Occupational Socialization of Women During Postsecondary Preparation for Nontraditional and Traditional Jobs

by

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ABSTRACT

Women in Canadian society continue to be segregated into traditionally female occupations, often of lower pay and status than male dominated occupations. To improve the educational and occupational equity of women, the governments of Canada and British Columbia support a variety of programs and intervention strategies. The focus of these efforts is cognitive, psychomotor, or affective or some combination thereof. There has been little research to date on the effectiveness of these strategies and programs; recruitment and enrollment remain essentially self-selection processes.

This study examined the issue of women's occupational equity by focussing on the occupational role orientation process as facilitated by postsecondary educational interventions. Sixty-one subjects in four career preparation programs were pre- and posttested in 1984. The programs represented traditional and nontraditional preparation; within the nontraditional group there were three distinct types of occupational preparation. Three instruments were used to collect data relating to demographic characteristics, perceived barriers to nontraditional careers, and type of career commitment. In addition, interviews were conducted to supplement the empirical data.

The findings demonstrated that the programs were serving a heterogeneous group of women with regard to demographic characteristics but who at program enrollment reflected similar gender role socialization regarding the number of perceived barriers to nontraditional occupations. Any success of the
programs in altering perceived barriers to nontraditional occupations could not be due solely to selection. At program completion greater variation in the perception of impediments to nontraditional occupations was found, but this variation reflected no apparent pattern. The treatments evidently had varying effects on the groups. The change scores indicate no significant differences between the traditional and nontraditional groups regarding perceived barriers. But within the nontraditional groups, the career exploratory program (which addressed cognitive, psychomotor, and affective learning), exhibited the most change in overcoming perceived barriers. Consequently, this program was found to be potentially more effective than either the traditional or other nontraditional ones in facilitating women's occupational equity.

On the career commitment measure, at program enrollment students in a traditional program saw the fewest expected benefits and fewest opportunities for expressiveness from career identification; those in the nontraditional career exploratory program saw the greatest anticipated benefits and the most opportunities for expressiveness. Change scores indicate that the traditional program enrollees altered their expectations minimally; career exploratory enrollees showed the greatest increase in their expectations. The different educational interventions had varying influences on career expectations of women.

Overall, modest evidence was found for supporting a career preparation program which addresses the affective aspect of
occupational socialization in addition to the theory and skill components. If, in the interest of fostering educational and occupational equity, women are to be attracted to nontraditional occupations and assisted in preparing themselves to succeed in these jobs, then helping them to understand the psychosocial aspects of role identification and to overcome perceived impediments must be addressed by those who fund, design and conduct postsecondary career preparation programs.
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CHAPTER I  INTRODUCTION

The role of women in Canadian society is changing rapidly. Social, economic, and political changes in the larger society have made it possible for women to expand their personal and career options. An increasing percentage of women of all ages are participating in the labor force, some in fields that had been staffed exclusively by men.

But whether women's increased employment reflects primarily emancipation from the home, the attraction of interesting career opportunities, or simple economic necessity, barriers still persist to hinder women's career development. For women pursuing nontraditional occupations, gaining the appropriate knowledge and skills, plus undergoing a process of socialization are crucial factors in determining their occupational success.

Female Participation in Postsecondary Education

Education is an important vehicle by which individuals enhance their capacities for their personal development as well as for that of their community and for the larger society. The educational system facilitates the acquisition of knowledge, attitudes, and skills. It equips people with the tools to establish identity, clarify purpose, develop integrity, achieve competence, manage emotions, and become autonomous (Chickering, 1969).
The expansion of Canadian postsecondary educational institutions (specifically community colleges and other two year institutions) in the 1960s and 1970s brought a substantial increase in enrollment in postsecondary education for both sexes. Increased educational participation by women is reflected in community colleges (where they comprise more than 50 percent of the student body), in university part-time study (where they constitute approximately two-thirds the total part-time enrollment), and in continuing education (where they comprise the majority) (Gaskell, 1982; Robb & Spencer, 1976).

Although higher education levels increase the likelihood that women will participate in the labor force and improve their incomes, neither occupational equity nor economic equity occurs. Females continue to be concentrated in those educational fields of a traditional female nature: arts, education, nursing, and clerical. The economic position of women relative to men continues to reflect significant differences—-from 1961 when women's annual earnings averaged 54.2 percent of men's earnings to 1981 when women's earnings had risen to 59.9 percent (Ornstein, 1983, p.1). While the above earning differentials and occupational choices suggest that educational enrollment and economic explanation are important influences in career opportunities, additional factors must be considered to understand women's behavior in the labor force.
Occupational Patterns

The increase of women's participation in postsecondary education is paralleled by the increased movement of women to paid employment. This increase in women's employment outside the home is attributable to a combination of social, demographic, and economic developments (Troll, 1982). For example, the overall ratio of women to men has increased and an increasingly service-dominated urban economy makes physical strength no longer a significant factor in job performance in an increasing number of occupations. Homemaking has become easier, couples have fewer children, social attitudes favoring working women are relaxing, personal expectations concerning work are changing, and government policies encourage increased participation.

The decision to participate in the labor force is influenced by myriad factors: financial need, available opportunities, household responsibilities, and individual preferences. Participation patterns vary with social class, marital status, presence and ages of children, type of community, education and training, and age. Between 1962 and 1973 the average rate of participation for women working in the paid labor force for at least part of the year was estimated at 58.4 percent (Armstrong & Armstrong, 1978, p. 18). A United States study estimated that single women would spend 45 years working outside the home, married women without children would work 35 years, and married women with one child could expect to
participate in the labor market 25 years (Garfinkle, 1967, pp. 4-5).

The presence of children, especially pre-school children, is an apparent inhibiting factor to female career development. This factor, coupled with the difficulty of finding appropriate day care, has an important effect on all aspects of female labor market behavior. For many women, working life has two phases: the first before marriage and childbearing and the second after childbearing (Gunderson, 1976). These participation patterns influence a woman's commitment to the labor force, which in turn affects labor market behavior. Intermittent periods in the labor force and part-time employment often restrict occupational choice to jobs where commitment to the labor force may not be so important. This limitation of occupational opportunities may reduce earnings which in turn reduces attachment to the labor force.

Opportunities in the labor market are obviously affected by education or training. Education provides females with additional opportunities and increased earnings which in turn encourages their participation in the labor force. This increased participation, however, may have a deleterious effect upon the labor market. The economic factors of supply and demand result in occupational segregation. The segregation of women in specific industries and occupations characterized by low pay, low skill requirements, low productivity, and low prospects for advancement has shown remarkable stability throughout this century (Armstrong & Armstrong, 1979, p. 20).
Although the increase in women's employment has been accompanied by an expansion of their occupational choices, the high-status, highly skilled jobs continued to be dominated by men. In every census year from 1900 to 1970 most working women in the United States were in predominantly "female" occupations (Kanter, 1977). In the United States in 1970, men were classified in 63 occupations; women in only 17 (Kanter, 1977). The picture is not much different in Canada. Canada Employment and Immigration statistics show both the under-representation of women in training programs (specifically in those considered nontraditional for women), and the segregation of women into "female" occupations (Gunderson, 1976; Women in the Labor Force, 1981).

An occupation is considered nontraditional if women account for only a small proportion of the total number of employees in that occupational category (Women's Bureau, 1983). In Canada, 10 percent is used as the determining proportion for identifying nontraditional occupations (i.e., if fewer than 10 percent of employees in that occupation are female it is considered nontraditional). Nontraditional occupations include most of the trades such as pipefitting, tool and die making, the technologies, and management.

In spite of governmental emphasis on women's entry into nontraditional career preparation programs, the response remains low. During 1978-79 women accounted for less than 10 percent of the participants in occupational preparation programs in Canada for those occupations predominately staffed by men (Women's
Bureau, 1983). In British Columbia the Goard Commission took the position that women ought to be included in more technical and trades training programs because currently they "are channeled and segregated into a narrow range of occupations that offer below-standard wages" (Goard Commission, 1977, p. 17). As of May 1982, 7.6 percent of the registered apprentices in British Columbia were female. This percentage is reduced to 2.6 if the large numbers of female hairdressing, barbering and floristry apprentices are removed from this total (Women's Programs, 1983).

Overall, in 1978-79, 28.2 percent of those participating in Canada Manpower Industrial Training Programs were women. Women constituted over 50 percent of the participants in programs for artistic and recreational services, medical and health services, teaching, service occupations, and stenographic and clerical trades. However, women accounted for less than 10 percent of the participants in programs for construction, forestry and logging, mining and quarrying, and transport equipment operating. In 1983, 77 percent of all female employees worked in just five occupational groups--clerical, service, sales, medicine and health, and teaching (Statistics Canada, 1985), indicating that women continue to be channeled into traditionally female occupations.

Career Preparation and Occupational Identity

Education and training of women affect their labor force
behavior in complex ways. It has been argued that the way women are educated and socialized interacts with the opportunity structures they face both at school and at work to produce outcomes that channel women in traditional directions and preclude the possibility of equity (Gaskell, 1982; Hansen & Rapoza, 1978; Thomas, Christie, Colvin, & Denbroeder, 1979).

The number of years of education and training and the types of education and training can increase employment options. Yet other factors prevail to limit a woman's choice in the job market. There is a great deal of evidence concerning child-rearing practices indicating that society as a whole appears to define women's primary role as in the family (Troll, 1982). Boys and girls are encouraged to pursue different interests and to value different achievements. Children themselves know about gender differences by age three and continue to be influenced through the media, education system, and social system about gender-related roles and norms.

Gender differences in education course enrollment patterns occur because of differences in students' abilities, interests, and career goals. Concomitantly, occupational expectations are influenced by interests and abilities. Recent research shows very little closing of the gap between high school males and females with respect to their occupational preferences (Herzog, 1982; Lueptow, 1981). Accepting traditional stereotyping which restricts occupational choices is termed "occupational foreclosure" by Looft (1971) and "homogenization" by Bem and Bem (1973).
Educational and career choices are also shaped by attitudes—personal, peer, family, and societal. Even when choices are formally open, attitudinal constraints may prevail to segregate women into certain traditional occupational preparation programs. This streaming in turn is significant in shaping the interests, competencies, and interactions of women as students. Women as employees continue to be underrepresented in areas of industry, mathematics, and sciences.

Women tend to enter jobs that do not reward education well—in monetary terms—and that do not offer many possibilities for advancement. Acquiring the knowledge and skills appropriate for nontraditional careers which would expand career options for women is possible through career preparation programs. But acquiring a nontraditional occupational identity involves more than gaining knowledge and skills; it also involves the acquisition of those values, beliefs, and attitudes of the occupational role. This role acquisition occurs through a process known as socialization.

Barriers to Educational and Occupational Equity

There are many barriers within governmental, educational, and commercial institutions to male and female workers entering occupations that have been considered appropriate only for the opposite sex. Many of these barriers can be and have been addressed by legislative actions to equalize occupational opportunities for men and women (e.g., Title IX of the
Educational Amendments of 1972 in the United States and in Canada the Unemployment Insurance Act, Fair Wages and Hours of Labour Act, and the Public Service Employment Act). Equal opportunity legislation is designed to combat discrimination in hiring, promotion, and conditions of employment. It could be regarded as both an alternative and a complement to equal pay legislation.

Despite legislative actions to eliminate institutional barriers to women's entering jobs dominated by males, only a relatively small proportion of female workers are employed in these occupations (Thomas et al., 1979). The vast majority of women in the labor force remain in the lower paid and/or less skilled areas such as service, health, education and clerical occupations, indicating that factors in addition to institutional barriers exclude women from nontraditional occupations (Eliason, 1977; McCune, 1974). These factors, i.e., personal-social or attitudinal barriers, tend to be more covert and subtle and consequently are more difficult to overcome than institutional barriers (Koontz, 1972; Lehmann, 1977). As well, other exclusionary factors include both intentional and unintentional acts of discrimination.

Personal-social barriers identified in the literature include such issues as role structure (Burlin, 1976; Smith, 1976), the attitude of friends and family (O'Leary, 1977), and self-perceptions (Korman, 1970; Wertheimer & Nelson, 1977). Specifically, personal barriers relate to physical strength, time management, physical energy, financial resources, aptitudes
and abilities, and psychological attitudes. Societal barriers are associated with family responsibilities, educational opportunities, employment accessibility, financial support, ethnic and gender discrimination, and social attitudes. The process by which these personal-social barriers are perpetuated is known as gender role socialization, and persists throughout life. An acceptance of traditional stereotypes about women's career development is a restriction to the number and kinds of occupations women choose.

When women repeatedly encounter barriers in their attempts to enter nontraditional occupations, most come to believe they are not capable of performing the required tasks. This idea has been described as the "illusion of incompetence" (Langer, 1978). Another concept related to entry into nontraditional jobs is the "learned helplessness" paradigm described by Cohen, Rothbart, and Phillips (1976). This attitude arises when women repeatedly find their attempts to achieve a goal are not being rewarded, and is experienced as the perception that rewards occur independent of one's actions. Thus, many women might come to feel helpless in acquiring the knowledge and skills required for occupations other than those traditionally held by women.

Intervention Strategies

There are several strategies for addressing the occupational and educational segregation of women. Most focus on access or outcome interventions and are designed to facilitate female employment. Included in these are
postsecondary educational programs—both of a career preparatory
nature and a self-awareness nature.

Kanter (1976) identifies three types of intervention
strategies to change the occupational distribution of women.
The first type assumes that men and women differ in their
attitudes, temperament, esteem, and modes of interaction; this
intervention attempts to compensate for differences. Typical
programs to assist women in these areas are assertiveness
training, career planning, and esteem building.

The second type stresses expanding opportunities for women
by reducing or removing some of the barriers or handicaps they
experience as a result of gender role socialization and child
care constraints. Typical strategies include altering the
educational system so the women receive more and different
training which will make them competitive with men in
nontraditional and higher paid occupations. Such strategies
include pre-employment programs and apprenticeship programs.

These two strategies relate to psychosocial impediments to
occupational equity; the interventions address role related
issues. But these two categories alone do not address the total
problem. As such, they affect the supply side factors of
occupational stratification. It is also the structure of the
labor market which perpetuates occupational inequity.
Structural interventions, the third type of strategy, address
the demand side of the labor force. In this category, emphasis
is placed on formulating and implementing new policies within
work organizations to recruit, assign, train, and promote female
employees (Boyd, 1982).

The effectiveness of these three intervention strategies is yet to be established. Many of the specific strategies are synonymous with affirmative action measures (Ratner, 1980) and assume that by making it possible for women to perform in the labor market, occupational equity will result.

The governments of Canada and British Columbia espouse a commitment to enhancing women's self-fulfillment, achievement, and contribution to social, political and economic life. General goals relate to:

-- increasing training opportunities
-- broadening the range of educational choices
-- improving the quality and quantity of career counselling resources
-- implementing strategies to encourage economic self-sufficiency
-- facilitating employment in a wider range of occupations (Women in British Columbia: A Plan for Progress, 1986, pp. 6-7).

Specific policies and practices to improve educational and occupational equity include: (1) the appointment of ministerial officials at both the federal and provincial levels with responsibility for women's issues; (2) the reservation of two spaces in nontraditional programs to encourage training enrollment; (3) the establishment of a Women's Access Program (and a Women's Advocate as program coordinator) in postsecondary institutions to provide information about career options; and (4) the initiation of a Women's Nontraditional Employment
Program (WNTEP) to provide wage subsidies for employers hiring women in nontraditional occupations.

As intervention strategies aimed at addressing occupational and educational inequities, these specific policies have not been consistently implemented, monitored, or enforced. Even when the British Columbia government offered a matching grant to postsecondary institutions for the Women's Access Program, most institutions did not match the grant monies. And, as budgets have tightened, women's programs are some of the first cut. In the 1970s there were twenty-two programs emphasizing women's nontraditional employment and educational issues in British Columbia; at the time data were collected for this research project in 1984 only four programs remained in the Province.

Student recruitment is another intervention strategy emphasized by governmental agencies and institutional officials to encourage more women to take advantage of nontraditional programming. Efforts employed for this purpose include news releases, public service announcements, posters, newspaper advertising, institutional fairs and displays, brochures, pamphlets, leaflets, faculty speakers' bureau, and television and radio advertising. No assessment of their effectiveness, singly or in combination, has been published.

Intervention strategies vary considerably in time required to have an impact on occupational stratification. Strategies which facilitate female employment (e.g., day care, nontraditional career preparatory programs) require several years to have an impact. Structural interventions appear to
have the most immediate impact, particularly those directed at specific hiring, training, and promotion practices (Boyd, 1982).

The problem of educational and occupational equity must be seen in the broad context of psychosocial relationships in the personal situation of adult women. One way of addressing this problem is to examine how educational interventions facilitate female occupational development by expanding career options, improving self-perceptions, and addressing barriers to occupational equity.

The Problem

One of the characteristics of educational institutions which distinguishes them from other socializing institutions is the extent to which their socialization activities are intentional and deliberate. Educational institutions are seen to be responsive not only to the perceived needs of individual students but also to the preferences expressed by business and industry (including the state itself) which will employ the majority of the educational "output." It is important that graduates of educational programs possess skills and knowledge plus a set of attitudes, expectations, and actual behavior and/or experience appropriate to the jobs they are seeking (Lockhart, 1975; O'Toole, 1977) if they are to qualify for employment in such occupations.

Educational institutions are serving a clientele in transition. Changes occurring in the lives of women and in the
labor market are creating the necessity for additional occupational preparation programs for women. To meet the emerging educational needs and interests of these women, more learning activities with nontraditional content are required from postsecondary institutions than are currently offered (Zimmerman & Trew, 1979). These are learning activities which provide women with opportunities to gain information and skills required for life-planning, employment, independence and a variety of career options. The examination of factors which encourage or impede occupational development, including personal-social or attitudinal barriers, is a necessary component of the educational program.

Research studies indicate that such barriers can be lowered by reducing external or structural obstacles, by providing a supportive atmosphere for learning, by presenting appropriate role-models (i.e., practicing tradeswomen), by offering assertiveness training, and by offering competent counseling (knowledgeable and sensitive to women in nontraditional vocations) (Fitzgerald & Crites, 1980; Lipman-Blumen & Tickamyer, 1975; Stake, 1981). Helping women to identify, understand, and overcome attitudinal barriers is one means of facilitating their entry into nontraditional occupations.

In British Columbia there are three components of the occupational training system: Pre-Employment and Pre-Apprenticeship Training (currently being replaced by the Training Access Program--TRAC); the Apprenticeship Program; and the Upgrading Programs. Women interested in nontraditional
occupations usually enter the educational system at the pre-
employment or pre-apprenticeship program level where they gain
occupational knowledge and skills. But occupational knowledge
and skills may not be enough to facilitate female entry into
male dominated occupations. Kanter (1976) advocates altering
the educational system so that women receive more and different
training which will enable them to pursue nontraditional
occupations. Such intervention strategies would address role
related psychosocial impediments to occupational equity.

Several programs addressing the specific psychosocial
issues for women interested in nontraditional jobs are currently
offered. These programs offer nontraditional career exploration
through practical on-the-job training and classroom theory at
the pre-employment training level. They are designed to prepare
the student for occupational training or for immediate entry
into the labor force. Included in the programs are
assertiveness training, communication skills, weight training,
practicing tradeswomen, women-in-trade films, shop tours, skill
workshops, and job-hunting skills (Chernove, n.d.).

Evaluative measures of educational programs often consist
of general course descriptions and participants' reactions.
There has been little or no research on nontraditional
programming for women in postsecondary institutions in British
Columbia (either specific programs for women interested in
nontraditional occupations--which address theory and skill plus
affective socialization--or regular occupational preparatory
programs--which offer only theory and skill socialization).
Information that is available is of a general, descriptive nature, i.e., program evaluations, student follow-ups, or policy recommendations.

If women are to be encouraged and expected to pursue nontraditional occupational preparation which increases their employment options, then programs and components of programs which facilitate this occupational development should be expanded. The central goal of this study was to examine the process by which women are socialized into nontraditional, nonprofessional occupations as it occurs in an educational setting. Two research questions guided this inquiry: (1) how are the effects of special programs which prepare women for nontraditional employment different from the effects of other occupational preparation programs; and (2) how is career commitment for women in nontraditional programs different from career commitment of women in a traditional program.

Organization of the Dissertation

Some of the factors influencing female occupational and educational equity have been outlined. Intervention strategies for improving occupational and educational opportunities were discussed, including governmental goals and institutional programs which facilitate female entry into nontraditional occupations. These factors are presented in greater depth in the following chapters.

Chapter 2 is a review of related research and literature relating to women in careers. The psychosocial aspects of
women's career development are presented. A discussion of the barriers to educational and occupational equity concludes the chapter.

Chapter 3 presents the theoretical framework and hypotheses. Symbolic interaction provides a conceptualizing framework for the role identity acquisition process. Definitions which guide the research are presented as well as the conceptual model for analyzing the variables. Presentation of the hypotheses completes this chapter.

The fourth chapter is a description of the methodological design of the research, including the data analysis.

In chapters five and six respectively, the results of the quantitative and qualitative analyses are presented. A theoretical interpretation of the results is discussed.

The concluding chapter, seven, is a review of the study. Findings, conclusions, limitations, and implications are presented.
CHAPTER 2  REVIEW OF THE LITERATURE

This chapter begins with a review of career development literature, and then it examines several attempts which have been made to formulate a theory of career development for women. Educational intervention strategies which facilitate female entry into nontraditional areas are discussed. The barriers to women's nontraditional occupational development are examined, including other factors influencing occupational socialization. The last section focuses on programs which have been developed and implemented to promote occupational and educational equity.

In spite of an abundance of statistical data regarding women and their participation in the labor force and the proliferation of studies on women, little is known about their career development. Most research relating to career development has been on males. It has been suggested by some writers (Osipow, 1973; Psathas, 1968; Zytowski, 1969) that conclusions based on male data may not apply to females because of the focus on male work behavior.

There has been some research on problems and issues involved in preparing women for professional opportunities in nontraditional areas but there has been comparatively little analysis of the problems and issues involved in preparing women for employment opportunities in nonprofessional, nontraditional occupations (Kane, 1977). The career development of women, although not fundamentally different from that of men, is a great deal more complex due to the combination of attitudes,
role expectations, behaviors, and sanctions which occur during socialization (Fitzgerald & Crites, 1980).

Career Development

The process by which women become associated with a specific occupation involves two components: career choice and career commitment (Nieva & Gutek, 1982). The first involves gaining the knowledge and skills that will make them employable and the second involves the decision to take a job. Both career choice and career commitment involve making decisions about the probability of getting married and having a family; the areas of work and family life are not independent of each other. An analysis of theories relating to career development includes theories of career choice or career preferences, theories of career maturity, and theories of achievement motivation (Fitzgerald & Crites, 1980).

Career Choice

Much of the career choice literature relies heavily on theories which are predominately concerned with matching some aspect of the person to some aspect of the job. Roe (1956) hypothesized that there is a relationship between individuals' early experience and their attitudes, abilities, interests, and other personality factors which affect their vocational selection. In her book, The Psychology of Occupations, she developed a classification of occupations which allows for
predictions of those occupations person-oriented individuals would prefer and those that might be preferred by individuals not oriented toward persons. Although Roe acknowledged the existence of large gender differences in interests and the significance of these differences for women's occupational status, she never explicitly delineated the obvious implication of her theory with regard to gender differences in early childhood experiences. This psychoanalytic approach represents an initial contribution for understanding and explaining career development. However, its lack of empirical support and its emphasis on only early experiences render it inadequate for building a theory.

Holland's (1966) theory of vocational choice is essentially a typology which characterized aspects of vocational behavior. It postulates that people can be categorized by their resemblance to each of six personality types: realistic, investigative, artistic, social, enterprising, and conventional. The environments in which people live and work can be similarly categorized. Career choice reflects an individual's personality in interaction with the characteristics of the environment. Of particular importance, according to Holland, are the environmental factors of social pressures in early adolescence and childhood experiences with parents, specifically their influence on one's organization of attitudes, perceptions, and knowledge about the vocational world. His theory is descriptive, simplistic, and fails to describe adequately the developmental factors associated with career development.
Career Maturity

The theory of Ginzberg and associates (1951) represents an attempt to identify the major factors in vocational decision-making during successive periods in an individual's maturation. Their basic assumption is that individuals reach ultimate vocational choices through a series of decisions over a period of many years. There are three main elements in the theory: the conceptualization of occupational choice as a process; the view that the process is largely irreversible; and the view that compromise is an essential aspect of every choice.

According to the theory, there are three stages of occupational development: the fantasy stage (to age 11); the stage of tentative choice (between 11 and 17); and the stage of realistic choice (between 17 and young adulthood when one reaches a final choice). Gender differences occur in every one of the key dimensions of Ginzberg and associates' theory—from the interests and values of the tentative stage to the opportunities and limitations of the realistic stage to the idea of an irreversible process.

One of the most highly developed career development theories is posited by Super (1955). His theory is essentially one of developing and implementing a self concept. A second main point is the view that work is a way of life. Thus the assumption is made that career maturity and vocational satisfaction (and satisfaction in life) is a function of the congruence between one's work and one's self concept of abilities, interests, personality traits, and values.
Super's theory consists of ten propositions, ranging from descriptive statements about the nature of individuals and occupations, to the developmental aspects of vocational preferences and competencies, to the developmental characteristics of individuals themselves. Both internal factors (mental ability and personality characteristics) and external factors (parental socioeconomic level, exposure to opportunities, and available role models) are seen as crucial factors in career maturity.

Several instruments have been developed to measure this construct, the most widely used being the Career Maturity Inventory (CMI). And although the construct has stimulated a prodigious amount of research and empirical confirmation, little attention has been given to possible gender differences which account for differences in occupational development (Fitzgerald & Crites, 1980; Vetter, 1979).

Several researchers have noted that although female attitudes toward occupational development mature more rapidly than those of their male counterparts, it is evident that many females consistently select occupations that are low in terms of the females' aptitudes and interests (Lunneborg, 1978; Patterson, 1973; Richardson, 1974). A partial explanation may be that career maturity instruments ignore variables important to women (e.g., attitudes toward marriage). Also, the instruments measure the process of career maturity whereas the choice of a social role actually involves the content (housewife, career woman, or some combination of the two).
Theories of career maturity are "necessary but not sufficient" to explain the career development of women (Fitzgerald & Crites, 1980).

Achievement Motivation

Building on the work of Crandall (1965), Hoffman (1972) theorized that girls are motivated by a desire for love, approval, and social approbation whereas boys are motivated by a desire for excellence and mastery. Stein and Bailey (1975) argued that women do not seek social approval per se but that the social arena is where they strive for excellence, which is a different skill and pattern. Another explanation is offered by Tangri's (1974) study of traditionals and innovators, in which she reported that traditional subjects appeared to project their achievement needs onto their future husbands. Horner's (1972) research concerning "fear of success" confirms motivation as a mediating influence on achievement behavior in women of high ability.

The most significant feature about women and career motivation concerns their commitment to an occupation. Often the perception is that women have neither commitment nor ambition. The literature classifies women as traditionals (those who conform to traditional female careers and values) and pioneers, innovators, or nontraditionals (those who place a high value on a career role and are highly motivated and who often have "nontraditional" careers). Research documents that pioneers have high academic achievement and high achievement goals (Stein & Bailey, 1975), are less concerned with economic
motives than with the satisfactions of mastery and independence (Eyde, 1968; Wolkon, 1972), have supportive significant others (Hawley, 1972; Rossi, 1965), and have more successfully integrated the roles of homemaker and worker (Nagely, 1971).

Career commitment corresponds to career continuity (Nieva & Gutek, 1982). Women's jobs are often those that permit relatively easy entry and reentry. Teaching, nursing, and clerical work are in this category. Conversely, women choose these jobs because they do permit short or intermittent periods in the labor market to accommodate family responsibilities. As a result, the work patterns of females are related to both the demands of the home and the nature of the labor force work (Armstrong & Armstrong, 1978). Because of this type of commitment to the labor force, women in general do not acquire as much occupational experience as men. But Archibald (1970) found that these discontinuities were neither long enough nor detrimental enough to productivity to explain much of the salary gap between female and male earnings. As well, the findings of both Marchak (1973) and Archibald (1970) show that the existence of housekeeping demands does not prove that women lack commitment to their jobs or that they reject responsibility.

It seems apparent that women are affected and even inhibited by the variables mentioned above, but to state that women's achievement orientation is fundamentally different from that of men would be a misrepresentation. It does, however, appear consistent with the effects of gender-role socialization, as well as consistent with the value of women's equity
(Fitzgerald & Crites, 1980; Laws, 1976).

A point to consider is that labelling the achievement motivation of women as inherently different from that of men does not allow for the behavior of those women who display the modal masculine pattern. Understanding female achievement motivation becomes increasingly important as more women move into occupations previously dominated by women.

Theories of Career Development for Women

Two attempts have been made to develop a theory of the career development of women. In 1968 Psathas enumerated some of the factors influencing women's entry into occupational roles and proposed that gender role is the most salient of these. He cited intention to marry, time of marriage, reasons for marriage, and husband's attitude toward his wife's working as the most influential variables. His theory views the gender role and occupational role as inextricably intertwined.

Psathas described the "traditional" feminine role as one characterized by early marriage, early arrival of children, and a homemaking "career." For these women, work is seen as a temporary stage and instrumental in its fundamental nature. The kinds of occupational roles performed, therefore, require little commitment and provide little opportunity for self fulfillment.

For those women who were likely to pursue both marriage and career, Psathas identified six influencing factors: the husband's positive attitude toward his wife's working; the husband's sharing of household and child-care tasks; the
children being of school age or older; the woman continuing to work after marriage; and having an advanced degree, specialized training, or a high level of competence on a job.

Despite the theory's traditional and middle-class perspective, it does offer an important contribution to an understanding of female career development. Although it neglects to analyze the nature of the relationship between occupational role and gender role, it is a first attempt to locate occupational choice within the larger context of gender roles.

Zytowski's (1969) theory focuses on the duality of women's roles as homemaker and career woman. These two roles are considered to be mutually exclusive with the homemaker role as the primary one. This seems untenable, because more than 40 percent of women who are married and living with their husbands (and presumably homemakers) are employed (Vetter, 1979). The theory does not attempt to describe the career development of women but rather focuses on the sequential nature of women's adult roles; it offers nine postulates that characterize female patterns of occupational participation. A central proposition of the theory is that although the basic life role for women is that of homemaker, this role is nonstatic and will ultimately be no different from that of men.

The difficulty in constructing a separate theory of career development for women is captured in Zytowski's remarks about the nonstatic quality of the role of women. Osipow (1973) also focused on this notion, asserting that "so much social change is
now occurring in the area of sex and vocation that any theoretical proposal made now is likely to be premature, as is any generalization about women's career development" (p. 265). Apparently this assertion served as a caveat as no new theories or attempts at theories have been proposed since that time.

But research continues to focus on the special situation of women and their career development. One burgeoning area of research and literature is that of women in the nonprofessional, nontraditional area—those jobs in industry, trades, or technical fields previously dominated by men—and the barriers they encounter in seeking education, training, and skills incumbent to those occupations.

Career Interventions

The study of careers has expanded in the last twenty years from counseling, sociology, and industrial psychology to include additional social sciences: economics, education, political science, and psychology (Holland, Magoon & Spokane, 1981). Career interventions are the most sought after services by college students (Carney, Savitz, & Weiskott, 1979) and include the following forms: vocational counseling, self-help devices, career courses, occupational information, interest inventories and vocational card sorts.

The proliferation of interest in career interventions spawned the development and delivery of a multitude of materials and techniques to provide career assistance. Experimental evaluations of intervention treatments imply that beneficial
effects are due to common elements in the treatments: (a) exposure to occupational information; (b) cognitive rehearsal of vocational aspirations; (c) acquisition of some cognitive structure for organizing information about self, occupations, and their relations; and (d) social support or reinforcement from counselors or workshop members (Brenner & Garzda-Grace, 1979; Snodgrass & Healy, 1979). As well, there is research about the effects of career development interventions which suggests that clients have different expectations for interest inventories, that clients with a clear sense of identity benefit more than those with a diffuse sense of identity, and that clients with well-defined interests benefit more than those with poorly defined interests (Power, Holland, Daiger, & Takai, 1979; Schenk, Johnston, & Jacobsen, 1979).

Documentation of how society creates and perpetuates gender differences that lead in turn to divergent vocational aspirations and achievement for females and males is now extensive. But unfortunately, few interventions which address this differentiation have undergone rigorous evaluation to ascertain effectiveness or to propose remedies. As Krumboltz (1966, p. 22) argues, "What we need to know is which procedures and techniques, when used to accomplish what kinds of behavior change, are most effective with what kinds of clients when applied by what kind of counselor." Rather, information available is limited to some of the values and problems entailed in counseling and educational interventions.

Fretz (1981), in a literature review of the evaluation of
career development interventions, identified three dimensions to intervention activities or programs: (1) client attributes—demographic, psychological, career related; (2) treatment parameters—content domain, interpersonal content, degree of structure; and (3) outcomes—career knowledge and skills, career behavior, sentiments, and effective role functioning. He posits that most career interventions have both instructional and therapeutic intents.

Several studies offer insight into the effectiveness of career development intervention activities. Fox and her colleagues (1979) found that females who received career awareness treatment and exposure to female role models expressed higher levels of educational aspirations than did females receiving no treatment. In a special summer program to stimulate interest in minority engineering, Richards and colleagues (1978) found a twofold effect. Students who had the most potential for engineering were those whose interest in engineering was strengthened by the introduction to engineering programs; students with the least potential were affected in the opposite direction—they became more certain that engineering was not for them. A study by O'Neil, Ohlde, and Barke (1979) of a workshop to reduce sexism in career planning for females corroborated the above findings. The females in his experimental group spent more time talking about careers, described themselves as more masculine, and reported more scientific, social, and enterprising careers as appropriate choices than did females in the control group. Parenthetically,
this program increased interest in traditional occupations as well as nontraditional occupations. The inference is that self-exploration treatment provides confirmation or certainty for some students—in either direction.

In examining the literature, Fretz (1981) found that when only a single treatment was offered no conclusions could be drawn about the effect participant variables (e.g., age, gender, socioeconomic status, intelligence, self-confidence, career maturity) had on outcomes (e.g., career knowledge and skills, career behavior, career attitudes or role identification). Conversely, when interactive variables were included in the analysis (i.e., demographic, intellective, psychological), the single best predictor was client motivation. Comparisons of group with individual career interventions have shown group approaches equal to or better than individual career interventions (Hewer, 1959). Giving students both accuracy of self-knowledge feedback as well as training in an occupational classification was superior to either used separately (Pilato & Myers, 1975).

In summary, it appears that effective career development interventions involve more than mere presentation of occupational information or occupational skill experience. The distinctive parameters in career interventions may lie in the additive effects of content factors such as occupational information, self-information, and decision making processes.
Barriers to Nontraditional Career Development

If effective career intervention strategies involve the additive effects of content domains of occupational information, self-information, and decision making, part of such content may relate to expectations and attitudes. These attitudes and expectations, acquired through gender role socialization, are characterized by psychosocial and institutional barriers to occupational and educational equity.

Women attempting to enter careers and training programs traditionally dominated by men have generally encountered institutional and personal-social barriers which have effectively kept most of them in "women's jobs." The former include the hiring, promotion, and benefit policies and practices in government, industry, or education. The latter include attitudes communicated by family, friends, and associates indicating the impropriety of the inclusion of women into certain occupations.

Institutional barriers are those which can be and have been addressed by legislative actions to equalize occupational opportunities for men and women. Issues dealt with by legislation include training, hiring, and promotion practices which may have been used in the past to exclude women from many jobs. Such barriers are generally overt, and as such, can be effectively remedied by legislative policy.

Although there is legislation which calls for the reduction of legal and institutional barriers, there are other factors which continue to influence the occupational equity of women.
These factors include intentional and unintentional acts of discrimination as well as attitudinal or psychosocial barriers. These psychosocial barriers tend to be more covert and subtle than the former, and consequently, more difficult to overcome. Some common psychosocial barriers center around the issues of roles, attitudes of significant others, and self-perceptions.

A review of the literature on barriers to women's educational and occupational equity reveals certain commonalities (Thomas et al., 1979). They can be grouped under the following headings:

1. low level of support from family/friends
2. low occupational self-concept
3. lack of educational preparation for nontraditional careers
4. low level of role compatibility
5. lack of information about nontraditional careers
6. lack of available role models
7. lack of money to finance training.

It should be noted that the barriers examined in this study (those associated with goal-setting, personal-social attitudes and expectations, role conflict, and role acquisition) are not presented as deterrents exclusively to entry into nontraditional occupations. They include deterrents to women's reentry and educational and occupational equity as well. Many of the factors operating to keep women out of the work force and higher education are the same ones which deter them from entering nontraditional occupations.
Influence of family and friends

The factor identified most often in the literature as a barrier to female entry into nontraditional occupations is the negative influence exerted by their family members and friends. Parental attitudes and pressures seem to be of primary importance in family influence over a woman's career decision. A study of women in new careers concluded that parental expectations that their daughters would marry and have a family were important barriers to women's career involvement. Similarly, Cobb (1977) indicated that a major barrier or "filter" to women's entering science careers is the gender bias passed on to them by their parents. In a study of the careers women considered to be "ideal" and careers they actually chose, Burlin (1976) reported the influence of parents' attitudes toward traditional roles as one of the reasons cited for women not choosing their ideal career. The literature also suggests that the availability of support from a "significant" male may play a role in determining both the occupational aspirations and performance of women (Hawley, 1972).

It seems that family and friends exercise a great deal of influence over the kind of careers women choose. In a 1977 study, Smith surveyed women regarding barriers to their participation in nontraditional science-related careers and noted the impact of opposition from family and friends on a woman's choice of such a career. Nearly half (48.8 percent) of the respondents indicated that they felt the people important in their lives, i.e., family and friends, believed that a woman's
place is in the home, and that this factor was a significant barrier to them in their consideration of a nontraditional career.

Low occupational self-concept

The second most frequently discussed barrier in the literature reviewed was that women appear to have a lower self-concept than men in the realm of occupational performance. Such expectations may have the effect of: (1) limiting the range of occupations women feel free to choose (Bem & Bem, 1973; Looft, 1971) and (2) leading to actual failure in nontraditional occupational endeavors (Jones, 1977; Korman, 1970). This lack of success due to low self-concept is widely addressed in the literature, and seems to be closely tied to the fear of competing with men (MacDonald & Currier, 1977; Woods, 1975).

Korman (1970) hypothesized that, ceteris paribus, individuals will engage in and find satisfying those behavioral roles which will maximize their sense of cognitive consistency. To the extent that their self-concept concerning the job or task situation requires effective performance in order to result in consistent cognition, they will be motivated to engage in effective performance. Further, to the extent that an individual has a self-cognition of herself as a competent, need-satisfying individual, she will choose and find most satisfying those situations which are in balance with these self-perceptions.

The relative impact of societal gender role stereotypes on women's self-conceptions is difficult to evaluate. However, if,
as Bardwick (1971) suggested, the value one places on the self determines the level of self-esteem (and the lower a person's self-esteem the greater the anxiety and the greater the tendency to assume a societally prescribed role), then it is plausible to suggest that women whose self-esteem is lower than their male counterparts may be hesitant to engage in behaviors requiring the assumption of highly valued male gender role traits. Regardless of whether this negative conception of feminine value is internalized in the self-concept of a given woman or simply a reflection of what she considers to be the females' gender role appropriate stance as reflected by societal stereotypes, it may be anticipated to affect the achievement-directed behavior of that woman.

Lack of educational preparation for nontraditional careers

One very practical barrier is the fact that women simply are not educated to the same extent as men in the areas which would qualify them for entry into nontraditional occupations. While girls make better grades than boys through high school they differ greatly in the importance they attach to success in school (Rapoza & Blocher, 1976). Traditionally, females have not prepared for the technical areas to the same degree as males. Women in general have felt afraid of being unfeminine and afraid of jeopardizing their relationships with men (Pfiffner, 1972). Thus, it seems that girls in school choose traditionally "female" courses of study (Cobb, 1977) and are encouraged to do so by teachers and counselors who tend to "track" girls into courses that are considered to be
"appropriate" for women (Boundy, 1977; Kane, 1977; Smith, 1976).

It seems that the crucial element which would prepare women for nontraditional careers would be an adequate background in mathematics and science, but through the process of gender stereotyping, these areas have become thought of as exclusively male domains (Boundy, 1977; Ernest, 1976).

Role conflict

A factor which would seem to operate in conjunction with the barrier of low level of support from family/friends is that of role conflict. In order to perform a nontraditional job (or perhaps any job), women first may feel the need to resolve conflicts between the roles of worker and parent, worker and spouse, and nontraditional worker and woman (Burlin, 1976; Hall, 1972; Smith, 1978; Wertheimer & Nelson, 1977).

Hall (1972) sees the major role problem a woman faces as the result of conflicts arising from multiple roles, rather than from conflicting expectations within a particular role. Further, the conflicts between roles are often a function of role overload and time conflicts, rather than a function of intrinsic role incompatibility. Women, because they often must bear primary responsibility for the home and children, are more likely than men to face the competing demands of their role identities.

An added element of conflict is suggested by Smith (1977) who notes that women are socialized to direct their attention away from themselves as workers and toward getting their identity from spouses or potential spouses. More than half (55
percent) of the women in Smith's survey on barriers to women's entering nontraditional careers indicated the belief that a wife's career should not interfere with her husband's career success.

Lack of information about nontraditional careers

Another very practical barrier to women's entry into nontraditional occupations is the fact that women frequently do not have access to information concerning such occupations (U.S. Department of Labor, 1977; Wertheimer & Nelson, 1977). In Smith's (1976) survey of the barriers to women entering nontraditional science careers, 40 percent of the respondents indicated that they felt women to be less aware than men of both the availability of science careers and information about job openings. Lack of information about available nontraditional careers, it would seem, may be a critical barrier to women, since it could prevent them from getting adequate background to qualify them for these jobs. Kane (1977) observed that since information on nontraditional jobs for women is lacking, they do not, therefore, take courses that would prepare them for apprenticeships.

It appears then, that the fact that women are not informed about the availability of nontraditional careers may lead to a lack of educational preparation for such jobs, as discussed previously. Consequently, as women compete with men for available male-dominated jobs, they start out at a disadvantage and have to try that much harder to achieve success.
Lack of available role models

It follows that if there are relatively few women in nontraditional careers, the women who might aspire to such careers would have few female role models after which to pattern themselves. This seems, in fact, to be the case, and this lack of role models has been widely alluded to as a factor deterring women from entering nontraditional occupations (Astin, 1976; Elder, 1975; Smith, 1977; Wertheimer & Nelson, 1977). At the same time, it might be speculated that the entry of more women into male-dominated career fields will have a snowballing effect of inducing more women to enter such careers, creating still more role models.

The essential quality of role models is that they possess skills and display techniques which the neophyte lacks (or perceives she lacks) and from which, by observation and comparison with her own performance, the neophyte can learn. To defy societal role expectations requires a strong personality, particularly since few females have the opportunity to observe models of women who are intelligent, attractive, and respected in their careers. The absence of female role models functioning successfully in a masculine gender role appropriate position may be considered a barrier to the occupational aspirations and achievement directed behaviors of women in the labor force.

Lack of money to finance training

A final category of barriers to women's entering nontraditional occupations is the problem of financing training in order to get a particular job. It must be noted that the
element of training is more critical for women than for men, since women's overall experience and training do not generally provide the skills necessary in a career that is traditionally occupied by men. The issue of financing training may be further complicated by the awareness that it may be difficult for a woman to get a nontraditional job of her choice even after she has finished and paid for a training program. Even finding part-time work (traditional or nontraditional) to support herself during training programs often proves difficult for many women.

In any case, the lack of money to pay for training has been seen as a barrier (Indiana State Board, 1977; Tittle & Benker, 1977). Additionally, it has been suggested that many women, due to home and family responsibilities need to attend training programs part-time, and so the need exists for financial aid for part-time students (Wertheimer & Nelson, 1977). A final deterrent noted in this area is the fact that it is difficult for women to get loans (Astin, 1976). Overall then, women lack information on how to get money for training and find it difficult to secure financial aid due to their special situations.

These seven psychosocial barriers were identified as persistent deterrents to women's occupational and educational equity, specifically equity in nontraditional areas. Based upon this review it would seem that these identified barriers would be the issues to be addressed by any educational program purporting to assist women to enter nontraditional occupations
and training programs.

Other Factors Influencing Occupational Socialization

Other significant socializers which exert influence on female career development should be recognized. The media, including television, radio, magazines, newspapers and other printed materials share responsibility for channelling women's occupational aspirations.

The influence of family and friends and the associated role conflict has been discussed. Parental influence begins at an early age and is both subtle and blatant, conscious and unconscious. The most prominent variables related to parental influence are: (1) attitudes, expectations and gender-role socialization; (2) maternal employment; (3) socio-economic status; and (4) characteristics of the family background and parent-child relationship (Wittenberg, 1978).

Wittenberg (1978) found that girls are more independent than boys of the socio-economic background of their parents in formulating their career aspirations, and that their career plans may be more dependent upon their own goals and ambitions than on those of their parents. The same study found that daughters of working mothers held more favorable attitudes toward work than did daughters of non-working mothers. The effects are likely to be that working mothers who are satisfied with their careers and both comfortable and competent with the dual role aspects transmit those positive normative messages.

Socio-economic status is another important family
background variable. Studies have indicated that girls from lower socio-economic levels tend to have more gender-stereotyped occupational aspirations than middle or upper-class girls (Vetter, 1979). One explanation for this is that females from lower socio-economic status backgrounds tend to have mothers who are either not working or if they do work, are employed in traditional female jobs of lower pay and lower status.

There is no theory which questions the importance of socialization factors on the career development of women. There is, however, a considerable amount of literature on the influence of various educational practices, such as gender-biased counseling materials and tests and vocational education programs. Only a small amount of attention has been paid to the more subtle and insidious aspects of the "hidden curriculum" such as teachers' attitudes and behavior. The evidence suggests large differences in teacher attitudes, expectations, perceptions and behaviors with respect to girls and boys (Gaskell, 1982; Vetter, 1979).

Kane (1979) asserts that women in nontraditional programs felt that men students had more difficulty in adjusting to women in the class than did men instructors. These women felt that the men students were better prepared for their postsecondary training mainly because they had taken more technical subjects in high school. Women in classes with few other women students had the most problems; the extent of the problems and difficulties decreased with the presence of more women in the classes (Kane, 1979).
Counseling attitudes and practices represent another important socializing influence on women pursuing nontraditional careers. Counselors tend to rate women clients with a nontraditional career goal as having made a less appropriate choice than clients with traditional goals. More recent investigations suggest that counselor attitudes have changed only minimally (Fitzgerald & Crites, 1980). Realizing that value-free counseling is both empirically and philosophically untenable, many writers take a more activist position (Vetter, 1973). "Counselors must not continue to perpetuate such a situation... It seems time for counseling psychology to pick up the challenge... to become involved in social action; to make it a definite part of our professional task to set out to affect the status quo" (Vetter, 1973, p. 64). This is a first step toward meeting the challenge of establishing the educational and occupational equity for women pursuing nontraditional careers.

Programs Which Promote Occupational Equity

A number of career intervention programs have been developed and implemented to address the effects of gender role socialization which preclude educational and occupational equity. This section will review such programs, specifically those which focus on the barriers which deter women from entering predominately male occupations.

Existing programs which address gender bias and gender discrimination in educational and occupational preparation encompass the following processes: (1) recruitment, (2)
counseling, (3) training, (4) placement, and (5) follow-up (Thomas et al., 1979). Program goals range from global statements such as "to reduce gender bias" to specific activities of occupational training. The major emphasis has been to make it easier for women to select a wider range of higher paying jobs than has traditionally been available.

The recruitment phase of programming involves increasing public and individual awareness of existing programs and nontraditional career options for women. This awareness serves the purposes of recruiting students and communicating the acceptance of new occupational options for women (Brandstrom, 1978; Caughman, 1978). Postsecondary institutions and government agencies are actively involved in recruitment of women to nontraditional fields. Creative recruitment strategies include favorable exposure of nontraditional role models, outreach techniques, awareness campaigns, and selectivity in choosing program participants.

Counseling in programs designed to help women enter male dominated occupations involves three aspects. The first consideration relates to counseling which helps women understand their interests, values, and aptitudes. The importance of this lies in the placement of the right person in the right job; consequently knowledge of self facilitates this matching. The second area of counseling services is to help women understand and overcome the barriers to male dominated occupations as found in society, in schools, and in the minds of women themselves. This process requires time, extending beyond that of an
educational program. The third purpose of the counseling component addresses the specific needs of participants for receiving support, building self-confidence, and developing assertiveness (Caughman, 1978; Thomas et al., 1979).

The job preparation or training phase of intervention programs addresses both general employment needs (i.e., knowledge, skills, and experience), and specific needs (i.e., math remediation, assertiveness, physical fitness). Although some programs designed to facilitate female entry into male intensive fields focus on specialized aspects of job training, most tend to offer a combination of classroom theory, practical experience, physical fitness, job-finding skills, and counseling services (Brandstrom, 1978; Caughman, 1978; Chernove, n.d.).

A review of placement and follow-up aspects of career intervention programs focuses on an analysis of matching employers and employees (i.e., female employees in nontraditional occupations). The placement effort requires placing qualified women in nontraditional occupations and changing the attitudes of employers regarding the acceptance of women workers in jobs traditionally performed by men (Brandstrom, 1978; U.S. Dept. of Labor, 1977). Effective placement practices require program directors and staff to stay in close contact with the community and local employers.

The follow-up phase of programming involves evaluating the job placement matching described above. Two purposes are served by this evaluation: (1) to provide feedback on how well the training program is functioning and any changes required, and
(2) to give program director and student (employee) an opportunity to deal with job-related problems that may arise (U.S. Dept. of Labor, 1978). Several programs in the United States conduct regular evaluations of their programs and publish newsletters for their graduates (U.S. Dept. of Labor, 1978). Program follow-up in Canada appears to be somewhat ad hoc.

As discussed in Chapter 1 and examined above, most of the information relating to programs designed to facilitate female entry into traditionally male dominated occupations provides qualitative data. Most of the programs merely offer suggestions for helping females enter nontraditional fields. Few programs or program evaluations offer quantitative data relating to changed attitudes or program effectiveness relating to occupational role socialization for women pursuing nontraditional occupations. Also, it is difficult to ascertain how many women are being served by occupational preparatory programs in male intensive areas as the database in both Canada and the United States is either nonexistent or disguised in general educational statistics. The need for further research in this area is obvious.

Summary

Theories of career development can be divided into two categories: the structural or trait-factor view, which analyzes how various characteristics of individuals fit into some conceptual framework; and the developmental view, which emphasizes stages involved in occupational choice as a decision-
making process. The two views are not mutually exclusive; their utility lies in a psychosocial approach to the process of career development.

Gender differences account for important considerations in developing a career identity. Research and literature on self-concept, competence, motivation, aspirations, expectations, attitudes, knowledge, training, and skills provide useful information in understanding the career development of women as it differs from that of men. Gender role socialization for women may preclude their occupational and educational equity.

Barriers associated with the above career development factors are labeled personal-social barriers. These barriers consist of attitudes, expectations, and actual behaviors which act as deterrents to educational and occupational equity. Helping women to identify, understand, and overcome these attitudinal barriers is one means of facilitating their entry into nontraditional careers and career preparation programs.

The following chapter will examine the theoretical framework for conceptualizing the process by which women acquire an occupational role orientation.
CHAPTER 3  THEORETICAL FRAMEWORK AND HYPOTHESES

The purpose of this chapter is to examine the role acquisition process. The first section proffers the theoretical underpinnings of the role identification process. Secondly, this process is explored as it occurs within the conceptual framework of symbolic interactionism—the interaction of individuals with their society. Presented lastly is the model which was used to represent the interacting variables as they were hypothesized to influence career development.

Work is the dominant activity and setting for most adults in our society, outside the family. Socialization to work roles is viewed as a lifelong activity—involving both learning processes (Bandura & Walters, 1963; Bijou & Baer, 1961) and developmental processes (Kohlberg, 1966; Zigler, 1963).

Most of the occupational socialization involved in preparation for a career takes place in specialized schools and/or educational training programs. Individual attitudes and behaviors in organizations are based on the structural features of the world of work and the degree of personal adaptation to the experiences of the work situation. These attitudes and behaviors are usually acquired and performed in interactive social environments as one takes on an occupational role identity.
The Role Identification Process

An occupation is a social construct and its performance a social role or set of roles. Educational systems designed to prepare people for work roles convey with varying degrees of accuracy the formal requirements and formal rules of conduct appropriate to particular occupations. Verbal acknowledgments and prescriptions are rarely adequate to socialize one to an occupation; some form of on-the-job training or apprenticeship is a normal part of occupational socialization.

A theory helpful in explaining the dynamics of occupational identity is role theory, a specific socialization theory (Burke & Tully, 1977; Bush & Simmons, 1981; Deutsch & Krauss, 1965; Thornton & Nardi, 1975). A role can be defined as a set of expectations about the rights and duties associated with a particular position in a social structure. The content of expectations may be behavioral, attitudinal, or cognitive; the form that expectations take may be either overt or covert (Thornton & Nardi, 1975). Occupational norms or expectations relate to competence (having the requisite knowledge or skills of the occupation), performance (the actual use of the knowledge or skills in appropriate tasks), and values (adaptive attitudes to work practices).

Acquisition of roles is crucial to the continuance of the social order in modern society; it occurs through a process of socialization. Rosow (1965, p. 31) defines adult socialization as:
the process of inculcating new values and behaviors appropriate to adult positions and group memberships. These changes are normally internalized in the course of induction or training procedures, whether formal or informal. They result in new images, expectations, skills and norms as the person defines himself and as others view him. Thus there are both internal and external changes; within the individual, in his role set and in the interaction between them...

The concept of role can be seen as a theoretical point of articulation between psychology and sociology. Several conceptions of how individuals acquire roles can be found in the literature of both disciplines. The psychological phenomena are important explanations of how one develops a "personality," defined by Allport (1937, p. 48) as "the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment."

The relationship between role and personality is reciprocal. Individuals may be predisposed by virtue of their personality to occupy certain statuses. Conversely, the values and attitudes associated with particular statuses may themselves be incorporated into the structure of an individual's personality and thus exert a pervasive influence across the totality of the individual's social interaction.

The sociological aspect becomes an important element as one interacts with the social environment. In the process of such interaction a person not only takes on characteristics as a consequence of the roles enacted but also begins to experience a sense of self (Deutsch & Krauss, 1965). This sense of self gives rise to beliefs and attitudes about one's self—a "self-concept." Role theorists have articulated the concept of self
as a cognitive structure which emerges from the interaction of the human organism and its social environment.

An individual's identity is the meaning one attributes to the self as an object in a social situation or role (Coombs, 1969). These meanings come to be known and understood through interaction with others in situations in which others respond to the person as a performer in a particular role. The role identities are initially situation-specific. But over time they become organized into a hierarchy of identities (McCall & Simmons, 1966; Stryker, 1968). At the top of this hierarchy are the most central, influential, and salient role identities. These identities such as gender role identity or age role identity help to organize and order other role identities lower in the hierarchy.

A vital consideration of the integration and interaction of role theory is that identity is the internal component of role identification and role is the external component (Burke & Tully, 1977). The measurement of these role identities then occurs through the meaning of self-in-role as an object to the self, and this measure must relate one role identity to counter role identities.

Because individuals cannot be prepared in childhood for all the tasks and roles they will encounter as adults, socialization is a continuing, lifelong process. Contemporary work on adult socialization has revolved around the process of role acquisition (Becker, 1964; Brim, 1968; Brim & Wheeler, 1966; Rosow, 1974), role conflict (Gross, Mason & McEachern, 1958),
and role transitions (Gordon, 1972; Riley et al., 1972; Rosow, 1974).

Thornton and Nardi (1975) have identified four stages in this process of lifelong socialization: anticipatory, formal, informal, and personal. Each of the four stages of socialization is characterized by the type of expectations which predominate and each stage involves interaction between individuals and external expectations. A role is not fully acquired until an individual has anticipated it, learned formal and informal expectations inherent to it, formulated personal expectations, reacted to and reconciled those various expectations, and accepted the final outcome.

The anticipatory stage of role acquisition is the period prior to incumbency in a social position or when social and psychological adjustment begins. Role conceptions at this time tend to be generalized and stereotyped due to prior learning and socialization. Neophytes are exposed to behavioral, attitudinal and cognitive features of roles but because role identities tend to be idealized, anticipation may not be congruent with what will actually be experienced. And although the anticipatory stage of socialization is considered functional, research indicates that adjustment is in fact dependent on the degree of accuracy of what is conveyed and perceived (Olesen & Whittaker, 1968; Thompson, 1958). Thus the degree of congruity between what individuals learn to anticipate and what they subsequently experience will determine how effectively and efficiently the adjustment process will be.
In the second phase of role acquisition the individual experiences the role as an incumbent. Expectations tend to be formalized (e.g., job descriptions) and arise from members of the role set and from the incumbent. Though these formalized expectations tend to refer to expected behavior, knowledge and skills rather than attitudes or orientations toward role enactment, attitudinal elements may be present (e.g., allegiance). There tends to be a fairly high degree of consensus during this stage. Social and psychological adjustment-adaptation occurs through postponement of reactions to roles and situations.

The third stage of acquiring a role identity is characterized by unofficial or informal expectations. The informal features usually arise and are transmitted through interaction of individuals. Personal expectations usually held in abeyance during earlier stages now become more important. Informal expectations may be either explicit or implicit and although they refer to behavior, attitudes, knowledge and skills, the emphasis tends to be on attitudinal and cognitive role performance. Because informal expectations relate to "mays" rather than "musts," an individual begins to finalize psychosocial adjustment to role performance, integrating past experiences and future objectives.

The final stage—personal—is the culmination and integration of the three previous stages. As anticipatory, formal, and informal expectations are encountered, personal role identity expectations develop and are communicated to others.
with whom one is in contact. Role acquisition thus comes to involve individuals imposing their own expectations and conceptions on roles and modifying role expectations according to their unique personalities. This is important for social and psychological adjustment as well as for adaptation.

According to Thornton & Nardi (1975), three reactions to role expectations are possible. The first is social adjustment—the adequate meeting of role expectations and performance in accordance with them. The second is psychological adjustment—the achievement of congruity between individual psychological needs and desires and the role. Strict conformity is not a necessity. That individuals may modify roles to fit themselves and/or develop private meanings for role enactment is construed as adjustment. A third reaction, adaptation, occurs if the role is internalized and assimilated so that in a sense the person and role become inseparable.

The emphasis on role expectations suggests that the major considerations of role identification and acquisition are the salience of roles to individuals, their commitment to roles (and subsequent access to resources and flexibility for negotiation), and the integration of patterns they perceive as choices for themselves (Stryker & Serpe, 1982; Tittle, 1983). Adult role analysis also involves the types of roles and role activities, role patterns, role responsibilities, and timing and sequencing of roles, (Tittle, 1983).

Traditional female roles have emphasized the responsibility of women in marriage, motherhood, and homemaking relationships.
Less emphasis has been given to education and occupations. The work role is seen as a psychological commitment undertaken in addition to the highly visible and demanding marital and parental roles. This additive nature of the female role identity poses many problems. Women who seek training and employment in traditionally masculine occupations are faced with many dilemmas. To the extent that a female perceives herself both as possessing attributes associated with successful career achievement and as having interests in marriage and family, she may experience role conflict (Hall, 1975; O'Leary, 1974). But the major problem a woman faces may be the result of conflicts arising from multiple roles, rather than from conflicting expectations within a particular role. As well, the timing and sequence of entering roles affects other role patterns. Many, but not all, females have greater educational and occupational disadvantages due to early marriage and early parenting than do males (Kerckhoff & Parrow, 1978; Marini, 1980).

The commitment one possesses toward a role identity provides a useful way of conceiving the relevance of a particular role behavior (Stryker & Serpe, 1982). Becker (1956) posits a theory of occupational socialization linking commitment to role identification. In several studies of professional males he shows that commitment occurs through a process of identification with the occupational ideology after a person has been recruited to the occupation (Becker, 1964; Becker & Carper, 1956).

Ideally, role acquisition and role commitment would be
fostered through adequate preparation before taking on a role (Riley, 1979). The assumption underlying occupational role socialization is that if one is prepared ahead of time for the new role, in the sense of understanding the norms associated with the role, has the necessary skills to carry out the role, and becomes aware of expectations and rewards attached to the role, one will then move into the new role easily and effectively. For women preparing for nontraditional occupations, this socialization has important implications for career choice, career maturity, and career success.

Symbolic Interaction

Within social systems, socialization is carried out both informally, in the context of normal sequences of interaction and formally, through explicit socializing activities. Socialization involves two notions: that of learning new roles and that of accommodating to new identities.

For sociologists, socialization processes such as imitation, identification, and role acquisition are viewed as social interaction. In the process of interaction with the social environment a person not only takes on characteristics as a consequence of the roles, but also begins to experience a sense of self (Deutsch & Krauss, 1965). That aspect of the social person termed the "self" directs attention to symbolic interactionism.

Identity theory grows out of symbolic interactionism. This approach views identity as a major component of the self,
specifically the role identities one attributes to the self as an object in a social situation or social role (Burke & Tully, 1977; Stryker & Serpe, 1982). The use of symbolic interaction as a conceptualizing framework for occupational socialization facilitates a systematic understanding of the reciprocity between self and society—that theoretical articulation between psychology and sociology. It assumes that the human being is an active agent of behavior rather than simply a passive respondent to external stimuli.

Symbolic interactionism represents an evolving development which can be traced back to the Scottish moral philosophers, including Adam Smith, David Hume, Adam Ferguson and Francis Hutchinson. Their work in the eighteenth century established a basis for the empirical study of individuals and society (Bryson, 1945). Viewing society as a network of interpersonal communication, they saw human nature as the outgrowth of that communication. They argued that human behavior could be understood as the consequence of communication, imitation, sympathy, habit, and custom. These philosophers presaged the contemporary symbolic interactionist vision of the basic nature of society (as a system of interpersonal communication and interaction) and of the basic nature of the individual (as the product of society).

The link from the Scottish moral philosophers to contemporary symbolic interactionism proceeds through the American pragmatic philosophers—C.S. Pierce, Josiah Royce, William James, John Dewey, and George Herbert Mead (Stryker,
1981). The pragmatic influence elaborated themes already established: it viewed mind as an instrument for adaptation; treated mental activities as natural objects open to scientific investigation; realized the internally dynamic character of the human mind; and emphasized the relevance of the natural and social world for the development of the individual.

Specific thinkers and their contributions include James (1890) who argued the importance of society as a source of constraints on behavior. He developed a conception of "self" as both multifaceted and the product of relations with others. Dewey (1938) wrote often of the intimate experiential relationship of the person and society. He posited that personality is a matter of habit, insisting that custom and habit are the necessary bases for reflective thinking—the process of adjusting to one's environment.

Mead (1934) is perhaps one of the most important contributors to development of the symbolic interactionist framework. He argued that what distinguishes man from other animals is the enormous number of symbolic or conventional meanings which are learned through the process of symbolic interaction (i.e., seeing yourself as you are seen by others), which is a necessary condition of playing roles. According to Mead, it is from the social process that mind, self, and society derive. Mind emerges when persons initiate activities that relate them to their physical and social environment. The self emerges through interaction with others. Socialization of the individual is, above all, a process of social interaction.
Although Mead himself was not concerned with adult socialization, contemporary symbolic interactionists have built on his conception of role interactions (Bush & Simmons, 1981).

The meanings that Mead emphasized—the symbols that attach to objects in the physical environment, to other persons, to ourselves—are emergent from behavior, but they function in cognitive activities. One cannot understand or explain human behavior without comprehending both the facts of objective and of subjective experiences. Since humans are members of society, their relationships with others typically occur in the context of socially organized systems of activities. As society shapes the self, so the self shapes society; society is continuously being created and recreated.

To this analysis by Mead is wedded the thinking of sociologists Charles Cooley, William Thomas, and Robert Park. For Cooley (1902), the individual and society are simply two sides of the same coin. He saw no individuality outside of social order and the personality developing from extant social life. Interpersonal communications and expectations are central to this development. He agreed with Mead that the self was composed of two components—the "I" and the "me" and that this emerging self was the basic process of socialization.

Thomas provided a rationale for arguing the significance of the subjective in social life which became symbolic interaction's main methodological rule when he stated "... if men define situations as real, they are real in their consequences" (Thomas & Thomas, 1928, p. 567). Park (1955) saw
the self as emerging from the multiple roles played by the person in various communities and groups to which they belonged. He is perhaps the progenitor of the sociological view which conceptualized personality as reflecting (or even being constituted by) the roles people play (Stryker & Serpe, 1982).

Symbolic interactionism assumes that the most fruitful study of human social behavior is through an analysis of society. It also assumes that the human being is an active agent of behavior rather than simply a passive responder to external stimuli. A summary of the essential characteristics of the symbolic interactionist framework, out of which role identity theory evolves, is offered by Stryker:

1. Behavior depends on a named or classified world. The names or class terms attached to aspects of the environment, both physical and social, carry meaning in the form of shared behavioral expectations that grow out of social interaction. From interaction with others, one learns how to classify objects one comes into contact with and in that process also learns how one is expected to behave with reference to those objects.

2. Among the class terms learned in interaction are the symbols that are used to designate "positions," the relative stable, morphological components of social structure. It is these positions which carry the shared behavioral expectations that are conventionally labeled "roles."

3. Persons who act in the context of organized patterns of behavior, i.e., in the context of social structure, name one another in the sense of recognizing one another as occupants of positions. When they name one another they invoke expectations with regard to each other's behavior.

4. Persons acting in the context of organized behavior
apply names to themselves as well. These reflexively applied positional designations, which become part of the "self," create in persons expectations with respect to their own behavior.

5. When entering interactive situations, persons define the situation by applying names to it, to the other participants in the interaction, to themselves, and to particular features of the situation, and use the resulting definitions to organize their own behavior in the situation.

6. Social behavior is not, however, given by these definitions, though early definitions may constrain the possibilities for alternative definitions to emerge from interaction. Behavior is the product of a role-making process, initiated by expectations invoked in the process of defining situations but developing through a tentative, sometimes extremely subtle, probing interchange among actors that can reshape the form and content of the interaction.

7. The degree to which roles are "made" rather than simply "played," as well as the constituent elements entering the construction of roles, will depend on the larger social structures in which interactive situations are embedded. Some structures are "open," others relatively "closed" with respect to novelty in roles and in role enactments or performances. All structures impose some limits on the kinds of definitions which may be called into play and thus the possibilities for interaction.

8. To the degree that roles are made rather than only played as given, changes can occur in the character of definitions, in the names and the class terms utilized in those definitions, and in the possibilities for interaction. Such changes can in turn lead to changes in the larger social structures within which interactions take place (1980, pp. 53-55).

Symbolic interaction thus provides a framework for examining the process by which and through which women pursuing nontraditional careers acquire a nontraditional role orientation. Women are socialized by interactive social
exchanges, but social structure shapes the interaction. Consequently, the role acquisition process is one of dynamic interchange.

Conceptual Model and Definitions for Analyzing the Variables

Using a symbolic interactionism framework and role identity theory, the occupational socialization of women into nontraditional occupations as it occurs in postsecondary career preparatory programs is the focus of this study. The specific variables impinging on a woman's nontraditional occupational development are:

1. type of commitment to a career;
2. goal-setting;
3. personal-social barriers to nontraditional occupations;
4. role acquisition;
5. role conflict;
6. self-efficacy expectations.

The following definitions of the variables were used to provide direction for the study.

Type of career commitment - involves behavioral and attitudinal aspects of work motivation and work values in occupying a particular position in an organized structure of relationships.

Goal setting - is a process by which a person assesses occupational and educational options as a means to personal and career development; involves gaining awareness and knowledge about self and careers.

Personal-social barriers to nontraditional occupations - are attitudinal dispositions involving expectations, perceptions,
knowledge, and abilities; acquired through socialization.

**Role acquisition** - is assuming the behavioral, attitudinal, and cognitive expectations of a social position.

**Role conflict** - results from conflicting behavioral, attitudinal, or cognitive expectations arising from multiple roles associated with career achievement and marriage and family interests.

**Self-efficacy expectations** - are behavioral, attitudinal, and cognitive perceptions of one's ability to fulfill a particular role identity; involves the competence and persistence of acquiring and maintaining that role.

A conceptual model of the interacting variables was diagrammed as follows:

**Figure 1**

**Model of the Variables in the Study**
It should be noted that the diagram and hypotheses have a somewhat unusual independent-dependent relationship. At the pretest stage the variables impinging on a female's nontraditional career development were regarded as independent while enrollment in a specific type of program was listed as the dependent variable. In other words, the type of person one was at the outset (before the program) determined which type of career program one chose. At the posttest stage the program variable was conceptualized as the independent variable and the other variables impinging on career development as dependent. As a result of being enrolled in a specific type of occupational preparation program, a female was expected to acquire a new sense of self. The program was thus the intervening variable which determined the posttest outcome (occupational socialization).

Hypotheses

Three sets of research hypotheses were formulated in which occupational socialization was explained in terms of educational and psychosocial variables. The use of three sets of hypotheses (pre, post, change) was important in addressing the question of whether the programs recruited women who were already predisposed to a specific occupation or whether the programs were able to influence nontraditional role socialization.

The first set involves the pretest hypotheses and measures the effects of gender role socialization on the criterion variables as mediated by psychosocial dispositions, attitudes
and behaviors at program enrollment. Because of the inability to randomly assign subjects to treatment groups, the pretest hypotheses were intended to ascertain whether the four programs were serving a homogeneous group of women or merely selecting those who already held definite dispositions toward specific occupations.

The second set of hypotheses shows how women differ systematically on the criterion variables at the completion of approximately fourteen weeks of occupational preparation. These posttest hypotheses reflect program experiences and efforts to socialize students into occupations. They offer an empirical representation of the relative differences across the groups in psychosocial dimensions of occupational preparation as mediated by educational intervention strategies. They reveal the differences that program sponsors can anticipate among the graduates of the four kinds of programs.

The final set of hypotheses deals with the differences between the pretest and posttest scores. These differences reflect the influences of educational interventions offering occupational preparation—including cognitive, psychomotor, and affective learning experiences. These hypotheses deal with the relative effectiveness of the four occupational preparatory programs in bringing about change in perceived psychosocial barriers to nontraditional occupations.

A delineation of the hypotheses and the accompanying rationale follows.
At the beginning of the programs

This set of hypotheses allows the effects of gender role socialization on the criterion variables to be examined at the initial stages of program enrollment. It also establishes a "baseline" score with which to compare the posttest scores and change scores (difference between pre- and posttest measures).

1. Those women who perceive fewer personal-social barriers to nontraditional careers (as measured by Thomas Attitude Scale) will be enrolled in nontraditional occupational preparation programs while women who perceive more personal-social barriers to nontraditional careers will be enrolled in a traditional oriented occupational preparation program.

Rationale. Perception of personal-social barriers to nontraditional occupations is a crucial determinant of occupational equity. Because of gender role stereotyping, women acquire the attitude that certain roles and occupations are appropriate for them and others are not. As women begin to believe they can exercise control over their own career development, they assume greater responsibility for actively choosing an occupation based on their interests rather than on stereotypical norms. Women in the three nontraditional career preparation programs will be in various stages of assuming control of their career development as evidenced by the number of personal-social barriers they perceive to nontraditional careers. Those students in a traditional oriented career preparation program have chosen an occupation based on their interests (health care) and have received norm socialization that there are a great number of barriers to nontraditional occupations.
Women who view work commitment in masculine terms (permanent, necessary, masculine—as measured by Factor I, Nagely Scale) will be those enrolled in nontraditional occupational programs while those women who view work commitment as feminine and think of it as stop-gap (socially oriented, glamorous, temporary—as measured by Factors III & IV of the Nagely Scale) will be enrolled in a traditional preparation program.

**Rationale.** The reasoning that those seeking nontraditional careers would have a masculine work commitment and those seeking a traditional career would have a feminine and stop-gap orientation was based on empirical evidence. Women who perceive themselves as possessing those psychosocial traits of femininity, altruism, non-competitiveness, idealism, submissiveness, and who think of a career as temporary, glamorous, and not in conflict with the female role will self-select themselves into a career program of a traditional nature—in this case the health care field. These women seek these careers specifically because of the easy entry, easy exit, easy reentry to accommodate marital and parental responsibilities. Women who self-select themselves into a nontraditional preparatory program are likely to have a masculine work orientation exhibited by viewing careers as masculine, permanent, and appropriate and to have the psychosocial traits of independence, masculinity, mastery and innovation.

Women who view their work commitment in masculine terms will perceive fewer barriers to self-efficacy expectations (as measured by Items A, E, K in the Thomas Attitude Survey) than do women who view their work commitment as traditionally feminine.

**Rationale.** Those women who view a career in terms of permanent, challenging, and masculine characteristics will have
already developed a self concept of competence and persistence in addressing behavioral, attitudinal, and cognitive barriers to occupations. They will perceive themselves as capable of competing with men in male dominated occupations because they have had successful experiences or accomplishments in those areas and have had positive reinforcement from others with whom they interact.

Women who are preparing for a career because it represents the stereotyped female commitment of glamorous, temporary, and not in conflict with the female role will not see themselves as competent and persistent and working in occupations dominated by males. Because women in traditional fields will probably not have expressed any desire to pursue nontraditional careers, they likely have not experienced any nontraditional accomplishments, verbal reinforcement, or emotional arousal which characterizes self-efficacy expectations.

4. Women who perceive less role conflict (measured by Items I, J, L of the Thomas Attitude Survey) will be enrolled in nontraditional occupational preparation programs while women who perceive more role conflict will be enrolled in a traditional preparation program.

Rationale. Women students who wanted to prepare for nontraditional occupations were expected to have resolved any conflicting behavioral, attitudinal or cognitive expectations associated with career and family interests or expectations. It is because of resolving any conflict they were able to pursue actively nontraditional occupations through enrollment. Those students in the traditional career program were motivated for career preparation for personal, economic, or pragmatic reasons
(not unlike any other student in a career program), yet still perceived some conflicting expectations or responsibilities (either from parents, spouses, or children) associated with careers and career preparation, especially nontraditional careers.

5. Women who view their work commitment in masculine terms will perceive less role conflict (measured by Items I, J, L of the Thomas Attitude Survey) than do women who view their work commitment as traditionally feminine.

Rationale. For women who have work motivation and work values typified by terms of masculine, challenging, permanent and important, conflict associated with career achievement and family interests will be less severe than for women who think of their work commitment in feminine terminology—glamorous, idealistic, not demanding. Students in nontraditional programs will have experienced pressure to pursue stereotypical careers, and may have done so, but by time of program enrollment they are anticipated to have dealt with personal-social conflicts so as to minimize them.

6. Women who perceive fewer barriers to nontraditional role acquisition (as measured by Items F, G, H of the Thomas Attitude Survey) will be enrolled in nontraditional preparation programs while women who perceive more barriers to nontraditional role acquisition will be those enrolled in a traditional preparation program.

Rationale. Role acquisition involves assuming the behavioral, attitudinal, and cognitive expectations of a social position. These expectations are both covert and overt and are imposed by both personal and societal norms. Women desiring to enter nontraditional occupations will have self-selected
themselves into those programs after consciously acquiring a sense-of-self which integrates the external dimensions and internal predispositions of a nontraditional role identity. They are thus expected to perceive fewer barriers to nontraditional role acquisition than women who have self-selected themselves into a traditional career preparatory program. Because women in the traditional program either have not anticipated, experienced, or pursued nontraditional career interests, they will perceive more barriers to a nontraditional role identity.

These six hypothesized explanations of differences among four groups of women in distinct postsecondary occupational preparatory programs reflect both socialized (stereotyped) values, dispositions and expectations plus personal orientations, expectations and motivations. It was hypothesized that by the very nature of program self-selection or by intentional selection designed by program sponsors that the women would differ on the measures of career commitment and perception of personal-social barriers to nontraditional occupations. An explanation of their differences and similarities after program experiences follows.

At the completion of the programs

This second set of hypothesized relationships—the posttest hypotheses—reflect the scores on the criterion variables after the students have been enrolled approximately fourteen weeks in four distinct occupational preparation programs. These scores reflect the extent to which program graduates exhibit systematic
differences, recognizing that final scores are influenced by the treatments. As such, they provide an understanding of the interactive and reciprocal effects of personal-social dimensions of occupational preparation as mediated by educational interventions.

7. Women who have completed nontraditional occupational preparation programs will perceive fewer personal-social barriers to nontraditional careers (measured by Thomas Attitude Survey) than will women who have completed a traditional oriented occupational preparation program.

Rationale. At this stage of career development—nearing the completion of initial preparation in an educational program—students are anticipated to have confirmed their occupational decision reflected by their self-selection into specific programs. Consequently, measurement on the criterion variables was expected to vary according to program emphasis. Those women in the three nontraditional programs were predicted to perceive fewer personal-social barriers at completion than women in a traditional preparation program because they (those in nontraditional programs) had made the correct program choice and the program had met their needs and interest by confirming their ability to address and overcome personal-social expectations which impede nontraditional career development.

8. Women who have completed nontraditional occupational preparation will view work commitment in masculine terms (as measured by Factor I, Nagely Scale) while women who have completed a traditional preparation program will view work commitment as feminine and think of it as stop-gap (as measured by Factors III & IV, Nagely Scale).

Rationale. At program completion nontraditional career
program participants will possess an orientation to work and to work values which reflects masculine, permanent, and necessary career commitment. This commitment will have been confirmed through program experiences and exposure to occupational norms, expectations, and behaviors. The traditional career program will have confirmed participant work commitment orientations of a career being temporary, not in conflict with the female role, and feminine. Thus, these women will anticipate easy entry, easy exit, and easy reentry to suit their personal and family responsibilities and interests.

9. Women who view their work commitment in masculine terms will perceive fewer barriers to self-efficacy expectations (measured by Items A,E,K, Thomas Attitude Survey) than do women who view their work commitment as traditionally feminine.

Rationale. After approximately 14 weeks in a career preparation program women are expected to have begun developing a sense of their competence and the reality of their persistence in acquiring and maintaining an occupational role identity. Women who express work commitment in masculine, permanent, and necessary terms will have acquired and experienced nontraditional accomplishments and received positive verbal reinforcement about their abilities. Consequently, they will perceive fewer barriers to self-efficacy expectations associated with nontraditional careers than will women who view work commitment as traditionally feminine.

10. Women who have completed nontraditional occupational preparation programs will perceive less role conflict (measured by Items I,J,L, Thomas Attitude Survey) than will women who have completed a traditional preparation program.
**Rationale.** Female role conflict results from conflicting expectations arising from multiple role responsibilities associated with career achievement and marriage and family interests. Women in nontraditional occupational preparation programs were anticipated to have initially self-selected themselves into a program because they had resolved any major conflicting responsibilities and interests. Program experiences will have confirmed that resolution or any concerns they had at program enrollment about competing and conflicting family and societal expectations.

11. Women who view work commitment in masculine terms will perceive less role conflict (measured by Items I, J, L of the Thomas Attitude Survey) than do women who view work commitment as traditionally feminine.

**Rationale.** Women with a masculine work commitment, by virtue of those traits and values associated with masculine work motivation (permanent, masculine, challenging, necessary) will have used program experiences and exposure to occupational norms to confirm their ability and persistence to pursue a career and to deal with role conflict pressures and expectations. Women in the traditional career program are there presumably because they anticipate that role pressures and expectations will require a career characterized with intermittent employment.

12. Women who have completed nontraditional preparation programs will perceive fewer barriers to nontraditional role acquisition (as measured by Items F, G, H of Thomas Attitude Survey) than will women who have completed a traditional preparation program.

**Rationale.** Program experiences for women in nontraditional programs will have allowed women to gain the requisite knowledge and skills plus gain exposure to behavioral, attitudinal, and
cognitive expectations impinging on a female in nontraditional employment. As a result of the newly acquired knowledge, skills, and attitudes, women in nontraditional programs will perceive fewer barriers to nontraditional role acquisition. They will see that personal and social norms which limit a woman's occupational options in nontraditional fields are based on gender role socialization rather than on knowledge and ability. And because of improved career maturity based on increased knowledge, attitudes, and skills, these women in nontraditional programs will be in a better position to make career decisions based on reality rather than idealism.

These six hypothesized explanations of the systematic differences among women in four distinct occupational preparation programs reflect the characteristics of graduates of each of the four kinds of programs. It was reasoned that differing characteristics would occur as a result of the intervention strategies employed in the program. The differences occurring as a result of educational interventions are offered below.

Pretest to posttest differences

This third set of hypotheses deals with the differences in the amount of change during four different occupational preparatory programs on the measures of occupational socialization. Because these changes reflect the difference between pretest scores and posttest scores, they thus reflect the effectiveness of the educational programs in influencing occupational socialization. These scores are important because
they demonstrate the effectiveness of the four treatments. Further, they show the relative importance of selection and treatment in producing any differences among the groups in the identified variables under examination.

13. Women who have completed nontraditional career preparation programs will perceive fewer barriers associated with personal-social barriers, role acquisition, role conflict, self-efficacy expectations and goal-setting between the pre- and posttest measures than will women who have completed a traditional preparation program. Women in a traditional preparation program are not expected to change their scores from the pretest to posttest measurements.

Rationale. Nontraditional program enrollees were thought to have internalized the characteristics appropriate to that role identity. They were expected to have a sense of competence and persistence in nontraditional areas, acquired through nontraditional experience and accomplishments. Partly because of this persistence, it was anticipated that they would have pursued nontraditional career information and goals, even in the face of adversity. For them, acquiring the requisite knowledge, skills, and attitudes of a nontraditional role identity was worth the extra effort. These women were more likely to have explored the means of addressing any conflict associated with career and family interests and expectations. Students in a traditionally female oriented program were not anticipated to have any exposure or experience with nontraditional occupational behaviors or expectations and consequently would not alter their scores on the measures of nontraditional occupational socialization.
As a consequence of dealing with the above phenomena, it was expected that women in the nontraditional preparatory programs would perceive fewer personal-social barriers to nontraditional occupations. They were more likely to believe they could exercise control over their own career development than that they were compelled to comply with gender role socialization. They probably assumed greater responsibility for actively choosing an occupation based on their interests and abilities rather than on stereotypical norms. Students in the traditional female health care program were anticipated to comply with gender role socialization and to accept societal norms, expectations, and values concerning the propriety of occupational choices and employment.

14. Of the women in nontraditional preparation programs, those who have completed a nontraditional career exploratory program (EAW) will experience the most change of the three nontraditional groups on the measures of occupational socialization (personal-social barriers, role acquisition, role conflict, self-efficacy expectations, goal-setting) between the pre- and posttest measurements.

Rationale. Although women pursuing nontraditional careers were anticipated to have internalized norms associated with nontraditional roles as a result of program participation, those enrolled in the career exploratory program (EAW) and who therefore were involved in the process of exploring various nontraditional career options (including the skills, behaviors, attitudes, expectations, and barriers), were more likely to have acquired a nontraditional occupational socialization than women who had completed a nontraditional programs that did not include these exploratory elements. The nontraditional career
exploration program provided on-the-job experiences in four occupational settings as well as skill training. But it also offered more features than other nontraditional training programs: communication skills, weight training, tradeswomen as guest speakers, women-in-trade films, shop tours, special trade skill workshops, and job hunting skills. These program components facilitate nontraditional career development and nontraditional occupational socialization.

Overall then, three sets of hypothesized relationships were offered to present the nature of women in postsecondary career preparatory programs, their gender role socialization, and the impact of their program experiences. By examining the effect of gender role socialization at program enrollment, a baseline measure could be determined for comparing the influence of gender role socialization on women in the four programs and for analyzing the influence of program experiences as measured at program completion. The set of posttest hypotheses examined the systematic differences across the four programs. Thus, posttest measures reflected the interactive dimensions of personal and social dispositions, attitudes, and behaviors toward nontraditional occupations as mediated by learning experiences. The third set of hypotheses measured changes in career commitment and perceptions of barriers to nontraditional occupations between program enrollment and program completion. These hypotheses thus reflected the effectiveness of program curricula and the specific socialization efforts of helping women understand and overcome psychosocial deterrents to
nontraditional occupations. Gender role socialization and occupational socialization were hypothesized to reflect personal-social influences and educational dimensions of career interventions—the formal and informal symbolic interchanges of role acquisition.

Summary

Role identity theory builds on the assumptions, definitions, and propositions of symbolic interactionism. The empirical issues with which role theory is concerned revolve around choices made in situations in which individuals interact and the role identities they acquire through that interaction. The self and society are reciprocal; society has an impact on self, and through self on social behavior. Symbolic interaction provides a useful approach for an analysis of nontraditional career socialization for women.

Three sets of hypotheses were proposed to examine the occupational role socialization process. The first set of pretest hypotheses represented initial measurement on the identified variables associated with career commitment and nontraditional role acquisition. These hypotheses provided an entry-level baseline for comparison and analysis with posttest scores and change scores. The pretest hypotheses also facilitated an examination of the similarity of the programs in their recruitment of women students.

The second set of hypotheses (posttest) allowed the differences among the graduates of the four types of programs to
be measured. This measurement provided a basis for understanding the occupational role acquisition process (as influencing career commitment and perceived personal-social barriers to nontraditional occupations) as mediated by learning experiences.

The third set of hypotheses represented changes on the criterion variables between pretest and posttest measures. These scores reflected the effectiveness of the four programs in influencing nontraditional occupational role socialization.

The design of three sets of hypotheses (pre, post, change) was useful in addressing the question of whether the programs recruited women who were already predisposed to a specific occupation or whether the programs were able to influence nontraditional role socialization. Although self-selection plays an important part in nontraditional career choice, it was argued that special programs can facilitate nontraditional occupational socialization.
CHAPTER 4  METHODOLOGY

This chapter describes the design, procedures, and analyses used to test the hypotheses. Steps taken to select a population and sample are outlined and information about the participants is included. The researcher's involvement with the program data is described, followed by the details of data analysis used in this study.

Design

The discussion of the design will focus on a description of the educational programs in this study and the instruments used to measure occupational socialization.

The Educational Programs

The design of this study followed the nonequivalent control group design (Campbell & Stanley, 1963). Four classes (groups) were tested, using pre- and posttest instruments. Women in these programs experienced educational interventions to improve their occupational opportunities. One group was enrolled in a preparation program of a traditionally female occupation—the health care field. The remaining three groups each received educational intervention that emphasized occupational knowledge, skills, and attitudes for occupations traditionally dominated by men. Each of these three programs used a different approach in offering occupational education. The emphasis, then, is not on whether the program is considered "traditional" or
"nontraditional" but whether the program offers skill training for occupations which are considered traditional for women or nontraditional for women. The groups are described below.

Group 1, "Employment Alternatives for Women" (EAW), is a nontraditional career exploratory program offered at Kwantlen Community College, Surrey campus. It is designed to provide women with the personal, physical, and mental development considered by the curriculum developers to be necessary for success in either nontraditional career preparation programs or nontraditional employment. Four areas of occupational socialization are addressed: career decision-making and goal-setting; personal improvement (assertiveness training, communication skills, physical fitness); theoretical knowledge and practical skills; and nontraditional occupational expectations.

The program is a 16-week course of full-time study, i.e., five days a week, 8:00 a.m. to 4:00 p.m. Attendance is required and closely monitored. The rationale of attendance and time scheduling is to simulate, as closely as possible, a full-time nontraditional occupation. After an exploration period including business and industrial tours, interest and aptitude assessments, and fitness assessments, women spend eight weeks (four different two-week placements of their choice) of on-the-job experience. Students must meet college admission requirements (i.e., specific academic qualifications) or enter as a "special student" (one who does not meet college academic qualifications but who has the permission of the instructor
and/or administration to enter the program). See Appendix A for college admission requirements. Because of the specialized nature of the program (i.e., nontraditional career exploration) prospective students are interviewed by the instructor to determine whether the program meets their needs and interests. If the instructor deems the student will benefit from the program she may register. Prospective students can be referred to other programs or to the college counseling office if it seems appropriate.

This program was chosen because it was one of four in the province specifically addressing the affective component of occupational socialization (the behavioral, attitudinal, and cognitive expectations associated with nontraditional role acquisition). The EAW program was the only one offered in Vancouver, British Columbia; the other three were located at postsecondary institutions outside of Vancouver.

Knowledge and skills concerning nontraditional occupations are provided in the program. Nontraditional occupational socialization experiences are shared by practicing tradeswomen guest speakers who serve as role models and discuss the realities of being a woman in male-dominated work settings. Other ways this program addresses nontraditional occupational socialization include shop tours, women-in-trade films, role-play activities and group discussion. Career counseling is available through the College or Canada Employment and Immigration Commission (CEIC), which provide financial sponsorship for many of the women in the program.
As discussed earlier, if women are to take advantage of federal and provincial emphasis and sponsorship of nontraditional educational programming and occupational opportunities, then college programs which specifically address the affective occupational socialization process (as well as the knowledge and skill components) would appear to be appropriate means of accomplishing this.

Group 2 is Professional Cook Training, Level I (CkTrng), offered at Pacific Vocational Institute (PVI), Burnaby campus. It is a twenty-week classroom approach to occupational preparation as a short order cook. Instruction covers theory and practice of menu planning, food preparation, and kitchen management.

Females and males are approximately equally represented at this level of occupational preparation. This occupational field is classified as nontraditional for women because men are represented in greater frequency at the higher education levels—Level II, Institutional Cook, and Level III—A-La-Carte and Banquet Cook—and in the higher status position of chef in industry. Yet some women and men in Level I regard this program as "traditional," in other words, "for women."

Course content is arranged in three segments: five weeks of classroom and laboratory theory and skill; ten weeks of practical laboratory experience in the PVI short order kitchen; and five weeks of industrial training in the community. Students may have from two to five instructors during the program. Little, if any, discussion is given to the affective
component of cook training. Few, if any, additional resources are utilized, i.e., guest speakers, shop tours, assertiveness training, communication skills, or career exploration.

In addition to satisfying college academic admission requirements, students must have good health, a high standard of personal hygiene and the ability to stand for long periods of time. Students apply for the program after meeting with an instructor or administrator of the program or after meeting with a counselor in the Career Advisory and Student Services Department.

This program was chosen because of its "traditional" approach to nontraditional occupational preparation—classroom structure combined with laboratory experience. The content component is also of the customary nature—theory and skill, ignoring the affective aspect (behavioral, attitudinal, and cognitive expectations) of the occupation. If women do encounter personal and social barriers during their program, these may or may not be addressed. Career counseling is available through the Career Advisory and Student Services Department, although it tends to be in the nature of academic advising.

Group 3 is the Training Access (TRAC) program at Pacific Vocational Institute, Burnaby campus. The TRAC program offers training for access to jobs not usually considered for women and is thus "nontraditional." This self-paced, open entry, competency-based technical and trades training program was initiated by the British Columbia government to replace the pre-
employment and pre-apprenticeship programs offered at community colleges and institutes throughout the province. It was started in January 1983 and at the present time is in various stages of implementation, depending on the content area and the institutional location.

The use of individualized modules eliminates classroom instruction and interaction. Some practical skill workshops are required. Instructors are available as resource personnel for both the theory and skill components of instruction and practice, although students are not guaranteed that instructors will be knowledgeable in the students' specific area of study. Some group work does occur—either as laboratory instruction before skill practice or as students become acquainted and begin to meet in specific areas. There are no study rooms, carrels, or facilities available to these TRAC students; they meet and study wherever they can—in the library (which is designated as the resource room), the cafeteria, or elsewhere. Although this program is designed to facilitate individualized learning, attendance is mandatory for students sponsored by CEIC. They must sign in daily in the resource room.

The TRAC program consists of three elements: "Common Core" (knowledge and activities common to occupational families) which includes safety, science, mathematics and which provides an introduction to a number of specific occupations or families of occupations; "Occupational (Family) Core" in which occupations are grouped into occupational families such as mechanical, electrical, or other trades; and "Specializations" which are
related to the specific occupational core. Students must demonstrate competency in the common core before moving into the occupational families category. Some learning assistance is available for those having difficulty with program material.

Students are selected for most programs on a first-come, first-serve basis, usually after seeing a counselor in Career Advisory and Student Services Department. There is no specific educational requirement for the TRAC program although students are encouraged to have Grade 10 math and science. Anyone over age sixteen with an "adequate level of fluency and competency in spoken and written English" may register.

This program was chosen because it represents a replacement of the provincial pre-employment and pre-apprenticeship programs (which are the programs in which women enroll to improve their employment options in the nontraditional fields). It also represents an alternative approach to teaching occupational knowledge and skills—that of individualized instruction. At the time this study was conducted, there was little attention given to the affective component of women's nontraditional occupational socialization.

Group 4, the last group, represents an occupational preparation program of a traditional nature for women—the health care field. The Long Term Care Aide (LTC) program is fifteen weeks of full-time study offered at Kwantlen Community College, Richmond campus. It involves classroom lectures, laboratory practice and institutional experience.

This program prepares women to care for residents in
extended care, intermediate care and personal care settings under the direction of a registered nurse. Instruction focuses on theory and practice, largely ignoring the affective component of occupational socialization. There is, however, a communication class requirement as part of the program. Here women learn communication skills in the context of occupational development. Students interact with two to three instructors on a regular basis during their program, as well as with each other.

In addition to the regular college academic admission requirements (see Appendix A), the program has the following prerequisites as listed in the college catalogue: (1) ability to speak and understand English at an acceptable level; (2) demonstration of reading and comprehension skills; and (3) satisfactory physical assessment by a physician. Students are selected for the program after an interview with the instructor, department chairperson, or college counselor.

This program was chosen as a comparative program, representative of those occupations traditionally thought of as suitable for women as caregivers. It closely resembles the cook training program (nontraditional for women) in that it combines classroom lectures, laboratory practice, and institutional experience. Both programs are instructor centered and controlled, with several persons in the instructor role. In CkTrng, women have male instructors but their fellow students are both male and female. The LTC program employs only women instructors and attracts women participants (although men are
not excluded from the program). TRAC instructors are either male or female with a predominance of males; students are mostly male. And the EAW program has a female instructor.

The four groups just described represent four different types of occupational socialization for women. EAW offers nontraditional career exploration at the pre-employment level. Students receive theoretical knowledge, practical skill experiences plus affective information and experiences about nontraditional employment. CkTrng is a classroom approach to occupational training; students receive theory and skill in classroom and laboratory experiences. The TRAC program offers pre-employment or pre-apprenticeship training through individualized learning experiences. Practical skill activities are required; the focus is theory and skill. The last program, LTC, represents a classroom approach to a traditionally female occupation—health care. Students receive class lectures, laboratory practice, and institutional experience. The focus is theory and skill.

Instruments used to measure women's occupational socialization are described below.

Instrumentation

Instruments

Three instruments were used to gather data: a biographical questionnaire, an attitude about careers survey questionnaire, and a commitment to a career questionnaire (see Appendix B). Additionally, interviews were conducted with selected women from
each program after the completion of their course of study.

In the biographical section of the instruments, questions were asked to ascertain the following information: age, marital status, number of children cared for, ages of children cared for, highest level of formal education completed, total years work experience, present employment status, number of hours per week employed (if applicable), relation of employment to current educational enrollment, and educational or vocational goals immediately following current educational enrollment. This information was collected to provide data regarding the representativeness and selectivity of the participants. The information was also intended to contribute to the data base of information about women in nonprofessional, nontraditional postsecondary preparatory programs.

Attitudes about careers was measured using the Survey of Women's Attitudes About Careers (Thomas et al., 1979). This instrument assessed the perceived personal and social barriers for women desiring to enter nontraditional occupations. It contained 53 statements using a Likert scale ranging from strongly agree (5) to strongly disagree (1). Internal consistency (reliability) of the instrument was determined to be .98 (Thomas & Denbroeder, 1979, p. 4). A Q-sort and a factor analysis provided evidence of content and construct validity (Thomas et al., 1979).

The instrument was designed and tested in the Tallahassee, Florida area. Items for the instrument were developed from deterrents identified from personal interviews with 50 women who
had, at one time, considered entering a nontraditional career. Deterrents identified were grouped into categories to facilitate the writing of items. The item format represents a common stem with several deterrent statements (items) following each stem.

Due to the excessive length of the original instrument (123 statements), an abbreviated version was devised for use in this research. The criteria for item exclusion included: (1) low loadings (less than 10) on the 17 orthogonal factors identified by Thomas, et al, (1979); (2) low factor loadings (less than .400) on the correlation loadings from the item analysis; and (3) redundancy of item statements and/or item stems. The revised instrument retained both item stems and item statements which reflected the personal-social barriers identified as criterion variables in this study. The revised instrument included 53 items (See Appendix B).

A woman's commitment to a career was measured using Nagely's (1970) Scale of Attitudes Toward Career and Career-Related Variables. This instrument uses 46 seven-point bipolar adjective scales to measure the meaning a woman's career has for her. Scales represent: social desirability, uniqueness, role conflict, activity, social service, creativity, power, comfort, excitement, importance, success, self-enhancement, and stability. Five scores are obtained: masculine work orientation, career benefits, feminine social orientation, stop-gap job orientation, and women's liberation orientation. Because reliability and validity data were not provided by the developer, the instrument was checked for its reliability and
validity.

The career commitment instrument was designed using the semantic differential technique. The purpose of this design is to allow respondents two choices per word pair: direction of feelings (meaning of concept) and intensity of those feelings. The original instrument contained 70 bipolar adjectives; 24 of which were added by Nagely to diffuse the intensity of attitude response and to help avoid position habits in the response pattern. For this investigation of nontraditional occupational socialization only those 46 items relevant to the five factors yielded in the factor analysis of the original instrument were included in the test instrument to achieve parsimony. Nagely used the original instrument with twenty women employed in occupations traditionally filled by men and with twenty women employed in occupations traditionally filled by women; all were professional occupations.

Pilot-testing

As indicated above, both the Nagely Attitudes Toward Career Scale and the Thomas Survey of Women's Attitudes About Careers were revised to reduce the length of the instruments and hence the administration time. The revised instruments were pilot tested with a sample of three women enrolled in automotive mechanics and two women in academic upgrading and technical training at Vancouver Community College. These students were selected by instructors in the two programs. After completion of the written portion of the instrumentation, the students were asked to share with the investigator any concerns, questions,
complications, or issues about the instruments.

Further refinement of the items to be included in the instruments and the wording of the items was made after the pilot testing period. This refinement involved the judgments of three experienced adult educators who were involved in teaching, tutoring, or counseling women in postsecondary academic, technical, vocational, and upgrading courses. Revisions included refining and expanding the written and oral introductory comments to two instruments (e.g., the Thomas Attitude Survey and the Nagely Career Commitment Scale), and simplification of several items on the Nagely Scale.

Interviews

In addition to the biographical information and attitude responses obtained by the instruments described, personal interviews were conducted with twelve women (three from each program) after they had completed their programs of study. The purpose of the interviews was to provide qualitative data to augment the factors in the conceptual framework which provided a basis for the hypotheses of this study. The semi-structured nature of the interviews gave the subjects an opportunity to discuss their career development and any obstacles or barriers they had encountered. They were asked to account for factors in their career development and in their program which had specifically facilitated their occupational socialization, or the acquisition of an occupational role identity. The interviews were thus included and organized to supplement and
complement the quantitative data analysis.

The interviews were conducted immediately following program/course completion in order to obtain the participants' perceptions of the program while it was still fresh in their minds. Student selection was made prior to the completion of each program and after consultation with each instructor or contact person. Criteria for selection were a knowledge and awareness of the issues and barriers in career development and sufficient oral fluency to describe the occupational socialization process in which they were involved.

In preparing the interview schedule, the investigator obtained the assistance of two professors (one in educational administration and one in counseling psychology), one doctoral student in adult education who was doing work on a similar topic, and two adult educators experienced in working with the population selected for this study. A draft of the introductory statement and questions was submitted to each of these people for comment and advice. After suggestions were received concerning the applicability and phrasing of the schedule, it was revised and resubmitted to the panel for final comments before the interviews were conducted. Changes in the final interview schedule included changing from 6-10 specific questions to three open-ended questions. Also, a specific introductory statement was included indicating the purpose of the interview in light of government emphasis on nontraditional career preparation for women. After the interviews were conducted and transcribed, the transcription was submitted to
the two adult educators mentioned above who checked for interviewer bias and subjectivity. No problems were detected.

Interviews varied in length from 45-90 minutes and were recorded on audio-cassette tapes. Permission to record the sessions was sought from each participant before the interview began; there were no refusals. The interviews were conducted in participants' homes, in the investigator's home, or in one instance, at the institution.

In conducting the interviews, an introductory statement was made about the emphasis on occupational preparation for women, including the nontraditional fields. This statement was related to the participants' recent occupational study and their career development. Open-ended questions were then asked about their career development, any barriers they may have encountered, and about anything in their program which may have facilitated their occupational socialization. When discussion drifted away from the topic or when participants sought further clarification or direction, the investigator asked specific questions relating to the immediate topic of discussion. For example, questions included: what their career goals were; how they had arrived at this decision; what influenced their career and program choice; if goals had changed as a result of being in the program; how and why goals may have changed; if they had experienced any barriers to their career development; if they had experienced any role conflict from family or friends; what was the emphasis in the program as to occupational knowledge, skills, attitudes; did anything specific about the program help them learn about
the occupational role; and what was the nature of the interaction among all program participants—including instructors and other resource personnel.

The statistical findings are discussed in Chapter 5 and the interview findings are discussed in Chapter 6.

Procedures

Following a description of the subjects in this study, the steps taken to administer the instrument are reported.

**Subjects in the Study**

Students enrolled in four postsecondary occupational programs comprised the subjects for this study. The programs were: the Employment Alternatives for Women (Group 1) and the Long Term Care Aide (Group 4) programs at Kwantlen Community College and the Professional Cook Training Level I (Group 2) and the Training Access (Group 3) programs at Pacific Vocational Institute. Table 1 shows the number of women who took part in the pre- and posttest sessions of this study.
Table 1

Participants in Study of Occupational Socialization

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Enrolled or Contacted</th>
<th>Pretest Participants</th>
<th>Posttest Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Alternatives for Women (EAW)</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Cook Training (CkTrng)</td>
<td>20</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Training Access (TRAC)</td>
<td>60</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Long Term Care Aide (LTC)</td>
<td>20</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>61</td>
<td>57</td>
</tr>
</tbody>
</table>

Three women from each program participated in the interview sessions following completion of their program. Initial contact with the participants for the pretest assessment varied due to the differing nature of the programs. LTC and EAW were intact groups and contact was made through the instructor. Because women in CkTrng and TRAC were not easily available as groups due to their program schedules, initial contact was made by letter. A covering letter by the Pacific Vocational Institute Women's Advocate (the coordinator of the Women's Access Program discussed in Chapter 1) and a letter from the investigator were used to explain the project and to invite their participation (see Appendix C). The Women's Advocate is a staff member in the Career Advisory and Student Services Department who provides support for women enrolled in trades training, liaises with community agencies to increase employment opportunities for women, and assists in recruiting women students.

Potential participants were identified using the
institutions' January 1984 program enrollment lists. Sixty letters were mailed to women in the TRAC program and twenty letters went to women in CkTrng. Because TRAC enrollees represented a wide variety of trades and technologies and due to the inherent methodological difficulty of getting a good response rate when recruiting participants who are not associated with a specific entity (e.g., a designated group or specific occupational preparation program) the decision was made to seek volunteers from the list of sixty mailouts described above.

Contact for the posttest assessment was similar: the two intact groups were contacted through the instructor; the remaining participants were contacted by the investigator through correspondence.

**Administration**

Assessments were taken during the spring term, 1984. Because the British Columbia college and institute system allows each institution to establish its own program schedule, each of the four programs in this study had different starting and completion dates. Programs at Kwantlen Community College were approximately three weeks late commencing in spring 1984 due to a strike in the fall of 1983. In order to assess participants at the earliest possible date near program commencement and to equalize testing conditions among the groups and testing sites, the pretest was administered at Pacific Vocational Institute the second week of February 1984 and at Kwantlen College the following week. Posttest assessment was approximately fourteen
weeks later, or at the completion of the programs.

Women in the EAW program were pretested during the first week of their program. Students in the LTC program and the CKTrng program were pretested in the second week of their program. Because of the self-paced nature of the TRAC program and the lack of complete registration information relating to program entry and gender, there was no way to identify women in the early phases of that program. Consequently, a general mailing to women inviting their participation resulted in responses from volunteers who had been in the program from six months to one week, with the majority assumed by the investigator to be recent enrollees. Since the Training Access program represents a career preparation program of from one to two years, depending on the occupation, it is reasonable to assume that students who may have been enrolled for several months, and worked independently, would have knowledge, skills, behaviors and attitudes approximately equivalent to those individuals who had been enrolled in a regular 16 or 20 week, eight hour per day program. Thus, all pretest scores were analyzed and interpreted by program.

The questionnaires were administered by the investigator to the four groups over a four day period for both the pre- and posttest periods. Four days were required due to program scheduling and campus location. Administration of pre- and posttest instruments to each group followed the same procedure: a brief introduction to the project and investigator was made by the instructor or contact person (with whom the students were
familiar); the investigator explained her involvement in the study and the nature of the project; a brief introductory statement was read at the beginning of each testing period; instruments were explained and any concerns expressed by the participants were addressed. Participants were advised of their right to participate or not to participate; two in the CkTrng program chose not to participate.

The instruments were arranged in composite order with biographical questions first, the women's attitudes about careers questionnaire next, and the career commitment questionnaire last. During the posttesting sessions the biographical questions were omitted to avoid redundancy; only the question concerning vocational or educational goals was retained to measure pre- and posttest differences. The total time for assessment was approximately 50 minutes for the pretest, 35 minutes for the posttest.

In order for testing periods to be as similar as possible for all four groups at both pre- and posttest assessments, every effort was made to have equivalent conditions. For example, assessment took place in the middle of the day and in the middle of the week (except for one Friday session for the EAW group), physical environment included a comfortable room with adequate lighting and adequate space for sitting and writing, each program was assessed as a group (TRAC women together, CkTrng women together), and administration procedures followed the pattern previously described.
Data Preparation and Scoring

All the scoring and coding of the instruments was performed by the investigator. Verification of the coding was accomplished by randomly selecting all the scores of twelve subjects (three from each group) and comparing the coded data with the original data. Two errors were found and corrected.

The data were keypunched by the University of British Columbia data entry services and were verified by them. Additional verification was obtained by randomly selecting twelve subjects and matching the keypunched data to the original coded data. No errors were found.

Data Analyses

Statistical analyses were undertaken using SPSSX (Norusis, 1983) for its "Frequencies," "Reliability," "Scatterplot," and "ANOVA" with Tukey contrast procedures. Although in the initial planning the focus was to compare the nontraditional and traditional programs by means of the "T-Test" procedure, this emphasis was altered and ANOVA analysis was used. This alteration was deemed suitable as the investigator became better acquainted with the programs and after a preliminary data analysis. There was an increasing awareness of subtle differences between the nontraditional and traditional groups and among the nontraditional groups—differences which could be more appropriately analyzed with analysis of variance. LERTAP (Nelson, 1974) was used for confirmation of instrument
reliability. When the Nagely instrument proved to be unreliable with the research sample, a factor analysis was performed using the Alberta General Factor Analysis Program--AGFAP (Hakstian & Bay, 1972).

In addition to an analysis of demographic information, the SPSSX procedures provided an analysis of the extent to which the dependent variables differed as a function of program membership. Results of the data analysis are reported in Chapter 5.

Summary

The design of this study was presented and four distinct groups were described. The distinctiveness lies in the program content and approach to occupational training. EAW offers theory, skill, and affective aspects of nontraditional, nonprofessional occupational socialization. CkTrng offers nontraditional theory and skill in a classroom and laboratory design. TRAC offers theory and skill for nontraditional fields through individualized learning. And LTC offers theory and skill of a traditionally female occupation in a classroom and laboratory design.

Three instruments to measure biographical characteristics, attitudes about nontraditional careers, and type of career commitment were described. The interview procedure was then explained along with the procedures for instrument and interview administration. A discussion of the sample followed and a description of the data analysis concluded the chapter. In the next chapter the results of the analysis are presented.
CHAPTER 5 RESULTS AND DISCUSSION OF QUANTITATIVE DATA

In previous chapters three sets of hypotheses were stated and a description of the data collected and the analyses performed were given. The results of the analyses are presented in this chapter, beginning with a description of the characteristics of the women in each of the four groups. A profile of a student in nontraditional, nonprofessional occupational preparation is presented and comparisons with those in the traditional female program are offered. The second section discusses test reliabilities and the results of the factor analysis. A delineation and results of the hypothesized relationships are presented in the third section. In the last section, the results of analysis of the Nagely career commitment instrument are discussed.

Characteristics of Participants by Programs

As described in the previous chapter, students in career preparation programs were the focus of this study. Three groups (Employment Alternatives for Women—EAW, Cook Training—CkTrng, Training Access—TRAC) offered occupational preparation in nontraditional fields; the fourth (Long Term Care Aide—LTC) offered occupational preparation in a traditional area for women.

During the pretest session, descriptive data dealing with participant characteristics were collected. These
characteristics are reported as frequencies, percentages, or means in Table 2. In the case of incomplete categories on returned forms, the categories were recoded as "missing" for statistical computations. During the posttest session, only a response for the question about immediate vocational or educational goal after completing their program was requested in the biographical section of the instruments. Five choices were offered: related employment, unrelated employment, pre-apprenticeship or apprenticeship program, further academic or vocational education, and other. Goal 1 represents pretest responses; goal 2 represents responses from the posttest sessions. Because only two women reported having three or more children, these two categories of "age of child 3" and "age of child 4" were omitted from any further analysis. Age was reported in exact years but was broken down into decade categories with one exception for analysis. For this study the traditional college ages (18-22 years) were separated to determine if the majority of enrollees were college age students or older than the "typical" or traditional college age student.

Table 2 reports the distribution of participant characteristics by program membership. Using SPSSX FREQUENCIES and ANOVA procedures, an analysis revealed that some characteristics differed by program type. Mean age differed significantly by program (p=.03). As indicated in Table 2, the average age for each program was somewhat older than the typical college age student; EAW students were older (32 years) than the other three group averages (CkTrng=23, TRAC & LTC=27 years).
Table 2
Participant Characteristics by Program

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Group 1 EAW=15</th>
<th>Group 2 CkTrng=14</th>
<th>Group 3 TRAC=14</th>
<th>Group 4 LTC=18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age *</td>
<td>N=32 SD=9.4</td>
<td>N=23 SD=4.5</td>
<td>N=27 SD=3.6</td>
<td>N=27 SD=11.3</td>
</tr>
<tr>
<td></td>
<td>Median=31</td>
<td>Median=24</td>
<td>Median=27</td>
<td>Median=21</td>
</tr>
<tr>
<td>Marital Status *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>never married</td>
<td>4 26.7</td>
<td>9 64.3</td>
<td>7 50.0</td>
<td>10 55.0</td>
</tr>
<tr>
<td>married/living together</td>
<td>4 26.7</td>
<td>4 28.6</td>
<td>5 35.7</td>
<td>5 27.8</td>
</tr>
<tr>
<td>separated/divorced/widowed</td>
<td>7 46.7</td>
<td>1 7.1</td>
<td>2 14.2</td>
<td>3 16.7</td>
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</tr>
<tr>
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<td>0 0.0</td>
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<td>1 7.1</td>
<td>1 5.6</td>
</tr>
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<td>1 7.1</td>
<td>3 16.7</td>
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<tr>
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<td>Years Work Experience</td>
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<td></td>
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<td>6 42.9</td>
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</tr>
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<td>1 7.1</td>
<td>2 14.3</td>
<td>1 5.6</td>
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<td>0 0.0</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>related employment</td>
<td>2 13.3</td>
<td>6 42.9</td>
<td>7 50.0</td>
<td>15 83.3</td>
</tr>
<tr>
<td>pre-apprentice/apprentice</td>
<td>6 40.0</td>
<td>6 42.9</td>
<td>5 35.7</td>
<td>0 0.0</td>
</tr>
<tr>
<td>more education/training</td>
<td>6 40.0</td>
<td>2 14.3</td>
<td>1 7.1</td>
<td>2 11.1</td>
</tr>
<tr>
<td>other</td>
<td>1 6.7</td>
<td>0 0.0</td>
<td>1 7.1</td>
<td>1 5.6</td>
</tr>
<tr>
<td>Goal 2 (posttest)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>related employment</td>
<td>2 13.3</td>
<td>3 21.4</td>
<td>8 57.1</td>
<td>9 50.0</td>
</tr>
<tr>
<td>unrelated employment</td>
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<td>0 0.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>pre-apprentice/apprentice</td>
<td>5 33.3</td>
<td>9 64.3</td>
<td>4 28.6</td>
<td>0 0.0</td>
</tr>
<tr>
<td>more education/training</td>
<td>5 33.3</td>
<td>1 7.1</td>
<td>0 0.0</td>
<td>5 27.8</td>
</tr>
<tr>
<td>other</td>
<td>2 13.3</td>
<td>1 7.1</td>
<td>1 7.1</td>
<td>1 5.6</td>
</tr>
</tbody>
</table>

* Indicates statistical difference at the .05 level
For number of children at home, more than 50 percent of the women in each program reported no children at home. Of those with children at home, more EAW enrollees had this responsibility and the possible role conflict (47 percent), than the other groups (CkTrng=14 percent, TRAC=21 percent, LTC=33 percent). Of those having children at home, EAW enrollees reported a higher percentage of pre-school age children (< 6 years old) than the other groups. More EAW enrollees, then, had responsibility for child care arrangements than did other enrollees.

The level of education (as shown in six levels), indicated that there was a range of education among the women but that the difference among the group means was not statistically significant (p=.57). Of note is that four women in the TRAC program had been graduated from university, as compared with no university graduates from the other three programs. This would indicate a conscious choice to pursue a career in trades and to acquire that preparation through individualized study. The inference is on career maturity and vocational decision-making rather than on career exploration or a traditional female career. Also, if training/vocational education is combined with some college or university, then 53 percent of EAW women reported some postsecondary education or training, the highest level of educational attainment among the four groups. That some of these women in nontraditional fields would have a high level of education has also been reported in the literature (Tangri, 1972). Only 21 percent of CkTrng enrollees and 22
percent of LTC enrollees reported postsecondary education or training experiences.

The literature suggests that career development involves some matching of job characteristics with personal characteristics (Hall, 1976; Holland, 1976; Super, 1955). According to Ginzberg and associates (1951), vocational choice is finalized between age 17 and young adulthood. That conclusion presumes that occupational preparation is finalized by "young adulthood," however identified. There is nothing in the literature which explicitly links age, education, and work experience as influencing factors for a woman's career development. If career development is seen as involving choice, commitment, and maturity (Nivea & Gutek, 1982; Fitzgerald & Crites, 1980), is it not possible to expect that decisions concerning career preparation are greatly influenced by experience (both academic and occupational) and age (older students being more mature)?

Women students in EAW and TRAC (older, better educated, more years of work experience than the other two groups), by virtue of their specific program—nontraditional exploration or individualized, self-paced nontraditional—were making those decisions reflecting their personal career maturity, career choice, and career commitment. This implies a matching of their personal characteristics with those characteristics expected from nontraditional occupations. Their program choice may also reflect their preferred type of learning experiences—exploratory or individualized.
Profile of a Nontraditional and a Traditional Student

Because the focus of this study was women pursuing nontraditional, nonprofessional occupations, it was decided to explicate the characteristics of these students. Table 3 provides information about students in the three nontraditional programs (EAW, CkTrng, TRAC). For comparison, information about students in the traditional health care program (LTC) is also presented in Table 3. A search of the literature yielded two studies which provided participant characteristics, particularly demographic data on nonprofessional, nontraditional women (Fralick, 1983; McFadzean, 1981). But because the Fralick study combined characteristics of students in both traditional and nontraditional programs, no true distinction of nontraditional, nonprofessional enrollees was discernible. McFadzean presented a student profile based on 22 women in a pre-trades training program in Regina, Saskatchewan. Ages ranged from 19-34 years; educational levels varied from grade 5 to 2 years university. There was a cross section of ethnic origins. Only four of the enrollees had any work experience in the trades but 3/4 of the students anticipated their program would help them make a choice of trade occupations.

Drawing from information presented in Table 3, a profile of a female student enrolled in a nontraditional career exploratory or career preparatory program in a postsecondary educational institution is offered.
She is most likely to:

--be 28 years old, single, childless;
--have either a grade 12 education or some postsecondary education/training;
--have 9 years work experience;
--currently not work; and
--planning to seek related employment after her program or a pre-apprentice/apprenticeship program.

Further studies are needed to confirm this characteristic profile.

In contrast, the modal student in the traditional program had the following characteristics:

--27 years old, single, childless;
--grade 12 or less educational level;
--8 years work experience;
--currently not work; and
--planning to work in health care after the program.

As indicated earlier in this chapter, Table 3 presents information about students in the traditional health care program for comparison with the students in the three nontraditional programs.
### Table 3
Characteristics of Women in Nontraditional and Traditional Postsecondary Career Preparation Programs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Nontraditional</th>
<th>Traditional</th>
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<tbody>
<tr>
<td></td>
<td>N=43</td>
<td>N=18</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Age</td>
<td>( \bar{X} = 28 )</td>
<td>( \bar{X} = 27 )</td>
</tr>
<tr>
<td></td>
<td>SD=1.1</td>
<td>SD=11.3</td>
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<tr>
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<td></td>
<td></td>
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<tr>
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<td>20</td>
<td>10</td>
</tr>
<tr>
<td>married/living together</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>separated/divorced/widowed</td>
<td>10</td>
<td>3</td>
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<td></td>
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<tr>
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<td>31</td>
<td>12</td>
</tr>
<tr>
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<td>two or more</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Age of Child 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 6 years</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>6-12</td>
<td>2</td>
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<td>13-18</td>
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<td>Age of Child 2</td>
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<td></td>
</tr>
<tr>
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<td>0</td>
</tr>
<tr>
<td>6-12</td>
<td>2</td>
<td>2</td>
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<tr>
<td>13-18</td>
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<td>2</td>
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<tr>
<td>Education</td>
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<td>9</td>
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<tr>
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<tr>
<td>some college/university</td>
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<td>3</td>
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<tr>
<td>graduated university</td>
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<td>0</td>
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<tr>
<td>other</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Years Work Experience</td>
<td>( \bar{X} = 8.9 )</td>
<td>( \bar{X} = 8 )</td>
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<tr>
<td>1-5 years</td>
<td>13</td>
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<td>11-20</td>
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<tr>
<td>Working Now</td>
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<td></td>
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<td>5</td>
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<td>13</td>
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<tr>
<td>If Working</td>
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<td></td>
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<tr>
<td>Part-time</td>
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<td>5</td>
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<td>0</td>
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<td>Related</td>
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<td>1</td>
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<tr>
<td>Unrelated</td>
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<td>4</td>
</tr>
<tr>
<td>Hours Work Per Week</td>
<td>( \bar{X} = 15.5 ) hours</td>
<td>( \bar{X} = 12 ) hours</td>
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<td></td>
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<tr>
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<td>15</td>
<td>15</td>
</tr>
<tr>
<td>pre-apprentice/apprenticeship</td>
<td>17</td>
<td>0</td>
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<tr>
<td>more education/training</td>
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<td>2</td>
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<td>other</td>
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<td>1</td>
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<td>Goal 2 (posttest)</td>
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<td></td>
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<tr>
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<td>9</td>
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<tr>
<td>unrelated employment</td>
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<td>0</td>
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<td>5</td>
</tr>
<tr>
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<td>1</td>
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</table>
Although the average age of both groups is late 20s, the median age reveals that students in the traditional LTC program are about five years younger than nontraditional program enrollees. Both groups reflected similar marital status and number of children at home—the two categories of potential sources of role conflict. Seventy percent of those in nontraditional programs and 72 percent in the traditional program were either not married or separated, divorced, or widowed. And 72 percent of nontraditional enrollees and 67 percent of traditional enrollees reported no children at home.

Another category of distinction when comparing the two groups was level of education. Seventy-two percent of students in the traditional program had grade 12 or less compared to 51 percent of those in nontraditional programs with the same level of education. Twenty-two percent of traditional enrollees had some postsecondary or university education as compared to 40 percent of those in nontraditional programs who had some postsecondary education or university education. Evidently gender role socialization prevents many women with traditional occupational aspirations from pursuing higher education. Conversely, those with higher levels of education—in nontraditional programs—were enrolled in educational institutions seeking further learning experiences. This may be because their previous education did not give them marketable skills, because they were seeking a different occupation which required training, or because they were returning to the labor market after an absence and wanted to upgrade their labor market
A final area of distinct comparison between the two groups relates to their pretest and posttest goals. At pretest assessment, 74 percent of those in nontraditional programs and 83 percent of those in the traditional program reported a goal of related employment or pre-apprenticeship/apprenticeship. Yet at posttest assessment, after approximately 14 weeks of occupational preparation, the percentage of those in the traditional program who reported an employment goal decreased to 50 percent. And 28 percent reported a goal of more education/training (compared to 11 percent at pretest). Something during the traditional program precipitated a change—either for additional learning experiences in their intended occupation or for further education/training in another field.

At the same time (pretest to posttest), there was a percentage decrease for those in nontraditional programs seeking education/training from 21 percent (pretest) to 14 percent (posttest). No one goal category accounts for the entire change; there is a percentage shift in each goal choice for these students. Because of the distinctiveness of the three nontraditional programs as discussed in Chapter 4, it is difficult to attribute the variation to any specific source with the programs combined into a single group. However, as students are enrolled in occupational preparation because of choice or circumstance, any change between their pretest and posttest responses must be inferred to be related to program enrollment and any concomitant learning, developmental, or transitional
changes occurring simultaneously.

In this section, participant characteristics were presented by program, a profile of a nontraditional, nonprofessional student was offered, and comparisons were made between those in nontraditional programs and those in the traditional program. Overall, it appears that distinctive differences between those in the traditional program and those in the nontraditional programs relate to age, educational level and goals. Those in the traditional program are younger and have less education than those in nontraditional programs. Yet after 14 weeks in postsecondary institutions, those in the traditional program report a goal of more education or training, indicating their educational expectations or goals have increased. Nontraditional program participants, although reporting a relatively high level of education, were pursuing further learning experiences to enhance their employment options.

In the next section the reliability of the two instruments measuring attitudes toward nontraditional careers and career commitment will be presented. The results of the factor analysis of the Nagely instrument will also be discussed.

Reliability of Instruments

To compare reported reliability estimates with those based upon the study's sample data, reliability tests were conducted using the SPSSX RELIABILITY program. Results are presented in Table 4.

As discussed previously in Chapter 4, the Survey of Women's
Attitudes About Careers was reported to have an internal consistency of .98 (Thomas and Denbroeder, 1979, p.4). No reliability results were reported for the subtests of the instrument (the instrument had not been divided and utilized as subtests or subscales of the larger instrument). For this study, the internal consistency of the revised instrument as broken down into four subtests are reported.

Table 4

<table>
<thead>
<tr>
<th>Test/Variable</th>
<th>Internal Consistency</th>
</tr>
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<tbody>
<tr>
<td>Survey of Women's Attitudes About Careers</td>
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<tr>
<td>Self-Efficacy Expectations</td>
<td>.73</td>
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<tr>
<td>Goal-Setting</td>
<td>.83</td>
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<tr>
<td>Role Acquisition</td>
<td>.84</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>.76</td>
</tr>
<tr>
<td>Scale of Attitudes Toward Career &amp; Career Related Variables</td>
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</tr>
<tr>
<td>Masculine Work Orientation</td>
<td>.79</td>
</tr>
<tr>
<td>Feminine Social Orientation</td>
<td>.76</td>
</tr>
<tr>
<td>Stop Gap Job Orientation</td>
<td>.51</td>
</tr>
<tr>
<td>Feminine-Stop Gap Job Orientation</td>
<td>.75</td>
</tr>
</tbody>
</table>

(combined feminine social orientation & stop gap job orientation)

Note: Internal consistency reliabilities estimated by Cronbach alpha.

The calculated reliabilities of the subtests for the Thomas Survey were consistent with the overall high reliabilities reported by Thomas. Because the author of the Nagely Scale of
Attitudes Toward Career and Career Related Variables did not provide reliability data, an internal consistency analysis was conducted on the subtests identified for this study. Results are reported in Table 4. Due to the obtained reliabilities, plus the fact that no initial reliability information had been reported, it was decided to explore the underlying structure (i.e., variable intercorrelations) of the subtests for confirmation of Nagely's factor structure.

A principal component factor analysis of the unrotated matrix generated 13 factors with eigenvalues > 1 (proportion of total variance accounted for by the factors). The percentage of total variance for those factors was 77.1 percent. The Scree test (Cattell, 1966), however, was somewhat ambiguous in that it suggested 6 to 9 factors. This test provides an estimate of the number of factors by plotting all potential factors along an abscissa in descending order of percent of variance accounted for by each of the factors in the solution.

Due to the ambiguity concerning the number of factors, an analysis was undertaken to determine an appropriate number for scientific utility and interpretability. After having rotated the data orthogonally with five, three, and two factor dimensions, the decision was taken to retain two factors. This decision was made because dimensions of five factors were undistinguishable; they did not "hang together." In comparing the results of three and two factor dimensions, and since no significant simple structure advantage was apparent between three or two factors (seven of eight dimensions in the third
factor structure loaded on either factor one or factor two of the two factor structure), two factors were retained for further analysis. The salient loadings of these two factors are presented in Table 5; loadings in excess of .30 were included for interpretation (Tabachnick & Fidell, 1983). The total amount of variance accounted for was 36.3 percent.
Table 5

<table>
<thead>
<tr>
<th>Factor 1: Expectations of Career Benefits</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>productive - fruitless</td>
<td>.857</td>
</tr>
<tr>
<td>creative - unimaginative</td>
<td>.810</td>
</tr>
<tr>
<td>successful - unsuccessful</td>
<td>.785</td>
</tr>
<tr>
<td>active - passive</td>
<td>.773</td>
</tr>
<tr>
<td>fulfilling - unfulfilling</td>
<td>.770</td>
</tr>
<tr>
<td>positive - negative</td>
<td>.753</td>
</tr>
<tr>
<td>outgoing - subdued</td>
<td>.732</td>
</tr>
<tr>
<td>provides recognition - no recognition</td>
<td>.692</td>
</tr>
<tr>
<td>practical - impractical</td>
<td>.657</td>
</tr>
<tr>
<td>important - unimportant</td>
<td>.646</td>
</tr>
<tr>
<td>would recommend to others - would not recommend</td>
<td>.644</td>
</tr>
<tr>
<td>interesting - uninteresting</td>
<td>.641</td>
</tr>
<tr>
<td>glamorous - dull</td>
<td>.698</td>
</tr>
<tr>
<td>permanent - temporary</td>
<td>.498</td>
</tr>
<tr>
<td>advantageous - handicapping</td>
<td>.455</td>
</tr>
<tr>
<td>strenuous - not demanding</td>
<td>.450</td>
</tr>
<tr>
<td>necessary - unnecessary</td>
<td>.434</td>
</tr>
<tr>
<td>dominant - subordinate</td>
<td>.332</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 2: Career as Vehicle for Self-Expression</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>uplifting - degrading</td>
<td>.770</td>
</tr>
<tr>
<td>appropriate - inappropriate</td>
<td>.765</td>
</tr>
<tr>
<td>flexible - inflexible</td>
<td>.751</td>
</tr>
<tr>
<td>expressive - unexpressive</td>
<td>.710</td>
</tr>
<tr>
<td>comfortable - uncomfortable</td>
<td>.676</td>
</tr>
<tr>
<td>strong - weak</td>
<td>.666</td>
</tr>
<tr>
<td>liberating - confining</td>
<td>.603</td>
</tr>
<tr>
<td>challenging - unchallenging</td>
<td>.568</td>
</tr>
<tr>
<td>innovative - monotonous</td>
<td>.535</td>
</tr>
<tr>
<td>satisfying - unsatisfying</td>
<td>.534</td>
</tr>
<tr>
<td>integrates life - fragments life</td>
<td>.503</td>
</tr>
<tr>
<td>enhances home life - disrupts home life</td>
<td>.494</td>
</tr>
<tr>
<td>variable - routine</td>
<td>.473</td>
</tr>
<tr>
<td>desirable - undesirable</td>
<td>.470</td>
</tr>
<tr>
<td>social - unsocial</td>
<td>.463</td>
</tr>
<tr>
<td>not in conflict with female role - in conflict</td>
<td>.434</td>
</tr>
<tr>
<td>good - bad</td>
<td>.393</td>
</tr>
<tr>
<td>selfless - selfish</td>
<td>.368</td>
</tr>
<tr>
<td>toward people - away from people</td>
<td>.357</td>
</tr>
<tr>
<td>independent - controlled</td>
<td>.344</td>
</tr>
<tr>
<td>healthy - unhealthy</td>
<td>.342</td>
</tr>
<tr>
<td>unusual - ordinary</td>
<td>.325</td>
</tr>
</tbody>
</table>
Keeping in mind that this was a confirmatory analysis, the decision concerning the number of factors was based not only upon simple structure but also on identifiability of the proposed typology of what having a career meant (career commitment). Using the criteria and considerations relevant to a descriptive interpretation of factors (Rummel, 1970), it was decided to try to encapsulate the substantive nature of the factors to communicate their meaning for this study.

Reviewing the explanation of commitment to a career as determined by one's knowledge and understanding of careers and self which is derived through experience and exploration, names were assigned to the new factors which would reflect those considerations. Factor 1 was named "Expectations of Career Benefits"; Factor 2 was named "Career as Vehicle of Self Expression."

Factor 1 seemed to express the dimensions of a career itself. The highest loadings (productive, creative, successful, active, fulfilling) related to external expectations one has about the benefits of having a career. The naming of the second factor proved more difficult as the highest loadings (uplifting, appropriate, flexible) also appeared to relate to what a student expected a career to be or provide. Considering the remaining items in toto (e.g., expressive, strong, enhances home life, not in conflict with the female role, healthy), it was concluded that this dimension best described one's self expression and identity as derived from having a career.

To ascertain internal consistency of these two new factors,
an analysis of internal consistency using SPSSX RELIABILITY was performed. Factor 1 (Expectations of Career Benefits) yielded internal consistency of .91; Factor 2 (Career as Vehicle for Self Expression) had internal consistency of .88. The magnitude of these figures allowed the researcher to proceed with analyses using these new factors. Certainly, further analysis and confirmation of these subscales or subtests is required before the validity can be definitely established.

The next section will focus on the hypothesized relationships and present the results of the statistical analyses.

Discussion of Hypotheses

Three sets of hypotheses were originally proposed for this study as discussed in Chapter 3. The use of three sets (pre, post, change) was important in addressing the question of whether the programs recruited women who were already predisposed to a specific occupational role or whether the programs were able to influence occupational socialization. The first set described women in four distinct career preparation programs as they differed on the identified criterion variables at the initial stages of their programs. For the second set of hypotheses, the systematic differences of the women on the criterion variables as measured near the completion of their programs were analyzed. The final set of hypotheses examined the differences between the pre- and posttest measurements on the criterion variables to assess the effectiveness of the
Each hypothesis will be presented with analytic results. Discussion will follow each set of hypotheses. Results are based on the SPSSX Oneway ANOVA procedure and are presented in Table 6 by means and standard deviations (the scale ranged from 1 "strongly disagree" to 5 "strongly agree").

Due to the inability to confirm the original Nagely career commitment scales (Masculine Work Orientation, Feminine Social Orientation and Stop Gap Job Orientation), only those hypotheses relating to the Thomas Survey of Attitudes will be delineated and discussed in this section. Each set will be numbered separately, rather than following the sequential numbering as presented in Chapter 3. An examination and analysis of the two new factor scales will be presented in the next section.
Table 6
Pretest and Posttest Measurements of Perceived Personal-Social Barriers to Nontraditional Occupations Comparing Four Career Preparation Programs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Employment Alternatives for Women</th>
<th>Cook Training</th>
<th>Training Access</th>
<th>Long Term Care Aide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \bar{x} )</td>
<td>SD</td>
<td>( \bar{x} )</td>
<td>SD</td>
</tr>
<tr>
<td>Self-Efficacy Expectations</td>
<td>pre(p=.002)a</td>
<td>3.16</td>
<td>.71</td>
<td>2.35</td>
</tr>
<tr>
<td></td>
<td>post(p=.465)b</td>
<td>2.69</td>
<td>.73</td>
<td>2.80</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>pre(p=.105)</td>
<td>3.04</td>
<td>.94</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>post(p=.184)</td>
<td>3.05</td>
<td>.72</td>
<td>3.50</td>
</tr>
<tr>
<td>Role Acquisition</td>
<td>pre(p=.036)</td>
<td>3.39</td>
<td>.76</td>
<td>3.37</td>
</tr>
<tr>
<td></td>
<td>post(p=.006)</td>
<td>2.75</td>
<td>.81</td>
<td>3.79</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>pre(p=.005)</td>
<td>3.58</td>
<td>.42</td>
<td>3.05</td>
</tr>
<tr>
<td></td>
<td>post(p=.489)</td>
<td>3.18</td>
<td>.33</td>
<td>3.06</td>
</tr>
<tr>
<td>Total Barriers</td>
<td>pre(p=.009)</td>
<td>3.29</td>
<td>.57</td>
<td>2.96</td>
</tr>
<tr>
<td></td>
<td>post(p=.294)</td>
<td>2.92</td>
<td>.57</td>
<td>3.29</td>
</tr>
</tbody>
</table>

a--Pretest scores were based on N of 61
b--Posttest scores were based on N of 57
*--Indicates groups significantly different at the .05 level using Tukey contrast (which evaluates all pairwise comparisons of means)

Pretest hypotheses

The pretest set of hypotheses was proposed to ascertain the similarity in student selection and recruitment among the four programs at program enrollment. These pretest hypotheses also served as a baseline measure to analyze the interaction between selection differences or similarities and program curricula influences. The following three hypotheses represent the Thomas
Attitude About Careers Survey as measured at the beginning of the programs. Discussion of the set as a group will follow the findings for hypothesis three.

1. Women who perceive fewer personal-social barriers to nontraditional careers will be enrolled in nontraditional occupational preparation programs, while women who perceive more personal-social barriers to nontraditional careers will be enrolled in a traditional oriented occupational program.

This hypothesis was not confirmed. As measured by mean scores, only one nontraditional group (CkTrng) perceived fewer total personal-social barriers (2.96) to nontraditional occupations than those enrolled in a traditional health care program (LTC=3.09). The other two nontraditional groups perceived more barriers to nontraditional occupations than the traditional program (EAW=3.29 and TRAC=3.49). This finding was statistically significant (p=.009); TRAC was different from CkTrng and LTC but CkTrng and LTC did not differ.

2. Women who perceive less role conflict will be enrolled in nontraditional occupational preparation programs while women who perceive more role conflict will be enrolled in a traditional preparation program.

The findings did not support this hypothesis. Only one of the nontraditional groups (CkTrng=3.05) perceived less role conflict as measured by mean scores than the traditional group (LTC=3.33). Perceived role conflict was not a major deterrent to females pursuing traditional training and employment.

Although no statistically significant difference was found between the traditional group and the three nontraditional groups, significant variation was found among the three
nontraditional groups \( (p=.05) \). CkTrng was different from both the TRAC and EAW groups, (perceiving fewer barriers) while the difference between the TRAC and EAW groups was not statistically different—they both perceived an approximate number of role conflict barriers.

3. Women who perceive fewer barriers to nontraditional role acquisition will be enrolled in nontraditional preparation programs while women who perceive more barriers to nontraditional role acquisition will be those enrolled in a traditional preparation program.

The results do not support this hypothesis. On this criterion measurement the groups were similar in their perception of nontraditional role acquisition \( (EAW=3.39, \ CkTrng=3.37, \ TRAC=3.98, \ LTC=3.53) \). Accordingly, both those in the traditional program and those in the nontraditional programs expressed a similar socialized perception of their expectations, knowledge, perceptions, and abilities relating to the world of work for women in nontraditional occupations and occupational preparation.

Discussion. Personal-social barriers were shown to have been perceived differently by groups, although the range of scores was somewhat narrow. There were no consistent patterns of the number or degree of perceived barriers between the traditional program and the three nontraditional programs. Personal-social barriers—including those associated with role acquisition and role conflict—involve cognitive, attitudinal, and behavioral expectations. These expectations are environmental factors (and as constraints are perceived as
barriers) which when internalized become attitudes. Gender role socialization appears to exert a similar influence on women pursuing either traditional or nontraditional occupations as reflected by the moderate number of barriers perceived on the criterion variables.

Taking all the pretest scores together gives an approximate understanding of how women planning to enter traditional and nontraditional occupations differed at the beginning of their programs on their perceptions of attitudinal, cognitive, and behavioral expectations regarding role conflict, role acquisition, and personal-social barriers to nontraditional occupations. Although program enrollment was almost entirely a self-selection process, the empirical results from the pretest scores indicate that all groups of students were approximately identical on the criterion variables. Both traditional and nontraditional groups perceived a moderate number of barriers to role conflict (3.05 to 3.58), role acquisition (3.37 to 3.98), and personal-social barriers (2.96 to 3.49) associated with nontraditional occupations. These pretest data demonstrate that the traditional and nontraditional programs were serving a homogeneous group of women; program participants' scores reflected similar gender role socialization experiences and attitudes.

Although the similarity of the moderation of scores among the programs indicates the nontraditional and traditional program participants were a homogeneous group, some variation exists among the nontraditional programs. Women entering a
nontraditional career exploratory program (EAW) and an individualized self-paced trades training program (TRAC) had already acquired a view of a nontraditional occupation as having a moderate amount of both personal and social barriers prior to entering their programs. This acquisition may have occurred through developmental and/or learning processes of socialization to work roles (Bandura & Walters, 1963b; Kohlberg, 1966) in family settings, educational systems, or occupational experiences. These women on average were older, better educated, and had more work experience than the other nontraditional group (CkTrng). Yet by self-selection they entered a nontraditional career preparation program, overcoming (or hoping to) some of the very barriers they perceived to role acquisition, role conflict, and the more global personal-social barriers to nontraditional careers.

Those females in CkTrng perceived fewer personal-social barriers to nontraditional careers and to role acquisition and expressed less role conflict concerning nontraditional occupations than any other group during the pretest sessions. Even their mean scores on the other variables affecting nontraditional occupational socialization (self-efficacy expectations and goal-setting) were either the lowest or next to lowest—indicating fewer perceived barriers than most other groups. Evidently these students had not experienced personal or social impediments to achieving their intended occupational role, or did not perceive barriers to be as important as did the other groups. Because cooking is associated with traditional
female experiences and norm socialization, these women may not have internalized as many constraining expectations or perceptions as the other nontraditional groups. Their mean scores at the initial stages of their program indicate they did not anticipate major problems associated with role conflict, role acquisition, or nontraditional occupations.

Pretest scores thus represent socialized values, norms, and expectations concerning the choice, propriety and ability of women to acquire and maintain a nontraditional role identity. The programs do not necessarily attract students with definite occupational orientations nor do students appear to select a program based on definite preconceived occupational expectations. Accordingly, any success enjoyed by the planners of the nontraditional programs in addressing and reducing the perception of psychosocial barriers was not due to the process they employed in recruiting or selecting students.

Posttest hypotheses

The posttest set of hypotheses was formulated to ascertain the success of program curricula intervention strategies in socializing students for entry into nontraditional occupations. These three hypotheses offer an empirical representation of the systematic differences at program completion in psychosocial dimensions of occupational preparation. Discussion of the set as a group will follow the findings of the third hypothesis.

1. Women who have completed nontraditional occupational preparation programs will perceive fewer personal-social
barriers to nontraditional careers than will women who have completed a traditional oriented occupational program.

This hypothesis was not confirmed. According to mean scores approximately 14 weeks after enrolling in an occupational preparation program, only one of the nontraditional groups (EAW) perceived fewer total personal-social barriers (2.92) than the group enrolled in a traditional preparatory program (LTC 3.10). The other two groups of students in nontraditional programs (CkTrng and TRAC) perceived more psychosocial barriers to nontraditional occupations (3.29 and 3.17 respectively) than did the LTC group. There were no statistically significant differences.

Because mean scores represent the fewest perceived barriers to nontraditional occupations, the findings at program outcome thus reflect the effect of educational intervention strategies to influence occupational role socialization. Not all nontraditional programs then are able to influence student perceptions about barriers to nontraditional occupations.

2. Women who have completed occupational preparation programs will perceive less role conflict than will women who have completed a traditional preparation program.

This hypothesis was not confirmed. On this measure of nontraditional occupational socialization, TRAC (2.90) and CkTrng (3.06) were the two groups of nontraditional students to perceive fewer role conflict barriers (or to express less role conflict) than those in the traditional program (LTC 3.10). EAW, the other nontraditional group, perceived more role conflict (3.18) associated with nontraditional occupational
identification than did the LTC group. There were no statistically significant differences.

3. Women who have completed nontraditional preparation programs will perceive fewer barriers to nontraditional role acquisition than will women who have completed a traditional preparation program.

Empirical data on this criterion measurement do not support the hypothesis. Only one of the nontraditional programs (EAW) perceived fewer (2.75) behavioral, attitudinal, or cognitive constraints to nontraditional role acquisition than did students in the traditional program (3.46). The two remaining groups of nontraditional career preparation students, CkTrng and TRAC, both perceived more barriers than did the traditional LTC group.

No statistically significant difference was found between the nontraditional groups and the traditional group, but among the nontraditional groups, Tukey contrast revealed that statistically significant variation was found (p=.05). Analysis shows that EAW is statistically different from CkTrng and TRAC, but that TRAC and CkTrng are not statistically different from each other. The score for EAW is the lowest of the four groups; relative to their pretest score, their posttest score is lower—reflecting fewer perceived impediments to role acquisition than originally anticipated. This finding is important because a mean score of 2.75 indicates that students do not believe the items represent impenetrable barriers to nontraditional occupations.

Discussion. Again taking all scores combined, results indicate that women differ on posttest measures of occupational
socialization but not as hypothesized. Scores are indicative of many complex learning and developmental factors. Measurement at program completion is assumed to reflect the differences in the products of four treatments regardless of the sources of the variation.

Those in a traditional health care program were not expected to be exposed to any nontraditional occupational information, expectations, behaviors, attitudes or norms and thus not expected to alter their perceptions about barriers to nontraditional career development. This proved to be only partially true according to empirical results. On two measures of occupational socialization at the posttest (role acquisition and total barriers), these LTC students were second lowest in the number of barriers they perceived. On role conflict measurement, LTC scores were second highest in the number of perceived barriers.

Measurement at or near program completion indicated a difference in students' perceptions of their abilities and expectations concerning nontraditional role identification. But because no consistent patterns were found between the traditional group and the nontraditional groups concerning changes in psychosocial dimensions of occupational preparation, it can be inferred that any differences in influencing the perception of barriers were not due solely to intervention strategies employed in preparing students for nontraditional employment.

Differences between and among the traditional and
nontraditional participants may reflect personal characteristics or occupational experiences. On the average, nontraditional enrollees were older, better educated, and had more years of work experience than the traditional group. Within the nontraditional group, EAW women were the oldest and had more work experience. Also, more EAW students had children at home (specifically pre-school age), and were married or had been married as compared to the other nontraditional groups. While age and work experience may mediate barriers associated with role acquisition and role identification (indicated by the lowest scores), marital and parental responsibilities accentuate role conflict barriers (as indicated by the highest scores). Traditional and nontraditional program graduates, then, exhibit distinct differences in the perception of barriers associated with nontraditional occupations. Program curricula and learning experiences do little to address or reduce the perception of barriers to nontraditional role identification, either for those pursuing traditional or nontraditional occupations.

Table 7 presents changes between the pre- and posttest scores on these measures of occupational socialization which are discussed in the next section. These changes assess the differences in scores attributed to program enrollment and the concomitant learning experiences. The effectiveness of the four programs in bringing about change is thus demonstrated empirically.
### Table 7

<table>
<thead>
<tr>
<th>Program</th>
<th>Variable</th>
<th>Self Effic.</th>
<th>Goal Expectation</th>
<th>Role Acquisition</th>
<th>Role Conflict</th>
<th>Barriers Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(f=2.493)</td>
<td>(f=1.620)</td>
<td>(f=2.736)</td>
<td>(f=4.536)</td>
<td>(f=4.574)</td>
<td>(p=.070)</td>
</tr>
<tr>
<td></td>
<td>(p=.070)</td>
<td>(p=.190)</td>
<td>(p=.053)</td>
<td>(p=.006)</td>
<td>(p=.006)</td>
<td></td>
</tr>
<tr>
<td><strong>Employment Alternatives</strong></td>
<td><strong>X1-X2 SD</strong></td>
<td><strong>X1-X2 SD</strong></td>
<td><strong>X1-X2 SD</strong></td>
<td><strong>X1-X2 SD</strong></td>
<td><strong>X1-X2 SD</strong></td>
<td></td>
</tr>
<tr>
<td>for Women (n=15)</td>
<td>.47</td>
<td>.70</td>
<td>-.01</td>
<td>1.14</td>
<td>.64</td>
<td>.60</td>
</tr>
<tr>
<td>Cook Training (n=13)</td>
<td>-.45</td>
<td>.87</td>
<td>-.42</td>
<td>.62</td>
<td>-.42</td>
<td>1.63</td>
</tr>
<tr>
<td>Training Access (n=13)</td>
<td>.16</td>
<td>1.09</td>
<td>.28</td>
<td>.60</td>
<td>.14</td>
<td>.59</td>
</tr>
<tr>
<td>Long Term Care Aide (n=16)</td>
<td>-.05</td>
<td>.84</td>
<td>-.23</td>
<td>.77</td>
<td>.07</td>
<td>.91</td>
</tr>
<tr>
<td>Mean Total</td>
<td>.06</td>
<td>.92</td>
<td>-.12</td>
<td>.84</td>
<td>.12</td>
<td>1.04</td>
</tr>
</tbody>
</table>

Note: All entries denote change in perception of barriers toward women's nontraditional employability. Positive entries indicate that women see fewer barriers or reduced severity, hence easier access to jobs as a result of the program. Negative entries indicate that barriers are deemed more severe after the program than before. The alpha probability that the programs differ significantly appears at the head of each column. * Denotes groups significantly different at the .05 level using Tukey contrast (which evaluates all pairwise comparisons among means).

### Pretest to posttest differences

The final set of hypotheses were proposed to ascertain the extent of differences between the pretest measures (at initial stages of occupational preparation) and the posttest measures (near the termination of occupation preparation). These hypotheses deal with the effectiveness of the four programs in bringing about change in perceived personal-social barriers to
nontraditional occupations. Empirical findings will be presented for each hypothesis, followed by a discussion of the findings as a set. (The two hypotheses below were numbered 13 and 14 when discussed in Chapter 3.)

1. Women who have completed nontraditional career preparation programs will exhibit greater change associated with personal-social barriers, role acquisition, role conflict, self-efficacy expectations and goal-setting between the pre- and posttest measures than will women who have completed a traditional preparation program. Women enrolled in a traditional preparation program are not expected to change their scores from the pre- to the posttest measurements.

This hypothesis was not confirmed. Two of the nontraditional groups (EAW and TRAC) did perceive fewer barriers than did the traditional (LTC) group to self-efficacy expectations, goal-setting, role acquisition, and role conflict from the beginning of their programs to the end as measured by mean differences. But the other nontraditional group, CkTrng, perceived more barriers at the completion than at the initiation of their program on each of the five occupational socialization measures. LTC enrollees did change their perception of the number or degree of barriers but the change was not consistent and it was minimal.

Empirical results revealed that there were no statistically significant differences between the nontraditional groups and the traditional group. Statistically significant variation was found, however, among the nontraditional groups. Consequently, the curriculum of career preparation programs may be able to influence students' perceptions and expectations about occupational roles but not as anticipated.
The traditional health care program curricula and learning experiences have little influence on the balance between gender role socialization and occupational socialization. Change scores for this LTC group were altered minimally on the criterion variables. The three nontraditional programs, however, had differing influences upon the occupational socialization of the students. Evidently the effectiveness of the programs in bringing about change was related to the type of intervention strategies they employed. The data collected were insufficient to reveal the specific sources of the variation.

2. Of the women who have completed nontraditional preparation programs, those who have completed a nontraditional career exploratory program (EAW) will experience the most change of the three nontraditional groups on the measures of occupational socialization (personal-social barriers, role acquisition, role conflict, self-efficacy expectations, goal-setting) between the pre- and posttest measurements.

The findings do not totally support this hypothesis. As measured by mean scores, the EAW group had greater change in their scores on three of the five measures: self efficacy expectations (.47), role acquisition (.64), and total barriers (.37) than did the other nontraditional groups. They perceived fewer barriers to these criterion measures at program completion than at enrollment. TRAC women had greater change scores (perceptions of fewer barriers) on goal-setting (.28) and role conflict (.66). And change scores for CkTrng were consistently negative, indicating they perceived more barriers after receiving career preparation than at the outset. This may be a result of information and experiences acquired during their
program, reflecting the reality of the world of work for women in nontraditional occupations.

**Discussion.** Table 7 summarizes the results of the pre- to posttest changes by program and variable. It shows that the programs assisted women in understanding and addressing the personal and social barriers to occupations, but not all programs had the same results. Women in LTC programs effectively did not change their perspectives about barriers to nontraditional career development; there were mixed patterns in the nontraditional groups. EAW enrollees made the most change in perception of total barriers (fewer barriers perceived) as measured by mean scores, followed by TRAC women. But curiously, women in CkTrng perceived more barriers from the beginning of their program than they did at the completion.

Women in the LTC program exhibited less change on measures of self-efficacy, occupational role acquisition, and total barrier count than the nontraditional groups. They detected more problems in addressing factors affecting goal-setting at the completion of the course than at the beginning. On all variables except goal-setting their occupational role orientation remained the same; their program made little difference in their occupational orientation as reflected in little change on measures of barriers to nontraditional occupations.

On self-efficacy expectations and role acquisition the EAW group also showed the greatest gain in occupational
socialization. This means they perceived fewer barriers to nontraditional roles and saw themselves as competent and persistent in acquiring and maintaining a nontraditional role identity.

EAW participants were older and had more years work experience than the other groups. The EAW program offers information, exercises, and experiences associated with the cognitive, behavioral and attitudinal perceptions of nontraditional role identification. Specifically, they take interest and aptitude assessments; visit nontraditional businesses and industries; participate in activities related to fitness, decision-making, assertiveness and communication skills. They also meet female tradeswomen and work in four different occupational settings. All this experience and exposure, combined with personal maturity and work experience, evidently influences their efficacy expectations and role acquisition expectations.

TRAC women were second only to EAW in understanding and addressing barriers to occupational role identification, particularly, role conflict problems (+.66). Students in this program were second to EAW students in age and year of work experience, and had more education than the other groups. Although this program did not specifically address affective aspects of occupational socialization, peer interaction and support were important socializing influences. These women had made conscious choices about specific nontraditional occupations; in this process they had resolved (or were in the
process of doing so), any pressures, expectations, or conflicts about the compatibility of career interests and family interests.

Women in CkTrng reported an increase in obstacles on every one of the variables, with a minimal increase in role conflict (-.01). CkTrng students were younger and had less work experience than the other groups. And although cooking is associated with traditional female socialization, women students in this program had male instructors, male peers and male coworkers in work placements. Also, the theoretical knowledge and psychomotor skill behaviors and expectations associated with professional cook training may have been different than anticipated.

Taking all scores combined, EAW women showed the greatest advances in understanding, addressing, and overcoming occupational socialization barriers. They were followed by participants enrolled in the TRAC program. It appears that although women pursuing nontraditional careers (EAW, CkTrng, TRAC), had internalized norms associated with nontraditional roles, those who had explored various nontraditional career options (including skills, behaviors, attitudes, expectations, and barriers), were more likely to have acquired an occupational role identity based on exposure and experience rather than simply on cognitive information and personal expectations.

The EAW program specifically presented knowledge and skill experiences of a nontraditional nature and it also offered intervention strategies to facilitate nontraditional
occupational socialization: assertiveness training, goal-setting, decision-making, role modeling, communication skills, weight training, shop tours, job hunting, and women-in-trade films. Women in this program were able to coalesce the major aspects of career development—career knowledge, work skills, work values, and personal expectations.

Overall then, it was evident that although the results did not support the hypothesized relationships on all the variables for all the groups as anticipated, the EAW group consistently showed an acquisition of affective nontraditional role socialization on almost all the identified variables at pretest, posttest, and in a comparison of change scores between the pre- and the posttest. Accordingly, it is clear that the changes associated with the EAW program could not be explained on the basis of the differences which existed among the four groups of women at the beginning of the programs. The EAW program was more effective in changing the number or degree of perceived barriers than other nontraditional programs and its effectiveness could not be explained on the basis of any differences among the groups prior to the educational programs.

Analysis of Career Commitment

As discussed previously in this chapter, the Nagely Scale of Attitudes Toward Career and Career Related Variables (which had been identified as a career commitment measurement) proved unreliable in initial analyses. A post hoc factor analysis was undertaken in order to salvage a measurement of career
commitment. To that end, two new factors were identified and named to represent the major considerations of having a career—external benefits one would anticipate or hope to expect from having a career and psychosocial self expressions of a role identity resulting from having a career.

Because it was impossible to analyze the original hypothesized relationships among the four programs using Nagely's factor scales (Masculine Work Orientation, Feminine Social Orientation, and Stop Gap Job Orientation), it was decided to proceed with an analysis using the SPSSX ANOVA procedure and to present results using the two new identified factors—Expectations of Career Benefits and Career as Vehicle for Self Expression as listed in Table 5.

It was not the original intent of this study to measure psychological traits or personality factors of women in nontraditional career preparation programs. Only those dimensions of psychosocial orientation as labelled by the Nagely factor scales (Masculine Work Orientation, Feminine Social Orientation, and Stop Gap Job Orientation) which were believed to influence career commitment were considered. The analysis of the two new factors represents a shift of emphasis from a focus on the type of commitment the women have to a career to a focus on those psychological and sociological implications and expectations resulting from having a career.

As discussed in Chapter 3, role theory is a theory of socialization which is useful in understanding the dynamics of occupational identity. Roles are seen as the articulation
between psychology and sociology and the integration and interaction of the external components (roles) and internal components (identities) which define personhood (Burke & Tully, 1977).

Factor one, labelled expectations of career benefits, can be viewed as composed of elements influencing one's external role identity. Factor two, career as vehicle for self expression, can be interpreted as composed of elements contributing to one's internal identity. In this study, both factors—and the integration-interaction of them—comprise the basic components of occupations and occupational expectations through which women take on occupational role identification and begin to experience a sense of self.

In a review of the literature of characteristics and predictive dimensions of women who make nontraditional choices, Chusmir (1983) identified personality and motivation traits of these women. They are characterized as active, autonomous, dominant, expressive, individualistic, intellectual, nontraditional in gender role (or profeminist), psychologically masculine, responsible, risk taking, self actualized, self confident, and sociable. Their motivation needs include achievement, femininity and romance, recognition, self-identity, and status. Other tendencies are that they: enjoy outdoor activities, are internally motivated, have conflict with career and marriage, rank skill trades high in prestige, prefer challenge and pay over job security, expect to work hard to get ahead, and are receptive to working for women.
In order to portray a pictorial comparison of the four programs, Figures 2 and 3 show mean scores plotted by .25 intervals for each group on the factors. When dealing with a small group such as 61 (pretest) or 57 (posttest), reported statistics often seem insignificant or meaningless. Figures 2 and 3 show the differences among the programs graphically by pretest and posttest mean scores.

These figures graphically illustrate that on the pretest assessments there was not a great deal of variation among the programs. Accordingly, it is clear that individuals were not selected or recruited for particular programs on the basis of differences on these variables. After program experiences, the variation on both Expectations of Career Benefits and Career as Vehicle for Self Expression became more pronounced. Overall, at posttest assessment EAW students expressed or attributed greater intensity of positive social meanings and self meanings to career orientation and career commitment.
Figure 2

Mean Scores of 3 Nontraditional and 1 Traditional Career Preparation Programs on Factor 1: Expectations of Career Benefits

FACTOR 1: EXPECTATIONS OF CAREER BENEFITS (PRETEST SCORES)

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<tr>
<th>PRODUCTIVE</th>
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<th>SUCCESSFUL</th>
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FACTOR 1: EXPECTATIONS OF CAREER BENEFITS (POSTTEST SCORES)

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Figure 3

Mean Scores of 3 Nontraditional and 1 Traditional Career Preparation Programs on Factor 2: Career as Vehicle for Self-Expression

FACTOR 2: CAREER AS VEHICLE FOR SELF-EXPRESSION (PRETEST SCORES)

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FACTOR 2: CAREER AS VEHICLE FOR SELF-EXPRESSION (POSTTEST SCORES)

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</tbody>
</table>

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- EAW
- CKTrng
- TRAC
- LTC
Table 8 is a display of the pretest and posttest measurements on these variables. The results are reported as means and standard deviations, based on the 7-point semantic differential scale (7=positive polarity; 1=negative polarity). The scales represent not only direction (polarity) but also intensity of response. The instrument was composed of questions asking respondents what having a career meant to them.

### Table 8
Pretest and Posttest Measurements of Career Commitment for Four Career Preparation Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Employment Alternatives for Women</th>
<th>Cook Training</th>
<th>Training Access</th>
<th>Long Term Care Aide</th>
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<td>$\bar{x}<em>{1} - \bar{x}</em>{2}$ SD</td>
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<td>$\bar{x}<em>{1} - \bar{x}</em>{2}$ SD</td>
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<td>Expectations of Career Benefits</td>
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</tr>
<tr>
<td>$\text{pre}(p=.118)a$</td>
<td>6.32 .31</td>
<td>5.98 .76</td>
<td>5.90 .75</td>
<td>5.67 1.00</td>
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<tr>
<td>$\text{post}(p=.002)b$</td>
<td>6.51* .38</td>
<td>5.63* 1.03</td>
<td>5.32* 1.18</td>
<td>5.80 .48</td>
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<td>Career Self Expression</td>
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<tr>
<td>$\text{pre}(p=.070)a$</td>
<td>6.11 .51</td>
<td>6.05 .77</td>
<td>5.71 .79</td>
<td>5.53 .71</td>
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<tr>
<td>$\text{post}(p=.001)b$</td>
<td>6.40* .42</td>
<td>5.36* .89</td>
<td>5.17* 1.25</td>
<td>5.50* .42</td>
</tr>
</tbody>
</table>

a--Pretest scores were based on N of 61
b--Posttest scores were based on N of 57
*--Indicates groups significantly different at the .05 level using Tukey contrasts (which evaluates all pairwise comparisons among means)

**Pretest Results**

As can be seen in Table 8, those students in EAW had the highest mean score on expectations of career benefits on the pretest (6.32), followed by CkTrng (5.98), TRAC (5.90), and LTC (5.67). Thus, nontraditional enrollees expected more benefits...
as a result of having a career than did the traditional group. In particular, those in the nontraditional programs scored higher than did the traditional group on productive, positive, important, advantageous, and necessary as adjectives which reflected their expectations of what a career provides in terms of rewards or benefits. And because they were older and had more work experience, they had probably thought carefully about what they wanted from a career. Evidently their previous work experiences had not been totally fulfilling because they were now exploring nontraditional career options in anticipation of finding an occupation to match their expectations.

Women in the LTC program, conversely, had the lowest pretest means scores. They had the fewest expectations of benefits which accrue from having a career. They scored lowest on these items: provides recognition, would recommend to others, glamorous, and permanent. That is, they saw career identification and commitment as being more temporary than permanent, dull rather than glamorous, providing little recognition, and something they would not recommend to others.

On Factor 2, Career as Vehicle for Self-Expression, a similar pattern emerged. EAW students had the highest pretest mean scores (6.11) followed by CkTrng students (6.05), TRAC students (5.71), and LTC students (5.53). High scoring items for those women exploring nontraditional careers were that as a measure of psychosocial expression, a career was innovative, variable, and integrates life. Women in the LTC program, having the lowest pretest mean scores, saw career identification as
implying something less than flexible, liberating, and variable. As well, they were uncertain whether a career (a) disrupted home life or enhanced home life and (b) fragmented home life or integrated home life. There were no statistically significant differences between the traditional and nontraditional groups.

Taking all the pretest scores combined on the two factors, it appears that students in nontraditional programs saw career commitment as providing greater expectations of psychosocial benefits and self-expressions than did the traditional group. LTC students saw the least degree of expected benefits and self-expressiveness as a result of having a career. Of the nontraditional groups, EAW students saw career identification as allowing more social benefits and self-expressions than the other two groups. This distribution of scores suggests that program recruitment/selection, which was virtually a self-selection process, is influenced by the anticipated congruency of career identification and personal characteristics.

**Posttest Results**

The results of the posttest data reveal that program graduates differ on the measures of social and self expressions, but with no consistent patterns. Compared to nontraditional enrollees, the LTC group expressed greater social expectations and slightly more self-meanings than two nontraditional groups. The variation among the nontraditional students was that the EAW group expressed greater social expectations and self expressions, but both TRAC and CkTrng saw career identification
as providing fewer social expectations and self expressions.

LTC women at the posttest session (as on the pretest) saw a
career commitment as more disruptive than enhancing. As well,
they saw career orientation as more confining, routine, and
selfish. Evidently, psychosocial expressiveness from career
identification as measured by their moderately high mean scores
on expressive, challenging, satisfying, good, and toward people
was tempered by role socialization which continued to cause
conflict in their resolution of career interests verses home
responsibilities.

The nontraditional group as a whole, exhibited inconsistent
variation on both factors. Those in the EAW program,
specifically exploring nontraditional options, expressed the
highest degree of expected benefits and self expressiveness from
career identification. They had more years work experience,
were older and had more young children at home than the other
groups. Consequently, they were seeking an occupation which
would allow them to express themselves and at the same time
which would provide some external, social benefits. Evidently
their previous life patterns or work experiences had not
provided all they anticipated from career identification. The
other two nontraditional groups, TRAC and CkTrng, expressed a
moderate degree of anticipated expectations and expressiveness.

Statistical significance was found on the posttest
measures. On Factor 1 (p=.002), the statistically significant
variation was among the nontraditional groups: EAW was different
from CkTrng and TRAC but CkTrng and TRAC were not different from
each other. On Factor 2 (p=.001), the statistically significant variation was across all groups. Using Tukey comparison, the EAW group was different from any other group, but the other three groups were similar.

Taking all the posttest scores combined, it appears that EAW students ostensibly perceive careers as more socially beneficial and psychologically expressive than do the other three groups. Women students in the TRAC program exhibit the least expected benefits and expressiveness of the four groups as measured by mean scores on individual items; their scores reflect only a fair degree of psychological and sociological expectations from having a career. Evidently economic necessity and personal and family interests, more than personal and social fulfillment, lead some women to pursue careers—either traditional or nontraditional.

Pretest to Posttest Differences

Table 9 summarizes the mean differences between the pre- and posttest measures on the two factors of career commitment. As can be seen, EAW students and LTC students perceived a career as providing a greater degree of expected benefits and expressiveness than did those in CkTrng or TRAC programs. Both CkTrng and TRAC enrollees perceived fewer benefits and less expressiveness as a result of career identification. Statistically significant differences were found among the programs on Factor 2 (p=.051), Career as Self-Expression.
Table 9
Change Between Pretest and Posttest Measures of Career Commitment for Nontraditional and Traditional Career Preparation Programs

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<td>( f = 2.758 )</td>
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<tr>
<td></td>
<td>( p = .148 )</td>
<td>( p = .051 )</td>
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<td>Program</td>
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<tr>
<td>Employment Alternatives for Women (n=15)</td>
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<td>.29</td>
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<td></td>
<td>.34</td>
<td>.46</td>
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<tr>
<td>Cook Training (n=13)</td>
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<td></td>
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<td>Training Access (n=13)</td>
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<td></td>
<td>1.36</td>
<td>1.38</td>
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<tr>
<td>Long Term Care Aide (n=16)</td>
<td>.13</td>
<td>.03</td>
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<tr>
<td></td>
<td>.93</td>
<td>.71</td>
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</table>

Note: Entries reflect changes in expectations of career benefits and self-expressions as influencing career commitment. Positive entries indicate that women see a greater degree of expectations or expressions from having a career. Negative entries indicate that career benefit expectations or self-expressions are reduced as a result of having a career. The probability that the programs differ significantly appears at the top of each column.

EAW students, because their program addressed psychosocial dimensions of careers (aptitude testing, personal-social barriers, decision-making, communication skills, and goal-setting), were responding to the career commitment measure from experience and exploration. Their program specifically offered career information and experience in addition to fostering personal and occupational role identification awareness. Also they were older and had had more work experience than the women in the other three groups.

The LTC program, conversely, focused mainly on knowledge and skills of an occupation. The change scores for these women
on measures of expected career benefits and self-expressiveness were small (.13 and .03 respectively). Although the temptation exists to attribute the change to educational intervention, the results must be interpreted carefully (as for all groups but especially those with such low scores). Career commitment and career choice are complex processes. LTC students received little occupational socialization of an affective nature concerning behavioral, attitudinal, or cognitive expectations associated with their role identification. Their program evidently made little difference in their occupational socialization with regard to benefit expectations and self-expressiveness.

Students in both CkTrng and TRAC were exposed to explicit occupational preparation with little, if any, emphasis on role identification. Yet their change scores are fairly large (compared to EAW and LTC), indicating that something during their educational training affected their career commitment scores on both factors. In both programs women students interacted with male students and instructors. (The EAW and LTC programs had only female students and instructors although in job training situations males were present.) Also, the CkTrng program may have been an initial career choice for women because of its similarity to female norm socialization of cooking and meal preparation. Once enrolled, women became aware of the routine, mundane, and often strenuous aspects of cook training occupations.

In the TRAC program (individualized, competency-based)
women students had little opportunity for classroom interaction and stimulation or on the job experience. Because the program was still in developmental stages (having been initiated only 12 months previously) many aspects were still unsettled (e.g., some course materials were not available, instructors were not always available for shop practice and were sometimes assigned to shops other than their trade expertise). TRAC women may have been disillusioned about their ability to find self-expression in a career choice they had anticipated would provide psychosocial benefits and expressions.

Career attitudes and expectations are the results of a combination of environmental stimuli, educational experiences, reference groups, and personal characteristics (Fox & Renas, 1977). Students in a traditional career program for women saw a career as providing few benefits and even fewer opportunities for self-expression. And their change scores indicated their program did little to alter their social and self expectations resulting from career identification. They particularly saw a career commitment as somewhat dull, routine, confining, and disruptive to home life.

Of the nontraditional groups, women in the EAW program ostensibly were able to integrate all four of the above factors to envision a career as providing a fairly high degree of productive, creative, successful, and fulfilling benefits as a means of self-expression. Their change scores indicated that they saw their career role identification as allowing them to match personal characteristics and career expectations. Females
in CkTrng and TRAC saw fewer opportunities for self-expression and had fewer expectations of those psychosocial benefits career identification would or could afford than did students in either LTC or EAW.

Overall then, psychological and sociological matching of personal characteristics and occupational characteristics appears to be a result of learning and developmental experiences associated with educational settings, societal norms, and career maturity. An understanding of the complexity of interacting factors is important in fostering female career development. Those women in the process of exploring nontraditional careers had greater expectations of both the psychological and sociological congruency of career identification. Their age maturity and work experience maturity (both greater than the other groups) contributed to their exploration for career and personal congruency. Those in a traditional career preparatory program perceived fewer changes in career expectations and in opportunities for expressiveness for themselves as a result of their program enrollment. Their personal and career congruency changed little. Those in the traditional preparatory program remained relatively stable in their career socialization and traditional gender role socialization. The effectiveness of the nontraditional programs in enhancing career commitment was unstable—two groups saw reduced psychosocial expectations and expressiveness. Only the program addressing affective occupational socialization effectively improved career commitment expectations and anticipated expressiveness.
Accordingly, any differences in fostering career commitment were not due solely to intervention strategies employed by programmers.

Summary

This chapter presented a description of the characteristics of women in occupational programs. Profiles of these students were presented. It was suggested that a combination of age, marital status, and absence of young children at home may be important factors not previously considered as major factors in female career development.

Reliability of the instruments used in the study was reported. The process of extracting two new factors from the Nagely career commitment scale was discussed.

The findings from the three sets of hypotheses were presented. Pretest scores revealed that the two types of programs were serving a homogeneous group of women who had approximately similar gender role socialization expectations and attitudes. Posttest scores indicated that program participation made a difference in students' perceptions of their abilities and expectations concerning nontraditional role identification, but that there was not a consistent pattern between the traditional and nontraditional groups.

An analysis of career commitment revealed that program enrollment is influenced by personal characteristics reflecting self-meanings and social meanings. At both pretest and posttest the traditional group expressed a moderate number or degree of
anticipated social benefits and self expressions from career identification. But they altered their anticipated social benefits and self expressions only minimally as a result of program enrollment. The nontraditional groups exhibited no systematic differences when compared to the traditional group at pre- and posttest assessments. And change scores indicated that only one group—EAW—saw more benefits and expressiveness than did the traditional group.

The lack of consistent patterns between and among the programs on the variables of occupational socialization and career commitment indicate that occupational development is a complex process involving more than just theory and skill acquisition. The affective component of occupational socialization, in concert with other psychosocial factors and experiences, is a valuable component of preparation programs—helping women understand more about themselves and their career choice.
As was discussed in Chapter 4, interviews were included in this study as a means of data collection to augment the questionnaire data and the factors in the conceptual framework. In the first section a comparison between student responses in the traditional program and responses of students in the three nontraditional programs will be presented. The next section will offer a comparison of findings and responses among interviewees in the three nontraditional programs. The final section will present general responses to the interview questions.

The first objective of the interview was to seek information about career development. Questions and discussion related to steps in career maturation, occupational goals, and the process of goal-setting were pursued. The second objective of the interview was to identify any problems or obstacles these women may have encountered in their career development. The questions and discussion concerned personal and social barriers, role conflict, and self-efficacy expectations. The third purpose of the interview was to seek clarification of the process by which the women acquired an occupational role identity and the ways that process was facilitated by a career preparation program. A copy of the interview schedule is included in Appendix D.
The Interview Process

As has been noted previously, this study involves four groups of women enrolled in career preparation programs—three of a nontraditional nature and one of a traditional nature. For clarity and brevity in this analysis, the groups are abbreviated as follows: Employment Alternatives for Women (EAW), Professional Cook Training Level I (CkTrng), Training Access (TRAC), and Long Term Care Aide (LTC).

Three women from each program (12 total) were interviewed after the completion of their program, or for those in the TRAC program which is of variable duration, approximately 16 weeks after the pretesting session. Student selection was made prior to the completion of each program and after consultation with the instructor or contact person. Criteria used in selecting the interviewees included their knowledge and awareness of the issues and barriers in career development without reflecting a bias and sufficient oral fluency to describe the occupational socialization process in which they were involved. Because of this method of selection, the findings may not be consistent with the data in Table 2 (the women interviewed were not entirely representative of the groups from which they came). Participants ranged in age from early 20s to early 50s, with most women in their early 30s.

Interviews varied in length from 45-90 minutes and were recorded on audio-cassette tapes. Permission to record the sessions was sought from each participant before the interview began; there were no refusals. The interviews were conducted in
participants' homes, in the investigator's home, or in one instance, at the educational institution.

The semi-structured nature of the interviews gave the participants an opportunity to discuss their career development as it related to occupational socialization. Any remarks which were relevant to the interview objectives were pursued within a framework of informal dialogue.

In conducting the interviews an introductory statement was made about the emphasis on occupational preparation for women, including preparation for nontraditional fields. This introduction was related to the participants' recent occupational study and their career development. Open-ended questions were then asked about their career development, any barriers they may have encountered, and about anything in their program which may have facilitated their occupational socialization. When discussion drifted away from the topic or when participants sought further clarification or direction, the investigator asked specific questions relating to the immediate topic of discussion or to the integrated conversation. For example, questions included: what their occupational goals were; what type work experience they had; what influenced their career and program choice; if goals had changed as a result of being in the program; how and why goals may have changed; what barriers they had experienced in their career development; if they had experienced any role conflict from family or friends; how their program had addressed occupational knowledge, skills, attitudes; did anything specific about the program help them learn about
the occupational role; and what was the interaction like among all program participants—including instructors and other resource personnel.

The interview findings are discussed in three sections: (1) comparisons between traditional program enrollees and nontraditional program enrollees, (2) comparison among students in three nontraditional programs, and (3) general interview findings.

Comparison Between Traditional and Nontraditional Programs

This section will focus on the essential differences between the women enrolled in nontraditional career preparation programs (EAW, CkTrng, TRAC) and those in a program of a traditional emphasis (LTC). The findings are presented by issues addressed in the interview: steps in career development, barriers to career development, and occupational socialization as it occurred in the program.

Steps in Career Development

A fundamental difference between the traditional enrollees and the nontraditional enrollees concerns their early career interests. Of the nontraditional enrollees, six of nine identified an early interest in nontraditional activities—carpentry, metal work, electronics, automechanics. Women in the traditional program had pursued traditional courses for women—teaching and nursing, never considering or expressing an interest in anything nontraditional. Again with women in the nontraditional programs, six had endeavored to maintain
employment in jobs or careers stereotyped for women (secretarial, teaching, retailing) but finally realized interest, which would facilitate career motivation and continuity, was lacking. None of the LTC participants had ever been employed in a nontraditional job.

Career development for LTC program participants who were interviewed had been interrupted by having children and the ensuing parental responsibilities. Only after their children were in school or they had experienced a marital breakdown did these women reconsider employment and career preparation. Only three of the nine women interviewed in nontraditional programs were married or living with someone at the time of the interviews; two others had previously been married. Only one reported that she had altered or interrupted her career development because of children and family responsibilities.

Most interviewees saw little prospect of obtaining a secure job in the current economic conditions without improving their educational qualifications. Two LTC interviewees stressed the importance and urgency of acquiring credentials to obtain a job in the immediate future. An immediate job was not a concern expressed by any of the women in the nontraditional programs, although many of them were in similar situations (unemployed or divorced). The women in the nontraditional programs saw this stage of their career development (enrollment in career preparation programs) as an opportunity to pursue career interests and acquire qualifications which would facilitate further education or training (either in conjunction with
employment or after work experience).

Because of this differing focus and direction (job versus career) interviewees reported different goal-setting patterns. Goal-setting was not a part of the LTC program curriculum and apparently these women had not given much attention to it as part of their career development. They were either uncertain about their future career plans (except for needing a job), or indecisive about pursuing other career options, as evidenced by these statements: "I might pursue another two-year program," and "I'm not thinking of it as a lifetime goal."

Interviewees in the nontraditional programs either addressed goal-setting as part of the curriculum (in EAW and as a brief class activity in CkTrng) or as part of their personal life assessment (women in TRAC who had gone through a personal decision-making process in their career development). These women in the nontraditional programs explicitly named long-term career goals or were in the process of identifying such goals for themselves. "I want to be a Chef." "I want to be a landscape artist." "My vague and long-term goals are finish (the program), apprenticeship, experience, then furniture with oriental style, then specialize in some area of woodwork."

Barriers to Career Development

Another area of essential difference between the two types of career preparation programs (traditional vs. nontraditional) concerned the barriers they experienced. Interviewees in the traditional program did not enumerate any impinging barriers either from society or from personal perceptions or
expectations. The majority of interviewees in the nontraditional programs named several personal-social barriers—from stereotypical norms about the impropriety of certain occupational roles for women to personal difficulties associated with career interests.

When asked about role conflict, the women gave a mixed pattern of responses. A concomitant influence to barriers and role conflict is the support and encouragement of individuals whose opinions were valued as important. Those in the traditional LTC program never mentioned support groups per se. There was some car-pooling and coffee-room sharing but it was not discussed in the interview as a supportive influence. Seven of the nine women in the three nontraditional programs offered unsolicited comments relating to support and support groups. Reflective comments included: "get a support group," "you have to have support within the system," and "surround yourself with people who like you."

The area which maximized the distinctions between the two groups centered around self-efficacy expectations. Perceptions about competence and persistence of acquiring and maintaining a role involving caring for others' health needs did not pose a barrier or problem for LTC interviewees. "This is heavy work ... (but) not much challenge." Yet, to a woman, those in the nontraditional programs expressed some apprehension, hesitancy, uncertainty, or uneasiness about their competence and motivation throughout various stages of their career development. As a generalization, they were, at the time of the interviews, quite
confident about their self-efficacy (competence and persistence) to carry through their career goals and commitments.

**Occupational Socialization**

The differences between the two groups relating to occupational socialization dealt more with methodological and philosophical differences than with content differences. Knowledge and skills appropriate to respective occupations were stressed; attitudes were stressed in various ways.

According to interviewees, LTC was very instructor centered. Several women said the program was too structured, requiring too much memorization and recall of information. There was little time for questions and interaction with instructors. The focus was content and skill acquisition and evidently instructors did not encourage student interaction or stress affective socialization. The opposite reaction was expressed by many nontraditional interviewees. One program (EAW) involved almost constant interaction. The course format in CkTrng allowed for interaction among students even in classroom settings. And much of this program was lab or practicum oriented. Students often discussed among themselves how to handle certain work situations. The TRAC program was organized as an individualized, self-paced program in which students see instructors only as resource personnel or as shop coordinators. Consequently, students rely heavily on their own initiative or on peer interaction.

When responding to how their program facilitated occupational role identity acquisition, interviewees in
nontraditional programs saw friends and other students as primary socializing agents. This may be attributed to the fact that peer interaction was greater in the three nontraditional programs than in the traditional program. Instructors in the nontraditional programs entered the picture as socializing agents only indirectly according to the interview data. Interviewees from the nontraditional programs thus experienced a variety of occupational socializing influences in their lives while enrolled in career preparation programs.

In summary, the differences between the traditional program and the nontraditional programs appear to relate more to the affective aspects of career development—how one acquires the attitudes, values, and beliefs of an occupational role identity—than to the theory and skill aspects of occupational preparation. The exploratory program provided more confirmation and certainty for those still exploring; TRAC and CkTrng provided learning experiences leading to marketable skills; LTC resembled TRAC and CkTrng in program content and career development emphasis.

Comparison of Women in Three Nontraditional Programs

The previous section compared and contrasted interview findings between women in an occupational program of a traditional nature and those in three different occupational programs considered nontraditional for women. In this section the differences and similarities reported by women in the three nontraditional programs (EAW, CkTrng, and TRAC) will be
presented.

The most salient differences among interviewees in the nontraditional programs appear between the EAW program and the CkTrng and TRAC programs combined. The very nature of the EAW program—career exploration—sets it apart from other career preparation programs (which offer pre-employment and pre-apprenticeship training). The objectives of the EAW course were reflected in the themes of exploration, confirmation, and certainty. As part of an exploratory process, these women wanted more nontraditional career information and counseling and wished to try themselves out in a short program during which they counted on getting more support and encouragement. Although women in the EAW program were older than those in the other two nontraditional programs, they were still exploring career options and gathering information and experience to help them make better career decisions. Reflective of these ideas are the following comments. "EAW gave me more options—career and personal." "This course helps women face uncertainty and expectations about trades." "Women need that support and encouragement and confirmation that it is okay to be different." "It helped me confirm the person that I am."

As career preparatory programs, CkTrng and TRAC concentrated on issues germane to employment: theory and skills. The women in these programs were past the career exploratory stage of career development and into the preparation stage of occupational development. They most likely had resolved any uncertainty about career options and abilities and were
directing their efforts toward instrumental and intrinsic means of matching personal and career interests to labor market possibilities. Most of them reported long-term career goals reflecting their program experiences and personal interests.

Each of the nontraditional career preparation programs addressed occupational socialization in varying degrees of explicitness and thoroughness. Whereas EAW exposed women to occupational socialization for the general trades through practicing role models, women-in-trade films, guest speakers, shop tours, and work experiences, CkTrng and TRAC exposed participants to occupational socialization through work experiences only (discounting theory and skill content). When interviewed, women in the EAW program were able to pinpoint specific occupational socializing factors; most CkTrng and TRAC interviewees could not identify occupational socializing factors in anything but general terms.

In summarizing the experiences which socialize women into nontraditional careers as expressed by interviewees in three different types of programs, it would seem that explicit occupational socialization is not an important consideration for those career preparation programs that offer specific career preparation. All three programs offered exposure and experiences in the cognitive and psychomotor aspects of occupations. Only one program addressed the development of affective socialization. Career development involves all three learning domains; the EAW program thus offered more effective occupational socialization.
General Interview Findings Relating to Career Development and Occupational Socialization

The general interview findings are discussed by issues focusing on steps in respondents' occupational development, barriers to their occupational development, and how the programs facilitated occupational socialization.

Steps in Career Development

Career development, as discussed in Chapter 2, is viewed as a process involving career choice, career maturity, and career commitment. The first question asked women to explain the steps in their career development. This question was posed for several reasons: to encourage women to focus on their career maturation; to allow women to consider a distinction between career preparation and job preparation; and to provide a basis for understanding their goal-setting behavior and activities.

Career Choice. Career choice involves gaining the knowledge and skills required to qualify for employment. All the interviewees viewed career development in terms of previous education and work experience. Only two perceived a relationship between career development and their personality development. The aspect of choosing a career, which involves occupational selection and behaviors, evolved either from elementary or high school interests and experiences or from recent situational factors and occupational or volunteer experience.
Some women had begun to develop hobbies or interests in adolescent or early teenage years that ranged from repairing broken record players at school to designing and building animal houses for pets to cooking at home to candy striping in a hospital. Interviewees voiced a wide variety of involvement: "I got into it by fluke," "I got interested because of my own physical handicap," "In school I had an inquiring mind about electronic things," "I used to enjoy making creative things." One woman identified her first recollection of career interest as occurring when she asked for a hammer and carpenter's pouch for Christmas at the time she was seven years old. Although her vocational activities have spanned many areas, she turned to a training program which is intended to help realize her occupational goal of those early years: building furniture.

Situational factors which caused women to consider (or reconsider) a career or career preparation included marriage breakdown, geographical relocation, or life assessment. One woman echoed the sentiments of several by stating, "I've never thought of my life in terms of a career and I started thinking I should get serious about preparing for one." Also important to several women was the idea of "getting off welfare by getting training and a job." Another woman, with a background of advanced education and experience in social work, used a move to Vancouver to reexamine her career interests and vocational preparation.

For some women who had been out of the labor market for awhile, recent volunteering or personal experience provided the
impetus to pursue career preparation of a nature different from earlier interests and preparation. "I wanted to get back into the workforce but not in the areas of previous training and I enjoyed refinishing cabinets while we were having renovations on our home recently." From another, "I realized they (patients) weren't getting enough individual care so I volunteered several days a week. During that experience I realized I was interested in their academic activities as well as the recreational activities. I would like to be an activity director."

For these women, career choice was a matter of situational or environmental factors, not necessarily a sequential, developmental process. Many had been involved in an occupation unrelated to their current preparation program, choosing to return to school to pursue new or different career interests or to finally acquire the knowledge and skills for an earlier vocational interest.

Career Maturity. Career maturity involves the factors in vocational decision-making during successive periods in one's development. For some interviewees, this decision-making process involved early educational experiences. One woman took metal work, woodworking, auto mechanics, and cooking in high school; another built electronic kits; while yet another took all the math and science she could. But for most of these women, vocational decision-making did not become a conscious part of their development until after high school. Some pursued other career choices because of family pressures or career indecision. "I went to university for three years to be a
teacher but dropped out because it wasn't meeting my needs. After working at odd jobs for about five years I am now exploring my early nontraditional career interests. I have made some recent decisions based on my physical abilities and interests."

One interviewee undertook a decision-making process lasting several months. During that period she recalled past jobs and experiences she had enjoyed, focusing on what provided fulfillment. She worked through a book on career decision-making, took aptitude tests through an employment counselor, and, after realizing her interests in woodworking, visited shops and talked with woodworkers. At one specialty shop she showed up every day at 8:00 a.m. for several weeks to observe and visit. Her decision-making process has taken her into a training program where she is acquiring pre-apprenticeship qualifications.

Other women have been involved in a process of career maturation without identifying it as such. Activities in which they were engaged while considering numerous vocational issues included continuing education courses, part or full-time jobs, and volunteer activities. Maturation periods for those women whose career experiences have not deviated from original interests included career development gained during summer jobs, full-time employment, institutional courses, and correspondence coursework. Several women stressed that "experience is the key to career maturity, not only age."

In summarizing the career maturity process for these women,
it would seem that the individuality of that aspect of career development relates to situational factors. For some, vocational decision-making had been an ongoing process from an early age. For others, choosing a career and actively pursuing it had occurred only prior to program enrollment. Yet for others, vocational decision-making was a serendipitous experience.

**Career Commitment.** Career commitment relates to the decision to take a job. Once a career decision had been made or an occupational choice identified, most women in this study actively sought information relating to occupations, the preparation required, and the possibility of training. This information seeking can be viewed as part of career motivation or career commitment. How motivated were these women to consciously commit themselves to acquiring the qualifications requisite to the occupation? By the time these interviews were conducted, most interviewees had completed their preparation program. When questioned about career goals and motivation, most were able to discuss specific plans. In some programs goal-setting had been either a part of the curriculum or a classroom activity.

The interviewees generally reported that they felt a need for career information and counseling to make reasonably good choices and commitments. In seeking information about careers and career programs, many women were not satisfied with the assistance they had received. They expressed concern about talking to counsellors who were "too busy" or "not encouraging."
Interviewees in the program which addressed goal-setting as part of the curriculum felt that it was one of the most valuable components of their program. "Women often need direction and lack specific questions. They want someone to help them. This program helped me to focus my energy in a career direction." Goal-setting is seen as one means of expressing career commitment.

Examples of specific comments concerning career commitment are reflected in the following passages. "I'm in school because I want job training and my four-year apprenticeship which would give me some security." "I'm accepted at Kwantlen--it is a pre-apprenticeship program," echoes the goal commitment that others had made to seek further education and training as a result of being in programs. One woman who was realizing her long time career interests by going back to school was so excited at this stage of her career development, "I just love going to school." She mentioned three times in different contexts her goal of being a registered nurse. Another women decided to pursue academic studies at the university level. "I don't mind the idea of long-term training or eduction for a career. Skills and knowledge are acquired through training and length of study; length indicates complexity and specificity of expertise."

In summary, some women identified short-term career goals; other women specified long-term goals. For those with short-term goals, a certificate acquired through their program would enable them to obtain a desired job. Women identifying long-term goals realized that a preparation program was but one step
toward their career goals. Experience in the labor market would provide other credentials before they would return to school for further training or education.

Barriers to Career Development

The second objective of the interview was to identify any problems or obstacles which interviewees may have encountered in their career development. The discussion centered on personal-social barriers, role-conflict, and self-efficacy. These three sources of potential barriers involve behavioral, attitudinal, or cognitive expectations and perceptions.

Personal-Social Barriers. Personal barriers to career development include attitudes, prejudices, aptitudes, physical strengths, time management, energy and money. Societal barriers are those dealing with family responsibilities, education and training, attitudes, finances, and ethnic and gender discrimination. Many of the women who were interviewed had experienced personal-social barriers to their career interests early in their lives. Comments to this question evoked such responses as, "parents somewhat concerned about my being different," "guys gave me a hassle because I was the only female (in shop classes)--they sabotaged my projects," "in high school I tried to take shop but it was only for guys. I purposefully got kicked out of home ec so they would have to put me in shop, but it didn't work."

The impropriety of certain activities as expressed by
others continued throughout the lives of most of these women. Examples of this included: (concerning sexual harrassment in a mill) "I got no sympathy from men in union or magagement and when the problem was addressed I received punishment of six weeks of night shift," "As a working woman I couldn't get certain jobs because they were only for men. When I met the requirements (for the male jobs) another barrier was put in the way," "Guys give you flak for being too weak; you can't handle it, or for being too strong that 'you're just too butch for me.'" Some women met pretty strong opposition in their programs: "You're not going to be able to do this" and "You don't belong here."

Among the women interested in nontraditional careers, almost one-half reported wanting to enroll in specific nontraditional classes during high school but had been denied that opportunity. Some school official(s) had determined which classes were "appropriate" for women and which ones were not.

To the personal-social barrier of impropriety is added the barrier of age-related appropriateness for career development pursuits. Because of the situational factors discussed earlier which may postpone career decision-making (divorce, widowhood, disinterest), some women do not actively consider or pursue a career until later in life. One woman was told by four different counseling offices that she was too old to update her 25-year old out-of-province teaching certificate. Another woman expressed a self-imposed age barrier, "because I'm 53 I don't want to spend too much time studying" (for a career).
Perhaps the attitudinal expectations and perceptions about women's roles can be typified in the statement one young woman received from a male during a program field placement, "Have you thought about sewing?" Although recognizing that barriers do exist does not diminish their existence, the responsive attitude by the majority of interviewees was that barriers were simply a lack of "awareness and sensitivity to women's issues." They said that when they were confronted with sexism, they treated it as a joke because when you take it seriously "it puts wind in their sail."

Role Conflict. Concomitant with personal-social barriers women face in career development are conflicting behavioral, attitudinal, or cognitive expectations arising from multiple roles associated with career achievement and marriage and family interests. Men are faced with many of the same issues in career development as women: choices, maturation, commitment, barriers, expectations, perceptions, and socialization. But the role of women in North American society which ascribes to them the major responsibilities of home and family bestows upon them an added responsibility. Even for women who are single (by choice, divorce or widowhood) and childless, conflict arises in the daughter, sister, or friend roles.

As a generalization, the issue of role conflict yielded the strongest sentiments expressed during the interview—either hostile, begrudged, resigned, or positive. Representative were: "My mother says how messed up I am and that my brothers don't do this to her." They (parents) "always ask when I will get
married. My parents "would perhaps have been happier if I had pursued a more academic option." My mother is not supportive but my friends are great."

One interviewee was quite emphatic on this subject. "My family gave me no support. Both sisters said I couldn't do it." And although her daughters offered encouragement, "Having a daughter who is having trouble in school is a real concern at this time." From another, "It was difficult cause kids want that attention when they come home from school. It required someone to come into my home early in the morning to get the kids off to school. The time with my kids became more structured."

Also included were comments like, "I had more responsibilities than some younger girls. They were going to clubs, movies, etc. I was cleaning house, cooking, etc." And lastly, remarks concerning husbands ranged from "my husband was very supportive" to "little support from husband."

**Self-Efficacy Expectations.** Associated with role-conflict and personal-social barriers encountered in career development are personal perceptions of one's ability to fulfill a particular role identity. These self-efficacy expectations are the behavioral, attitudinal, and cognitive perceptions involving the competence and persistence of acquiring and maintaining a role.

Women in this study expressed a wide range of thoughts about this issue. One third saw efficacy expectations intimately linked to assertiveness. "My confidence comes from
my assertiveness and occupational experience." "I am more effective dealing with ... because of personal development, assertiveness training, and an improved self-concept."

The uncertainty about careers, especially nontraditional ones with which women have had little exposure or experience, can create unrealistic expectations. "Thinking that trades is [sic] for men is a real barrier." From another, "A lot of women have talent, creativity, and ability but they never receive the encouragement to consider anything for a career--it is assumed they will get married. Women are not socialized to do those things."

One poignant example of self-efficacy expectations comes from a woman who had been graduated from high school, but effectively failed grades 7 to 11.

Fractions are important in carpentry. I learned a lot about math and how to use it. I never learned to read. I had learned to recognize what words looked like. I almost quit when I saw what I had to read. I LEARNED TO READ! Friends helped me. I read a lot of learning guides. I was really embarrassed. But I can talk about it now.

One articulate woman elaborated on expectations and perceptions.

The transfer of knowledge and skills is important. Working with people and different jobs has helped me work through a situation I don't feel confident in. Knowing what is expected of me in shop is good to relieve worry. Also I've attended a number of workshops on how to express yourself. I'm not afraid to admit I don't know something. And then I hear an instructor say we aren't supposed to know everything. Some of these are self-imposed expectations because of my age, sex, racial background. My greatest difficulty was my personal apprehension.

These women had various perceptions about their abilities
and competence from prior socialization. At the time of the interviews (nearing the end of their program), most expressed self-perceptions of confidence, motivation, and assertion which had been gained as a result of experience in the program.

**Occupational Socialization**

The final objective of the interview was to obtain the perceptions of participants regarding how their programs had facilitated their acquisition of an occupational role identity. This question was posed to invite their reactions about features or activities in their course which related to occupational socialization.

The participants in this study were at some stage of gaining the requisite knowledge and skills of chosen occupations by virtue of being enrolled in career preparation programs. In each program the actual use of the knowledge or skills for appropriate tasks was practiced. In addition, work values were addressed (in varying degrees of thoroughness) and applied. The importance of occupational socialization is apparent when one considers the relationship between the educational system and the labor market as long-term for many, if not most, of these women. For example, as a result of their present or previous enrollment, nine interviewees identified further academic education, apprenticeship or pre-apprenticeship programs as their immediate goal. Occupational socialization, then, becomes an important component in the school-to-work transition.

Women in the career exploratory program identified
exploration as a key socializing factor. They felt that by exploring different occupations they would be certain of their choice. Some of the general knowledge, skills, and attitudes they acquired from their program related to goal-setting, decision-making, effective communication, and confidence-building. The program was effective in that it gave them three to four practical work experiences, job-hunting and interviewing skills, a sense of perserverance and completion (a diploma), and motivation to take further action.

Concerning occupational skills, students related that instructors in the LTC program stressed they were teaching to an ideal situation, which seldom occurred. While doing practicums, supervisors showed these women shortcuts and realities of working under time constraints--other occupational socializing factors.

The idea of being exposed to occupational tools and equipment while in a "safe" environment of a school lab or shop was beneficial to all interviewees. "In lab we have more time to ask questions and think about things. In the real world you have to react because of time deadlines." Before being sent out on a field experience, one group of students was told by their instructor about the importance of their attitude.

Yet many behavioral, attitudinal, or cognitive expectations which socialize one into an occupation are not learned from labs, lessons, or practicums. They are gleaned from other students, from observations, from other people. For example, one interviewee stated:
You may get it [occupational role information] indirectly. This may be due to the trades hierarchy. I'm getting it from other people—how instructors talk about and look at others. There is an image of a stereotype ... There are expectations and personality types that go along with these trades ... I've gotten it from older students and people working and from people who have trained. It is a learning process—a developmental growth. Training is a part, apprenticeship a part, employment another.

Occupational socialization is an inherent part of career development as reported by these women.

**Summary**

This chapter compared and contrasted experiences between and among four groups of women from distinct occupational preparation programs. The purpose of the interviews was to complement the quantitative data by focusing the discussion around steps in occupational development, concomitant barriers, and occupational socialization as it occurred in postsecondary institutions.

The interview data comparing three nontraditional programs with one traditional program indicated that most students in nontraditional programs had expressed an early and continued interest in nontraditional areas (although they may have worked in areas of traditional employment), but that students in the traditional program had no desire or experience of a nontraditional nature. Barriers were more intense for women pursuing nontraditional occupations than for those seeking traditional female employment. Occupational socialization differences between the traditional program and the three
nontraditional programs related to the type of socialization the curricula addressed. The traditional program and two nontraditional programs (CkTrng and TRAC) stressed content and psychomotor socialization, only EAW stressed affective occupational socialization.

A comparison among the three nontraditional program interviewees (EAW, CkTrng, TRAC) indicated that the critical factor in occupational socialization related to explicitness and thoroughness with which socialization was presented. Two programs (CkTrng and TRAC) addressed only theoretical knowledge and psychomotor skill acquisition as socializing concerns. The EAW program offered knowledge and skill socialization as well as affective socialization relating to occupational role identification.

General findings concerning occupational socialization as facilitated by career preparatory programs were presented with quoted or anecdotal statements. Career development for these twelve interviewees was seen in the context of their occupational goal--either identified as long or short term. Barriers to occupational development were identified by most of those interviewed as an inherent aspect of gender role socialization and occupational socialization. And occupational socialization as a part of program curricula followed no set pattern--each of the four programs addressed occupational socialization in varying forms and with varying success. Although no claim of representativeness has been made for the four groups of women, it seems reasonable to assume that the
information obtained has face validity and is useful in elaborating some of the differences found, both between the traditional and nontraditional groups and among the nontraditional groups.

The next chapter will summarize the major findings of this research and discuss the implications of the findings.
CHAPTER 7 SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purposes of this chapter are to summarize and discuss the major findings of the study. The theoretical and methodological foundations of the study will be reviewed. Major findings from the hypotheses, factor analysis, and interviews will be summarized and limitations of the study will be discussed. The chapter concludes with a discussion of implications of these findings for practice, research and policy.

Summary and Methodology of the Study

The process by which women acquire an occupational role orientation as facilitated by nontraditional and traditional career preparation programs was the focus of this study. This focus was chosen to examine the issue of women's equity in nontraditional occupations. In considering the impact of distinct educational interventions on occupational role socialization this study directed particular attention to the various personal-social barriers women encountered and at the same time examined the nature of their career commitment. Symbolic interactionism was used as the conceptual framework within which to explain the interaction of occupational role identification and career commitment.

The subjects of the study were 61 women enrolled in four postsecondary career preparation programs in Vancouver, British
Columbia. Three programs emphasized entry into nontraditional fields, the fourth offered career preparation of a traditional emphasis for women. Pretest and posttest data were collected by questionnaire between February, 1984 and May, 1984. There were 61 participants at the pretest sessions; 57 women participated in the posttest sessions. After the programs had been completed, interviews were conducted with twelve women, three from each program. The data were analyzed by summary statistics, factor analysis, and analysis of variance.

The literature on career development indicates that career choice involves some matching of individual characteristics with some aspects of the occupation. Research on adult career development focuses mainly on male aptitudes, attitudes, and developmental stages. Attempts to explain female career development continue to look at those factors associated with marriage and family interests: female role socialization by family, peers and society, and work patterns related both to home demands and labor force participation. The former involves socialization to occupations that have traditionally been considered appropriate and acceptable for women (teaching, health care, clerical); the latter involves intermittent occupational involvement due to the overlapping roles of mothering and working.

This study attempted to address these factors by focusing on those programs in which women were enrolled who had overcome traditional role socialization, or were attempting to do so. By measuring marital status and number of children at home, the
demands of homemaking and family interests were estimated. The reported factor analysis also represented an attempt to go beyond previous research by examining the self expressions (reflecting personal characteristics) and expectations of careers (reflecting job aspects) which influence a woman's career commitment. In other words, it attempted to identify the salient factors in female nontraditional, nonprofessional career identification as facilitated by educational interventions.

Role theory is a specific socialization theory which articulates the expectations associated with positions in a social structure. It was used as the conceptual framework to guide the analysis of female occupational socialization because it allows for a psychological understanding of role identification and a sociological understanding of role orientation. These psychosocial constructs were examined as symbolic, social interaction processes by which one takes on occupational characteristics as a consequence of roles and also begins to experience a sense of self (Deutsch & Krauss, 1965). This sense of self engenders personal beliefs and attitudes which translate into a self-concept. The use of symbolic interactionism for nontraditional, nonprofessional occupational socialization facilitated the development of a systematic understanding of the reciprocity between the women and society—the personal-social aspects of career development.

Role identity, as expressed social meanings and self meanings, channels people into interactive situations, including career preparation programs. Women in this study, either
through recruitment or self-selection, were enrolled in distinct occupational programs which they believed would help crystallize occupational and personal expectations into employment opportunities. Their educational experiences, in concert with other learning and developmental factors, resulted in changes in their role orientation.

Career interventions and program enrollment are affected by recruitment and selection practices. Changes in female career orientation as a result of career intervention strategies will be affected by the efficiency of the selection or the effectiveness of the training program. As governmental and institutional budgets are reduced, it becomes important to understand which programs and intervention strategies are most effective in facilitating the goals of educational and occupational equity for women, especially if program enrollment remains essentially a self-selection process. The type of educational experience and the concomitant occupational socialization produced different changes across the four programs for women in this study.

Findings of the Study

Major findings from the hypotheses, factor analysis, and interviews are presented in this section.

It was assumed that socialization into nontraditional, nonprofessional careers could be attributed to acquisition of cognitive information, experience with practical skills, and exposure to affective expectations. Such exposure involves both
covert and overt behavioral, attitudinal, or cognitive content. For women pursuing nontraditional careers, the affective component of career development concerns personal-social factors.

Three sets of research hypotheses centering around the personal-social aspects of career development were tested. The first set represented the pretest variation between the traditional and nontraditional career programs on identified nontraditional occupational socialization factors: personal-social barriers, role acquisition, and role conflict. It measured the homogeneity of the groups. The second set showed how women differed systematically on the variables after approximately 14 weeks of occupational preparation. These hypotheses offer an empirical representation of the systematic differences between the graduates of traditional and nontraditional programs in psychosocial dimensions. The concern of the last set was the relative effectiveness of the four programs in bringing about change on the identified variables.

The rationale for the hypothesized relationships was as follows. Gender role socialization, which stereotypes women into specific occupations and predispositions, engenders personal-social barriers to nontraditional occupations. The variation among women concerning the number and intensity of barriers they perceive is associated with vocational experiences, oral reinforcements, work motivations, and attitudinal expectations. Gender role socialization, as it influences occupational socialization, can be altered by
specific intervention strategies.

**Pretest Hypotheses**

The first set of hypotheses dealt with the number of personal-social barriers women perceived at the initial stages of program enrollment to see whether programs were serving a homogeneous clientele. Mean results showed that there were no consistent patterns when comparing the nontraditional programs with the traditional program. Personal-social barriers were perceived differently across the programs, although the range was narrow. When women internalize socialized norms about the impropriety of certain occupations, that socialization translates into perceived personal-social barriers to those occupations. According to pretest scores, neither individual expectations nor actual experiences had mediated these barriers or deterrents at program enrollment. Thus, although the four groups of women differed in age and experience they were homogeneous with respect to the degree of impediments they perceived to nontraditional occupations. The programs did not attract or select those who already held definite career orientations, either traditional or nontraditional.

**Posttest Hypotheses**

The posttest hypotheses also dealt with the personal-social barriers women perceived to nontraditional role identification, but this time after having participated in occupational preparation programs. More variability in the women's perception of impediments to nontraditional occupations was found at the end of the programs than was found at the
beginning, indicating that factors other than educational intervention influenced the perception of psychosocial barriers.

Women in the CkTrng and TRAC programs perceived more barriers to nontraditional role acquisition than did women in LTC, the traditional female career program. On two measures of occupational socialization (role acquisition and total barriers), students in the traditional program (LTC) perceived the second lowest number of barriers at program end. Conversely, on the variable of role conflict they perceived the second highest number of barriers. Role acquisition was the only variable on which there was a statistically significant difference across the programs at posttest assessment. EAW was different from CkTrng or TRAC but CkTrng and TRAC were not different from each other.

Because no consistent patterns were discernible when comparing the nontraditional programs to the traditional program, it was concluded that differences in occupational socialization were not associated exclusively with program curricula. Evidently women in distinct programs experience more than just knowledge and skill acquisition. Occupational socialization involves theory and skill acquisition as well as socialization of an affective nature (expectations, perceptions, and behaviors). Posttest scores reflect development and learning factors. These could be acquired through peer interaction, work experiences, and personal reflection, causing variation in perceived psychosocial barriers.
Differences Between Pretest and Posttest Scores

Two hypotheses were proposed to ascertain the differences between the pretest measurement (initial program enrollment) and the posttest measurement (near program termination) in order to determine the effectiveness of the treatment (the program). The first hypothesis measuring the change stated that women in the three nontraditional programs would express greater change in their perception of the number or degree of barriers to occupational socialization (goal-setting, role acquisition, role conflict, self-efficacy expectations, and total barriers) between pre- and posttest measurement than would women in a traditional program. In other words, students in nontraditional programs would perceive fewer barriers to nontraditional occupations than would students in the traditional program.

This hypothesis was not confirmed. The rationalization was that students who had self-selected themselves into a nontraditional program would receive information and experiences which reinforced their career choice and gave them greater confidence in altering psychosocial barriers to nontraditional careers.

Two of the groups (EAW and TRAC) did show greater change as reflected in a perception of fewer personal-social barriers as measured by mean differences, but the other nontraditional group (CkTrng) perceived more barriers at the completion of their program than at the beginning. The changes for women in the LTC program were not consistent. Their change score on self-efficacy expectations was minimal; they perceived more barriers
to goal-setting at program end; and on role acquisition and role conflict their perception of the number or intensity of barriers decreased. On the average they changed their occupational socialization expectations about nontraditional careers very little. The treatment they received did little to alter their perception of psychosocial impediments to nontraditional career orientation. Their career identification and gender role socialization remained static.

Thus, comparing the nontraditional groups to the traditional group does not allow any definitive conclusions about the consistent change patterns which occurred as a result of program curricula. Each nontraditional program offered a distinct type of occupational socialization. This occupational socialization, and any concomitant development or learning experiences, influenced the number or degree of barriers to nontraditional role identification. The effectiveness of the program then, in bringing about change, was related to the type of intervention strategies they did (or did not) employ in helping women understand and overcome personal-social barriers to nontraditional occupations.

A second hypothesis examining pre- to posttest differences stated that of the three nontraditional programs, the EAW students would perceive the greatest change in their perception of the number or degree of barriers or constraining attitudes on the measures of occupational socialization from the pre- to the posttest measurement. These change scores would reflect the treatment received: explicit socialization addressing barriers
to nontraditional careers.

The findings did not totally support this hypothesis. EAW students did express greater change between the pretest and posttest measurements on self-efficacy expectations, role acquisition, and total barriers; but TRAC women had greater change scores (perception of fewer barriers) on goal-setting and role conflict. Accordingly, changes in the women's perception of psychosocial deterrents to nontraditional careers could not be explained solely by the variation which existed among the groups of women at the beginning of the programs. Women in the career exploratory program (EAW) expressed the most change in occupational socialization, followed by women in the individualized, competency-based trades training program (TRAC). Women in CkTrng reported an increase in the number or degree of perceived barriers for each of the five variables; something in their program experiences influenced their occupational socialization, causing an increase in perceived impediments.

In summary, the EAW program specifically presented knowledge and skill experiences of a nontraditional nature. But it also offered intervention strategies to facilitate nontraditional occupational socialization: assertiveness training, goal-setting exercises, decision making activities, role modeling, communication skills, weight training, shop tours and job-hunting skills. Women in this program were able to coalesce the major psychosocial barriers to career development and understand or overcome them, as evidenced by the statistically significant decrease in their perception of
barriers to self-efficacy expectations, role acquisition, and total barriers. This type of treatment (career exploratory) was more effective in altering occupational role identification than either traditional or nontraditional career programs offering only theory and skill.

**Factor Analysis**

Due to the inability to confirm the original career commitment scales of the Nagely Scale of Attitudes Toward Career and Career Related Variables, a post hoc factor analysis was undertaken. Two new factors were identified: Factor 1, Expectations of Career Benefits, represented the social meanings of career identification; and Factor 2, named Career as Vehicle for Self-Expression, represented the self-meanings of occupational role identification.

At pretest assessment, students in nontraditional programs saw career commitment as providing greater expectations of social benefits and self-expressions than did the traditional LTC group. LTC students saw the least degree of expected benefits and expressiveness from career identification. Of the nontraditional groups, EAW expressed the greatest degree of anticipated social meanings and self expressions from career identification. The other nontraditional groups, TRAC and CkTrng, at posttest expressed fewer expectations of career benefits and self expressiveness than did the traditional LTC students. Those who strove to take more control over their occupational development by matching personal characteristics and job opportunities achieved a greater degree of
expressiveness and expectation from occupational role identification.

Change scores indicated that LTC students only minimally altered their perceptions of career commitment as providing social benefits and psychological expressiveness. The other nontraditional groups' change scores indicated that CkTrng and TRAC students perceived fewer benefits and less expressiveness and that EAW perceived more benefits and greater expressiveness as a result of career identification. Evidently the program curricula and intervention strategies employed in occupational preparation have varying influences on women.

Overall then, psychological and sociological matching of personal characteristics and occupational characteristics appear to be a result of learning and developmental experiences associated with educational settings, societal norms, and career maturity. Career exploration may provide a better opportunity for women to understand the complexity of social expectations and self-expressions which are important in fostering nontraditional career identification.

Interview Findings

Additionally, interviews were conducted with three women from each of the four programs to provide in-depth information regarding their career development, any incumbent psychosocial impediments, and occupational socialization as it had occurred during their preparatory program. The findings of the interviews revealed that career choice, career maturity, and career commitment are influenced by situational and
environmental factors; no clear patterns were discernible between the traditional and nontraditional programs or among the nontraditional groups.

When barriers to career development were discussed, the reality of both personal and social deterrents was established. Students in the nontraditional program discussed the importance of support groups in overcoming role conflict barriers. Those in the traditional program, although acknowledging some role conflict, did not appear to have formed or benefitted from support groups. The variable of greatest distinction between the traditional and nontraditional interviews was self-efficacy expectations. LTC interviewees expressed no concern about their competence and persistence in acquiring and maintaining a traditional role. But all interviewees in the nontraditional programs expressed uncertainty or hesitancy about their self-efficacy expectations in nontraditional occupations. Evidently, overcoming gender role socialization which stereotypes women into certain career paths and patterns is difficult to overcome. The expressed information about psychosocial deterrents to career development lent credence to the data analyses showing a moderate number of barriers perceived by women in all four programs at both pretest and posttest.

A variety of occupational socializing influences were expressed by these students. Because all the programs offered theory and skills, the differences in socialization among the four programs related to how students acquire the affective attitudes, values, and behaviors of occupations. Interviewees
in the EAW program identified specific socializing factors which provided confirmation of and certainty about their occupational decision. Students in the other two nontraditional programs and in the traditional program acquired affective occupational socialization only implicitly—they received occupational socialization relating only to skill training.

In summary, the analysis of the interview responses and the empirical data demonstrated the relative importance of educational interventions which stress the affective aspects of occupational role identification. Considering the deterring influences of personal-social barriers for women in either traditional or nontraditional programs at program enrollment as indicated by pretest scores, changes occurring in the expectations, perceptions, and behaviors of these women must be attributed to program curricula and intervention strategies. Since some of these changes are related to self-concepts and learned behaviors as fostered and acquired during educational interventions, support was found for Thornton and Nardi's (1975) explanation that role socialization involves anticipatory, formal, informal, and personal stages and Burke and Tully's (1977) and Stryker and Serpe's (1982) emphasis on the interaction between individuals and their environments.

Socialization is characterized by the type of expectations which predominate at each stage; each stage involves interaction between individual expectations and external expectations. It therefore does not seem reasonable to study occupational socialization as only theoretical and psychomotor acquisition—
psychosocial factors are an important component of occupational role socialization.

Conclusions and Generalizations

Nine conclusions and generalizations were formulated based on the data analyses and interview findings reported above.

First, based on pretest data, it was concluded that gender role socialization had had similar influences on women who were self-selected into programs. At program enrollment neither individual expectations nor actual experiences had mediated all psychosocial deterrents to nontraditional occupations. The range of scores across the four programs was narrow and tended to cluster around 3.0, indicating women had internalized socialized norms about the impropriety of certain roles.

Second, it was concluded from posttest scores that differences in occupational socialization as measured by the identified variables could not be attributed solely to program curricula. Because no consistent patterns were discernible when comparing the traditional program with the nontraditional programs, it was inferred that differences were related to program curricula and developmental and learning experiences acquired from other sources. This conclusion is supported by the literature review which indicates that career development of women is complex and involves the interactive role relationships of self, society, and occupations (Psathas, 1968; Zytowski, 1969).

A third conclusion was based on change scores between the
pretest and posttest assessments. It was concluded that a career exploratory program addressing nontraditional career exposure and work experience, career decision-making, and occupational expectations was more effective in helping women understand nontraditional career orientations and any concomitant deterrents to nontraditional jobs than career preparation offering only theory and skills, either of a traditional or nontraditional nature. This conclusion was confirmed by the posttest findings that women in the EAW program perceived fewer barriers to nontraditional role acquisition and to nontraditional career identification (total barriers) than did women in the other three programs. Also, after undergoing an educational intervention addressing cognitive, behavioral, and attitudinal expectations associated with nontraditional occupations, EAW students' change scores reflected fewer overall deterring barriers to nontraditional role identification than did other students' change scores. These findings are congruent with those of Fretz (1981) and Thomas et al. (1979) who assert that both psychological and sociological domains of occupational identification are crucial in providing effective career development interventions.

A fourth major conclusion, derived from the pretest and posttest analysis, is that women in some nontraditional career preparation programs may have idealistic expectations about the world of work and associated personal-social barriers. The evidence from the pretest indicated that women in CkTrng perceived few deterrents to nontraditional role identification
associated with acquiring a role, conflicting roles, or personal-social barriers. Yet, after program participation, students in CkTrng perceived more barriers to role acquisition and overall they perceived more barriers to the five identified variables associated with occupational identification. Their perceptions about their chosen career and the concomitant barriers became less idealistic during their program learning experiences. This conclusion relates to the findings of Pilato and Myers (1975) that career intervention strategies which offer information relating to both gender role socialization and occupational role socialization provide greater accuracy about career and self congruency when this information is presented together.

Fifthly, based on pre, post, and change data results, those women in the traditional career preparation program exhibited the least amount of change in measures of occupational socialization. Their role orientation was apparently static. By measuring pretest perceptions, posttest perceptions, and differences between the two measures, it was ascertained that women in the traditional health care program altered their understanding or expectations about nontraditional role identification very little. Their scores on all three indices remained about the same. Consequently, their own role socialization and identification of a traditional focus for women remained intact. Perhaps this stability is functional for these women. They may avoid some unpleasantness by maintaining a traditional role socialization. It was noted by Thomas and
colleagues (1979) in their study of nontraditional occupations for women that many of the same psychosocial barriers which deterred entry into nontraditional occupations also acted as deterrents to women's educational and occupational equity as well. This conclusion thus relates to the intensity of gender role socialization and the inherent impediments it creates.

A sixth conclusion was derived from the factor analysis: work motivation for females could not be labeled as "masculine" or "feminine" (as indicated in the original Nagely career commitment instrument). A more appropriate understanding of motivating forces and career expectations which influence career commitment would relate to the androgyny of both occupations (those stereotyped as either male or female) and occupational role identification. The latter stereotypes females as having psychosocial characteristics distinct from males; this characterization is evolving into more gender-neutral personality roles and sociological characteristics. Such a generalized conclusion warrants closer scrutiny. Two major issues arise in a conceptualization of female career commitment. The first concerns career development theories which have failed to adequately explain gender role differences (Ginzberg et al., 1951; Holland, 1966; Super, 1955). The second concerns the career development theories for females which have exclusively eliminated any consideration of common gender needs and characteristics relating to career motivations and commitment (Psathas, 1968; Zytowski, 1969). The two approaches to theory building need not be mutually exclusive; research has not kept
up with social changes advocating gender-neutral psychosocial development.

Seventh, career interests arise at various ages and for various reasons. Based on responses to the interview question which asked women about steps in their career development, it was not possible to discern a modal pattern either between the traditional and nontraditional groups or among the nontraditional groups. Career development was an individual progression based on many factors which were unique to each interviewee: economic concerns, personal fulfillment, or professional altruism. Career development and career preparation are definitely lifelong concerns for some women. This generalization questions the sequential and static career decision-making process proposed by several theorists (Ginzberg et al., 1951; Holland, 1966; Roe, 1956) and lends credence to the idea of career development for women as complex and undergoing many social changes (Osipow, 1973).

An eighth conclusion is that better career information and career counseling is needed for women interested in both traditional and nontraditional careers. The majority of women interviewed indicated that career information and career counseling they had received were less than adequate. Generally this criticism of providers of such information included government, social service, and academic counseling and information services. Considering that there is currently an emphasis on recruiting and training women for nontraditional occupations and on improving the overall educational and
occupational equity of women, there appears to be a gap in available and appropriate information regarding financial assistance, program accessibility, support services, and career opportunities. This conclusion is consistent with the findings reported in the literature on educational and occupational equity (Thomas et al., 1979) and on career interventions (Fitzgerald & Crites, 1980).

A ninth conclusion is that exploration, confirmation, and certainty are key socializing factors for nontraditional role orientation. The findings from the interviews and from the factor analysis suggested that women had enrolled in nontraditional career preparatory programs because they were seeking greater congruence between their expressed and identified career interests and their personal expectations and characteristics. Most had had limited exposure or experience to occupations of a nontraditional nature and were uncertain about their competence and persistence in acquiring and maintaining that role orientation. It seems reasonable to them to expect that educational interventions would provide that occupational exploration; confirmation of and certainty about the appropriateness of their decision and their capabilities could be a complementary component of career exploration. This conclusion is congruent with the findings reported by O'Neil (1979), Fox et al. (1979), and Richards et al. (1978) that career interventions which stress occupational exploration and self-awareness are instrumental in student perceptions of career competence and certainty.
The expanding emphasis on lifelong learning and the growing need for retraining and upgrading of the labor force may have positive effects on expanding career options to those areas previously considered inappropriate for females. Once a career decision has been made (or is being considered through career exploration) it would seem reasonable that efforts to foster and facilitate career development would focus on the specific aspects of occupational role identification: decision-making, goal-setting, efficacy expectations, and knowledge and skills. Both the data analysis and interview findings support the hypotheses that students in a career exploratory program acquire affective occupational socialization to assist them in addressing and overcoming any deterring environmental factors and personal dispositions to nontraditional occupational role identification.

In summary, the conclusions and generalizations reported indicate that psychosocial barriers can have a significant effect upon occupational socialization and career commitment of those pursuing both traditional and nontraditional occupations, but that these barriers can be effectively dealt with by explicit efforts to understand and overcome them. Gender role socialization has similar influences on women. It may not be possible, given the current policies and practices of program recruitment and selection, and the impact of gender role socialization, to select a group of women who already have a firm nontraditional role orientation. Program treatments, then, which offer specific information and experiences addressing
cognitive, behavioral, and attitudinal expectations and perceptions associated with nontraditional careers are more effective in altering female career orientation than recruitment and selection processes used to enroll students.

Limitations

Two limitations of this study were: (1) the limited number of subjects and treatment groups; and (2) the number of variables as indices of occupational socialization. The former methodological limitation was encountered because occupational programs vary between and among institutions; locating programs of similar enrollment, duration, and commencement proved troublesome. A larger group of subjects and treatment programs would have increased the reliability of the findings. Also, an equal number of both traditional and nontraditional preparation programs would have increased the reliability and generalizability of the findings.

The inclusion of a greater number of occupational socialization variables was virtually impossible without expanding the focus of the study. This would have lengthened measurement time beyond one class session which would have been difficult to arrange with instructors, administrators, and students.

Occupational socialization is usually studied as it occurs in the workplace. The task of locating instruments that would be adequate and appropriate to measure role acquisition as it occurs in postsecondary formal learning environments met with
difficulty. The two instruments used in this study represent those accessible and appropriate for this population of students in nontraditional, nonprofessional postsecondary career preparation programs. As a result of the factor analysis and the identification of two scales to measure social meanings and self meanings of role involvement, the career commitment factor structure appears to be complementary to understanding occupational role identification. The availability and use of instruments measuring occupational socialization at the career preparatory stage would have increased the construct validity in this study.

The instrument used to measure dispositions to personal-social barriers to nontraditional occupations created a problem by its grammatical construction which was not uncovered during the pilot testing. When both the stem and the items to which they referred were also worded negatively the creation of "double negatives" appeared to present a problem of interpretation for the respondents in both the pretest and posttest. For example,

A. A woman may decide not to enter careers that are usually held by men because:
   1. She doesn't want to compete

presented interpretation problems for the respondents. Participants inquired whether they were agreeing-disagreeing with the statement or agreeing-disagreeing as to its description of an obstacle and/or impact on a woman's career development (as directions indicated). And although this was discovered during the pretest sessions, the wording of the instrument was not
altered in order to retain exact instrumentation and to preserve content validity.

In an attempt to prevent any misunderstanding on either the pre- or posttest, the investigator carefully explained the instructions on the covering sheet and worked through two examples. Also, any questions which students had during the testing sessions were answered individually. Directions to the survey questionnaire also asked respondents to reply to the statements based on personal feelings but for women in general, not for themselves. Thus, the questionnaire was probing social attitudes rather than actually directing the statements to personal experiences or expectations. The investigator interpreted all responses according to the instrument scale and directions: whether the statements represented obstacles that would be (or are) encountered by women who choose to seek jobs in fields usually dominated by men.

Finally, it should be emphasized that conclusions of this study must be viewed in terms of the limitations regarding its external validity. This study consisted of sixty-one students in four career preparation programs in two postsecondary institutions whose populations were made available by institutional administration. Because of this lack of randomization and the choice of instrumentation, generalizations and conclusions must be approached with caution. Nevertheless, the findings and conclusions offer some insight into intervention strategies which may facilitate greater occupational and educational equity for women.
Implications

It is appropriate to consider the meanings of the findings in a larger perspective. What do these results, conclusions, and generalizations mean for adult education and to adult educators? What changes in research and practice should be considered in light of these findings? The purpose of this section is to identify the implications of the study as they relate to practice, research, and policy.

It appears that there are three types of females interested in nontraditional careers for which implications of this study are relevant. The first type are those women who have already made a nontraditional career choice and are enrolled in a preparatory program. These women may need and want confirmation and certainty of their career choice through interaction with others: students, role models, instructors, counsellors. The second type are the women who are still exploring nontraditional career options. These women may be in career exploratory programs or may not have registered, but who may be seeking information regarding options, expectations, and barriers associated with occupational development. The third type are those women who are yet to be recruited or alerted to nontraditional, nonprofessional careers. This recruitment could occur through educational activities, women's offices (resource centres, counseling offices, government agencies) or through employment and social service offices. Women in this category are usually in various stages of career and personal awareness and have ventured beyond the home or current work environment to
examine their lives in a broader or different perspective.

For Practice

Keeping in mind limitations regarding generalizability of the findings, the following discussion will attempt to extrapolate them to educational institutions and other socializing agencies. Before adult educators can begin to make significant progress in facilitating adult career development, the true complexity of occupational socialization must be addressed. The intricacies of both personal and social factors influencing female career development must be approached from both cognitive and affective perspectives in order to appreciate the complexity of the learners' psychosocial milieu.

More specifically, background characteristics, psychological dispositions, environmental expectations, and institutional factors which impinge on career development need to be understood more clearly. Because of the paucity of literature and research relevant to female career development in nontraditional, nonprofessional occupations, it seems apparent that attempts to foster and facilitate career development for these women will merely rely on previous practices which may have been inadequate or ineffective.

The implications for practice are that the provision of career exploration was more successful than only cognitive and psychomotor occupational experiences in helping women understand and overcome deterrents to nontraditional role identification. Personality dispositions and environmental barriers can be affected by learning experiences which involve awareness,
support, confirmation, and certainty. Perhaps greater emphasis could be placed on the affective aspects of occupational socialization during formal learning experiences. This affective emphasis would involve the provision of considerable counseling opportunities before, during, and after career preparation programs—during formative stages of career development—and could include academic, personal, and career counseling.

For Research

The paucity of research reported in the literature review of female nontraditional, nonprofessional career development occurring in postsecondary environments represents a neglected area of study. The transition from school-to-work is not immutable and linear as some theorists would suggest. There is also a dynamic perspective in that "the course of any career—from its progression through initial development during adolescence and on to almost the peak of its curve and retirement—is continually being influenced by the actual circumstances encountered by the individual during this time" (Breton, 1972, p. 5). Postsecondary career preparation programs then, represent a locus of major intervention in the career development process.

Although much work on career development exists, the research suffers from a gender bias; the emphasis remains on men (Fitzgerald & Crites, 1980; Gaskell, 1892; Thomas et al., 1979). Career decision-making and development for women are more complex than they are for most men due to a variety of learning
and developmental factors, i.e., gender role socialization. To be of value, empirical and theoretical work on career development must be sensitive to the complexity of women's lives: from early ages (preschool) of career interests to mature years (40s to 50s) of career preparation; from personal fulfillment to economic necessity; whether single, married, widowed—with or without children.

Considering the embryonic state of knowledge concerning women in nontraditional, nonprofessional programs, the most appropriate suggestion for the researcher is to develop and test a theory which would explain occupational socialization for women. Those theories which are available are incomplete or inadequate. Theoretical research should build upon the identified personal-social correlates of career development within formal learning environments. More qualitative research could be one means of gathering data regarding women's career development. Empirical research should also focus on instrument precision in order to establish construct validity for use in understanding occupational socialization. Specifically, instruments measuring career development as occurring in formal learning environments should be developed and validated.

Finally, future research should continue to build on the data bank of demographic, personality, and environmental factors influencing nontraditional, nonprofessional occupational role identification and career commitment as established in this study and others. It is not unreasonable to anticipate greater numbers of females pursuing nontraditional, nonprofessional
careers in the future, given current government emphasis and changing societal values encouraging androgyne of jobs and more personal autonomy in career choice. As well, the emphasis on lifelong learning will result in greater numbers of mature women students seeking career training or retraining. Research on this population of women seeking employment preparation in careers of a nontraditional, nonprofessional nature stands at a threshold.

For Policy

One implication concerning governmental and institutional policies regards the policy which allocates a specific number of spaces for women in certain nontraditional career preparatory programs. Although the existing policy of both Canada Employment and Immigration Commission and the British Columbia Ministry of Labour reserves two places for women per class in nontraditional programs, the investigator noted that the policy is not consistently implemented or enforced. The policy needs to be examined with respect to the low number of women who are recruited or selected to take advantage of these spaces.

The recruitment and selection processes for students in postsecondary career preparation programs in British Columbia places the responsibility of program selection and enrollment with the student. There is little aptitude testing or career counseling throughout the process of vocational development. As a consequence, program experiences, including contact with instructors, represent a major influence in occupational role socialization. Policy development and implementation which
facilitates and fosters occupational socialization for women interested in nontraditional, nonprofessional careers could be examined more closely for effectiveness.

In addition, the curricula of nontraditional, nonprofessional programs could be examined with respect to the focus on theoretical and psychomotor domains of occupational preparation and the apparent inadequate attention being given to the affective aspects of occupational socialization. This additional curricular focus has implications for instructional and support staff development for those who may need and/or want information regarding female career development of an affective nature.

These concerns go beyond the simple provision of educational interventions aimed at preparing women for entry into nontraditional occupations. What remains to be seen are the types or approaches and levels of intensity of socialization efforts which can effectively and efficiently respond to the special needs of women to improve and expand their occupational options.

Epilogue

There is no doubt that the acquisition of occupational role identification for females is a complex phenomenon. An adequate understanding of the process will require a great deal of systematic research involving the numerous psychological and sociological correlates. Research of adult learning as facilitated in postsecondary educational interventions provides
an appropriate environment in which to study the psychosocial dimensions of career development. Through replication and new methodologies, a theory of female career development can become more precisely defined.

Women in nontraditional career preparation programs are asserting themselves and expressing their personal thoughts, feelings, perceptions, and beliefs rather than allowing themselves to be inhibited by gender role socialization which precludes certain occupational choices. Specifically, these women are asserting that nontraditional careers are psychologically and sociologically beneficial and in turn they believe that they can be productive, expressive, strong individuals and members of society. Current economic conditions also play an important part in causing women to explore different employment options and to consider afresh previous deterrents to entering nontraditional occupations.

If women are to be attracted to and maintained in nontraditional, nonprofessional careers in increasing numbers, then considerable emphasis is needed concerning the psychosocial factors of career development. Only when the dynamics of role identification are understood and addressed can occupational and educational equity become a reality for women interested in nontraditional careers.
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APPENDICES
APPENDIX A
Academic Qualifications

You are eligible for admission if you meet one of the following criteria:

a) You have completed B.C. secondary school graduation on any program or the equivalent from another school system, or
b) You lack not more than one course for B.C. secondary school graduation, or the equivalent from another school system, or

c) You are 19 years of age or older on the first day of the current semester, or

d) You are at least 17 years of age on the first day of the current semester and you have not been in regular attendance at school for a minimum of one year.

e) Students applying for admission to a career programme must meet the admission requirements specific to that programme.

NOTE: If you do not meet one of the above requirements, you may apply for admission as a "special student". You are urged to discuss your situation with a College Counsellor.

Mature Students Admission

Kwantlen College has a commitment to the adult student, whether full-time or part-time. If you are 19 years of age or older on the first day of the current semester or if you have been out of school for at least one year and have not completed B.C. secondary school graduation (or its equivalent from another school system), you may still qualify for admission to Kwantlen College. Experience and training related to the courses you wish to take will be evaluated in assessing your application. The College will endeavour to provide courses appropriate to your interests, background, and goals. Depending on your education and experience, you may be advised to take courses offered by an adult-education division in our constituent school districts before being admitted.
APPENDIX B
SOCIALIZATION OF WOMEN INTO NONTRADITIONAL OCCUPATIONS

The purpose of this research project is to gather information about women in nontraditional vocational education training in post-secondary institutions in Vancouver, British Columbia. As a female student you are asked to complete the attached questionnaires by selecting and recording your responses. Do not sign your name anywhere—it is important that anonymity be maintained.

Please choose an identification number and record it in the appropriate location (the last 3 digits of your Social Insurance Number are recommended). The numbers of each response box refer to the computer question number. It is important that each answer be recorded in the box to the right of each statement (unless indicated otherwise).

The questionnaires will take approximately 30 minutes of your time. You may refuse to answer any questions but it will be assumed that you have consented to participate when the questionnaires are completed and returned to the investigator. Your right to refuse to participate will not in any way affect your status or participation in your vocational program.

Thank you for your assistance with this project.

Put your identification number in the 3 spaces to the right.

DEMOGRAPHIC INFORMATION

Place the number of the appropriate response or the actual answer in the box(es) to the right. Put each number in a separate box.

A. What is your age?

B. What is your marital status?
   1. never married
   2. married or living with someone
   3. separated
   4. divorced
   5. widowed

C. How many children do you have living with you?
   0. no children
   1. one child
   2. two children
   3. three or more children
D. If you have children living with you, what are their ages?

Child one
11 12
Child two
13 14
Child three
15 16
Child four
17 18

E. What is the highest grade level of education you have completed prior to your present college enrollment?

1. less than grade 12
2. completed grade 12
3. technical training or vocational education beyond high school
4. some college or university
5. graduated from university
6. other (please specify)

F. How many years total work experience do you have, including part-time and voluntary work?

G. Are you currently working? (If no, skip to Question K.)

1. Yes
2. No

H. If yes, are you working part-time or full-time?

1. part-time
2. full-time

I. Is your work related to your current training or education?

1. related to training or education
2. unrelated to training or education

J. How many hours per week do you work?

K. After completing your present program what are your immediate vocational or educational goals?

1. to seek part- or full-time employment in an area related to current training
2. to seek employment in an area unrelated to training
3. to enter a pre-apprenticeship or apprenticeship program
4. to pursue other academic or vocational education
5. other (please specify)
This survey provides you with an opportunity to express your opinions about the obstacles that would be (or are) encountered by women who choose to seek jobs in fields usually dominated by men. On the following pages you will find a series of statements that may or may not keep women from seeking a job in an area that is usually dominated by men. You are asked to express your feelings about how much or how little you agree with each statement. There are no right or wrong answers, so do not hesitate to respond to each statement exactly the way you feel.

Directions for Marking Your Responses:

A. In making your responses choose 5, 4, 3, 2, or 1 as described below:

(5) Strongly Agree— if the statement describes an obstacle that always has an impact on a woman's career development.

(4) Agree— if the statement describes an obstacle that occasionally has an impact on a woman's career development.

(3) Undecided— if you are not sure whether or not the statement describes an obstacle that would have an impact on the career development of women.

(2) Disagree— if the statement describes an obstacle that rarely has an impact on career development.

(1) Strongly Disagree— if the statement describes an obstacle that never has an impact on career development.

B. When selecting your responses, consider the response words as if they were points on the same line.

5 4 3 2 1

| Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |

C. Place your response in the box to the left of each statement.

D. Below are sample statements with responses shown (using the scale).

People have trouble getting into business. (You strongly agree)  
Career fields are hard to get into. (You are undecided)

E. PLEASE DO NOT OMIT ANY ITEMS
A. A woman may decide not to enter careers that are usually held by men because:

1. She doesn't want to compete

2. She doesn't feel that she is as competent as the man in the field

3. She would offend men by being successful

4. She feels that women have to be better (work harder, etc.) than men to be successful in the same job

B. Information about careers usually held by men:

1. May never be sought by a woman

2. May never be reviewed seriously by a woman

C. If a woman seeks information about nontraditional occupations (those usually held by men) she may find that:

1. She has difficulty overcoming negative feedback from the sources of occupational information

2. She has difficulty getting people to talk to her about these occupations

3. She may have difficulty knowing where to start looking for information needed
D. A woman who attempts to get training in a male dominated field is likely to feel that persons offering the training programs:

1. Would have the perception that women would not stay with the training program
   - 16

2. Do not think she could get a job in the occupation for which they offered training
   - 17

3. Think that the occupation for which they offer training "just isn't for women"
   - 18

4. Think that even if you can train her, she won't be physically strong enough for the job
   - 19

5. Think she won't like the working conditions
   - 20

6. Think she won't fit in with those already in the occupation
   - 21

E. A woman may be reluctant to seek training for a career usually held by men because:

1. She feels that men are more competent than women in some areas such as math and science
   - 22

2. She has doubts about her ability to do the job even if she did finish the training
   - 23

3. She feels that women have less mechanical ability than men
   - 24

F. A woman may be reluctant to pursue a career in a field dominated by men because:

1. She feels there is a low probability of a woman being successful in the field
   - 25

2. She feels that men in the occupation would insist that she play the woman's role
   - 26
G. A woman who obtains a job in an area dominated by men may find it difficult to cope with:

1. Being "talked down" to by men who are less competent than she is

2. The men's thinking she won't be able to do an effective job

3. The resentment from the wives of the men with whom she works

4. The feeling that no matter how well she does her job she will not be promoted

5. The negative attitude of men that she's taking the place of a male who should be in the job

6. Getting less regard than men for doing the job well

7. Men's attitude of superiority

8. The feeling (by men) that they are better at technical things than women are

H. A woman who works in jobs usually held by men:

1. Gets criticism that relates to being female rather than job performance

2. Has to stand up for her rights in order to get promotions she deserves

I. A woman's family may affect her career decision by:

1. Expecting her to please them rather than make her own career decision

2. Putting too much pressure on her to do well in a proper career field
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<tbody>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
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I. A woman's family may affect her career decision by: (continued)

3. Making all of her decisions for her

4. Teaching her where a traditional woman's place is in society

5. Teaching her that women are solely responsible for raising the family and taking care of the household operation

J. A woman may not go into a nontraditional or previously male dominated career because:

1. Her parents felt that the boy in the family should have priority for career training

2. Her family gave little or no positive feedback regarding her career plans

3. Her family wanted her to do what was safe and secure

4. There are no career oriented, female role models in her immediate family

5. Her parents want her to get married, take care of her husband, and provide grandchildren as soon as possible

6. Her working mostly with men in a job causes problems at home for her husband

7. Of an inability to be a mother, housekeeper, and career woman all at the same time

K. Women do not seek the same careers as do men because:

1. They lack ambition

2. They cannot stand up for what they want

3. They don't want to take the responsibility expected in these fields
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<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

1. A woman is likely to choose to enter a "female" career (those traditionally occupied by women) because:

1. She enjoys work
2. She likes the working conditions
3. She is influenced by her friends
4. Her family encourages her to pursue all options
5. She wants to be like another female she knows in a similar career
6. The social interaction is important for her
7. She likes the status and recognition associated with the career
8. She will always be able to get a job in that field
COMMITMENT TO A CAREER

Make judgments on the basis of what having a career means to you. (Please note: we are not referring to your specific career or career preparation.) Statements at the ends of each scale have opposite meanings. Indicate the direction and intensity of your feelings for each scale as follows by choosing the appropriate number and circling it.

If your feelings are:

Very closely related to one end 3 2 1 0 1 2 3 or 3 2 1 0 1 2 3
Closely related to one end 3 2 1 0 1 2 3 or 3 2 1 0 1 2 3
Slightly related to one end 3 2 1 0 1 2 3 or 3 2 1 0 1 2 3
Neutral 3 2 1 0 1 2 3

An example would be:

CAREER

frustrating 3 2 1 0 1 2 3 rewarding
(You feel a career is slightly frustrating.)

right 3 2 1 0 1 2 3 wrong
(You are undecided or neutral as to whether a career is right or wrong.)

Consider each scale as a separate judgment. Make only one response for each scale. Mark every scale.

CAREER

positive 3 2 1 0 1 2 3 negative
fragments life 3 2 1 0 1 2 3 integrates life
challenging 3 2 1 0 1 2 3 unchallenging
traditional 3 2 1 0 1 2 3 nontraditional
selfish 3 2 1 0 1 2 3 selfless

- 9 -
| Creative 3 2 1 0 1 2 3 Unimaginative 12 |
| Disrupts home life 3 2 1 0 1 2 3 Enhances home life 13 |
| Successful 3 2 1 0 1 2 3 Unsuccessful 14 |
| Provides recognition 3 2 1 0 1 2 3 No recognition 15 |
| Strenuous 3 2 1 0 1 2 3 Not demanding 16 |
| Fulfilling 3 2 1 0 1 2 3 Unfulfilling 17 |
| Temporary 3 2 1 0 1 2 3 Permanent 18 |
| In conflict with female role 3 2 1 0 1 2 3 Not in conflict with female role 19 |
| Satisfying 3 2 1 0 1 2 3 Unsatisfying 20 |
| Bad 3 2 1 0 1 2 3 Good 21 |
| Subdued 3 2 1 0 1 2 3 Outgoing 22 |
| Social 3 2 1 0 1 2 3 Unsocial 23 |
| Interfering 3 2 1 0 1 2 3 Uninterfering 24 |
| Interesting 3 2 1 0 1 2 3 Uninteresting 25 |
| Desirable 3 2 1 0 1 2 3 Undesirable 26 |
| Independent 3 2 1 0 1 2 3 Controlled 27 |
| Degrading 3 2 1 0 1 2 3 Uplifting 28 |
CAREER

appropriate 3 2 1 0 1 2 3 inappropriate

unhealthy 3 2 1 0 1 2 3 healthy

would recommend to others 3 2 1 0 1 2 3 would not recommend

common 3 2 1 0 1 2 3 uncommon

dominant 3 2 1 0 1 2 3 subordinate

innovative 3 2 1 0 1 2 3 monotonous

routine 3 2 1 0 1 2 3 variable

strong 3 2 1 0 1 2 3 weak

confining 3 2 1 0 1 2 3 liberating

inflexible 3 2 1 0 1 2 3 flexible

dull 3 2 1 0 1 2 3 glamorous

productive 3 2 1 0 1 2 3 fruitless

unimportant 3 2 1 0 1 2 3 important

unusual 3 2 1 0 1 2 3 ordinary

active 3 2 1 0 1 2 3 passive

toward people 3 2 1 0 1 2 3 away from people

unexpressive 3 2 1 0 1 2 3 expressive
THANK YOU FOR YOUR PARTICIPATION IN THIS PROJECT.
INTERVIEW SCHEDULE FOR STUDY OF OCCUPATIONAL SOCIALIZATION OF WOMEN IN CAREER PREPARATION PROGRAMS

Interview Objectives:

1. to understand the steps in their career development
2. to understand any problems/obstacles encountered in their career development
3. to understand how their preparation program facilitated their occupational socialization (the acquisition of an occupational role identity)

Interview Schedule

The interviews will be semi-structured: three questions will be asked and any discussion which is relevant to the objectives will be pursued within a framework of an informal dialogue. The main questions and the introductory statement are:

In recent years there has been a push to help women acquire occupational training. One area of training which has been stressed is the nontraditional area for women. Because you have just completed a program of nontraditional (or traditional) job awareness and training, I'm interested in learning more about your career development.

1. What are the steps in your career development to date?
2. What problems or obstacles have you encountered in your career development or occupational training?
3. Was there anything in your program which specifically helped you know or learn more about a nontraditional (traditional) role for you as a female?