized to filter out underlying content. These themes were organized in a separate section labeled "problematized themes." This process required that the researcher distance herself from the culture in which she performed the research to counter the circumstance McCracken (1988, p. 32) warned of where, " long-lived familiarity with the culture under study has, potentially, the grave effect of dulling the investigator's powers of observation and analysis." It called for the researcher to develop skills of "self-critique" (Lather, 1991, p. 80) to support reflexive review of the data and to thwart the tendency to superimpose one's own picture of the environment upon that of the co-researcher.

Data gathered from the questionnaire (Appendix C) assisted in illuminating the context of student's lived experience. The qualitative, feminist nature of this research design aided in eliciting student voices. Students' stories are nevertheless expected to retain and convey messages of the dominant culture. Locating the respondent's social context may sensitize the researcher to such messages and contribute further to the validity of the research (Goodson, 1995).

Trusting the Data

On the subject of validity, Ely (1991, p. 95) wrote, "we have found that the language of positivistic research is not congruent with or adequate to qualitative work, and its use is often a defensive measure that muddies the waters." Qualitative researchers talk about making sure that a study is credible, trustworthy, that it offers a correct interpretation of the data (Ely, 1991; Rubin & Rubin, 1995; Scheurich, 1995)

Ensuring the trustworthiness of data offers grounds for accepting that the researcher saw accurately the data, analyzed and described it correctly (Lather, 1991). Having only

one researcher perform all interviews from a standard interview guide protects the reliability of the study (Silverman, 1993). Data gathered through interviews with students have been summarized and presented to the participants to assess accuracy. These individuals were revisited in person within two weeks after their interview to garner their appraisal of how their story was recorded and retold (see Appendix D). They were asked to respond to written summary statements comprised of written field notes about the setting, the participant's affect, the researcher's major impressions, and key quotes from the transcript. Face validity is approached when respondents reflexively respond in the affirmative to results of their interviews (Lather, 1991). Hearing from both students and instructors provided information from differing perspectives and contributed to the triangulation of data and thus to the credibility of the findings by providing multiple data sources (Lather, 1991). Descriptive data gathered with the observation schedule (Appendix F) added further information from multiple sources regarding students' environment.

Triangulation of findings means, "watching for the convergence of at least two pieces of data (Ely, 1991, p. 97)." Silverman (1993, p. 156) described the concept of triangulation from its nautical origin, "where different bearings give the correct position of an object." In this study, data converged from instructors' input offering their appraisal of the environment and from descriptive data such as sexual harassment policies and gender-focused support services at the college to reinforce the researcher's interpretations. The convergence of data across interviews with co-researchers provided the most significant claim to the credibility of this study.

Negative case analysis, searching for and examining cases which do not fit into a study's emergent findings, has been suggested as one method of arriving at a more trustworthy piece of research (Ely, 1991). In this study, data fragments which seem to contradict one another only highlighted the important concept that persons can perceive the same set of circumstances differently. The goal of this research is to approach an

understanding of the women's perspectives of their choice and environment. To limit the data accepted and investigated is to fail at this endeavor.

Scheurich (1995, p. 249) criticized research interviews as ambiguous and indeterminate, and he cautioned interviewers to resist imposing a false order of their own making upon the interaction. A method he offered to withstand such action is to "highlight the baggage we bring to the research enterprise," by stating training, social positionality, and related biographical information of the interviewer. In this study, interviews were conducted by the researcher who has trained and practiced as a secondary school counselor. Before pursuing this career, she completed a bachelor's degree in the production area of animal science, a nontraditional area for females. During the time the study was conducted, she was employed as research associate for a career information system. Her social positionality is aligned with the feminist theoretical base of the proposal. The researcher's agenda followed Kelcherman and Schratz's (1994, p. 245) definition of the agenda of educational research: "attempt to describe, explain, and change(improve) human behavior in educational contexts."

The second of Scheurich's (1995) two suggestions to raise the level of truth in research interviews and their analysis is to illustrate the indeterminacy of the interaction. When describing that concept, he wrote,

In an interview, there is no stable "reality" or "meaning" that can be represented. The indeterminate totality of the interview always exceeds and transgresses our attempts to capture and categorize. When we think we "interpret" what the meaning or meanings of an interview are, through various data reduction techniques, we are overlaying indeterminacy with the determinacies of our meaning-making, replacing ambiguities with findings or constructions (Scheurich, 1995, p. 250).

Requiring that concepts appear only twice to qualify for treatment as a theme has opened data analysis to multiple realities and protected the process from self-imposed restrictions and interpretations. Including direct quotes illustrates the co-researcher's meanings and highlights the interactions. The method of hearing participants and revisiting them with summary statements models a feminist approach to discovering knowledge that stresses reciprocity and self-reflexivity (Kelchtermans & Schratz, 1994).

The interpretive procedures employed to arrive at findings have been described in the data analysis section of this chapter. By setting a limit of two times a concept must have been expressed during an interview before qualifying for treatment as a theme, rather than counting each such occurrence and comparing among them, the researcher has created space in the findings for information that otherwise may have been excluded.

The role of the researcher as an instrument is at once a strength and potential limitation of qualitative research. Dewey's (1935, p. 50) artist analogy reads, "If the artist does not perfect a new vision in his process of doing, he acts mechanically and repeats some old model fixed like a blue print in his mind." The data analysis processes of actively listening for emergent themes, grouping, reviewing for connections and examining for cultural influence highlighted "using the self as an instrument of inquiry" (McCracken, 1988, p. 32). The researcher's role in eliciting, hearing, recording, and retelling the stories of the participants is critical. The researcher assumes the responsibility to keep his or her bias from the accurate recording of the data by enacting quality control strategies such as using multiple sources for triangulation. It is the researcher's bias, however, that drives feminist research, frames research questions, and interprets findings. Following Scheurich's (1995) guidelines, the researcher in the research design, has outlined her social positionality to acknowledge the imposition of her own influence on the process.

Limitations

Pursuant to the goal of giving voice to women, this study does not give equal voice to their peers and members of the faculty of the research site. The nature of the inquiry, size and geographic homogeneity of the research group make it inappropriate to generalize findings to any other group. That is not the goal of this research. "In the qualitative case, however, the issue is not one of generalizability. It is that of access" (McCracken, 1988, p.17). Qualitative research serves to generate hypotheses, to discover the nature of persons' experiences, or to find why a phenomenon observed in quantitative studies occurs (Chew, 1991; Rubin & Rubin, 1995; Strauss & Corbin, 1990).

Summary

"The goal of writing is to represent the world of your interviewees accurately, vividly, and convincingly" (Rubin & Rubin, 1995, p. 261). The central purpose of this study was to give voice to women in nontraditional community college occupational programs to discover how they came to the decision to pursue a nontraditional course and what the environment is like for them there. This chapter described the qualitative approach to research and justified its use for this study.

To create transparency within this qualitative study and heighten its credibility, the research design was described, and sources of data and methods for data-gathering were presented. The participant selection process was described. "Transparency means that a reader of a qualitative research report is able to see the basic process of data collection" (Rubin & Rubin, 1995, p. 85). This chapter defined procedures for interviewing participants and for analyzing and relating their stories. Triangulation of data to ensure trustworthiness of the study was addressed. This chapter described the research methods employed to arrive at a closer understanding of women's choice of and experience in nontraditional community college programs.

CHAPTER 4

FINDINGS

Introduction

This chapter presents a brief summary of the research questions and methods. Descriptive data about the site and data from instructor interviews are incorporated, along with written portraits of the co-researchers which expand upon the demographic data reported on the questionnaire and address their responses to the two research questions. Co-researchers and the site have been assigned fictitious names. Then follow presentation of emergent themes, three problematized themes, and a chapter summary.

The goal of this research was to give voice to women in gender-nontraditional occupational programs at the community college level to approach an understanding of their career choice process and educational environment. A qualitative methodology was employed to arrive at a deeper understanding from the participants' viewpoints than quantitative methods would have allowed. Guided by liberal feminist theory, this study elicited women's views of the journey outside tradition at a southeastern United States community college. The following research questions were addressed through qualitative interviews:

1. What decision-making factors and processes did females follow when deciding to enroll in gender-nontraditional post-secondary vocational programs at community college?
2. What psychosocial conditions did these women experience within their educational programs?

The central purpose of this study was to give voice to women in nontraditional post-secondary occupational programs to discover how they came to the decision to pursue a nontraditional course and what the environment was like for them there. Eight women

enrolled in nontraditional associate degree programs participated individually in long interviews. A summary of their information from the questionnaire is presented in Table 3.

Interviews were conducted in a private setting at the college or in the student's home. They ranged in duration from one to two hours and were recorded on audio tape. Tapes of interviews were transcribed by the researcher and were destroyed following final defense of the dissertation. Field notes were written during each interview about the interview setting, the co-researcher's affect, and the researcher's major impressions. Tapes and transcripts were reviewed by an educator unfamiliar with the study to check accuracy. Summary statements were written by combining the content of the field notes, completed questionnaire, and several direct quotes from the transcripts. Each co-researcher then reviewed the summary statement from her interview for accuracy.

Descriptive Data of the Community College

Relevant documents including the college catalog, timetables, and student handbook were examined. The researcher toured the campus to locate resources for students including counseling and the Equal Opportunity office. These efforts were conducted to provide insight into the organization and assess how the institution treats issues of gender. The site for this research was a community college in the southeastern United States. Its modern facilities are located on a 100 acre campus in a small town. The college is part of a state-wide system of community colleges offering vocational/technical and university-transfer programs. It has an open enrollment policy and requires students to take math and writing placement tests. Classes are offered year-round on a semester basis from 8:00 a.m. to 10:00 p.m. One thousand, three hundred, sixty-five students are enrolled full time, 1,825 attend part time. New students must take an introductory course which covers topics ranging from career development and time management to AIDS and sexual assault awareness.

Table 3

The Co-Researchers: Summary of Information from Questionnaire

Name	Age	Race	Marital Status	Degree program/Semester
Cindy	18	W	Single	Electrical technology Second semester
Dawn	28	W	Single	Drafting/design & architectural Third semester
Donna	38	W	Second marriage	Drafting, architectural Final semester, has completed degree program part-time
Grace	40	W	Married	Drafting, architectural Fifth semester
Janet	23	W	Engaged	Electronics/fiber optics Second semester
June	43	W	Married	Computer machine operator Second semester
Melissa	42	W	Divorced	Instrumentation & Electrical technology Fifth semester
Sandra	27	W	Single	Drafting/design Third semester, enrolled part-time

Note: W = white. Co-researchers have been assigned fictitious names.

The 1995-96 college catalog begins with the following vision statement:

Through forward-looking leadership, efficient management and the deep commitment of faculty and staff to provide the best possible teaching and learning environment, Southeastern Community College aims not only to meet the educational challenges of the coming decades, but to welcome them.

Following the vision statement is a list of beliefs which is not included in full, in order to protect the anonymity of the college. The following are quotes from the belief statement:

That a positive institutional climate must be maintained which supports high ethical standards, professionalism, faculty and staff development, and an inclusive environment based on dignity and respect for all persons;

That the college must support multi-cultural diversity as well as equal opportunity for all persons, and that the institution must be outward looking as it fulfills its local mission;

The 1996-97 college catalog will bear a new statement on student dress: "Dress is a matter of individual choice until that choice of clothing infringes upon others or causes a disruption in the learning environment of the college." This section is intended to provide college faculty with the authority to prevent students wearing clothing with offensive messages such as the recently popular "Big Johnson's" shirts which convey strongly sexual messages.

The 56-page student handbook, which each student receives upon enrollment, opens with the statement, "The goal of Student Development programs is to provide the best possible environment for learning and achievement of students at Southeastern Community College." The first sentence of the section entitled "Policies and Procedures" reads, "Southeastern Community College students have a role in institutional decision making through: committees, club participation, Student Government Association, college

board attendance, suggestion boxes, SGA meeting attendance, orientation classes, and an 'open door' policy to offices of administrators."

The student handbook explicitly outlines the college's policies and procedures regarding sexual assault, misconduct and harassment in sections which total 11 pages. These are included in Appendixes I, J, and K respectively. On-campus and other sources of support for victims are listed repeatedly. Written in each policy appears the policy's goal which serves to communicate the college's values. Examples include, "An educational institution is a community of trust whose very existence depends on the recognition of each individual's importance and value (Appendix J)." "A further purpose is to communicate the intent of the college to create a campus free of such behavior (Appendix K)."

In each classroom, a copy of the "Code of Conduct" reprinted from the student handbook is posted prominently. It reads,

As a member of the Southeastern Community College Student Body, I will act in a responsible manner with the utmost integrity at all times.

I will obey all college rules and regulations

I will respect the rights and privileges of others.

Each student indicates his/her willingness to abide by this Code of Conduct when he or she signs the Admissions Application.

The college has an Equal Opportunity/Affirmative Action office which is highly visible. Posters from this office are placed throughout the four main campus buildings calling attention to the issue and directing students, faculty and staff to the office for more information. The office is located along a main hallway which sees a great deal of traffic and often sports a table offering baked goods and other items for sale by student groups. This public location can serve to make students uneasy about entering. The phone number is clearly posted in several locations. Students may call for information and assistance if they prefer telephone communication rather than going in person.

Data from Instructor Interviews

In addition to the eight students who participated, interviews were conducted individually with four instructors in their offices or labs, guided by an interview schedule similar to that utilized in student interviews (see Appendix E). Interviews were audio-taped and then transcribed. They were guided by topics introduced from the interview schedule, and allowed for an open response from the instructors. The researcher made field notes during the interviews with instructors which recorded notable direct quotes, and reflected the setting and interaction including interruptions, and resources shared by instructors. These data were gathered to serve in triangulating the data from interviews with co-researchers and as such focused on the instructors' impressions of the vocational choice of and educational climate for women in their programs.

All four of the instructors interviewed expressed happiness at women's entry into their professions. Three of them talked about going out of their way to ensure that women felt welcome and encouraged in their classes. One of the instructors loaned me a video tape about women in aviation that he had brought with him from the community college where he had previously taught. Another shared with me the worksheet he uses in class which involves goal setting, reading, personal growth, and interpersonal relationships.

The instructor interviews quickly evolved to focus on the women's educational environment. The teacher/student relationships were for the most part not involved enough for instructors to have anything other than guesses about the women's choice of occupational field. The first instructor I interviewed told me that he thought of himself as nontraditional. He said that his mother was a medical doctor and his wife was a sergeant in the army, "My wife wears combat boots!" One of the instructors interviewed had been teaching in his specialty for over 25 years. He offered an historical perspective of women's entry into nontraditional occupations when he shared that **some** [few] women had always been involved in drafting, often companies would hire them for simpler tasks

and discover their prowess, then promote the women to positions in design, supervision, or sales.

When the instructors addressed the issue of gender in the classroom, all four seemed aware of negative peer pressure and talked about their efforts to address it. One instructor posited that the men who resist women are those who are frustrated with their own progress and are looking to blame someone. He said that societal forces are felt in the classroom and that he offers information about gender and structures classroom activities early in the semester on communication. The second instructor I interviewed felt that because of their minority status in the classroom, "Females have an undue burden to succeed." He did not want to use the word, "compete," but observed male students performed to higher standards when there were women in their class. The third instructor believed that men did continue to make negative remarks to or about female classmates despite his efforts to prevent them from doing so. He said, "They'd better not say much because one of these women might be their boss one day!" The fourth instructor took me on a tour of the lab, and shared resources on women in architecture that he had used. He also introduced me to an adjunct faculty member in his department who owned a local company which employs drafters. That person preferred hiring women rather than men, "I try to latch on to a gal. If she's come through school, she's got some determination." All of the instructors in the Industrial Services Division, which includes the five programs studied in this research, are male and white. The instructors I interviewed described trying hard to create an environment where women could have a successful experience.

The Co-Researchers

Written portraits of each co-researcher compose this section. Co-researchers have been assigned fictitious names to protect their confidentiality. The demographic data presented in Table 2 is expanded upon, with the women's personal histories, reflections on

choice of a nontraditional program, and contemplations of their educational environment. Direct quotes from the interviews have been employed to illustrate the women's voices.

Cindy

Cindy, who at 18 is the youngest co-researcher, has her own successful house-cleaning business. She is in her second semester at the community college. In high school, Cindy was directed toward a college-preparatory schedule which included advanced placement classes. She had stressed to her counselor and teachers that she wanted to acquire a skill, but ran up against their firmly held expectations that she would attend a four-year college immediately after finishing high school. Cindy said that she regretted not taking home economics or other vocational classes, especially since entering the electrical technology program and feeling somewhat unprepared. The goal-setting habits that have helped Cindy achieve so much in her young life were learned at her place of worship.

Cindy became active in the Jehovah's Witnesses when she was 14. It was from congregation members that she picked up the idea to start a cleaning business. Religion is the primary guiding force in Cindy's long- and short-term plans. She wants to use her training in electricity to work on international building projects for the Witnesses. Cindy's cleaning business and degree choice are both arranged to ensure that she can support herself well and also enjoy the freedom to leave for several months at a time. Both her mother and brother belong to the same church. The desire to be self-supporting was also shaped very strongly by Cindy's observation of her mother's life.

Cindy lives with her parents and 16-year-old brother. Her mother was cited as her greatest inspiration.

Probably my Mom encouraged me the most. She's kind of an independent person. She and Dad aren't really close -- she's taught me to take care of myself. I

remember her doing that -- fixing the washer -- and I thought, if she can do it, I can do it.

Cindy's brother is enrolled now in the high school electricity classes she was not able to pursue.

The option to attend a four-year college is one Cindy holds open, but not in the near future. She enjoys her college major, especially since the coursework has begun to move from general studies to labs as she advances in the program. When she was choosing a degree program, Cindy remembers thinking,

I didn't want to graduate with a four-year degree in something it would take me 10 to 20 years to get established in. I know people who graduated from college and ended up working in a fast food restaurant or don't enjoy their job. I didn't want a job just sitting and typing.

Cindy made the choice to enter her nontraditional program because it offered the chance to earn sufficient pay to support herself well, and the flexibility to relocate and travel. She thinks that her male classmates may have a head start in the subject matter that springs from more exposure to technical and mechanical experiences, but is not bothered by that temporary state of affairs. She feels welcome in the program and thinks that the instructors are glad to see women becoming interested in the nontraditional occupational subjects they teach.

Dawn

Dawn, age 28, grew up in a large town outside a very urban area. She took drafting in high school and went to work upon graduation as a drafter. She had always intended to pursue post-secondary education in that field, but worked for a few years before moving to this small town where her father lives to return to school full-time. She has a house in the town where the school is located. Dawn should finish her degree

program next year. She is ready to exit small town life and return to a more urban setting. When asked about her goals, she readily volunteered, "I want to travel." Dawn has already been in touch with a firm that subcontracts drafters to companies all over the country. I learned the term "drafter" from her. It is much less cumbersome than "draftsperson."

Dawn was one of the youngest students I interviewed. She perceived no gender issues influencing her educational choice or experience. Dawn happened into drafting after exhausting the art curriculum at high school, "I'd had several art courses. . .I'm not exactly sure why I decided to take it . I had taken all the art courses that were given." She discovered an affinity for drafting. Dawn is enrolled in the drafting, architectural specialization program. "I am massive into detail. I just **love** detail. So I decided to go into architecture."

Dawn's affect really became charged when asked about who encouraged her in her course of study, "My mother. She's been my greatest inspiration. She's not your typical woman I suppose. She's very independent and very supportive of any idea that me and my sister ever had. Anything we wanted to do, we did it and she helped us." Dawn's sister works as a secretary in a nearby town, and has a new baby. While she is following a more traditional occupational path, she and Dawn grew up in the same home and are very supportive of one another. They have simply enjoyed the freedom and support to develop their own talents and interests. Like all the other co-researchers, Dawn expressed a love of learning and a plan to continue studies after graduation, "I enjoy every part of it. Just the knowledge in itself excites me."

Dawn's choice of a nontraditional occupation was formulated in high school through a positive experience in drafting class. The rigorous and rewarding specialty she chose continues to excite her in college. She feels included in the classroom environment and perceives no gender-related issues in her educational experience.

Donna

Donna is a woman who, at 38, is seeing her steady persistence finally pay off in creating the opportunity to return to school part time while keeping the full time job she has held for several years. Donna told her story of working in the office which oversees building, engineering, zoning, emergency services, housing assistance, public water, sewer and garbage for the county in which she lives. Her precise handwriting reflects time spent in the architectural drafting program from which she will graduate in May. Donna began asking her supervisors seven years ago to let her take drafting classes at the community college so that she could better interpret the blueprints and other plans she encountered at work. She chronicled four years of asking and being turned down by her supervisors and of waiting for her chance.

I knew after they told me no three or four times, the next step was that county administrator, and at some time in my life, I would get a chance to let him know how I felt, that I still wanted to go. And I feel like if you've got the desire and you've got the ambition, somehow, some way, you'll work it out.

One day a higher level administrator asked Donna to review some building plans to locate space for a county office. She recalled the day, saying,

I just looked at him and said, "It would have been so nice if I'd had those classes I've been wanting to take for three or four years now because I would know how to do this." He said, "What do you mean, classes?" and so I explained. And he said, "We promote education. You can take those classes."

The person with whom she had this conversation was two levels removed from her, one level above her two immediate supervisors who had turned down her requests to attend classes. He immediately contacted Donna's supervisors and facilitated her having time out of the office to attend classes. She uses her accumulated annual leave time to compensate for time spent at school.

Donna and her second husband are fixing up the house they recently bought. He works in the field of architecture and supports her educational plans. Her eighteen-year-old daughter who no longer lives in the home even considered drafting as a career for a time, but will probably pursue a health career. Donna's conversation was filled with the issues of interweaving school into an already full life. She has had to complete her degree program as a part-time student. She talked about the advantages of working in an office which deals with drafting issues. The technical language and basic understanding she picked up there has helped at school.

Donna foresees changing jobs in the future. She expects to find one which will allow her to employ the skills learned in the drafting program. True to the calm nature evidenced by her long campaign to gain access to education, she expresses faith that an opportunity will arise and she will be poised to take it.

Grace

I met Grace, a 40 year old mother of three, while touring the drafting lab. She overheard one of the instructors telling me about a book on women architects. Grace brought her notebook over and showed me the citation for this text that she had gotten from the Internet. She had filled out a questionnaire earlier that day and turned it in to her instructor.

After spending years of divorcing spirituality from professional practice as a school counselor, I was at first unprepared for Grace's strong message of spiritual guidance and had to quiet the Virginia public school counselor voice that said to me, "We shouldn't be talking about this," in order to hear this significant part of her story. Grace said, "I was led. It was, 'Go to school. You may have to take care of yourself.' It was just a feeling that bubbled up from inside. So I came down here and saw the counselors and said, 'Am I crazy? Have I lost my mind?'"

Grace then began to describe the transition from full time farm wife to that plus full time student and worker outside the home. Her spouse would not contribute financially, so she had to earn the money for tuition and books. Grace's three daughters were very supportive of her decision and pitched in around the house to facilitate her schooling. Grace was 37 years old when she returned to school without computer skills, but with a strong faith that she was on the right path. At the time of the interview she was approaching graduation, having already completed the coursework for an associate degree, taking a few more courses she found critical. She spoke of traveling 125 miles in one day handing out resumes and filling out job applications. She will continue to live on the farm, and is seeking employment locally. Grace has approached the job search much as she did her return to school. She takes the actions she thinks are correct for the path she is following, even when they seem to make little sense at the time. Grace had been reading about human relations and sexual harassment out of curiosity for several weeks when she was presented with the opportunity to put her newfound knowledge to work.

Grace described her concern for people and community. She reflected upon the ways in which her lifelong commitment to learning had been a critical factor in her life and understanding the workplace environment.

For some reason or another, maybe it had something to do with going to school now in the process of my life As I look back through years I see building blocks. I've always been real curious about people. I like to study psychology. And I've read. I've picked up books and I've read things about the workplace and stuff and finding out the other person's side of the story and walk a mile in their shoes type deal. And I love to understand the reactions of people. The mental reactions, they're socialized. I was real curious. I checked them out. I sort of fall into these things. Friends would give me papers. I had people who'd tell

me stories, just all different sorts of things. It's really helped me out now in this period of my life. It helps me everyday almost.

Grace is looking forward to the next stage of this journey, employment as a drafter. Over the course of the interviews, other students have made reference to her as an inspiration. During our interview in the Auto CAD lab, a male classmate came over and asked for her help getting his computer working. Grace took a look at it and discovered that the network was down and would need intervention from a college computer technician to get working again. She blends strength and faith with an earnest concern for the folks with whom she shares this earth.

Grace was motivated to return to school to prepare for an unpredictable future. She chose a nontraditional program because it offered the opportunity to earn high wages while doing work she truly enjoyed. She found at the college a place where she was challenged intellectually and supported personally.

Janet

Janet at 23 was among the youngest co-researchers. She did not have a specific career path in mind when she contacted the college about going there to study.

I wanted to come to Southeastern, and I called and I spoke with a counselor and I was asking about some of the things they offered and fiber optics was just something -- maybe it was the way he talked about it, his enthusiasm or something, but I talked to a few more people and it was just something I wanted to do.

She enrolled in the new fiber optics specialization within the industrial electronics degree program. Her family and fiancée became great supporters of her choice after a cautious initial approach, "I talked to a couple of people who had reservations because a lot of people had never heard of fiber optics because it is so new. 'How can you be sure you can get a job?' Mainly I think I was so excited." Janet had spoken with the college placement

officer just two days before our interview, and was very excited about the employment opportunities available to her.

Janet grew up on a farm with her mother and father. She talked about enjoying many traditionally female roles as well as the freedom to exit them. She was at once a tomboy and a girl who liked to dress up. About being the only woman in many of her classes she said, "I like standing out and being different from anybody else." She felt welcomed rather than unduly singled out when one of her instructors talked about the effect of women on the social interactions of the class.

Janet's wedding date was set for six weeks after our interview. She and her fiancée hoped to remain in the area after she completes her degree, but were willing to move if necessary for her to find a good job. The man to whom she is engaged has worked in construction and is now employed in the physical plant of a major university nearby. Janet talked about how supportive he has been of her educational decision, and about the way her active nature and nontraditional ways sometimes surprised him.

Janet had not been looking forward to attending college. She viewed it as something she had to do to gain access to better job opportunities. Her outlook changed after entering. Like the other co-researchers, she expressed excitement with her studies and now plans to continue on a new path of lifelong learning. She has felt pressure related to being one of very few women in her program, but perceives this pressure as a positive influence which motivates her to excel. Her program choice was based on her interests and desire for a secure, high-paying job, and arrived at with career counseling at the college.

June

June had seven or eight degree programs from which to choose when she enrolled. She immediately picked the computerized machine operator option. Also available to her were secretarial science, nursing, and child care. She had this to say about her choice, "I

just didn't think I'd like to sit behind a desk all day. I never thought I wanted to be a nurse, nurses are special people." June, who is 43, had been working for several years as a cosmetologist. Her husband is self-employed. Since neither of them had a job with benefits, her two younger children were receiving medical care through the Medicaid program. The people in the social services office alerted June and several other women in similar situations to a federal program that would offer them financial assistance to pursue post-secondary education. June has two grown children from a previous marriage who do not live in the home.

Our interview centered around June's reentry into school, her choice of and experience in the program, drive to return to work, and experience as a cosmetologist for nearly half an hour. Almost as an aside she said, "Of course, I ran the machines at ----- for ten and a half years." June had worked for a decade as a machine operator for a large manufacturer that moved its plant to another state several years ago. When that happened, she went back to school, earned her GED, and then her license as cosmetologist and cosmetologist-instructor. She was unable to find a job with earnings and benefits approaching what she made at the plant. Security in a job offering sufficient wages and benefits to support a family was foremost on June's mind when she made the choice to enter a nontraditional program, and during our interview. She said,

I like to do hair, you just can't make any money at it. I really think if I had a group of women to talk to, I would tell them that you need to go into something -- security, benefits is the main thing. Women need to realize that, rather than just doing what momma did.

June smiled when I asked her about the people who were her influences early in life. Like the other co-researchers, she spoke of a very strong, effective mother.

My mom and dad both worked. We lived in a neighborhood where there was only one other girl. So I done the same things the boys done. I put up hay

and played ball. Mom was raised on a farm -- we just all pitched in. Mom was more the outside person, Dad liked to do the inside things more. He cooked and all. Mom worked in a textile mill. Dad was a housekeeper at a nursing home.

June's first marriage lasted five years. She spoke of her first husband's controlling nature, "My first husband was, 'You're not gonna work'." Her two oldest children, 24 and 27 were born during that time. June said her older daughter was a lot like her as far as exiting gender-traditional roles, "She took wood working in high school. She never did cheer leading or any of that kind of stuff. She was the manager of the wrestling team. No cheer leading, but lettered as the wrestling manager."

June and her present husband have been married 20 years. They share household responsibilities equally. Before the children were old enough to attend school, June worked the day shift and her husband worked nights, so there was always a parent at home with them. Their children are seven and 13. Now, June's spouse handles child care and other responsibilities while she is at school, and she takes over when he goes on jobs with his self-owned home maintenance service. In the summers, they often work together, along with their son.

June is very much looking forward to getting back into the work world as soon as she graduates, which will be next month, "I want to work. I want to go to work in May." She also has plans to continue her education part time after finishing her present program, "I'd really like to be a programmer." She has researched educational options and knows that two nearby universities offer the classes that will prepare her to be a computer programmer for the machines she will operate.

June had some valuable insight into the differences between women who persist in a nontraditional program and those who do not. She started the program with ten other women and now there are five. When I asked her if she had any ideas about what was involved with the other women's leaving the program, she said, "They couldn't handle it.

We got a couple of women in there, they just stay together all the time and won't talk to anybody -- and I've been around longer in the workforce." June shared that another woman was experiencing some serious personal problems and the counselors and instructors had arranged for her to continue her studies part time.

June chose her nontraditional program because she was familiar with the duties from prior work experience, and knew that she would enjoy them. Her primary motivation was the need for job security and high wages. She has found the educational environment challenging, yet fair to women and men.

Melissa

At 42, with three daughters and her own mother at home, Melissa is busy. She returned to college after being laid off from full time employment. Her nontraditional path did not begin just with choosing a college major. This wiry woman does not go out of her way to be different, but a lifetime of self-reliance and individualism often result in creating that appearance. As Melissa strode across campus, leading me to the instrumentation lab which she selected as the site for our interview, she kept up a nonstop explanation of the program she was in. Her matter of fact, positive nature inspired confidence in those around her as evidenced by two interactions during the interview and the unsolicited testimony of one of the instructors I interviewed. During the interview another female classmate entered the lab and received a share of the encouragement Melissa seems to distribute to students and faculty alike. Later during the interview, an instructor stopped by with a folder of materials he asked my first partner in research to prepare for the next day's class.

Melissa was raised in a rural setting by her mother who worked in the textile mill. She attributes much of her tendency toward independence to her mother's influence. Melissa married and had three children while continuing to work full time outside the

home. Her most recent job, which she held for several years, was in a nontraditional field, working on the production of explosives, " When I worked at the ----, it was a rated job, a little more dangerous, a man's job." Defense cutbacks and corporate restructuring resulted in layoffs of hundreds of employees at this plant. Melissa and many of her colleagues were able to take advantage of federal assistance to return to school and train for a new occupation.

Melissa will graduate with degrees in the related fields of instrumentation and electrical technology. She has a part-time work study job assisting faculty and students in the instrumentation lab. The annual Career Day was being held on campus on the day I interviewed Melissa. She had spoken with the representatives of companies with openings in her specialty and was actively researching and pursuing employment options. Melissa is willing to relocate. "I'm willing to move anywhere in Virginia. I've talked about it with my mother and my girls, and they'll move, too." She looks forward to using her education on the job. Melissa talked about her perception of the barriers and of affirmative action practices that might affect her entry into the work world.

They wouldn't say you can't do something because you're a woman.

They'd say because you're short or small. Lots of times they hire women because they need to hire women. But I don't want to be hired because I'm a woman. I can get in there and say, "Yeah you hired me, but I can do my work."

Melissa is very excited about technology. She is also quite concerned with young women's access to that area of study. She fits trips to speak at public schools into her busy schedule in order to share her message of empowerment and opportunity: "I go and talk at the schools. . . .because we're losing a lot of good people out there that can do the job. . . .and girls are going to college and they pick the wrong career. They don't even know about [the fact that] technology's out there."

Through distance learning, students at this community college can take classes from a four year public university several hundred miles away. Melissa has already participated in one of these courses and plans to continue her college education part time after returning to full time employment. Melissa's choice of a nontraditional occupational program was driven by her desire to work with technology, facilitated by her previous experience working in a traditionally male field, and fueled by her love of her specialty. After being limited by gender-biased practices in secondary school, she has encountered an educational environment at the community college that nurtures her self-confidence and growing command of the subject.

Sandra

Sandra, 28, attends classes at night after working eight to ten hour days in her family's machine shop. On mornings after her late evening classes, it takes great will power to get to work by 7:00 a.m. Sandra, who lives alone, said that she had adjusted the volume on her alarm clock accordingly. Enrolling in the machine technology program was not among Sandra's career plans during high school. She thought for a while about teaching elementary school and earned a bachelor's degree in graphic design. Sandra knew that earning a living in graphic design would be difficult. At her family's urging, she began to give serious consideration to coming to work full time in their business. Sandra's father owns the company, her brother is the foreman. She takes care of the payroll and billing, and performs machinist duties up to the point in the process which requires grinding a machined piece. She enjoys her work, and looks forward to the day when she has progressed far enough in her work at school to be able to perform all the duties of a machinist. She shared,

Yeah, I do enjoy it. It's a good job, it's steady. The more difficult jobs make the day go faster. It's stretching it a little far, but it's kind of like art when you have a finished piece and it's polished, and it works.

Part of Sandra's decision to study machine technology was the desire to work an eight-hour day and be done with it, "I wanted to be able to leave the work there." Graphic designers have to spend long hours on projects and end up taking a lot of work home. She also mentioned that she makes more money in her present field. Her boyfriend, who has bachelor's degrees in history and political science "was all for it" when she told him about her new occupational choice. Sandra said she makes more money than he does.

Sandra has not perceived any real difference in a woman's experience versus a man's in her program. She spoke of the instructor's consideration and the large amount of work to be done that leaves little time for social interactions. She is comfortable in the shop and feels welcome. Sandra did mention one comment a male classmate had just made to her that she brushed off as a joke, but had begun wondering about. He had said, "I hear they take it easier on you girls." At the time of our interview, she was thinking about the best way to clarify whether or not he was joking, and to challenge that belief if he was not.

Themes

Examining deeply entrance into and life within a gender-nontraditional program calls for hearing the voices of the co-researchers. The voices, elicited by questions, supported by a feminist theoretical framework and the methods it indicates, convey messages of choice and struggle, confidence and doubt, inclusion and exclusion, nurturing and growth that are best communicated in the women's own words. Brought to light are stories of women who manage to both embrace and take leave of tradition. Their words are used extensively in the reporting of results to help the researcher approach viewing the

choice and environment from the women's perspective. This perspective is shaped by institutional policy and culture.

These are the 17 central themes which emerged from the data in response to the two main research questions. They are ordered around the two question areas of nontraditional program choice and environment. The first five themes are the following: (1) why women work, (2) a habit of individualism, (3) role models/early influences, (4) children: effects of/on, and (5) the significant other. These themes involve women's entry into paid employment outside the home and factors influencing their inclination toward a nontraditional occupation. The next seven themes: (6) instructors: an ethic of caring, (7) instructors: negative, (8) classes and peers, (9) language, (10) earlier educational environment, (11) the subtle nature of discrimination, and (12) not so subtle, deal with the environment the women described at the community college and their perceptions of their earlier educational environment. The two themes of (13) educational and (14) personal evolution then follow. These do not directly address either of the two research questions, but merit inclusion as themes because of their significant presence among the data. The value of qualitative research is in creating space for information that expands our view of the research subject. Finally, three themes, (15) being allowed in a program, (16) perseverance, and (17) internalized sexism, are problematized to allow us to read between the lines of the data from the perception of feminist analysis. They have been kept separate because data analysis methods were taken one step further with them as described in that section.

Choice

Why Women Work

Of the eight women who participated in this study, all but one either held primary responsibility for supporting themselves and their children, or were in a household which

required their income in addition to that of their spouse. June's entrance into college was facilitated by a social services agency she had to access when her traditionally-female job failed to provide enough income for basic necessities. The one woman, Grace, who did not face the necessity of supporting herself shared that she felt led by the message, "Go to school. You may have to take care of yourself." She further described her movement back to school:

I was completely content staying at home and doing what I was doing. I wasn't unhappy, I wasn't having any turmoil or anything. I was sitting there and it was, "Go to school, you may have to take care of yourself, you may not have this privilege the rest of your life of having someone to provide for you."

The need or desire for economic self sufficiency comes forth as the primary force sending the co-researchers to study at this college. Cindy said, "I don't want to have to depend on anybody." Every co-researcher chose her nontraditional program for what it could do for her as an economic resource. Once in the program, however, other positives such as an affinity for learning and the human connections made at school surfaced. Forces including work experiences and role models shaped the choice of a nontraditional program. Each woman related a habit of making such choices from an internal locus of control.

A Habit of Individualism

Although each of the women who participated in the study had spent a significant amount of time in traditional work both in and outside the home, and in personal roles, each had also exhibited behavioral tendencies outside traditional female roles. Grace described the joy of discovering work options outside the realm of service occupations.

I pretty much kind of went with the flow. I won't rock the boat. That was up until the age of 16 or 17 and then I rocked the boat. I was the perfect little child, and when I was 17 I put a hard hat on and drove nails and went to the construction job.

I was raised with two brothers and a mom and a dad and they would come out and watch me -- sit about a block down the road, my brothers and my dad, and watch me do construction. And from then on, it was, "I don't have to make their coffee, and I don't have to type their letters, because I can **do**." It's kind of like I'm not supposed to be doing this, but I'm capable of it, so why not?

While talking about her family's reaction to her entering the drafting program part time in addition to working as a secretary, Donna offered a glimpse into her habit of exiting stereotypical behavioral patterns.

They [family] were all quite happy. I've been the tomboy of sorts. I've always done the guy things: hunting, fishing, ball. And so I guess it kind of fit in. They didn't seem too shocked by it. And for a while, my daughter was even interested in it.

Dawn volunteered the following reflection on her independent nature, "I've always been. . .did the wild stuff I guess." Cindy's advice to other women was "You do what you want to do." While Janet shared:

I've always really enjoyed doing things that women typically don't do. So that's a little different. Just my whole life, I was never the little girl who planned her wedding or played with dolls. One of my favorite toys was a five gallon, old, beat-up gas can. I'd drag it around everywhere I went.

At the time of our interview, Janet *was* actually planning her wedding which would take place six weeks later.

In childhood games, leisure activities or job histories, the co-researchers all demonstrated a habit of behaving distinctly from the crowd. Each bore an air of competence, assurance, and belief in herself.

Role Models, Early Influences

Many of the participants echoed the early influence upon their development of women who exhibited strong self-reliance and fortitude; women who were active in supporting themselves and who reached out to those around them with their message of competence and self-directedness. Donna talked about a woman she spent time with during her childhood.

I never will forget a lady in our community growing up. She looked old to me all of my life. I respected the woman. She was as nice of a real grandmother type you'd ever want to meet, but I remember the stories when we would visit. She would write letters to her congressmen on a weekly or monthly basis. We had some good role models.

Upon reflection, she shared a story about another female role model who influenced her development and formation of values that include creating and pursuing one's own path.

We had another little lady that lived right there in the community that was a schoolteacher of mine, but before she got married, she had gone to India as a missionary. . . .things that normal women around here didn't do. . . .and there they were right in the community where I grew up. Mom was very supportive no matter what we ever wanted to do. She was one of these all-around type ladies, too. She raised five children. They had between 30 and 40 dairy cattle that she milked twice a day. And so Mother took care of a lot of the male roles, too.

When Melissa was asked about what forces she thought had enabled her to walk so confidently on a path of her own choosing, she responded:

Mother, she grew up way out in the country, worked in the textile mill after she had me. I think she saw some things there. I was raised an only child way out in the country. I like being a woman. I'm a real perfectionist, too. I do it 100%.

Mothers' influence was a consistent theme throughout the interviews. Every co-researcher talked about her mother as a strong woman. Dawn said that her mother had been her greatest inspiration. Janet talked about both her parents:

My father owned a sawmill, so I grew up working on a farm, working at the sawmill. Mom is kind of -- I get a lot of it from Mom -- she's kind of independent and going to do her own thing, but she's kind of, she can be very much a lady and most of the time prefers the more feminine side -- cooking, cleaning and all that. I seem to be a mixture because I was Daddy's little girl and I was always hanging around Daddy.

Cindy also cited her mother as the most influential person in her development, "I want to be strong like my mom. I want to make a difference for myself."

Children: Effects Of/On

The children of the co-researchers turned up often in conversation as facilitators and cheerleaders of their mothers' pursuit of an associate degree in a nontraditional major. "My children said, 'Go for it, Mom!' They have been the backbone of my going to school." "It didn't go over too well with the spouse, but the kids said 'Sure Mom, we'll help you. We'll do help with housework. We'll feed critters'".

The women who participated in the study also talked about the effect of their nontraditional occupational interests upon their children.

My seventeen year old says, "Mom's a nerd." I think I've set an example for my youngest. Katie has to do a project and she wants to do it on electricity. I think younger kids are more impressed with technology.

Grace discussed her three daughters' schooling experience.

They took more math than I took. I got to pre-algebra and quit because math didn't come easy to me. It was hard, but math comes easy to them, and so they like the

math. They're taking science. When I was in school, it was, "College, who needs college? I'm going to go out and get me a job and work for my money." Which I did. I didn't realize how literally I was going to take that. But they said, "We want to make a difference on how we live our life." Because I think I've explained to them that if you don't go to school and continue your education, that you will be a machine operator unless you're just incredibly gifted and find something like painting. You'll end up as a cashier or a sewing machine operator and that's up to you if you want that. There's nothing wrong with that, but it's hard. And you work all your life and you really have to scrimp and save for everything you have. It takes everything you make to pay for everything. And I try to teach that to my children. I think they've learned.

She went on to share a bit of her philosophy toward raising her daughters.

I read a thing one time that said, "Don't encourage your daughter to marry a doctor or lawyer or Indian chief, encourage her to be one." And I thought, gosh, "Why didn't anyone ever tell me that?" That's the way I raised my girls. That you can be anything you want to be. That thank God that you're growing up in a world today where you do have choices.

June takes her completed projects from machine shop home to show her husband and children. Her son said, "Sure, Go for it, Mom," when she told him she was considering enrolling in the computer machine operator program.

The co-researchers who had children made a point to instill in them a respect for learning. They stressed the relevance of education, the wide array of career choices, and their belief in the child's capacity to achieve their goals.

The Significant Other

Two of the eight made no mention of a significant other. The others were either married or involved in a committed relationship with a man. Most often, the women's significant other was either opposed to or reluctant to endorse their pursuit of a nontraditional degree. Some quotes carry messages of the men's unease with throwing off traditional roles. Some more strongly convey resistance to perceived loss of power within a relationship. Grace spoke at length on her husband's reaction to her return to school.

And my husband, he's been with me long enough to know, if I say I've been lead to do this, he doesn't argue. He'll look at me and say, "Personally, I think you are crazy. He's fine, but you're crazy. You're almost 40 years old, what do you want to go to school for? I want you home where I know where you are." He's very jealous, he's very protective, very dominant. "I want you home."

Grace's husband did not forbid her to go to college, but neither did he offer any assistance. She explained his position, her reaction, and the effect of the process on the relationship:

I had a lot of late hours at first. I was taking 18 hours and working full time. He would not help me with my bills. He said OK if you do this, you're going to do it on your own. This is not a joint decision. You've made up your mind. You pay everything. You pay your bills. You go to school, You do your stuff. And that was it.

I was hurt and I was angry. Now I have a tendency to be bitter when I look back. I know that I shouldn't have bitter feelings, but I do. It's almost so human to be bitter because I didn't get the help and I didn't get the support that I needed -- and wanted more than I really needed, because I'm tough. But it really would have been nice to have the support. When he decided to go into business for himself, I was always behind him. I said, "Yeah, I'll work production, and pay bills and stuff." And I worked four and a half years in production just so he could get

started, and never once said, "I don't like this job, I don't want to do this." But when the shoe was on the other foot, it was totally different. It was, "I don't want to have anything to do with this. I'm **not** having anything to do with this. This is your ball it's in your court, you take it." Maybe that was a part of the [message] "You may have to take care of yourself one of these days." I **had** to learn. I **had** to do something for myself.

Janet's fiancée works in a field related to her fiber optics program. He was skeptical of the specialty at first, but did some research on the area and then offered his endorsement of the program. She talked about his adjustment to being in a relationship with a woman who does not follow traditional gender roles:

It's a little weird for him having someone like me because most of his friends, their wives or their girlfriends, they couldn't go out with him and help him build a deck. And not that I would choose to, but I could. At times he likes it. At times he doesn't. It's odd. I think it's a growing process.

Donna's husband, her second, works in the field of architecture. She is studying drafting with an architectural specialization. He is very supportive of her educational goals. They have recently moved to a new home and are busy planning decks and other features together.

Environment

Instructors: An Ethic of Caring

Instructors at the community college were most often cited when co-researchers were asked who encouraged them in their program of study. Participants' children figured in as sources of encouragement right behind instructors. The administrative and professional faculty were also mentioned as people who helped negotiate the red tape of earning a college degree such as scheduling classes and working out logistical problems.

Donna spoke of the head of the department in which all five programs in this research study are located, "He would do anything under the sun for me to help me in one way or another. In fact I wouldn't be graduating in May if it weren't for him."

While reflecting on and sharing observations about her educational experience in the program, before being asked about who offered encouragement, Melissa stated, "Danny and Jim, they've always encouraged me." When Cindy told her instructor she was struggling with the course, he said to her, "Stick with it, you can do it, you've come this far." Grace said, "I think that's what really encouraged me a lot around here was the fact that the instructors loved me. They encouraged me. And without their help, I probably would have given up."

Grace went on after sharing the above quote to address the issue of gender and the environment she experienced.

They talk to me like big brothers, they talk to me like daddies. They were real caring. Because most of them were male. It's unusual to have a female instructor. They were all -- pat me on the back type, "Go get em, don't give up" and it's really strange because they never talked to me about any personal things. I don't have that type of relationship with them. We don't talk about problems at home or anything, but if I have problems at school, I feel free to talk about them.

It's because they love me. They're good to me. It's not one of those flutter, flutter type of things, they have really been understanding and nice just as a person. You know, a lot of times you can tell if someone takes a fancy to you other than a business. After a whole lifetime of being a woman, you can, you know, feel the air. They know where their limits are. They don't even push the limits.

A lot of times I've had to put guard up -- in the workplace and stuff because I was a woman and they were a man. But here I feel so safe. I've been alone in

this room so many times with my peers and instructors and never once felt threatened.

It makes me feel good to know that I can be a student and I don't have to put a guard up, put this shield around me. I can come in and I can feel and be safe. That makes me feel good. I don't have to worry about that emotional stress or strain.

Dawn shared her take on the faculty, "The professors are very supportive. My advisor's extremely supportive. I think his attitude is -- he wants to get to know everyone." Dawn said that her advisor's phone number was "plastered" on her refrigerator at home. The way that the instructors created access and modeled equality made a great impact on her.

They don't like you to call them by their last names. I didn't expect it. When you think about going to college and stuff, you've got this professor who's like a god and you're a peon. This makes me very comfortable. There's nothing that I dread about school. I enjoy it completely.

When we explored the issue of gender in the program, she shared the following:

I think they're happy that there's women. They don't treat us any different than the men. I think most people -- I know that there's men out there that don't want women in those fields, that don't think they can do the job, but I don't think those people are here.

That sentiment was repeated again and again by the co-researchers. They were aware of the existence of discrimination and its potential appearance in their work lives, but they consistently referred to the college as a safe place. They perceived an ethic of caring among their instructors in almost every instance. This was reinforced by data from instructor interviews. Instructors shared the following statement during their interviews, "I

love to teach." "I like having females in class." "What I most enjoy is people's success. What I most dread is to see failure."

Instructors: Negative

Only two of the co-researchers had any negative appraisals of instructors to report. One of the co-researchers shared,

I've had very little problems here. There's a couple of teachers, not American. . . They don't come right out and say they don't like women, it's just their attitude. I went to the Division Chair and told them about one of them. He was just teaching part time. He doesn't teach here anymore. The other one has been here longer and has learned to tolerate women. He just ignored me and the other women.

This co-researcher perceived bias from the adjunct faculty member and took steps to address it. The administration acted upon her information and did not give that person any more teaching assignments. Neither of these instructors was employed in the Industrial Services Division. They taught core curriculum classes. Another co-researcher shared a story about an instructor she encountered who communicated his belief that women should remain at home.

The [other] gentleman -- he told all the girls that came in. I had one friend and he was her instructor. She said, 'Well, we just got through the basics and he let me know the first day that he didn't think I should be there.' And she looked at him and said, "Well I'm going to be here, you have to put up with me. This is it. I have to take this class. He didn't offer her any. . . . If she asked him a question, he answered it and that was it.

Although this instructor's behavior did not result in the student leaving the class or changing curriculums, it created an adverse environment for her and other female students.

She was denied access to his knowledge and potential services as mentor, and left to master new skills alone. This instructor's behavior affected not only the student he addressed in class that day, but several others with whom she shared the story. Grace, who shared this report of the events with me, was not in that class and had never interacted with that instructor, yet she still felt unwelcome in the class. When she went there for her own class, she made a point to go to the two other instructors for the help she needed.

Classes and Peers

Janet talked about her expectations of the college environment and how they differed from her actual experience, "I expected resentment from my peers and problems from my professors, they have just been great. They really have. It's not at all like I expected." She felt anxious about entering a nontraditional program, but early on left that feeling behind.

My first day. My very first day, I walked into my computer programming class and I was the only one [woman] there. It was all guys. That was intimidating, I was a little intimidated. The guys have just been wonderful, the professors are just incredible.

Melissa works as a teaching assistant in the introductory classes. She shared, "I was scared to death when I first started. Now people come and ask me, a lot of guys come and ask me for help. It don't bother them a bit." Melissa also said during our interview, "At first I've had little snide comments, but I just tell em off and go on." June mentioned "snide comments" as well. She was referring to an incident when a male classmate had said to her, "I don't know why you women have to be in here while we're[men] in here. You take our machines." June told the fellow that she didn't see anyone's name on that machine, and carried on with her work.

Sandra's instructor once asked her about a project in lab, "Are you doing all right with that, Babe?" and immediately apologized, saying, "Oh, I guess I shouldn't have called you that." Sandra related that the term was one he used with the female members of his family, and she did not feel uncomfortable, but appreciated his self-monitoring. Cindy said that the only gender-sensitive remark anyone had made in her class was when the instructor said, "OK, guys, . . .and Gal." She thinks the men are glad that women are interested in a nontraditional field of work.

On the few occasions co-researchers had encountered negativism, they seemed to easily brush it off without internalizing any negative messages.

Language

Several of the co-researchers spoke about the hindrance of entering the program without a command of the technical language in their program area. They observed that the men or younger students had a head start by being able to talk about computers or technical issues with familiarity. The women who mentioned feeling slightly behind with regard to prior hands-on experience or terminology stated that any perceived deficits were quickly overcome. Donna, who did have a basic knowledge of terms from working in the county office had the following to say on this subject:

With a limited background, no hands-on experience like a lot of the men have had, I've had a disadvantage because I didn't have the previous skills or knowledge. But I got through it.

I think the guys sort of respected that, because I had been around it long enough that I knew how the inspectors may have reacted to one thing or another. And I had a relationship there. And they seemed to accept me better.

Cindy remarked upon the issue of language and prior experience when she said, "Sometimes I feel like I'm behind. I don't want to say that guys pick it up faster -- maybe

they've just dealt with it more. It doesn't bother me." Sandra felt that her experience working in her family's machine shop benefited her when she started her machine technology program, even though she had primarily worked as a bookkeeper or cleaned the shop. The co-researchers who mentioned feeling behind with regard to language or technical skills at entry all reported overcoming any perceived deficit within the first semester of study.

Earlier Educational Environment

Dawn was the only co-researcher who had studied her occupational subject in high school. She expressed no perception of bias in her educational experience. The other co-researchers talked about both subtle and overt pressure to conform to gender role stereotypes in secondary school. Janet said that while she could not remember any official policies, it was understood that girls would sign up for home economics and boys would take machine shop in middle school. She could not recall any instances where a student did otherwise. Cindy pressured her counselor and teachers to let her take vocational classes, but they talked her into staying in all college-prep classes.

Melissa has three daughters ages 12 through 17. She makes a point to work as an activist in the school system to combat the bias she perceives.

I think sometimes public schools are the worst. My junior high school daughter is acing math. There are hardly any girls in her math class. I think it gets pounded into girls' heads in grade school that girls don't do well in math. I was kind of pushed in high school to do office work and I hated it.

All of the co-researchers expressed having some interest in stereotypically male electives in middle or high school. Most said that they just did not even consider trying to sign up for them because of the understood path which tracked students by gender.

The Subtle Nature of Discrimination

"I had an opportunity to work with another woman, a foreman on the line. There was nothing you could put your finger on. She was quicker to reprimand women than men." In this quote Melissa expresses how nebulous discrimination and barriers can be. She perceived a barrier and picked up on negative energy directed at her because of her gender, yet could not articulate any quantifiable behaviors which influenced that perception. Donna talked about her supervisors' resistance to her educational pursuit.

I begged for four years. . .let me go to Southeastern to take a class or two.

"No, you don't need to do that." For four years I heard that. *(from employers)*

I think there were two or three things in play there. Number one, they didn't want me out of the office. And two, there might have been a little threat there: "This is not the traditional role. She's a secretary, just let her be a secretary."

Deep down I feel it was some of the male approach to "Hey, women don't need to advance in this field."

They just said, "Oh, you don't need to do that. You're doing fine. You don't need to do that."

The men who limited Donna's access to education never actually forbade her to attend school, yet they trivialized her ambition and created barriers.

Not So Subtle

When one of the co-researchers encountered discrimination from an instructor, she went to the administration to complain. She told of having taken a required class which had close to a fifty-fifty ratio of women-to-men in a department outside the Industrial Services Division. She reported that the instructor gave most of his attention to the men in the class, ignoring the women. She discussed her observations with several female

classmates who concurred. This student then voiced her concerns to an administrator at the school.

Another co-researcher spoke at length about another kind of problem with an instructor and how she handled it.

The only difference as far as gender that was really noticeable, was point-blank. I had to go to ---- shop and everybody else that I ever came into contact with so far has treated me like I was a person, just like them. But for some reason or another, the ---- was different. It was very male-dominated, construction-site deal that. . . I got all kinds of different vibes there. I had 3 instructors. One of them was my instructor, but everybody asked help from all the instructors. My instructor treated me just like everybody else up here does. The other two, one is [another] gentleman and he told me right from the word go, that a woman's place was in the home and she had no business being out into the workplace. . . .to my face. And I said OK -- won't ask him any more questions!

The other guy, the first thing he did was put his hand on my collar. And he said, "Nice shirt." And I looked at my friend and said, "Are you ready to go?" and we walked out the door and I said, "If that man puts his hands on me again, He may pull back a stub!" I was angry. The next time I spoke to him, it was the same thing, he wanted to touch me. It was like a dominance deal there. As long as he had his hand on me, I was dominated. I finally, one day I was doing something and he reached out and got ahold of my shirt and I reached out and got ahold of his hand. I pulled his hand off my shirt and tapped it, like a warning to a child. And I said, "If you want to keep this hand, you might want to not touch me anymore. If you really need to touch something, touch yourself." From then on, -- I realized after the second time that I was going to have to do something, that this was not going to work -- so when the third time rolled around, I didn't want to embarrass

him. . . until I had studied up on it beforehand, I never really knew to put it into words. But I knew that I was being dominated.

He's so nice to me now when I see him -- he says, "Hello, Girl, How are you?" He acknowledges that I'm female, but he doesn't touch me. He'll show me his palms. To me that's an honest sign. I think he respects that.

Evolution: Educational

Every co-researcher professed a love of learning that was either initiated or spurred on by their studies at the college. They all planned to continue taking classes at least part time after completing their degree program. Donna talked about the process of getting to that point.

As a high school student, I couldn't decide what I wanted to do, so I just took the standard business classes, and by one reason or another didn't end up going to college right away and ended up as a secretary. And, you know, while it was okay, I was learning that there was not a lot I could do with it. I was stuck. I wanted to get a degree, just didn't know what. And it took a little life experience to get focused on where to go. I don't want to sit in this chair for the next thirty years.

Grace recounted the anxiety she felt on the first day of class, and her present outlook.

When I came to school I thought, "Pencil and paper, yes, fine. I can handle that." And this was my first class I sat in here on this row somewhere. We had our first class and he said, "How many of you have had computer experience?" And everybody raised their hand but me. Of course I was the oldest in the class [she was 37]. I got through the first class and I walked out those two doors and I'll never forget, it shuts very hard. It shut behind me very hard.

I looked up and down the hall. That was the door to get out. I remember thinking to myself, "What have I gotten myself into? And I just kind of looked up and said, "Whatever it is, I've been directed to come here, and I'm going to do this thing. It's not going to beat me. I'm gonna finish. I'm gonna do it." It was terrible that day.

I have a goal that before all this is over with, all three of my children have the opportunity to go to college now.

Melissa offered her picture of the growth process she went through, "I think that male or female you come into a program like this -- either one comes in having doubts and fears. By second semester those fears and doubts were gone. I had overcome that my first year."

Sandra's entry into the associate degree program came after she completed a four year degree in graphic design. Her present program will do more for her in terms of earning potential. Cindy wants a skill that will enable her to feel secure in her ability to be economically self-sufficient. She plans to continue her formal education some years from now. June earned her GED when she was 37 years old. Since then, she has completed a cosmetologist licensure program and enrolled in her present machine technology major. She talked about her first few days in the program, "At first I didn't realize how hard it was gonna be. In the beginning it was just overwhelming. I thought 'I can't believe I done this.'" Now she is planning on taking courses at a local university when she finishes at the community college.

Several of the co-researchers had made the decision after entering their program to obtain more than one degree. Melissa was already working on a second, having fulfilled the requirements for the instrumentation program. Janet shared,

I'd like to get two associate degrees. One industrial electronics, one fiber optics.

I think after I've graduated from Southeastern, I don't want to go directly to another school, but I do want to do that eventually. I'd like to become an engineer.

I was surprised. I didn't come in with that attitude. It was just going to be a two year, necessary evil. And now I think I've been hooked.

Grace told a prospective employer the week before our interview that she planned to continue her education indefinitely. She said he reacted very favorably.

Evolution: Personal

The co-researchers all expressed an excited feeling about what they were doing, and optimism for the future. They talked of leaving behind the anxiety they felt upon entering their first classes, and of newfound power and choices. Melissa talked about the origin of her confidence and her leadership role among the students, "I think that age has a lot to do with it. Confidence has come with age and learning to trust my own feelings rather than look to somebody else."

Grace shared her triumph over financial and educational challenges.

That's one of the things that really makes me feel very good. I can wake up and smile and think to myself, "I did it. I'm tough. I'm proud." And even though there wasn't a whole lot that was done for me, I made it. And I've got my sanity. I've got a few extra gray hairs to go along with it! But I've got my sanity and I've got my pride.

And I'm finding out that each day that I have more [choices] than I even realized. This is just a drop in the bucket for me. I'm excited!

Janet's musings on traditional male or female roles reflected an ongoing examination of her beliefs.

It's like guys grow up working on cars, and if a VCR tears up they've got to tear into it, just to see if they can fix it and I find myself doing that now. So if

something tears up, I want to fix my tape recorder. Guys have more of a natural curiosity of mechanical things and I think that gives them a little bit of an edge. Women tend not to come here with that kind of experience. It's more of a men area.

I go back and forth. I've thought about that before. I think maybe to a certain degree you're born with it because it seems like guys from a very young age naturally want to get into mechanical things, but on the other hand, I think they get into it because they want to help their dad fix the car.

So I don't know. I've thought about that before and my opinion's changed from time to time.

June is looking forward to a time when she can count on being able to provide for her children. Cindy is planning international travel for her religious organization. She also has a carefully thought out plan to start her own contracting business after graduation.

Problematized Themes

Three themes are presented in this section. They relate to the second research question concerning women's educational environment and raise new issues. They are treated here because they particularly highlight the way individuals' perceptions of events can be distorted by embedded sexist beliefs. These themes of being allowed or preferred in a program, persevering in the face of obstacles, and surprise at experiencing discrimination from a person of one's own gender were brought forth during the interviews. Performing feminist, qualitative research calls for not only hearing and reporting data, but for critical examination. Lather (1992) wrote that, "feminist researchers see gender as a basic organizing principle that profoundly shapes/mediates the concrete conditions of our lives." Given that one's consciousness is shaped by societal forces that include gender, systems of inequity embedded within society may remain invisible even when their effect upon one's

life experience is strong. In this section some themes which at first blush appear very clear cut are problematized to winnow out underlying messages about gender and address the research questions.

Being allowed in a program, or being preferred.

The following quotes about the classroom environment sound encouraging to women in nontraditional programs. Donna: "They've all been very fair with me. I never really felt out of place or made to feel any less because I was female. I might go as far as to say [there was] even more excitement because a female was taking an interest." Melissa: "One teacher said he liked girls in his classes because guys do better -- their grades go up." "98% of the time it wasn't [different educational experience because of gender] Only on occasion has it made my being a woman difficult or different."

The previous quotes came in response to the question, "Is your experience in the -- -- program affected by the fact that you are a woman? (see Appendix D)," so the respondents were led to focus on difference. Nevertheless, the air of gratefulness or surprise at being accepted regardless of gender indicates a society in which exclusion is the norm and equity is a special condition.

Hearing that a teacher likes "girls in his classes because guys do better," was expressed with pride by one co-researcher. The instructor who had made that statement in class was interviewed and without prompting said, "I like having females in class, because that makes the males in the class try harder also." This instructor also shared his assessment that "Females have an undue burden to succeed." These statements come from and reflect an individual who is sensitive to gender differences in the educational environment. He was mentioned by name by more than one co-researcher as particularly helpful in her educational process. Yet his comment is infused with the message of the

dominant culture that women are often valued in the context of their relationship to men, rather than for their own interests, abilities and life courses.

Janet told of one instructor's efforts to address the issue of having women in traditionally male classes. She expressed comfort with his approach.

My computer -- well he's also my electronics professor, but the one that I had my programming class with, he made a point of saying that he preferred to have at least one female in the class because he said that it keeps language down. Guys watch their language when there's a female there. There's not as much cutting up. He said that women tended to start off slower, not be quite as good in the beginning, but in the end they turned out pretty well.

Like the spotlight was on me. It made me a little nervous because I was singled out being a female but it made me feel good, it was the added boost of confidence I needed right then because I was feeling intimidated and it just let me be more at ease with him.

It made me want to excel. It kind of gave me that added boost because he had set the rule almost -- I felt obligated to keep that standard, I guess.

It's almost like you feel like you're making people feel uncomfortable and once it's out in the open, once someone has talked about it, it's solved. It's not something that's hush, hush.

Janet welcomed the special attention and message of welcome that came with her instructor's method of class administration.

Perseverance in the face of obstacles.

The following was shared by Donna with an air of celebration:

I firmly believe that if I had took the answer of no that I got the first time I asked those two supervisors, I would still be sitting there with no college degree,

and I graduate in May. I probably wouldn't have any type of college degree right now if I had listened to them and accepted, "No." But I knew after they told me no three or four times, the next step was that county administrator, and at some time in my life, I would get a chance to let him know how I felt, that I still wanted to go. And I feel like if you've got the desire and you've got the ambition, somehow, some way, you'll work it out.

Possession of the fortitude to overcome obstacles is a personality characteristic which increases self efficacy. Having obstacles to overcome just because of one's gender is an institutional problem. The preceding quote might raise questions about the people who would have taken "no" for an answer the first or second time. The perception of barriers to women in nontraditional programs is reinforced by the following quote from an instructor interview, "I try to latch on to a gal. If she's come through school, she's got some determination." While celebrating the perseverance evidenced by this co-researcher reinforces that behavior and encourages success, equally important is working to eliminate the barriers that keep people without her special brand of fortitude from pursuing their educational goals. In the climate described in that quote access to education is denied to those without extreme determination.

Internalized Sexism

Messages about gender infuse daily life. Women are vulnerable to their influence as are men. Melissa touched upon an important issue when she talked of encountering discrimination from women. These are a few of her statements regarding this theme:

The supervisor was a woman. The discrimination came from a woman. It surprised me. Only two out of 50-60 supervisors are women. She was an older woman. She was like that with all women.

I had an opportunity to work with another woman, a foreman on the line. There was nothing you could put your finger on. She was quicker to reprimand women than men.

I found out sometimes other women discriminate more than men can. They can be cruel.

These stories highlight the way women can internalize sexist messages and behave in ways that perpetuate inequality.

Grace shared her reasons for hesitating to choose a nontraditional pathway as a young woman. This quote shows the false perception that exiting traditional roles is an all-or-nothing event.

When I was growing up, if you were raised hard-headed or were hard-headed, you could buck the system and do what you wanted to do. And I've never been a real stubborn person to say, "I don't care what anybody else wants, this is what I want.

Janet was careful to clarify the limits of her nontraditional choices, "It's not something that I want to be "man-like" because I don't want that at all. It's almost like having something to prove."

Three themes which relate to the research questions and raise new issues have been presented in this section. They have sensitized the researcher to the manner in which individuals' perceptions of events can be distorted by embedded sexist beliefs and the way messages about gender can become embedded in everyday interactions.

Summary

Pursuant to the research goal of giving voice to women in nontraditional occupational programs, this chapter has presented descriptive data about the site and portraits of the co-researchers. In this chapter, themes that emerged during data analysis

have been shared and illustrated with direct quotes and enriched with data from instructor interviews and relevant documents. Multiple data sources of co-researcher and instructor interviews, information gathered with the observation schedule and site visits, and examination of relevant documents contribute to the trustworthiness of the findings. Three problematized themes were treated in this chapter. They were acceptance of or preference for women in a program, perseverance in the face of obstacles, and internalized sexism. Other themes that were presented were why women work, a habit of individualism, role models and early influences, the effects of and on children of a mother's pursuit of nontraditional education, the significant other, instructors, classes and peers, earlier educational environment, discrimination, and educational and personal evolution.

CHAPTER 5

DISCUSSION

Summary of the Study

Women's participation remains high in traditionally female occupations which historically pay less than male fields. This standing is the biggest single reason that women earn less than men and thus hold diminished economic power. This study has been conducted to illuminate the choice process and educational environment of women who chose to exit the traditional pathway. It was framed with liberal feminist theory which aims to improve knowledge and remove sexist distortions (Griffiths, 1995). Feminism is committed to the dual goals of understanding and changing women's position. Liberal feminism offers education as a tool for claiming power, and advocates working within existing systems to effect change. Many studies have been conducted to assess characteristics of women in nontraditional professions, but little is known about women's choice or perseverance in the trades area. The focus of research on women in nontraditional professions has primarily involved quantitative investigations of the women's personal characteristics (Mazen & Lemkau, 1990; Parr & Neimeyer, 1994; Read, 1994). There is a scarcity of research on this subject in women's voice, from their perspective (Eccles, 1994). This research was designed to offer a more in-depth view of the choice process and educational environment of women in nontraditional occupational programs. The two guiding research questions were:

1. What decision-making factors and processes did females follow when deciding to enroll in gender-nontraditional post-secondary vocational programs at community college?
2. What psychosocial conditions did these women experience within their educational programs?

Feminist research methodologies employ methods such as interviews which are designed to remove sexist distortions (Griffiths, 1995). They are more effective than quantitative methodologies in discovering information from perspectives other than those of the dominant group (Lincoln, 1985).

The research was conducted in pursuit of the feminist ethics Ollenburger and Moore (1992, p. 66) outlined as, "[analyzing] social oppression in order to empower women and minorities." It applied feminist principles to the enterprise of inquiry by implementing a qualitative methodology which served to bring women's voices to the fore and to remove the limits placed upon them by less in-depth methods of hearing data. The work was focused from and on the reality of the female students within that organization.

Eight co-researchers were selected from a pool of 27 women enrolled in traditionally male associate degree programs at a community college in the southeastern United States. Questionnaires were distributed to all women in the five programs within the Industrial Services Division. The women were asked to return completed questionnaires to their instructors or to the division office where they were picked up by the researcher. From the group of twelve who responded, eight women were chosen to participate in long interviews by virtue of their degree program, and then in order of seniority.

Interviews were conducted at the college or at the home of the co-researcher using an interview guide (Appendix D) which was designed to focus discussion on the issues of nontraditional program choice and environment. Interviews with co-researchers were audio-taped and transcribed. The written data which resulted were analyzed for themes in a three stage process which involved categorizing discreet pieces of data, identifying links, and reviewing for emergent themes.

The researcher performed site visits employing an observation schedule, and examined relevant documents to contribute to the triangulation of data from co-researcher

interviews. She discovered a positive educational climate at the community college supported by an open-door policy among administrators and counselors, extensive policies and procedures addressing issues of sexual misconduct, an Equal Opportunity office, and a Code of Conduct statement posted in each classroom and laboratory.

Interviews were also conducted with instructors to reveal their estimations of the women's educational environment. They were audio-taped and transcribed. An interview guide (see Appendix E), similar to the one used with co-researchers, was used to elicit their perspectives of female student's experience in their programs. This information was gathered for use in triangulating data.

The college where the research was performed and the co-researchers have been assigned fictitious names to protect the confidentiality of respondents. Descriptive data about the site uncovered through site visits and examination of relevant documents were presented in the findings section of the study. This was followed by a report of the results from instructor interviews. Case descriptions were written to describe each co-researcher and highlight her reasons for choosing a nontraditional program and her impressions of the environment. Descriptions of themes emerging from the data were then presented. Three of the seventeen emergent themes were submitted as problematized. They were analyzed to highlight underlying messages about gender which might distort an individual's perceptions of events. These seventeen total themes answered the two research questions and raised additional, related topics.

Discussion of Site and Participants

The site for the research study was a community college in the southeastern United States. It publishes a college catalog and student handbook to outline its mission and policies. The student handbook described in detail the college's policies and procedures with regard to issues of sexual assault, misconduct, and harassment. Woven into policy

descriptions were statements of the college's interest in creating a safe environment where trust and learning can prosper. Posted in each classroom and laboratory was the school's Code of Conduct which directed students to obey rules, respect others, and behave with integrity. A well-publicized Equal Opportunity office, open-door policy among administrators and counselors, and dedicated instructors enacted the positive environment described in the written documents.

The four instructors who participated in the study were all white males who had been teaching their specialty area in a community college setting for at least ten years. They were interviewed to enrich the data on women's educational environment at the college. All four expressed excitement that women were becoming interested in their occupational programs and talked of working to make them feel welcome. All four instructors also perceived of some negative peer behavior directed at women by male classmates and made an effort to prevent and correct it.

Interviews were conducted with eight co-researchers who ranged in age from 18 to 43 and were all white women. One co-researcher lived alone, one had a roommate, one lived with her mother and daughters, two with their families of origin, and three with their husbands and children. Their demographic data from the questionnaire were summarized and presented in Table 2. All eight of the co-researchers were working as well as going to school. Three were employed full-time and attending school part-time. Five were full-time students with part-time jobs. The co-researchers all lived in small town or rural settings.

Discussion of Findings

Research Question One: What decision-making factors and processes do females follow when deciding to enroll in gender-nontraditional post-secondary vocational programs at community college?

Finding One: Women must seek paid employment outside the home to support themselves and their families.

Study findings revealed a picture of eight strong women who chose to pursue postsecondary education in a nontraditional occupational program to facilitate high earnings and job duties that were consistent with their interests. Seven of the eight women in the study were faced with the necessity of supporting themselves and their children. The eighth was motivated to prepare for the day when she might have to provide for herself and her daughters.

Finding Two: Women are aware that nontraditional occupations offer higher earning potential than traditionally female occupations and the opportunity for increased job satisfaction.

The women were aware of the increased earning potential that came with departure from gender-traditional areas of work. They also reported personal interests that were not congruent with most traditionally female trades. Melamed (1995) warned of the dissatisfaction arising from jobs not congruent with one's interests. One of the women who participated in the study had been working full time in a traditionally female trade and also required public assistance to support her family. Rectifying that sort of situation was the goal of the Nontraditional Employment for Women Act (U.S. Congress, 1991). One co-researcher reported accessing career counseling services at the college to discover an occupational program that suited her interests and earnings requirement. Another reported choosing her nontraditional associate degree program after having completed a bachelor's degree, for the increased income opportunities it would offer.

Finding Three: Resisting pressure to follow gender-traditional career paths requires exceptional strength and self-reliance.

A factor which enabled the co-researchers to resist societal pressure to follow stereotypical career paths was a lifelong habit of individualism that each expressed. Every

co-researcher spoke of making her own decisions with an air of self-confidence. High self-efficacy was correlated with women's nontraditional career choice in the Scheye and Gilroy (1994) study. Many of the women had held nontraditional jobs in the workforce before entering college. Most spoke of participating in traditionally male leisure activities as children and in adulthood. When co-researchers recounted facing discrimination, they told of dealing with the behavior alone, without accessing the support of peers or the institution's services.

Finding Four: Early role models, especially women, influence choice of a nontraditional occupation.

The co-researchers cited role models from their youth as influential in their development and tendency toward self-reliance. All eight of the co-researchers described their mothers as strong women who set examples for them. One of the participants told of women in her childhood neighborhood who exhibited nontraditional behaviors. One of the co-researchers talked about being a "Daddy's girl" and working with him on the farm. This finding reinforces the literature which demonstrates the importance of both male and female role models in women's choice of nontraditional careers (Betz, 1994a, 1994b; Scheye & Gilroy, 1994). While most existing literature on gender, career choice, and role models recognized the importance of males, these findings show females emerging as a more dominant influence upon women's development. The women in this study were more likely to look to women for role models.

Finding Five: Women's children facilitate and benefit from their choice of a nontraditional career.

As families of origin influenced the women's choice, so did their own children. Five of the eight co-researchers were mothers. They all spoke of their children's encouragement and support of their schooling. The children of co-researchers contributed to and felt the results of their mothers' nontraditional educational programs. The co-

researchers with children all talked of working to instill in their children a respect for learning, and confidence in their ability to succeed in any subject.

Finding Six: Women's partners can both negatively and positively influence nontraditional occupational choice.

The women's life partners were mentioned as both a positive and negative influence on their educational choice and environment. One co-researcher told of her husband's resistance to her choice and his refusal to contribute any financial resources. Another spoke of her first husband's controlling nature and her second husband's support. The other co-researcher, who was in her second marriage, was married to a man who worked in her field of study. One of the women was engaged to a man who worked in an occupational area related to hers. The women's significant others limited or supported their choice of nontraditional education, and had a significant effect on their home environment during the program of study.

Research Question Two: What psychosocial conditions do these women experience within their educational programs?

Finding One: Educational leaders can create a warm climate that enhances enrollment and retention of women in nontraditional occupational programs.

The topic stressed most by all eight co-researchers when asked about the educational environment was the instructors. The women talked of feeling welcome, loved, and encouraged. More than one co-researcher said she might have left the program if not for the support of the instructors. Feeling welcome and supported by faculty significantly affects women's attrition rates from nontraditional programs (Hewitt & Seymour, 1991). Co-researchers were struck by the respect instructors manifested for students and the way they portrayed themselves as facilitators of learning, not rulers of the classroom. They told of instructors who tried to go out of their way to ease any tension

created by their minority status. Instructor interviews reinforced the women's appraisal of the efforts directed toward creating an equitable environment. The college's policies and documents also reflected a nurturing community.

Finding Two: Women in nontraditional occupational programs experienced limited instances of discriminatory behavior from male peers.

The women had mostly positive comments about peer behavior. They said that for the most part, there was little expectation or acknowledgment of difference. The women did cite a few instances of negative interactions with male classmates. Lakes (1991) identified sexual harassment as a major problem for female students enrolled in nontraditional shop courses. All four instructors perceived incidents of negative pressure from male peers. They all spoke of implementing strategies in class to ensure that women felt a sense of belonging and competence. One instructor mentioned spending class time on communication strategies and on making sure that everyone had a sufficient background of basic technical language and skills to begin learning new material.

Finding Three: Bias in early educational experiences limits women's choice of and preparation for nontraditional postsecondary programs.

The co-researchers frequently mentioned they perceived a slight, temporary advantage among the men in class. They observed that their male classmates seemed to have more informal experience with the terminology and subject matter involved in their core classes. This difference was created in part by the women's earlier educational experiences. Gender bias in primary and secondary schools has been well documented in the literature (American Association of University Women, 1992; Sadker & Sadker, 1982, 1990). Seven of the eight women spoke of their postsecondary educational experience as one that pushed them into gender-traditional career paths. Only one co-researcher had studied a nontraditional subject in high school, and she was pursuing the same specialty in college.

Finding Four: Subtle, overt, and covert discrimination affect women's educational environment in nontraditional programs.

Being channeled into a traditional occupational pathway was one of the subtle discriminatory practices felt and shared by the co-researchers. Two co-researchers had come into contact with instructors at the community college who seemed to ignore women. Another mentioned an incident of inappropriate touching by a male instructor. One of the co-researchers faced resistance from her supervisors on the job who would not facilitate her return to school. Every time a co-researcher talked of experiencing discrimination, she also spoke of dealing with it on her own without experiencing a great deal of stress associated with the event. The women seemed to regard these obstacles as expected and easily overcome. A summary of the facilitators and barriers co-researchers referenced as influential in their access to and success in their nontraditional occupational programs is presented in Table 4.

Three themes that emerged in the research findings revealed embedded sexist beliefs when examined critically. These were presented as problematized themes. At face value, the co-researcher's joy at being welcomed into a nontraditional program might seem a natural reaction to a positive environment. When equitable treatment feels like special treatment, it indicates the prior existence or expectation of inequity. Likewise, when one co-researcher celebrated her success in overcoming four years worth of resistance to enter the drafting program, it revealed how obstacles can exist simply because of gender. The theme of internalized sexism was highlighted by one co-researcher's surprise at observing women discriminate against other women. Internal barriers negatively affect career self-efficacy as do external forms of resistance (Walsh & Osipow, 1994).

Finding Five: Success in a nontraditional program enhances self-efficacy.

As the co-researchers talked of their choice and pursuit of a nontraditional occupational program, they shared how their choice involved economic forces, and

Table 4

Co-Researchers' Facilitators and Barriers to Nontraditional Career Path

Name	Facilitators	Barriers
Cindy	college instructor religious faith goal setting skills	early educational experience lack of technical experience, language
Dawn	mother early educational environment instructors	financing her education fitting in work & school
Donna	supervisor spouse, family college administrator/instructors	immediate supervisors full time job time constraints/courses
Grace	early work experience children instructors	early educational environment spouse fitting in work/family/school
Janet	college counselor/instructors significant other mother, father, childhood activities	early educational environment significant other lack of technical experience, language
June	social services professionals husband early work experience	financial
Melissa	mother age/confidence college instructors	discrimination on the job early educational environment college instructors
Sandra	early work experience instructors family support	fitting in work & school

personal interests which grew out of a lifetime of charting their own course. They told how their interest in learning was reinforced and expanded through their positive experience at the community college. They talked of wanting to pursue further education beyond their present degree program. They shared how they left behind the feelings of anxiety that accompanied their entry into the programs for a burgeoning sense of excitement about their options and plans for the future.

This exploration of women's choice of and experience in a nontraditional occupational program at community college has resulted in the discovery of 17 themes presented in chapter four. Study findings are discussed in this section in regard to how they answer the two research questions. Some themes which evolved from the study address both. They are separated into sections based on which question they address most conspicuously.

Question #1 Choice of Nontraditional Occupational Program

The fact that all but one of the co-researchers were preparing for work outside the home out of economic necessity parallels the societal figure that two-thirds of American women are employed in paid positions for the same reason (Read, 1994). The co-researchers recognized the need to support themselves and their families through their paid labor. The women studying construction that Cantrell (1996) profiled similarly spoke of choosing a nontraditional occupational program because it offered them the opportunity to support their families. Those women had previously been employed full time in traditionally female occupations and had been forced to rely on public assistance to supplement their pay and meet their basic economic needs (Cantrell, 1996).

The one co-researcher, Grace, who was not required by economic need to seek paid employment lives with her husband and children on a farm. When American society was comprised of more agrarian households such as theirs, fewer adults sought work outside the farm unit (Skolnick, 1991). Grace returned to school because she felt spiritually led to

do so, yet the message intrinsic to that force cautioned her to prepare to be able to support herself. While Grace chose to return to school to prepare for the possibility of supporting herself, the seven other co-researchers were dealing with the certainty that they would need to support themselves and their children, if they had any. The women all spoke of choosing their program area based on its alignment with their personal interests. One spoke very plainly about the better pay available in traditionally male fields and her past difficulties making ends meet in a traditionally female job.

Each of the co-researchers evidenced a lifelong history of individualism which enabled them to resist the pressure to follow a gender-traditional career path. Though they embraced many traditionally female roles, the participants all spoke of following a path of their own choosing. These data are quite consistent with the literature which reveals high self-esteem and an internal locus of control among women in nontraditional occupations (Mazen & Lemkau, 1990; Betz & Fitzgerald, 1987; Chusmir, 1983; Lemkau, 1979). Entry into a nontraditional occupational program resulted in excitement, growing confidence, and an explosion of choices. The co-researchers had enacted for themselves a process bearing the same results Fitzgerald and Rounds (1994) offered as the goals of vocational research and interventions for women. The co-researchers' self-efficacy seemed to rise as they encountered success in the educational process. Given that self-efficacy issues from one's performance accomplishments, vicarious learning, verbal persuasion, and emotional arousal, the experiences related by the co-researchers fall into line with an expectation of increase on this construct (Scheye & Gilroy, 1994).

The co-researchers inevitably mentioned their mothers as very influential in their development as independent persons who could shake off gender-role stereotypes. These data reinforce the emerging theme in the literature that female role models exert a strong effect upon a woman's propensity to pursue a nontraditional occupation (Betz, 1994a, 1994b; Eccles, 1994; Freedman, Podsakoff, & MacKenzie, 1993). The mothers of co-

researchers were all employed in traditionally female occupations or did not work outside the home. Their effect must have been not as models of nontraditional employment, but as models of choice and independence from external control. Findings from this study build on information from the literature which demonstrates that female role models do affect women's choice of nontraditional career by illustrating how that happened in the lives of our co-researchers.

The women in this study faced the need to support themselves and their families, and they recognized the economic benefits of entering nontraditional occupations. Such occupations also offered a better fit with their interests. The women were prepared to exit traditional career paths by following strong female role models and histories of individualism and self-reliance. The next section begins with discussion of co-researchers' secondary educational experiences. That subject would also be appropriate for inclusion in this section as educational environment affects career choice. It has been placed as a bridge between the two related topics.

Question #2 Educational Environment

Seven of the eight co-researchers took only academic or traditionally female courses in secondary school. Six of these seven women made their choice of a nontraditional program after spending several years in the work force and gaining heightened awareness of opportunities. Consistent with the literature, the women's secondary school educational environment limited their occupational choice (American Association of University Women, 1992). The one co-researcher who studied a nontraditional subject in secondary school entered a job in that specialty upon graduation, and has returned to college to study in that same field. Most of the co-researchers told of pressure to follow a traditional female track in secondary school. None could recall an instance of being forbidden to take a nontraditional course, but they spoke often of experiencing the "sex-segregated course taking patterns" studied by the American Association of University Women (1992, p.16).

When Janet was asked if she had any advice to middle school-aged girls about nontraditional careers, she said,

It is a good curriculum [electrical technology] and I think there is a good job waiting, but to be prepared for possibly not being prepared. You haven't done this kind of thing. I think they need to have a really, really strong math and science background.

Grace also mentioned her failure to take math beyond pre-algebra and the negative impact it had upon her preparedness. The community college instructors observed that their female students often entered the program with less of a "background" in the subject matter which sometimes hindered their initial progress. Melissa has made sure that her daughter is enrolled in advanced math courses, and she has noticed the scarcity of girls in those classes. This data reinforces the palpable trend shown in existing literature of girls avoiding math and science curriculums (American Association of University Women, 1992). Although the secondary school environment served to restrict choice of a nontraditional career, the environment the co-researchers encountered at the community college reinforced that choice and facilitated their success in the chosen field.

The results of this study bear out what the literature says about women who not only choose training for gender-nontraditional occupations, but succeed in them. Their strength and self reliance was shown through the methods they employed to deal with discrimination from peers and instructors. The women did not choose to access any of the student support services or complaint procedures available to them and outlined in the student handbook. Nor did they enlist the assistance of instructors in handling negative events. Melissa did consult an administrator after perceiving bias in a classroom situation. She did this not as a student seeking support, but as an empowered consumer of education who reported unsatisfactory service. Information from the instructors reinforced this point. None of the instructors interviewed recalled having a female student ask for help in dealing

with an issue of harassment or discrimination. The women spoke of brushing off negative events and moving on. They chose to handle these incidents on their own despite the fact that the community college is well prepared to assist in those matters and makes its services well known.

When Hewitt and Seymour (1991) studied the high attrition rate among female engineering students, they found that nearly one-third of female students felt their professors did not care about them. Just the opposite of that condition existed at the college in this study. The instructors' ethic of caring was cited more than any other as the factor that most encouraged our co-researchers to choose or remain in a nontraditional program. Grace's quote is a good example of the kind of statement made by every co-researcher, "I think that's what really encouraged me a lot around here was the fact that the instructors loved me. They encouraged me. And without their help, I probably would have given up." A female faculty member in Anderson's (1995) study cited loss of self esteem as the biggest problem women face in engineering preparation programs. The women in this study all experienced a boost in self-esteem from participation in their programs. Again, support from instructors was most often mentioned as the factor which facilitated their success in a challenging curriculum.

The environment encountered by the women in this study included both resistance and support from their male peers. Discrimination from instructors was rare, and was outweighed by the encouragement most offered. Most of the women's earlier educational environments had placed obstacles to their entering a nontraditional occupational program that were only overcome after exiting that environment and entering work or post-secondary education.

One piece of data brought to light through this study concerns women in nontraditional programs and their primary relationships. Data on this subject were reported by two co-researchers in response to the question, "Who discouraged you?" It also

emerged among discussions arising from other questions on the interview schedule. These data indirectly address both research questions.

All but two of the co-researchers who had partners mentioned some form of resistance or adjustment on the part of their significant other, although it was never directed specifically toward the occupational program. The two who spoke of support from their spouses were in their second marriages. One of these women talked about how her first husband did not want her to work at all. For one woman, the spouse opposed her return to school. Another talked about how her fiancée was attracted to and at the same time puzzled by her independent nature. The one co-researcher who spoke of unconditional support from her partner was married to someone who worked in a related field. The co-researcher who chose to work for personal reasons faced resistance from her spouse. He may have been reacting against her increasing power within the family unit one can expect when one works outside the home (Baber & Allen, 1992). These issues highlight the interconnectedness of life roles and how exiting traditional occupational boundaries correlates with stretching the boundaries of tradition in other areas. Partner's support or resistance to pursuit of education in a nontraditional field contributes to the environment in which the student enacts her career plans. Again the strength of some of the co-researchers is highlighted through this issue as they overcome barriers in the home as well as the school or the workplace. The women demonstrated the courage to leave negative relationships and to resist negative pressure within their relationships.

Data gathered through this study enriched the Pfof and Fiore (1990) findings that women in nontraditional occupations are viewed unfavorably as romantic partners. Rather than finding the occupation an undesirable characteristic of a potential mate, the participants in that study might have been reacting against the common thread of an internal locus of control, confidence, and continued personal growth evident in our co-researchers.

The results of this study confirm many of the findings found in the existing literature. They also expand upon the largely quantitative body of knowledge in this area. On the issue of factors influencing choice of a nontraditional occupational program, the first research question, several themes reinforced the existing literature. The women needed paid employment sufficient to support themselves and their children. They were aware of opportunities for increased earnings within nontraditional occupations. The co-researchers evidenced strong traits of individuality which mirrored the strong self-concept and internal locus of control reflected in previous research. One element that every co-researcher espoused as the primary contributor to her habit of individualism was the presence of strong female role models early in her life. The significant influence of female role models is an emerging theme in the literature.

The study resulted in a description of the women's educational environment as a place where the infrequent incidents of discrimination were far outweighed by the feeling of welcome and encouragement framed by the instructors and other faculty. The facilitators of instructor support and a positive campus climate were more than sufficient to help the already strong, self-reliant women overcome barriers of early educational discrimination and negative input from peers.

Recommendations for Practice

The following recommendations arose from the data reported by the co-researchers and reinforced by instructors and descriptive data. They address the facilitators which merit support and development as well as barriers which can be amended.

1. An institution should establish, publicize and enforce policies which create a safe environment where everyone feels welcome, to ensure that learning increases. The community college in this study can be used as a model. Its catalog and student handbook communicate clearly the values of the school and its sexual harassment, assault, and

misconduct policies. The clear procedures are also critical to implementing successful policy (see Appendixes I, J, and K). These documents convey the sense of a nurturing atmosphere which is further enhanced by instructor beliefs and behaviors.

2. Educational institutions should acknowledge that students' perceptions of the school are most strongly shaped by the instructors and counselors with whom they have contact, they can best utilize this valuable resource. Hiring practices should be constructed which encourage the recruitment of personnel with a high consciousness of gender issues and strong commitment to creating a nurturing educational environment. Regular professional development and dissemination of information such as the findings of this study will contribute to that aim.

3. School systems should examine their policies and practices for elements of gender bias, these barriers can be eliminated from primary school through adult education. Teachers, counselors, and administrators should be exposed to evidence of the inequality that persists in schools. The American Association of University Women (1992, 1993) publications and Myra and David Sadker's (1982, 1990) work are excellent resources. Eliciting student perceptions will offer valuable insight in the culture of the educational organization (Lincoln, 1995).

4. Colleges can offer an opportunity for women in nontraditional programs to spend time together sharing their stories and coping strategies which will reinforce their decision and raise retention. The instructors of programs in question or student support services office can facilitate this by arranging and publicizing a meeting each semester.

Implications for Future Research

The excitement this study continues to hold for the researcher springs in large part from the surprises that have emerged and the new questions that have resulted. Rubin and Rubin (1995, p.167) wrote,

Finally, you know that the interviews are working when you feel yourself absorbed and excited as you reread your transcripts and find yourself eager to share what you have learned with others. The interviews are working when you find answers to the questions that you originally posed. In addition, the project is successful if you discover a lot of questions and answers that you did not realize were important when you began the interviewing.

This study was designed to uncover and share a picture of the experience of choosing and preparing for gender-nontraditional occupations. As such, the participants were limited to a small group of women at one southeastern United States community college. They all happened to be white women, with ages ranging from 18 to 43. They lived and worked in rural or small town settings. To arrive at a more comprehensive view of the issues pertinent to nontraditional work, similar studies should be conducted in urban settings, and should include women of different ethnic groups, ages, and socio-economic positions as co-researchers. Experiences and perceptions are mediated by systems of race and class as well as gender.

One theme repeated in many of the interviews was being channeled into traditional occupational preparation courses in secondary schools. This sets up barriers that most of the co-researchers overcame only after accumulating several years of work and life experience. Future research which repeats the qualitative process of examining female students' perspectives of the educational environment at the primary and secondary school level would be of great value in correcting barriers. It is early on that gender role stereotypes begin to limit choice (Burge & Culver, 1994).

Future research should yield rich data around the issue of women in nontraditional programs or occupations and their personal relationships. The way in which a woman's partners influence, fit into, and evolve with her career offers interesting research questions. The educational and occupational climate for women in nontraditional occupations has been

the subject of much research. Studying the climate these women face at home, and the barriers and facilitators it furnishes, will enrich the available information.

The question of who enrolls and succeeds in nontraditional programs could be turned around to investigate women who left programs. They might offer insights into perceptions of the same environment that differ greatly from those of women who persisted. Their stories could highlight practices amenable to change which caused them to feel excluded. The co-researchers in this study were exceptionally strong women who all counted on the support of their instructors. They all had additional networks of support involving parents, children, spouses, and friends. Many women pursuing occupational preparation at community college may not possess the uncommon strength demonstrated by our co-researchers.

Parting Gifts from the Co-Researchers

The co-researchers, who ranged from a teenager to a woman in the middle of her life had in common a great deal of wisdom. They embodied the constructs of confidence and success, demonstrated commitment to personal growth, and expressed dedication to caring for other people. The following direct quotes are taken from interview transcripts and presented to communicate the assurance and excitement of the co-researchers. It seems appropriate that their voices are the closing voices.

"A lifetime is a long time to spend doing something if you're not really enjoying it."

"If you don't have some sort of degree, you're not going to get promoted in this day and age."

"I love it."

*"And I feel like if you've got the desire and you've got the ambition, somehow, someway,
you'll work it out."*

*"I stress every day, 'You don't let anybody tell you you can't do something.' I really
believe that."*

"It's day by day."

"I'm at the point in my life when I speak my mind."

"I'm on the President's List."

*"And I'm finding out that each day that I have more [choices] than I even realized. This is
just a drop in the bucket for me. I'm excited!"*

*"There's a job out there that has your name all over it. It's custom built for you. It's your
job."*

"I'm determined to do a good job."

"I think it's getting better."

*"Especially people around here, they almost have to be ---not stronger, really -- it's just
that there's not a lot of people here who are wealthy. They've always had to work, that
type of thing. You know, I've had two people in my classes, one's got three children and*

works full time and goes to school full time. How she does it, I'm amazed. I don't know. I just don't see where a woman who's that strong, how anyone can possibly bring her down."

"And I'm glad that I paid for most of it myself. "

"I can learn to do it.

*I **have** learned to do it."*

"I want to get out in the world."

"I want to work."

"When we do jobs in the real world, it doesn't come labeled, "A woman made this."

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APPENDIX A



Division of Vocational and Technical Education

College of Education
Blacksburg, Virginia 24061-0254
Fax: (703) 231-3292

20 February, 1996

Instructor Name
Department
Dear _____ :

I am a student completing a Ph.D. program in Vocational Education at Virginia Tech. My dissertation topic is focused on the topic of women in nontraditional occupations. The research involves interviewing female students in traditionally male programs. As you are an instructor in one of the five degree programs at Southeastern with a female enrollment of 25% or less, I am contacting you regarding my research project to ask for your assistance.

The Virginia Tech and _____ administrations have given me permission to ask you to distribute the attached letter and questionnaire to your female students. To ensure consistency and protect the reliability of the study, I would ask you to hand a letter/questionnaire packet to each female student in your class at the beginning of the period and say to the class:

This letter was provided by a graduate student from Virginia Tech studying women in nontraditional programs at Southeastern. After reading the letter, if you are interested in participating in the study, hand back the completed questionnaire to me at the end of class, or hand it to the receptionist in the counseling center later today or tomorrow. The student doing the research will be picking up your questionnaires and contacting you about your involvement early next week. Please give this project serious consideration. Your help can improve occupational programs here at Southeastern and in other areas across the country.

I will be calling you Friday, March 8 to see if you have any questions and to make sure this procedure is clear. Please consider giving me an appointment in the next week or two for an interview on your experiences teaching women in a traditionally male field. You can reach me at (540) 231-7571, -7158, or (800) 542-5870 if you have any questions.

Thank you for your time and assistance.

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An Equal Opportunity / Affirmative Action Institution*

APPENDIX B



Division of Vocational and Technical Education

College of Education
Blacksburg, Virginia 24061-0254
Fax: (703) 231-1292

Dear Student:

Because you are a female enrolled in a predominately male college program, you are a member of a very special and interesting group.

As a graduate student studying vocational education at Virginia Tech, I will be interviewing women in nontraditional programs at Southeastern Community College. The programs include drafting, electrical technology, electronics, instrumentation, and machine technology.

If you would be willing to share your experiences by talking with me for approximately an hour, please complete the attached questionnaire and return it to your instructor. You may also leave it with the receptionist in the counseling office. Your name will be kept confidential and will not be connected with any report of this study. You may decide not to participate at any time. Thank you for your time and assistance. Your help in this study can improve educational experiences for women in nontraditional degree programs in the future.

Sincerely,

Beth Stephenson
Graduate Student
Virginia Tech

*A Land Grant University: The Commonwealth Is Our Campus
An Equal Opportunity / Affirmative Action Institution*

APPENDIX C
Student Questionnaire

What program are you in at Southeastern? _____

How many semesters have you been enrolled in that program? (circle one)

This is my *first* *second* *third* *fourth* *other* _____

What is your:

name _____

age _____ race _____ marital status _____

Please describe your academic history by checking all that apply:

_____ high school graduate (graduated in 19____)

_____ GED (date received _____)

_____ have attended any schools other than high school and Southeastern? Please specify: _____.

_____ have been enrolled in a program at Southeastern other than the one I am in currently. Please specify: _____

You may use the rest of the page to tell me anything else about yourself that you would like me to know.

APPENDIX D

Interview Guide - Student

INTRODUCTION

Thank you very much for giving your time for this study. The reason I am interested in what you and your classmates have to say was outlined very briefly in the letter that came with your questionnaire. Do you have any questions you would like to ask about what I'm doing or why?

What's going to happen during our interview is that first I will outline how the information you share will be recorded and used, and how your confidentiality will be protected. I'll ask you to sign a consent form that explains this in writing. You can keep a copy if you like. In the next few weeks I would like to check back with you on the telephone or in person to share a summary of this interview to have you check it for accuracy. I'll tell you the main themes and topics I heard and recorded. You can let me know if I've gotten the right picture and can clarify issues that I may have missed or misinterpreted. This would also be a good time for you to share any thoughts you've had on the subject in the meantime.

Then we will proceed with several questions that I have, but I want to allow time and space in the interview for you to tell me whatever comes to mind that you want to share. The basic plan is to ask you to tell me how you decided on this career and what it's like for you in this field.

We'll start with a few biographical questions.

** ... elaborate on the information from the questionnaire ...*

I see that on the questionnaire, you checked that you had attended a school besides high school and Southeastern. What was that? What did you study? When?

You indicated that before entering the _____ program, you were in _____. Why did you change? Have you been in any other occupational preparation programs besides these?

Your questionnaire says that your [mother/father/guardian] completed a _____ degree. What did she/he do for a living? Was she/he a role model for you where education and work are concerned? Who was?

CAREER DECISION-MAKING PROCESS

How did you first get the idea to consider this program?

What other occupational programs did you consider?

Was there anyone who really encouraged you to try this? (*at home, at Southeastern?*)

Did anyone discourage you?

Why did you choose this program?

What are your goals as related to this program?

ENVIRONMENT

Tell me about the _____ program.

What do you really enjoy about your classes/labs?

What parts do you dread?

Is your experience in the _____ program affected by the fact that you are a woman?

Tell me about a time (in the program) when it didn't matter if you were a man or a woman.

Tell me about a time when it did.

How is it different (or the same) for the men?

Do you think your reasons for choosing this program are the similar or very different from the men's? (*from the other section, but works better here*)

I'm going to be talking to the instructors for these 5 programs. What do you think they will have to say about these questions we've been discussing?

What do you think your male classmates would say about a woman's experience in this program? (*do they have the same point of view*)

There are lots of different definitions of sexual harassment. Basically they talk about sexual behaviors at school or work that interfere with a person's job, or cause an uncomfortable environment. Have you experienced anything like that in your program?

Those are all the questions I have. If you have any more information you would like to share with me now, or a story about something that's happened in this program, I'd like to hear it.

I will be contacting you soon to go over the information I've recorded today so you can let me know whether I've gotten your message recorded accurately. Would you like to get together again here at school? Do you want to go ahead and set up a plan for that now?

Thank you very much for all your help. I look forward to talking with you again.

APPENDIX E
Interview Guide - Instructor

INTRODUCTION

Thank you very much for agreeing to meet with me today and share your experience in the _____ program. As you know, I am studying women in nontraditional associate degree programs to find out why they chose the program, and what life is like for them there. The purpose of the research is to derive implications for improving access for women to nontraditional programs. I would like to get your point of view as the instructor, on a few areas.

How long have you been teaching in the _____ program?

How many women are enrolled in your classes?

Have you noticed a change in the number of women entering this degree program?

ENVIRONMENT

Tell me about the _____ program.

What do you really enjoy about your classes/labs?

What parts do you dread?

Do you think a female's experience in the _____ program is affected by the fact that she is a woman?

Tell me about when (in the program) it doesn't matter if one is a man or a woman.

Tell me about when it does.

Do you think the women's reasons for choosing this program are the similar or very different from the men's?

I'm going to be talking to several students in the drafting, electrical technology, electronics, instrumentation and machine technology programs. What do you think they would have to say about the questions we've just been talking about?

What do you think the male students would say about having women in the program?

What do you think the male students believe the women will say about life in the degree program?

There are lots of different definitions of sexual harassment. Basically they talk about sexual behaviors at school or work that interfere with a person's job, or cause an uncomfortable environment. Have you experienced anything like that in your program?

Thank you very much for sharing your time and experiences with me. I will summarize the information from our interview and check back with you soon to ask you if I have accurately reflected the content of our conversation. Would you like to do that over the phone or in person? Do you want to set a time for that now? Thanks again for helping with the study.

APPENDIX F
Observation Schedule

1. What is the mission statement of Southeastern Community College?

2. Does Southeastern have a sexual harassment policy?

What is it?

Where is it printed/posted?

How is it distributed?

Who enforces it?

3. What career development services are offered at Southeastern?

Who delivers them?

What career development activities are mandatory at Southeastern?

4. What support services especially for women exist at Southeastern.

Who delivers them?

How are they funded?

How are they publicized?

Are they successful?

APPENDIX G
Informed Consent Form
VIRGINIA POLYTECHNIC INSTITUTE AND STATE
UNIVERSITY
Informed Consent for Participants of Investigative Projects

Title of Project: Educational Choice and Environment of Women in Nontraditional Occupational Programs at Southeastern Community College

Investigator: M. Beth Stephenson

I. The **Purpose** of this research project is to gain an in-depth view of women's reasons for entering nontraditional educational programs at the community college level, and the environment they face there.

II. **Procedures:** Participants will have one in-depth interview with the investigator which is expected to last one hour.

Summaries of the interview will be discussed with each participant in person to ensure accuracy of the investigator's interpretations and to record any additional information the subject would like to share.

The names of participants will be changed in any written or oral dissertation resulting from this research. The interviews will be tape recorded to assure accuracy. Tapes will be transcribed and then destroyed. They will remain in the possession of the investigator during this process.

III. **Risks:** This study involves minimal risk to participants. They will tell their story of how they chose the occupational program in which they are enrolled, and their experience in it.

IV. **Benefits of this Project:** There will be no tangible benefit to the participants in this project. This study will serve as a resource to improve the educational and workplace experience of women and to contribute to a more equitable occupational distribution. Response patterns of women studied may highlight subtle forms of discrimination or treatment from peers or faculty which currently go unnoticed. Narratives of factors in occupational choice will have implications for career counseling of women as they decide on a course of study. Information gathered here can contribute to proactive recruitment and retention strategies for women entering nontraditional programs.

V. **Anonymity/Confidentiality:** Respondents will not be identified by name in any material published as a result of this study. Their names will be changed, but their responses will be shared.

VI. **Compensation:** There will be no compensation for participation in this research project.

VII. **Freedom to Withdraw:** Subjects are free to withdraw from the study at any time without penalty.

VIII. **Approval of Research:** This research has been approved, as required, by the Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute and State University, by the Department of Teaching and Learning.

IX. **Subject's Responsibilities:** I voluntarily agree to participate in this study.

X. **Subject's Permission:** I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this project.

If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project.

Signature

Date

Should I have any questions about this research or its conduct, I may contact:

M. Beth Stephenson
Investigator

(540) 951-5398, 231-7571
Phone

Penny L. Burge
Faculty Advisor

(540) 231-7806
Phone

E. R. Stout
Chair, IRB
Research Division

(540)231-9359
Phone

APPENDIX H
Approval from Institutional Review Board



Research and Graduate Studies

Office of the Associate Provost for Research
200 Patton Hall
Blacksburg, VA 24061-0244
(540) 231-5359 FAX: (540) 231-1522

MEMORANDUM

TO: M. Beth Stephenson
EDVT

FROM: Ernest R. Stout *ERS*
Associate Provost for Research

DATE: February 5, 1996

SUBJECT: IRB EXPEDITED APPROVAL "Educational Choice and
Environment of Female Post-Secondary Students in Non-
traditional Occupational Programs"
Ref. 00-029

I have reviewed your request to the IRB for the above referenced project. I concur with Dr. Burge that the experiments are of minimal risk to the human subjects who will participate and that appropriate safeguards have been taken. The IRB has determined that each subject should receive a complete copy of the signed Informed Consent.

This approval is valid for 12 months. If the involvement with human subjects is not complete within 12 months, the project must be resubmitted for re-approval. We will prompt you about 10 months from now. If there are significant changes in the protocol involving human subjects, those changes must be approved before proceeding.

On behalf of the Institutional Review Board for Research Involving Human Subjects, I have given your request expedited approval.

Best wishes.

ERS/php

c: Dr. Burge

APPENDIX I

Decisions and Options for a Sexual-Assault Victim
Students who have been sexually assaulted have a number of choices and courses of action available to them. It should be stressed that seeking assistance does not obligate you to take further action. Depending on the circumstances and your wishes, one or more of the following courses of action may be open to you:

Medical Concerns
The Emergency Room at the nearest hospital can provide you with immediate medical attention and provide information and assistance concerning pregnancy and sexually transmitted diseases.

Counselors are available for both immediate and long-term campus, both on campus and in the community. (omitted) [redacted]

[redacted]
[redacted]
[redacted]
[redacted]

College Discipline
You can proceed against the assailant under college judicial procedures. Information about this process is available on Page 30 in our Student Handbook. To initiate this procedure, contact the Director of Student Development.

Police/Prosecution
You can report the assault to the police. Reporting an assault does not mean you have to prosecute, and you may not feel prepared to make that decision right now. However, a delayed report could result in the loss of physical evidence which could be vital to court proceedings. If you report to the police, the decision to prosecute legal proceedings is yours.

- If the assault occurred on campus, you should report to the Campus Security at [redacted]
- If the assault occurred in the town limit, you should call the local Police Department.
- If the assault occurred in the County, you should call the County Sheriff's Department.
- You can report the assault to the police department.
- You can choose not to report the assault to the police.
- Even if you choose not to report a rape, you can change your mind and report it later.

Civil Action
An individual who has been sexually assaulted may have a civil use of action against the assailant. If you wish to explore this option, you should consult private counsel. The lawyer referral service or someone can help you identify a lawyer who can explore this option with you.

all participants in the campus judicial process, the following is a list of rights of persons involved in campus sexual assault judicial proceedings.
Rights of the Student

1. The right to an explanation of the options of resolution available to the student.
 - a. College hearing.
 - b. College conduct mediation between student and accused.
 - c. Report to Commonwealth Attorney for possible criminal sanctions.
 - d. File civil suit for monetary damages.
2. The right to decide whether a campus hearing will be held by judicial panel or administrative staff. If the student and the accused cannot agree on the choice, the Director of Student Development will determine the type of hearing to be held.
3. The right to file a campus restraining order to prohibit harassment of the student by the accused.
4. The right to know ahead of time the names of witnesses to be called in the campus hearing.
5. The right to have someone accompany them through the campus hearing. All participants will be bound by the rules of confidentiality governing the hearing.
6. The right not to have irrelevant past sexual history discussed during the campus hearing.
7. The right in a closed hearing unless all parties agree otherwise.
8. The right to remain present for the entire proceeding and to inspect evidence presented.
9. The right to a specific hearing without unnecessary delay.
10. The right to be informed in a timely manner about the outcome of the campus hearing.
11. The right to appeal the decision of the judicial hearing board.
12. The right to not have his/her identity revealed outside the confidential proceedings without consent.
13. The right to know the status of the case at any point during the judicial process.

APPENDIX J

irected by President's Staff and Appointed Committee

1. Sexual Misconduct Policy and Procedures
 - A. This policy shall apply to all employees and students of [redacted] Community College. Sexual misconduct includes sexual harassment. It shall be administered in agreement with the state laws relating to sexual misconduct since all violations of state law are also violations of college policy including stalking laws (18.2-60.3).
 - B. An educational institution is a community of trust whose very existence depends on the recognition of each individual's importance and value. This trust creates the freedom for each individual to live, think, act, and speak without fear of sexual harassment or physical harm. Sexual misconduct shatters the bond of trust within a college community.

[redacted] Community College shall not tolerate sexual misconduct in any form. Sexual misconduct is a flagrant violation of the values and behavioral expectations for a college community and all reported violations shall be aggressively investigated. Sexual misconduct may be punishable through civil and criminal proceedings, as well as through college disciplinary processes.

Sexual assault is defined as sexual intercourse without consent, including rape (whether by acquaintance or stranger), sodomy, or other forms of sexual penetration. To constitute lack of consent, the acts must be committed either by force, threat of force, intimidation, or through use of the victim's mental helplessness of which the accused was aware or should have been aware. Mental helplessness includes incapacitation by alcohol or other drug. Sexual misconduct also includes intentionally touching, either directly or through clothing, of the victim's breasts, buttocks, thighs, or buttocks without the victim's consent, as well as touching or fondling of the accused by the victim when the victim is forced to do so against his or her will.

Verbal misconduct, without accompanying physical contact

as described above, is not defined as sexual assault. Verbal misconduct may constitute sexual harassment, which is also addressed in Section II.

- C. Rights of the complainant and the accused. The college will ensure that the rights of both the complainant and accused are protected throughout the processes of investigating and adjudicating charges of sexual misconduct. Specifically, all persons involved in investigations shall safeguard the identity of the complainant and the accused outside of the confidential proceedings of the process. At no time will the past sexual history of the complainant become a part of campus proceedings.

These stated rights of the accused and the complainant shall be reviewed at the beginning of each meeting, discussion, or hearing of a sexual misconduct charge.

Step 1 - Complainant or knowledge of sexual assault is communicated to a member of the college (family-student, faculty, administration, or classified employee). The source of the information may be the victim or any other person having knowledge of the incident. The incident should be reported to one of the following individuals:

- College President
- Director of Student Development
- Appropriate College Dean
- EEO Officer

The rights of the complainant and the accused (I-C) shall be reviewed by all involved.

When the information reaches one of the four individuals above an informal investigation of the reported incident will be made. If the investigator determines that further college action is necessary, a written statement summarizing the facts and circumstances surrounding the allegation will be prepared by both the complainant and the informal investigator. If the complainant is unwilling to make a written statement, no further action will ordinarily be taken. However, it is the responsibility of the investigator to inform the president of the situation. The president may decide to inform the accused that a complainant has been made, or take other appropriate action. Also, the investigator should make every effort to provide needed counseling and referral for the complainant.

After the president has received the report from the informal investigator, he will determine whether the appointment of a formal investigative committee is necessary. If deemed necessary, Step 2 will proceed. In cases which have resulted in an arrest by local police authorities, and if there is potential danger to any student or employee, the accused, even if released on bond, may temporarily be barred from campus and all college classes until the formal investigation is completed by the appointed committee.

Step 2 - The investigative committee, if appointed by the college president, shall make a formal investigation and a written recommendation of the incident to the president within one week. The committee shall consist of two faculty, two administrative, two classified staff, and one additional appointee to serve as chairperson. The committee shall have the authority to interview the complainant, witnesses and the accused (if willing to testify) to make a determination of facts surrounding the allegation. Additionally, the committee may view items of physical evidence and give both evidence and testimony weight according to the relevance and credibility each may possess. This committee, before acting, shall review the rights of the complainant and the accused as outlined in I-C.

After hearing all testimony and receiving all evidence, the committee shall make one of the following determinations about the allegation(s) against the accused:

1. The committee finds insufficient evidence to support a violation of school/ system policies, rules and regulations by any person involved.
2. The committee finds sufficient evidence that the allegations are true and that violations of school/ system policies, rules and regulations occurred.
3. The committee finds that the allegations are false or baseless.

The findings of the committee will be reduced to writing and submitted to the president's office along with a recommendation for action. Each specific allegation will be addressed along with a statement of "findings of fact" and a recommendation for disposition of the allegation. All committee members will review and sign the official recommendation sent to the president's office. After receiving the written recommendations of the committee, the college president shall make a decision as to disciplinary actions.

If a student is dismissed indefinitely from [redacted] by the president as a disciplinary action, the reason for dismissal will be noted in the student file. If a dismissed student makes future application for re-admission the president must be consulted first and, if cleared for consideration for re-admission, the Admissions Office will then follow the normal re-admission procedure.

E. Sexual misconduct can greatly affect the social and academic environment of a college, even if it occurs outside the physical boundaries of the campus, between and among its members. [redacted] Community College extends the standards of conduct inherent in this Sexual Assault Policy to off-campus behavior.

APPENDIX K

pressure for sexual activity, conversations of a sexual or sexual nature or similar jokes and sexual remarks about a person's clothing, body, or sexual relations, or the display of sexually explicit materials may constitute harassment if shown to be unwelcome and sufficiently pervasive or severe to conclude to affect academic performance or employment.

Nothing in this policy precludes academically relevant discussions or presentations concerning gender or sex. The fact that such discussions or presentations may cause some students discomfort does not in itself indicate hostile-environment harassment. If relevant to course content, gender and sex are legitimate areas of inquiry.

Although sexual advances such as touching, patting, hugging or brushing against a person's body are generally viewed as forms of sexual harassment, they are, in fact, legally categorized as sexual, which is a misdemeanor offense. The victims of such unwelcome sexual advances may take legal action.

D. Proceedings for Enforcement

Complainants have three options. They may pursue the college informal or formal procedure, or they may initiate a legal proceeding. College and legal proceedings are not mutually exclusive, and may be used simultaneously. The complainant will be advised of all options available to her or him and of the statute of limitations for each option. All members of the academic community will have the right to Procedure I and Procedure II being handled in a discreet manner. The rights of the accused and the complainant as outlined in I-C shall be reviewed by all parties involved in any investigation.

1. Procedure I

The purpose of Procedure I is to provide assistance to individuals complaining of sexual harassment, and to provide opportunities for both the complainant and the accused to resolve the problem in an informal manner, without the necessity for disciplinary action or the need to resort to formal procedures.

Any individual in the college community who believes she or he has been sexually harassed, as defined in the college's Sexual Harassment Policy, should contact one of the following college representatives: a dean; the administrative official who is the supervisor of the individual accused of sexual harassment; a male or female counselor; or the college's EEO officer. These discussions will be handled in a professional and confidential manner.

SCA officers will be educated in the process and may assist students in identifying a college representative, but will not be involved in the processing of the complaint.

The college representatives receiving sexual harassment complaints will have access to information regarding

Purpose
The purpose of this policy is to provide all [redacted] Community College faculty, staff and students with a method for addressing complaints of sexual harassment. A further purpose is to communicate the intent of the college to create a campus free of such behavior.

3. Policy

Sexual harassment in any situation is reprehensible and will not be tolerated. A college is a community of learners in which strong emphasis is placed on self-awareness and consideration for the lives and feelings of others. In a setting of this kind there is no place for conduct that diminishes, humiliates or abuses another person. Such conduct subverts the mission of the college and threatens the careers, the quality of educational experience and the well-being of students, faculty and staff. For these reasons, sexual harassment of any kind is unacceptable at [redacted] Community College.

In order to assure that sexual harassment is precluded, the college strongly encourages individuals who believe they have been sexually harassed to report the alleged harassment.

Sexual harassment, a form of sex discrimination, is prohibited by Title IX of the Education Amendments of 1972 and Title VII of the 1964 Civil Rights Act. This policy applies to all members of the college community including students, classified, wage employees, and members of the instructional, administrative and professional faculty. Any employee or student at this college found guilty of sexual harassment will be subject to appropriate disciplinary action which may include dismissal or expulsion.

Nothing in this policy is intended to inhibit or restrict the free speech content of written or oral presentations. Academic freedom and, more generally, freedom of expression are of paramount value in an academic community.

C. Definition of Sexual Harassment

Sexual harassment of employees and students at New River Community College is defined as any unwelcome sexual advances, request for sexual favors or other verbal or physical conduct of a sexual nature. It takes two legal shapes:

Quid pro quo-Submission to such conduct is either explicitly or implicitly made a term or condition of an individual's employment or academic performance.
Hostile environment-Hostile environment harassment differs from "quid pro quo" harassment in that no discriminatory effect on grades, wages, job assignments or other tangible benefits is required. Instead, such unwelcome sexual or sexual conduct has one of these purposes or effects:

- It unreasonably interferes with an individual's work or academic performance.
- It creates an intimidating, hostile or offensive work or academic environment.

2. Procedure II

In this procedure the complainant makes a formal written complaint. If the complainant wishes, the college representatives identified in Procedure I, may act in an advisory role. College representatives may clarify and explain procedures, and assist the complainant to proceed in a timely and appropriate manner.

If a member of the college community believes she or he has been a victim of sexual harassment, as defined in Sexual Harassment Policy, she or he may utilize Procedure II. The first step of this procedure is to file a formal complaint of sexual harassment by submitting a written report of the alleged sexual harassment incident. If a student is accused of sexual harassment this report must be submitted to the Director of Student Development. If a faculty or staff member of the college is accused of sexual harassment this report must be submitted to their supervisor. This report may be submitted to the EEO officer of the college in either a calendar day of the alleged act. When complaints are made the recipient of the complaint shall review the rights of the accused and the complainant as outlined in 1-C.

The Director of Student Development, supervisor, or EEO officer to whom the formal complaint of sexual harassment is submitted shall within ten working days notify the individual accused of the harassment. The incident of alleged sexual harassment will be promptly and thoroughly investigated by an appointed dean and one other college appointed official. During this preliminary investigation, the accused individual shall be provided with an opportunity to respond orally and/or in writing to her or his supervisor regarding the allegations. At the same time rights of the complainant and the accused shall be reviewed.

Results of the preliminary investigation will be presented to an investigative committee of three appointed by the President. These individuals shall review the results of the preliminary investigation and shall determine whether sexual harassment has occurred and if disciplinary action against the individual accused of sexual harassment is warranted. The record as a whole and the totality of circumstances, such as the nature of the conduct and the context in which the conduct occurred, will be considered in any deliberations.

If it is found that sexual harassment has occurred, and disciplinary action is warranted, the investigative committee will recommend the action to be taken by the appropriate college official. A record of the harassment, and related documentation will be maintained in the personnel file of the accused. This is a confidential personnel file and shall not be given to individuals outside the college.

accused. It is the responsibility of the college's EEO officer to provide access to the needed information.

The college representative shall advise the complainant of all options available to her or him. These include the Procedure I and Procedure II of the college's Sexual Harassment Policy, or they may initiate a legal proceeding. Collegial and legal proceedings are not mutually exclusive, and may be used simultaneously. In appropriate cases, the complainant may file with the Office of Civil Rights, Equal Employment Opportunity Commission, the Faculty Grievance Procedure, or the Classified Employee Grievance Procedure. In addition, all categories of employees may file a complaint with the Department of Personnel and Training's Office of Equal Employment Services. If the complainant chooses to use the procedures of the college, she or he may elect to begin with Procedure I. If she or he chooses not to use Procedure I of the college's Sexual Harassment Policy, she or he may choose to pursue one of the other options available to her or him. The college representative shall advise the complainant of the opportunities for support and/or counseling that are available through the college, and shall assist the complainant in obtaining counseling if requested to do so.

If the complainant elects to proceed with Procedure I, the college representative, within ten working days, and with the consent of the complainant, will meet with the accused individual, advise her or him of the informal complaint, and review with her or him the college's Sexual Harassment Policy. Specifically, the rights of the complainant and the accused, as outlined in 1-C, will be reviewed. The college will take all appropriate steps to assure confidentiality for the complainant and the accused as long as it does not interfere with any necessary investigation and corrective action.

The college representative then will meet with the complainant within ten working days to inform her or him that the college representative has met with the accused and reviewed with her or him the college's Sexual Harassment Policy. Documentation of what transpired must be filed with and maintained by the college's EEO officer. If the complainant desires further action, the college representative should advise her or him to utilize Procedure II of this policy.

NOTE: If there are more than one Procedure I complaints against an individual within a 12-month period, the college's EEO officer will advise the alleged harasser's immediate supervisor. The supervisor and the EEO officer will conduct an investigation within 30 days. Should the investigation reveal that a pattern of behavior has occurred that constitutes sexual harassment, the appropriate action will be taken by the college.

appeal the disciplinary action through the appropriate grievance procedure.

3. Appeal Process

If the complainant does not agree with the decision of the investigative committee and the college official, the complainant may appeal the decision using the Appeal Process. In order to proceed to the Appeal Process, the complainant must file a written appeal with the president of the college within ten working days after receipt of the decision of the college official. A copy of this appeal shall be sent to the other party by the president. The president of the college shall, within ten working days of receipt of this appeal, appoint an appeals committee. The committee shall convene within 20 working days and appoint a chairperson from its members in order to hear evidence and facts related to the charges of sexual harassment. The chair of the committee shall notify the complainant and the respondent in writing of the time and place for the hearing. The committee may receive evidence and facts from both the complainant and the respondent. It is the responsibility of the Chairperson to review the rights of the complainant and the accused as outlined in section

1-C

Within ten working days from the conclusion of the hearing, the Chairperson shall notify the college's president, in writing, of the committee's findings and recommendations(s).

The president will consider the findings of both the investigative committee and the appeals committee and the supervisor. The president shall render a decision in writing within ten working days of receipt of the committee's findings and recommendations. The president's decision will be communicated to the accused and the accuser, with copies to the accused's supervisor and the appropriate dean, if a student is the accused. After the president's decision, the record and related documentation will be maintained by the college's EEO officer and the personnel office.

The Appeal Process committee shall be appointed by the president with sensitivity to gender and racial composition. The committee will be chaired by the College's Director of Affirmative Action and Equal Employment Opportunity. It is the responsibility of the chairperson to guide the committee to a position of general agreement. The members of the committee shall report through different chains of command than the accused and the composition of the committee shall be as follows:

- 3 Two (2) members of the teaching faculty
- 3 One (1) member of the administrative faculty
- 3 Two (2) members of the student staff

Final Considerations

Consenting romantic and sexual relationships between faculty and student, between supervisor and employee, or between employees which hold authority over other employees, while not expressly forbidden, are very unwise and are discouraged. A faculty member who enters into a sexual relationship with a student, or a supervisor who does so with an employee where a professional power differential exists, must realize that, if a charge of sexual harassment is subsequently lodged, it will be exceedingly difficult to prove a defense on grounds of mutual consent. Voluntary consent by the student or employee in such a relationship is suspect given the fundamentally asymmetric nature of the relationship.

M. BETH STEPHENSON
1400A University City Blvd.
Blacksburg, VA 24060
(540) 951-5398H
(540) 231-7571W

EDUCATION

Doctor of Philosophy, 1996
Vocational-Technical Education; Special Needs Populations
Virginia Polytechnic Institute and State University (Virginia Tech)
Dissertation: Eliciting Women's Voices: Choosing and Experiencing
a Nontraditional Occupational Program

Master of Arts in Education, Counselor Education, 1992
Virginia Tech, Blacksburg, VA

Bachelor of Science, Animal Science, 1989
Virginia Tech, Blacksburg, VA

HONORS/AFFILIATIONS

Omicron Tau Theta, Vocational Education Society
Phi Delta Kappa
Virginia Counselors Association
Presenter at the 1995 conference: Career Portfolios
Graduate Student Feminist Research Forum, Fall 1995, Virginia Tech
Presenter: Women in Nontraditional Community College Programs

RELATED EXPERIENCE

User Services Manager, Virginia VIEW, August, 1995-present
Plan, set up and carry out over 25 workshops throughout the state of Virginia for approximately 75 participants each to train counselors and other helping professionals in the use of Virginia VIEW software and related materials. Research and produce career information for print materials, microfiche and computer programs. Supervise graduate students who operate the Career Information Hotline serving students, counselors and other citizens of the Commonwealth.

Counselor, Blacksburg High School, 1992-95
Provide personal, academic, and career counseling in individual and group settings. Crisis counseling. Responsible for registration, orientation, college admissions and financial aid assistance. Consult with parents, teachers, administrators, and related community agencies to coordinate support/programs for students.

Child Study Committee Chair, Blacksburg High School, 1992-95

Chair child study committee which serves any student not meeting with success at Blacksburg High School. Devise alternative education plans, refer for special education assessment as needed. Locate, coordinate needed services.

Summer School Counselor, Montgomery County Schools, 1993, 1995

Provide personal and academic counseling for middle and high school students at summer school. Conduct group work in anger management and career development.

Graduate Research Assistant, Vocational Education, Virginia Tech, Spring 1995

Provide technical and clerical support to Division of Vocational Education. Maintain library catalogue. Conduct research regarding graduates of Home Economics Education program from 1985-1994.

Adjunct Faculty, New River Community College, 1995

Teach PSY 120; Human Relations
Supervisor: Charlie White

Intern, New River Community College, Spring 1995

Chair Regional Counselor Committee to develop a career portfolio for elementary through college.

Supervisor: Helen Harvey
Student Teach/Observe Human Services
Supervisor: Jan Martin

Student Code of Conduct Advisory Committee, Montgomery County Schools, Spring, 1995

Re-write, with other committee members, the Montgomery County Student Code of Conduct. Add schools' treatment of sexual harassment issues to policy.

Reviewer: Tech Prep Access for Special Populations Manual, Fall 1995

Co-Author: Lifepaths Career Development 4-H Projects, Virginia Cooperative Extension Service

Write career development project books for Junior, Intermediate, Senior levels, and Leader's Manual.

Career Information Specialist, Virginia VIEW, 1991-92

Operate toll-free Career Information Hotline. Support research and development of career information materials and their distribution.

4-H Technician, Roanoke County, 1991

Recruit, train and support volunteer leaders. Deliver programs in public schools. Support community clubs.

Mitchell Stephens