AN ANALYSIS OF SELF-EFFICACY, WELFARE STATUS, AND OCCUPATIONAL CHOICE IN FEMALE SINGLE PARENTS

By

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1981

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
December, 1997

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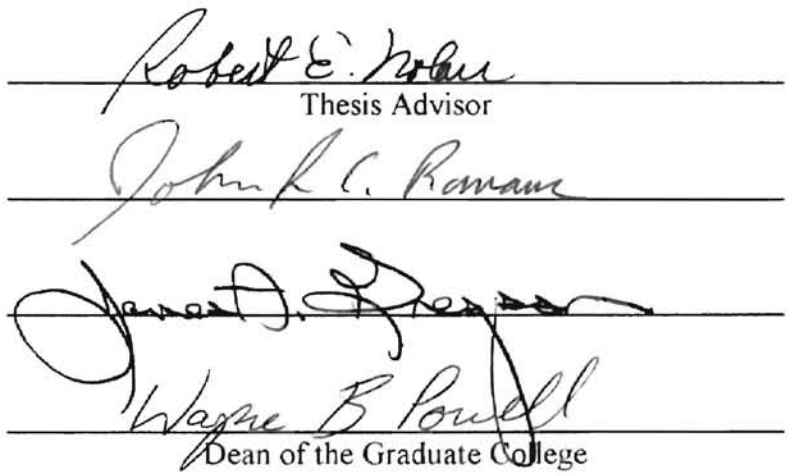
Thesis Approved:



Thesis Advisor

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ACKNOWLEDGEMENTS

The process of completing this research and my degree has been both challenging and rewarding. I owe a great deal of gratitude to many people who have supported and encouraged me along the way.

First, I would like to thank my thesis advisor, Dr. Robert Nolan for his patience, guidance, and encouragement. My appreciation also to the other members of my committee, Dr. Jim Gregson and Dr. John Romans for their advice and assistance. Each of them was a source of inspiration throughout my graduate program.

I especially want to thank Dr. Janice Hermann who spent a late night helping me with my statistical analyses, and Dr. Shiretta Ownby who provided proofreading and editorial assistance. Both of them volunteered their valuable time to help me, purely out of friendship and understanding.

I am also deeply appreciative to Dr. Gail Hackett of Arizona State University who sent materials and granted permission for me to adapt and use the Occupational Self-Efficacy Scale. The research she has conducted on career self-efficacy in women was the original source of inspiration for my interest in the subject.

I am very grateful to my employer, the East Central Workforce Development and to the Director, Art Johnson. I feel very fortunate to be working for an organization that has supported my graduate education, and has provided the opportunities for practical experience to coincide with my classroom education. Thanks especially go to my friend

and office mate, Denise Barrett. She has shown extreme patience listening to me rattle and rant throughout the thesis process, and has frequently provided valuable insight of a practical nature.

Finally, my deepest gratitude goes to my family. My children Jessica and Jacob and my husband Jeff have shown much patience and support as I have attempted to juggle my responsibilities while completing this degree. I hope that I have set an example for my children of the importance of lifelong education.

TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Background

The issue of Welfare reform has commanded significant attention and criticism in recent years. Much of the concern is focused on the question of how to promote financial self-sufficiency among female single parents. Congress has debated alternatives such as encouraging and rewarding transition into the workforce, requiring participation in public service in exchange for welfare benefits, or curtailing benefits after a specific time period. Less attention has been paid to the critical linkages among adult education and training programs, welfare reform, and economic self-sufficiency (American Association of University Women [AAUW], 1995).

Bradley (1987), Rice (1993), Hodgkinson (1991) and others have discussed the trend identified as the "feminization of poverty." According to these writers, by the year 2000 most of the nation's poor will be women and their dependent children. In 1992, 54% of female-headed households with children under the age of eighteen, lived at incomes below poverty levels (U.S. Department of Education, 1994). The number of families headed by single females is increasing ten times as fast as those headed by single males (Rice). Several factors have contributed to this increase, including the current practice of delaying marriage, the increase in never-married households, and the divorce rate. While it

has leveled off in recent years, the United States still has one of the highest divorce rates in the Western world (Sidel, 1996). According to Hodgkinson, "Today 15 million children are being reared by single mothers....The 'Norman Rockwell' family -- a working father, a housewife mother, and two children of school age -- constitutes only 6% of U.S. households today" (p. 10).

Family income is profoundly affected by divorce and single parenthood. Bradley (1987) reported that, following divorce, women and their minor children experience a significant decline in their standard of living. In contrast, the former husbands experience an increase in their standard of living. Hodgkinson (1991) concurred that the family income of single-mother households averaged about $11,400, while the average annual income for a married couple with two children was slightly over $34,000 in 1988 dollars. Very simply, the earning power of a family with one wage earner is much lower than for a family with two working adults (Houser, D'Andrea, & Daniels, 1992).

Many single mothers find it necessary to obtain public assistance to support their families. The form of assistance with which the American public is most familiar is Aid to Families with Dependent Children (AFDC), commonly referred to as "welfare." AFDC provides cash assistance to families with children who are deprived of support because of a parent's death, incapacity, or absence. AFDC is federally and state funded, and is administered at the state level (Oklahoma Department of Human Services [DHS], 1995). In fiscal year 1995, the AFDC program provided about $22 billion in cash benefits to 4.4 million adults and 9.2 million children (U.S. Department of Health, Education, and Human Services [HEHS], 1996). In addition to AFDC, single-parent households and others in need may receive assistance through sources such as Food Stamps, Medicaid, Energy

Assistance, the local Housing Authority, and other agencies (Oklahoma DHS).

Criticism of the welfare system in recent years has prompted policymakers to consider ways of moving individuals from public assistance and into the workforce faster Between 1992 and 1995, 36 states received approval from the Department of Health, Education, and Human Services to try innovative variations in welfare reform, including time limits on benefits, work requirements, and caps on increases in family size during the eligibility period (U.S. Department HEHS, 1996). On August 22, 1996, President Clinton signed the Personal Responsibility and Work Opportunity Act of 1996. This measure, which turned control of welfare over to the states, requires adults to work after two years of benefits, and limits lifetime benefits to five years (Cable News Network, 1996).

The poverty and welfare issue is complicated by several additional factors, one of which is lack of education. Data from the Bureau of the Census reported by the U.S. Department of Education (1994) showed that 67.2% of women aged 25 or older with less than a high school diploma earned less than $12,500 annually. Of the women aged 25 or over who did have a high school diploma or GED, 47.8% earned less than $12,500. The National Institute for Literacy (1994) reported that nearly 50% of welfare recipients have less than a high school diploma, as compared to 27% of the general population. Besides the educational deficit, many female single parents do not have the job skills necessary to earn a living wage. At the current minimum wage of $4.75 per hour, which sets the standard for non-skilled labor, a full-time worker earns $9,880 per year -- well under the federal poverty line of $12,980 for a woman with two children (U.S. Office of Management and Budget, 1996). Hodgkinson confirms that the feminization of poverty is not just a slogan but a reality. Twenty-three percent of America's youngest children, birth

to age five, live in poverty, the highest rate of any industrialized nation. The majority of these children live with female single parents, many of whom lack education and work at low-income service jobs (Hodgkinson, 1991).

Another factor affecting the financial self-sufficiency of female heads of household is wage inequity. The U.S. Department of Education (1994) reported that of the 25 years and older male counterparts to the females cited in the previous paragraph, 23.4% of those without a high school diploma and 19.5% of high school graduates had an annual salary below $12,500. Much of the wage inequity can be attributed to occupational segregation. Women workers, especially those with less education, tend to cluster in traditional female occupations which pay less than traditional male occupations (AAUW, 1995; Grasso, 1990; Houser, et al., 1992; Nevill & Schlecker, 1988). Grasso also reported that 76% of nonprofessional women work in four occupational clusters: clerical, retail sales, factory, and service. According to data from the 1995 Oklahoma Wage Survey Report, most of the jobs within these clusters provide a wage of less than $6.00 per hour. On the other hand, comparable traditional male occupations including drafters, sales representatives, construction trades workers, and electronic installers and repairers earn more than $9.00 per hour (Oklahoma Employment Security Commission [OESC], 1996).

Additional barriers to financial self-sufficiency and employment may include lack of childcare and transportation difficulties. Daycare costs are a financial burden to most working mothers. This expenditure consumed an average of 27% of total monthly income for families with incomes below the poverty level who paid for childcare in 1991, compared with an average of 7% for families with incomes above the poverty level (U.S Department HEHS, 1994a). According to data from the U.S. Bureau of the Census

(1991), the average weekly childcare expenditure for a family living below the poverty level in 1991, was about $60, over one-third of the gross pay for a minimum wage worker Recipients of AFDC who are employed, participating in the JOBS program, or participating in other state-approved education and training programs, are eligible to receive childcare subsidies. However, single parents in many areas find childcare limited in terms of space availability, geographic restrictions, and limitations to daytime hours. Transportation is also a concern for single parents receiving financial assistance. Many low income families do not own a vehicle, and some communities do not have public transit systems for transportation to training programs or employment (U.S. Department HEHS, 1995). Public assistance guidelines place an equity limit on the value of a recipient's vehicle. Even if a single parent receiving AFDC or Food Stamps does own a car, it is frequently unreliable and more of a financial liability than an asset (Grasso, 1990).

Finally, female single parents, especially those receiving assistance such as AFDC, may also be affected by impaired motivation (Wood, 1989), limited life skills and low self-esteem (U.S. Department HEHS, 1994c), and lowered self-efficacy (Houser, et al., 1992). Grasso (1990) postulated that many women and disadvantaged people have learned to remain economically disadvantaged by not allowing themselves to have any ambition. This tendency is frequently demonstrated through career aims that are below the individual's capacity, such as the goal to be a nurse's aide rather than a registered nurse. Disadvantaged people may also establish vague goals such as the desire to work in an office, rather than a more specific and ambitious goal such as being an executive. "Another classic example is the teen mother whose vocational horizons are limited to cosmetology,

a field typically female, with the illusion of glamour, and the reality of low pay and no benefits" (Grasso, 1990, p. 40).

Self-efficacy is defined by Bandura (1977) as the expectation that one has the ability to complete a given task or goal. Strength of self-efficacy determines whether a behavior will be initiated, the amount of effort devoted to pursuing a goal, and the degree of persistence in the face of barriers (Lent & Hackett, 1987). It is affected by several factors, the strongest being previous performance success. A diminished sense of self-efficacy is associated with doubts about one's own capabilities to be successful in pursuing a specific course of action. Individuals with low self-efficacy may experience lessened self-esteem, focus on their deficiencies, and perceive challenging tasks as threats (Niles & Sowa, 1992). Research has shown that self-efficacy levels are related to occupational choice, especially with regard to nontraditional occupations (Betz & Hackett, 1981; Nevill & Schlecker, 1988).

Statement of the Problem

The problem underlying the present study is that the number of female-headed households is already large and continues to increase each year. Many of these households are receiving public assistance. The current climate of public opinion is one of discontent with the welfare system, centered on the growth in caseloads, concerns about costs, and the perception that the system fosters long-term dependency among beneficiaries. A consensus exists among the public, practitioners, politicians, and welfare recipients themselves that the traditional AFDC program should be changed to place a greater emphasis on increasing self-sufficiency of the recipient. Congress and others argue that

such self-sufficiency can be induced through legislation making benefits temporary, thus encouraging employment, and better serving the AFDC caseload (U.S. Department HEHS, 1994c). Programs are available that can help provide education and occupational training to assist in workforce entry, but these programs serve only a small percentage of the targeted audience. The problem is compounded by the fact that many of the women in the eligible population lack self-esteem and appear to be low in self-efficacy. As a result, most of those women that do elect to participate in training and education, choose traditional female occupations that pay lower wage scales, making it difficult for a single parent to support herself and her dependent children.

Purpose of the Study

The purpose of the study is to investigate the differences, if any, between receipt of welfare and self-efficacy, and between self-efficacy and occupational choice.

Research Questions

The present study is designed to examine the following research questions:

1. Is there a difference in measures of occupational self-efficacy in female single parents who receive welfare compared to female single parents who do not receive welfare?

2. Is there a difference in measures of occupational self-efficacy in female single parents who participate in nontraditional occupational training compared to those in traditional occupational training?

3. Is there an interaction between receipt of welfare, occupational self-efficacy, and occupational training choice in female single parents?

Assumptions of the Study

For the purposes of this study, it is assumed that:

1. The term "welfare" will only include AFDC. Other forms of public assistance are available such as food stamps, subsidized housing, utility assistance, and medical assistance. While many female single parents also receive these forms of support, the programs are available to individuals in a variety of other circumstances, and are not the focus of public attention like welfare.

2. Although participation in education or job search by AFDC/JOBS clients is (with some exceptions) mandatory, the subjects are allowed to pursue occupational training of their own choosing.

3. All participants in the study are limited by AFDC or job training funding to two years or less of occupational training. An option for a greater length of training time and funding availability would permit the pursuit of a higher education program, rather than vocational or post-secondary training.

4. There are sufficient job openings in the community and occupation for which the training is offered. Awareness of a lack of job openings could affect an individual's confidence in her ability to complete the duties of an occupation.

Limitations of the Study

The research is limited by the following factors:

1. The study only examined data collected in the State of Oklahoma. Nontraditional occupations vary according to regions of the country.

2. The information for the study was collected from voluntary participants that were participating in Single Parent/Displaced Homemaker programs and classroom training in Oklahoma vocational technical schools.

3. The sample for this study was obtained from intact groups and was based on a quota sample, rather than a random sample (Oppenheim, 1992).

4 Availability of occupational training varied according to the local post-secondary school course offerings.

5. The occupations of interest are considered equal in status. Thus, occupational choice is based upon interest, perceived abilities, or salary level rather than prestige.

Definitions of Terms

The following terms are used in this study:

Displaced homemaker - a woman whose principle job has been homemaking, and who has lost her main source of income because of divorce, separation, widowhood, disability, or long-term unemployment of a spouse (National Displaced Homemakers Network, 1990).

Job Opportunities and Basic Skills Training - commonly called JOBS, was created by the Family Support Act of 1988 to assist AFDC parents in obtaining education, job

skills training, work experience, and support services needed to increase employability and avoid long-term dependence on welfare. With some state-defined exceptions, all AFDC recipients considered able to work must participate in the program, and enrollment is open to other AFDC clients as state program budgets permit. AFDC clients enrolled in JOBS are eligible for childcare funds while participating in state-approved education and training, job search, or employment (U.S. Department HEHS, 1994b).

Job Training Partnership Act - commonly referred to as JTPA. The federally funded program to provide job training and employment skills to economically disadvantaged adults and youth. The program is administered by the U.S. Department of Labor through Service Delivery Areas at the local level (U.S. Department HEHS, 1994b).

Nontraditional female occupations - Defined by the U.S. Department of Labor as work positions in which women comprise 25% or fewer of the employed workers. Such occupations include: truck drivers, welders, mechanics, electronic technicians, and drafters (U.S. Department of Labor, 1993).

Self-efficacy - expectations and beliefs about one's ability to successfully perform a given behavior. Strength of self-efficacy determines whether behavior will be initiated, how much effort will be expended, and how long it will be maintained in the face of obstacles or aversive experiences. It is acquired and altered through performance accomplishment, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977).

Single parent - a person who is living without a spouse and who has minor children. Single parents may be living in their own households or with relatives (National Displaced Homemakers Network, 1990).

Traditional female careers - Work positions that have traditionally been held by women and in which females comprise 75% or more of the workforce. Such careers include: secretaries, nurses, teachers, child care workers, cooks, housekeepers, and sales clerks (U.S. Department of Labor, 1993).

CHAPTER II

REVIEW OF THE LITERATURE

Purpose of the Chapter

The purpose of this chapter is to review the literature and provide an in-depth background relevant to the purposes of this study, that is, an examination of self-efficacy levels of women in occupational training as the factor relates to receipt of welfare and occupational choice. The chapter reviews the following topics: (a) demographic issues relating to female single parents, (b) educational levels and educational participation among low-income individuals; (c) barriers to participation in education and training; (d) issues relating to occupational choice; and (e) self-efficacy studies pertaining to the target population.

Demographic Issues

Demographics of Female-Headed Households

One of the most dramatic changes in American family life in recent decades has been the increase in the number of single-parent families, particularily those headed by women. The single-parent population increased by 80% during the 1980s, from 3.2 million in 1980 to 5.8 million in 1989 (National Displaced Homemakers Network, 1990). Statistics from the U.S. Bureau of the Census (1992) showed that in 1970, 13% of all

family groups with children under age 18 were single-parent situations. By 1991, the number had grown to 29%. There are essentially three ways a woman can become a single mother: through divorce or separation, through widowhood, or through giving birth outside of marriage (London, 1996). Much of the literature categorizes single mothers as displaced homemakers, those who have lost their main source of income due to divorce, separation, or widowhood (National Displaced Homemakers Network, 1990), or never-married mothers. London tabulated data from the U.S. Bureau of the Census 1994 Annual Demographic File of the Current Population Survey, and determined that divorced and separated women composed 55% of the single-mother population, never-married mothers made up 39%, and widows accounted for the remaining 6%. According to Census data, there were a total of over 54,000 displaced homemakers and nearly 82,000 single mothers under the age of 45 in Oklahoma in 1990 (National Network for Women's Employment, 1994). Mark Lino (1995) also examined and compiled information from the U.S. Bureau of the Census to provide a nationwide profile of single-parent situations in brief: "in 1991, 86% were maintained by the mother, ... 65% were white, and the median age was 35 to 38, depending on the sex of the parent" (p. 100).

Economic Status of Female-Headed Households

A review of the literature on the economics of single parenthood shows the negative financial impact associated with that status. London (1996) further analyzed data from the U.S. Census Bureau's Survey of Income and Program Participation to examine the demographic differences between divorced mothers and never-married mothers. Her sample was restricted to women categorically eligible to receive AFDC, that is, single

mothers with children under the age of 18. She found that the never-married mothers in her sample were on average, nearly 10 years younger, had lower educational levels, and had much lower income levels than divorced mothers. With 50% of all marriages ending in divorce, the number of displaced homemakers increases each year (Bradley, 1987). London and Greller (1991) reported an increase of nearly 12% during the 1980s. One-third of those displaced homemakers were in their prime working years, ages 35 - 64. Forty-one percent worked only seasonally or part-time, and 59% were unemployed. While the process of becoming a displaced homemaker through divorce or separation and the loss of primary support is often financially devastating, never-married single mothers appear to face even greater barriers. London (1996) determined that over half of the families receiving AFDC are headed by never-married mothers, and that roughly one half of all never-married mothers receive AFDC benefits, compared to about one fifth of divorced mothers. One of the reasons for this difference is that divorced mothers are more likely to work and receive child support, receiving on average twice as much child support as never-married mothers (Lino, 1995; London). Lino, London, and the National Institute for Literacy (1994) concur that single parenthood has the most adverse economic effect on never-married women because they are typically younger, less educated, are less likely to receive child support, and thus are more likely to spend an extended time on welfare.

While there are differences between divorced mothers, and never-married mothers, they both face many of the same barriers to financial self-sufficiency. Typically, single-parent families maintained by mothers have the lowest income of all family groups.

> The 1991 Current Population Survey showed that the average before-tax family income for single mothers with children under age 18 was $17,747; for single fathers, $30,445; and for married-couple families with children,

> $48,737. Adjusting for family size, per capita family income for single mothers with children under 18 was $5,506; for single fathers, $10,040; and for married-couple families with children, $11,668 (Lino, 1995, p. 103).

As a result, a substantial number of female-headed families fall below the poverty threshold. Various government and social service agencies use differing definitions of poverty. The "official" levels are defined by the U.S. Office of Management and Budget and are adapted by agencies such as the U.S. Department of Agriculture for the Food Stamp and Free School Lunch Programs. Poverty levels vary according to family size and geographic area, and are adjusted annually (Art Johnson, telephone interview, August 7, 1996). The 1996 levels for non-metro counties in the state of Oklahoma were $10,360 for a two-person family, $12,980 for a three-person family, and $15,640 for a four-person family (U.S. Office of Management and Budget, 1996). On a national basis, 54% of female-headed households live at an income level below poverty guidelines (U.S Department of Education, 1994).

Reliance on Public Assistance

Given the high number of economically disadvantaged, single-mother families, it is not surprising that a large proportion receive some form of government assistance. According to Rodgers (1990),

> Female family heads and their dependents constitute over 80% of all Aid to Families with Dependent Children (AFDC) recipients, over half of all Food Stamp households, almost half of the recipients of free or reduced-price school meals, 55% of the households receiving Medicaid, and well over half of the non-aged residents of public housing (p. 15).

The American public is concerned with the growing number of single-parent families who are dependent on welfare and other forms of public assistance. Although there is a perception of long-term reliance on support, existing data suggests that approximately 65% of welfare recipients receive assistance for less than 2 years at a time, using it as a transition through difficult times. About 50% of this population return at some point within the next five years during a period of unemployment or hard times (National Institute for Literacy, 1994).

In his 1992 campaign for the presidency, Bill Clinton proposed to "end welfare as we know it." Prior to the passage of welfare reform legislation in August of 1996, Congress granted waivers for a number of states to implement their own AFDC provisions. The majority of the states established work requirements and placed time limits on receipt of benefits. In some cases, public assistance agency staffs were encouraged to focus less on specific obstacles facing clients, such as lack of work experience, and more on developing plans to move the clients off welfare and into employment. Approaches varied, with some proposals not requiring states to offer education and training activities (U.S. Department HEHS, 1996). Many advocates and groups such as the American Association of University Women (1995), the National Institute for Literacy (1994), and others maintain that the goal of ending welfare as we know it, is best accomplished through education and occupational training.

Education and Participation Issues

Education and Poverty

Research supports evidence of a relationship between a lack of education and poverty. The National Institute for Literacy reported that nearly 50% of welfare recipients lack a high school diploma, compared to 27% of the general adult population (1994). Additional data from the National Center for Educational Statistics showed that in 1992, high school dropouts were three times more likely to receive income from AFDC or other public assistance than high school graduates who did not go on to college (1995). Educational levels of female single parents vary according to age and status. London (1996) reported that divorced mothers who are receiving AFDC average a year more education and are more likely to have completed high school than never-married mothers. According to somewhat conflicting data from the National Network for Women's Employment (1994), 47.1% of displaced homemakers have not completed high school Never-married mothers seem to fare better in these statistics, with 29% not finishing high school. However, London, Lino (1995), and others agree that the educational deficit seems to have a more long-term effect on the never-married group. Ganzglass and McCart (1990) reported that the typical AFDC mother between the ages of 17 and 21 has reading skills below the 6th grade level The National Institute for Literacy also found that 70% of the welfare recipients in their survey sample scored considerably lower than the national average in reading ability.

Education and Employment

The lack of literacy and educational skills affect the single mother's success in employment and financial self-sufficiency. The American Association of University Women (1995), The National Institute for Literacy (1994), and others point to the strong correlation between a lack of education and unemployment or employment in low-paying occupations. As the graphs in Figures 1 and 2 illustrate, employment and earnings increase with postsecondary and additional education for both males and females. The National Displaced Homemakers Network (1990) reported that among displaced homemakers in their prime working years, employment increased from 28.4% for those who had not completed high school, to 45.0% for those who had a high school diploma, to 58.2% for those with one or more years of college. A similar trend was identified among single mothers by the National Network for Women's Employment (1994). In this survey, fifty-one percent of single mothers who did not complete high school were employed, compared to 75% of those who were high school graduates. Ninety percent of college graduates were employed (1994).

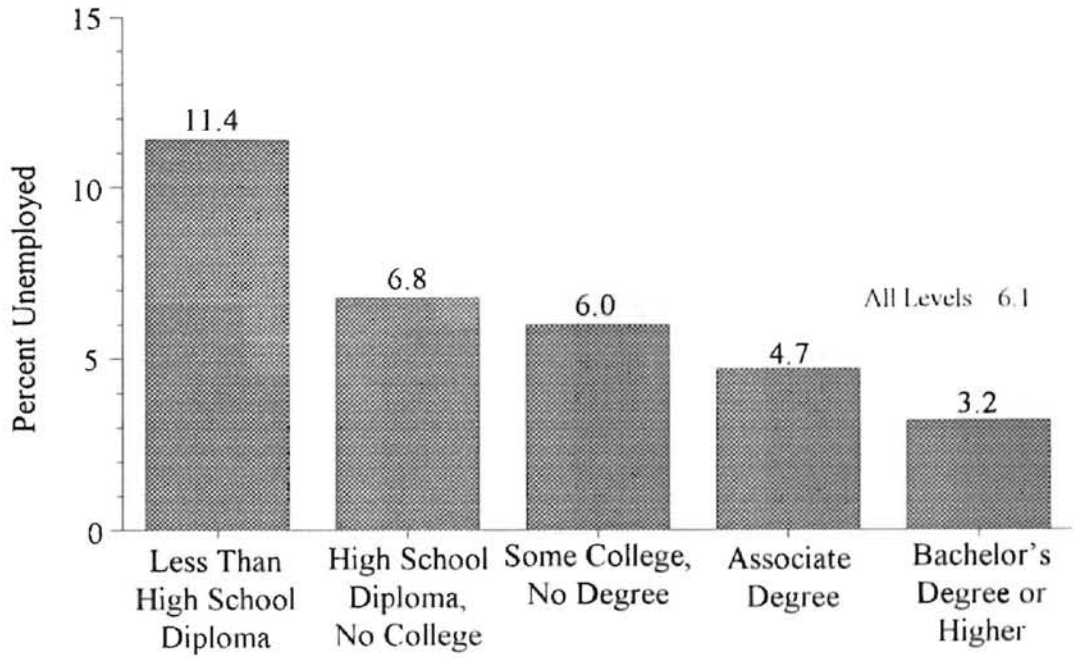

Figure 1. Unemployment rates of persons 25 years old and over, by highest degree attained: 1992

Source: U. S. Department of Education (1994). *Digest of Education Statistics*, p 393. Washington, DC: Author

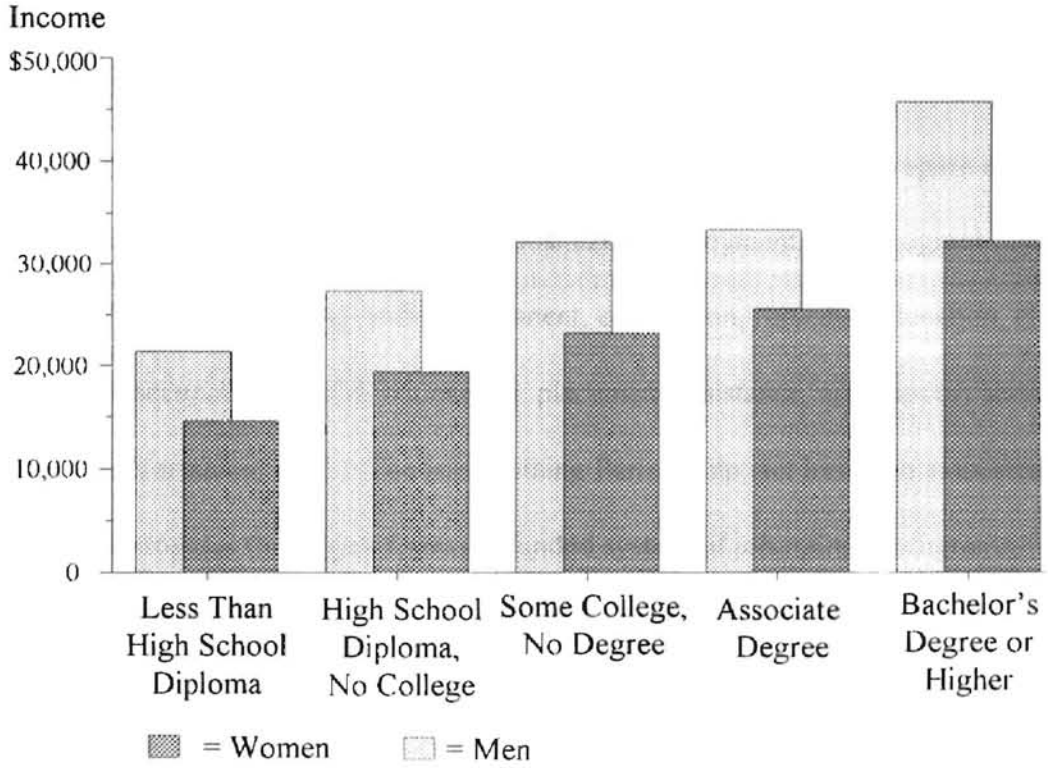

Figure 2. Median annual earnings of workers 25 years old and over, by years of school completed and gender: 1992

Source: U.S. Department of Education (1994). *Digest of Education Statistics.* Adapted from table, p. 399. Washington, DC. Author.

Education and Training Programs

Because of the obvious connection between education and employment, government programs have been developed to help fill the gaps for single mothers and others who lack adequate education or job skills. Two of these programs, JTPA and JOBS, account for 60% of federal spending on job training for the economically disadvantaged. The Job Training Partnership Act (JTPA) targets poor and displaced workers (AAUW, 1995). The goal of JTPA is to train or retrain and prepare eligible individuals for entry into permanent, unsubsidized employment. The program offers a variety of services including: skills assessment, orientation, remedial education, classroom training in occupational skills, counseling, placement assistance, and support services (Martin & Vartanian, 1991). The Job Training Partnership Act has been in existence since 1982, and provides the largest federally funded system of job training programs. Expenditures amounted to $1.4 billion in 1992, serving 796,000 during the year (U.S. Department HEHS, 1994b).

The Job Opportunities and Basic Skills program (JOBS) serves AFDC recipients, primarily single mothers. The program was implemented in October 1990. It specifically targets adult and teen parents, high school dropouts, and individuals with no work history (U.S. Department HEHS, 1994b). The program requires most able-bodied welfare recipients to either work or participate in education and job training. Any JOBS client who lacks a high school diploma or GED must participate in some type of education or training, but states have wide latitude in providing that training (Ganzglass & McCart, 1990). According to Pauly, Long, and Martinson (1992),

> In Oklahoma, JOBS is mandatory for any AFDC recipient, 18 years or older, whose youngest child is at least one year old. Caseworkers usually recommend participation in education to recipients who lack a high school diploma or GED; however, applicants who do not want to attend school are permitted to choose employability plans that include unpaid work experience, supervised job search, and/or vocational training (p. 7).

The JOBS program encourages coordination with the local JTPA provider, vocational technical schools, community colleges, and local social service organizations. Welfare clients participating in JOBS are also entitled to child care subsidies, transportation, allowances, and Medicaid coverage (U.S. Department HEHS, 1994b).

Nonparticipation in Education and Training

The answer to the lack of education and job skills would seem to be for those affected to simply return to school. In addition to programs like JOBS and JTPA, numerous programs and services are available through the state level, educational institutions, and local communities (Martin & Vartanian, 1991). Yet far fewer people receive these services than are eligible. In the 1992 program year, JOBS served 12% and JTPA served 6% of the eligible population. In spite of the funding and services offered through JOBS, only 25% of the clients pursue the opportunity for postsecondary education (U.S. Department HEHS, 1994b). Pauly, et al. (1992) reported that in Oklahoma in April 1990, approximately 20% of the AFDC recipients were enrolled in education or training activities through the JOBS program.

Numerous theories and models have been developed in an attempt to explain why adults choose to participate or do not participate in adult education. Courtney (1992) provided an extensive review of participation theories spanning nearly 70 years of study.

In this analysis, he examined the conditions that either facilitate or provide barriers to learning. He reasoned that an individual may have the motive, need, or desire to participate in educational activities, but may not take the steps required to fulfill that goal. Courtney concluded that adults who appear to need adult education the most, are the least likely to participate.

External Deterrents to Participation

Low-income women face many barriers to participation in adult education or occupational training. The barriers or deterrents may be either external or internal. In her research on expressed deterrents of low-income women to adult education, Williams (1995) reviewed a number of non-participation studies, searching for trends. She found that the most common barriers identified in the studies were external or situational deterrents. Situational deterrents include issues such as cost, lack of time, family or personal constraints, and lack of information. Among single mothers, transportation and child care pose two of the largest barriers to employment or education (National Network for Women's Employment, 1994). As discussed previously, assistance with barriers such as child care and transportation is available through support services such as those offered by the JOBS program. However, JOBS participants may still encounter difficulty finding child care or transportation.

> Shortages of certain kinds of child care common to the population in general--such as infant, special-needs, and sick child care; before- and after-school care; and part-time and nonstandard hours care--as well as a lack of reliable transportation can delay when some JOBS participants begin training or work, and affect their continued participation. In addition,

> in a nationwide survey, 77% of the JOBS programs cited transportation difficulties as a problem in getting to child care (U.S. Department HEHS, 1995, p. 4).

Internal Deterrents to Participation

Although situational deterrents have a negative impact on participation in education or training efforts, research shows that internal barriers must also be considered. Cross (1981) identified the situational deterrent as the most commonly reported, but suggested that adults may believe that situational barriers are more socially acceptable than internal reasons such as lack of self-confidence or low interest.

Internal deterrents to participation in educational activities have been examined through quantitative and qualitative research. Several deterrent factors are common to multiple studies, with the most prominent being attitude toward school. Subjects in studies conducted by Hayes (1988), Peck (1993), Valentine and Darkenwald (1990), and Wikelund (1993) all reported having previous negative experiences in school that affected their willingness to participate in adult education. As an example, Beder (1990) conducted a study in Iowa using a group of 129 adults who elected not to enroll in an available GED course. Factor analysis revealed that the reasons given for nonparticipation included low perception of need, the perception that participation would require too much effort, feelings of a general dislike for school, and situational barriers, such as family responsibilities, transportation problems, and cost. Beder concluded that, with the exception of situational barriers, the deterrents all related to the subjects' attitudes toward adult education. He surmised that the negative attutudes pertained toward school itself, rather than the general concept of literacy. Ziegahn's (1992) research was a qualitative

study involving in-depth interviews with adults enrolled in a basic education course. Her findings echoed those previously cited, in that her subjects placed low value on education because of negative feelings about previous educational experiences.

Williams (1995) identified lack of self-confidence as the second most common deterrent to participation in adult education. Negative experiences in school can certainly affect one's self-confidence, as found by Ziegahn and others previously cited. Wood (1989) identified the phenomenon as "learned helplessness, which results when repeated life experiences are interpreted by people to be an indication that they are not in control of their own fate" (p. 26). Wood characterized the problem as one common to displaced homemakers. Wikelund (1993) also observed that participation in adult education reflected women's feelings of control over their lives and feelings of self-confidence. She studied a sample of women welfare recipients enrolled in a basic education and life skills class for her ethnographic project. She summarized her conclusions as follows:

> Not only have many of these women internalized societal messages about the self-worth of individuals on welfare, but most of them have also grown up with the stigma of having dropped out of school. . . . This burden was further loaded by the commonly held belief that literacy/schooling equals competence. Individuals who did not finish school, for whatever reason, are not considered to be as competent as those who did. Consequently, most of the women doubted their abilities to be successful in the basic education program (p. 23).

Required participation in education may further compound the negative feelings held by participants. Pauly, Long, and Martinson (1992) reported that,

> The target groups for welfare/education programs include many people who would not have enrolled in school without the support, suggestion, or mandate of the welfare office.... Education staff told interviewers that [some of these] students' resistance to participating in education often stemmed from a history of educational failure and that the teachers had to make more of an effort to encourage these students to learn (p. 11).

This statement provides an example of the interrelationship between external and internal deterrents to participation in the education and training that would enhance the recipient's employability. Courtney (1992), Cross (1981), and Merriam and Caffarella (1991) assert that the single best predictor of participation in adult education is previous successful school attendance. Courtney and others cited herein concur that deterrents to adult education are seldom exclusively external or internal. However, when one considers the combination of situational and attitudinal barriers affecting many welfare mothers, the deterrents are quite formidable. Pauly, et al., (1992) stated that

> The target groups for welfare/education programs differ substantially from students who have traditionally been served effectively by education programs.... Lower average achievement, lower average motivation, greater need for support services, and a higher incidence of personal problems have been found in this population compared to other students. Education officials and teachers report that welfare/education students tend to have more personal, health, child care, and transportation problems, and lower self-esteem, than their other students. Programmatic adaptations will be necessary for education programs to meet the needs of these groups (p. 11).

Occupational Choice

Wage Inequity

Occupational choice is another factor that seems to have a great bearing on a single mother's likelihood for financial self-sufficiency. The American Association of University Women has a history of researching education and occupations, and working to improve opportunities for women in education. In recent years, the group has examined educational issues relating to women on AFDC. The organization concluded that no matter how much education they have, women consistently earn less than men on average,

and that female-headed households are the hardest hit by this earnings gap (1995). This statement is illustrated by the data shown in Figure 2. The Equal Pay Act of 1973 requires employers to pay equal wages to men and women working in the same establishment at jobs requiring the same skill level, responsibility, and work conditions (Wider Opportunities for Women, 1993). It appears that this legislation has had some effect on wage inequity. In 1978, women earned 61 cents for every dollar earned by men. In 1993, women's earnings had increased to 71 cents for every male dollar (Reich & Nussbaum, 1994). The Women's Bureau of the U.S. Department of Labor reported that in 1994, the ratio of women's to men's weekly earnings was 75.5% (1996). While the improvement is encouraging, a gap of almost 24 cents still exists between male and female earnings.

Research findings are inconsistent with regard to sex discrimination and comparable pay. Pay scale inequity may occur in several ways. Table 1 presents U.S Department of Labor (1992) data illustrating the differing wage levels supplied by traditional male and female jobs that require comparable skill levels. Bowen, Desimone, and McKay (1995) suggested that the apparent increase in the women's wage ratio that occured after the passage of the Equal Pay Act is actually the result of a decrease in men's wages, and that labor market discrimination still exists despite legislation. Data from the U.S. Department of Labor reported by Wider Opportunities for Women (1993) seem to support this assertion, as illustrated in Table 2. The Women's Bureau (1996) also provided evidence that men earn more than women, even in traditionally female-dominated occupations as shown in Table 3.

Table 1

Median Weekly Pay in 1991 for Traditional Male and Female Jobs

Traditional female jobs	Weekly pay	Weekly pay	Traditional male jobs
Secretary	$359	$484	Mechanic/repairer
Child care worker	$132	$407	Motor vehicle operator
Textile sewing machine operator	$235	$580	Mail carrier
Data entry keyer	$330	$469	Precision production worker

Source: U.S. Department of Labor (1992). *Employment and Earnings*. Bureau of Labor Statistics. Washington, DC: Author

Table 2

1992 Reported Weekly Wages for Women and Men Working in the Same Occupations

Occupation	Women	Men	Wage gap
Truck driver	$299	$421	29%
Material handler	$278	$314	12%
Police/detective	$445	$552	19%
Printing machine operator	$308	$464	33%

Source: Wider Opportunities for Women (1993). *Women and Nontraditional Work*. (Fact Sheet). Washington, DC: Author.

Table 3

1995 Median Weekly Earnings for Selected Traditionally Female Occupations

Occupation	Women	Men	Wage gap
Registered nurse	$693	$715	3%
Elementary school teacher	$627	$713	12%
Cashier	$233	$256	9%
General office clerk	$360	$389	7%
Health aide, except nursing	$285	$345	17%

Source: Women's Bureau (May, 1996). *Facts on Working Women.* (U.S Department of Labor Publication no. 95-1). Washington, DC: Author.

Occupation Segregation

Although the debate continues concerning the issue of the gender gap in earnings, the AAUW (1995), the National Network for Women's Employment (1994), and Martin and Vartanian of the Women's Bureau (1991) all agree that wage inequity is largely the result of occupational segregation. The majority of women, particularly those with less education, tend to cluster in female-dominated jobs that pay less than traditional male occupations (AAUW; Grasso, 1990; Houser, et al., 1992; Nevill & Schlecker, 1988). Single mothers and displaced homemakers are dramatically over-represented in the service occupations, especially in jobs such as food service, housekeeping, health care, cosmetics, and child care (Merriam & Caffarella, 1991; National Network for Women's Employment). Bowen, et. al., (1995) reported that in 1989, women held more than 80% of clerical and administrative support positions, about 50% of all sales positions, and over 60% of service positions. The AAUW pointed out that, according to 1994 data, the weekly salary for young women in sales and administrative support jobs averaged from $313 to $365, while young men in male-dominated jobs of machine operator and laborer earned between $395 and $503. This form of wage inequity is further illustrated by the data reported in Table 1.

The possibility of wage discrimination notwithstanding, it appears that if more women were employed in nontraditional occupations, the dependence on welfare and public assistance would decrease. The U.S. Department of Labor (1993) defines nontraditional occupations as those in which women make up less than 25% of the total workforce. In 1992, 53.8 million women were employed. Of that number, 3.5 million, or

6.5% were employed in nontraditional occupations. Some examples of nontraditional occupations and the percentage of women employed nationwide in 1992 included: construction and maintenance, 10%; cabinet makers and bench carpenters, 6%; office equipment repairers, 4%; electricians, 2%; automobile mechanics, 2%; tool and die makers, 2%; heating and air conditioning mechanics, 1%; and plumbers and pipefitters, 1% (U.S. Department of Labor, 1993). Average hourly wages for these jobs in Oklahoma in 1995 were: construction and maintenance, $8.23; cabinet makers and bench carpenters, $10.07; office equipment repairers, $12.44; electricians, $14.81; automobile mechanics, $13.99; tool and die makers, $12.61; heating and air conditioning mechanics, $11.31; and plumbers and pipefitters, $15.51 (OESC, 1996). Programs such as JOBS and JTPA are focused on encouraging financial self-sufficiency through training and education. These agencies work with local community colleges and vocational technical schools, many of which offer specialized gender-equity programs directed at encouraging enrollment in nontraditional training, expecially among displaced homemakers and single parents (AAUW, 1995). Despite these efforts, and the fact that nontraditional occupations have the potential to provide AFDC recipients with better incomes, a small minority of these women are entering nontraditional training at this time (Wingate & Woolis, 1992).

For single mothers, the barriers to pursuing nontraditional employment seem to be as numerous and complex as the barriers to participating in adult education and training, and appear to be related. Several studies in recent years have examined the occupational choices of women with regard to nontraditional employment. In a 1985 survey of women attending a nontraditional trades fair, Stringer and Duncan found that the most common reasons cited by the women as barriers to pursuing nontraditional jobs were lack of work

experience or previous exposure to nontraditional work and discouragement of the pursuit by family members and friends. The researchers pointed to the value of vocational education programs in providing information and female role models to make entrance into male-dominated careers more attractive. Nevill and Schlecker (1988) studied the relationship between assertiveness, confidence and nontraditional choice using a sample of undergraduate college females and males. They found that the males in their sample were more confident in their abilities to perform the educational and job duties of both traditional and nontraditional occupations, while the women were substantially less confident that they could be successful in nontraditional education or jobs compared to traditional ones. Nevill and Schlecker, echoed Stringer and Duncan in their assertion that women are socialized for traditional female roles and occupations and that educational institutions should strengthen nontraditional career options.

In a 1989 study, Chatterjee and McCarrey compared 135 women in traditional training to 151 women in nontraditional programs at a vocational school. The purpose was to examine the students' expectations for success or anticipation of difficulties in pursuing a career in their chosen occupations. The researchers identified a relationship between previous educational achievement and expectations for occupational success. This finding seems to parallel the conclusions of researchers in adult education such as Courtney (1992), Cross (1981), and others that previous success in education in the best predictor of participation in adult education. Chatterjee and McCarrey also reported an association between traditional sex roles with regards to caring for children and a home and traditional occupational choice. This factor appears to relate to situational barriers such as family responsibilities or lack of child care, that deter participation in adult education as reported

by Beder (1990), Reich and Nussbaum (1994), the U.S. Department of Health, Education, and Human Services (1994a and 1995), and Valentine and Darkenwald (1990). Women in Chatterjee and McCarrey's sample also reported lack of previous exposure to male-dominated jobs, and lack of social and family support as barriers to entry into training for nontraditional careers. The researchers concluded that socialized sex role attitudes are motivationally linked to nontraditional training choice.

Brooks (1988) also examined women's motivation for nontraditional careers and developed a model to help understand the phenomenon. She theorized that motivation is related to both expectancy for success and value or attractiveness. Expectancy for success is influenced by self-confidence, perceptions of opportunity, and perceptions of social support. These factors are affected by the low numbers of women currently in male-dominated jobs. The value or attractiveness of an occupation is related to socialization and sex roles. Like Chatterjee and McCarrey, Brooks pointed out the role conflict in caring for home and children and entering careers dominated by men, asserting that women must have robust levels of self-confidence to fulfill the dual demands.

Using Brooks' motivational model as a framework, Read (1991) investigated attitudinal and demographic factors that influenced women's choices of traditional and nontraditional training programs. She conducted her study using a focus group format and surveys with a sample of 532 women enrolled in 15 technical colleges in Wisconsin. Her findings supported those of researchers previously cited. Read found relationships among previous educational success, motivation to participate in nontraditional education programs, and expectations for success in school and on the job. The nontraditional students in this sample rejected the notion that success was attributed to luck and

disagreed that they were helpless regarding their career decisions. This factor appears to relate to Wood's (1989) theory of learned helplessness, in that the nontraditional students exhibited lower levels of learned helplessness. Read provided a profile of the nontraditional training student as a "confident, self-sufficient decisionmaker who welcomed the opportunity to prove herself in school and on the job" (p. 6). In contrast, the students in her sample who participated in the traditional training programs were more tentative about their ability to succeed in a range of occupations. Read's subjects also reported the importance of social support in their nontraditional choices, and the influence that previous work experience had on their choices. Many of the subjects participated in single parent/displaced homemaker or gender equity projects through vocational technical schools. While most of the displaced homemakers and single parents still rejected nontraditional training programs, they did show a preference for gender-balanced programs such as data processing or marketing. These careers were seen as representing a middle ground between nontraditional and traditional by providing stronger employment and salary opportunities than traditional fields, but fewer risks than nontraditional jobs. Read concluded that interventions such as single parent/displaced homemaker programs, JOBS, and JTPA have made progress in encouraging women to enter programs that would enable them to become economically self-sufficient.

Summary of Barriers to Nontraditional Occupations

Like the deterrents to participation in adult education and training, the barriers that women face when making career choices are complex and interrelated. An advocacy

group, Wider Opportunities for Women (1993) listed the following as particular barriers to nontraditional roles in school and work:

Social and Cultural:
1. Socialization to traditional female roles
2. Unsupportive family and friends
3. Negative attitudes of classmates and co-workers
4. Lack of self-confidence and assertiveness
5. Lack of female role models
6. Limited experience with tools and mechanical operations

Education and Training:
1. Limited information provided about nontraditional options
2. Females directed toward traditional classes
3. Lack of support for sex equity efforts by instructors and other personnel
4. Lack of prerequisite classes such as math and science
5. Limited access to on-the-job training and apprenticeships
6. Lack of support services -- child care, transportation, etc.
7. Isolation and sexual harrassment in classrooms (p.3)

The combination of these social and institutional deterrents, compounded by situational barriers (such as parenting roles) that carry double weight for the single mother, may make the pursuit of nontraditional training or employment seem overwhelming. A woman must have a strong inner resolve and strength of conviction to overcome social and cultural barriers and enter nontraditional training. Houser, D'Andrea, and Daniels (1992), Wood (1989), and others posit that such strength of resolve is frequently lacking in AFDC recipients.

Self-Efficacy Research

The barriers to financial self-sufficiency faced by women receiving AFDC are complex and interrelated. The line may be blurred between situational barriers, self-confidence issues, and motivation. Although listings of deterrents contribute to an

understanding of limitations of choices and achievements, a better understanding is needed of the mechanisms that affect beliefs and attitudes influencing women's vocational behavior (Hackett & Betz, 1981).

Theoretical Framework of Self-Efficacy

One model that appears useful in understanding the complexities of the barriers is the theory of self-efficacy, which is based on Bandura's social learning theory (1977). Bandura defined self-efficacy (SE) as expectations and beliefs about one's ability to successfully perform a given behavior. He hypothesized that efficacy helps determine whether behavior will be initiated, how much effort will be given, and how long the effort will be maintained in the face of obstacles or negative experiences. Self-efficacy is not a passive trait or characteristic, but rather a dynamic aspect of the self-system that interacts with the environment and with other motivational mechanisms. Lent and Hacket (1987) further defined the concept as a judgment about personal capabilities that influences performance and is influenced by performance. Simply stated, "self-efficacy determines what we do with the skills we have" (Lent & Hackett, 1987, p. 348).

Bandura (1977) identified four sources of information by which efficacy expectations are acquired and altered: performance accomplishments, vicarious experience, verbal persuasion, and emotional arrousal. He theorized that successful performance of a given behavior is probably the most powerful source of strong self-efficacy expectations. Vicarious experiences, or observing others performing a behavior, are also important sources of information pertinent to self-efficacy. Verbal persuasion or encouragement from others that one can successfully engage in specific behaviors may

increase self-efficacy, as can methods of decreasing an individual's degree of emotional arousal or anxiety.

Self-efficacy relates to, but differs from, other self-concept theories. Wood's learned helplessness model (1989) implies a motivational deficit because the individual views an action as futile. Kane (1987), in a discussion of long-term poverty, related learned helplessness, motivation, and expectency theory. He hypothesized that the motivation to act consists of two components: the desirability of an outcome and the expectancy that one's own actions can help attain it. Bandura (1977) however, felt that efficacy expectations must be differentiated from outcome expectations.

> Outcome expectations refer to the belief that, given the performance of a particular behavior, certain results will follow. An outcome expectation is thus a belief about the *consequences* [italics added] of behavior. An efficacy expectation, on the other hand, is a belief concerning the *performance* of a behavior. Low self-efficacy expectations may prevent a person from attempting to perform a task even if he or she is relatively certain that performance of the task would lead to desired outcomes (Hackett & Betz, 1981, p. 328).

Studies have supported an association between self-esteem and motivation or achievement. Persons with low SE may also experience low self-esteem, tend to focus on their deficiencies, and view challenging tasks as threats (Niles & Sowa, 1992). Hackett and Betz (1981) and Lent and Hackett (1987) cautioned that self-esteem and self-efficacy should be viewed as distinct traits. Self-esteem refers to feelings of self-worth, and is a global trait. Efficacy beliefs are hypothesized to involve domain- or task-specific expectations about one's performance of a behavior.

Self-Efficacy and Education

Bandura's (1977) theory has been used in a variety of applications and treatment settings including anxiety and phobic disorders, depression, and addictive behaviors. Self-efficacy has also been associated with academic achievement, especially as it relates to career preparation (Hackett & Betz, 1981). In a meta-analysis of SE studies of academic outcomes, Hackett and Betz (1995) reported evidence that SE perceptions were significant predictors of performance and persistance across a wide range of situations, and across studies using various methods. Because individuals with low SE tend to focus on previous difficulties in school or their deficiencies, they may be less inclined to attempt or persist in educational participation. This research seems to support the findings of studies such as those of Beder (1990), Valentine and Darkenwald (1990), Wikelund (1993), Ziegahn (1992) and others that cite previous negative educational experiences as a deterrent to participation in education. It should be pointed out that the majority of studies examining SE and academic achievement focus on children, gifted children, or college-age individuals. No research was located that specifically addressed SE with regard to adults in post-secondary education.

Self-Efficacy and Career Development

Self-efficacy theory also has direct relevance to the understanding and modification of career-related behaviors. According to Lent and Hackett (1987), Hackett and Betz were the first researchers to propose that the concept might be an important factor in the career adjustment of both men and women, and were the first to hypothesize gender

differences in occupational self-efficacy. Hackett and Betz (1981) suggested that SE expectations develop differently in males and females due to gender role socialization. They asserted that exposure to sex-typed activities results in differential skill acquisition, and thus, gender differences in SE judgements for traditionally male or female competencies. Hackett and Betz proposed relationships among self-efficacy, academic ability, expressed vocational interests, and a range of career options for women.

> If individuals lack expectations of personal efficacy in one or more career-related behavioral domains, behaviors critical to effective and satisfying choices, plans, and achievements are less likely to be initiated and, even if initiated, less likely to be sustained when obstacles or negative experiences are encountered. While low self-efficacy expectations undoubtedly affect the career behavior of both men and women, the continuing limited and disadvantaged position of women in the labor force and the limited range of career options from which most women choose may be due, at least in part, to the differential expectations of self-efficacy among women versus men (Hackett & Betz, 1981, p. 329).

To support their model, Betz and Hackett (1981) examined the relationship between SE and perceived career options among college students. Their findings indicated that women's SE expectations are lower than men's for nontraditional occupations and significantly higher than men's for traditional female occupations, while men's SE levels are equivalent for traditional male and traditional female jobs. Betz and Hackett viewed SE theory as relevant to the understanding and modification of internal barriers and the management of external barriers to career-related behaviors. They replicated the research using different samples, and other researchers have conducted studies that supported the initial findings. One limitation of these studies is the use of college students, particularly from lower division classes, for samples (Lent & Hackett, 1987).

Self-Efficacy and Career Development in Women

Lent and Hackett (1987) and others have contended that while there is substantial evidence for differences in SE between genders, more information is needed to understand within-gender differences. One such study was conducted by Nevill and Schlecker (1988), with a sample of 122 females enrolled in an introductory psychology course at a large university. Their findings supported those of previous studies, linking strong SE and assertiveness with increased willingness to engage in nontraditional career-related activities, such as education and training. They also found however, that although women who scored high in SE and assertiveness were more willing to engage in nontraditional career-related activities than women who ranked low in these variables, both groups still expressed a preference for the career-related activities of traditional female occupations. Nevill and Schlecker suggested that SE levels could be increased and anxiety decreased by exposure to and knowledge about the behaviors to be preformed in nontraditional occupations. These findings support those of Chatterjee and McCarrey (1989) and Stringer and Duncan (1985) that women viewed lack of exposure or experience with nontraditional occupations as barriers to the pursuit of nontraditional training activities.

Taking a somewhat different approach, Whiston (1993) hypothesized that women have higher SE concerning the ability to work with people rather than things, and that the people-and-thing SE would vary depending on women's employment in traditional or nontraditional occupations. She studied a sample of 191 employed women, 100 from traditional occupations and 91 from nontraditional jobs. The mean age of women in the sample was 40 years. The results of the study indicated that employed women have higher

SE for tasks related to working with people than for tasks related to working with things. Whiston concluded that her findings supported those of Hackett and Betz's 1981 study, and that activities related to the manipulation of objects are often stereotyped as masculine. One notable finding was that the nontraditional women in her sample had higher SE on a mentoring subscale. She posited that the lack of mentors in nontraditional occupations has been a barrier for women entering the fields, and pointed out the value of mentors as an implication for future study and career counseling efforts.

Self-Efficacy and Receipt of Welfare

Benjamin and Stewart (1989) proposed the usefulness of the self-efficacy concept in understanding the factors affecting welfare dependency and the connection between receipt of public assistance and participation in the workforce. These researchers theorized that the mastery of behaviors needed for labor market success, including obtaining the appropriate educational credentials, has a direct effect on one's SE, which in turn, influences future choices about participation in the labor market. They cited the stigma attached to welfare dependency and suggested that this stigma adversely affects the individual's sense of identity, leading to lack of motivation and increased dependency. Further, they posited that one's location in the social structure affects one's sense of SE and well-being. Based on these assumptions, Benjamin and Stewart hypothesized a racial difference in SE, with White women holding higher SE than African-American women. The study findings did not support the researchers' hypothesis. Benjamin and Steward did however, find strong evidence that the duration of the receipt of public assistance significantly affected the SE of women. The findings indicated lowered levels of self-

worth, lower levels of SE, and lessened work orientation in those who had received assistance for a greater length of time. Benjamin and Stewart concluded that "as the proportion of households headed by single women continues to grow, there will be a need for well-designed programs developed to simultaneously provide skills that increase the probability of finding employment and enhance self-efficacy" (p. 174).

Self-Efficacy and Employment

Based on the idea that the SE model lent itself well to a short-term intervention, Eden and Aviram (1993) developed and tested a workshop designed to boost SE and job search activity among a group of dislocated (layed-off) workers. Although the characteristics of the subjects in the Eden and Aviram study differ from those of single mothers on welfare, the research does carry implications for the latter population. Eden and Aviram theorized that declines in SE lead to a sense of impotence, which becomes a self-fulfilling prophecy as the unemployed doubt their ability to regain employment. Thus a major hazard of being unemployed is becoming entrapped in a cycle of joblessness, which causes a loss of self-esteem and SE, which in turn cause a lack of effort to find a job. Their findings indicated that the treatment increased reemployment among those individuals with initially low levels of SE, but had no effect among those who had high SE scores on a pretest. Eden and Aviram's conclusion was that individuals with low SE should be given priority to such training interventions.

Finally, Houser, D'Andrea, and Daniels (1992) examined self-efficacy as it relates to increasing financial self-sufficiency among AFDC recipients. Citing studies by Betz and Hackett (1981), Lent and Hackett (1987), Nevill and Schlecker (1988) and others,

Houser, et al. created a motivational training program designed to increase SE in welfare mothers. The program incorporated Bandura's (1977) four methods of increasing self-efficacy: through performance accomplishments, emotional arousal, verbal persuasion, and vicarious learning (modeling). The researchers studied a sample of 183 JOBS participants with an average age of 31 years. Findings indicated that the combined use of the four methods for increasing SE resulted in significant increases in the SE levels of study participants. Houser, et al. concluded that a systematic approach including each of Bandura's methods is useful in increasing SE among those facing barriers to financial self-sufficiency, such as the deterrents faced by women on AFDC. The researchers did identify implications for further study to examine the effectiveness of SE training on long-term change such as following through on vocational training programs and job effort, expecially with regard to nontraditional careers. They pointed to the importance of fostoring career development in women for nontraditional occupational training to improve their economic stability and to meet future labor market demands in the fields of science and technology.

Summary

Based on the research cited herein, it has been established that: the increasing amount of funding spent to support the growing number of single mothers has become an issue of concern for the taxpaying public; the lack of education and training negatively affects the employability and financial self-sufficiency of single mothers and other low income individuals; and issues relating to choice of traditional or nontraditional careers also impact the economic stability of single mothers. The barriers to education and

employment are often the same, both situational and attitudinal. London and Greller (1991) make the powerful point that women can be blocked from career opportunities as effectively by their own beliefs and assumptions, as they can by the discriminatory practices of others in the labor market. These barriers make it difficult for the single mother on AFDC to escape the life of poverty and dependence on public assistance. Through an understanding of the barriers, programs can be designed to address these issues and strengthen the behavior needed for financial self-sufficiency.

Implications for the Study

Bandura's theory of self-efficacy offers a potentially effective method for developing strategies to alter the motivation of women on AFDC with regard to education and training for workplace entry. Researchers such as Hackett and Betz (1981), Nevill and Schlecker (1988), and Niles and Sowa (1992) have pointed out the need to better understand how SE affects career development in women so that vocational counselors can use the construct in developing interventions to increase occupational choice. According to Houser, et al., (1992), "no programs or interventions have been developed that systematically and comprehensively address the special needs of women on AFDC in terms of their career self-efficacy and ultimately their self-sufficiency and independence from public support" (p. 119). In actuality, several programs exist at area vo-tech schools in the state of Oklahoma, which although not directly set up according to Bandura's theory, seem to be using the four methods outlined to increase self-efficacy among women on AFDC and women in nontraditional occupational training. Based on the assumption as supported by Eden and Aviram (1993), that such programs are most effective with those

whose level of self-efficacy is low, this research seeks to identify those with the lowest levels of self-efficacy expectations among the target population. Intervention can thus be focused on the individuals who are most in need.

CHAPTER III

METHODOLOGY

Statement of the Problem

The problem that motivated the present study, is that the number of female-headed households is already large and continues to increase each year. Many of these households are receiving public assistance. The current climate of public opinion is one of discontent with the welfare system. This discontent is centered on the growth in caseloads, concerns about costs, and the perception that the system fosters long-term dependency among beneficiaries. A consensus exists among the public, practitioners, politicians, and welfare recipients themselves that the traditional welfare program should be changed to place a greater emphasis on increasing the self-sufficiency of the recipient. Congress and others argue that such self-sufficiency can be induced through legislation making benefits temporary, thus encouraging employment, and better serving the AFDC caseload (U.S Department HEHS, 1994c). Programs are available that can help provide education and occupational training to assist in workforce entry, but these programs serve only a small percentage of the targeted audience. The problem is compounded by the fact that many of the women in the eligible population lack self-esteem and appear to be low in self-efficacy As a result, of the women that do elect to participate in training and education, most

choose traditional female occupations that pay lower wage scales, making it difficult for a single parent to support herself and her dependent children.

A significant number of studies of self-efficacy have been conducted in the last 15 years, and the construct has been shown to be relevant and effective. According to Houser, et. al. (1992),

> The time has come to begin using all of the research knowledge on self-efficacy in programs designed to improve the quality of life and change behaviors of those in our society. Knowledge about changing self-efficacy and motivation may be particularily important for individuals in social programs such as AFDC and other welfare programs in which many participants experience lower motivation and self-efficacy due to...experiences that hinder the development of strong self-efficacy feelings, particularily in terms of financial independence (p. 124 - 125).

Design

The present study sought to examine the measures of self-efficacy among female single parents enrolled in vocational training as the construct relates to the receipt of welfare and occupational choice. The research lent itself to a 2 x 2 design, resulting in data being categorized into four cells. The independent variables were welfare status (receipt or non-receipt) and occupational choice (traditional or nontraditional). The dependent variable was the measure of occupational self-efficacy.

Because the researcher sought a sufficient number of subjects to fill each cell of the design to permit analysis, this study was based on a quota, rather than a random sample (Oppenheim, 1992). Thus the focus of the study was intended to be exploratory, and the findings cannot be considered representative or generalizable.

Subjects

The population of interest consisted of female heads of household. The study was limited to female single parents, aged 18 - 40 years old, who were attending vocational-technical schools in Oklahoma. Samples were obtained through the Single Parent/ Displaced Homemaker Programs in the Oklahoma vocational-technical education system.

Instrumentation

Cover Letter

The first page of the instrument packet was the cover letter. The cover letter provided a brief explanation of the study and detailed the characteristics required of the participants (female single parent, 18 to 40 years of age, enrolled in vocational training). Subjects were informed of the nature of the instruments and given an estimated completion time of less than 15 minutes. The letter also served to notify the subjects of the low risk involved in completing the questionnaires, the fact that participation in the study was voluntary, and assured them of the confidentiality of their responses. A copy of the cover letter can be found in Appendix A.

Demographic Questionnaire

The second page of the packet was the background page, designed to collect demographic information. Questions one, two, four, five, and seven served to further describe the characteristics of the sample and to substantiate data reported in the literature. Questions three, and six pertained to the independent variables, providing

categories for the cells of the study design. A copy of the demographic questionnaire can be found in Appendix B.

Occupational Self-Efficacy Scale

The dependent variable, self-efficacy, was measured using a modifed version of the Occupational Self-Efficacy Scale (OSES) that was developed by Betz and Hackett (1981). Permission was obtained from Gail Hackett for the use of the OSES in this study (electronic correspondence, March 5, 1997). The OSES was developed as "a measure of general occupational self-efficacy, originally intended to help explain the continued underrepresentation of women in traditionally-male dominated careers" (Betz & Hackett, 1993, p. 6). The developers used a list of occupational titles representing 10 traditional female and 10 traditional male career fields. The traditional female occupations were: art teacher, dental hygienist, elementary teacher, home economist, medical technician, physical therapist, secretary, social worker, travel agent, and x-ray technician. Traditional male occupations included: accountant, drafter, engineer, highway patrol officer, lawyer, mathematician, physician, probation officer, sales manager, and school administrator.

The Occupational Self-Efficacy Scale is available in two response formats. Format A, the original form used in the 1981 research by Betz and Hackett, requires respondents to select a "yes" or "no" response for each occupation, then provide a confidence rating for each occupation using a ten-point Likert scale. The yes-no response is intended to indicate level of self-efficacy, and the one through ten-point confidence rating to indicate strength. A second form, referred to as Format B, only includes a zero to nine point confidence rating. In this case, a "0" for "no confidence at all" would be assumed to equal

a "no" response on Format A. Betz and Hackett assert that either format provides an acceptable method of assessing occupational self-efficacy, with Format A retaining Bandura's original notions of level and strength, and Format B being simpler by requiring only one response per item. (1993). Format B was used for this study to simplify and shorten the response time.

The OSES as used by Betz and Hackett in their 1981 study consists of several subscales. One is a measure of self-efficacy with regard to educational requirements for the 20 occupations. The second subscale is a measure of SE expectations pertaining to the job duties of each occupation. Two additional questionnaires, entitled "Consideration" and "Interests" are intended to measure levels of consideration and interest in each occupation, but are not intended to serve as measures of SE. Betz and Hackett and others have used the OSES in numerous studies with college students to examine gender differences in career decision-making and occupational confidence. While it would be interesting to examine the results of all four subscales with the present sample pool, it was beyond the scope of this study. Because the subjects were actively participating in occupational education and were anticipating job entry, only the job duties subscale was used in this study

Reliability. The Manual for the OSES (Betz & Hackett, 1993) includes references to a number of other studies providing support for the reliability of the instrument. Internal consistency reliability was reported at .95 for the total scale score, .91 for the traditional female occupations, and .92 for the traditional male occupations, with an alpha of .94 for the total measure and .92 and 89 for the subscales. Test-retest reliability scores over a 1-week period were reported at .55 for level and 70 for strength.

Validity. Betz and Hackett (1993) also cited studies providing evidence for the validity of the OSES. They asserted that content validity was established because the domains of interest were commonly known male-dominated and female-dominated occupations. Betz and Hackett defined traditional female occupations as those in which 70% or more of the workforce were women, and nontraditional occupations as those in which women comprised 30% or less of the workforce. The selection of the occupations was based on 1975 data from the Women's Bureau of the U.S. Department of Labor (Betz & Hackett, 1981).

Concurrent validity was established through several other studies conducted by researchers using similar instruments. These studies reported statistically significant correlations ranging from $r = .42$ for college males for traditional occupations to $r = .73$ between job title and job task measurements across the 20 occupations. Construct validity was also supported by several studies replicating the original gender differences indentified in Betz and Hackett's 1981 study.

Thus, Betz and Hackett assert in the OSES manual (1993) that the scale is both "a reliable and valid measure of global occupational self-efficacy" (p. 20).

Instrument Alteration

Although the job descriptors used by Betz and Hackett met the definition of traditional and nontraditional occupations and apparently satisfied content validity in 1981, demographics have changed since the 1975 data upon which the instrument was based. Kelly (1993) pointed out the problem in a study using the OSES with a sample of gifted high school students. He used Betz and Hackett's original 20 occupations, but

classified them into three categories including traditional, nontraditional, and gender-balanced.

For the purpose of this study, the occupations were examined to determine if they met the current definition of traditional and nontraditional occupation appropriate to Oklahoma. The State of Oklahoma 1995 Labor Force Information Manual for Affirmative Action Programs (OESC, 1995) was used to determine the percentage of females employed in each of the career fields. The results of this examination are reported in Table 4. These data clearly show that the original occupations used in Betz and Hackett's 1981 research no longer meet the current definitions of traditional and nontraditional female occupations for Oklahoma.

Table 4

Females as Percentage of Workforce for Original OSES Occupations Statewide in Oklahoma From 1990 Census Data

Occupation	Female percentage
Art teacher	49%
Dental hygienist	99.5%
Elementary teacher	79%
Home economist	Not given
Medical technician	70%
Physical therapist	71%
Secretary	99%
Social worker	69%
Travel agent	Not given
X-ray technician	57%
Accountant	56%
Drafter	17%
Engineer	8.1%
Highway patrol officer	9.9%
Lawyer	19.2%
Mathematician	0%
Physician	18%
Probation officer	Not given
Sales manager	33%
School administrator	50%

The OSES was modified to more accurately reflect the current Oklahoma labor force. In making the changes, care was taken to ensure that the male- and female-dominated occupations were comparable in terms of the amount of training or education required, and to ensure a variety of realistically obtainable educational levels. Data to support the inclusion of the selected occupations were obtained from Oklahoma Workforce 2000: Labor Supply and Demand (Oklahoma State Occupational Information Coordinating Committee, 1992) and the State of Oklahoma 1995 Labor Force Information for Affirmative Action Programs Manual (OESC, 1995). Three female-dominated and three male-dominated occupations from the original scale were retained. The resulting list and characteristics of occupations is reported in Table 5 Once the 20 occupations were determined, they were randomly sorted for item sequence on the scale. Other than the modification to the list of occupations, the original format of the OSES was retained. A copy of the modified Occupational Self-Efficacy Scale can be found in Appendix C.

Table 5

Occupations, Females as Percentage of Workforce, and Educational Requirements for Modified Occupational Self-Efficacy Scale

Traditional (Female-dominated)	Female Percentage	Nontraditional (Male-dominated)	Female Percentage
	Requiring 0 - 6 months of training		
Cashier	80%	Groundskeeper	7%
Nursing aide	88%	Security guard	13.7%
Receptionist	97%	Truck driver	6.2%
	Requiring 6 months to 2 years of training		
Secretary	99%	Auto body repairer	1.9%
Bookkeeper	90%	Drafter	17%
Hairdresser/cosmetologist	92%	Electrician	2.3%
	Requiring 2 to 4 years of training		
Registered nurse	93%	Surveyer	7.8%
Dental hygienist	99.5%	Computer repairer	14%
	Requiring 4 or more years of training		
Elementary teacher	79%	Engineer	8.1%
Dietician	85%	Lawyer	19.2%

Pilot Study

Concern over the alteration of the OSES was discussed with Gail Hackett. She stated that her research had provided "remarkable consistency with the (OSES) format, regardless of the occupations used" (electronic correspondence, March 5, 1997). Because of the alterations made to the OSES and the inclusion of the demographic questionnaire, the entire instrument packet was pilot tested on a sample of 32 women participating in the Single Parent/Displaced Homemaker (SP/DH) programs at two local area vo-techs. The SP/DH coordinator administered the instrument at one of the sites. Three instructors working with SP/DH participants administered the questionnaires at the second site.These groups of respondents were excluded from the research sample.

Because they work directly with the population of interest, the SP/DH coordinator and the particular instructors are familiar with issues affecting the population. The coordinator and instructors were asked to review the instrument prior to administration to identify items that might offend or cause sensitivity with the subjects. The coordinator and instructors observed the subjects during the administration of the questionnaires and debriefed the respondents after completion of the instrument. They reported that the demographic questions and items on the self-efficacy scale appeared clear and understandable. Respondents were able to complete the questionnaires without asking for assistance or clarification. No items were reported as offensive or too sensitive.

Demographic Questionnaire

The pilot test of the demographic questionnaire served two purposes: to identify problems with individual item clarity or instrument construction as a whole, and to gather desciptive information about the population. The completed questionnaires were reviewed for indications of misunderstanding or bias. All items were answered appropriately and completely.

Information from the demographic questionnaire was gathered for a description of the pilot group. The mean age of the pilot sample was 29.25 years, with a standard deviation of 6.1. Sixty-three percent of the respondents reported their single-parent status as divorced or separated; 9% were widowed; and 28% reported that they were never married. Welfare status was evenly balanced with 50% of the subjects reporting that they did receive AFDC. Of the 16 respondents not receiving welfare, five acknowledged receiving food stamps within the last six months. Six of the subjects were employed. Educational levels varied, with 34% having obtained a high school diploma or GED; 16% having prior vo-tech certification; 47% having some college; and one individual holding a baccalaureate degree. Two of the 32 had previous training in a nontraditional field. Two were, at that time, pursuing certificates in nontraditional occupations.

Modified Occupational Self-Efficacy Scale

The Manual for the Occupational Self-Efficacy Scale (Betz & Hackett, 1993) contains means and standard deviations of average scores for male and female college students in the original study and two replication studies completed within a 12-year

period. The mean scores as reported in the Manual, were calculated for the male occupations and the female occupations respectively as the sum score over the ten items in each category. Thus the scores for the male occupations could range from zero to nine, as could those for the female careers. Total scale scores were reported as the sum of the male and female item scores, resulting in a maximum of 18 points. The means for the pilot test scores were calculated in the same manner as those from the three studies cited in the Manual. Because the modified OSES was designed to measure respondents' confidence to complete the job tasks of the specified occupations, only the job duties subscale scores for female subjects were used for the review. A comparison of the mean scores and standard deviations from the three studies with the scores of the pilot study reveals a consistency between the scores, as reported in Table 6.

Table 6

Comparison of Means and Standard Deviations of OSES Scores From 1981 to 1993 as Reported in OSES Manual, With Those of Modified OSES in Pilot Test

Study	SE scores among females	
	M	SD
Hackett & Betz (1981)		
Total job duties	12.6	3.8
Male-dominated careers	5.4	2.4
Female-dominated careers	7.2	1.8
Mitchell (1990)		
Total job duties	13.6	4.0
Male-dominated careers	6.2	2.5
Female-dominated careers	7.4	2.0
Williams (1993)		
Total job duties	10.5	3.3
Male-dominated careers	4.5	1.8
Female-dominated careers	5.9	1.7
Modified OSES pilot test (1997)		
Total job duties	10.2	4.1
Male-dominated careers	4.0	2.5
Female-dominated careers	6.2	1.8

The items on the modified OSES were also analyzed for internal consistency. Split-half reliability was calculated using the Spearman-Brown prophecy formula. The resulting internal consistency was .97 across the total scale, .97 for the male occupations, and .90 for the traditional female occupations. In addition, the Cronbach alpha coefficient was calculated at .95. The OSES Manual reported total scale internal consistency to be .95, with .92 for male occupations, and .91 for female occupations on the original instrument. Therefore, the validity and reliability of the modified Occupation Self-Efficacy Scale appears to be consistent with that of the original instrument as designed by Betz and Hackett.

Procedures

The Oklahoma Vo-tech system employs Single Parent/Displaced Homemaker Program coordinators who administer the program on 39 campuses. Two campuses participated in the pilot study, and were excluded from the research. The researcher made contact with the SP/DH Coordinators at the remaining schools throughout the state to request their cooperation in the study. Coordinators serving 12 schools declined to participate, reported no enrollment in nontraditional employment, or did not return the researcher's phone calls. Eighteen coordinators serving 25 campuses confirmed that some of their clients were enrolled in nontraditional training programs and could ensure that instrument packets would be completed by individuals meeting the required criteria for the independent variables of the design. Each of the 18 coordinators agreed to assist with the research.

A total of 610 instrument packets were mailed in early April to the 14 SP/DH coordinators who reported the largest number of program participants enrolled in nontraditional training programs in addition to the traditional enrollments. A cover letter explained the purpose of the research, included instructions for the administration of the instrument, and requested that the questionnaires be returned by the end of April. A copy of this cover letter can be found in Appendix D. Pre-paid postage return envelopes were supplied for the return of the completed instruments. The timing of the study was arranged so that the subjects were near completion of the academic school year and preparing to enter employment.

The researcher made reminder phone calls in early May to coordinators who had not yet returned completed questionnaires. A lower than anticipated response rate from women in nontraditional enrollments caused concern that the nontraditional cells of the design would not be filled. A second group of 65 instrument packets were mailed to two additional coordinators who had not been included in the earlier mailing. Packets were also sent by fax to two coordinators who anticipated having 100 individuals and 25 individuals in attendance for SP/DH meetings that were planned the day of the phone conversations. The researcher requested that the completed questionnaires be returned by the end of the school term in mid to late May. Follow-up postcards (Appendix E) were sent in mid-May to all coordinators who had not yet returned the questionnaires. Reminder phone calls were made in late May and early June. The final batch of completed questionnaires was received in late June.

A total of 800 research questionnaires were distributed to potential subjects. Two hundred and forty-nine completed questionnaires were returned, but 19 were excluded

from analysis because of unclear or incomplete responses. Thirty-one were excluded because the respondents wrote in responses indicating that they did not meet the characteristics required for the sample. The remaining 199 valid questionnaires represented a 24.9% usable response rate.

Data Analysis

Information gathered from the questionnaires was analyzed through several methods. First, the completed scales were tallied according to the responses for items 3 and 6 on the demographic questionnaire. This step categorized the respondents by the independent variables: receipt or nonreceipt of welfare, and traditional or nontraditional occupational choice, providing a frequency count to determine that there were sufficient responses in each cell for statistical analysis.

In the second step, frequency counts and means analyses were calculated for items one, two, four, five, and seven on the demographic questionnaire. This step provided descriptive characteristics of the sample, thus enabling a comparison of the sample with the population as described in the literature.

The third step was to conduct the statistical analysis. A two-way ANOVA was originally planned for this analysis. Because the response rate resulted in unbalanced cell sizes, the ANOVA was abandoned and the general linear model (GLM) procedure was used instead. This step answered research questions one and two by analyzing the main effect of the independent variables, and determined the answer to research question three concerning the interaction of the variables.

Simple calculations such as measures of central tendency were performed using Microsoft Excel version 4.0 for the Macintosh. More complex analyses were conducted using the Statistical Analysis System (SAS) at Oklahoma State University Computer Information Services. Results of the data analysis are reported in the following chapter.

CHAPTER IV

PRESENTATION OF FINDINGS

Introduction

The purpose of the study was to investigate the differences, if any, between welfare status and self-efficacy scores, and between self-efficacy scores and occupational choice among female single parents enrolled in vocational training.

The results of the study are presented in this chapter. The first section reviews the response rates from the sample. Section two provides a description of the characteristics of the sample and a comparison of the sample with the population as described in the literature. The third section of the chapter reports the results of the procedure used to analyze the responses to the self-efficacy instrument

Response Rate

Eight hundred questionnaires were distributed to potential subjects through 18 Single Parent/Displaced Homemaker program coordinators serving 25 vo-tech campuses throughout the state of Oklahoma One hundred and ninety-nine usable questionnaires were returned, for a response rate of 24.9%. The distribution of campuses participating in the study is shown in Figure 3.

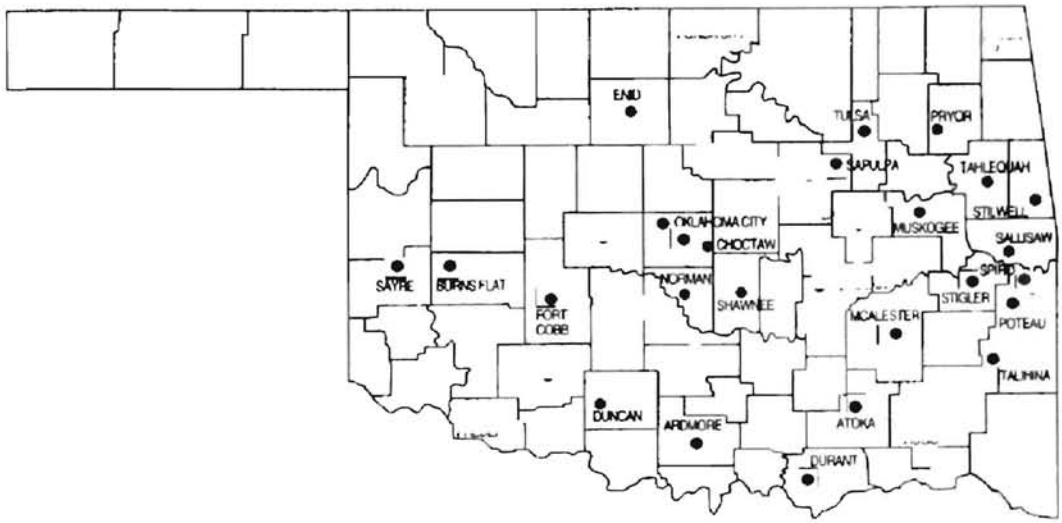

Figure 3. Distribution of Single Parent/Displaced Homemaker programs participating in study

Source: Oklahoma Department of Vocational and Technical Education (1996). *Return on Investment: Careers Unlimited Program, Displaced Homemakers, Single Parents, and Single Pregnant Women Program.* [Brochure]. Adapted from map of program locations. Stillwater, OK: Author.

Demographic Characteristics of the Respondents

Upon receipt, responses to the completed questionnaires were entered into a data spreadsheet in Microsoft Excel. This step provided a collection method for the data and permitted simple analyses such as frequency counts and measures of central tendency. Demographic information was collected through the first page of the questionnaire. The mean age of the sample (N = 199) was 27.8 years, with a standard deviation of 6.9. The median age was 27 years. Lino (1995) reported that in 1991 the median age of single parents nationwide was 35 to 38 years, depending on the sex of the parent. A comparison of the sample and population regarding single parent status reveals similarity. Fifty-nine percent (n = 118) of the subjects reported their single-parent status as divorced or separated; 38% (n = 76) were never-married; and less that 3% (n = 5) were widowed. By comparison, data compiled from the 1994 Annual Demographic File, as reported by London (1996), reflected that divorced and separated women composed 55% of the national single-mother population; never-married mothers made up 39%; and widows accounted for the remaining 6%.

One hundred and thirteen (57%) of the sample acknowledged receiving welfare benefits. Of the 86 women not receiving welfare, 39 reported receiving food stamps within the previous six months. The combined total of welfare and food stamp recipients represented over 76% of the sample and qualified as economically disadvantaged by established poverty guidelines (U.S. Office of Management and Budget, 1996). The U.S Department of Education (1994) reported that 54% of female-headed households on a national basis live at an income below poverty guidelines.

The women in the research sample seemed to possess higher educational levels than the national average. The National Institute for Literacy (1994) reported that almost 50% of welfare recipients lack a high school diploma. Only 21 subjects (10.5%) of the sample reported less than a high school diploma or GED. Of the 113 women receiving welfare, 12 (10.6%) lacked a diploma or GED. Over 57% (n = 114) of the total sample reported having attained a high school diploma or GED; 10% (n = 20) reported previously earning a previous vo-tech certificate; 21.6% (n = 43) reported completion of some college, and one individual reported having attained a baccalaureate degree.

In contrast to data reported in the literature, the never-married mothers in the research sample seemed to fare better overall than those who were divorced or separated. London (1996) reported that never-married mothers are on average, nearly 10 years younger, have lower educational levels, and have much lower income levels than divorced mothers. The mean ages in the research sample were 23 years for never-married mothers and 30 years for divorced mothers. Seventy-one percent of the never-married mothers in the sample reported depending on welfare or food stamps, compared to 80.5% of the divorced or separated mothers. According to London's analysis, divorced mothers receiving welfare average a year more education and are more likely to have completed high school than never-married mothers. Data from the research sample provided conflicting results. Of the divorced or separated mothers, 88.6 % of those receiving welfare and 89.6% of those not receiving welfare reported high school equivalency or a higher educational level; while among the never-married mothers, 90.7% of those receiving welfare and 91% of those not receiving welfare reported having attained at least a diploma or GED. Educational levels were comparable between welfare recipients and

non-recipients with 89.4% and 89.5% respectively reporting a diploma or GED or higher.

The majority of the subjects in the research sample were unemployed. Only 55, or 27.6% reported that they were working. The National Displaced Homemakers Network (1990), the National Network for Women's Employment (1994), and the U.S. Department of Education (1994) asserted that employment increases with level of education as illustrated in Figure 1. Date from the research sample was somewhat conflicting. Of the women reporting less than a high school diploma, 28.6% were employed. Of respondents with a high school diploma or GED, 24.6% were employed, while among those with a previous vo-tech certificate, 20% were employed. For those having completed some college or earning a 4-year degree, the employment rate was 38.6%.

The other variable of interest determined through the demographic questionnaire was occupational training choice. Item six on the questionnaire requested that the respondent provide the name of the vo-tech program in which she was enrolled. This information allowed the researcher to determine if training programs were traditional or nontraditional, and provided for a frequency count of occupations selected for training. A list of the selected occupations is shown in Table 7. Although based on similar curricula, programs may be identified by a variety of names across the state vo-tech system. The researcher grouped the courses according to similar occupational content for this listing.

Table 7

Selected Occupational Training Programs Among Female Single Parents in Research Sample

Course description or title	Number enrolled
Computerized office/business technology/secretarial	60
Health sciences/nursing aide	23
Practical nursing	17
Computerized accounting/bookkeeping	7
Child care/child development	6
Cosmetology	3
Data processing/microcomputer support	3
Laboratory technician	1
Food service	5
Marketing and management	4
Commercial art/graphic communications	4
Commercial and home services	1
Telecommunications/electronics	17
Drafting/auto CAD	8
Computer repair/computer network technician	7
Industrial technology/manufacturing	7
Auto mechanics	4
Printing	3
Aviation maintenance technology	3
Horticulture	3
Carpentry/cabinet making	3
Truck driving	3
Correctional officer	2
Diesel mechanics	2
Welding	1
Heating & air conditioning	1
Marine technology	1

In determining the traditionality of occupational training choice for the independent variable, the researcher used the U.S. Department of Labor (1993) definition of nontraditional occupations: those in which females comprise less than 25% of the workforce. Percentages of female employment were obtained from the State of Oklahoma 1995 Labor Force Information for Affirmative Action Programs Manual (OESC, 1995). Of the 199 women in the sample, 67 (33.6%) were pursuing training in a nontraditional occupation. Nine of the women in the sample reported previous training or education in a male-dominated field. Additionally, of the 55 women who were employed, nine (16 %) reported they were working in nontraditional jobs. U.S. Department of Labor statistics show that nationwide, 6.5% of women are employed in nontraditional occupations (Women's Bureau, 1996).

Questionnaires were also categorized based on responses to items three and six on the demographic questionnaire so that demographic characteristics could be compiled separately for the groups in each cell of the design. The groups were classified as welfare/traditional (W/T), nonwelfare/traditional (NW/T), welfare/nontraditional (W/NT), and nonwelfare/nontraditional (NW/NT). A comparison of group characteristics is presented in Table 8.

Table 8

Comparison of Characteristics of Respondents Grouped by Independent Variables

	W/T n = 79		NW/T n = 53		W/NT n = 34		NW/NT n = 33	
Age								
M	27		29		29		26	
SD	6		8		7		7	
	n	%	n	%	n	%	n	%
Single-parent status								
Divorced/separated	48	61	31	58	22	65	17	52
Never married	31	39	19	36	12	35	14	42
Widowed	0	0	3	6	0	0	2	6
Receive food stamps	77	97	25	47	34	100	13	39
Education level								
Below 12th grade	11	14	3	6	1	3	6	18
High school diploma/GED	46	58	30	57	20	59	18	55
Previous vo-tech certificate	9	11	6	11	4	12	1	3
Some college or jr. college	13	17	14	26	8	23	8	24
Other (college graduate)	0	0	0	0	1	3	0	0
Previous education or training								
Traditional occupation	27	34	27	51	11	32	8	24
Nontraditional occupation	3	4	1	2	2	6	3	9
Employed	12	15	21	40	6	18	16	48
Employed in nontraditional	0		0		3		6	

Note. W/T = Welfare/Traditional; NW/T = Nonwelfare/Traditional; W/NT = Welfare/Nontraditional; NW/NT = Nonwelfare/Nontraditional

Self-Efficacy Scale and Research Questions

The modified Occupational Self-Efficacy Scale followed the demographic questionnaire in the instrument packet. The modified OSES was used to assess the respondents' occupational self-efficacy, or confidence that they could complete the job tasks of the specified occupations. The scale consisted of 20 items, including ten traditional male occupations and ten traditional female occupations, arranged in random order. The Cronbach's alpha coefficient derived for the scale as completed by the research sample was .95.

Preliminary mean scores were calculated for responses to each item of the scale, the male and female occupation subscales, and the total scale scores for the sample. Individual items could receive a maximum of nine points. Item mean scores for the total sample ranged from 4.2 (SD = 3.1) for the occupation of drafter, to 7.4 (SD = 2.6) for the occupation of cashier. The mean score across the male occupations for the total sample was 4.8 (SD = 2.6). The mean score across the female occupations was 6.1 (SD = 2.1). These findings support the data reported in the OSES Manual (Betz & Hackett, 1993) and in the pilot study (Table 6) in that the females in the sample reported higher measures of self-efficacy for traditional female occupations. Total scale score means were calculated as the sum of the male and female subscale means, as they were in the data reported in the OSES Manual. The total scale mean for the sample was 10.97 of a possible 18 points with a standard deviation of 4.36.

Responses to the modified OSES were categorized for analysis by the independent variables (welfare status and occupational choice). Analyses of cell group scores were

performed to assist in answering the research questions. A comparison of total scale means and subscale means for the cell categories is provided in Table 9.

Table 9

Comparison of Modified OSES Scale and Subscale Scores Grouped by Independent Variables

	W/T n = 79	NW/T n = 53	W/NT n = 34	NW/NT n = 33
Total scale				
M	10.5	10.9	11.4	11.7
SD	4.6	4.4	4.3	4.4
Range	4.0 - 18.0	1.5 - 18.0	2.7 - 17.8	2.1 - 18.0
Male occupations				
M	4.4	4.3	5.8	5.7
SD	2.7	2.7	2.1	2.5
Female occupations				
M	6.1	6.6	5.6	6.0
SD	2.2	1.9	2.1	2.3

Note. W/T = Welfare/Traditional; NW/T = Nonwelfare/Traditional, W/NT = Welfare/Nontraditional; NW/NT = Nonwelfare/Nontraditional

A cursory examination of total scale score means between the groups indicated a difference in measures of occupational self-efficacy with respect to welfare status and to occupational training choice. The significance of the difference was tested using a general linear model (GLM) procedure. The GLM summary table is shown in Table 10. Examination of the table provides the answers to the research questions.

Table 10

GLM Summary Table for Occupational Self-Efficacy Scores

Dependent variable: Total SE score

Source	df	SS	MS	F Value	Pr > F
Model	3	43.24630225	14.41543408	0.76	0.5197
Error	195	3715.26877313	19.05266038		
Corrected Total	198	3758.51507538			

R^2	C.V.	Root MSE	Total SE Mean
0.011506	39.78847	4.36493532	10.97035176

Source	df	Type I SS	MS	F Value	Pr > F
Welfare	1	10.59813362	10.59813362	0.56	0.4567
Occupational Choice	1	32.56972155	32.56972155	1.71	0.1926
Wel. x Occ. Ch.	1	0.07844708	0.07847708	0.00	0.9489

Source	df	Type III SS	MS	F Value	Pr > F
Welfare	1	6.38411585	6.38411585	0.34	0.5634
Occupational Choice	1	32.12487636	32.12487636	1.69	0.1956
Wel. x Occ. Ch	1	0.07844708	0.07844708	0.00	0.9489

Question 1: Is there a difference in measures of occupational self-efficacy in female single parents who do receive welfare compared to female single parents who do not receive welfare? As shown in Table 9, the mean scores for the total scale were higher for women who were not receiving welfare. However, the results of the analysis indicated that the difference was not significant, $F(1,198) = 0.34$, $p > .05$.

Question 2: Is there a difference in measures of occupational self-efficacy in female single parents participating in nontraditional occupational training compared to those in traditional occupational training? Again, the mean scores reflected in Table 9 were higher for women in nontraditional occupational training compared to those in traditional occupational training. The results of the analysis indicated the difference was not significant, $F(1,198) = 1.69$, $p > .05$.

Question 3: Is there an interaction between receipt of welfare, occupational self-efficacy, and occupational training choice in female single parents? The results of the analysis indicated no interaction between the variables, $F(1,198) = 0.00$, $p > .05$. The lack of interaction is further illustrated when the mean scores are plotted by the independent variables, as illustrated in Figure 4.

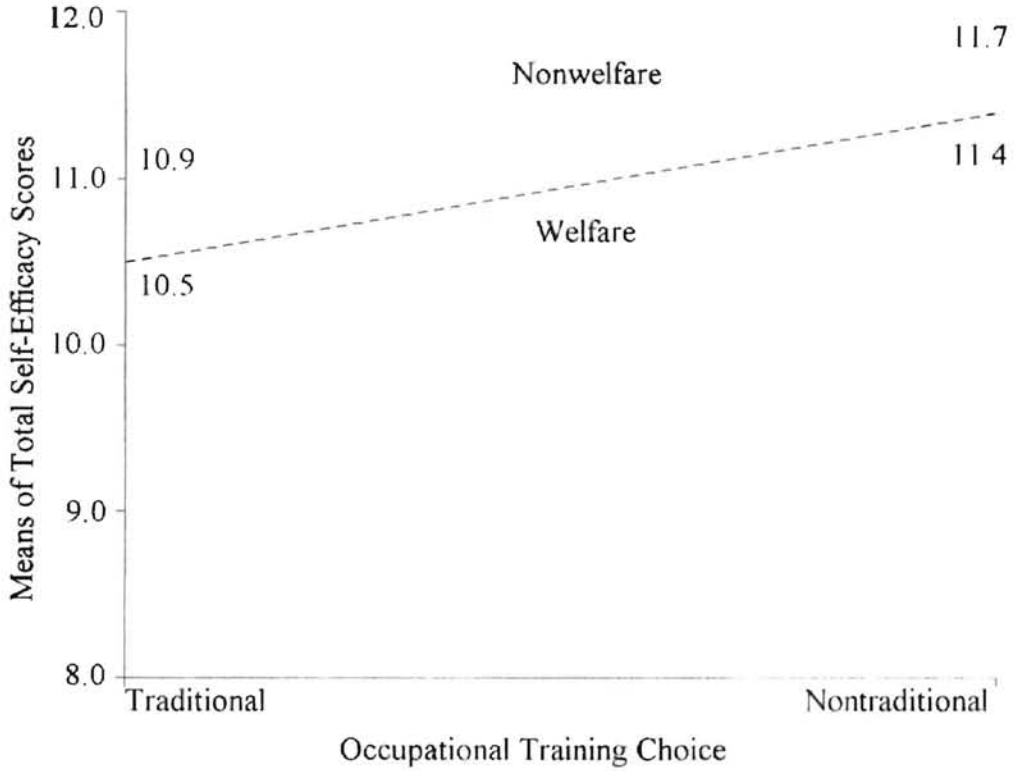

Figure 4. Welfare by Occupational Choice Plot of Means of Modified OSES Scores

Additional Analyses

Although it was not addressed by research questions, the researcher became intrigued with the possibility of differing scores on the male and female subscales, and the possibility of differences in self-efficacy by other variables. The results of those analyses are discussed in the following paragraphs.

Male and Female Subscale Analyses

The availability of scores for male and female subscales of the modified OSES permitted the researcher to perform additional GLM procedures. An examination of the mean score comparisons in Table 9 reveals that, with one exception, mean scores were higher for female occupations than for the male jobs listed on the instrument. Women enrolled in traditional occupational training provided higher ratings of self-efficacy for female occupations (6.1 and 6.6) than for male occupations (4.4 and 4.3), while the same comparison of scores for women in nontraditional training revealed inconsistent results (5.6 and 6.0 compared to 5.8 and 5.7). In contrast, when grouped by welfare status, the welfare groups showed lower scores for female occupations (6.1 and 5.6) than the nonwelfare groups (6.6 and 6.0), but scored slightly higher on male occupations (4.4 and 5.8) than the non-welfare groups (4.3 and 5.7). Two GLM procedures were run to test the significance of these differences, one using means from the female self-efficacy subscale and the other using means for the male subscale as dependent variables.

The GLM using the female subscale scores showed no significance in either of the main effects or the interaction. Type III values were: $F(1,198) = 1.77$, $p > .05$ for welfare

status, F (1,198) = 3.07, p >.05 for occupational choice, and F (1,198) = 0.00, p >.05 for the interaction. The GLM based on the male subscale means provided a different picture. The Type III value for welfare status was F (1,198) = .01, p >.05. The value for occupational choice was F (1,198) = 13.49, p <.05, indicating that the self-efficacy scores on the male subscale were significantly higher among women pursuing nontraditional training. As with the female subscale, the interaction was not found to be significant, F (1,198) = 0.01, p >.05.

Analyses by Other Variables

The researcher also examined differences in total scale and subscale means by welfare status and training choice, with the sample grouped by level of education. No significant differences were found in self-efficacy scores for subjects who reported less than a high school diploma. At educational level 2, high school diploma or GED, a total of 38 individuals were in the W/NT and NW/NT subgroups. The mean score on the male subscale for the group was 6.1. Significance was indicated for this group on this subscale, F (1,198) = 17.69, p <.05. No significant differences were found for any of the variables at educational level 3, previously completed vo-tech certificate, or level 4, some college or junior college.

A final set of GLM procedures were run for the total scale and each subscale by age levels. Two age levels were established: below age 30, and 30 years or above. Significance was indicated for the differences in male subscale scores for the under 30 group enrolled in nontraditional occupational training, F (1,198) = 14.25, p .<.05. This group also included 38 individuals, and had a mean score of 6.0 on the male subscale. No

other signficant differences were found for any other variables for the under 30 group. No significant differences were identified for the 30 years and over group for any of the variables on any of the scales.

CHAPTER V

CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Purpose of the Study

The problem that gave focus to this study is the growth in the number of female-headed households living in poverty, and the mandates of welfare reform requiring single parents depending on public assistance to enter employment and become financially self-sufficient. The researcher undertook an in-depth review of the literature to substantiate the severity of the problem and to examine the demographics of the population, including such issues as economic status, education and employment, and lack of participation in available education and training programs. The literature review also covered occupational choice, wage inequity, and barriers faced by women to pursuing nontraditional occupations. Although careers in traditional male occupations provide better opportunities for financial self-sufficiency, many female single parents face a number of external and internal deterrents to education or training and entry into a nontraditional career. London and Greller (1991) make the powerful point that women can be blocked by career opportunities as effectively by their own beliefs and assumptions as they can by the discriminatory practices of others.

The concept of self-efficacy seems to provide an explanation for, and a possibility of intervention regarding some of the deterrents faced by single mothers when pursuing

nontraditional employment. The researcher examined the theoretical framework of self-efficacy and looked at the construct as it relates to education and career development. Finally, literature was cited that addressed self-efficacy in relation to receipt of welfare and in relation to occupational choice. No research was located that specifically addressed the combined variables of self-efficacy, welfare status, and occupational choice.

Programs are available that can provide the education or occupational training to assist single mothers in workforce entry. However, these programs serve only a small percentage of the targeted audience. Many of the women in the eligible population appear to lack self-esteem and be low in self-efficacy. As a result, of the women that do elect to participate in training and education, most choose traditional female occupations that pay lower wage scales, making it difficult for a single mother to support herself and her dependent children.

The purpose of the study was to determine if there were any significant differences in self-efficacy scores by welfare status or by occupational choice among female single parents enrolled in vocational training. Betz and Hackett (1981) and others posit that self-efficacy is relevant to the modification of internal barriers and the management of external barriers to career-related behaviors. The identification of low self-efficacy expectations among women in the target population can help schools and agencies focus intervention efforts toward individuals and groups who are most in need of such programs and services.

Conclusions and Discussion

Demographic Characteristics

Although the research sample could not be considered representative, demographic information was gathered for comparison purposes. In many respects, the sample was different from the population as described in literature. Single-parent status fell close to the national averages, but a greater percentage of the sample appeared to be economically disadvantaged. The research subjects seemed to possess higher education levels than those reported for single parents nationally, but the comparison may not be considered valid because the subjects were obtained through a quota sample of women attending vocational education. In contrast to national data, employment among the women in the sample actually declined with increased educational levels. Again, the research sample statistics may be confounded by the fact that the entire sample was attending school. The changing work requirements mandated by welfare reform may also account for the results. Prior to the changes implemented in August of 1996, welfare recipients were given a maximum of two years to pursue education or training (U.S. Department HEHS, 1996). A possible explanation to the inverse relationship between employment and education level might be that the more recent entrants into vocational training are being required to enter employment sooner, while those who entered school before welfare reform have had more time to complete additional schooling without the work requirement.

Occupational Training Choice

In collecting data for the study, the researcher sought a minimum of 30 subjects per cell of the design so that a two-way ANOVA procedure could be run. Difficulties encountered in obtaining a sufficient number of responses from women enrolled in nontraditional occupational training resulted in unbalanced cell sizes and the use of a GLM procedure. During the initial phone calls to the vo-tech schools, the researcher learned that several of the schools had no nontraditional enrollments, and many had fewer than five women enrolled in nontraditional programs. As established in the literature (AAUW, 1995; Bowen, et. al., 1995; Grasso, 1990; Houser, et. al., 1992; Merriam & Caffarella, 1991; National Network for Women's Employment, 1994; and Nevill & Schlecker, 1988), occupational areas such as secretarial, health care, and other service careers were over-represented in enrollments among the research sample. Of the women in the research sample, 67 were enrolled in male-dominated areas of study, and 132 were pursuing typically female careers.

An examination of the selected occupations (Table 7) shows that 70 of the 199 women in the sample were enrolled in office-related fields including secretarial, data processing, and bookkeeping. An additional 40 were enrolled in health care occupations such as practical nursing or nursing aide. The concentration of enrollment in female fields is even more pronounced when one considers that the top eight job descriptions on the list are traditional female occupations, with 75% or more of the workforce in each being women. The next four -- food service, marketing and management, commercial and home services, and commercial art/graphics communications -- are gender-balanced, with nearly

equal proportions of female and male workers. The remaining 15 occupations, over half of the 27 on the list, meet the U.S. Department of Labor (1993) definition of nontraditional female occupations according to data from the State of Oklahoma 1995 Labor Force Information for Affirmative Action Programs Manual (OESC, 1995). Thus it appears that there are more course offerings for traditional male occupations than for traditional female or gender-balanced careers. If larger numbers of women would consider nontraditional fields, their career options would more than double.

Research Questions and Additional Analyses

The sample for the study was composed of female single parents, aged 18 through 40 years, enrolled in vocational-technical training. Briefly summarized, the study results indicated that.

1. The difference in self-efficacy scores between recipients and non-recipients of welfare was not significant.

2. The difference in self-efficacy scores between women enrolled in traditional and nontraditional occupational training was not significant

3. There was not a significant interaction between self-efficacy scores, welfare status, and occupational choice.

The lack of conclusive findings concerning the research questions does suggest some additional factors for consideration. One point is that, with the exception of a few individuals, none of the subgroups reported truly low self-efficacy scores. Total scale scores ranged from 0.4 to 18 out of 18 possible points. If the scale is split with 9.1 points and above designated as "high self-efficacy" and 9.0 and below designated as "low self-

efficacy", one finds that 67% of the total sample reported high levels of occupational self-efficacy. The male and female job subscales were each based on a zero to nine-point scale. Scores on the subscale of male occupations ranged from 0.0 to 9.0 points. The half-way point split resulted in 54% of the sample exhibiting high levels of self-efficacy toward male occupations. Scores on the female subscale also ranged from 0.0 to 9.0 points, but 77% of the total sample reported high self-efficacy toward traditional female occupations. Thus, while there is not a substantial difference in self-efficacy scores between the subgroups, a larger percentage of the women were more confident in their abilities to be successful at traditional female careers. This substantiates Nevill and Schlecker's (1988) finding that both the high and low self-efficacy women in their study were more positive toward female occupations than toward male occupations.

On the other hand, there is also the question of significance identified in three instances through the additional analyses. The first is the observation of higher scores on the male subscale among the women enrolled in nontraditional training compared to the scores of the women enrolled in traditional courses (Table 9). However, a comparison of the within-group differences in mean scores on the male and female subscales, indicates that they are nearly identical. While the nontraditional women were more efficacious toward male occupations than their female counterparts, the nontraditional women were not any more confident toward the male occupations than they were toward the female jobs. Again, this seems to support Nevill and Schlecker's (1988) findings.

Nontraditional women who had attained a high school diploma or GED and nontraditional women under the age of 30 also showed higher scores on the male subscale than the women from the same groups who were enrolled in traditional training. Further

analysis revealed that the high school diploma/GED educational level ($n = 39$) and under 30 year age level ($n = 37$) groups contained 24 common members. The relative youthfulness of the groups might provide the explanation for higher self-efficacy scores. The older group members have likely received greater socialization in traditional gender and occupational roles as proposed by Hackett and Betz (1981), Nevill and Schlecker (1988), Stringer and Duncan (1985), and others. This same observation was made by Read (1991), who found almost no women over age 45 in her study enrolled in nontraditional training.

Another consideration is the timing of the study The researcher chose to collect the data near the end of the school year as the subjects were preparing to search for and enter employment. Having successfully completed nearly a full year of education and training, it is reasonable to assume that the women should be confident in their abilities to fulfill the job tasks of a number of occupations. This explanation is coupled with the point that the vocational system in Oklahoma provides support in varying degrees for single parents and displaced homemakers, young women pursuing nontraditional occupations, and recently, for those compelled by welfare-to-work mandates. The lack of significant differences in self-efficacy scores among subjects completing a school year could point to the success of these programs.

The researcher targeted subjects through the Single Parent/Displaced Homemaker Programs. As pointed out by Read (1991), one of the purposes of this program is to encourage and support women to enter occupations through which they can become self-sufficient. Read found in her research that most of the SP/DH program participants chose traditional or gender-balanced courses, but that there was a strong link between

participation in sex-equity programs and nontraditional enrollment. Schools in the Oklahoma vocational system consider some traditional female careers as nontraditional because they pay a higher wage than most female occupations. An example is the licensed practical nursing program. A woman enrolled in the practical nursing program is counted as a nontraditional enrollment by the school, even though she is pursuing an occupation in which 92% of the workforce is female (Carolyn Wheeler, telephone interview, March 25, 1997).

Implications for Further Study

Although the results of the present study were inconclusive regarding self-efficacy levels among the target population, the fact remains that a small percentage of women pursue and enter nontraditional careers. Further research could help determine why so few women train for higher wage, male-dominated occupations. One suggestion is to compare self-efficacy scores from the subgroups in the present study with scores of women who do not enroll in any occupational training. Another avenue for exploration is to conduct a similar study comparing self-efficacy scores at the beginning of the school term to those at the end of the year, with an examination of the interventions that occured in the interim.

A focus group study might also prove beneficial in identifying areas of deterrents and services to address those deterrents. Read (1991) conducted a focus group study and career choice survey of women enrolled in traditional and nontraditional programs in Wisconsin. She located a significant number of women engaged in nontraditional training. In addition to finding differences in self-efficacy levels between women in traditional and nontraditional programs, Read identified a number of factors that impact vocational

enrollment choice and formulated several recommendations for practice. Wisconsin is a state on the cutting edge of welfare reform. Other states that are in the process of implementing policies and practices would do well to consider the strengths and weaknesses of Wisconsin's programs.

The states such as Wisconsin that initiated early welfare reform measures also afford an opportunity to investigate the long-term effects of intervention. Research could be conducted to determine the extent of nontraditional placements and retention a year or more after the completion of training. Do the efforts of the SP/DH and gender-equity programs help ensure long-term self-sufficiency or do they only offer a quick fix?

Attention might also be focused on the services provided by the schools and programs. The AAUW (1995) asserted that one barrier to women entering nontraditional occupations is the gender-conscious nature of programs in area vo-techs and community colleges. Are women being steered toward traditional enrollments by counselors and advisors, or does discrimination that deters interest in some programs exist in the classroom? As previously stated, one function of the SP/DH programs is to promote financial self-sufficiency. Are the women participating in the programs receiving enough encouragement from vo-tech staff and instructors to explore and pursue nontraditional occupations? Does it truly help overcome barriers to count a female-dominated occupation like practical nursing as a nontraditional enrollment simply because the pay scale is somewhat higher than that of a data entry clerk or child care worker? Further analysis of enrollment patterns and evaluation of support programs should be undertaken to identify and address bias.

Implications for Practice

Hackett and Betz were some of the earliest researchers to explore career development and occupational choice of women. Since their 1981 studies, a substantial amount of research has been conducted to replicate and expand upon their findings. As a result, the literature offers abundant recommendations for practice.

Some suggestions center on recruitment. Recruitment should be used as a method of providing information on options so that choices may be made, rather than a method of enticement into programs (Howell & Schwartz, 1988). Bradley (1987) supported the need to overcome the information barrier She suggested using volunteers in housing projects and low-income areas to distribute flyers informing single parents of available programs. Such notification can also be made through posters in public places, announcements in the local media, and by networking through churches, social service agencies, and other community-based organizations. Needs assessments of prospective participants could also be conducted during this phase through interviews or questionnaires, to help tailor the programs.

While it is important for agencies and organizations to work together, the school should be instrumental in the recruiting efforts. One method that might prove effective is an open house at the area vo-tech An open house would provide an opportunity for staff, instructors, and graduates to introduce the training programs, and would offer a chance for potential students to have limited hands-on experiences with nontraditional tools and equipment. It is important to have women graduates of nontraditional programs available to answer questions, allay fears, and serve as role models (Howell and Schwartz, 1988)

Information should also be made available about the local and regional labor market including, employment rates, supply and demand, wage scales, and opportunity for growth and advancement. Wingate and Woolis (1992) proposed that "schools should identify attracting girls and women into nontraditional programs as an institutional value and should incorporate it into performance standards" (p. 7). If the enrollment of women into nontraditional courses was considered an institutional value rather than an enhancement, it would help overcome stereotypes and bias among the staff, instructors, and the community.

In addition to recruitment, efforts should be made in relation to retention. The assessment and addressing of participant needs is a key factor in retaining single parents in education and training. Wikelund (1993) identified course relevancy to participants as a critical issue. No doubt a single mother's perceptions of her educational, skill, and self-sufficiency needs may vary from those of the institutions, agencies, and community. Additionally, single mothers may face outside demands that are more urgent than attending class. The National Institute for Literacy (1994) found that low-income female heads of household were four times more likely to face life events requiring adjustments than other individuals. These events, including loss of housing due to fire or eviction, family illness, unsafe housing conditions, domestic violence, and neighborhood crime, upset family stability and frequently interfere with persistence in education and training. Wikelund concluded that programs should adopt a holistic view of participants and provide congruence between participant needs, reasons, and goals for learning and the goals of the program.

Bandura's (1977) model of self-efficacy appears to have direct relevance to retention efforts. Bandura hypothesized that self-efficacy helps determine whether behavior will be initiated, how much effort will be given, and how long the effort will be maintained in the face of obstacles or negative experiences. Self-efficacy is dynamic, influencing and influenced by performance. Initiatives offered by the Oklahoma vocational system such as the SP/DH program, Careers Unlimited, and the new Welfare-to-Work program appear to use the four sources of information through which self-efficacy can be acquired or changed. The sources of information and some associated practices are:

1. Performance accomplishments -- recognition of achievement through honor rolls, certificates, and awards. The acknowledgement of accomplishments helps establish and build a positive attitude and increase motivation toward additional education.

2. Vicarious experiences -- observing behavior and accomplishments of others through models, mentors, and interaction with previous graduates. Some schools place strong emphasis on job shadowing and mentoring to provide this support.

3. Verbal persuasion -- encouragement from others is provided to varying degrees through program coordinators, instructors, case managers, counselors, and classmates. Many SP/DH programs offer support group meetings and bring in speakers to address self-esteem, family management, and other life skill issues.

4. Emotional arousal -- feelings of anxiety may also be addressed by the first three methods. In extreme cases, referrals are made to outside intervention sources.

Houser, D'Andrea, and Daniels (1992) concluded that a systematic approach, using a combination of the four methods can help increase self-efficacy and success among low-income women. It is recommended that the courses and supporting programs

available through the vocational technical system offer consistent support based on Bandura's four methods.

Summary

There are a variety of programs available to support single mothers in their employment efforts, including single parent/displaced homemaker, welfare-to-work, and gender-equity programs. Based on the relatively positive self-efficacy scores exhibited by the research sample, it appears that these support programs are, at least partially successful. However, the study also found that the majority of the women in the sample selected traditional female occupations, despite gender-equity efforts.

It is especially critical in today's economy that the support services offered by the schools and programs meet the needs of targeted populations In many areas of the country, single mothers are being ushered off welfare and into low-paying jobs. Adult and vocational education provide a unique avenue for broadening women's career horizons and for decreasing gender stereotypes and occupational segregation. Stronger approaches toward serving the targeted population could help female single parents successfully complete training and enter the nontraditional labor market, enhancing the potential for self-sufficiency and decreasing the likelihood of a return to the welfare rolls. While the ultimate responsibility for career and financial stability lies with the single mother, the schools and educational support programs are in a position to provide the tools for her to set and achieve career and financial goals

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APPENDIXES

APPENDIX A

DISTRIBUTED COVER LETTER

Dear Student:

I am conducting a study of job training choice among single mothers. The study is being done as a thesis requirement for a Master's degree in Occupational and Adult Education at Oklahoma State University. You were selected as a possible participant for this research because you are a single parent enrolled in a vocational course. An additional requirement is that you are between 18 and 40 years of age.

You are under no risk in assisting me. If you meet the requirements as outlined above, and agree to participate in this research project, the project should take less than 15 minutes of your time to complete. I am asking you to fill out a short questionnaire to gather some background information, and to answer a 20-question survey concerning your confidence in completing the job duties for 20 different occupations.

Your participation is valuable to my research, but is entirely voluntary. You may terminate your involvement at any time with no penalty whatsoever. All information collected through these surveys is completely confidential, and will not be shared with anyone in any form that would identify you with your answers. All the data I gather will be used for research purposes only, and will be grouped together for reporting. Your course instructors will not have access to any completed surveys.

If you have questions about the research, or need to talk to me after you fill out the survey, you can contact me by calling (405) 377-1135 during the day or (405) 372-7688 after 5 pm. You may also contact me by writing to:

Oklahoma State University
School of Occupational and Adult Education
204 Willard Hall
Stillwater, OK 74078
Attn: Cathy Southwick

If you ***do not meet the characteristics*** (single mother, 18 - 40 years old, enrolled in vocational training), or ***do not wish to participate*** in this research, please return the blank survey forms.

If you ***do wish to participate*** in this research, please keep this letter for future reference. Fill out the survey forms on both sides of the attached page, and return the forms when you have them completed.

Please ***do not*** put your name anywhere on the survey forms.

Your assistance and participation is important and greatly appreciated.

Sincerely,

Cathy Southwick

APPENDIX B

DISTRIBUTED DEMOGRAPHIC

QUESTIONNAIRE

Background Information

This sheet is designed to gather some background information about you. It will help determine any relationships between certain characteristics and vocational training choice. Once again, this information is entirely confidential and will not be shared with anyone in a form that would identify you with your answers. Please write or circle your response to each question.

1. What is your age?

2. What is your single parent status? Circle one:

   Divorced or separated

   Widowed

   Never married

3. Do you receive AFDC? Yes No

4. Have you received Food Stamps within the last 6 months? Yes No

5. What is your highest educational level completed? Circle one:

   Some high school, didn't finish

   High school graduate or GED

   Previously completed a vo-tech certificate

      If so, what subject?

   Some college or junior college

      If so, what major?

   Other

6. What course are you currently enrolled in at this vo-tech?

7. Are your currently employed? Yes No

   If so, what is your occupation?

Please turn this page over & complete the other side

APPENDIX C

DISTRIBUTED SELF-EFFICACY

SCALE

INSTRUCTIONS: For each occupation listed below, please indicate how much confidence you have that you could successfully perform the job duties of the occupation if you had the necessary education and/or training.

	YOUR CONFIDENCE									
Occupation	No Confidence At All	Very Little Confidence			Some Confidence		Much Confidence		Complete Confidence	
Auto Body Repairer	0	1	2	3	4	5	6	7	8	9
Groundskeeper or Gardener	0	1	2	3	4	5	6	7	8	9
Registered Nurse	0	1	2	3	4	5	6	7	8	9
Drafter	0	1	2	3	4	5	6	7	8	9
Elementary Teacher	0	1	2	3	4	5	6	7	8	9
Surveyer	0	1	2	3	4	5	6	7	8	9
Computer Installer & Repairer	0	1	2	3	4	5	6	7	8	9
Lawyer	0	1	2	3	4	5	6	7	8	9
Receptionist	0	1	2	3	4	5	6	7	8	9
Dietician	0	1	2	3	4	5	6	7	8	9
Engineer	0	1	2	3	4	5	6	7	8	9
Electrician	0	1	2	3	4	5	6	7	8	9
Secretary	0	1	2	3	4	5	6	7	8	9
Bookkeeper	0	1	2	3	4	5	6	7	8	9
Cashier	0	1	2	3	4	5	6	7	8	9
Nursing Aide	0	1	2	3	4	5	6	7	8	9
Truck Driver	0	1	2	3	4	5	6	7	8	9
Hairdresser or Cosmetologist	0	1	2	3	4	5	6	7	8	9
Security Guard	0	1	2	3	4	5	6	7	8	9
Dental Hygienist	0	1	2	3	4	5	6	7	8	9

Adapted from the Occupational Self-Efficacy Scale. Betz, NE. & Hackett, G. (1981)

APPENDIX D

COVER LETTER TO

INSTRUMENT ADMINISTRATORS

Date

Name
Area Vo-Tech
Address
City, State, Zip

Dear Name:

Thank you so much for you willingness to assist in my graduate research. I have enclosed 50 copies of the instrument and cover letter. I hope you'll find it convenient to administer during one of your regular group meetings. In the pilot test, it took approximately 10 minutes for the subjects to read the letter and complete the questionnaire.

As I explained in my phone conversation with you, I am looking for single mothers, 18 - 40 years old, who are attending area vo-techs. I am investigating differences in self-efficacy scores for subjects who do and do not receive public assistance in the form of TANF, differences in self-efficacy scores as they relate to traditional or nontraditional occupational training choice, and for a possible interaction of the variables. Because of the design, I need women who are receiving assistance, women who are not receiving assistance, women enrolled in traditional occupational training, and women in nontraditional occupational training. If you can especially target women enrolled in a nontraditional program, it would be very helpful as my response rate from this group has not been so great thus far

I am not including a script for administration of the instrument. The respondents should be instructed to read the cover letter and all instructions carefully before completing the questionnaires. The main points they need to understand are that: responding to the instrument in voluntary, they are at no risk, and their confidentiality is assured. They may use a pencil or pen to complete the instrument. They should answer all questions as honestly as possible and to the best of their ability.

Please take a minute to look over the cover letter & instrument. If you have any questions or concerns, I can be reached during the day at 405-377-1135 or evenings at 405-372-7688. I am enclosing a self-addressed, stamped envelope for the return of the completed questionnaires. If possible, I would like to have them returned by the end of the regular school term.

Again, you have my extreme gratitude for your assistance with this research. I'll be glad to share the results of my study when it is complete, if you are interested

Sincerely,

Cathy Southwick

APPENDIX E

FOLLOW-UP POSTCARD

Just a Reminder --

I am still in need of responses to the questionnaires I sent to your program several weeks ago. If you have any at all complete, would you please send them to me. If you have not had time to administer the questionnaires & won't be able to do so, please let me know so that I can exclude your group from the sample. Excuse this reminder if it has crossed your packet in the mail.

I am hoping to compile the data and run the statistics before the end of the month, so additional input from your group would be very helpful. The response rate has been pretty good thus far, but not as high as I had anticipated from the initial phone calls I made

Again, thank you for your assistance with this project

APPENDIX F

INTERNAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 03-27-97 **IRB#: ED-97-093**

Proposal Title: AN ANALYSIS OF THE RELATIONSHIP BETWEEN SELF-EFFICACY, THE RECEIPT OF WELFARE AND OCCUPATIONAL CHOICE IN FEMALE SINGLE PARENTS

Principal Investigator(s): Robert E. Nolan, Catherine Southwick

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature:  Date: March 27, 1997

Chair of Institutional Review Board

cc: Catherine Southwick

2

VITA

Catherine J. Southwick

Candidate for the Degree of

MASTER OF SCIENCE

Thesis: AN ANALYSIS OF SELF-EFFICACY, WELFARE STATUS, AND OCCUPATIONAL CHOICE IN FEMALE SINGLE PARENTS

Major Field: Occupational and Adult Education

Biographical:

Personal Data: Born in Tulsa, Oklahoma, December 11, 1958, the daughter of James and Doris Cradduck.

Education: Graduated from Charles Page High School, in Sand Springs, Oklahoma, May, 1977; received Bachelor of Science degree in Family Relations and Child Development from Oklahoma State University, Stillwater, Oklahoma in May 1981; completed requirements for Master of Science degree with a major in Occupational and Adult Education from Oklahoma State University, Stillwater, Oklahoma in December 1997.

Professional Experience: Job Developer, East Central Workforce Development/JTPA, Stillwater, Oklahoma, October 1994 to present; Program Coordinator, Oklahoma State University, October 1990 to October 1994.

Professional Membership: Workforce Oklahoma Employment and Training Association.