

The Pennsylvania State University

The Graduate School

College of Education

**EXPERIENCES OF WOMEN IN NON-TRADITIONAL OCCUPATIONS  
IN A UNIVERSITY SETTING:  
IMPLICATIONS FOR CAREER DEVELOPMENT**

A Thesis in

Workforce Education and Development

by

Sungmi Jin

© 2007 Sungmi Jin

Submitted in Partial Fulfillment  
of the Requirements  
for the Degree of

Doctor of Philosophy

December 2007

The thesis of Sungmi Jin was reviewed and approved\* by the following:

Judith A. Kolb  
Thesis Advisor  
Chair of Committee  
Associate Professor of Education  
In Charge of Graduate Programs in Workforce Education and Development

Kenneth C. Gray  
Professor of Education

William J. Rothwell  
Professor of Education

Edgar P. Yoder  
Professor of Agricultural and Extension Education

\*Signatures are on file in the Graduate School.

## ABSTRACT

Women's participation in the workforce has dramatically increased and a great amount of literature has discussed women's issues in the labor market. Despite women's significant advancement, occupational segregation by gender is still persistent. This segregation tends to concentrate women in certain occupations and men in others. Even within the same occupation, division of work by gender remains a distinct phenomenon. The issues regarding workplace segregation by gender has gained significant attention in research and practice.

At the same time, theories of career development, derived from various perspectives of careers, have explored unique patterns and characteristics of women's careers. In addition to differences in career patterns, women appear to perceive the meaning of their careers differently than men. Led by this notion of women's difference in career experiences, this study aims to describe women's experiences in non-traditional occupations that have been dominated by men. The study also explores the meanings women derive from careers. For this purpose, in-depth interviews with 12 participants from five occupations in a university setting were conducted and interviews were analyzed by qualitative methods. Research questions specified five different interests regarding women's career development in non-traditional occupations: 1) career entrance, 2) issues as a woman in a non-traditional occupation, 3) coping strategies for issues experienced by women, 4) perceptions of the university as a work environment, and 5) meanings of careers as defined by women.

The paths participants took to arrive at their occupations revealed complexity in women's career choices and the themes identified are: 1) undecided but making the best choice, 2) getting ready for male-dominated occupations, 3) parents' influences in formative ways, and 4) benefits of prior work experience. The issues that participants experienced as women in non-traditional occupations include stereotyping, harassment, exclusion from male-bonded culture, and recognition of differences between men and women at work. In order to cope with issues and difficulties as women in male-dominated environments, women adopted various strategies: 1) proving their ability, 2) showing confidence, 3) knowing male culture, 4) building special bonds with colleagues, and 5) avoiding emotional reactions and communicating.

The university was perceived as a positive work environment for women and participants reported they enjoyed their work in terms of serving students and working with students. Their perceptions of the university environment also included negative issues such as divisions of different work groups and perceptions as a minority compared to the same occupations in industry outside the university. Regarding their meanings for career, themes emerged which contributed to their career successes: happiness, accomplishment and commitment, independence, and balance between family and work.

Recommendations for future research and practice are suggested for women's career development and advancement.

## TABLE OF CONTENTS

List of Tables .....	viii
List of Figures .....	ix
Acknowledgments.....	x
Chapter 1. INTRODUCTION.....	1
Background.....	1
Purpose of the Study .....	5
Significance of the Study .....	6
Research Questions.....	8
Definition of Terms.....	9
Non-traditional occupations.....	9
Career.....	9
Scope of the Study .....	9
Limitations of the Study.....	10
Chapter 2. LITERATURE REVIEW.....	12
Introduction.....	12
Women’s Career Development.....	14
Career as Individual Choice.....	14
Trait-Factor Theory.....	15
Sex-Role Theory .....	17
Career as Life Development .....	18
Women in Non-traditional Occupations .....	22
Occupational Segregation by Gender .....	23
Human Capital Approach .....	23
Cultural Approaches on Gendered Labor .....	24
Women in Male-dominated Organizations.....	26
University Work Environment.....	29
Work Life Issues of Administrative Staff.....	30
Women in University Work Environment.....	32
Chapter 3. METHODOLOGY .....	34
Research Design.....	34
Data Collection .....	38
Sampling Strategies .....	38

Participant Selection .....	38
Description of Participants.....	40
Interviews.....	41
Ethical Issues .....	42
Data Analysis.....	43
Phase 1: Crafting a Profile .....	44
Phase 2: Labeling.....	44
Phase 3: Making Connections.....	45
Phase 4: Generating Themes.....	46
Researcher Role and Assumptions.....	48
Enhancing Research Quality.....	48
Credibility .....	49
Transferability.....	51
Dependability .....	52
Confirmability.....	53
Summary.....	53
Chapter 4. STUDY RESULTS .....	55
Review of the Study.....	55
Research Findings.....	56
RQ1. How Did Participants Come to Non-traditional Occupations?.....	56
Pathway 1: Undecided but Making the Best Choice at the Needed Time .....	57
Pathway 2: Getting Ready for Male-dominated Occupations .....	59
Pathway 3: Parents' Influence in a Formative Way.....	61
Pathway 4: Benefits of Prior Work Experience.....	63
RQ2. Issues Experienced as Women in Non-traditional Occupations .....	64
Issue 1: Stereotyping by Gender .....	65
Issue 2: Harassed or Teased.....	68
Issue 3: Exclusion from Male-bonded Culture .....	71
Issue 4: Men and Women are Different.....	73
RQ3. Coping Strategies in Male-dominated Environments .....	75
Strategy 1: Prove Yourself.....	76
Strategy 2: Be Confident Always. ....	79
Strategy 3: Know Male Culture. ....	82
Strategy 4: Special Bond with Colleagues.....	84
Strategy 5: Control Emotional Breakdown and Communicate Properly.....	86
RQ4. University as a Work Environment.....	90
Positive 1: Good Environment as Women's Workplace .....	91
Positive 2: Enjoyable Mission for Educational Goal.....	93
Positive 3: Students Keep Me Young .....	95
Negative 1: Generational Gap among Workers .....	96
Negative 2: Little and Minor World .....	97
Negative 3: Divide among Different Groups in the Workforce .....	99

Negative 4: Negative Influences of Politics.....	102
RQ5. What Defines Their Careers as Meaningful to Them?.....	104
Meaning 1: Happiness.....	104
Meaning 2: Accomplishment and Commitment.....	106
Meaning 3: Independence.....	107
Meaning 4: Balancing Family and Work.....	109
Summary of Results.....	111
RQ1. How Did Participants Come to Non-traditional Occupations?.....	111
RQ2. Issues Experienced as Women in Non-traditional Occupations.....	112
RQ3. Coping Strategies in Male-dominated Environments.....	113
RQ4. University as Work Environments for Women.....	114
RQ5. Meaning of Career and Career Success.....	115
Chapter 5. DISCUSSION AND RECOMMENDATIONS.....	116
Introduction.....	116
Review of the Study.....	117
Discussions and Implications.....	118
Career Entrance: How Did They Come to Their Occupations?.....	119
Issues Experienced as Women in Non-traditional Occupation.....	121
Coping Strategies in Male-dominated Environments.....	124
University Work Environment.....	126
Meaning of Career.....	128
Recommendations.....	130
Recommendations for Future Research.....	130
Recommendations for Practice.....	132
Summary.....	134
REFERENCES.....	139
Appendix A: Interview Guide.....	152
Appendix B: Recruitment Material.....	154
Appendix C: Informed Consent Form.....	156
Appendix D: Example of Initial Codes.....	159
Appendix E: Example of Categorization.....	162

## LIST OF TABLES

Table 1	Demographics of Participants	41
Table 2	Indicators and Strategies Used to Enhance Quality of the Study	54
Table 3	Summary of Themes Emerged from Experiences of Career Entrance	57
Table 4	Summary of Issues Experienced as Women in Non-traditional Occupations	64
Table 5	Summary of Coping Strategies in Male-dominated Environments	75
Table 6	Summary of Perceptions on University as a Work Environment	90
Table 7	Summary of Meanings of Career Defined by Participants	104



LIST OF FIGURES

Figure1	Literature Review Map	13
---------	-----------------------	----

## ACKNOWLEDGMENTS

Mom, my truest believer,  
From the very first moment, you always believed in me.  
Dad, my strongest shield,  
Every time I needed you, you were there for me. You are my shelter second to none.  
And my brothers, my eternal support,  
You stayed by my side and gave me the strength to go on and pursue my dreams.

You, my family, because of you I live.

Dr. Judith A. Kolb, a greatest advisor, my guardian,  
Your abiding care and encouragement nurtured me  
All the way, beyond the role of great advisor.  
Dr. Kenneth C. Gray, an ardent educator, my teacher,  
Every talk with you incited me to seek out better ways,  
Shed a light on my path, along, in search of truth.  
Dr. William J. Rothwell and Dr. Edgar P. Yoder, my keen judges,  
You provided your insight to get my work complete.  
Dr. Shinil Kim and Dr. Soonghee Han, my lifelong teachers,  
You showed me the way of learning.  
Thirteen unforgettable participants, protagonists of my work,  
You were the foundation of my work, the fountain of true pleasure along the journey.

You, my teachers, because of you I grow.

Sookyong, Hyeonjeong, and Changgook, my precious companions,  
You cheered me, cared for me; your hearts moved mine.  
My friends at Happy Valley, my unexhausted source of joy,  
Every moment we shared together colored my life shiny.

You, my friends, because of you I breathe.

Lord, my savior,  
You found me when I was lost, sent me these people I cherish.

Because of you, I love.

## CHAPTER 1

### INTRODUCTION

#### Background

Women's participation in the labor force has increased gradually over the past decades. According to data from the U. S. Department of Labor, women comprised 42.5% of the total paid labor force in the United States in 1980; the percentage increased to 45.2% in 1990, and to 46% in 2004 (U.S. Department of Labor, Bureau of Labor Statistics, 2005). In addition to women's increased participation in the workforce, women's issues in employment have been studied as a popular and interesting topic both worldwide and across disciplines (Bagilhole, 2002).

Despite the dramatic increase in women's participation into the workforce, a gender discrepancy exists in occupations in that males still dominate in some occupations; whereas, females are more prevalent in other areas (Anker, 1997; Bagilhole, 2002; Hesse-Biber & Carter, 2005). Women outnumbered men in occupations such as secretarial and administrative services, education, health services, social services, and nursing (U.S. Department of Labor, Women's Bureau, 2005). On the other hand, women remain a minority in such occupations as machine operation, construction, engineering technicians, transportation, and police officers. In these, the proportion of women is less than 25% of total employment. Although women's participation has increased in occupations such as law, sales, and medicine, which were non-traditional occupations for women in the 1980s (U. S. Department of Labor, Women's Bureau, 2005), occupational

segregation by gender remains a persistent aspect of the labor force (Anker, 1997; Charles & Grusky, 2004; Jacobs, 1989).

Theoretical explanations have been offered to account for the pervasiveness of gender segregation and inequity in the workforce. The functionalist paradigm emphasizes the different functional roles, norms, and values for men and women, and women's position in the workforce and career choice are considered reflective of this division (Hesse-Biber & Carter, 2005). The occupations held typically by women, such as secretarial, childcare, nursing, and post-secondary school teaching, reflect traditional female roles of nurturing, caring, and supporting. This approach focuses on individual differences in ability and on-the-job training experiences of women. Women are viewed as lacking essential qualities: a lack of specific job-related abilities and credentials to personality traits, to pursue specific types of work which have been traditionally dominated by men. Even when women enter male-dominated occupations, gender roles and family responsibilities may influence and limit the specialty areas they select.

Human capital theory explains occupational segregation based on this assumption that focuses on individual choice in the labor market: Women invest their capital for employability, such as education, skills, credentials, less than do men; thus, this results in unequal occupational attainments and limitations in making career choices (Anker, 1997; Becker, 1975; Cohn, 1996). However this theory is criticized for its conceptual shortcomings that results largely from its focusing exclusively on individual factors (Hesse-Biber & Carter, 2005), and many studies show empirical evidence that one's investments in human capital are not exclusive determinants for gaps in occupational attainment between men and women (Corcoran & Duncan, 1979; England, 1982).

While individual approaches and human capital theory assume that women's voluntary choice of female jobs accounts for gendered division in occupations, the structural approach emphasizes the policies and practices of social institutions that confine women to particular occupations (Benokraitis & Feagin, 1995; Headlee & Elfin, 1996). From a structural perspective, women's position in the labor market results from structural limits on women's access to better labor opportunities. The structural restraints for women's progression into male-dominated jobs include hierarchy in the labor market between primary sector with high-paying jobs and secondary job sectors such as semiskilled and service work (Stevenson, 1975), and continuous exclusion of women in the employment mechanism (Milkman, 1980).

The limitation of gender is not just the distinction of occupations and industries where male and female are disproportionately represented. Women encounter restriction from more responsible positions in the workplace when compared to men with similar backgrounds and education (Brett & Stroh, 1997; Melamed, 1995).

The barriers in women's career advancement and mobility in organizations have undergone study in various ways. Studies of organizational cultural climate provide understanding of how individuals act in an organization and what assumptions govern their daily actions (Schein, 1990). Women managers are perceived as "less aggressive and independent than their male counterparts, though typically possessing better interpersonal skills" (Northcraft & Gutek, 1993, p. 220-221). The prevalence of gender stereotyping regarding managers within organizational environments stymies women's upward movement in an organization, and even in professional occupations women are often stereotyped and excluded from the male culture (Harrington, 1995). In addition to

formal and informal practices in an organization, the lack of opportunities for networking and mentoring also hinder women in developing critical skills required in specific work environments (Northcraft & Gutek, 1993; Ragins & Cotton, 1991).

Women in non-traditional occupations are assumed to face more restrictions in their career development when compared to their counterparts in female-dominated jobs, both in occupation entry and career advancement. Kanter (1977) argued that women in male-dominant occupations encounter the problems of token status that results in performance pressures, social isolations, and stereotyping. High visibility of women's presence due to scarcity in the organization creates performance pressures on women; women feel the need to work harder in order to have their achievements noticed by other colleagues. The tendency of contrast exaggerates women's differences with men, and thus makes them isolated from males; the characteristics of a woman can be distorted by stereotypes or generalization toward women.

An increasing number of research studies (Gallos, 1989; Gilligan, 1982; Hesse-Biber & Carter, 2005; Powell & Mainiero, 1992) had the purpose of identifying women's uniqueness in career development and career barriers. Although not receiving as much attention as general exploration of women's career and work issues, women in non-traditional occupations also have gained attention from differing viewpoints of why women are scarce in certain occupations and distinct lines of studies in explaining the phenomenon.

Theories from neo-economics' viewpoint focus on patterns and characteristics of women's paid employment and explain the rational choice of women based on the relationship between family and paid employment. Sociological standpoints are more

likely to look at the influences of gendered labor on people's lives and organizations. Contrary to macro-level observations, studies in psychology and counseling emphasize the process of individual choice and development in a career while trying to seek and explain individual factors influencing career choice and advancement. Thus, all those theoretical viewpoints contribute to understanding the characteristics of the work lives of women in non-traditional occupations; each of them provides a useful lens with which to grasp a comprehensive portrayal of working women in male-dominated occupations.

Studies of women in non-traditional occupations have explored different interests suggesting diverse issues with regard to women's careers. But paucity exists for attempts to describe individual women's experiences in non-traditional occupations in specific organizational contexts. This study focuses on the concept that women's careers have unique patterns and meanings as their work experiences unfold with their lives. The research aims to fill the gap in research that formerly focused only on either structural explanations or individual attributes when exploring careers of women in non-traditional occupations.

### Purpose of the Study

In spite of considerable research that exists for women's career development, few studies have considered how female individuals develop their careers in non-traditional and male-dominated work settings. For example, when talking about the topic of career development, most studies have an implicit assumption of the male-centered concept of a career, in which success is primarily defined by rewards, earnings, and promotions

gained, and linear advancement in the organization. Conventional studies on women's career development tend to reduce individual meanings of work and career to matters of obstacles to career opportunity, the equalization of rewards and benefits, and concern for children (Elias, 1982; Flanders, 1994).

To address this gap in the research, the primary purpose of this study is to explore how individual women enter non-traditional careers, and how they develop and build their careers. More specifically, this study intends to describe common and shared experiences of women working in different areas of non-traditional occupations in the university setting by examining questions of: 1) their career entrance and meaning of career, 2) issues they experienced as women working in male-dominated fields, 3) coping strategies with issues and difficulties they experienced, and 4) their perceptions of the university work environment. The research will help understand the unique characteristics of women's career development in non-traditional occupations and how the organizational context of the university setting they experience.

### Significance of the Study

Women in non-traditional occupations might have barriers to their careers' development, both in terms of entry level in the workforce and in their career advancement on the job. Despite various efforts, such as affirmative action, family-friendly policies in organizations, and training opportunities that encourage more women to move into non-traditional occupations, workforce segregation by gender remains stable (Anker, 1997; Jacobs, 1989).



Studies to investigate gender differences in career choice have focused on individual perceptions in earlier stages, such as perception of barriers to careers by high school students (McWhirter, 1997), individual vocational interests and orientation (Brown, Eisenberg, & Sawilowsky, 1997), and early socialization, all of which determines the jobs that women and men consider socially acceptable (Cohen & Swim, 1995; Witkowski & Leicht, 1995). These studies shed light on why women have unfavorable regard for certain jobs, but fail to explain how an individual woman comes to enter a non-traditional occupation anyway. Studies on the barriers to women's career advancement also have emphasized the disadvantages that women have when compared to men in organizations. These studies, however, are not sufficient to explain the dynamics of women's careers in non-traditional occupations.

As increasing numbers of women move into previously male-dominated occupations, an understanding of women's career development in these occupations is important, as insights gained can provide information regarding how women can move actively into non-traditional occupations and what kinds of efforts should be made to enhance women's participation and advancement in non-traditional occupations.

Universities are often considered active agents of social change, with regard to their role in academic development and social responsibility. As an organization, the university has two different work groups: academic and non-academic staff. These two groups are distinctively different in many aspects of their functions and career paths. Although career development of faculty has been the subject in a vast number of studies, similar attention to non-academic staff is lacking (Vander Putten, McLendon, & Peterson, 1997). Many studies describe the university as a feminized workplace, due to the fact

that the number of women faculty is increasing and females populate most administrative staff positions as secretaries and clerical workers. But the workforce in the university has a variety of occupations which include areas of non-traditional occupations for women. A study of women in non-traditional occupations in the university contributes to an understanding of the organizational culture related to gender in the university setting, and finally, helps the university develop its employees' careers.

### Research Questions

When women's proportion to the entire workforce of a specific occupation is less than 25 percent, that occupation is considered as non-traditional for women (U. S. Department of Labor, Women's Bureau, 2005). To explore women's experiences in non-traditional occupations in a university setting, the research questions are:

RQ1: How did women in non-traditional occupations enter these occupations and what caused them to pursue careers in non-traditional occupations?

RQ2: What issues did they experience as women in non-traditional occupations?

RQ3: What strategies did they employ to cope with the issues or difficulties that they experienced?

RQ4: How do they perceive the university as a work environment for women?

RQ5: What defines their careers as meaningful and successful?

## Definition of Terms

### *Non-traditional occupations*

No unified definition of non-traditional occupations exists in literature, nor in the international usage. However, an increasing need has arisen for governments, institutions, and employers in many countries to reach a “contextually agreed upon definition in relation to anti-discrimination legislation, or the funding of special training and employment schemes” for the under-presented gender (Bagilhole, 2002, p. 4). According to the U. S. Department of Labor (2005), an occupation is non-traditional when women or males represent less than 25 percent in the specific occupation. In this study, the occupations generally considered male-dominated in terms of both labor force composition and social perception are non-traditional occupations for women.

### *Career*

The definition of career varies in different areas of study. This study defines career as “the sequence of a person's work-related activities, behaviors, associated attitudes, values and aspirations over the span of one's life” (McMahon & Merman, 1987, p.?) in order to focus on individual experiences in career related to their life.

## Scope of the Study

To achieve the research purpose, this study employs a qualitative method of in-depth interviews with participants. Numerous empirical studies have been conducted to identify the factors and issues associated with occupational segregation, women in non-

traditional occupations, and ramifications for organization as well as society. When the focus of interest lies on the identification and examination of determinants or factors in occupational segregation, the multi-level comprehensive data are analyzed by quantitative methods, since the main goal of such a study is to identify overall generalizable results for different scopes and levels of analysis. Most socio-economic studies are examples of those studies. However, if the interest of the study lies in the organizational context in which people interact during everyday work, then the method of case study is more appropriate.

The focus of this study is on the experiences of women who work in non-traditional occupations in university work settings. As it focuses on descriptions of individual experiences of those women, rather than identifying generalizable characteristics of social phenomenon or exploring an overall specific context at a specific time, this study adopts individual in-depth interviews as its method. A more detailed description of the method appears in Chapter 3.

In-depth interviews were conducted with women who worked at one university. Because this study is not limited to women in one specific occupation, the inclusion of different occupations was considered a criterion for choosing participants.

### Limitations of the Study

There are many different types of universities, and accordingly the composition of their workforces varies. This study collected data at a large research-oriented university

that employs people in a multitude of occupations. The results cannot be transferable to other university settings.

The quality of a study depends heavily on the steps the researcher takes with regard to credibility and reliability of the findings. A detailed description of methods used in this study appears in Chapter 3. Although a variety of methods were used to enhance quality, interpretations of the results still may vary among people who read this study.

Lastly, a possible limitation of this study involves use of one data source: self-reported data gained from interviews. The data collected reflect the limitation of this methodology.

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

This chapter reviews literature related to this study. The review process was structured and conducted by examining three different, yet connected interests which explore the experiences of women in non-traditional occupations in university settings. In the first section, theories of career development are briefly reviewed, as these associate with women's career choices and career progressions and are necessary for the purpose of understanding careers at the individual level. Then, theories about occupational division by gender and studies about women in non-traditional occupations are reviewed in order to understand issues women's experiences in male-dominated fields. Finally, studies of university employees are summarized as a way of understanding this work environment as perceived by employees. The framework and structure of the literature review are illustrated in the map in Figure 1.

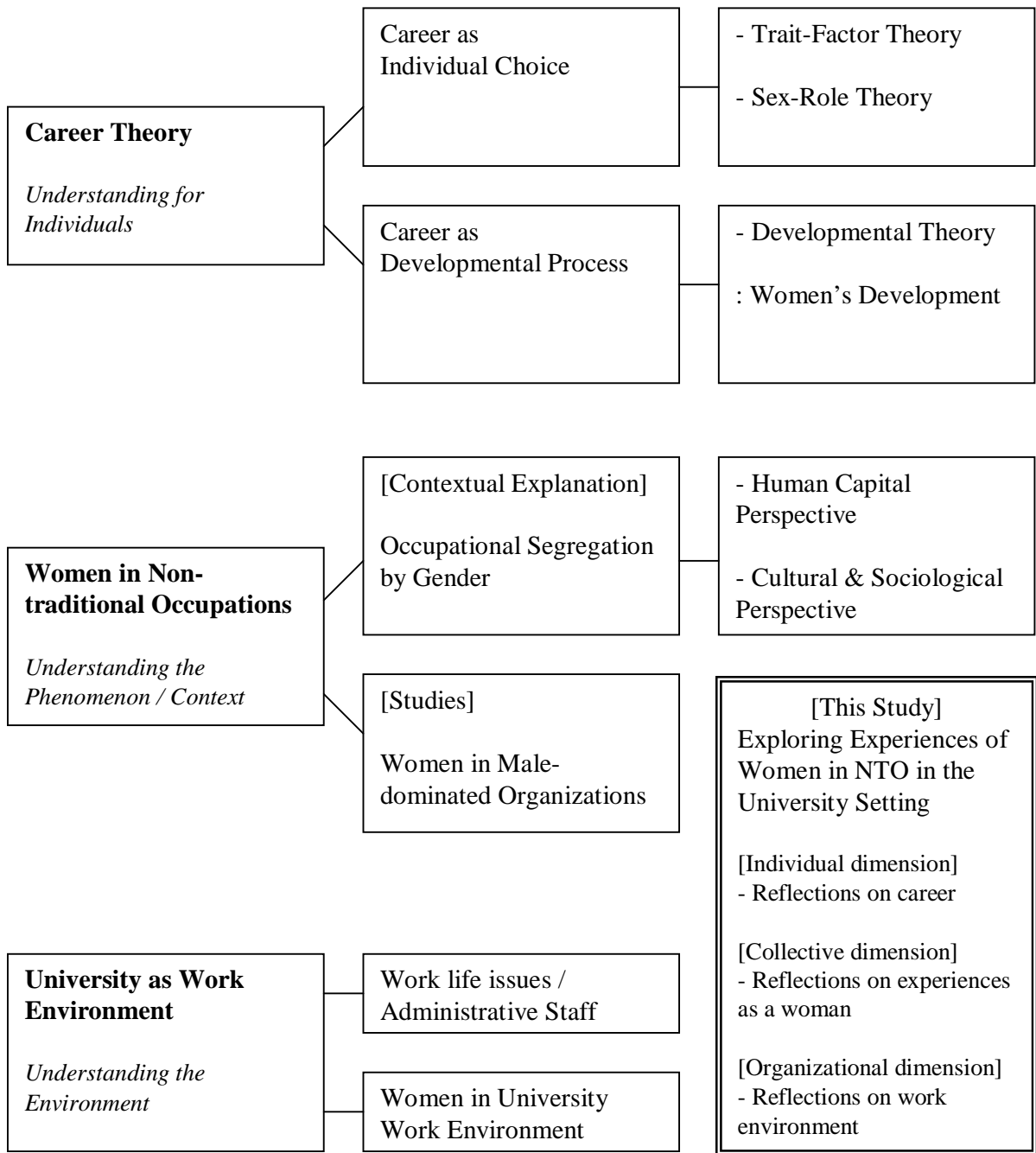


Figure 1. Literature Review Map

## Women's Career Development

### *Career as Individual Choice*

Data from the U. S. Department of Labor reveals distinctive characteristics of gendered attributes of the workforce. Women held half of all management, professional, and related occupations in 2004. However, women's share of specific occupations within this broad category varied. For example, only 14% of architects and engineers and 29% of physicians and surgeons were women. In contrast, 86% of paralegals and legal assistants, and 89% of dieticians and nutritionists were women (U. S. Department of Labor, Bureau of Labor Statistics, 2005).

Choices of fields of study reveal gender difference in careers. The average level of education attained by women has increased dramatically. According to data from the U. S. Department of Education (2005a), women earned about 58% of all post-secondary degrees in 2003, 60% of all associate's degrees, 58% of all bachelor's degrees, and 59% of all master's degrees. Even though women's educational attainment has increased dramatically, gender differences still exist in their fields of study. Female students major in mathematics, technology, and sciences less often than male students, and they tend to concentrate in humanities and social sciences, two fields of study that do not attract many men (Beyer, 1999; Bradley, 2000). Using the U.S. national education statistics data, Joy (2006) found that men are more interested in high paying jobs when choosing a first job after college graduation, while women are more interested in having time for other endeavors.



Theories of career choice and career development have illustrated different explanations of how individuals choose their careers. Following is a review of how career theories have formulated the assumptions of individual careers and how those are associated with women's careers.

### *Trait-Factor Theory*

By addressing the fact that occupational choice, adjustment, and success are products of interaction of two difference forces of the individual and the environment, career theories have evolved with a focus on each distinct dimension: individual characteristics on the one hand, mainly developed by traditional psychology, and organizational environments on the other hand, which emerged from organizational studies and human resource fields.

Among two distinct but interactive lines of studies, trait-factor theory is the most traditional of the individual approaches. The basic assumption of trait-factor theory is that optimal effectiveness comes from matching individual traits, such as ability and interest, to the demand of an organizational environment. As a pioneer of this theory, Parsons (1909) proposed the idea of matching men and jobs for career choice and guidance, and suggested three steps: 1) knowledge of self, 2) knowledge of work environments, and 3) method of matching the characteristics of one's self to those of the work environment. Under the influence of this approach, tools for measuring individual differences have been continuously developed for practical uses in vocational and educational guidance.

According to trait-factor theory, influential individual characteristics are one's abilities associated with jobs and one's vocational interests, needs, and values: The

former closely relate to job performance, and the latter relates to job satisfaction and motivation. Many studies provided evidence that the correspondence between individual traits and the characteristics of the job have a relationship to job satisfaction (Dawis & Lofquist, 1984; Osipow, 1983). However, criticism of this theory arises from its failure to describe the structure of individual differences and patterns of change in individual variables (Herriot, 1984).

The culmination of trait-factor theory is Holland's (1973; 1985) theory that vocational satisfaction and achievement depend on the congruence between one's personality and the environment in which one works. Using this assumption, he identified six personality types and the related environmental characteristics and presented salient associated characteristics and similarities between the types: 1) Realistic (outdoor and technical interests), 2) Investigative (intellectual and scientific), 3) Artistic (creative and expressive in literary or art area), 4) Social (interest in working with people), 5) Enterprising (interest in persuasion and leadership), and 6) Conventional (enjoyment of detail, computational activity, and high level of structure) (Betz, Fitzgerald, & Hill, 1989). Using this approach, numerous measurement tools, such as Vocational Preference Inventory (Holland, 1978) and Self-Directed Search (Holland, 1979), Strong-Campbell Interest Inventory (Hansen & Chambell, 1985), have enjoyed wide use for vocational guidance and counseling.

Although many studies have shown the importance of congruence to positive career outcomes (Assouline & Meir, 1987; Elton & Smart, 1988; Spokane, 1985), research on changes in congruence have been scarce (Spokane, 1985). In addition, as Gottfredson and Becker (1981) found, people tended to change their aspirations rather

than their jobs in efforts to resolve incongruence, which shows the need for attention to adult career change. Holland's theory is a primarily static rather than dynamic approach (Betz, Fitzgerald, & Hill, 1989). In addition, few studies have linked the theory to women's occupational choices (Herr & Cramer, 1984).

To date, trait-factor theory is regarded as an influential career theory; however, it has the critical limitation of insufficient attention to gender, race, and socioeconomic status (Betz, Fitzgerald, & Hill, 1989). Also, it is not suitable to explain women's careers because it assumes that women have equal opportunity to explore matches and congruence (Opengart & Bierema, 2002). In addition, it fails to explain why women often pursue different areas of occupation from men even when their abilities and personalities are similar to those of male counterparts.

### *Sex-Role Theory*

Various theoretical perspectives have studied gender difference in career choice, and one study has a sociological viewpoint. Parsons and Bales (1955) argued that male and female roles are functionally differentiated, and society dictates that men and women develop different personality traits and assume different roles. Based on Parson's theory on socialization between genders, sociological studies on gender-role theory have focused on how boys and girls learn to conform to society's expectation about sex specific norms, activities, and attitudes (Williams, 1989). Society expects boys to adapt to the achievement-oriented and instrumental demands of the occupational world; whereas girls have to learn care-giving traits. Parents and many agents in societies teach different roles and attitudes, formally and informally. Under this influence, throughout

their early socialization, men and women come to have masculinized and feminized attitudes toward work, and this relates to their career choices.

In spite of its emphasis on social influence, rather than biological determinants of gender difference for career attitude and development, sex-role theory has failed to explain how individuals construct definitions of masculinity and femininity and develop meaning for their social activities.

### *Career as Life Development*

The literature of career progression has produced a number of models for career stages. Since Super (1957) introduced the theory of career stages using a life-span approach, the developmental approach to career development has dominated the study of careers resulting in a wide range of experiments and research. The developmental view of career regards it as an ongoing process that accompanies a person's entire life (Chen, 1998).

According to Super, Thompson, and Lindeman (1988), the process of choosing an occupation that permits maximum self-expression occurs over time, summarized in four career stages: 1) exploration, a period of engaging in self-examination, schooling, and the study of different career options, 2) establishment, a period of becoming employed and finding a niche, 3) maintenance, a period of holding on to one's position and up-dating skills, and 4) disengagement, a period of phasing into retirement. Within each of these stages, the person plays certain career roles and strives to accomplish varied career developmental tasks which correspond to these roles' requirements (Sharf, 1997). One's life-span consists of a series of roles in which an individual needs to operate. These roles

included domains such as family, school, community, and workplace. Super (1980) postulated that one's life roles, such as student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner, interact in a manner that is supportive, supplementary, compensatory, or neutral. In this regard, career is a combination of rich activities and task accomplished by the individual who needs adopt and is capable of enforcing a series of multiple missions in life (Cochran, 1990).

In contrast to Super's (1957) life stage model, Levinson (1978; , 1986) suggests a punctuated equilibrium model of life development based on chronological age (Sullivan, 1999). Levinson (1978) used intensive biographical interviews with 40 men, selected from four diverse occupational subgroups: executives, laborers, novelists, and biologists, to generate in-depth data of adult life development. Following the previous study of men, 45 females were the subjects of a study with a similar range of occupations and classes as in the male study.

After the first study with males, Levinson (1986) argued that life structures are defined by alternating periods of transition in which the goals and activities of the previous period undergo re-appraisal. He also suggested that the typical transition period lasts about five years and periods of stability last about five to seven years. The periods of stability permit individuals to focus on non-work issues, develop work skills, and mentally prepare themselves for transition periods.

Three general concepts are central to Levinson's concept of adult development: 1) the dream, a deeply personal understanding of self in the world that is projected into the future, 2) life structure, the vehicle used to accomplish this task, and 3) mentoring, a very significant process for career adjustment and development. Levinson (1978) viewed the

life structure of an individual as evolving through the life course in orderly, time-bounded periods of stability and change. The life structure for achieving the dream is modified by both external sociological realities and internal psychological processes.

Those development theories, based on psychological approaches, have made noteworthy contributions in helping to shape the social meaning of career and fostering career development among individuals. But, as several scholars suggested, most developmental theories based on a male-centered concept of life development failed to apply to women's careers, because women's career paths are more complex and ambiguous (Gallos, 1989; Powell & Mainiero, 1992).

As an alternative to Levinson's male-oriented approach, Gilligan (1982) proposed a three-stage model of female development. The first stage is self-oriented, "caring for the self in order to ensure survival" (p. 74). The second stage involves a shift to caring for others, the more traditional concepts of women's roles. The third stage involves a reconciliation of the recognition of one's own powers, as well as realization that "others have a responsibility to their own destiny" (p. 21). She also argued that male developmental patterns focus on values of justice and fairness as men's development begins with separation and individualization. For women, the development begins with the assumption of connectedness and interdependence, and gradually explores means of separation and individuation.

Bardwick (1980) reexamined Levinson's (1978) model of male adult development in the context of women. She noted that women continually put an emphasis on relationships as well as career development. Similar to Gilligan's (1982) arguments, she argued that women sacrifice their wants and needs for the relationships in

their early adulthoods, and become more independent throughout their mid-adulthoods, allowing a more concentrated effort toward careers and self-identities.

Most literature on career progression focused on describing models of career stages over time, but these models encounter criticism because women's careers follow a different pattern (Powell & Mainiero, 1992; Sheeny, 1976) and are interrupted more often than those of men. Powell and Mainiero (1992) maintained that individual women do not place themselves in a specific career stage; rather, women see themselves on a continuum between careers and relationships, experiencing levels of success in both.

Melamed (1995) argued that the career paths of men and women differ significantly and tested a gender-specific model for career success. Using human capital attributes, career options, and opportunity structural features as predictors of career success, she evaluated the model using questionnaires from a sample of the general workforce. The result of the study showed that the paths to career success vary between men and women. Women's achievements arose mainly through merit, lack of domestic responsibilities, and favorable features or organizational and occupational opportunity structure. In the meantime, men's career success influence arises from personality and societal opportunity structure.

The phenomenon known as "glass ceiling," the restriction of women from attaining the highest positions in corporations has been examined in a variety of ways. Observations show gender differences for access to important career development opportunities, such as training, job challenges, mentoring, and job-relocation options (Lyness & Thompson, 1997; Ragins, Townsend, & Mattis, 1998).

Gallos (1989) identified a number of reasons why women's career development is different from that of men. According to her, when using male-based standards of career and career success, women, who choose to forge a career that combines achievement and nurturance, are likely to be assessed as failing professionally. She pointed to fundamentally different career perspectives, choices, priorities, and patterns for women influenced by cultural expectations, employment opportunities, marital demands, childbirth, and family concerns.

As women are subject to multiple influences in making decisions in their careers and in developing their careers, traditional stage models of career progression fail to capture the reality of women's careers. From reviewing career theory focusing on life development, women's careers and life development involve a complex panorama of choices and constraints, and issues of balance, connectedness, and interdependence.

### Women in Non-traditional Occupations

The U. S. Department of Labor defines non-traditional occupations for women as those in which women comprise 25% or less of total employment (U.S. Department of Labor, Women's Bureau, 2005). From this definition, examples of non-traditional jobs for women include detectives, architects, chefs, construction and building occupations, machinists, and so on. While the previous section of the review focused on theories and studies regarding individual career development, this section presents studies exploring the social phenomenon of gender's occupational segregation, which focuses on sociological and economic contexts. In order to review studies regarding women in non-



traditional occupations in terms of their career issues, discussion of general explanations of occupational segregation occurs first, and studies of women in male-dominated organizations follows.

### *Occupational Segregation by Gender*

Despite the fact that women are a large and growing segment of the labor force, the majority of women work in a small number of occupations, particularly in occupations in which the workers are predominantly women. The concentration of women and men in different jobs that are predominantly of a single gender has the label of occupational segregation by gender (Reskin, 1986). Even though enormous changes have taken place in the structure of the economy and labor market, and more importantly, educational differentials between men and women have narrowed, occupational segregation by gender has persisted, both in the United States and other countries. The explanations for persistence of occupational segregation by gender have been explored from various viewpoints.

#### *Human Capital Approach*

According to the human capital theory, which assumes that people seek the best-paying jobs considering their educations and experiences, and employers try to maximize profits with minimum costs; women receive less pay and concentrate in female-dominated jobs because they have less education and less experience due to their domestic responsibilities (Anker, 1997). The theory's assumption of rational choice explains that women choose to specialize in domestic work because of their caring responsibilities, and accordingly, they rationally invest their capital in paid employment

outside family. Becker (1971) assumed that the family, as a rational actor, behaves according to the purpose of maximizing its utility. On the labor demand side, employers have prejudices regarding certain groups of workers (Becker, 1971), and the biases perceive that women are higher-cost workers due, for example, to absenteeism, high turnover rates, and working hour constraints.

Emphasizing the difference in human capital between genders, the human capital theory makes a valuable contribution to understanding occupational segregation (Anker, 1997). Also, this theory has facilitated policy interventions to increase women's human capital, such as training in non-traditional occupations, and legislative efforts to eliminate gender discrimination in the workplace.

However, feminist economists have criticized human capital theory as giving little consideration to structural and normative constraints on rational decision-making, and argued that much emphasis should be placed on constraints on choices about the type of work within the family (Crompton, 2006). Also, the human capital theory's focus on individual factors fails to provide an adequate account of the underlying mechanisms of women's inferior position in employment (Hesse-Biber & Carter, 2005).

### *Cultural Approaches on Gendered Labor*

While the explanations from human capital theory focus on factors in the labor market that influence women's scarcity in some occupations, feminist or gender theories discuss how gendered stereotypes in occupations have developed and how females are disadvantaged by patriarchy in society. Using intensive and focused interviews, Williams (1989) explored how women and men are respectively different in nontraditional

occupations. She interviewed women in the Marine Corps, which has been a symbol of traditional masculine occupation, and men in nursing, which has been dominated by women. She found that women, as compared to males, in the Marines encounter barriers that place them in disadvantageous work environments, through official policies, segregation in basic training, and formal and informal rules intended to maintain their femininity. But men in nursing are welcomed and overrepresented in administrative specialties. Very little evidence was found that male nurses, as a minority group, face any formal or institutionalized discrimination. This shows that, even in similar contexts of non-traditional occupations, women and men receive different treatment, and as a result, occupational segregation “reinforces the belief that there are fundamental social and psychological differences between genders” (Williams, 1989, p. 5).

Another explanation of the favoring male workers over female is found in studies focusing on employers’ stereotyped notions of gender. Oppenheimer (1968) argued that traditional labeling of either man’s work or woman’s work influences employers’ perceptions of the appropriate workers to recruit. Men are perceived as stronger, more rational, and more mechanically competent; whereas women are perceived as having higher absentee and turnover rates (England & McCreary, 1987). Cockburn (1988) argued that male power fosters gender differentiation, and finally results in occupational segregation.

Most explanations for occupational segregation and gendered occupations derived from macro-structural analysis, whether arising from economic labor market viewpoints or sociological and cultural accounts of gender and occupations. In a different way, in-depth study of women in non-traditional occupations can show individual experiences of

women with regard to their non-traditional career choices, establishment of work identities, and challenges to career development.

### *Women in Male-dominated Organizations*

The challenges and issues that women encounter in male-dominated work environments have been widely explored (Walshok, 1981; Williams, 1989). The most insightful explanation of this issue was developed by Kanter's (1977) seminal work that has been frequently cited in the literature. Kanter (1977) referred to women in an organization whose proportion is below 20% of the entire group as "tokens," as opposed to "dominants" of the group, and argued that such tokens are treated as representatives of women, as symbols, rather than as individuals. After several years of research with a large company, she found that an organization generates special pressures on token women.

First, women, as tokens, receive attention, and thus have higher visibility than dominants. As individuals of their type, they represent a smaller numerical proportion of the overall group; they, potentially, capture a larger share of the awareness bestowed on that group (p. 210). But the visibility has a discrepant aspect in that women's presence accrues easy attention, but their achievements are not noticed as easily as their presence. The visibility tends to create performance pressures on the woman, and thus she has to work hard to have her achievements noticed. Women also have symbolic consequences for each other's affairs, by which upper-level women come under scrutiny by those on a lower-level, who discuss the merits of things done by high-ranking women and consider

their actions to have implications for the careers of the lower-level female employees (p.215).

Second, women in male-dominated organizations face a perceptual tendency of “contrast” that exaggerates the extent of their differences with men. As a result, women can be perceptually isolated from males, the core of the group, more than many (p. 211). The contrast effect can lead men to exaggerate both their commonality and women’s differences, and erect new boundaries that at times exclude a woman or at other times admit her only if she proves her loyalty to the group of male peers. By this, dominant male culture boundaries heighten the isolation of women.

The third tendency, called “assimilation,” involves the use of stereotypes or familiar generalization about a person’s social type, and the characteristics of a woman tend to be distorted to fit the preexisting generalizations about their group. Such stereotypical assumptions about what women must be like and biased judgments toward women tend to force women into playing limited roles in the male-dominated organization. This encapsulated role of women gives them the security of a place but constrains their permissible areas of reward-worthy action (p. 231).

Although Kanter’s well-developed arguments explain interactions between men and women in the organization, her analysis receives criticism for focusing exclusively on the impact of numerical proportions on work group dynamics. Especially, she focuses almost entirely on the impact of group proportions on the attitudes and behaviors of majority members toward the minority, offering few specifics on the impact of group proportions on relations among members of the minority group, or on their attitudes and behavior toward the majority (Tolbert, Graham, & Andrews, 1999).

On the other hand, issues that women have to reconcile in a male-dominated workplace have been explored in many empirical studies. By examining the literature on women's issues, Nelson and Quick (1985) suggested that professional women experience unique stressors, faced less often by their male counterparts: 1) discrimination, 2) stereotyping, 3) marriage/work interface, and 4) social isolation. Despite continuous legislative efforts to remove the compensation gender gap and to encourage women's development, women earn less than men (Crompton, 2006). More subtle issues of discrimination occur in informal systems within an organization, where women have a difficult time being accepted in the male-dominated culture (Eisenburg, 1998; Nelson & Quick, 1985). Nelson and Quick (1985) also argued that women moving into male-dominant occupations experience a greater impact from sex-role stereotyping than men. Conflicting demands from career and family-life (Hall & Hall, 1980) is another significant stressor for women at work. From a survey of 150,000 working women, Koontz (1979) reported that feelings of loneliness and isolation are pervasive in women's working lives. This finding is similar to the notion of "token woman"; women in male-dominated environments may engage in low risk activity to avoid being stereotyped (Kanter, 1977).

Strategies used to deal with issues or problems in male-dominated work environments also reveal gender differences. In exploring coping strategies of workplace issues, Ptacek, Smith, & Zanas (1992) found that men used more problem-focused methods that were aimed directly at the problem under issue. On the other hand, women preferred emotion-focused coping to adjust the corresponding emotional response. Other studies also reported that women tend to seek social support from others as a coping

strategy (Greenglass, Burke, & Ondrack, 1990; Patton & Goddard, 2006; Skues & Kirkby, 1995).

In the meantime, with a sole focus on women in blue-collar jobs, Walshok (1981) identified that most blue-collar women used one or more of four strategies to deal with initial negative reactions and to gain eventual acceptance in male environments: 1) overachievement (performing above duty), 2) accommodation (emphasizing traditional aspects of female role), 3) conflict (direct confrontation with the person), and 4) intervention (turning to third-party advocates) (p. 236). Among these strategies, as she found out, the strategies of overachievement and accommodation were used most frequently and successfully, which is assumed to be possible as this “conforms to male expectations” (p. 236).

### University Work Environment

According to data from the U. S. Department of Education, approximately 2 million non-academic staff served colleges and universities in the U. S. in 2003 while comprising 63% of its total workforce (U. S. Dept of Education, 2005b). Furthermore, many colleges and universities are compared to small cities, in that a wide variety of employees, more than 300 occupations, serve the organization (Johnsrud, 1999). Despite the importance of this workforce in higher education, most academic studies on higher education have heavily focused on issues of academic faculty or higher level administration (Johnsrud, 2002). A great number of studies have been conducted regarding academics’ work-life issues, university’s academic environments, and even

sociological or organizational studies have dealt with university environment as mostly related to faculty and students. Thus, administrative support personnel are the “hidden” and “invisible” (Szekeres, 2004) workforce in the realm of higher education.

Although studies regarding administrative and support staff are few, increasing attention has been paid to the perceptions of institutions (Vander Putten, McLendon, & Peterson, 1997) and staff job satisfaction (Volkwein & Zhou, 2003) during past decades. This attention is somewhat attributable to the fact that organizational perspectives penetrate higher education in an effort to increase its effectiveness. So issues of non-academic staff have been explored mainly focusing on work-life issues, job satisfaction, and career retention (Johnsrud, 1999).

The following section reviews studies regarding administrative staff in university settings and summarizes the studies’ discussions.

#### *Work Life Issues of Administrative Staff*

In summarizing extensive nationwide survey data from education support staff, Johnsrud (1999) showed that men outnumbered women in buildings and grounds maintenance, security, trades, and transportation. She also found that they have major work-life concerns: 1) lack of opportunities for promotion or advancement, 2) not enough increase in wages though changes in jobs, 3) layoffs and downsizing, and 4) increasing performance expectations (Johnsrud, 1999). In an overall summary of data, she discussed that the survey data showed “a fairly positive picture of the work lives, degrees of satisfaction, and concerns of education support personnel” (p. 117). However, her study does not provide insight into differences in job satisfaction between men and women.



While Johnsrud's study offered a quick overview of administrative staff's work-life on a nationwide level, some empirical studies explored the issue of job satisfaction of administrative staff in a variety of university environments (Volkwein, Malik, & Napierski-Pranel, 1998; Volkwein & Parmley, 2000; Volkwein & Zhou, 2003). Volkwein & Zhou (2003) examined job satisfaction at the administrative level among 120 administrators. Their result showed that that a positive workplace relationship and atmosphere of teamwork have high impact on most satisfaction measures, and that intrinsic satisfaction, such as accomplishment, autonomy, and creativity are the most significant factors for overall job satisfaction. Their results suggested that universities should concentrate their efforts on: 1) structuring rewarding and diverse jobs, 2) reducing interpersonal conflicts, and 3) enhancing administrative work-life issues, such as communication improvement, recognition for excellence, career mentoring, and professional development opportunities.

Although administrative staffs have received relatively little attention in scholarly literature (Vander Putten, McLendon, & Peterson, 1997), some studies found significant differences between administrative staff and faculty in their perceptions of institutions (Blackburn & Lawrence, 1995; Blackburn, Lawrence, Hart, & Dickman, 1990; Peterson & White, 1992). In an attempt to explore work-life issues of nonacademic staff in higher education institutions, Barrett, Vander Putten, Peterson, and Cameron (1995) used the method of content analysis from their comments. They found six main themes: 1) compensation issues, 2) quality concerns, 3) physical environment, 4) general work environment, 5) personal work experience, and 6) staff development opportunities. Among those themes, personal work experience and general work environment were

found to be significant influences on individual perceptions of administrative staff in university work environment.

Another study explored differences among different groups of administrative staff. Vander Putten, McLendon, & Peterson (1997) compared two groups of union and nonunion staff as to their perceptions of work environment and found that union members have more negative perceptions than do nonunion members for the areas of culture, philosophy, climate, and outcomes of the work environment.

#### *Women in University Work Environment*

While studies on issues of administrative staff in universities have been conducted for the purpose of understanding their work, and little attention was paid to issues of gender in studies, women faculty have received a great amount of attention from scholars, from both feminist viewpoints and sociological analysis of higher education (Hollon & Gemmill, 1976; Tack & Patitu, 1992). Several studies suggested that women and minority faculty experience marginalization and perceive a devaluation of their accomplishments in organizations (Aguirre Jr., Hernandez, & Martinez, 1994; Johnsrud & Sadao, 1998).

Issues with female administrative staff have had rare examination, as compared to overall administrative staff issues or women faculty. Szekeres (2004) argued that a common perception of administration work in universities views it as typical women's work, and higher education environment devalues the skills of women due to its institutional emphasis on academic qualifications. Although her argument focused on the large group of secretarial females in universities, her insight into general assumptions

about female work in universities provided a critical view about the university environment, in which diverse occupational groups work together.

As revealed from this review of studies about university work environment, an increasing focus on administrative staff calls further attention to the need to conduct studies about different groups and contexts in university environments. Such research will help understanding the salient culture in university work environments from both individual and organizational perspectives.

## CHAPTER 3

### METHODOLOGY

The purpose of this study was to explore experiences of women in non-traditional occupations in university settings. More specifically, it aimed to explore how women perceive their experiences about; 1) how they came to their occupations; 2) what issues they have had by the fact of being a woman in their occupations; 3) what kinds of coping strategies they used to deal with issues or difficulties; 4) how they perceive the university as workplace environment for women; and 5) what defines their careers as meaningful and successful. For this purpose, this study's design used the framework of qualitative methodology, especially guided by phenomenology and grounded theory.

This chapter describes the methodological framework and provides details on research procedure. It includes explanations of four parts of the research process; a) methodological framework to design this study, b) data collection, c) data analysis, and d) strategies to enhance the quality.

#### Research Design

This study adopted the framework of qualitative methodology as the research focus explored the participants' experiences as recounted by them. Qualitative analysis is well used when the interest of the study is to investigate descriptive and interpretative social phenomena (Yin, 2003). Defining qualitative research is difficult because it has no theory or paradigm that is distinctively its own (Denzin & Lincoln, 2000). Multiple

theoretical paradigms used in many disciplines claim qualitative research. Accordingly, the definitions of qualitative research vary by focus and context where it is used. With an attempt to explain this complexity, Nelson, Treichler, & Grossberg (1992) described multi-disciplinary characteristics of qualitative research as:

Qualitative research is an interdisciplinary, transdisciplinary, and sometimes counterdisciplinary field. It crosscuts the humanities and the social and physical sciences. Qualitative research is many things at the same time. It is multiparadigmatic in focus. Its practitioners are sensitive to the value of the multimethod approach. They are committed to the naturalistic perspective and to the interpretive understanding of human experience. (p. 4)

Although qualitative analysis has multi-disciplinary characteristics and difficulty arises for obtaining a single distinct definition, the common characteristics of qualitative research are well delineated by Denzin & Lincoln's (2000) description:

Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning. (p. 8)

Comparing the characteristics of qualitative research with quantitative research makes the distinction clear. Denzin and Lincoln (2000) described five points of significant differences between qualitative research and quantitative research: (a) uses of positivism and postpositivism, (b) acceptance of postmodern sensibilities, (c) capturing the individual's points of view, (d) examining the constraints of everyday life, and (e) securing rich descriptions. These differences have their basis in epistemological distinction and different forms of representation rather than in differences of methodological use. In addition to the above-mentioned differences, many researchers

suggested some basic methodological differences in terms of research purpose, sampling, data collection, and data analysis.

In short, qualitative research has application when a research proposes to explore and describe how individual or social experiences and their meanings are construed in certain contexts in natural settings. Since this study focused on the experiences of women in non-traditional occupations as they describe their career experiences, qualitative research was appropriate.

The use of the phenomenological approach as the framework has the following rationale. First, though phenomenology refers to different uses of the term from philosophy (Husserl, 1970) to method framework (Moustakas, 1994), the purpose of phenomenological approach lies in “gaining a deeper understanding of the nature or meaning of our everyday experiences” (Van Manen, 1997, p. 9). Patton (2002) provides adequate explanation of the core of phenomenological study as:

.. phenomenological approaches share in common is a focus on exploring how human beings make sense of experience and transform experience into consciousness, both individually and as shared meaning. (p.104)

As the focus of this study was on exploring and describing participants’ lived experiences, the epistemological basis provided by phenomenology helped me to specify the interest in this study and formulate main questions. Second, as the purpose of this study was to explore participants’ experiences in their occupations and careers, in-depth interviews became the method for collecting data. Van Manen (1997) maintained that “the essence of nature of an experience has been adequately described in language” when it is described to show us the lived significance of the experience in a “fuller and deeper manner” (p. 10). Finally, another important focus of this study is to search commonalities

of lived experiences of participants, as Patton (2002) pointed out that the essence of phenomenological study is to explore “the core meanings mutually understood through a phenomenon commonly experienced” (p.106).

With this epistemological basis on phenomenology, this study employed in-depth interviews for collecting data. The purpose of in-depth interviewing was “to understand the lived experience of other people and the meaning they make of that experience” (Seidman, 2006). For this purpose, open-ended questions allow participants to reconstruct their experiences regarding the question’s topic. The design of the interview guide ensured best use of the limited time available for an interview while also ensuring flexibility and openness (See Appendix A).

In order to develop questions, a review of literature related to women’s careers and women in non-traditional occupations aided identification of the most discussed themes within this topic. Completing this generated four main topics of questions: 1) career entrance and career choice, 2) issues as women in male-dominated occupations, 3) coping strategies to deal with challenges or difficulties, and 4) women’s meanings of career. Also, since no empirical study has been conducted for describing experiences of women in non-traditional occupations in university settings, added questions queried their experiences and perceptions related to working in a university environment. Finally, the interview guide included five main open-ended questions with probes. The initially developed interview guide was reviewed by an academic advisor and one of my doctoral committee members. Also it was revised during the pilot interview with one participant who was well informed of the purpose of the study before the pilot interview.

## Data Collection

### *Sampling Strategies*

The participants of this study were stratified by years of work experience and occupational areas. The reason for choosing the criteria of working years and occupations was that the main focus of this study is to explore participants' experiences in non-traditional occupations. So some years of work experience in the specific occupation was necessary for participation.

This method of selection arose from the idea of purposeful sampling. Merriam (1998) pointed out that “purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (p. 61). Also, Patton (2002) discussed the strengths of purposeful sampling as:

The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling. (p. 230)

Thus, purposeful sampling was used to yield in-depth understanding of the phenomena this study considers. The more detailed procedure for selecting and recruiting participants is discussed in the next session.

### *Participant Selection*

The criteria for selecting participants were: 1) being a woman, 2) having more than 3 years of work experience in a non-traditional occupation, and 3) having more than 3 years of work experience in a university setting. Within these criteria maintaining a



balance in the number of participants in terms of their occupations, years of experiences, and managerial positions was an important consideration.

A university in the northeast United States (hereafter called as NOU) was chosen as a research site. According to the university's fact book, the school had approximately 8,500 full-time staff employees who were in non-faculty positions on the main campus in the year of 2006. Women represented 53.1% of total non-faculty staff, but most of them are heavily populated in academic and administrative support areas which are traditional areas for women.

After choosing the campus of NOU as the research site, a study of the organizational structure chart of the university identified what areas should be mined to recruit participants in non-traditional occupations. Subsequently, association with a woman who had 10 years of experience in the university in a non-traditional field aided contacting other resource people who then helped the recruitment of participants in various fields. The contacts with potential participants occurred in two ways. The first was to contact the manager of the department by email to determine the presence of potential participants who would be appropriate for joining this study. For example, police women were identified after contacting the chief of the department. After explaining the purpose of this study to the chief, the chief made introductions with several potential participants. Subsequent individual contact occurred by email with providing recruitment invitation (see Appendix B). The second method of contact intended to create a snowball method by which participants would introduce other participant who might have interest. Once apprised of the study's purpose, some participants were willing to help acquire other participants through networking. After

gathering information about their years of experiences and areas, individual contacts with those who might fit to this study ensued. Once identified by one of these two procedures, participants were informed of the purpose and procedure of the study before they made decision to participate in the study. Once they agreed to participate, a meeting was arranged to explain the details of the study, to arrange schedule of two interviews, and to answer any questions about the study.

By this method, 12 participants were recruited from four different occupational areas. A more detailed description of participants follows in the next section. In addition, one woman from the Marine Corps was interviewed two times to provide background information for this study. The reasons for interviewing her were to understand typical non-traditional woman, as women in the military are often considered as a typical non-traditionally engaged (Williams, 1989) and to know whether there were similarities and/or differences exist between university settings and non-university settings for non-traditional women.

#### *Description of Participants*

A total 12 women were recruited as participants for this study. They were chosen from five different occupational areas and had average work experience of 13 years. Key demographics of participants appear in Table 1.

Table 1. Demographics of Participants (N=12)

<b>Age</b>	<b>Occupational Area</b>	<b>Years in Occupation</b>	<b>Years in Univ.</b>	<b>Experience Outside Univ.</b>
26-35 (2)	Police (4)	1-5 (1)	1-5 (1)	Yes (7)
36-45 (7)	Transportation (2)	6-10 (1)	6-10 (4)	No (5)
46-55 (3)	Printing (2)	11-15 (1)	11-15 (2)	
	Engineering (2)	16-20 (7)	16-20 (3)	
	Business & Auxiliary service (2)	21-25 (2)	21-25 (2)	

Four women were recruited from the university's police department, but their specific work duties and job titles were different from each other. Among 12 participants, two women held union membership and 5 women had work experience only at the university.

### *Interviews*

A pilot interview, conducted to gain a picture of the flow of the whole interview also tested the interview questions. Original questions were slightly revised after the pilot interview.

After revising the questions from the pilot interview, interviews with participants began in November, 2006. Three separate meetings were held with each person, except for one participant who, due to her schedule, had one in-person interview and one e-mail communication for verification. As previously mentioned, the first meeting was mainly for explaining the purpose and procedures of the study. Participants also could ask questions related to the study. At the first meeting, once participants understood and

agreed to participate in the study, they were asked to sign a consent form approved by the University's Research Regulation Office (see Appendix C).

Actual interviews were conducted two times for each person. The first interview dealt with the main questions of this study; every participant responded to very similar questions during the first interview. In the course of the interview process, some prompts of additional related questions clarified meaning. Also, basic demographic questions were asked at the beginning of the first interview. Usually the first interview lasted one hour to one-half hour per participant. All were recorded electronically. After each person's first interview, verbatim transcriptions generated a list of additional questions, which included the parts for which complete understanding was absent, as well as the aspects requiring additional detail. The second interviews followed one to two weeks after the first interviews. The second interviews lasted 30 minutes to one hour per person. The shortest combined interview time was one hour and forty minutes; the longest was two and half hours.

In this way, 25 interviews were completed during the period of November 29, 2006 to April 30, 2007. All the records were transcribed verbatim; repetitive words, such as "you know" and "umm" were not included in transcription. When certain names, such as those of certain people, colleges, and locations, were unintelligible, the word "inaudible" was inserted in the transcribed text.

### *Ethical Issues*

Ethical issues related to this study concerned me in two distinct areas. The first issue was about how to assure confidentiality of the participants' narratives and identities

to protect their privacy and to maintain respect for them. For this purpose, before starting actual interviews, an obtained a signature from each participant on the Informed Consent Form, approved by the University's Research Regulation Office provided a measure of security. This form described the study's procedure and stated that the participants would not be identified by name in any cases (see Appendix C). Also at the first meeting with each participant, additional concerns regarding privacy were solicited. In addition to this, a clear explanation of the measures for ensuring confidentiality of data and their identities received attention.

The other ethical issue related to ability of the researcher to conduct this study. In order to gain sufficient knowledge to perform qualitative research, graduate courses regarding research methodology throughout masters' and doctoral study programs provided a level of professionalism. In addition to learning research methodology, previous opportunities to use qualitative research methods in many masters' and doctoral level, supervised research projects provided experience. Those enabled gaining understanding about designing a qualitative study, analyzing data, and practicing the methodology. Also, background gained from being involved in peer examination of sections of other doctoral students' work created added familiarity and sensitivity with qualitative analysis of data.

### Data Analysis

Data analysis began by creating individual profiles of participants using transcribed interview narratives and informal conversations with participants that were

not recorded electronically during interviews but recorded in a process journal. Then qualitative analysis followed by the methods of open coding and axial coding (Strauss & Corbin, 1998). Identifying themes was at the last phase of this process.

### *Phase 1: Crafting a Profile*

This phase was an initial step of analysis to share interview data by developing profiles of individual participants. Seidman (2006) suggested that a profile of a participant's experience is an "effective way of sharing interview data and opening up one's interview material to analysis and interpretation" (p. 119). As this study focused on lived experiences of individual participants, this step helped gain insights into how they recalled past events to constitute meaningful experience.

The study's focus also assisted in drawing unique portrayals of the individuals of the study. Developed profiles of each individual participant, based primarily on interview data, journal and memo entries provided a basis for organizing profiles. Profiles varied in length and depth as each participant's story and level of detail differed. The profiles enabled capturing the uniqueness of experience of each participant and the essence of their stories.

### *Phase 2: Labeling*

This phase labeled phenomena by conceptualization. This coding process is also named as "open-coding" (Strauss & Corbin, 1998). Open coding is "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (Strauss & Corbin, 1998, p. 101). Technically, open coding can be accomplished

in several ways: 1) line-by-line analysis which involves close examination of data, phrase-by-phrase and word-by-word; 2) analyzing whole sentences or paragraphs whereby a researcher seeks the major idea exposed in the segment; and 3) perusing the whole document and identifying the uniqueness of the document in comparison to previous ones (Strauss & Corbin, 1998, p. 119-120). The ultimate purpose of open coding is to enable a researcher to identify similarities and differences of concepts and categories generated through the process.

This phase of analysis began by reading through the transcripts carefully several times before labeling. Then, transcribed data were broken down into each unit of labeling and given names. The units varied in their forms, such as few words, sentences, paragraphs, and sometimes combined phrases from different parts of an interview. The labels primarily used the same words of participants, “in vivo codes” (Glaser & Strauss, 1967), but when labeling by in vivo codes became difficult to label in vivo codes, new words (in vitro codes) conceptualized the data unit. For example, interview narratives about participants’ career choices and entrance experiences (RQ 1) generated 99 initial codes (see Appendix D). The NVivo program was used to label and categorize initial codes.

### *Phase 3: Making Connections*

This phase involved axial coding: “the process of relating categories to their subcategories at the level of properties and dimensions” (Strauss & Corbin, 1998, p. 123). This was done by linking data at the property and dimensional levels and forming related categories.

After naming and labeling the phenomena from the transcripts, seeking discrete categories began by grouping similar labels generated from initial open coding. This process was similar to enriching concepts with properties and dimensions by identifying similarities and differences among the phenomena. This comparison was continuous process of revision as the analysis process continued.

An example of axial coding for participants' experiences of career entrances and choices (RQ 1) is shown in Appendix E. It shows examples of descriptions of codes categorized as "choosing the best option" as they emerged from a series of comparisons with initial codes. The NVivo program assisted with sorting codes by categories that were generated from close examination of data.

#### *Phase 4: Generating Themes*

The purpose of this phase was to integrate categories to generate themes for the phenomena under study. While previous phases of open coding and axial coding were analytic endeavors to rearrange data by properties and dimensions revealed from the analysis process, this integrating phase is more interpretative to find the essence of participants' lived experiences from data. Strauss and Corbin (1998) referred to this process as "selective coding", which refines and generates theory. They viewed this process in a line of analytic process of coding. Meanwhile, Wolcott (1994) distinguished the terms of "description," "analysis," and "interpretation" in conducting qualitative study. By any viewpoint, the final goal of this study was to draw connections among participants' experiences to find the main themes in the phenomena under study.



The results created the selection of main themes which appeared to be significant to participants' experiences, and as described, emerged as detailed themes from the data. For example, regarding career entrance experiences, two categories "undecided for future career" and "choosing the best option" were interpreted to be connected to each other, although each has its unique properties. Thus, the theme "undecided but making the best choice" was generated as one of the distinctive themes regarding women's experiences at the time of entering a career.

### Researcher Role and Assumptions

As a researcher, I have assumptions in exploring women's experiences in non-traditional occupations in a university setting that were derived from my previous work experiences with women and men, learning from scholarly and non-scholarly literatures, and hearing about others' experiences. The first assumption is that women construct their ways of understanding and adapting to male-dominated environments while dealing with issues due to their positions as a minority in the organization. Literatures about women in non-traditional occupations have explored issues experienced by women, but have failed to explore women's active way of construction of their identities and meanings in their careers. Instead of focusing solely on passive interpretations or negative aspects of their work experiences, I tried to explore how they understand their work experiences actively.

The other assumption is related to the culture of the university work environment. As diverse groups work together in university settings, women's experiences can vary according to characteristics of work relationships and organizational climate. So even in a

university setting, women might have different interpretations and understandings of their experiences depending on their occupations and positions. This assumption led me to include different occupations when I selected participants for this study. I took precautions to enhance research quality as described below.

### Enhancing Research Quality

Issues of the quality of the study can be discussed by addressing how genuinely the study is conducted to achieve its purpose. Traditional quantitative analysis studies have tried to ensure the quality of study by adapting criteria such as internal validity, external validity, reliability, and objectivity (Lincoln & Guba, 1985). All these criteria are established for ensuring the outcomes of the study to reflect and represent larger population under study in more objective way, which means that the criteria serve to show “objective representation of the reality.” Thus, the strategies to enhance the quality of study have evolved to develop more robust methods such as acquiring adequate sample size, random sampling, implementing retests, and use of inter-raters.

While the quality of the study means increased objectivity and generalizability in quantitative study, qualitative study uses a different lens to view the meaning of quality, and adapts different terms as indicators of quality. Since Lincoln and Guba (1985) coined the term “trustworthiness” to grasp core values to ensure the quality in inquiries in natural settings and described its indicators as credibility, transferability, dependability, and confirmability, scholars in qualitative methodology have rigorously presented more appropriate ways to ensure trustworthiness of the research (Creswell, 1998; Patton, 2002).

What follows is a brief description of the important indicators associated with the quality of this study and strategies adopted to enhance quality.

### *Credibility*

Credibility, which is considered in alignment with internal validity in conventional study, refers to which the extent how well the findings of study represent “multiple constructions” adequately (Lincoln & Guba, 1985). It is also related to the extent to which the presented findings are credible to the constructors of the multiple realities. Patton (2002) described three elements of credibility in qualitative study as: (1) rigorous methods for yielding high-quality data that are systematically analyzed, (2) credibility of the researcher regarding experience, previous work, and presentation of self; and (3) fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis, and holistic thinking (pp. 552-553).

In order to ensure credibility of the study, a qualitative researcher uses various strategies: 1) prolonged engagement, 2) persistent observation, 3) triangulation, 4) member checks, 5) peer examination, and 6) participatory or collaborative research (Lincoln & Guba, 1985; Merriam, 1998). This study employed prolonged engagement, triangulation from multiple sources, member checks, and peer examination as methods to enhance credibility. Since close observation of participants’ actual work was not possible, close attention to the thoroughness of the interview narratives became a substitute. For this, an interim period of one to two weeks between two interviews with each participant allowed sufficient time for transcription.

In addition, while the primary data were garnered from face-to-face interviews with participants, a secondary source of data was an interview with one other woman in a non-traditional occupation who is not in a university work setting to enhance overall understanding overall of women in non-traditional areas. Also a review of articles in higher education and scholarly literatures and studies related to the experiences of women in non-traditional occupations identified the issues that have been discussed concerning women non-faculty employees.

The strategy of member checks, whereby interpretations and conclusions are verified by participants, is claimed to be a crucial process to establish a study's credibility (Lincoln & Guba, 1985; Merriam, 1998). For this purpose, a summary of interviews provided to participants elicited their comments and verification at the beginning of the analysis process. Sharing the summaries with participants also allowed for their input.

Peer examination was another method to establish a more neutral stance for interpreting participants' experiences. During the analysis process, two meetings with my colleagues, students who worked or were working on their doctoral dissertations provided fresh insights for using a qualitative approach. Although the foci of their studies differed, they could render opinions based on their knowledge and experience. By sharing this study's initial codes, categories, and themes, an explanation of the organization of the current research's data became apparent. As they were uninvolved with this specific study, they could offer unbiased opinion and feedback.

### *Transferability*

While generalization to larger group of people is a crucial element in measuring quality of quantitative study, qualitative inquiry is more focused on sufficient and rich descriptions of the phenomena under study to target audience to be considered as relevant and applicable to the context of the study. Whether the findings of this study are applicable to other related contexts, for example, women in non-traditional occupations in other work environments other than universities or women in a specific non-traditional occupation, is entirely dependent on readers' judgments, as Glaser and Strauss (1967) mentioned concerning a mutual responsibility in accessing the credibility of the study. Although the researcher cannot provide readers an "index of transferability" solely from the findings of the study, with sufficient data for their judgments or assessments, the transferability of the study becomes evident (Lincoln & Guba, 1985).

In order to ensure transferability, qualitative researchers use strategies such as thick description and maximum variation sampling. Thick description allows readers to understand the phenomenon under study and draw their own interpretations and significances by sharing the rich, detailed, and concrete descriptions of people and places (Denzin, 2001; Geertz, 1973; Patton, 2002). Based on this notion, this study attempted to provide detailed and concrete descriptions of each participant and participant's experiences, as well as the whole process of data analysis in order to open the study's process and findings to the audiences' interpretations.

Maximum variation sampling strategy aims to "capture and describe the themes that cut across a great deal of variation" (Patton, 2002, pp.234-235). Merriam (1998)

maintained that multisite design using several cases and situations to maximize diversity in the phenomenon allows the results to be applied to a larger context of situations. To maximize variation, the choice of participants included four different occupations within which job duties vary at the research site of a university, and also considered criteria of years of work experience, prior work experience out of university settings and having managerial experiences.

### *Dependability*

Whether and/or how much a study is dependable relies on the notion embedded in reliability in conventional study (Lincoln & Guba, 1985). Although, logically, having exactly the same conditions of a study repeated later is impossible, repeated measurements in traditional quantitative analysis usually ensure dependability. In qualitative study, the researcher seeks to ensure the consistency of study to foster a robust accounting for changing context by using split-half methods by multiple researchers and by maintaining an audit trail and an inquiry audit.

This study, conducted by a single responsible researcher, employed an audit trail by maintaining a reflective journal and memos. These documents recorded details of what has been done and opinions of what has been gained and learned in the course of the study. This indicator very closely relates with confirmability, as noted by Lincoln and Guba (1985).

### *Confirmability*

Confirmability refers to the neutrality that the procedures and findings of the study are fair and not biased. This is ensured when the findings are grounded in data and interpretations are logical by using appropriate analytic techniques. Lincoln and Guba (1985) advised that the use of audit trail can help establish the confirmability. More specifically these researchers provided an example of categories produced by audit trail as: 1) raw data, 2) analyzed results, 3) data reconstruction and synthesis products, 4) process notes, 5) materials relating to intentions and dispositions, and 6) instrument development information. Heeding to this advice evolved strategies of; 1) doing verbatim transcription of interview narratives, 2) keeping a process journal to track logs, incidents, and changes in methodological process, occurring during the study, and 3) writing memos.

To summarize, Table 2 presents what criteria and strategies enhanced the quality of this study.

### Summary

This chapter explained the methodology used in this study. First, the rationale for using qualitative study was presented. Then detailed explanations followed regarding: a) how data were gathered, analyzed, and interpreted, and b) what strategies were used to enhance the quality of this study. The next chapter will present the results of the study.

Table 2. Indicators and Strategies Used to Enhance Quality of the Study

<b>Indicators of Quality</b>	<b>Descriptions</b>	<b>Strategies Used in This Study</b>
Credibility	Congruence between the findings and participants' experience	<p>Prolonged engagement: Two or three meetings with participants with intervals</p> <p>Triangulation: Reference to multiple sources regarding the topic (literature, journals, other reference person's narratives)</p> <p>Member check: Verification from participants about analysis results and findings</p> <p>Peer examination: Consulting with other doctoral students doing qualitative studies regarding emerging categories and themes and obtaining their feedback</p>
Transferability	Applicability of the findings to other related contexts	<p>Thick description: Rich and detailed description about participants' experience and analysis process</p> <p>Multiple variance sampling: Stratified sampling to include multiple occupations, years of experience, level of positions</p>
Dependability	Replicability of research process and findings	<p>Audit trail: Keeping accurate and detailed record with:</p> <ul style="list-style-type: none"> <li>- Verbatim transcripts</li> </ul>
Confirmability	Fair and unbiased findings	<ul style="list-style-type: none"> <li>- Keeping a process journal</li> <li>- Writing memos</li> </ul>



## CHAPTER 4

### STUDY RESULTS

This chapter presents the results of this study. A brief review of the research including the purpose, research questions, and research methods opens the chapter. The results of each research question follow with a description of the issues and themes emerged from an analysis of the interview data. Finally, a summary of the results is presented.

#### Review of the Study

The purpose of this study was to explore the experiences of women in non-traditional occupations in university settings with a focus on issues related to their career. More specifically, it aimed to describe participants' experiences regarding the main research questions:

1. How did participants come to their occupations?
2. What issues did participants experience as women in non-traditional occupations?
3. What strategies did participants employ to cope with issues or difficulties they experienced?
4. How do participants perceive the university as a work environment for them?
5. What defines participants' careers as meaningful?

To explore these questions, in-depth interviews with 12 participants and one referential person were conducted from November 29, 2006 to April 30, 2007. Interviews with each participant were conducted at two separate times with the purpose of the second interview being the verification and supplementation of the first interviews' contents. Thus, the entire interview time ranged from one hour and forty minutes minimum to two and half hours maximum per individual participant. All the interviews were transcribed verbatim and coded. At the open-coding phase, the NVivo program was used to label and categorize codes; axial coding and selective coding were conducted by close examination and constant comparison of categories and themes.

The following section presents the findings of the study. All citations are verbatim, and some parts that I thought to be directly related to the issue under citation were bracketed as [ ]. To ensure participants' privacy and confidentiality, the names of people and locations were referred to either with pseudonyms or as "xxx."

## Research Findings

### *RQ1. How Did Participants Come to Non-traditional Occupations?*

The ways in which participants chose their professions could not be reduced to one or two clearly bounded purposes or reasons. By comparing properties of codes and categories, four main themes were generated. A description of each theme occurs by providing participants' narratives and interpretations of them regarding how participants created meaning from their experiences upon entering their careers. For each research

question, a summary table containing themes is presented first, followed by text containing verbatim quotes.

Table 3. Summary of Themes Emerged from Experiences of Career Entrance

<b>Themes</b>	<b>Descriptions</b>
Undecided but Making the Best Choice	Holding obscure vision of future career in school days; attending college with unclear prospects for a career; career decision made through considerations of at-the-moment personal situations
Ready for Male-dominated Occupations	Identifying personal “likes” and “dislikes” in career rather than pursuing specific career; early childhood experience of being exposed to male culture.
Parents’ Influence in a Formative way	Parents’ constant influence in developing a career attitude; getting infused with the value of education; forming work ethics; provided with timely advice and opinions from parents
Benefits of Prior Work Experience	Finding vocational ability, interest, and eventually consciousness of fitness to occupations by direct experience in work; gathering information and searching other job areas in the occupation while working in the field

*Pathway 1: Undecided but Making the Best Choice at the Needed Time*

Whether they attended college or just had high school diplomas, many participants recalled they had no idea of what they were going to do with their careers at the university or high school.

Diana: I was going to college and I had I really didn’t know what I wanted to do. I just went to college. I’m the first to attend a four year college in my family. Neither of my parents even graduated high school. So I really didn’t know what I wanted to do in college because it was expected.

For Diana, going to college was like taking a required course in life. Especially since none of her family had college experience, the mere fact that she would go to

college was more important to her than thinking about her career. So she went through different majors in college. A similar experience was also reported from Emily. She was expected to be the first in her family to attend college.

After traversing different occupations after high school, Lizzy came to the printing industry. She could go to college but decided not to, as she could not figure out what she would do.

Lizzy: When my father retired from the university the same year that I graduated from high school, and he said to me, "If you want to go to college and if you want to go to NOU you need to make up your mind here shortly because with me retiring. There's only a window of getting you enrolled and everything." And I remember looking at him and I said, "Gees, dad, I think I'm going to wait because I just don't know what I want to be when I grow up. And I'm still like that. I still don't know what I want to be when I grow up."

While they were undecided for their future career, the moments when they had to choose occupations came to them in different ways. Diana chose to join the military to solve the financial burdens of school and the reason for her particular choice was the one with the shortest enlistment. Lizzy had to get a job to provide an income for her newly started family, so she had an initial occupation as a hair dresser using skills she learned in high school. So the final moments during which participants chose their occupations seemed quite similar in that they had to make the best choice with available resources at that time.

Making the best choice was not just for the time when they had to choose a certain occupation. Whether they had to stay home to raise children but needed more income, or they had to move with their spouses' employments, "making the best decision" was applied as a consistent strategy for their career choice.

Lizzy: Because it's one of the best jobs actually women can have because well back when I was doing school bus you actually could take your children with you. It wasn't. The car seat regulations and all that kind of stuff hadn't really come into play. Yes there were car seats but not anything like the regulations that are today. So I just took my son and put him on the seat right behind me and did my bus run and then when I was done, then I was able to put him in the car and take him back home and the thing that was nice about driving school bus when the kids were in school.

Kim: And that was really my intended goal when I got hired with the xx police for a couple years. I stayed there. And then I ended up getting married so that those plans kind of strayed a little bit. And I you know ended up having kids right away and so we didn't want to move them all over the country horsing around doing that. So we just chose to stick w here we were. And then we ended up leaving because of my husband's job once I had a baby and I didn't want to do the police work thing anymore. We ended up moving for his job but quickly realized we wanted to be back here.

Most participants recalled that they had worked through more different paths than they expected, although the extent of difference varied. But always they chose the best thing they could get when they considered their situations.

### *Pathway 2: Getting Ready for Male-dominated Occupations*

While some participants experienced inner struggles to discover what to do after graduation, others reported that they developed career preferences in early childhood or in high school. Those aspirations might not have been an ultimate motivator for them to choose non-traditional occupations, but most of them recalled that they developed certain aspirations and attitudes toward their futures in specific ways.

Ashley: I know it sounds perhaps cliché. I contribute a lot of it to my mom. Growing up I was very shy child. And I specifically remember ever time that we were in public and saw a police officer. My mom would make me say "hi." She didn't want me to be scared of the police. She wanted me to know that that's who you go to for help if I needed anything to find a police officer. And so I guess from a very early on I always had everything would be okay if the police are there.

Anna: When I was in high school I really wasn't sure what I wanted to do. But at the time my favorite subject was math. So of course I did some research on what types of careers were there for people who were very interested in math and there were several, but the one that seemed appealing to me was architecture. So I actually enrolled in my high school in architectural drafting class, which was sort of interesting because at the time again there weren't many females even taking those types of courses.

Career aspirations arose not only from developing vocational interests toward a specific job or field of occupation, but also by delimiting and eliminating career options. Simply stated, they came to recognize what they wanted to do and what they did not want to. That elimination functioned as a part of narrowing their career choices, and mostly, associated with excluding traditionally feminine jobs. For example, Susan was not sure about her career during high school, but she clearly did not want to do secretarial work.

Susan: I wasn't impressed with the business curriculum in our high school because all of the girls that took business curriculum seemed like they wanted to be secretaries when they grew up. So my vision of a business major in high school was someone who is going to grow up and be a secretary.

Kim: I thought it was silly to be a person that would cut hair or all that stuff girls back then would do as you coming out of high school. I knew I wanted to go to college. So but I knew I wanted to do something more than just you know work at McDonald's or things like that.

Participants who reported that they developed certain levels of aspirations early recalled themselves as being active and male-friendly women when young, like growing up as a tomboy, or they could do things that were regarded as typically men's work.

Kim: I guess I'm different than many others. I don't know. I know I was a tomboy so I know I was very athletic.

Janet: But she (her sister) was more the stay at home playing with dolls and I was more the tomboy type person that I liked to be outside. I liked to be moving around. I was always riding my bicycle, and climbing trees. So I was the more outdoor person.

The traits and personalities that they recalled as dominating self-images are closely related with their familiarity with male-dominant culture that they experience now in their occupations. Most participants stressed that they were different from usual girls in their attitudes and preferred activities, and felt comfortable getting along with boys. This readiness, though it was not purposively developed for future careers, was helpful to them in choosing male-dominated work.

### *Pathway 3: Parents' Influence in a Formative Way*

Participants reported how their parents influenced them in developing their attitudes toward careers. The most distinctive influences were “valuing education,” “giving an advice,” and “teaching work ethics.” Regarding the value of education, parents urged them to pursue higher learning from early childhood. That enabled most participants to proceed into professional areas in their careers. For Kate, who was born to college-graduate parents which was unusual at the time, she was infused with the worth of being educated by her parents, and eventually this cultivated her intrinsic sense of educational mission which led her to work for college students, along with her own pursuit of higher learning.

Kate: My parents are from a generation where it wasn't always that the male went to school. But my dad did go to college. Actually he's a NOU grad. But it was a time when women didn't go often to college. But my mom had a degree as well. So that was very unusual at that time that both my parents had a college degree. And they very much expected that all four of us would go to school and would pursue at least our Bachelors' degrees... Even if we ended up doing something totally different from our degree, that's kind of home environment I grew up in. So I'd say that was a big, it was a very formative part of my life.

Another aspect of parents' influence arose from providing practical advice when participants chose their occupations. Becky took her mother's advice about what would

be the best career for her when she graduated from high school. Her mother knew much about NOU as many of her family worked there.

Becky: When I went to high school I took three years of cosmetology. And I did a report one time on police and I thought you know that was kind of fascinating to me. But my mom always my mom is kind of old fashioned and she'd say now you know NOU. They pay well and they got good benefits. You really need to get a job at NOU.

Ashley recalled that her parents were a great contributor to making her as she is now. Their influence instilled a need to learn strong work ethics and build respect for community, and finally motivated her to make the decision to serve in law enforcement.

Similar credit was found in Emily's narratives.

Ashley: Certainly he was an influence. I think both my parents were influences on creating the person I am and raising me in a well structured family. My father wasn't a career military. He was enlisted for I believe four years. So that was just something that he did directly out of high school. So I wasn't raised in a military family by any means. But he certainly had that experience that he spoke highly of it and was certainly glad that he chose that route for himself.

Emily: My family has been and continue to be very hard working, blue collar people. And I'm actually the first generation college educated which is even more a source of pride that I've been able to pursue more degrees than just my undergraduate degree.

However, the parents' influences were mostly described as occurring in the formative parts of their lives and careers. No one reported that parents had a direct influence to them in choosing specific careers. Even though they chose dangerous and unusual careers for women, many participants reported they had no conflicts with their parents. Rather, participants recalled their parents' influence as enabling, resulting from having support from their parents for whatever they choose to do.



*Pathway 4: Benefits of Prior Work Experience*

The other path participants came to their current occupations occurred from having work experience in the area before starting their careers. Ashley and Julie worked for the police department when they were college students. Their internship experiences allowed them to obtain knowledge of police work and finally prompted the decision for a future career. Especially, Julie, who was not sure what specific career would be pursued, came to learn that law enforcement was a fit to her.

Julie: I still I didn't know what aspect of the criminal justice field I wanted to get into. If I wanted to be a lawyer or if I wanted to be a forensic scientist, or if I wanted to be a police officer... I didn't really know coming into college. All those things interested me. I didn't narrow it down until I started working here as a student and then I started leaning more toward the law enforcement side of it and that's when I declared my major as administration of justice.

Internship experience also helped to show competence and attitude to potential employers. Ashley, as a person who grew up around NOU, explained:

Ashley: I think certainly knowledge of the area helped. And really my employer knew me. They worked with me. They knew my work ethic. They knew what I was capable of. They knew a little bit of my strengths and weaknesses. So they weren't just pulling someone off the street not knowing anything about them. So I certainly think that was an advantage of with me so to speak getting my foot in the door as an internship.

Prior work experience is not limited to formal work involvement like internships. Developing knowledge about an occupation can occur while a participant is working at other tasks associated with the occupation. Lizzy worked as customer service person in the printing industry, but she gained systemic knowledge about mechanics while working in the area by handling problems and dealing with many counterparts.

Lizzy: And it got to the point where I started I was able to answer some questions myself without having to pass them on to somebody else and I was actually approached that the supervisors and the management and the customer service

area asked if I would be interested in moving you know into a different type of role like where I would research problems, deal directly with the sales representatives, do some billing which is a big eye opener, give plant tours so I would be working directly with you know schools and businesses that we were producing things for.

Surely the circumstance helped her to build expertise in the area and made her recognize her competency in challenging a new area in the occupation, not just staying in secretarial work.

*RQ2. Issues Experienced as Women in Non-traditional Occupations*

Table 4. Summary of Issues Experienced as Women in Non-traditional Occupations

<b>Issues</b>	<b>Descriptions</b>
Stereotyping by Gender	Less trusted than male counterparts by supervisors; people's stereotyping of women's work in non-traditional occupations as minor and incompetent; depreciation of women's work
Harassments	Verbal abuse and inappropriate treatment; aggressive threat; overprotection
Exclusion from Male-bonded Culture	Good-old-boy-networks in workplace; excluded from male-bonding and male culture; no professional relationships with females due to scarcity
Recognizing Differences between Males and Females	Realizing gender differences at work in mindsets and work styles; taking advantage of feminine traits in work; ability to understand people better than males

What issues or difficulties did they experience on-the-job in the non-traditional occupations as a woman? Experiences of participants were explored by asking them to describe: 1) their relationships with male colleagues, 2) unique experiences at work as a

female, 3) issues they encountered in the occupation as a woman, and 4) impression of being a woman in their occupations. Interview Questions 3, 4, and 5 in the interview guide were designed to explore this question and prompt questions followed as participants told their stories. Themes related with this question were categorized as follows:

*Issue 1: Stereotyping by Gender*

Most participants recalled that they experienced people's stereotyping females at work in various situations. A typical case of stereotyping was experienced when they were less trusted than male counterparts by supervisors.

As an engineer, Susan faced situations in which she felt she was being treated with less trust especially at the time she suggested or showed some of her work while working at an electronics company. She recalled:

Susan: I've been in meetings where I've been asked to do something and when I've presented my findings are presented my solution they've given it to someone else and said, "Will you look this over?" And especially in the electric company, they never did that with the men. Or if I would get a call to go out and look at something, they'd say "well you better take one of the guys with you so he can show you what's up." So in the electric company it was like that all the time. Yeah all the time.

Though the case occurred less frequently when she moved to the university, she had similar experiences there also.

Susan: So when it came to this particular project, I did run the show. They didn't only think it was going to work but I managed to get this program up and running with some resistance and always somebody else check doing the checks and balances for me. But now that we're expanding this program to the campuses and there's a fellow in charge of that. Nobody ever second guesses him. Nobody. He's got much more freedom than I do and I don't know why.

As Susan described, a male counterpart could earn trust about his work easily, while a woman had to show that other colleagues also agreed with her opinions or ideas. The unfair treatment of supervisors is also associated with males' doubts about female's competency at work, through which male counterparts expressed overtly their distrust:

Emily: When I was in operations where I was running the dining rooms and what not I did see a great deal of gender bias. For instance, if a piece of equipment would break down, and I would call in a maintenance person, there was an immediate disregard of anything that I had to say or suggest because I was female. And the assumption was I would know nothing about mechanics. What they don't know is that my father is an auto mechanic. And when I was a child I spent a great of time in the garage with my dad with greasy hands building and taking apart car parts. So if my car broke down today, I couldn't fix it probably. But I could understand what was wrong. And I could suggest maybe in some cases what was wrong with it and be correct. So there was a great deal of gender bias in that sense.

Emily also noted that those biases were experienced more with older people of the university than with younger people. As a veteran driver, Janet also experienced similar cases of gender stereotyping from supervisors.

Males' prejudices about females often become apparent when female police officers do their jobs. When female officers worked for civilians, they often encountered people who doubted a female officer's competency with a task. Kim described her experience:

Kim: The guy had electronic doors which weren't very common back then. And those doors are just about impossible to get because it's mostly wires that make them unlock and lock up not a mechanism. So I just spent about a half hour trying and he goes why don't you get one of your guy officers to come over here and do this. And I said okay. He couldn't get it either. So I said I just I told the guy I said I just want to let you know that electronic doors are not easy to get for anybody regardless of being a male or female. And people don't really realize what they are saying when they say things like that but they may. But so I think that those situations probably still happen at different times.

Thus, typical stereotyping toward females relates to people's belief that a woman is less competent in her work than her male counterparts. Especially, those perceptions are overemphasized for women in non-traditional occupations doing male-dominated work.

In addition to the fact that women are less trusted than male counterparts, another male prejudice against women exists. In some cases, males think the work done by females as "feminine." Emily's story showed this incident as:

Emily: I think now at my level I think there's a more subtle gender thing gender bias and that is I think sometimes our male managers believe that the programs I am coordinating for the trainings that I am giving are too soft. They are fluff because I'm a female. And I'm generalizing not all of our males are like that. But some of them in my department are and that bothers me.

This prejudice is very closely related with traditional beliefs toward feminine traits. Kate, who was recently promoted to a high managerial position, also described an example of males' stereotyping of women:

Kate: I don't think it's a universal thing. I don't think, but I do think that some of us are in a nontraditional roles, like, people don't expect me to be able to do money very well. They don't expect me to understand budgeting or high function finance. They don't expect me to understand how to fix facilities. They expect me to know how to take care of people and ... to be honest, given my background and skills, their assumptions aren't necessarily far off, but some of those assumptions are made before they get to know me. They just, it's an assumption they make about woman.

To summarize, women in non-traditional occupations encounter constant stereotyping with regard to their ability to work, whether by male counterparts, supervisors, or in general by people with whom they work. Prejudice based on people's assumption of traditional female traits plays another role in stereotyping, which often hinders just and fair appreciation of women's competently accomplished tasks. Although

women continue to struggle against stereotyping, its existence also fosters a consciousness about differences between men and women at work. This issue is a subject of Issue 4 in the next section.

### *Issue 2: Harassed or Teased*

Harassment has generally been a significant issue with women in the workplace, whether in male-dominated work or not. Although sexual harassment has been discussed in most cases, the term of “harassment” here, has meaning as an important issue related to participants’ subjective understanding of their experiences. Participants did not mention the term openly, nor did they report explicit cases of being sexually harassed, but the label in this study refers to the common issue that demonstrates experiences of being treated negatively purely by the reason of being a female.

As expected, one case involves verbal abuse by male colleagues. Anna, a professional and 21 year-experienced engineer, recalled the incident when she was treated intolerably badly by another colleague.

Anna: One time I had a, it was actually when I was in the design room and we had this is pretty explicit.[...] But we had a manufacturer bring in some park benches. And so we were all testing out the bench to see if it was something that we wanted on campus and I made a comment that the bench was hard. And there was a guy who wasn’t even a peer of mine. He wasn’t a subordinate of mine but as far as the hierarchy at work he was much lower than I was. He said to me “oh well you probably like sitting on hard things, don’t you?” in front of a bunch of other men. Yeah not appropriate, completely inappropriate.

Another participant reported a similar case of verbal abuse:

Susan: I worked at the power plant I really began to see that the intolerance of women in my field. And I worked at the power plant and there were only three women and one of them was a janitor. So I really took a lot of abuse. I mean they were always making snide remarks and saying that women were stupid. And I

was small and tiny and so they didn't think I was strong or smart or anything like that.

In other case, a threatening act, not sexual abuse, by male colleagues was the experience of another participant. Becky talked about her experiences of being attacked and threatened but could not do anything:

Becky: But then on day shift, the boss was nice. But I had a coworker sabotaging everything I did because they'd go and tell the boss stuff. He and I got into a shouting match one day. He kept threatening. He kept telling me he was going to move me to the other end of the district. I was working in Borg building and he was going to move me down to Hermes. We had a hell of a shouting match one day. "I'm moving you. Go ahead take me now." He did he moved me down there. I didn't have any problems when I went to the other end of the district. I used to work with a guy up in Engineering building who was a janitor. He'd come into work drunk. One day he grabbed me. He scared me more than anything because I was in my 20s. "Oh my god, what do I do?" I knew I couldn't say anything because his wife worked there. So I kept my mouth shut and I knew any time I dealt with him. He'd be sitting here and I'd be standing way like an arm's length away. I knew he couldn't get a hold of me. I'd stay like that. I never said anything to the boss or anything.

Those attacks were very aggressive. She experienced that kind of male verbal and physical attack when she began working with males in the physical plant. Especially in those days, 20 years ago at NOU, not many women worked at the physical plant. The workplace was dominated by men. Becky was the first female janitor at that time. So she kept struggling with some males' reluctance to work with her.

Similarly, males' reluctance to accept females in their work was reflected in Catherine's story:

Catherine: When I first started here it seems like the hiring here at this facility has gone in waves where there are like one year five people get hired. Five people retire. Two years later the same. When I first started I was fairly young. And I was charged with creating a database for workflow here which I was very excited about. I've I really enjoy working with computers and that kind of stuff. And a couple of the older gentlemen who were here at the time were very very very discontent that some fresh face young woman was going to come in and tell them

how to do their jobs after they've been here for 30 years. They didn't need that. One gentlemen told me one day that the only reason I got hired here was because of my looks and another gentlemen retired about two months after I started because he wasn't going to be told what to do.

Even by engineering professionals, insulting remarks were made to a woman who took a position in a male-only environment:

Susan: When I first came to the university I came into a department that was all professional. There weren't any technical people. There weren't any unionized people. And the director would give me jobs because I was a woman and the guys would pay attention to me. So that was that wasn't very... it made me feel like he had no value for my ability. He was just sending me in because the guys would rather listen to a woman talk than a man talk. And he would say that. "They are going to pay attention to you so I want you to go do this."

That experience humiliated her as she felt undervalued as an equal and as a competent colleague, and experienced anger similar to Catherine's. These stories show that women often experience males' refusal to work with them, and accordingly, they experience severe harassment by inappropriate treatment.

In another way demonstrating this is concern involves an interesting case that is opposite of being attacked but is still harassment. Susan worked in a construction company before she came to the university, and in the earlier employment she encountered another aspect of bad treatment.

Susan: When I went to work in construction, on the construction site it was really very different. It wasn't that men thought you were stupid. It's just that they wanted to flirt with you. So they didn't really think of you as an equal. They thought of you as a cute little distraction to their day to day routines so they didn't really take you seriously. They'd rather tell you that you were pretty and cute and go get them a cup of coffee. "Don't get dirty honey, I'll do that for you." So, on the construction site it was a little bit different. They weren't so much as telling you were dumb. They just didn't even consider you as anything but a little girl.



Contrary to showing hostile or purposive harassment, Susan's experience was like being teased as a novice little woman. That was prevalent in that industry according to Susan's remark.

As revealed from different stories of participants, women in male-dominated fields experienced contrasting sides of treatment from male colleagues, being harassed or teased. Harassment often resulted from males' reluctance to accept females in their workplace. While teasing was regarded as a minor level of harassment that had no intentional hostility toward women, it, nonetheless caused similar feelings of being unaccepted.

### *Issue 3: Exclusion from Male-bonded Culture*

Overall, most participants recalled that they have built good relationships with male colleagues in their occupations. However, a few cases remain for feeling frustrated by the male-dominated culture in their workplace. Although this was not reported from many participants as problems or challenges they experienced directly, extreme and evident experiences were worthy of attention in this study.

Participants who have long years of experience in non-traditional occupations addressed the existence of an established and strong "good old boy network" in the past, and many of them thought that culture has changed over time:

Becky: Bad things is... the good old boy network where they think women can't do things. ... It used to be but now with the change in dynamics going on and the older. The people who were that way are slowly retiring so it's kind of fallen by the wayside. But that was a big obstacle in the beginning.

Anna: When I first started here that network was very much alive, the old boy network. I mean it was so bad when I first started here that the guys used to have a night out and they'd all go out and drink beer and watch dirty movies. And they

would send a flyer around. Who wanted to go? Right. You got to be kidding me. This was like in the 80s. Right I think that's really gone away a lot. I mean you know the guys have a golf league but if I wanted to play on it I could. So I wouldn't call that necessarily you know they go play basketball at lunchtime. I guess if I wanted to play I could go and play but so maybe you call that the old boy network.

“Good old boy network” is a unique phenomenon where males dominate not just by holding positions in the workforce, but also by producing and fortifying the unique bond among males in their work. They play together, they do their hobbies together, and in this way, they exclude females from their culture.

Contrary to Becky and Anna's report, Susan who works with physical plant people stressed that the network still exists and causes constant problems for her.

Susan: Physical plant still has the most dominating good old boy network. I still think it's here and the boys play golf together, the boys play basketball together so there's a lot of networking opportunities for the men. There's almost no network opportunity for women. The men are buddies regardless of their position.

She felt excluded from male colleagues due to the males' network; the problem got worse when she tried to build relationships with females in her workplace. With no female colleague at her level and most females work in secretarial jobs, she felt great difficulty in building a female bond in her workplace.

Susan: But what happens is that with women is if professional women try to bond with clerical women then the clerical women get upset if the professional women give them work to do. So if my secretary and I would go to lunch and become friends and then I would go to her and say “Could you type this report for me?”, then she would get very offended. But if one of the guys would say “Hey, type this report for me?” She hasn't built a relationship with them so she sees it as her job and she's not offended. Whereas once the women becomes buddies and you try to ask her now what happens is the staff assistant feels that you violated a friendship and it's stupid. It shouldn't be like that but it is. So it's something about women's relationships are hard to go across the different employment fields. So that makes it a little tough. So woman can't afford to be friends and there aren't enough of us at a professional level to really network. So it puts you in an awkward position. It's very difficult so then you tend to be friends with the guys

but you're never really going to be close to them. So I think what happens here at Physical Plant, I don't build bonds or I don't have camaraderie here whereas where I worked at the utility, even again that was a pretty male dominated place.

Susan: There were woman who were in professional positions that I could have lunch with or even outside of work if we wanted to get together or we could, there were groups that you could take a bus trip together. There were enough professional women that you could afford to have good strong relationships at work. But here I can't, I can't do that. I don't have a good strong relationship with anybody here. And there's really not that many people I could have it with, really no other woman. So that's what makes it difficult, I think, missing that kinship.

So the difficulties in building good relationships at work doubled for a woman who works in a male-dominated culture although females do work in the area. This was quite a contrast to the tight and family-like relationships of police officers.

#### *Issue 4: Men and Women are Different*

When they were asked to describe their relationships and experiences with male colleagues, most participants stressed that they discovered that men and women are different at work. As mentioned in Issue 1, participants said that they struggled with constant unequal treatment. However, they raised their consciousness of their gender at work and it allowed them to feel proud of being a woman in some cases. Janet reported what she perceived gender difference when working together:

Janet: I think women are a lot better at multi-tasking than men. Men are very pretty much single minded. Women for whatever reason I think are a lot better at doing more than one thing at the same time. So in these jobs when we're driving I think that's one of the reasons that women that we women are better is because we're able to do more. And we're thinking about more things all the time. And what our customer's needs are besides driving and besides talking to them and I just think that women and not just in this profession but any profession are better at multi-tasking. We can do more than one thing at one time.

What Janet meant by assessing men as "single minded" is that men are more concerned with the task at hand, while women try to look at a "bigger picture" when they

do their jobs. For example, when driving vehicles with customer passengers, men focus on driving itself, but women try to talk to customers to provide enjoyable trip.

That notion can also be tied to another participant's report showing that men are more task-focused and women are more considerate to other related issues of the problem.

Lizzy: Because being male and female working in the same environment we bring different perspectives to it. And so males tend to be a little more harsh and harder as far as like wanting to make sure schedules are met and things like that. They can be but most and I'm going to say most here most females bring a little more of optimistic side to it. Where I always see things are never cut and dried. They are never this is just the way that it is. And at times I feel that I am trying to be the more optimistic person in looking at why something happened, how something happened. And that's the feminine part of me.

The feminine trait is also recognized by other participants. Women are regarded as more compassionate and sympathetic in many cases.

Anna: I think women are sometimes more compassionate than men are. You know more they have more feelings or it is not that men don't have feeling but a lot of men have been grown up and trained not to show their feelings and emotions. So even dealing with the female staff assistants in the office. Sometimes I think they can relate to me more than they can to the men because I'm a woman.

The feminine characteristic can be an advantage in work even in non-traditional occupations. As expected, police work needs a feminine trait when law enforcement deals with victims. Julie described:

Julie: There are some females that work here that are more sympathetic to different things. If a rape victim were to come in and wanted to report to then I think you should talk to them, I would say that is a really good thing. They are just very good at that kind of thing where as male officers say really stupid stuff. It's not like they are doing it intentionally. Being a guy you really don't know what the girl is going through.... I think in cases like that I think it is expected that we are to be the more sympathetic and a lot of times when rape victims do come in. They talk to females. That's usually best for some. There are some victims who will only talk to a female officer. I will only talk to a female officer. Some victims say I will only talk to somebody.

Similarly, Catherine discussed how her feminine nature helped her at work.

Catherine: I understand from a department standpoint if they don't get something that they want when they want it, I understand how that feels. And I can sympathize. I can relate and as much as I can I try to if it's something that we're going to we've made a mistake on or we're going to be late with. As much as I can advise ahead of time I do. Because I don't want to be standing at my office door waiting for something to arrive that's not going to arrive.

To be brief, participants learned from experience that men and women often bring different perspectives and attitudes to their work. They recalled that their feminine natures allowed them to understand people better as well as the situations at issue.

### *RQ3. Coping Strategies in Male-dominated Environments*

Table 5. Summary of Coping Strategies in Male-dominated Environments

<b>Strategies</b>	<b>Descriptions</b>
Prove Yourself	Showing one's ability at work to supervisors and colleagues to get trust; working harder more than expected
Show Confidence	Maintaining confident attitudes to continue to obtain respect from colleagues; developing strong knowledge base at work; Being confident but not going far beyond
Know Male Culture	Understanding and adapting actively to male culture and languages; fitting into male environments
Bond with Colleagues	Developing close relationships with working colleagues; female bonding by sharing both personal and work experiences; special bonding with colleagues helps overcome work stress and creates family-like feeling
Control Emotional Breakdown and Communicate	Refraining from instant emotional reaction; avoiding tears in front of others; stepping away for a while, then communicating with the person.

The previous research question explored what issues women in non-traditional occupations have experienced. They encountered various types of stereotyping from different counterparts including their male colleagues, and were harassed verbally or emotionally. They also found differences with men at work. Then, how did they cope with difficulties experienced in their work by their gender? What strategies did they use to survive in male-dominated work environments? Interview Question 6 of the interview guide was designed to elicit responses to this question, and the uncovered themes are:

*Strategy 1: Prove Yourself*

Most participants commonly agreed that they had to show their male colleagues and upper-level managers how they could continuously do a good job. The purpose of this effort is surely to gain respect and trust from their colleagues. Emily, in retrospect, described why she tried to do her best and why gaining men's true respect took so long.

Emily: I think that after all of these years it's become good. But I really don't think it always was. I think that because I'm female I really had to prove myself. I had to prove that my programs were valuable. I had to prove that I knew what I was talking about when I made a suggestion. And again since no one is an equivalent of me in the same kind of job, I can't say what would've happened to a man if he was my counterpart. But I've seen new male management type types come onboard through the years and it does seem different as if they are treated differently by virtue of their gender but often times I've also seen that men will come in with a confidence and arrogance where as women are more humble. And that's just a generalization. But for me I do think that it took time to build these relationships and turn initial assumptions that were misconceptions around to allow many of these men to respect me and to give me a chance. But it took years.

Diana, who had work experience in the military, also reported that she had to "prove herself every day" to get males' respect.

Diana: And you have to earn their trust. When you go in the beginning until you show somebody that what you are doing then they are not going to have much respect for you. You have to earn that respect. Usually that is all it takes. And

then people know “Hey she knows what she is talking about.” and they will kind of accept you... As far as stories, I think it’s like in the military. When you go into the military and you start in basic training, it’s all about proving yourself every day and that you can take it and you can gut it out. And you earn their respect.

The ways in which they proved themselves to male colleagues differed by individuals and situations at work. When Becky entered the physical plant, she had to work harder than men in order to be accepted by male colleagues. As previously reported, the good old boy network was quite strong at the time and she witnessed many older workers’ reluctance to work with her. So she worked harder and harder as she reported:

Becky: So I kept watching the guys and I used to help them. I watched them. One day and I thought I can do a better job than these guys. They didn’t care. Men don’t care. I started working with them. Man! I can do this. I bid on a job. When I went into the job interview around here it’s the good old boys network. It’s the older men thinking I don’t want a woman. I want guys. I come into this and I went into the interview and I had done everything. The only thing I hadn’t done was sometimes they had to use a jack hammer. There was something else that they had to do. And I went into the interview. The guy goes he was trying to throw stuff at me and scare me. He told me a couple things. Oh yeah I did it here. And I did it with this guy. Here’s what I did. Finally he was so flustered. He couldn’t get me on anything else and he said. You could run a jackhammer. I said man that sounds like fun. He’s looking at me and he you could almost see the look on his face then, “Oh, I can’t get rid of her. There’s no way I can turn her down.” I was the highest bidder on the job. And at that point you had to take the highest bidder. So they begrudgingly gave me the job.

For Becky, that was the only way she could be accepted by male colleagues and she kept it in mind throughout her early career.

Becky: Did you ever heard of the term women have to work twice as hard to get paid half as much? When I grew up my mom always told me you worked hard. You could do anything you wanted to you just had to put your mind to it. So I was figuring I could do anything the guys could do. Actually I always strive to do better. You always have to work harder. You know but once you get once the guys see that you are willing to do that. That you can keep up with them they kind of they finally like ease off. It’s like oh okay. I think the men’s mentality is that when they are working with a woman they got to carry her. That she won’t hold up her end of the bargain. She won’t do. They’ll have to do their work plus hers

too half of hers because she's only going to do half of it and I was never that way. I outdid them. Probably did half of theirs. I worked twice as hard as the guys for them to accept me and know that I can do the job.

Working harder than males and doing a better job were the two goals deeply engraved in their minds to survive male-dominated environments. Sometimes that needed extra time at work as Kate mentioned:

Kate: If you really have a desire to get promoted or work in a nontraditional area you're going to have to do some extra work. You're going to have to be able to do your current job very well. But you're going to have to spend additional time that's going to come out of your personal time to do that. If you're not willing to do that I, I think it's very unlikely that you're going to have those opportunities.

As she said elsewhere during her interview, her efforts to try harder eventually made her one of the successful women employees in NOU, in terms of level of position among non-faculty employees. In contrast to others who remembered hard work as a strategy to survive at work, Kate tended to attribute her extensive efforts to her internal work ethics rather than to a deliberate effort for survival. She recalled it as a "competition with herself":

Kate: I think that it's probably my internal values that drive me and I don't know that I ever set. Some people have a strategy, they look and they say ok in twenty years I want to have this kind of position and here are the kinds of things I need to do to get there. I never did that. I was always very focused on what my job was and how I could do it to the best of my ability. And then if something else came up sometimes people would encourage me to apply or I'd think well yeah, I think I could do that job so I'd put my name in and I'd see if I could, if somebody would hire me to do that. So I think that's true even with I guess I never told myself, "Ok, I'm a woman what do I need to do to prove myself to all these people?" I was always about, for me, almost a competition with myself. I want to be the best I can be at this so what does it mean that I have to do.

In this sense, the strategy of proving their work abilities and commitments to others initially played a role as a way to earn males' trust and to be accepted into males'



territories, but ultimately this helped them to build their competencies and survive at their occupations.

*Strategy 2: Be Confident Always*

The other strategy they employed to deal with problems with male colleagues was to demonstrate their confidence. Strictly speaking, this theme overlapped with the first strategy at some point in that proving their competency is already an act of showing confidence. But, participants emphasized the importance of maintaining confident attitudes all the time at work. In brief, proving oneself is a more basic strategy to gain approval from males, while showing confidence is more a strategic way to keep territory fortified once earned. As Emily said:

Emily: Don't second guess yourself based on what the external environment tells you. Don't let that short circuit your confidence and I think that the best way to fit in to my department is to demonstrate that you are confident in yourself and that you have wisdom and experience and presence. If a person comes across as being timid and I'm sure then they won't get respect, whether they're female or male, for that matter. But it's important to again, believe that you can do the job because we hired you. We wouldn't have hired the person if we felt that you couldn't do the job so believe in that and do it. Don't fret, do it.

In a similarly assertive way, Catherine emphasized the importance of self-confidence as a way of being professional.

Catherine: Self-confidence and very high self-esteem, because you are going to have to carry yourself in a very professional manner with a group of men to be taken seriously. So you've got to have the confidence and the self-esteem to stand up to a man who is equal or higher than you and be taken seriously.

Building confidence at work could be obtained by developing a strong knowledge-base about work. As an experienced senior engineer, Anna talked about the need to be prepared:

Anna: I always try to know the issue. Know the background. Have the data. So that I'm prepared for the conversation because if I'm not then I think my credibility is going to be questioned. So I think it really comes down to knowing the issue and having the information that you need to communicate.

Catherine also stressed this issue as:

Catherine: I would say a strong base of the business itself. A strong, very strong business base would be absolutely necessary, absolutely because it's all about numbers. It doesn't really matter what position that you are in this field. It all comes down to numbers. So a very strong economic business base definitely would be a bonus.

But, confidence is not only related to the matter of having sufficient knowledge with the work itself. In tough environments like law enforcement and the military, women need to show their colleagues resoluteness in a visible way. Diana's note provided an example:

Diana: Once you understood what was happening in military training. It's all about you know kind of playing with your head and breaking you down and building you back up. Then I felt very confident. And I think that that was the part of the military it helped me gain confidence in myself and helped to build my self-esteem. Because you know at first I had not been around that kind of thing so and then you have to start taking up for yourself and you have to be strong. Establish your position and maintain your position or you get pushed around. So that definitely helped for my future position.

At the same time, however, some participants warned of the inexplicit border between "being confident" and "not showing overconfidence." Diana mentioned the "fine line" which women are asked not to cross, while stressing that confidence is still the foremost requirement.

Diana: I think the biggest thing with that is being confident with your own abilities. Sometimes that is hard. When you go into a new job and you don't feel confident at all. You have to be careful that you don't come over as too confident. Then with men it seems to be. If you are a man and you are confident then you are confident. If you are a woman and you are too confident then you come across as cold and .. There is a word that I want to use..yeah pushy if you are a woman and

come across that way, because they expect it from a man but not from a woman. So that's kind of a fine line that I have crossed.

Lizzy, who emphasized the sensitivity of dealing with different groups within her work unit, maintained a similar notion:

Lizzy: But sometimes there's that there's that line that is really hard. You have to be careful not to cross because there are tech service positions and there are customer service positions for example, and let's say I am printing something up for you. And you call me up and you say well am I going to get this delivered today. And I say well let me go check on it. So I go and I check and I find out that it just needs boxed up and delivered. Well sometimes you just want to pick them up and put them in the box and go ahead and take care of it. But because there is that fine line between staff and technical service employees you have to be careful not to cross over into what their job duties are.

To maintain the fine line between showing confidence and being overconfident was also an important issue for Julie when she entered the police department. She remembered that this was among the initial messages from other male colleagues who guided her before she entered the occupation. Catherine's comment summarizes well the warning about confidence.

Catherine: You cannot bully. You cannot threaten or hold over. You have to be prepared to state your case and make your case. And you have to believe that what you are presenting is the best option. And you have to be able to communicate that in an assertive manner without going too far.

In sum, participants found the great importance for building self-confidence by having sufficient knowledge about the nature of the work and showing a solid attitude toward understanding their positions. Meanwhile, special caution was necessarily exercised to show their confidence in their work and to show overconfidence, which sometimes creates a breach with males.

*Strategy 3: Know Male Culture*

Another important way in which women in non-traditional occupations work in male-dominated environments was to understand male culture and actively adapt to it. As already reviewed in an earlier question regarding how participants had come to their occupations, many participants already were ready to be accommodating in order to be a part of a male-dominated culture. When they were asked to tell their experiences that enabled them to survive those environments, many participants credited their pre-developed nature to smoothly cooperate with males. In most cases, this traced to their early childhood and adolescent experiences, or their personalities. Narratives of Julie and Catherine show this point:

Julie: I was always a tomboy growing up. I get along a lot of my good friends are guys. So I seem to get along with guys well. And I guess that if you didn't, a lot of the girls who work here are like that. I think it would be very difficult if you had trouble having relationships like that to work in the field that's most like the people here are going to be other men.

Catherine: Where I grew up I was the only girl out of ten boys in my neighborhood. So I kind of naturally gravitate towards a male conversation, male dominated conversation, just because I know guy stuff. I know about cars. I know about building. I know enough about these things to be just dangerous.

In addition to their personalities interacting comfortably with men, their knowledge of male culture also developed throughout their relationships at work. Janet recalled the strategy that she used in her early career:

Janet: See who you can approach first as to how to get along with people especially the guys here because they are. And some people you can tell that they are kidding you but maybe somebody new wouldn't know that.

Catherine stressed also the importance for understanding males' language and terms used at the workplace.

Catherine: And basically with the pressmen I had to prove to them that I could communicate on the same technical level with them. I had to learn all the terminology for lack of a.. I don't have a layman's term for it, layouts how things are printed, how things are done, why they are done that way. I had to be able to hold an intelligent and well informed conversation with each and every one of them in order to gain their respect.

In the meanwhile, Julie naturally learned males' language in her early career by interacting with male colleagues.

Julie: I did intern at a police department Dove Township Police which is right up the road for a couple of months when I was in college. I remember never saying a swear word before in my life. That's all they did. And then I'm coming home saying all this stuff. My mom says, "What is wrong with you?" It's because I was hanging out with police officers all day. You know what I mean. I'm not easily offended where as some women hanging out with guys all the time it could be bothersome. I'm not really affected by that. Which is good because if not I might have trouble working in a place like this.

Similarly, Becky mentioned that she tried to "fit in" the environment without taking offense at their "dirty" words or trying to change them:

Becky: You got to take pride in the job and make sure you do it the right way and stuff. But I have a lot of guys who took me under their wing and they'd show me different things. This is nice. When I came into this department it was like I say mostly male dominated and I came into here thinking "Okay how can I fit within this organization?" Because the guys used to tease me and they'd say "Oh are you going to take me to affirmative action?" I'd say I can give it back to you as well as you give it to me, so like I didn't care. It's like I'm going to try to fit in. And after a while I'm just one of the guys anymore. We all joke around and stuff and it's like I want to fit. We've had people walk into this organization well. Here I am. You are going to have to change to suit me. This place doesn't work that way. You know and I said being here 20 years. I've seen all the changes and everything. It's like I just sit back.

Becky reported how she succeeded in extreme male-dominated environments in other parts of her stories. As time went by, she became a veteran female in the area, and finally she gained a high level of pride in herself by her efforts in her early career to make herself a part of their culture.

As male culture is prevalent and dominant in non-traditional occupations, knowing male culture is not just a matter of understanding and accepting. Rather, active involvement to know the specific culture permeating in that workplace is a requirement, and more importantly, understanding the people around. Kim pointed out this issue very clearly:

Kim: I would tell anybody going into this kind of field to just really research and know what you are getting into and not from the environment standpoint so to speak like what your culture is in the department. But that's helpful if you have any ability to do that. Most people really don't. They apply for jobs in departments that they don't really know people in and they want to be back in their hometown but they don't know officers there. They just apply there. Or wherever they want to go and then they kind of going into cold turkey not knowing anybody but knowing more about exactly what the job is all about. And I mean just to say you are a police officer and you can watch TV and you see what this is not and what it is.

#### *Strategy 4: Special Bond with Colleagues*

As a woman working in an environment where females are scarce, close relationships with female colleagues often creates a special bond between them. They felt more secure by the ties with other female colleagues when working mostly with males. Diana recalled that she built a strong relationship with females when she worked in the military earlier in her career.

Diana: we had a group of five girls who got there early and we were all in our twenties. We had had some college or had graduated so we kind of bonded and stuck together.

The bond with female colleagues is well described by Janet's story, who has one female colleague at her level and developed a long-term relationship with her:

Janet: For the most part Sandy and I it's like we don't have to hold back what we say or we don't have to think about we're going to say it and we can just talk about what's on our minds where even with some of the guys it's like I still kind

of think about how I'm going to say it or how I broach it.[...] It is hard being a woman and if we don't stick together. We don't get anywhere so we do try the women here do try to stick together. We do have Sandy and I especially because she's another grade 7 driver. We do have a lot of interaction. In fact even though I'm off work I still talk to her. [...] We share everything from what's going on personally with our lives to what's going on here at work. And some of the personalities that are going on here at work because everybody has these little games that they like to play at work. So Sandy and I have been here long enough that we know the games that certain people like to play so that we'll talk about some of the politics that are going on with certain people and actually what the jobs. What's going on right now and how busy she is and what she's actually doing that day and so that's the kind of stuff we talk about everything.

As Janet mentioned, her interaction with Sandy is not made only for sharing their experiences at work. It included a personal level, where they shared their feelings and daily routines. As a mom of three children, Kim also stressed the advantage of the female bond at work. The role as a mom also strengthened the relationship with females who have similar concerns with family:

Kim: She and I have kids that are the exact same ages. In fact they are in the same classes except I have an extra kid. But two of our kids are we live in the same area so we have we communicate an awful lot together and there is a handful of people that are within my age category that I communicate with on a daily basis, on a friend's basis.

While women build strong bonds with female colleagues by sharing their personal concerns and issues experienced at work, the more general bond with colleagues was emphasized by Ashley, a female police officer, who works closely with other colleagues. Considering the characteristics of police work, where officers engage in considerable team work, sometimes in dangerous situations, a strong bond with colleagues is naturally developed in their daily work routines. Ashley described:

Ashley: You need someone to just be able to let your frustration out and they'll say all right you're done. And I do find myself sharing there's a lot of people that I work with particularly on my shift that I can say. I need to vent to you for a minute. I'll say my words. They don't have to say a word. I'll say okay I feel

better. So you know you just have this bonding when you can just go up to your co-worker and say I need your shoulder. I need your ear for a minute. And they listen and say I don't. [...] So I guess the bonding... I'll put that as certainly a positive and that goes with the bonding thing. That I feel confident that I can be myself around my co-workers and I think that's something that you can't find everywhere

For Ashley, close ties with colleagues provided her an outlet for overcoming high stress from work and gaining emotional settlement. Julie, another police officer, also stressed that a relationship with colleagues is important due to work characteristics. She noted:

Julie: You build close friendships with people because you are in life threatening situations with them. You have to be able to count on them to do that.

In brief, the close relationships between female colleagues provided a friend-like bond through sharing their concerns. Also, this kind of friendship can develop with co-workers especially in work environments that need a strong tie among colleagues. By expressing their worries, speaking of their emotions, and sharing information, whether as a mom or as an employee, they keep a strong bond with colleagues and this provides them a shelter at work.

#### *Strategy 5: Control Emotional Breakdown and Communicate Properly*

The strategies found earlier are more generally required attitudes and behaviors to survive and function in male-dominated work environments. In contrast, how women reacted when they faced direct discriminatory treatment and how they overcame those situations revealed the more tactful and concrete strategies they used. Although not many participants reported that they experienced extreme discriminatory treatment, some



participants agreed to the attitudes that should be sustained when they dealt with uncomfortable situations with males.

One strategy is to refrain from an immediate emotional reaction when they encounter an unfair or inappropriate situation. As an engineer who confronted some experiences of inequality and harassment, Susan emphasized the need for reserving emotional reactions in any case:

Susan: When people, women come to me upset because somebody said something that wasn't nice to them. My reaction isn't to report these people. My reaction is just to get on with life. So I think I'm very tolerant. The thing that I don't like is when men think that they have the right to touch me. And that's where I'll draw the line but I'll pretty much take any kind of flack as long as it's verbal and I can just grin and bear it and wait until I get home and I don't cry but I complain to my husband a lot. Yeah so I think having a thick skin and it doesn't work all the time. I mean I've cried sometimes. [...] And I deserve to be treated fairly. So my advice is have thick skin and try not to let it get to you and don't be a cry baby and get angry every time someone calls you sweetie or honey or thinks that your words don't count. Because you are in for a long haul if every little thing upsets you. You've to have a thick skin. You've got to be able to tolerate it, which isn't' the advice that they would give you from human resources that our diversity or ethics committee would tell you. But in real life you do. You do have to learn how to jut put up with some of it I think.

Susan learned the need for tolerance from her father who ran a male-dominated business. She recalled it as:

Susan: I guess the best advice I ever got from anybody was my dad. And when I first went to work for the power plant, he said those guys are going to be brutal. And they were. They did a lot of nasty tricks and said a lot of horrible things. And they like glued stuff to me desk or put stuff in my hard hat. And they were just mean. And a lot of nasty women jokes and my dad always said. "Save your crying until you get home. Don't ever let them see that you are weak. Wait until you get home and then you can cry. Then you can". And I think I have a pretty thick skin and I think I'm pretty tolerant.

Similarly, Anna mentioned that women must be cautious to avoid showing their weaknesses to male counterparts.

Anna: Never let them see you cry. You go to the bathroom if you are going to cry. It stands your ground. I mean if you truly believe in something don't back down, don't make somebody make you feel like you should back down. And if you do feel like you are going to cry, go to the bathroom. That's not a good thing in the workplace. But sometimes you just...I sometimes go into tears when I watch American Idol at night.

The purpose of controlling an immediate reaction or emotional breakdown is to avoid damaging their reputations because to not do so causes the reaction to be viewed as a sign of weakness. Lizzy mentioned that she tried to retreat temporarily and revisit the issue later:

Lizzy: For the most part I feel as though I am an equal and I'm an equal member of the team. There have been some instances where I have not felt that way and I have not felt respected. And like I said I try not to make it personal. Maybe somebody was having a bad day. Or maybe I was the fifth person that had something go wrong that day. And okay well maybe I was the one that I was the chosen one to have that taken out on me kind of thing. And if I feel that I am not having a healthy discussion with someone or that the discussion is going nowhere, I will just simply walk away.

Instead of showing direct and immediate emotional reaction when they experienced the unfair treatment, they preferred to talk about the issue later, directly with a counterpart or managerial person who could handle it. Communicating directly with the person enabled Lizzy to understand the issue more clearly and to prevent possible misunderstanding.

Lizzy: But did he truly mean it that way or did I just take it that way? And then sometimes I'll go back and have another discussion if I need to and that will be the end of because I might say "well this is what I heard when you said that. Is this what you meant?" And sometimes it is and sometimes it isn't. But at least I feel better about it.

Emily related in other narratives that she used to become angry with males' stereotyping and comments when she was young, but, as shown in the following segment,

she changed her attitude as she became more experienced in trying to communicate.

Anna's narrative also showed her focus on the importance of communication:

Emily: I very rarely would I speak to somebody and say here's what you did. I was too immature then to be able to do that. Nowadays though that's what I do. I sit somebody down and I talk to them just one on one. And I explain how their action or behavior came across to me and I ask. Is that the message that you were trying to put out there? Because that's what I received. And usually it's a teachable moment. So it's always been a good thing.

Anna: I try to talk to the person, one on one. You know like the person who made that comment later. I went to him and said "That was not appropriate." It was interpreted by many people in a very derogatory way. "You cannot speak to me that way again. It's not". So I always try to address the situation one on one with the person.

To summarize the strategies that women employed to survive male-dominated environments, they tried incessantly to prove themselves to male colleagues and managers, to fight against their stereotyping, and to earn their trust by showing their competence. In addition to showing their abilities, maintaining self-confidence also played a key role for them in building their positions and emotional strength. Knowing male culture and understanding the people around them were crucial for their survival among males. Women who already were accustomed to male culture felt more comfortable in adapting themselves to the environment, and that knowledge also was developed as they became experienced at work. Workplace relationships helped them to obtain emotional relief when they had a lot of work stress, and especially, a bond with female colleagues helped them to feel more secure in male-dominated environments. Lastly, some women stressed the importance of reserving emotional breakdown when they faced unfair situations and they solved the problem by communicating with those involved in proper ways.

*RQ4. University as a Work Environment*

Table 6. Summary of Perceptions on the University as a Work Environment

<b>Perceptions</b>	<b>Descriptions</b>
Good as Women's Workplace	Overall progress to increase women's participation into university workforce; accepting environments for women; family-friendly atmosphere
Mission for Educational Goal	Enjoying their service for helping students' learning; providing opportunities for employees' learning and development
Students Keep Me Young	Refreshing experience to be around young students
Generational Gap	Gap between older and conservative workers and younger workers; younger generation more accepting
Little World	Being recognized as a minor environment when compared to similar environment in industry; relatively loose work environments
Divide among Different Groups	Division among different work groups; faculty vs. non-faculty; unionized vs. non-union workforce
Negative Politics	Few cases of unfair of operations to protect institutional reputation; too big and bureaucratic operation hindering prompt and appropriate decision making

In an organizational context, participants in this study work for a large-scale university that has more than 40,000 enrolled students and more than 15,000 full-time faculty and staff. Also its work units include a variety of occupations, such as printing, police, transportation, physical plant, housing services, and many others. Considering the size of the organization and the variety of work functions, a university can be seen as having a unique cultural setting. Universities have been studied mainly in terms of their educational functions and academic faculty. As a result, few studies have been conducted

to describe the university work environment as experienced by its non-academic staff. So this research question focused on the characteristics of the university as a work environment as perceived by its non-academic employees. Results of the analysis of interview narratives were grouped according to positive and negatives aspects of university environment in a large framework, and the themes found are described below.

*Positive 1: Good Environment as Women's Workplace*

Most participants mentioned that the university had been making special efforts toward women's progress. Especially, participants, who have worked for the university for a long time, recalled successful efforts in encouraging women's participation and in achieving diversity in the workforce. This was mainly driven by the administration, as Diana recalled:

Diana: I think they are doing a good job as far as women. I think they probably still have some things they can do as diversity in terms of race and religion and that kind of thing. I think as far as women they've really had a big push and they've done studies. They have the commission for women on campus that's very active and it does have the administration's ear. My boss Schein, vice president, for he's very atoned to that and he has his own committee for women and for discussing the issues of women. And they are trying to I think they've got a handle on it for staff.

A similar notion was addressed by Kim, an 18-year experienced police officer.

Kim: I think we are very proactive in maintaining diversity and of course in this department there's not t here's a quarter of us are women. And that's a pretty decent ratio although we have strived to make it higher. But I think the university tries to address the diversity issues as they relate to women. I think there's a lot of woman that work for the university which helps drive that too.

Kate, who was promoted recently to a high managerial position, recalled that the university has a special commitment to ensure diversity. She said that the reason for her

promotion was her ability on the job, not her gender, but at the same time she stressed that she was “lucky” to take advantage of the university’s efforts.

Kate: I think the university really works hard at supporting a diverse environment. They’re not always successful but I think that’s our, that’s the university’s commitment. And because of that, I was very lucky to be in this administrative fellows program, which gave me lots and lots of exposure, lots and lots of contacts. So those were really very positive things. And I see a lot of that. I feel like I’ve been promoted, not because I’m a woman but because I’ve demonstrated skills and experiences that were a good fit but I think people were very pleased that a woman was able to rise in the way that I have been. And so those are some of the positive things. I think there’s a real desire on the university’s part to support diversity. I think that there are a lot of special opportunities out there for woman and people who have color that I was lucky enough to take advantage of.

Julie, a 5-year experienced, female police officer, also agreed to the university’s environment as being more accepting of women. As a senior engineer, Anna also felt that the university is a good place for women to work, even in male-dominated fields.

Julie: I don’t really feel like I should be treated differently than I think that what being in a university environment regardless if it has anything to do with the university or not. I think that this environment is accepting for women. So I certainly don’t have any complaints about the way I’ve been treated because of the fact that I’m a woman. I guess I won’t really have any suggestions because I don’t think that anything necessarily needs to change.

Anna: I think the working environment at the university for females is very good. I mean I generally feel that the university does an excellent job of making sure that all people feel comfortable in their workplace regardless of what their background is. So I mean I really considering this is such a male dominated field. There have only been a few times when I have felt there have been situations occurred because of it. But mostly those were small localized situations.

As revealed from many participants’ narratives, the university is considered a good place to work for women, and its commitment for women’s progress is appreciated highly by participants. The reasons for their emphasis on favorable aspects were mainly drawn from the university’s long-term initiatives to achieve a diverse workforce and to

develop a more accepting environment for women and a more family-friendly atmosphere that allows for flexible work time within a department.

*Positive 2: Enjoyable Mission for Educational Goal*

Another positive aspect of working at the university relates to the educational mission of the organization. Although they were not involved with any formal practice of education as are faculty, most participants mentioned that they really enjoyed working for an educational institution and serving the university community. The university's educational mission provided them with two distinct types of experiences: one is to help and serve students and the other is to provide opportunities for employees' learning and development.

Becky's story is a good example regarding the joy related to working for students. As she previously worked with many groups of students in her job in the police department, she had a great level of interaction with students. She recalled:

Becky: Basically I get to work with a lot of students so I get to help. When you were a kid you never listened to everything your parents said. Did you? You always thought mom and dad were wrong. Well when these kids come in here they can kind of look up to me. It's like okay now here's your whole life ahead of you. What are you going to do? Here's you know you got to do the best you can. I can tell them the same thing that their parents tell them and they're going to listen to me because it's not mom and dad telling them. You know it's somebody different that they've come to work with. They know. They respect.

Throughout her work with students, she always enjoyed talking with them and providing guidance when needed. She described the details of the joy:

Becky: We had a student years ago he came in and he wanted to be a police officer. And here they would do what they call practicum. They could come in. They could ride with the officers and do. He said to me one day he goes you know I have a chance. I can either stay here and work for the summer or I can go back home and work with the police department. I said you know what. Do that. The

money you can make up the money later. I said it's more important that you get this. You go back home. You have the chance you could learn a lot more. If you think I should. Yeah I would. Kid came back and gave me hug and said you know that's the best advice you could give me. Because he was naming off everything he did. And it's like you know it was good to steer somebody you know that they got the experience that they would need for later in the job out in the real world.

The fact that they can help students through their work provided a special feeling of valuable commitment. This notion was also revealed from Ashley's narratives:

Ashley: As far as being able when someone comes to you and says this has happened to me and help me. And you are able to help them. That's a really good feeling. A lot of what we do we deal with kids drinking underage. When you do that kind of stuff you don't necessarily feel like you are really helping people. Because a lot of times you don't get any thanks for that. Hey thanks for my underage drinking citation. But then every once in a while you'll run across the person. The girl who drank so much and passed out in some guy's apartment and who knows what would happen if we weren't there. They will come the next day. I thank you so much. Something bad could happen to me. I wasn't thinking straight and I was drunk.

In borrowing the term of "fulfilling" experiences from Ashley, most participants mentioned the meaningfulness of working in an educational institution and having direct and indirect influence on students' lives. Working at the university has other merits for them as they experienced lot of opportunities to develop their abilities and employees' development is valued and encouraged. Narratives from participants showed this aspect:

Janet: I just think the positive is that you're in a learning institution. You're always learning. And they do give us opportunities to go to workshops and we have seminars sometimes and that's the great part.

Julie: They offer us that 75 percent off up to all employees which right there that's their way of saying we want you to continue your education. And better yourself. And this department as a whole is very willing to. I'm not taking any classes but I know there have been other officers who have worked full time and got their master's degrees. Which I'm sure is what you're going through. You know how difficult it is to take classes and that kind of thing and do all this research and then can you imagine working somewhere full time and doing it so the department is very willing to change schedules around? You know switch



your days off that kind of thing so that you can go to classes to try to better yourself. And they are very big on education.

Participants reported that they had enough opportunities to develop their professional knowledge and useful skills by attending workshops and classes, having tuition support when attending regular classes, and more importantly, the entire atmosphere of respecting education and development of the workforce.

*Positive 3: Students Keep Me Young*

This characteristic of the university community brings another unique valuable experience to women working at the university. Many participants reported that they truly enjoy working in university environments because young students make them feel alive and young. The uniqueness of the university environment lies in the fact that students come and go, but the same age group of students always remains. This changing but unchanged youngness gives participants a feeling of refreshment. Janet noted this aspect as:

Janet: And being around young people all the time. And it's always changing, because there's always a new crop of students coming in. [...] It actually helps keep you young because of the students. So your mental attitude is always. Although we keep commenting on how young they look. That must be that we're getting older and they keep looking younger and younger. But I think it's great that I work here. I thoroughly enjoy working here. Because of that environment of sometimes it gets a little tiring that they of their childishness but that comes with age maturity.

Becky and Emily also reported about the pleasure of being with students.

Becky: They keep me young. I'll never get old as long as I work with them. They keep you young. They keep you hopping. They keep you thinking. No time to get Alzheimer's with these kids. I laugh. Some of them they'll say stuff and I want to put my head down and howl. It's like where did you come up with this logic. It's like I've never heard this before.

Emily: Just being around the students in general is very well helpful because their minds are so fresh. And they are so full of hope and for the most part they are not jaded. Like maybe some of us. And that's refreshing. So I like that but again I don't think that would be different between men and women I thought in my experience with male managers and female managers the female managers seem to generally take more of an interest in talking with the students in getting to know them and experiencing that freshness of mind that I was mentioning. So I think that's a nice perk. And it's hard to put a price tag on it.

Emily noted that females might be more excited with working with students than males because of the female characteristic of caring. The virtue of caring was also mentioned by Kate, who had long-time experience working directly with students. This issue that a woman enjoys being with college students might be an interesting topic when the cultural characteristics of university settings are explored further.

#### *Negative 1: Generational Gap among Workers*

From the results of the research question about issues experienced by women in non-traditional areas, the issue of the "good old boy network" was addressed as a once-dominating culture in the university. With regard to this, participants mentioned the negative aspect of the generational gap among university employees, where the old generation holds very conservative viewpoints and produces a male-centered culture inside departments. One reason was attributed to the regional characteristics of NOU, where a rural culture has been quite dominant for a long time. Diana noted:

Diana: You have to be able to stand. I'm not saying that you have to be forceful but you have to be able to stand up to people because especially in this. We're in xxx (the name of State), rural xxx especially in some of the areas like physical plant you are dealing with men who don't wish to listen or deal with a woman.

Susan spoke of this issue by emphasizing that conservative minds ruling the area is still prevalent in the working culture at the university.

Susan: You are in the middle of nowhere and the people that grow up here have country values and they're not diverse people. I went to school, there was one black family, one and there was no other ethnicity. There was no one who was Korean or Chinese or even Hispanic, nothing. So this area is very, have you ever heard the term vanilla? [...] There's not a lot of diversity once you get away from the university. So you have people who are not used to being around woman and acting in appropriate ways, people who are not used to other cultures.

With a similar concern, Emily mentioned older generation managers who held a conservative view of women. She added that the generational difference is not limited to the university settings, but is also found in other environments.

Emily: I think that the biases are across the board. And I think there is a lot of generational bias as well. The older generation seems to have a different opinion of females in food service than males in food service. And I don't know really what to say about that. If it's just generational difference. So I did experience a great deal of bias out there in the public realm when I worked in food services as well.

While they reported that the older generation is more conservative and that the regional characteristic of the university being in rural area enhances the conservativeness of its culture in some points, they had no problems with the younger generation with regard to their gender.

#### *Negative 2: Little and Minor World*

Another negative aspect of the university environment was associated with participants' consciousness of university's relative loose work environment compared to other organizations, especially industrial segments. As mentioned, the university holds various fields of work functions in it, and each functional unit is often compared to other industries. For example, the university police have the same level of law enforcement functions as do non-campus law enforcement. But people regard university police as a powerless group. This notion was described well in Julie's narrative.

Julie: We got called “rent a cops” all the time. I still get called rent a cop. Unfortunately working on a university, people view you as differently. My family who respects me has asked me, “Do you aspire to be like a real cop?” I am a real cop. I get calls from parents all the time. “Are the xxx police going to find out that you arrested my son”? It’s like why does that matter. The university police are the same sworn police force. I have the same power as any other police officer in the state. People don’t realize that. “Oh thank God my kids got caught by the University cops. University cops can’t do anything.”

This perceived minority was also found in Emily’s stories, where she discovered that people hold different views toward food service in a university. The situation is worse when with the insertion of the issue of the gender.

Emily: I could be off on this but it’s always been my thought that because it’s worse for the females. Because I’m a woman there’s an assumption that I’m not as professional even though I was a manager. It’s just food service. Where as some of our men could try to bid on jobs in other departments and get those jobs. “Yes he did work in food services but he was a manager.” You know so I see a little bit of that. That bothers me. [...] Being a woman at the university particularly in food services I think there’s an assumption that anybody can do food service. That it doesn’t require any kind of skill set or any kind of education or anything like that. And I think it’s not as a big of a stretch for men in food service to transition into other fields because they can easily say “Yes I worked in food services but I’m a manager. So I can manage a plant as easily as I could manage a food service”. Where as I think people in other parts of the university see women in food service as stymied. You are stuck there. That’s all you can do is food service. They don’t see it as yeah she was a manger in food service. No she just did food service. That’s all she could do. We’re pigeonholed.

Even in same occupations, women working in the university often receive less respect than do men workers. In addition to this notion of feelings of unfairness for their work, Catherine suggested that employees at the university are narrow-minded and should have a sense of the “real” world. She described this by comparing her experience outside the university.

Catherine: I think that folks who have never worked anywhere but the university have no idea what the real world and the real economy is really like. And they see it on the news but they are not really impacted by it. I worked in a very small print

shop. We had we had very minimal benefits. And I had five vacation days a year. When I came here I get 24 vacation days a year plus 12 sick days. I had no sick time. I had to have an operation and I had to take the time off without pay. That's just in today's society, that's real. That's very real. That's not the abnorm. That's the norm. To work here and never have worked anywhere else, it's just people have no idea. The staff, the union staff have no idea. If they had to go work as an electrician for a private contractor they'd never make it because you work effectively and efficiently and you move to the next job. You are not given excess amount of time and you fill that time. You are told this project needs done today and tomorrow you will be here at this project. I don't I call it fantasyland. Basically and don't get me wrong. It's wonderful to be a part of. It really is. But I just I really think that folks who never worked outside the university need to spend some time in the real world working.

Although her critical viewpoint focused on the issue she experienced when working with unionized people where a certain level of job security is guaranteed, this notion of "looseness" is also related to the work culture in the university, as many employees take advantage of the relatively flexible work schedule.

*Negative 3: Divide among Different Groups in the Workforce*

An interesting issue was revealed from participants, who talked about the tension and conflicts among different groups in workforce in the university. As participants for this study were chosen from different occupational areas and different types of employment, their concerns reflected their experiences with their situations or job levels. One issue was about the relationship between non-academic staff and faculty members. Diana recalled an experience of being ignored by one faculty member when she suggested an idea but was instead insulted, Diana reported this issue as:

Diana: They (faculty) are very condescending. They assume that I have no educational background. They are very rude. Now granted there are many faculty members on this campus and we only deal with a handful. But the ones that I have dealt with are very. They are men. They are not women. Once in a while I get some irate female faculty but the majorities that get to me are men. And they

assume that you they'll say you are stupid. They just assume I have no education. That NOU would just hire me off the street. And so that gets sometimes it's hard because they get very personal. They use personal attacks. They are much worse to deal with than any students, much worse. I don't get that from the people who are in the finance and business. Academics is probably the toughest group to deal with. And I don't think it's a male versus female with the academic side. I think it's they assume that I am less educated so they treat me as if I am.

The issue of conflicts with faculty was that some of them treated non-faculty as non-professional staff with lower levels of education compared to their own. Although this case was only reported from Diana, one possible reason is that other participants usually do not have extensive interaction with faculty. An interesting exploration would be analyzing the tensions between faculty and non-faculty staff at the university.

Another perception about the divides among different groups was reported from unionized technical service women, Janet and Becky. Janet mentioned seriously the negative issue with working at the university as a technical service person:

Janet: I'm giving you the tech service side that some of the rules and regulations on the jobs itself are a little unfair for what we do. I don't think we actually our grades our work grades is high enough. I think we should be 5s or 6s for what we do, because we're on the road. We're driving in all kinds of conditions. We're we have people's lives at stake. And there are people in other tech service areas who do their jobs. I don't feel are anything compared to what we do. And they are paid a lot more money. So that would be one of the negatives. That would probably be the biggest one that I know of is that how they grade the job levels. I don't think it is quite the way it should be.

She also discussed the difference between technical service people and others by mentioning the relative freedom given to faculty and staff.

Janet: I don't think faculty and staff are watched quite the way tech services are watched. Like accounting for your time or what is it or your productivity or. It seems that like faculty staff can do a lot more personal things. They are freer to come and go to do where. I have to swipe a time card and if I leave for whatever reason. I have to swipe back out. So I then have to use personal time or vacation

time or sick time as to what I'm actually doing. Now they also are supposed to do that but there's a greater freedom type thing with faculty staff I think.

The experienced conflict among the unionized group versus the non-union members was also presented in Becky's complaints about young managers who often ignored experienced people's value and knowledge.

Becky: When some people get into management they will not listen to people in the trenches who know the stuff who work the stuff can tell you stuff tell you how things work. It's the mentality. "I already know it so you can't tell me anything." So at that point in time you just step back and say okay go ahead screw up. But when you screw it up then you come back. Then we'll fix it because no matter how hard you try to tell them. I've already had bosses tell me "Well I'm in charge". Whatever, go to it. You just step back and let it go. It's sad. It's hard because the way you grew up is do the best you can. Fix it before it becomes a problem. You've been geared your whole your whole life and then you come across somebody that knows it all and it's frustrating that you just got to step back and say hey. You got to let them fall down and fall on their face. And you need to let them make the mistakes and let them come back and say okay now I told you now let's fix it.

With regard to experiences of unfairness as a tech service person, Janet expressed a cynical metaphor of "second citizen" when she described the group of tech service people as compared other groups in the university.

Janet: There's one thing that I don't like. It's the class is here. Like there's like tech service. Then there's clerical and then there's faculty and all that. The tech service people are treated like crap. There are things that are always. That they bend over backward for staff and everything and tech service. We're like second class citizens. The only rights they feel we have is what's defined within the union contract. They forget we're still people. We're somebody's wife. We're somebody's mother. We're somebody's sister or brother whatever but they just think that that's all the rights you have is within that contract and that's not right. You know I've always thought treat everybody fair. But you know the more I've worked here the more thing and some of these kids will say. Well that's just not fair. It's like you know what. Welcome to NOU. Life ain't fair here. It never has been and there are things that have happened to me and I've talked to other tech service people and it's like. It's because you're tech service. You know there's this like you are a second class citizen.

In addition to the gender issue experienced when working at the university, employees had experiences of different kinds of tension among groups in the university. Although this is not directly related to gender, their reflections of the university work environment showed distinct aspects of university work culture.

*Negative 4: Negative Influences of Politics*

Other criticism about the university environment concerned its administrative operations that often carry political implications throughout the university. Although this issue was not directly associated with gender, participants recalled it as significant because it influenced their work environments. These concerns related to the political influences of certain decisions or operational functions.

One instance from Kim's experience involved unjust treatment for a school athlete's crime case. She described it as against her occupational judgment and responsibility to deal with the sensitive atmosphere surrounding the issue.

Kim: I guess then the politics are that our goal is to you know we have students here. They do something wrong. And we try to keep them in at all costs. Where I think we go maybe to some extreme to do that. I mean if there is a guy that was arrested and convicted of X crime which was very bad. And they are a football player. We may try to keep them going and try to modify their behavior and tell them look you know you are really pushing it. But they are a football player and they are a good football player. And that program and some other programs may dictate how we handle things and you know it's only what you read and what you hear in the paper that you know the football player that allegedly raped some girl. I can't even say this for sure. But as you read it in the paper it suggests that the victim did something to provoke this. And it's because it's a football and so you just I think there's a lot of those myths out there that those things happen and then there's some that are probably true.



She did not give a specific example of a past incident for privacy reasons. But as she said, a conflict exists between the educational goal to keep students possible and the value of fairness.

Catherine discussed another example of negative politics employed in the process of decision making at the university. She emphasized that the huge operation of the university often disregards its implications and consequences, which arise from the bureaucratic aspect of university politics.

Catherine: The political implications of the tiniest decisions. That to me now it's rampant in any state subsidiary. Every dot has to be perfect above every "i". Every t must be crossed because if somebody in Harrisburg doesn't agree with the situation or even xxx County if a politician doesn't agree with a situation, it's all over the media. I just we're here for the students. That's our sole focus. We are here to graduate young people who are going to be our future. I really don't care if somebody pulls up the red roses in front of xxx (name of presidential office building) and puts the pink ones in. I just and that kind of thing you know drives me crazy. And no one person can make a decision and not be afraid of consequences. You get an idea but then you have to surround yourself with competent reliable people who will back you on that situation or you won't take it anywhere. I think that's a shame.

She also suggested the existence of a lengthy chain of command and reporting that hinders efficient and correct operation of work. As many participants reported that they have undergone continuous organizational changes, such as reduced workforce and frequent change in work unit structure, the consequences of swift change often were negative.

*RQ5. What Defines Their Careers as Meaningful to Them?*

Table 7. Summary of Meanings of Career Defined by Participants

<b>Meanings</b>	<b>Descriptions</b>
Happiness	Feeling happy and excited with work; inner satisfaction; love of work
Accomplishment and Commitment	Appreciation from other people about their work; helping others; making commitments; passion of working for others
Independence	Financial independence to support family; establishment of self-identity
Balance between Family and Work	Importance of happy family; maintaining well dual responsibility as family member and worker

The final question relates to participants' individual meanings for "career."

Theories of career development often emphasized the distinctiveness of women's perceptions and attitudes toward their careers. Led by that notion, this study attempts to identify what meanings women bring when they discuss their careers, and what is regarded as a successful and meaningful career. As the result of data analysis, four main themes emerged under the heading "meanings of career" to participants: 1) happiness, 2) accomplishment and commitment, 3) independence, and 4) work/family balance.

Descriptions of each theme follow.

*Meaning 1: Happiness*

Most participants emphasized that they felt happy with their work and it made them stay in the job and feel successful at their careers. Feeling happy was paralleled with "doing job they love to do" and "feeling excited to do the job." Kim reported:

Kim: I've succeeded in my career regardless of where I've been because I feel that I'm doing what I want to do and if I wasn't happy I would... There have been times where I haven't been happy with my job at different intervals but everybody kind of goes through that when they are doing something maybe at that time they are not. But for the most part my career has been what I wanted to do. I do feel that that is a huge success.

She recognized the gravity of happiness in her career by mirroring her father's case, who was apparently unhappy in spite of achieving higher rank in his company. She mentioned:

Kim: My dad didn't like his job all my life that I knew him to be working. He had the same job and he hated it. He worked ten to eleven hours a day and had to and to get his job done. [...] He was good with all his kids. But still to think that he goes to work every day and not be happy and make just something he has to do and doesn't like to do it would be very difficult because I know that in the valleys of my career where I haven't been 100 percent happy it's difficult to go to work. And to think he did that for all those years, I think that would be very hard. So although he was pretty high up in the ladder so in his opinion success might not be happiness.

Becky also emphasized that happiness is a key to a successful career, whereas money is not a "big" thing in her career.

Becky: You've got to like what you do because the highest paying job isn't worth it if you don't like it. I've had jobs where I've dreaded getting up in the morning and coming in. So you have to like what you do. You can't always base it on the money you're making or you know because it's just not. If you're not happy it's not worth it. You're personally not happy. Your family life is not happy. That's a big thing.

The same notions were also expressed by Lizzy and Anna's stories. As revealed in many narratives, participants put the foremost value of career on whether they feel happy about their work or not, and this was identified as a key motivator in career retention.

*Meaning 2: Accomplishment and Commitment*

When asked to think about meaningful aspects in their careers, one critical aspect that makes them feel successful is their accomplishment at work. Feelings of achievement come from appreciation from people for whom and with whom they work, and in some cases it comes from inner satisfaction when they become proud of themselves with their work. The first identifier of accomplishment is well illustrated by Julie's note:

Julie: I certainly don't think it means how high I got up the ladder. I would like to think that my chief and my supervisors and all would consider me a good police officer. That to me means I'm successful. I mean if the people in the community that I'm working with are pleased with. You brought me this today. That makes me feel like I helped someone today. Or someone is pleased with what I've done for them. So that makes me feel successful.

With similar meaning, Ashley accentuated that "making difference to other people" defined her satisfaction with her work. In many parts of the whole interview, the focus of "helping others" was frequently revealed. An example is:

Ashley: Success in this field and for me personally is not a paycheck. It's not a title in front of my name. Success is in my job when I can help someone that needed me. And I reached out to someone and made a difference. That to me is I'm doing a successful job. So some people that I'm reaching out to that I can help in a positive way. That's successful to me. Or if I am getting someone off the street that does bad and causes problems and damage and hurt and harm to others, if I can get them off the street behind bars then I am successful. So I don't thrive on titles and I don't thrive on monetary because quite frankly I am very well paid for what I do.

Participants often mentioned that higher rank or position at work was not a big concern for them. Rather, how they are considered regarding their work and whether they are perceived as doing a good job were important to them. Although their accomplishments were proven by external tokens such as promotions and words of

appreciation, internal values drove them to make commitments to the “right things” and “making differences.” Kate made a keen comparison when she discussed the meaning of career:

Kate: A career for me means that there’s something that I care so much about that I can commit my time and energies to it over a long period of time. So that to me is a career path and that’s different than a job. A job is something I’m doing to get money to survive, you know, to put a roof over my head and food on the table. But a career to me is something that I’m doing because I believe in it, I have a passion for it, I’m going to do it over the course of time. Career success to me is that I have a job, I have a position that I look forward to going to everyday. That I feel like I’m making a difference, that I’m leaving whatever task or project I’m doing in a better place than it was before I was involved in it. That I’ve had some impacts, some positive influence on people’s lives or their community and that’s very important. I need to have some sense of satisfaction.

Her discussion emphasized that the virtues of belief, “passion”, commitment, and “positive influence to others” should be involved in a career. A similar opinion was also expressed by other participants. This notion showed a close connection with their emphasis on the inherent educational mission of the university that appeared in the previous research question. In brief, participants reported that feelings of achievement are important for them to evaluate their work and careers, but its ultimate signification is by their internal commitments to their work.

### *Meaning 3: Independence*

The meaning of independence has two different aspects: one is the financial independence to manage one’s living and the other relates to identity as an independent person. Ability to manage their lives independently is an important identifier of their career satisfaction. To live by themselves without other’s help was a basic requirement

for some participants. This aspect was more important for women who had financial responsibility to their families as single mothers or single adults. Janet reported:

Janet: I think the fact that I am able to, I just recently bought a home on my own and I'm in the process of a divorce. It will be final shortly. So I think I'm doing very well because otherwise you usually have to have somebody else help you to buy a house or to have a new car or be able to do the things that I do. I think that I'm putting money back for my retirement and I'm able to do that all by myself. That nobody else is helping me. Sometimes it's kind of scary for women.

As single mothers, Diana and Kim also mentioned the importance of financial ability since they are responsible for their children.

In other ways, the meaning of being independent also associates with the establishment of identity as someone working in an occupation. Catherine mentioned that career is her "identity" since she is recognized by her name at NOU and by working partners, not as someone else's spouse, sibling, or child. She noted:

Catherine: I feel like my career is my identity. I prefer working away from home because my maiden name, my family name was very well known in the xxx area and I was always my brother's younger sister or my father's daughter or my mother's daughter. And then my husband whose last name is very well known in xxx as well and my husband is very successful in xxx. So I was also known you know as granddaughter daughter or wife or. But over here I am not known as anything but Catherine Hart and I'm known on campus for my accomplishments here. So I feel like my career is my identity.

The notion of identity might relate to value of accomplishment, but at the same time, the fact that Catherine could build up her identity by herself was meaningful to her when she recalled the meaning of her career. Thus, whether regarding financial ability or recognized identity as an independent weighed significantly with the participants.

*Meaning 4: Balancing Family and Work*

As expected from conventional thought, family was a great concern for working women. Most participants recalled that they felt successful by the fact they handled competently the two different duties of a mother or spouse and worker. Janet commented on the different perceptions related to family men and women have:

Janet: I think women tend to be a little more leery about going out on their own because for one thing. Let's face it still it's a man's world out there and it's easier I think for men to relate to men and when they go in and it's a man's boss and they are talking about this maybe their career or the goals that they are setting. Men's mentalities are one in the same where women go in and they are a little more like "Well yes I have a family". And so they are like okay so that means she's not going to be available at certain times where a guy he usually doesn't bring in his family when you're sitting down discussing your career and I think women do.

In a similar context, the importance of family in a woman's life was well described by Ashley's narrative. Ashley defined a successful career as her ability to manage a happy family and to have her career at the same time:

Ashley: Though I consider myself a career woman I will probably always work full time and raise a family. But really my success in my life is my family. And if I have a healthy happy family at home then I am successful.

For this reason, the effort to balance work and family was a continuous issue in this study throughout the women's entire careers. Anna recalled that she could build a successful career thanks to her husband's help and support. Other participants also mentioned that the support from family was a significant help to them for their career development. Anna mentioned the importance of balance:

Anna: If you have issues that you are dealing with either at work or at home, it's kind of hard to turn one off. Because let's say you have a very challenging issue at work. When you go home I think you take it home with you. Or if you have an issue that's bothering you in your family, then I think maybe it comes to work

with you a little bit. So I think if things aren't working smoothly if you can be distracted one way or the other.

Although handling responsibilities both in family and work is not easy, their efforts continue in various ways. Anna recalled that she tried to share her life in the workplace with her family as much as possible in order for her family to better understand her career:

Anna: Some of that comes from sharing your work or talking about your work with your family. So they know what you do and they are more educated on maybe a little bit what it means. I mean for example when my daughter was small and I would come to campus on the weekend for something. Something was going on and I had to maybe go to a project. I might take her along with me. You know or when it was take your daughter to work day I would bring her along. So I think then it becomes kind of the common mission or the common goal and everybody knows what it's about. If I have to work late, you know I'll call. I'm going to be late today. It's okay. I think it works together. But it's a challenge. I mean it's the hardest part about it. For example, not being home over the summer when your kids are home, it's hard. But you just learn how to deal with it.

While most participants recalled that they felt successful in managing both responsibilities, Julie who was going to marry during the research, showed her anxiety about what she would do if a problem arose later with her child. She expressed her future career as unstable due to law enforcement's shift work. In a similar way, Susan deferred her plan to move to other job because she wanted to raise her children in the area.

In sum, family issues have continuously played a significant role in planning women's careers, and for participants in this study the effort to balance family and work was accomplished on a variety of ways throughout their careers' development.



## Summary of Results

This chapter described the results of this study. Following are summaries of the themes emerging from each research question.

### *RQ1. How Did Participants Come to Non-traditional Occupations?*

No single and clear reason emerged that led to their choosing their occupations. Narratives of career entrance and decisions reflected the complexity of experiences of participants. The emerged themes from their experiences of career entrance are diverse in the scope of backgrounds in which they chose their occupations.

First of all, most participants came to their occupations without long-term aspirations or pursuit of a specific career; rather they chose their occupations as a result of considerations of all situations-at-hand at the time when they had to make some career decisions. Although many participants lacked decisiveness in pursuing their careers and developing career aspirations early, one of underlying characteristics in their career choices is that each developed a certain image of the occupation that would be suitable as a future career; some developed career attitudes by distinguishing what would not be a fit for them; others had been ready for their adaptability to male culture since early childhood. Throughout their lives, parents influenced them to develop attitudes toward their careers. Parental influence was not a direct force in choosing a career; instead, parents helped participants form general attitudes toward careers, education, and ethics in work.

Last, direct working experience helped them recognize their vocational interests and abilities by providing opportunities of exposure to culture and the substantial

requirements of specific work. Formal internships were typical of work experience prior to their career choices.

*RQ2. Issues Experienced as Women in Non-traditional Occupations*

Participants recalled the issues they experienced as women working in non-traditional occupations. First of all, they recalled that they had been exposed to people's stereotyping of women in the field. They were denied appropriate recognition for their ability in work compared to their male counterparts. These so-called inabilities were evoked mostly by their supervisors. Participants assumed that this depreciation resulted from people's stereotyping women as being less competent than men. In addition to their supervisors and colleagues, other people such as customers and clients also showed inclination toward specific stereotypes by revealing their mistrust toward women's competence.

Issues of harassment were not reported as usual cases, but only as a few bad incidents. Some participants reported experiences of being verbally abused by their male colleagues with regard to their gender. In extreme cases, harassment was experienced as a physical threat to a participant. Harassment issues were typically evident early in their careers.

One of the most significant realities is that participants experienced alienation from the male-bonded culture in the workplace. Through networking and social gatherings, men form unique friendships and male-bond in the workplace while women feel excluded from the culture and unable to create similar female bonds due to scarcity

of females. This issue caused serious challenges for women especially those who work as professionals in non-traditional fields where most women work in secretarial jobs.

Although participants reported unique issues they experienced as women and related to negative experiences as women in work, many participants also mentioned that they learned that they are different with men in work in work styles and attitudes. Also femaleness provides an advantage sometimes in male-dominated work, as participants believe that feminine traits, such as sympathy and understanding people, definitely help their work.

### *RQ3. Coping Strategies in Male-dominated Environments*

The ways the participants dealt with difficulties and issues as women varied depending on individual situations and characteristics of specific experiences. The most frequently mentioned strategies were related to efforts to obtain trust and respect from colleagues and supervisors; prove their abilities constantly and maintain confidence all the time. In order to obtain trust from male colleagues and supervisors, participants had to continue to prove their competence. Also, even after recognition as competent workers and colleagues, keeping confidence at work is essential for surviving in male-dominated environments. As they work in male-dominant environments, knowing and understanding male culture is essential for their survival. The extent to which they are accustomed to male culture closely related to their adaptability to work environments. Developing bonds with colleagues helped them share useful information and develop relationships at the personal level. Finally when they experienced a direct incident of negative treatment,

they avoided showing immediate emotional reaction and tried to communicate with the person in a rational manner.

*RQ4. University as Work Environment for Women*

The reports of how the participants perceive university work environments they experienced were divided into positive and negative opinions. The positive thoughts about university environments included three themes: 1) overall progress for women's advance, 2) university's institutional mission, and 3) working for young students. Participants reported that the university has been successful in increasing women's participation and opportunities for advancement in the organization, while focusing on more accepting environments such as flexible work hours and family-caring environments, overall.

The university's institutional mission of education was highly appreciated by participants. They reported they truly enjoyed serving the educational mission and university community, which associates with their internal job satisfaction. Another interesting result related to environmental characteristics of the university which serves a large number of young students. Participants recalled that working for students gave them invaluable pleasure in that it made them constantly feel young and refreshed.

In the meanwhile, negative opinions were also held by participants, mainly associated with university's huge operations and diverse workforce. As women, participants agreed on that older generation workers hold very conservative opinions on issue of gender, but younger people are more accepting and understanding. Large scale operations provided three different themes of: 1) being considered as a little and minor

world, in that the university includes wide and diverse range of work areas but is often recognized as minor compared to similar industry, 2) tensions and divide among different groups, such as faculty versus non-faculty workforce, and unionized group versus non-union group, and 3) bureaucratic characteristics of institution that often hinder fair and appropriate work processes.

*RQ5. Meaning of Career and Career Success*

The final question concerns what participants think is the meaning of their careers and what makes them feel successful in their work. The foremost meaning they reported was the happiness they feel in their work that includes feelings of excitement and love of work itself which drives inner satisfaction. Themes of accomplishment and commitment are also regarded as meaningful aspects in their career success, which is often gained from appreciation from others whether by compliments or external progression in work. Feeling of independence is another significant aspect of career that includes both financial support and establishment of self-identity. The significance of family is widely reported from participants as they feel successful when they maintain a balance between family and work, and liaison with family responsibility serves as a critical standard of satisfaction.

## CHAPTER 5

### DISCUSSION AND RECOMMENDATIONS

#### Introduction

In spite of a women's steady increase in participation in non-traditional occupations, empirical studies exploring experiences of women working in male-dominated environments have not gained due attention. Most studies related to women in non-traditional occupations have focused on issues of employment associated with unequal opportunities and barriers to career advancement in an organization. In the meanwhile, studies of women's careers have argued that women give different meanings to their careers that are contrary to conventional concepts of career, dominated by male-centered notions of linear career paths and progression in an organization.

The purpose of this study is to describe experiences of women in non-traditional occupations in a university setting by answering questions such as: 1) how they entered their career, 2) what issues they experienced as a woman in a male-dominated field, 3) what strategies they used to cope with issues or difficulties they encounter at work, 4) how they perceive the university as work environment for them, and 5) how they draw meaning of their career.

Previous chapters presented the background and rationale, purpose, research design, detailed description of methodology, and results of this study, including a review of related literature. The purpose of this chapter is to develop the points of discussions

drawn from the findings of this study and to suggest recommendations for both research and practice. The overall review of this study occurs first.

### Review of the Study

Women's participation in employment has increased dramatically in the United States. But persistent gender segregation exists in occupations: men's work versus women's work. Although the proportion of women increased gradually in occupations that had been traditionally men's territories, such as law, science, mechanics, and executive/management, the occupational division by gender still persists as one distinct feature in the labor market. This feature often receives blame as a reason for the earnings gap between genders, women's inferior position in the labor market, and barriers to women's career advancement.

While most studies about occupational segregation have focused on the "dark" side of the phenomenon, whether driven by practical needs for improving women's status or theoretical interests for exploring gender division, little effort attends exploration of how women in male-dominant occupations actively create meaning of their career and work.

Based on this gap in the literature, this study aimed to describe experiences of women in non-traditional occupations in a university setting with regard to: their career entrance, issues and challenges as a woman, their coping strategies, their experiences about the university work environment, and their careers' meaning.

To achieve this purpose, this study adopted a research methodology of qualitative in-depth interviews. A purposeful sampling method recruited 12 participants from one large-scale land grant university in the northeastern United States. Pilot interviews refined interview questions and elaborated interview design. The interview guide, generated after the pilot study appears in Appendix A. A total of 23 interviews were conducted and the time for individual participant ranged from one hour forty minutes, shortest, to two and half hours, the longest, with an interval of one or two weeks between the two interviews for each participant. All interviews were recorded and transcribed verbatim.

Transcribed data coding had four phases: 1) crafting individual profiles – to understand an individual’s background, 2) labeling – to label each meaning unit and conceptualize it, 3) making connections – to compare concepts and generate categories of initial codes, and 4) generating themes – to produce themes from emerged categories.

To ensure the study’s quality, various methods were employed: triangulation, member check, peer examinations, and audit trail. Details of these appeared in Chapter 3.

### Discussions and Implications

This section recapitulates the themes generated from an analysis of interview narratives and develops the points revealed as worthy of discussion for each research question. The main focus of this part is two-fold: to relate study findings to existing literature, and to discuss implications of findings for career development.



*Career Entrance: How Did They Come to Their Occupations?*

This question aims to explore participants' experiences of career entrance by allowing retrospection as to what motivated them to pursue their careers in their occupations and what were key influences for them in choosing their occupations. As experiences of individual participants unfold differently according to their different backgrounds and life experiences, isolating exclusively unique patterns by individual or groups was difficult. Instead, their experiences of career entrance portrayed a quilt-like mosaic in which multiple influences and forces interwove with their circumstances. Although their experiences were quite different, four themes emerged as common characteristics of career choice and entrance: 1) undecided but making the best choice, 2) getting ready for male-dominated occupations, 3) parents' influences in a formative way, and 4) benefits of prior work experience.

Most participants recalled that they had been undecided about their future careers before they chose their careers, except for the few those who chose engineering fields for their majors. Even though they attended college, the fact that they had to go to college was the only clearly recognized goal at the time. Instead of developing career aspirations within clearly bound options, their decisions on careers were made at the time they had to choose "something." Thus, they tried to make the best decision at the time of career entrance by considering all circumstances posed to them, such as seeking the best financial solution or joining the family business.

Unsurprisingly, they were not clear about their future careers but had specific occupation-related career aspirations in early childhood and adolescence, even during

college days. Similar to Walshok's (1981) finding that most blue-collar women "did not plan their careers" (p. 116), for participants, the adolescent period was the time to identify their likes and dislikes related to their future careers rather than preparing specific career plans. Some participants recalled that they did not want typical female jobs or jobs working inside. This delimiting mechanism was quite dominant at the time before they chose college majors or careers. On the other hand, some participants, who are mostly police officers and engineers, recalled that they developed some sense of career aspiration early by identifying their personality traits and work attitudes, although those were not direct influences in choosing their careers.

Why most of them did not develop a clear sense of career aspiration casts an important question related to women's career development: Is lack of career aspiration a result of early socialization into a female's role, or is it a consequence of insufficient opportunities to learn about various career options, or both? Although this question is beyond this study's original quest, many participants' report that their lack of knowledge about non-traditional occupations at school illuminates a dearth of opportunities to learn and experience non-traditional occupations. The tendency of delimitation in searching career options can also relate to the lack of opportunities, since the assumption is that they learned more about traditional female jobs than about other options. The fact that they took advantage of internship experiences for deciding their careers supports this argument, too.

Evidently, most participants in this study experienced early exposure to male-related environments, such as maturing as tomboys and spending much time with fathers. However, those experiences did not directly relate to their career choices, but contributed

to their identifying their career attitudes. Rather than pursuing clear career goals, most participants exerted themselves toward doing the “right” thing at the moment they had to choose careers, and decisions were considerations of all related environments around them. This suggests the importance of women’s early experiences in learning various career options and finding direct and indirect opportunities for developing career aspirations.

### *Issues Experienced as Women in Non-traditional Occupations*

Since the assumption is that women in male-dominant occupations experience unique issues as a minority, this question attempts to identify those issues they experienced. Although they reported that, overall, they did not consider their gender a cause for critical problems or challenges at the current career stage, the issues they experienced were: 1) stereotyping from supervisors, male colleagues, and other related people, 2) harassment, 3) exclusion from male-bonded culture, and 4) differences between men and women at work.

The argument that women encountered consistent stereotyping in male-dominated environments is declared and proved in the majority of related literature regarding women in non-traditional occupations (Bagilhole, 2002; Kanter, 1977; Liff & Cameron, 1997; Walshok, 1981). This study also supports that argument in that participants had to deal with various issues arising from people’s stereotyping. The most prevalent issue with stereotyping was supervisors’ doubts about work competency. They were often regarded as incompetent in their duties compared with their male counterparts. This continues to be a problem for women who enter male-dominated fields as it hinders fair

treatment and appreciation of abilities. In addition, stereotyping worsens when it combined rural conservative regional characteristics. The majority workforce of the university in this study was recruited from the local area and they interact with people around the area for their work and business. A conservative climate is assumed to influence people's stereotyping and prejudice toward women.

Harassment was not experienced as a persistent issue throughout all their career experiences, but was revealed as quite dominant in their early career experiences. This can be related to women's minor positions in the workplace hierarchy. On the other side of hostile treatment as a minority group, interestingly, an overly protective attitude toward women also existed. Whether this attitude comes with hostile disrespect or good-intentioned protective care, participants recalled those attitudes and treatments as unacceptable and unfair.

A male-bonded culture penetrates work environment very deeply as participants report that men develop their unique membership by playing sports together and gathering socially. This is their perception; however, not all men participate in these events. Literature has supported the existence of a men's network as a predominant barrier that women encounter in their careers (Greed, 2000; Kerman, 1995; Liff & Cameron, 1997). Greed (2000) argued that men's control on inclusion and exclusion in their work culture appeared on a daily basis at an interpersonal level. As also noted in other studies, male workers continuously build their own network, or "men's club", as an informal way to conduct business and obtain power by establishing their own culture, from which women are excluded and alienated as "outsiders" (Bagilhole, 2002).

As reported by one participant in engineering field, this exclusion gets worse in terms of women's building relationships with female colleagues since few females occupy positions in the occupation. Thus, difficulty in creating workplace relationships with females and males entraps women, in male-dominated environments, to culturally alienated situations and hinders women's access to resources and opportunities needed to develop their professional development.

While harsh workplace relationships are a key issue experienced by women in non-traditional occupations, interestingly, this issue might be occupation-specific to some degree. As reported from participants working in campus law enforcement, their relationships with colleagues appeared gender-neutral, as they built strong bonds as a "police officer" with each other, independent of gender. This unique identification of colleagues results from the characteristics of working closely together. So the issue of exclusion from male culture can be interpreted being as more related to specific work characteristics and gender division at work within the occupation than with women's proportionally minor position in organizations.

Participants' notion of gender difference is an interesting finding, in that they consider their gender identity in an active manner, not as a hindrance or impediment to their careers. As they reported, men and women can bring different perspectives and attitudes to their work, and this might help actual operations of their work and be complementary to each other.

*Coping Strategies in Male-dominated Environments*

This question attempted to explore how women in non-traditional occupations respond to difficulties they face as women at work. The strategies described by participants were categorized as: 1) prove themselves, 2) be confident, 3) know male culture, 4) special bond with colleagues, and 5) control emotional breakdown and communicate properly.

In order to deal with stereotyping toward women's incompetence by their supervisors and male colleagues, women had to do a "better" job and work "harder" than expected. By doing so, they could earn trust from colleagues and supervisors. This strategy was also identified by Walshok's (1981) study that found that blue-collar women used the strategy of "overachievement" in managing their workplace relationships. The interview with a female Marine also supported the importance of this strategy. She stressed that she had to prove her ability continuously before she was "accepted":

You just keep pushing through. As a female in the Marine Corps, that's I think it's a little more challenging at times. I read somewhere once and I agree with this full heartedly that when a new male shows up, they really don't have to prove themselves like they kind of have that respect until they mess up. And from the day a female Marine shows up, they have to prove themselves every day. And I do see that a lot (Woman Marine).

To maintain confidence closely relate to the strategy of proving competence: the former embraces an attitudinal strategy, the latter a strategy their actual work performance. To be confident has two different dimensions in it: maintain professional knowledge regarding their work and maintain a confident stance with their opinions or performance. The latter dimension is quite resonant with the avoidance of emotional response as shown from the last strategy.

Knowing male culture and being able to accommodate it was reported as a fundamental requirement for women to succeed in a male-dominated environment. Evidently, women who are familiar with male culture are more likely to do well in non-traditional occupations. Studies with different groups of occupations and managers showed that women have to conform to a model of men's successes to succeed (Evetts, 1993; McIlwee & Robinson, 1992; Packer, 1996). Kanter (1977) also argued that women, as a minority in organizations, have to pay the price of abandoning a "girls" persona to be one of men. But, the way in which participants accommodated male culture was not a passive acceptance of male-dominant rules of games or showing male-like attitudes. Rather, participants reported their ability to adapt in proactive ways to understand the broad spectrum of organizational and work culture.

Building intimate relationship with colleagues was not directly related to the issue of gender. Their relationships with female colleagues provided friendships for sharing their concerns of both work and home. At the same time, they also stressed the importance of sustaining good relationships with colleagues regardless of gender. This implies that workplace relationships are key concerns for women, and, as many studies showed, this might indicate a characteristic of women's placing value on relationships.

With their workplace behavior, participants emphasized the virtue of tolerance and ability to abstain from immediate emotional reactions when facing negative incidents. To have a "thick skin" was addressed in other studies as strategies used by women in non-traditional occupations (Bagilhole, 2002; Yount, 1991). Attention should be given to the fact that participants also stressed how they tried to do solve a problem by proper communications.

### *University Work Environment*

Participants reported that, overall, they are quite satisfied with the work environment of the university. They addressed their experiences at the university as having both positive and negative aspects. The positive experiences included: 1) good environment as a women's workplace, 2) enjoyable mission for educational goals, and 3) working with young students keeps them young.

Participants agreed that the university achieved a successful outcome in promoting women's participation and advancement. The initiative to drive women's development in the workforce was highly valued. They have a high opinion that women in top management in their occupations give them positive role models. More importantly, they feel that work arrangements at the university and the overall atmosphere are women-friendly, in terms of availability of flexible work hours and a high quality of childcare facility within the workplace. This result is quite similar to the findings of Smerek and Paterson's study (2007), which identified that women in business operations in the university were more satisfied with the environment than men in 12 of 13 work environment satisfaction variables measured. The only exception was salary.

In addition to the substantial development of women's progression in the organization, distinct characteristics of the university as an educational institution for young students contributed to a great deal of satisfaction for participants: Serving students and working around students. Participants reported that they truly enjoyed working at the university by the reason that they could "help" students. This caring aspect of the university appeals to them highly, and the educational goal of the institution is a



source for their commitment. This can be interpreted that as an aspect of the caring and nurturing nature of women might relate to their satisfaction as university workers.

In the meantime, participants also described the university environment's negative aspects. These included: 1) generational gap among workers, 2) little world, 3) division among different groups of the workforce, and 4) negative influence of politics.

The gap between an older generation and younger generation reflected their experiences of two divided attitudes toward women: conservative versus more accepting. Participants believe that the older generation holds very conservative viewpoints about women's roles and abilities, whereas younger generations are more open to changes and diversity. The conservative attitude toward women is exaggerated when the older generation's perception is mixed with geographical characteristic of the university. As its location is in a rural area, the majority of non-managerial employees recruited from the area, the assumption is one of conservatism. But, as many participants reported, an increase of the younger generation, who are more likely to have working spouses, brings a change of a more favorable atmosphere for women.

Other negative aspects can be addressed in relation to the organizational magnitude and wide variety of occupations in the university. In case of the university where participants work, its workforce is quite large and covers many different groups of people from a variety occupations, backgrounds, working conditions, and types of employment contracts. The metaphor "little candy-coated world," as used by one participant, is a keen notion for describing the university environment, in that it is compared to the "world" comprised of so many different people, but "small" and quite different than outside, especially compared to other industrial "worlds." Women working

in certain occupations in the university are considered a minority as compared to their counterparts in some industries outside. Participants considered themselves to be a double minority as compared to their male counterparts. Also, the relatively small scale employment in each occupation compared to other industries might be one possible cause for women's alienation from opportunities to build supportive relationships with women colleagues within their work divisions.

Along with identifying women's experiences in non-traditional occupations in a university setting, this study contributes understanding of an underappreciated group of the university by exploring experiences of non-academic staff. As noted in the review of literature in Chapter 2, most literatures studying the university work environments have focused on issues with academic staff and college students. Participants' reports in this study reveal how they experienced university work environments as non-academic staff. Further efforts to study various groups of workforce in the university will help further understanding of university environment in an organizational context.

### *Meaning of Career*

This question explored what experiences participants consider a successful career and what are the primary motivators in women's careers. The response of participants, when asked to define their own meanings for career and successful career, generated four themes: 1) happiness, 2) accomplishment and commitment, 3) independence, and 4) balance between family and work.

The theme of happiness is the most frequently addressed aspect in participants' narratives. They put foremost value in happiness and passion that come from internal

motivation about their work, more so than external satisfaction, such as compensation. The sources of happiness are internally driven ardor for what they are doing and feelings of excitement gained as a result. Unless they are happy, they feel no meaning in their work.

Accomplishment and commitment are also related to their internal satisfaction about work. This theme is similarly noted in their coping strategies as previously discussed. Their achievement and recognition from colleagues are regarded as critical to building trust. But at the same time, they emphasized authentic values that reside in their work more than appreciation externally gained. Walshok (1981) noted that success, to women in trades, is a matter of “establishing genuine common interests in the work, common concerns with competency and productivity, and sympathy with the work group culture,” not just a matter of “networking” or following the rules of “boys” (p. 258). This notion supports the importance of their competences at work when they reflected on the meaning of their careers.

The theme of independence embraces dual meanings of financial self-supportiveness and establishment of self-identity. The latter calls attention to how individuals construct meaning from work as independent and professional workers.

In addition, family is a significant concern for women, as expected. How well they sustain a balance in their roles for family and workplace defined their perceived level of career success. When considering their career movements, family still matters, primarily above all other considerations. Most of the married women had husbands who supported and encouraged what they are doing. Interestingly, they work in the same or related occupations with their spouses, which help them share their concerns at work with

their husbands and make them accepted as working wives. Understanding and encouragement from spouses were critical to a sense of support for married participants managing families and work successfully. This implies the significance of family and life in women's careers, as widely discussed in the literatures on women's careers.

### Recommendations

This study aims to describe experiences of women in non-traditional occupations in university settings with regard to their career entry and development. Five main research questions were explored for that purpose: 1) career entrance, 2) experiences at workplace as women, 3) strategies to cope with difficulties, 4) perceptions about university work environments for women, and 5) their meaning of a successful career. Based on the results and implications, the following are recommendations for research and practice.

#### *Recommendations for Future Research*

As more women move into areas that have been dominated by men, studies of women in non-traditional occupations have increased and workplace issues have been widely explored with regard to women's career development in those fields. Speculation on the results of this study fosters the need for further studies about the following topics:

First, a need exists to explore what circumstances influence women's career decisions throughout their adolescences and adult lives. Participants in this study had no clear career aspiration during their school days, and the moment they decided their

majors or occupations came at different times depending on each individual's situation. Numerous studies about women's career development have argued that women have a unique pattern in their quest of career and often do not follow typical career paths. Considering the fact that women's careers unfold with their lives' development, critical turning points also need to be studied for identifying what is to be done for their career movement and advancement.

Women's experiences in non-traditional occupations need to be explored in different occupations and work settings. As shown in this study, work-life issues such as workplace relationships and organizational cultures are important concerns to women in non-traditional occupations, and experiences differ by work characteristics and interpersonal relationships in the workplace. For example, women engineers had different experiences than women police officers despite the fact that both work in male-dominated environments. The scarcity of women itself might not be a concern for their managing their workplace relationships. Rather, the way in which people interact at work or workplace cultures might be the primary influential conditions. Accordingly, studies of women in non-traditional occupations need to be conducted in diverse work contexts.

In addition to consideration of diverse work contexts in the university, inclusion of more diverse participants is also desired. All the participants of this study were white. If future studies are conducted involving other ethnic groups, those might contribute to an understanding of women employees' issues in the university through a dynamic lens.

With regard to women's career development, exploration is needed for what issues or concerns interplay in women's work life with more focus on key factors of career retention and advancement. Definitely, this calls for chronological and longitudinal

studies of women's careers. As other literature argued, women have different career paths from men. In addition to studies of women who succeed in male-dominated occupations, further studies of women who quit or fail to survive non-traditional occupations will help in understanding of the complex picture of women's careers.

Lastly, the university work environment needs to be studied in terms of its diverse workforce development. This study shows that university employees have unique experiences according to the characteristics of the university environment. The primary role and function of the university, as an educational institution with a specific mission, creates positive work experiences for participants. However, the lack of opportunities for upward movement has been commonly discussed as a problem for university employees (Johnsrud, 1999), and this might influence employees' career development in certain ways. Thus, the more focus should be given to university's employment environment as related to employees' career development.

#### *Recommendations for Practice*

A wide range of efforts has focused on increasing women's participation in the workforce and promoting women's movement into non-traditional occupations. Protective legislation such as the Equal Pay Act helped overcome some overt discrimination, despite its limited effectiveness. More proactive legislative reforms, such as Affirmative Action, contributed to women's movement into diverse areas by requiring employers to give preference to women and minorities (Hesse-Biber & Carter, 2005). However, the burden of regulation in public and private organizations also garnered much attention (Walshok, 1981).

Despite legal reform and active women's movements over previous decades, gender division in the labor force is prevalent among occupations and within the same occupation. This study provides some practical recommendations for women's career development and advancement in non-traditional occupations:

First, this study reveals that women's career decisions are often made through on-the-job experience by which they identify whether they fit to it or not. Interest in a job primarily was drawn from their opportunities and accesses to on-the-job experiences. Then, these experiences can develop their competencies and commitment to work. So, early opportunities for experience non-traditional activities should be offered to women. Internships and apprenticeship-like experiences can be used for this purpose, and these opportunities should be available both at schools and in workplaces at job-entry levels.

Second, more opportunities for networking at the professional level will help women in non-traditional areas develop their careers. Within their work milieu, women in male-dominated occupations find difficulty seeking women mentors or women colleagues in similar situations. Thus, networking with other women, both in their occupations and within organization, will help women develop their expertise and will provide opportunities to build resourceful relationships.

Last, a need remains for sustained efforts to create truly equal workplaces in terms, not only of opportunities at job-entry level, but also of removal of deep-rooted gender bias in an organization. This cannot be accomplished by forcing men to accept women in occupations. Those efforts should entail responsible actions to raise awareness of gender-related issues in the workplace by using variety of approaches and methods, not just by one-time training.

## Summary

This study described experiences of women in non-traditional occupations working in a university setting with regard to their career development. More specifically, research questions were stratified into five main topics: 1) career entrance, 2) workplace issues experienced as women, 3) coping strategies to deal with difficulties as women, 4) perceptions about university work environments, and 5) subjective definitions of career. To explore those questions, in-depth interviews were employed as a research method and 12 participants from five different occupational areas were recruited at one large university.

Participants' experiences of career choice and entrance revealed four themes: 1) undecided but making the best decision at the needed time, 2) getting ready for male-dominated occupations, 3) parents' influence in a formative way, and 4) benefits of prior work experience. The ways in which participants chose their occupations varied by individuals in the time of decision making, and key influences for building special career aspiration, and thus revealed the complexity of their experiences of career entrance. Most participants held obscure visions of future careers during school days and some attended college with unclear prospects for careers. Although they were quite unsure about their careers early, the emerged distinctive characteristic is that career decisions were made through consideration of at-the-moment personal situations. Rather than aspiring to a specific career early in childhood and adolescence, they tended to identify personal "likes" and "dislikes" for their careers. Early childhood experiences of being exposed to male culture helped them become familiar with male-dominated environments. Parents'



influences were not direct forces for choosing their careers, but guided them in developing career attitudes, becoming infused with the value of education, and forming work ethics. In the meanwhile, participants reported that they found vocational abilities, interests, and eventually consciousness of fitness in occupations by direct experiences at work.

Issues that they experienced as women in non-traditional occupations were identified by four themes: 1) stereotyping by their gender, 2) harassment, 3) exclusion from male-bonded culture, and 4) consciousness of differences between men and women. Participants encountered constant stereotyping of women from male counterparts and supervisors. They felt less trusted than male counterparts by supervisors, and people showed overt stereotyping of women's work in non-traditional occupations as minor and incompetent. Harassment was an issue in their early careers, and included verbal abuse and inappropriate treatment, aggressive threats, and overprotection. Good-old-boy network in the workplace was reported as a significant issue in their early careers, but was recognized as weakening over time. They felt excluded from male-bonding and male culture, and in contrast to males' strong bonds, women often found difficulty building female bonds in the workplace due to scarcity of other women. Although participants struggled continuously against people's stereotyping, they came to realize gender differences at work in mindsets and work styles, and took advantage of feminine traits in work that enabled them to understand people.

Coping strategies for participants to deal with issues as women categorized into five themes: 1) prove yourself, 2) be confident always, 3) know male culture, 4) special bonds with colleagues, and 4) control emotional breakdown and communicate properly.

Participants emphasized that they had to prove their abilities and work competencies to male counterparts and supervisors by working harder and longer. Once they obtained trust from male colleagues and supervisors, they tried to maintain confidence as a professional worker by developing their knowledge in the area. But, they had to pay careful attention not to cross the fine line between showing confidence and being overconfident. Another strategy involved understanding and adapting actively to male culture and language, thus fitting into male environments. They developed close relationships with working colleagues; female bonding allowed them to share both personal and work experiences, and special bonding with colleagues helped overcome work stress and created a family-like feeling. Participants agreed to that they should maintain certain levels of tolerance when facing inappropriate treatment in the workplace, such as refraining from instant emotional reactions, avoiding tears in front of others, and stepping away for a while. Instead, active and proper communication with the person was revealed as an effective way to solve problems.

Overall, participants reported the university as a good work environment for women. Their perceptions of the university as work environment were divided into positive and negative aspects. Positive characteristics of the university involved three aspects: 1) good environment as women's workplace, 2) enjoyable mission from educational goals, and 3) students keep them young. They agreed that the university achieved a successful outcome in encouraging women's participation and progress in the workforce. The educational mission of the university was significantly appreciated by participants in that they felt a great level of satisfaction in working for students, which

made them feel alive and refreshed as well as committed to the spirit of service and caring.

In the meanwhile, participants experienced negative aspects in university work environments, which included: 1) generational gap among workers, 2) little and minor world, 3) divide among different groups of workforce, and 4) negative influences of politics. Most aspects of negative perceptions of participants were drawn from the characteristics of bureaucratic operations of the university and its regional characteristic dominated by rural conservative attitudes.

Regarding their meanings of career, participants reported key important requirements in the construction of their careers. This revealed four themes: 1) happiness, 2) accomplishment and commitment, 3) independence, and 4) family/work balance. Happiness was pursued as a primary necessity for a successful career. Participants related happiness to internal satisfaction and passion for their work. Feelings of accomplishment and commitment were counted as significant in making their careers meaningful, and their commitments often resulted from their inner drive to help others and make a difference at work. The meaning of independence had dual aspects: financial self-sufficiency and establishment of self-identity as a professional worker. Finally, the family was a great concern for participants, as expected. Participants paralleled good management of their both roles with family and workplace with their ultimate success in careers and lives.

Based on the study results, this study suggests recommendations for research and practice for women in non-traditional occupations and within a university environment. The future needs for research include four distinctive yet connected suggestions: 1) more

speculative exploration of circumstances of women's career decisions, 2) in-depth studies of different occupations and work settings for women in non-traditional occupations, 3) key factors for women's career retention and advancement and their dynamic interactions with women's lives, and 4) focus on the university work environment for employee's career development.

Practical recommendations include the need for: 1) more opportunities for direct work experience to develop women's competencies in non-traditional occupations, 2) substantial support for women's networking in their occupations and workplaces, and 3) efforts to raise employees' consciousness and create an organizational culture that appreciates diversity.

## REFERENCES

- Aguirre Jr., A., Hernandez, A., & Martinez, R. O. (1994). Perceptions of the workplace: Focus on minority women faculty. *Initiatives*, 56(3), 41-50.
- Anker, R. (1997). Theories of occupational segregation by sex: An overview. *International Labour Review*, 136(3), 315-339.
- Assouline, M., & Meir, E. I. (1987). Meta-analysis of the relationship between congruence and well-being measures. *Journal of Vocational Behavior*, 31, 319-332.
- Bagilhole, B. (2002). *Women in non-traditional occupations: Challenging men*. New York: Palgrave Macmillan.
- Bardwick, J. (1980). The seasons of a woman's life. In D. McGuigan (Ed.), *Women's lives: New theory, research, and policy* (pp. 35-55). Ann Arbor, MI: Center for Continuing Education for Women, University of Michigan.
- Barett, M., Vander Putten, J., Peterson, M., & Cameron, K. (1995). *Perceptions of non-instructional staff at the University of Michigan: A content analysis*. (ERIC Document Reproduction Service No. ED 387016).
- Becker, G. S. (1971). *The economics of discrimination* (2nd ed.). Chicago: University of Chicago Press.
- Becker, G. S. (1975). *Human capital: A theoretical and empirical analysis, with special reference to education*. New York: National Bureau of Economic Research.
- Benokraitis, N., & Feagin, J. R. (1995). *Modern sexism: Blatant, subtle, and covert discrimination* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

- Betz, N. E., Fitzgerald, L. F., & Hill, R. E. (1989). Trait-factor theories: Traditional cornerstone of career theory. In M. B. Arthur, D. T. Hall & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 26-40). Cambridge, England: Cambridge University Press.
- Beyer, S. (1999). The accuracy of academic gender stereotypes. *Sex Roles, 40*, 787-813.
- Blackburn, R., & Lawrence, J. (1995). *Faculty at work: Motivation, expectation, satisfaction*. Baltimore: Johns Hopkins University Press.
- Blackburn, R., Lawrence, J., Hart, K., & Dickman, F. (1990). *Same institution, different perceptions: Faculty and administrators report on the work environment*. Ann Arbor, MI: University of Michigan.
- Bradley, K. (2000). The incorporation of women into higher education: Paradoxical outcomes? *Sociology of Education, 73*, 1-18.
- Brett, J. M., & Stroh, L. K. (1997). Jumping ship: Who does better on the external labor market? *Journal of Applied Psychology, 82*, 331-341.
- Brown, M. T., Eisenberg, A. I., & Sawilowsky, S. S. (1997). Traditionality and discriminating effect of expectations of occupational success and occupational values of women within male-oriented fields. *Journal of Vocational Behavior, 50*, 418-431.
- Charles, M., & Grusky, D. B. (2004). *Occupational ghettos: The worldwide segregation of women and men*. Stanford, CA: Stanford University Press.
- Chen, C. P. (1998). Understanding career development: A convergence of perspectives. *Journal of Vocational Education and Training, 50*, 437-461.

- Cochran, L. (1990). *The sense of vocation: A study of career and life development*. Albany, NY: State University of New York Press.
- Cockburn, C. (1988). The gendering of jobs: Workplace relations and the reproduction of sex segregation. In S. Walby (Ed.), *Gender segregation at work* (pp. 29-42). Milton Keynes, England: Open University Press.
- Cohen, L. L., & Swim, J. K. (1995). The differential impact of gender ratios on women and men: Tokenism, self-confidence, and expectation. *Personality and Social Psychology Bulletin*, 21(9), 876-884.
- Cohn, S. (1996). Human capital theory. In P. J. Dubeck & K. Borman (Eds.), *Women and work: A handbook* (pp. 107-109). New York: Garland.
- Corcoran, M., & Duncan, G. J. (1979). Work history, labor force attachment, and earnings differences between the races and sexes. *Journal of Human Resources*, 14(4), 3-20.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Crompton, R. (2006). Gender and work. In K. Davis, M. Evans & J. Lorber (Eds.), *Handbook of gender and women's studies* (pp. 253-271). London: Sage.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment*. Minneapolis: University of Minnesota Press.
- Denzin, N. K. (2001). *Interpretive interactionism*. Thousand Oaks, CA: Sage.
- Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 1-29). Thousand Oaks, CA: Sage.

- Eisenburg, S. (1998). *We'll call you if we need you: Experiences of women working construction*. Ithaca, NY: Cornell University Press.
- Elias, P. (1982). *Women's working lives: Evidence from the national training survey*. Coventry, England: Institute for Employment Research, University of Warwick.
- Elton, C. F., & Smart, J. C. (1988). Extrinsic job satisfaction and person-environment congruence. *Journal of Vocational Behavior*, 32, 226-238.
- England, P. (1982). The failure of human capital theory to explain occupational sex segregation. *Journal of Human Resources*, 17, 358-370.
- England, P., & McCreary, L. (1987). Gender inequality in paid employment. In B. B. Hess & M. M. Ferree (Eds.), *Analyzing gender: A handbook of social science research* (pp. 286-320). Newbury Park, CA: Sage.
- Evetts, J. (1993). Women in engineering. *Gender and Education*, 5(2), 116-124.
- Flanders, M. L. (1994). *Breakthrough: The career woman's guide to shattering the glass ceiling*. London: Paul Chapman.
- Gallos, J. V. (1989). Exploring women's development: Implications for career theory, practice, and research. In M. B. Arthur, D. T. Hall & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 110-132). Cambridge, England: Cambridge University Press.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Glaser, B. G., & Strauss, A. L. (1967). *Discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.



- Gottfredson, L. S., & Becker, H. J. (1981). A challenge to vocational psychology: How important are aspirations in determining male career development. *Journal of Vocational Behavior, 18*, 121-137.
- Greed, C. (2000). Women in the construction professions: Achieving critical mass. *Gender, Work, and Organizations, 7*(3), 181-196.
- Greenglass, E. R., Burke, R. J., & Ondrack, M. (1990). A gender-role perspective of coping and burnout. *Applied Psychology: An International Review, 39*, 5-27.
- Grossberg, L., Nelson, C., & Treichler, P. A. (1992). Cultural studies: An introduction. In L. Grossberg, C. Nelson & P. A. Treichler (Eds.), *Cultural studies* (pp. 1-16). New York: Routledge.
- Hall, D. T., & Hall, F. S. (1980). Stress and the two-career couple. In C. L. Cooper & R. Payne (Eds.), *Current concerns in occupational stress* (pp. 243-266). New York: Wiley.
- Hansen, J. C., & Chambell, D. P. (1985). *Manual for SVIB-SCII* (4th ed.). Palo Alto, CA: Consulting Psychologists Press.
- Harrington, M. (1995). *Women lawyers: Rewriting the rules*. New York: Penguin.
- Headlee, S., & Elfin, M. (1996). *The cost of being female*. Westport, CT: Praeger.
- Herr, E. L., & Cramer, S. H. (1984). *Career guidance and counseling through the life span: Systematic approaches* (2nd ed.). Boston: Little Brown & Company.
- Herriot, P. (1984). *Down from the ivory tower*. New York: Wiley.
- Hesse-Biber, S. N., & Carter, G. L. (2005). *Working women in America: Split dreams*. New York: Oxford University Press.
- Holland, J. L. (1973). *Making vocational choices*. Englewood Cliffs, NJ: Prentice-Hall.

- Holland, J. L. (1978). *The occupation finder*. Palo Alto, CA: Consulting Psychologists Press.
- Holland, J. L. (1979). *Professional manual for the self-directed search*. Palo Alto, CA: Consulting Psychologists Press.
- Holland, J. L. (1985). *Making vocational choices* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Hollon, C., & Gemmill, G. (1976). A comparison of female and male professors on participation in decision making, job-related tension, job involvement, and job satisfaction. *Educational Administration Quarterly*, 12, 80-93.
- Husserl, E. (1970). *The idea of phenomenology*. Hague: Marimus Nijoff.
- Jacobs, J. A. (1989). *Revolving doors: Sex segregation and women's careers*. Stanford, CA: Stanford University Press.
- Johnsrud, L. K. (1999). The worklife issues of higher education support personnel. In *The NEA 1999 Almanac of higher education* (pp. 111-124). Washington, DC: National Education Association.
- Johnsrud, L. K. (2002). Measuring the quality of faculty and administrative worklife: Implications for college and university campuses. *Research in Higher Education*, 43, 379-395.
- Johnsrud, L. K., & Atwater, C. D. (1994). Barriers to the retention and tenure of women and minorities: The case of a university's faculty. *Review of Higher Education*, 17, 335-353.
- Johnsrud, L. K., & Sadao, K. C. (1998). The common experience of "otherness": Ethnic and racial minority faculty. *Review of Higher Education*, 21, 315-342.

- Joy, L. (2006). Occupational differences between recent male and female college graduates. *Economics of Education Review*, 25, 221-231.
- Kanter, R. M. (1977). *Men and women in the corporation*. New York: Basic Books.
- Kerman, L. (1995). The good witch: 'Advice to women in management'. In L. Morley & V. Walsh (Eds.), *Feminist academics: Creative agents for change* (pp. 131-144). London: Taylor and Francis.
- Koontz, E. D. (1979). *A step toward equality: A progress report*. Washington, DC: National Manpower Institute.
- Levinson, D. (1978). *The season's of men's life*. New York: Knopf.
- Levinson, D. (1986). A conception of adult development. *American Psychology*, 41, 3-13.
- Liff, S., & Cameron, I. (1997). Changing equality cultures to move beyond "women's problems". *Gender, Work, and Organizations*, 4(1), 35-46.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Lyness, K. S., & Thompson, D. E. (1997). About the glass ceiling? A comparison of matched samples of female and male executives. *Journal of Applied Psychology*, 82, 359-375.
- McIlwee, J. S., & Robinson, J. G. (1992). *Women in engineering: Gender, power, and workplace culture*. Albany, NY: State University of New York Press.
- McMahon, J. E., & Merman, S. K. (1987). Career development. In R. L. Craig (Ed.), *Training and development handbook* (3rd ed., pp. 756-770). New York: McGraw-Hill.
- McWhirter, E. H. (1997). Perceived barriers to education and career: Ethnic and gender differences. *Journal of Vocational Behavior*, 50, 124-140.

- Melamed, T. (1995). Career success: The moderating effect of gender. *Journal of Vocational Behavior, 47*, 35-60.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Milkman, R. (1980). Organizing the sexual division of labor: Historical perspectives in 'women's work' and the American labor movement. *Socialist Review, 10*(1), 95-105.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Nelson, C., Treichler, P. A., & Grossberg, L. (1992). Cultural studies: An introduction. In L. Grossberg, C. Nelson & P. A. Treichler (Eds.), *Cultural studies* (pp. 1-16). New York: Routledge.
- Nelson, D. L., & Quick, J. C. (1985). Professional women: Are distress and disease inevitable? *Academy of Management Review, 10*(2), 206-218.
- Northcraft, G., & Gutek, B. A. (1993). Point-counterpoint: Discrimination against women in management-Going, going, gone or going but not gone? In E. A. Fagenson (Ed.), *Women in management: Trends, issues, and challenges in managerial diversity* (pp. 219-245). Newbury Park, CA: Sage.
- Opengart, R., & Bierema, L. (2002 March). *Emotions in women's career development: A merging of literatures*. Paper presented at the conference of the Academy of Human Resource Development, Honolulu, HI.
- Oppenheimer, V. (1968). The sex labeling of jobs. *Industrial Relations, 7*(2), 219-234.
- Osipow, S. H. (1983). *Theories of career development* (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.

- Packer, K. (1996). The context-dependent nature of the gendering of technical work: A case study of work in a scientific laboratory. *Work, Employment and Society*, 10(1), 125-149.
- Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton Mifflin.
- Parsons, T., & Bales, R. F. (1955). *Family, socialization and interaction process*. New York: Free Press.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Patton, W., & Goddard, R. (2006). Coping with stress in the Australian job network: Gender differences. *Journal of Employment Counseling*, 43, 135-144.
- Peterson, M., & White, T. (1992). Faculty and administrator perceptions on their environments: Different views or different models of organization? *Research in Higher Education*, 33, 177-204.
- Powell, G. N., & Mainiero, L. A. (1992). Cross-currents in the river of time: Conceptualizing the complexities of women's careers. *Journal of Management*, 18(2), 215-237.
- Ptacek, J. T., Smith, R. E., & Dodge, K. L. (1994). Gender differences in coping with stress: When stressor and appraisals do not differ. *Personality and social psychology bulletin*, 20, 421-430.
- Ptacek, J. T., Smith, R. E., & Zanas, J. (1992). Gender, appraisal, and coping: A longitudinal analysis. *Journal of Personality*, 60, 747-770.
- Quimby, J. L. (2006). The influence of role models on women's career choices. *The Career Development Quarterly*, 54(4), 297-306.

- Ragins, B. R., & Cotton, J. L. (1991). Easier said than done: Gender differences in perceived barriers to gaining a mentor. *Academy of Management Journal*, 34, 939-951.
- Ragins, B. R., Townsend, B., & Mattis, M. (1998). Gender gap in the executive suite: CEOs and female executives report on breaking the glass ceiling. *Academy of Management Executive*, 12(1), 28-42.
- Reskin, B. F. (1986). *Women's work, men's work: Sex segregation on the job*. Washington, DC: National Academy Press.
- Schein, E. (1990). Organizational culture: What it is and how to change it. In P. Evans, Y. Doz & A. Laurent (Eds.), *Human resource management in international firms: Change, globalization, innovation* (pp. 56-82). London: Macmillan.
- Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education* (3rd ed.). New York: Teachers College Press.
- Sharf, R. S. (1997). *Applying career development theory to counseling* (2nd ed.). Pacific Grove, CA: Brooks/Cole Pub.
- Sheeny, G. (1976). *Passages: Predictable crises of adult life*. New York: Dutton.
- Skues, J. S., & Kirkby, R. J. (1995). Women in the workforce: Gender differences in occupational stress and coping. In P. Cotton (Ed.), *Psychological health in the workplace: Understanding and managing occupational stress* (pp. 217-231). Carlton South, Victoria: Australian Psychology Society.
- Smerek, R. E., & Peterson, M. (2007). Examining Herzberg's theory: Improving job satisfaction among non-academic employees at a university. *Research in Higher Education*, 48(2), 229-250.

- Spokane, A. R. (1985). A review of research on person-environment congruence in Holland's theory of careers. *Journal of Vocational Behavior*, 26, 306-343.
- Stevenson, M. (1975). Relative wages and sex segregation by occupation. In C. B. Lloyd (Ed.), *Sex, discrimination, and the division of labor* (pp. 175-200). New York: Columbia University Press.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
- Sullivan, S. E. (1999). The changing nature of careers: A review and research agenda. *Journal of Management*, 25(3), 457-484.
- Super, D. E. (1957). *Psychology of careers*. New York: Harper & Brothers.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 13, 282-298.
- Super, D. E., Thompson, A., & Lindeman, R. (1988). *Adult career concerns inventory: Manual for research and exploratory use in counseling*. Palo Alto, CA: Consulting Psychologists Press.
- Szekeres, J. (2004). The invisible workers. *Journal of Higher Education Policy and Management*, 26(1), 7-22.
- Tack, M. W., & Patitu, C. L. (1992). *Faculty job satisfaction: Women and minority in peril*. Washington, DC: School of Education and Human Development, George Washington University.
- Tolbert, P. S., Graham, M. E., & Andrews, A. O. (1999). Group gender composition and work group relations. In G. N. Powell (Ed.), *Handbook of gender and work* (pp. 179-202). Thousand Oaks, CA: Sage.

- U. S. Department of Education (2005a). *Post secondary institutions in the United States: Fall 2003 and degrees and other awards conferred: 2002-03*. Retrieved June 11, 2006 from [http://nces.ed.gov/programs/quarterly/vol\\_7/1\\_2/5\\_12.asp](http://nces.ed.gov/programs/quarterly/vol_7/1_2/5_12.asp)
- U. S. Department of Education (2005b). *Staff in postsecondary institutions, fall 2003, and salaries of full-time instructional faculty, 2003-04*. Retrieved June 16, 2007 from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005155>
- U. S. Department of Labor, Bureau of Labor Statistics. (2005). *Women in the labor force: A databook*. Retrieved June 13, 2006 from <http://www.bls.gov/cps/wlf-databook2005.htm>
- U. S. Department of Labor, Women's Bureau. (2005). *Quick facts on nontraditional occupations for women*. Retrieved June 20, 2006, from <http://www.dol.gov/wb/factsheets/Qf-nontra.htm>
- Van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). Toronto: Transcontinental Printing.
- Vander Putten, J., McLendon, M. K., & Peterson, M. W. (1997). Comparing union and nonunion staff perceptions of the higher education work environment. *Research in Higher Education*, 38(1), 131-149.
- Volkwein, J. F., Malik, S. M., & Napierski-Pranel, M. (1998). Administrative satisfaction and the regulatory climate at public universities. *Research in Higher Education*, 39(1), 43-63.
- Volkwein, J. F., & Parmley, K. (2000). Comparing administrative satisfaction in public and private universities. *Research in Higher Education*, 41(1), 95-116.



Volkwein, J. F., & Zhou, Y. (2003). Testing a model of administrative job satisfaction.

*Research in Higher Education, 44*(2), 149-171.

Walshok, M. L. (1981). *Blue-collar women: Pioneers on the male frontier*. Garden City,

NY: Anchor Books.

Williams, C. L. (1989). *Gender difference at work: Women and men in nontraditional*

*occupations*. Los Angeles: University of California Press.

Witkowski, K., & Leicht, K. T. (1995). The effects of gender segregation, labor force

participation, and family roles on the earning of young adult workers. *Work and*

*Occupations, 22*, 48-72.

Wolcott, H. F. (1994). *Transforming qualitative data*. Thousand Oaks, CA: Sage.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks,

CA: Sage.

Yount, K. (1991). Ladies, flirts and tomboys: Strategies for managing sexual harassment

in an underground coal mine. *Journal of Contemporary Ethnography, 19*, 396-

422.

## APPENDIX A

### Interview Guide

#### **First Interview**

*Purpose:* to obtain answers for main research questions

*Considerations:*

- Demographics: Be careful not to go into too detail and be aware of her privacy.
- If time is too short to cover all the questions, last two or three questions will be done at the second interview.

#### **Second Interview**

*Purpose:*

- to obtain answers to research questions (remaining from the 1<sup>st</sup> interview)
- to verify the parts I could not understand fully (in terms of verbal meaning) or missed words and/or phrases
- to verify the part I want to know more about examples, details, and events

*Considerations:*

- to arrange second meeting schedule one or two weeks later after the first interview
- to be open and flexible not to disturb participants' schedule
- to read transcripts of the 1<sup>st</sup> interview fully before prepare questions
- to prepare the questions to verify meanings or go into more details

#### **Interview Questions with Probes**

##### 1. Basic demographics

- Tell me briefly about yourself, where you were born, how you grew up, what was your education like that?

##### 2. Tell me how you came to your current profession.

- Who advised you?
- Any role model(s) you had?
- What motivated you to pursue your career in this field most?
- How did your family and friends react at your entrance to this profession?

3. Tell me about your experiences that have a positive influence on your retention and career progression in your profession.

- As related to work environments in the university?
- As related to workplace relationships with colleagues?
- As related to personal experiences (e.g. support from family)?
- What do you think the positive aspects of being women in your occupation?

4. Tell me about the issues you experienced as a woman in your profession.

- As related to your work duties?
- As related to your relationship with colleagues?
- As related to your personal life (e.g. family duties)?

5. How do you think about the university environment as a workplace for non-traditional women like you?

- What are positive things you perceive in university work environments?
- What are negative things you perceive in university work environments?
- What kinds of suggestions do you have for the university to encourage more women into your field?

6. What is the meaning of “career” to you?

- How can you define the meaning of career by yourself?
- What can you say about the meaning of career success?

APPENDIX B  
Recruitment Material

## Recruitment Material

### The Career Development of Women in Non-traditional Occupations in a University Setting

As a woman working in non-traditional occupations, you are invited to participate in a study that explores the career development of women in non-traditional occupations in university settings. Non-traditional occupations mean the occupation in which the rate of women population is less than 25% of total workforce, by definition from the U. S. Department of Labor.

The purpose of this study is to explore how individual women enter into non-traditional careers and how they develop and build their careers. This study is conducted for doctoral dissertation by Sungmi Jin, a doctoral student of Workforce Education and Development program at the Pennsylvania State University, under advice of Dr. Judith Kolb, an associate professor in the same program. Your decision to participate in this study is voluntary. Once you consent to participate in this study, you will have an interview for following questions.

1. Brief demographic information: 1) age, 2) marital status, 3) years of work experience in this profession, 4) years in this organization, and 5) position
2. How you came to your profession
3. Your experiences that have a positive influence on your retention in this profession and career progression in your profession as a woman
4. Challenges and obstacles you had in your profession as a woman
5. Your perception on your own career and meaningful experiences with your career

The interview is flexible in the number of interview meeting(s) and time spent in each meeting, and you are kindly asked to allow one follow-up interview to help the researcher to clarify the contents obtained from the interview(s) with you. Your responses are confidential. Only the principal researcher, her advisor and doctoral committee member will have access to your responses and your name will not be identified with your responses in any forms of reports.

This study has been reviewed by the Office for Research Protections at Pennsylvania State University. If you have questions, contact Sungmi Jin via phone: 814-574-6279, email: szj113@psu.edu, or mailing to: 301 Keller Building, Pennsylvania State University, University Park, PA 16802. Fax: 814-863-7532. I appreciate your willingness to contribute to this study.

APPENDIX C

Informed Consent Form

## **Informed Consent Form for Social Science Research**

The Pennsylvania State University

**Title of Project:** The Career Development of Women in Non-traditional Occupations in University Settings

**Principal Investigator:** Sungmi Jin, Graduate Student  
301 Keller  
University Park, PA 16802  
(814) 863-5923; szj113@psu.edu

**Advisor:** Dr. Judith A. Kolb  
301A Keller  
University Park, PA 16802  
(814) 865-1876; jak18@psu.edu

1. **Purpose of the Study:** The purpose of this study is to explore how individual women enter into non-traditional careers and how they develop and build their careers. The research will help understand the unique characteristics of women's career development in non-traditional occupations.
2. **Procedures to be followed:** You will be asked to participate in a face-to-face interview. The questions are listed in the Appendix. The interviews will be recorded and transcribed.
3. **Duration:** Maximum time requested for each interview is one hour. At least one follow-up interview will be scheduled at your convenience.
4. **Statement of Confidentiality:** Your participation in this research is confidential. Only the principal investigator, and her advisor, will know your identity. The doctoral study committee of the principal investigator will have access only to the transcribed documents of your interviews, in which your real name is not identified. The data will be stored and secured at the principal investigator's personal computer at home protected by password and only the principal investigator will have access to the recorded data. The recorded data will be destroyed by the year of 2012. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.
5. **Right to Ask Questions:** Please contact Sungmi Jin at (814) 863-5923 with questions or concerns about this study.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Person Obtaining Consent

\_\_\_\_\_  
Date



## APPENDIX D

### Example of Initial Codes

Example of Initial Codes (about career entrance) / Edited from NVivo report

NVivo revision 2.0.163

**Project:** 1-How to come **User:** Administrator **Date:** 6/15/2007 - 10:09:46 PM

NODE LISTING

**Nodes in Set:** All Free Nodes (Initial Codes)

**Number of Nodes:** 99

- 1 Ability to male work yet having female taste
- 2 Admiring police officer
- 3 Attracted to equipments
- 4 Begin driving for family business
- 5 Big decision to move to university
- 6 Change major
- 7 Childhood thought toward police officer
- 8 Coached by manager
- 9 Dad's urging importance of education
- 10 Decision after work experience
- 11 Developing expertise in area
- 12 Different than others
- 13 Dreamed astronomer
- 14 Easier to get a job here than now
- 15 Employer knew me - advantage from lo
- 16 Expected to go to college
- 17 Expected to go to college-educated parent
- 18 Family influence
- 19 Family ties - many works here
- 20 Feel calling to help students
- 21 Female jobs-Not really wanted
- 22 First college-goer - proud and important
- 23 Fond of mechanicals and driving
- 24 Fond of mechanics and driving
- 25 Fond of structured environment
- 26 Frustrated in major
- 27 Generation difference
- 28 Get knowledge from internship
- 29 Get to know my ability
- 30 Girls not to go to college
- 31 Great place to work
- 32 Had good career guidance
- 33 Had no vocational guidance
- 34 Had to go with scholarship
- 35 Held various jobs before
- 36 High school-lack of opportunity to experience
- 37 Images from TV
- 38 Influence from father
- 39 Influence from parents-generally
- 40 Initial career aspiration - by mom
- 41 Interest growing continuously
- 42 Interest in crime-cop
- 43 Interest in law enforcement
- 44 Internship helped me to get hired
- 45 Introduced by a friend

- 46 Just fell into it
- 47 Knew my taste - not want to be teach
- 48 Knew my taste - want to be math tea
- 49 Learned work ethic from childhood
- 50 Learning from starting low position
- 51 Liked to work with college students
- 52 Location - with husband
- 53 More time for raising kids
- 54 Need to move to this area
- 55 Need to solve financial burdens
- 56 Never expected to be a police office
- 57 No commitment for college
- 58 No idea of what I wanted to do
- 59 No influence from family
- 60 No knowledge about studying at college
- 61 Not expected to go to college
- 62 Not expecting this job
- 63 Not wanted to be a secretary
- 64 Not wanted to go to college
- 65 Not wanting female jobs
- 66 Only thing interested me
- 67 Parents' expectations
- 68 Parents' perception change
- 69 Parents' perception of univ. police
- 70 Parents' reaction-police job
- 71 Parents relieved with safe environment
- 72 Parents' support for her choosing job
- 73 Paying for college education
- 74 Paying for kid's education
- 75 Prepared from high school - knew my
- 76 Prior knowledge about this place
- 77 Prior knowledge to this area
- 78 Prior knowledge to this area – appeal to employer
- 79 Pursued by mom - for good benefits
- 80 School bus driving with taking kids
- 81 Seizing an opportunity
- 82 Short leave due to raising kids
- 83 Start Coached by manager
- 84 Start from low position and climb the ladder
- 85 Student internship
- 86 Swaying between two ways
- 87 Switching major from pre-med as too
- 88 Time to transition
- 89 Tomboy growing up
- 90 Tough decision-was happy there
- 91 Turning from female jobs
- 92 Twist of fate - from cosmetology
- 93 Want to be a person who affects others
- 94 Wanted regular schedule
- 95 Wanted to do the right things
- 96 Wanted to help people
- 97 Work ethics learned - catholic school
- 98 Working mom valued inside me
- 99 Working schedule fit to mom's role

APPENDIX E

Example of Categorization

Example of Categorization (under the category of “Choosing the best option” – RQ 1)

NVivo revision 2.0.163

**Project:** 1-How to come **User:** Administrator **Date:** 6/17/2007 - 9:48:10 PM  
DOCUMENT CODING REPORT

**Document:** 1-How to come to this occupation

**Created:** 6/12/2007 - 5:23:56 PM

**Modified:** 6/16/2007 - 9:45:00 PM

**Description:** How they came to this occupation?

**Nodes in Set:** **Choosing the best option (Making best decision)**

Node 1 of 11 Had to go with scholarship  
*Passage 1 of 1* Section 0, Para 222, 357 chars.

**222: (Kim)** The school I actually got a scholarship for softball going into my freshman year. And so I went to this school to play softball but they didn't have a criminology kind of department. So I picked what was convenient which was math at the time. You know one of my two I guess threads of what I wanted to do and then I just really didn't like it there at all.

---

Node 2 of 11 Location - with husband  
*Passage 1 of 1* Section 0, Para 438, 473 chars.

**438: (Kate)** I don't want to be married to you and I'm here because it's like a thirteen hour ride from one place to the other and he said well tell them you'll take the job but you'll only take it for a year. So that's what I told them. I said you may not want to hire me because of that. They said oh, we'll hire you because we think we can find David a job here and that's what happened. They were able to find a job here for him and then he came here and we've been here ever since.

---

Node 3 of 11 More time for raising kids  
*Passage 1 of 1* Section 0, Para 253, 609 chars.

**253: (Lizzy)** So I was working 16 hour days between the bakery and working hair and doing hair and that was just it was too much. Plus I had decided to start a family so my oldest daughter was born in the midst of all of that. And it was too much to be at work and away from home for that period of time. And the first thing that I did was I quit my bakery job. Because that was just something that I had I guess kind of just was toying with you know and the hours had worked out really well whenever I first started there. And so I left that job go and I stayed in the hair styling business for quite some time after that.

---

Node 4 of 11 Need to move to this area

*Passage 1 of 1* Section 0, Para 21, 348 chars.

**21: (Diana)** And that's when I started looking for a new position once I got my public administration degree and my ex-husband's family lived in xxx (town near NOU campus) so this job popped up in the Chronicle of Higher Education. I applied. Did not think I'd get it. Did not even think I'd get it. But I thought well I'll go interview. It will be an experience. And I got it.

---

Node 5 of 11 Need to solve financial burdens  
*Passage 1 of 1* Section 0, Para 13, 374 chars.

**13: (Diana)** about almost it was two and a half years almost three years of going to college and changing majors between teaching and nursing. You know... traditional female roles. Then I just decided I'm it was all loans. I'm wasting money. I need to figure something out so that's when I joined the Army. And I actually opted for military police because it was the shortest enlistment.

---

Node 6 of 11 Paying for college education  
*Passage 1 of 1* Section 0, Para 21, 441 chars.

**21: (Diana)** When I got into my reason for opting for military police was a two year enlistment. It's the shortest enlistment you could get. You know.. So if you didn't go two years and they were trying to get women into the military police so that's why they were offering the short enlistment. And I just wanted to get in and try to help get my education paid off and you know.. and that's what also paid for my master's. So that's how I selected that.

---

Node 7 of 11 Paying for kid's education  
*Passage 1 of 1* Section 0, Para 82, 218 chars.

**82: (Janet)** Right, just because college is so expensive. And with my oldest one it's like well we have two more that are going to be going to school. So how am I going to do this and be able to do it without being majorly in debt.

---

Node 8 of 11 School bus driving with taking kids  
*Passage 1 of 1* Section 0, Para 98, 573 chars.

**98: (Janet)** Because it's one of the best jobs actually women can have because well back when I was doing school bus you actually could take your children with you. It wasn't. The car seat regulations and all that kind of stuff hadn't really come into play. Yes there were car seats but not anything like the regulations that are today. So I just took my son and put him on the seat right behind me and did my bus run and then when I was done, then I was able to put him in the car and take him back home and the thing that was nice about driving school bus when the kids were in school

---

Node 9 of 11 Seizing an opportunity  
Passage 1 of 1 Section 0, Para 112, 526 chars.

**112:** (Janet) But that time the commercial driver's license and all the regulations were just starting here at the university which I already had all of that stuff. So that is what actually really helped me get on full time was because the qualifications that they were looking for I already had all of them. So that's why I was able to nobody internally was actually able to do it so then the job the term goes it went to the street because it went to the street because I was an outsider. I was able to apply for the job. And I was hired.

---

Node 10 of 11 Short leave due to raising kids  
Passage 1 of 1 Section 0, Para 206, 587 chars.

**206:** (Kim) And that was really my intended goal when I got hired with the xxx police for a couple years. I stayed there. And then I ended up getting married so that those plans kind of strayed a little bit. And I you know ended up having kids right away and so we didn't want to move them all over the country horsing around doing that. So we just chose to stick w here we were. And then we ended up leaving because of my husband's job once I had a baby and I didn't want to do the police work thing anymore. We ended up moving for his job but quickly realized we wanted to be back here.

---

Node 11 of 11 Working schedule fit to mom's role  
Passage 1 of 1 Section 0, Para 98, 241 chars.

**98:** (Susan) I was off all summer. So it was probably the best job to have because your schedule followed what the kids were doing. So it was and you still got paid to do a couple hours work which was probably the best. It worked out for the best for me.

---

## **VITA**

**Sungmi Jin**

### **PERSONAL INFORMATION**

Address: 265 Blue Course Dr. 26A, State College, Pennsylvania

Email: freedom2all@hotmail.com

Phone: 814 574 6279

### **EDUCATION**

BA, French Education

Seoul National University, Korea

MA, Adult and Lifelong Education

Seoul National University, Korea

Ph. D, Human Resource Training & Development

The Pennsylvania State University

University Park, Pennsylvania

### **EXPERIENCE**

2003-2004 Reference Assistant

Education and Behavioral Science Library, The Pennsylvania State University

2004-2005 Research Assistant

Continuing Education, Outreach, The Pennsylvania State University

2005-2007 Graduate Assistant

Department of Learning Performance Systems, The Pennsylvania State University