A SURVEY OF WHY WOMEN CHOOSE NON-TRADITIONAL CAREERS IN NORTHERN CALIFORNIA

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A SURVEY OF WHY WOMEN CHOOSE NON-TRADITIONAL CAREERS IN NORTHERN CALIFORNIA

A Thesis

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Robert Pritchard, Department Chair

Department of Teacher Education
Abstract

of

A SURVEY OF WHY WOMEN CHOOSE NON-TRADITIONAL CAREERS IN NORTHERN CALIFORNIA

by

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Statement of the Problem

This study will examine women’s personal attitudes on gender and their experiences and beliefs about gender equity in work related environments. This study will also address the following questions: What are women’s attitudes toward gender? How do women perceive gender equity training and gender bias in their careers? What are women’s experiences with gender equity promotion and education in their careers? Overall, this study sought to obtain a better understanding of women’s personal attitudes and perspectives of how their gender plays a major role in non-traditional careers.

Sources of Data

Two sources of data were analyzed: an open-ended questionnaire that focused on the personal experiences of women who participated, and a Likert survey designed to measure participants’ attitudes toward various issues related to gender and reasons
why they chose non-traditional careers. The methodology employed for this study involved both qualitative and quantitative research designs. Participants were required to fill out a questionnaire. Qualitative data was analyzed using a thematic approach while quantitative data collected was entered into the SPSS statistical software program.

Conclusions Researched

There remains areas that need to continue to be worked on in order to end discrimination and unfair labor practices towards women in general. Both men and women need to be educated on the practices of gender equality, and employers need to be educated on why and how the unfair wages employers offer to female employees is causing the female worker to work under men and not beside them as an equal.

__________________________________________, Committee Chair
Jana Noel

__________________________________________
Date
DEDICATION

This thesis is dedicated to my supportive wife Lee, without whom, none of this would have been possible. Her emotional support and love has been an inspiration and I am truly grateful for all that she has sacrificed and contributed for not just this thesis and my education, but also my emotional and spiritual growth and development.

I would also like to dedicate this thesis to my Daughter Jessica and my Granddaughter Rebekkah, both for allowing me to take precious time away from them in order to hopefully make their future brighter.

I would like to dedicate this thesis to two very special women in my life: My Aunt Bea and my mother Juanita for collectively raising me to be the strong, outspoken, passionate, advocate for women that I am today. You have inspired me to always reach higher and to never be satisfied with mediocrity. Thank you for always encouraging me and guiding me, so that I may help make a difference in the future lives of other inspiring young girls who want to achieve more than mediocrity, especially my daughter and granddaughter.

I would like to give a special thank you to Dr. DJ Sekany and Stacy Carr for helping me through an extremely difficult time in my life. Without their emotional support this thesis might not have reached its completion.

Last, but certainly not least, I would like to dedicate this thesis to my mentor and my friend, Dr. Sherrie Thuss-Carinci who inspired me in ways she will never truly know. When I met her in the fall of 2005, I never dreamed that she would have such a
positive affect on my life and give me the strength and encouragement to complete this amazing journey. You are truly an inspiration and a remarkable role model for all women. Thank you for your continued support and commitment to me as a student and as a friend. Because of your support, I’m not a “girl on the bench”.

I would like to thank and acknowledge Dr. Jana Noel and Dr. Frank Lilly of the College of Education for their help, support and patience on this thesis, both as my readers and my friends. Their positive feedback and guidance helped me become a better researcher and writer.

I would also like to give a special thank you to Dr. Kimberly Bancroft. You helped me become a better writer by making me think about every aspect of my writing skills and keeping this thesis flowing from beginning to the end. I am truly grateful for that.

A Special Dedication to Jody Ann Hamilton:

This thesis, my education, my strength and insight all began with a very special person in my life. Words can never truly express how important our time meant to me and I want to thank you for all of the support and love you gave me through the years. I gained so much from knowing you and surviving after your passing. Rest in peace.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>3</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>4</td>
</tr>
<tr>
<td>Methodology</td>
<td>4</td>
</tr>
<tr>
<td>Limitations</td>
<td>5</td>
</tr>
<tr>
<td>Theoretical Basis for Study</td>
<td>6</td>
</tr>
<tr>
<td>Definitions of Relevant Terms</td>
<td>13</td>
</tr>
<tr>
<td>Organization of the Thesis</td>
<td>14</td>
</tr>
<tr>
<td>Background of the Researcher</td>
<td>14</td>
</tr>
<tr>
<td>2. REVIEW OF RELEVANT LITERATURE</td>
<td>16</td>
</tr>
<tr>
<td>History of Women Working in America</td>
<td>16</td>
</tr>
<tr>
<td>Educational Needs of Women in Non-Traditional Careers</td>
<td>31</td>
</tr>
<tr>
<td>Sexual Biasing Women Face</td>
<td>35</td>
</tr>
<tr>
<td>Pay Differentials Between Men and Women</td>
<td>41</td>
</tr>
<tr>
<td>Summary</td>
<td>44</td>
</tr>
<tr>
<td>Section</td>
<td>Pages</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>48</td>
</tr>
<tr>
<td>Participants</td>
<td>48</td>
</tr>
<tr>
<td>Materials</td>
<td>50</td>
</tr>
<tr>
<td>Design</td>
<td>50</td>
</tr>
<tr>
<td>Procedure</td>
<td>53</td>
</tr>
<tr>
<td>4. FINDINGS</td>
<td>55</td>
</tr>
<tr>
<td>Questionnaire Results</td>
<td>56</td>
</tr>
<tr>
<td>Open-Ended Questionnaire</td>
<td>71</td>
</tr>
<tr>
<td>Conclusion</td>
<td>81</td>
</tr>
<tr>
<td>5. DISCUSSION, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS</td>
<td>83</td>
</tr>
<tr>
<td>Introduction</td>
<td>83</td>
</tr>
<tr>
<td>Conclusions</td>
<td>83</td>
</tr>
<tr>
<td>Limitations</td>
<td>91</td>
</tr>
<tr>
<td>Recommendations for Further Study</td>
<td>92</td>
</tr>
<tr>
<td>Appendix A. Consent Letter</td>
<td>94</td>
</tr>
<tr>
<td>Appendix B. Questionnaire of Why Women Choose Non-Traditional Careers</td>
<td>96</td>
</tr>
<tr>
<td>Appendix C. Qualitative Questions for Why Women Choose Non-Traditional Careers</td>
<td>100</td>
</tr>
<tr>
<td>Appendix D. Pay Graphs</td>
<td>102</td>
</tr>
<tr>
<td>Appendix E. Data Charts</td>
<td>107</td>
</tr>
<tr>
<td>References</td>
<td>123</td>
</tr>
</tbody>
</table>
LIST OF TABLES

1. Age of Participants ......................................................................................... 49
2. Participants in the Four Different Non-Traditional Careers......................... 49
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Participants by Occupation</td>
<td>55</td>
</tr>
<tr>
<td>2.</td>
<td>Gender Bias in Your Career</td>
<td>57</td>
</tr>
<tr>
<td>3.</td>
<td>Women Need Gender Equity Training</td>
<td>58</td>
</tr>
<tr>
<td>4.</td>
<td>Men Need Gender Equity Training</td>
<td>59</td>
</tr>
<tr>
<td>5.</td>
<td>Current Training Equitable for Both Genders</td>
<td>60</td>
</tr>
<tr>
<td>6.</td>
<td>People Choose Their Careers Based on Gender</td>
<td>61</td>
</tr>
<tr>
<td>7.</td>
<td>Parents Played a Role in Your Career Choice</td>
<td>62</td>
</tr>
<tr>
<td>8.</td>
<td>Employers Treat Their Male/Female Employees Equal in Career</td>
<td>63</td>
</tr>
<tr>
<td>9.</td>
<td>Employers Place Their Employees According to Gender</td>
<td>64</td>
</tr>
<tr>
<td>10.</td>
<td>If More Accepted, Women Would Choose Nontraditional Careers</td>
<td>65</td>
</tr>
<tr>
<td>11.</td>
<td>Men are Accepting of Women in Your Career</td>
<td>66</td>
</tr>
<tr>
<td>12.</td>
<td>The Dress Code is Equal in Your Career</td>
<td>67</td>
</tr>
<tr>
<td>13.</td>
<td>More Men in Top Positions in Your Career</td>
<td>68</td>
</tr>
<tr>
<td>14.</td>
<td>Employers Promote Based on Abilities &amp; Qualifications</td>
<td>69</td>
</tr>
<tr>
<td>15.</td>
<td>Feel Like Your Suggestions for Improvement are Listened to</td>
<td>70</td>
</tr>
<tr>
<td>16.</td>
<td>Men and Women Receive Equal Pay for Equal Skills</td>
<td>71</td>
</tr>
</tbody>
</table>
Chapter 1

INTRODUCTION

Nothing can be more absurd than the practice which prevails in our country of men and women not following the same pursuits with all their strengths and with one mind, for thus the state instead of being whole, is reduced to half.

Plato, 24 B. C.

America is known for its emphasis on freedom and civil rights. A popular motto in this country is that we are all created equal. According to the fundamental ideals of American society, education should be equitable for all students including women (Hesse-Biber & Carter, 2005). Unfortunately, research is telling us a different story; a story where women are not receiving equality in education. Gender equity in education is defined as “the elimination of sex role stereotyping and sex bias from the educational process, thus providing the opportunity and environment to validate and empower individuals as they make appropriate career and life choices” (Owens, Smothers, & Love, 2003, p. 132).

The subject of gender equity has obtained escalating significance over the years. Research has shown that parents, peers, and teachers have the greatest influence over children (Lips, 1989). Teachers have daily access to our children and spend a significant portion of their waking hours with them. Children spend more time with their teachers than any other adult outside of their parents (Owens et al., 2003). Research has shown that teachers’ personal biases can affect the way they perceive students’ abilities and effort (Duffy, Warren, & Walsh, 2002).
These research findings on gender in education imply that there is a serious problem in our educational system. Girls are being treated much differently than boys and are coming out of school with decreased capability than when they entered. This difference in treatment impacts future career choices as well as preparedness for the workforce according to the American Association of University Women (AAUW, 1999). If boys and girls are studying the same material and being taught in the same manner then there should not be such a significant gap between boys’ success and girls’ success with the curriculum upon graduation. This suggests that there is something going on in the classroom that has nothing to do with learning capacity and more to do with the interactions within the classroom, as the research has suggested (AAUW, 1999; Jones & Dindia, 2004; Sadker & Sadker, 1994). These interactions occur between teacher and student with the teacher possessing the authority to control those interactions. Therefore, the research has suggested that it is teachers that may be contributing to this inequity (Duffy et al., 2002).

While it is implied that the inequity found in teachers’ interactions with students are unintentional and in many ways unconscious, this behavior can be modified. With awareness and training teachers can make a difference and find ways to transform a classroom into an equitable learning environment (Carincic, 2001).

Children deserve an equal opportunity to learn and to expand their minds through education. In order to accomplish this, more research needs to be conducted on the personal attitudes of teachers and their training about gender issues in the classroom. This will be one way to determine if teachers do in fact possess biased
attitudes toward gender, or if they are simply ignorant of how gender biasing occurs. The next step would be to see if attitudes on gender and gender related choices have any observable influence within the classroom and if they are different for girls and boys. Boys and girls develop very differently and there is no exception when it comes to the adolescence and career choices.

The best time to study young women and how they choose their careers is when they are in their adolescence. Before a young woman chooses a career, she first develops career likes and dislikes and goals. Watson, Quatman, and Edler (2002) explain, “Career options and choices become more realistic as the adolescent gains a greater awareness of her skills and interests” (p. 323).

Statement of the Problem

This study will examine women’s personal attitudes on gender and their experiences and beliefs about gender equity in work related environments. This study will also address the following questions: What are women’s attitudes toward gender? How do women perceive gender equity training and gender bias in their careers? What are women’s experiences with gender equity promotion and education in their careers? Overall, this study sought to obtain a better understanding of women’s personal attitudes and perspectives of how their gender plays a major role in non-traditional careers.
Significance of the Study

This study will specifically help determine the various reasons women choose non-traditional careers and if there can be changes made to the working environment to help them become successful in their career choice.

During the past year in the Gender Equity program, I have learned about the struggles women have gone through both in education and in the workforce. I have learned that for years women have been unable to obtain a complete education and some have been left out of the curriculum. By leaving women’s accomplishments out of the curriculum, young girls have not been shown that there are role models out there for them to follow. This is tragic because without positive role models, these young girls are not aware that they can achieve things outside of the traditional thinking.

My culminating experience along with the research I provide on gender differences in education and gender differences in the workplace will help find barriers that are stopping many women from achieving not only their educational goals, but success in non-traditional careers as well.

Methodology

Thirty-nine women working in law enforcement/corrections, firefighting, construction and vocational education instructors in Northern California volunteered for this study. This group was assembled by contacting various human resources departments, trade organizations and Dr. Sherrie Carinci, who arranged for her vocational education students to participate. Each participant received a packet including a consent letter, a questionnaire and five open-ended questions. The five
open-ended questions concerned advice for future women looking to enter non-
traditional careers, any education and specialty training that would be beneficial,
suggestions to improve work environment and influences that might contribute to
choosing a non-traditional career. Furthermore, background information of the
participants was included that identified each participant’s non-traditional occupation,
age, gender, and educational level. To guarantee participants’ privacy, all information
remained anonymous.

Limitations

Some of the limitations were locating the participants to give the questionnaire
to since women in non-traditional careers are so few; gaining enough participants in
each of my focus areas to get a good understanding of what draws women to non-
traditional careers, and making sure I received the completed questionnaires back in a
timely manner.

In order to solve the anticipant problems, I contacted many human resources
departments, trade organizations, police and fire departments as were necessary to
ensure the projected volunteer participants. To find the type of participant required
working with my advisors and also going to those careers that I wanted to include and
setting up times to meet with the appropriate individuals. To address the issue of
receiving the completed questionnaires back in a timely manner, I waited and
collected the completed questionnaires if the setting allowed and where the setting did
not allow for a group to gather at once, I provided a self addressed stamped manila
envelopes in which participants could mail their completed questionnaires. In order to
insure that my questionnaires did not get misplaced, I either waited to collect them after handing them out or I made sure that I provided self addressed stamped manila folder to ensure that the questionnaires were returned by mail.

Theoretical Basis for Study

There are many theories that relate to equity; however, Feminist Theory offers a unique perspective that pertains to women and, therefore, offers a closer examination of gender equity ideology. It is also important to investigate numerous educational scholars who have supported the ideals of equity in education and their theories, in order to get a complete understanding of the importance of gender equity training for our teachers which will help young women gain the education needed to obtain and be successful in non-traditional careers. While Feminist Theory and the ideologies of Dewey, Noddings, and hooks provide insight into the framework of equity, Social Role Theory provides a social basis for how and why gender inequities exist and continue to be maintained in the American educational system.

Feminist Theory

Feminist theorists of yesterday and today make the argument that women’s lives and experiences have significance. These theorists have questioned the influence and roles of teachers in the classrooms and the origins of the educational system (AAUW, 1999). Feminist ideology examines how boys and girls are raised and how it affects their attitudes and opportunities.

Nancy Hardstock (1983) a feminist theorist, examined the nature of women’s standpoint. She believed that “the position of women is structurally different from that
of men, and that the lived realities of women’s lives are profoundly different from those of men” (p. 91). As a result, women’s voices should be recognized and studied in order to get a complete and equitable view of the world. In the classroom, it should be acknowledged that women’s experiences are different from men’s, therefore, they should be taken into account when developing curriculum.

One example would be in a history class. Most history is taught from the male perspective with a voice which is loud and authoritative instead of using narratives which are more relatable to the female student.

One feminist teaching technique that challenges the authoritative approach to history and moves toward history as a form of empowerment involves, quite simply, using autobiographical narratives to introduce more complex, real, and relatable voices to students …In a history class, replacing ‘objective’ scholarly voices with the voices of those directly involved in an event or issue reframes history and changes the dynamics of power. (Cottrell, 1999, p. 77)

Another feminist theorist, Carol Gilligan (1982), has conducted research on the psychological and behavioral impact of girls losing their voices in society as a whole and in our classrooms. Research has shown that the female perspective is missing in the curriculum, instruction practices and textbooks used in schools today (AAUW, 1999; Sadker & Sadker, 1994). According to Gilligan, these practices are causing girls to become depressed and complacent and are affecting their entire futures.
bell hooks

bell hooks (1994) believed that teachers should teach to transgress. Her theory is based on the ideal that the classroom should be a place where students take an active part in their own learning. Where students are not the only individuals to evolve but teachers as well are allowed to grow and expand their knowledge. Teachers should not solely share information but should be concerned with their students’ intellectual and spiritual growth. She emphasized the importance of voice and the idea that everyone’s opinion is valid and precious. hooks believed that “the engaged voice must never be fixed and absolute but always changing, always evolving in dialogue with a world beyond itself” (Bennett, & Bennett, 1994, p. 11).

hooks believed that,

To educate as the practice of freedom is a way of teaching that anyone can learn. That learning process comes easiest to those of us who teach who believe that there is an aspect of our vocation that is sacred; who believe that our work is not merely to share information but to share in the intellectual and spiritual growth of our students. (Titone, & Maloney, 1999, p. 186)

Nel Noddings

Noddings (1992) created the concept of “connected knowing” in education. She believed that in order for true learning to occur, students must be able to relate to and see themselves in the curriculum. In a traditional classroom, the teacher gives the information while the student receives and repeats the given information. According to the theory of connected knowing, teacher and student should be equal recipients and
givers of information. The connected model also posits that students’ personal thoughts, feelings and insights on every subject are important to the learning process and that teachers should recognize their opinions. While connected education is the cornerstone of Noddings’ theory, she also believes that a teacher’s level of caring for her/his students is vital for successful teaching. She envisioned a school system that was based on care not competition because different people have different strengths and abilities.

Social Role Theory

Noddings and hooks have expansive and creative theories about gender and education; however, socialization processes serve to hinder the prevalence and use of those theories in everyday American classrooms. Social Role Theory (Eagly, 2001) promulgates that sex differences between men and women are the result of social roles in which people participate in society. In current American society, men’s social roles include a position of power where males are labeled as providers. Women, on the other hand, occupy a domestic social role where females are responsible for childrearing. This creates a sexual division of labor that leads to the development of gender roles and gender norms. These gender roles and norms then serve to “guide social behavior” (p. 1070). As a result, a gender hierarchy is created where men hold a higher status of power and women are seen as inferior.

This mode of hierarchical thinking transfers to the classroom in many ways. It is seen in the interaction patterns between students and students, students and teachers, teachers and parents, and parents and students (Sadker & Sadker, 1994). The gender
hierarchy is also seen dramatically in school curriculum. For example, female voices are almost completely absent from traditional American history courses (Sadker & Sadker, 1994). The majority of American history curriculum is focused on the experiences of men, not women. Math and science have been shown to be male dominated subjects as well (Sadker & Sadker, 1994).

When gender role expectations are prevalent in a society, they become internalized. Due to the fact that society as a whole holds its own expectations for men and women, it is implied that teachers could be influenced by those expectations. As a result, it is possible that teachers come into the classroom with ideals based on societal norms and not necessarily from a place of equity and complete fairness.

Feminist theory, bell hooks, Nel Noddings and Social Role theory all provide insight into possible explanations for gender bias in teacher interactions. Hyun and Tyler (1999), two prominent gender researchers, asserted that on account of the biases that adults maintain about gender, those attitudes may be “artificially and unnecessarily encouraged without consideration of an individual child’s interests” (p. 6). Lynn Hall (1996), a researcher on gender in education, pointed out that teachers seem to be powerful reinforcers of stereotypes.

Education is among other things, a process of shaping the moral imagination, character, skills and intellect of our children …of inviting them into the great conversation of our moral, cultural and intellectual life and of giving them resources to prepare to fully participate in the life of the nation and of the world. (Sherman, 2004, p. 115)
While the inequity found in teacher interactions was unintentional and in many ways unconscious, it has the potential to be modified. With awareness and proper training teachers can make a difference and find ways to transform a classroom into an equitable learning environment. Children deserve an equal opportunity to learn and to expand their minds through education. The traditional classroom needs to be reassessed and redesigned so that males and females both have a voice and equal opportunity to succeed in life.

Overall, there are numerous theories that can be associated with gender equity and education. Feminist Theory provides a distinctive standpoint that pertains to the lives and experiences of women which offers an intimate analysis of the fundamental principles of gender equity. Feminist Theory questions the origins of the educational system and explores the historical and present position of women in American education.

An examination of women, as a group is important in understanding gender equity on a global scale; however, theories of education must be examined in order to understand the role of the teacher and the influence of their teaching methods, educational background and ideologies. bell hooks takes these theories one step further by including the importance of the students’ voices and the responsibility of the teacher to serve as a mentor for intellectual and spiritual growth. While hooks examine the role of the teacher and student, Nel Noddings focuses on the significance of the curriculum used in American classrooms. Noddings promulgates that students need to feel connected to what they are learning. Students need to see themselves in
the curriculum to not only learn the information more effectively but to promote equity in all facets of learning. All four education theorists stress the importance of the role of the classroom in the development of students’ knowledge, opinions and ideals.

While theories on education serve to explain effective methods for teaching in an equitable manner, Social Role Theory serves to provide clarification as to how and why society became and continues to be inequitable for males and females. Social Role Theory posits that differences between men and women are a result of the social roles in which people participate in society. These roles become internalized and, in turn, affect all sectors of society including education.

In order to understand the complexity and inner workings of gender equity in American education and society, it is essential that many theories be examined in order to gain a complete understanding of gender equity issues in education and in the workforce. Feminist Theory, Education Theory and Social Theory all provide unique perspectives on the role of gender in education. There is at least one more theory to look at and that has to do with the differences between men and women and the Theory of Career Development. Donald Super (Inkson, 2006) explains how many theorists and researchers have set forth point by point career stage theory. Career development can be divided into four to six stages that can be seen throughout our entire lives. The stages are described as: exploration, establishment, progress, maintenance, and the retirement or disengagement stage (Inkson, 2006).

According to Inkson (2006), “Super was the dominant figure in career development research in the 20th century and developed probably the most
comprehensive theory of career development … Originally developed in a series of 10 propositions, Super’s theory was eventually expanded to 16” (p. 55). In propositions 4-9, Super addresses how men and women differ in vocational characteristics and propositions 13 and 14 talk about vocational maturity and adaptability. Another protagonist who carries some fame with him is Daniel Levinson who was a co-author of *The Seasons of a Man’s Life*.

In the Levinson research, the main difference between women and men was the clash for women between the roles of home-maker and career woman … Early to mid career for many woman is a time when, due to domestic responsibilities, they are unable to pursue the advancement of their work careers like the men can (Inkson, 2006, p. 61).

Limitations, from early childhood to adult, have been wrongly placed on the female gender due to beliefs that they are not capable of either higher intellectual thinking, are not physically capable, or are more needed in the home as seen by most of American citizens who believe a woman should not be doing “men’s work”.

**Definitions of Relevant Terms**

*Gender:* One’s culturally defined and perceived sex, such as male and female (Renzetti & Curran, 2003).

*Gender Equity:* The elimination of sex role stereotyping and sex bias from the educational process, thus providing the opportunity and environment to validate and empower individuals as they make appropriate career and life choices (Owens et al., 2003, p. 132).
**Gender Role:** Shared expectations about behavior that apply to people on the basis of their socially identified sex (Eagly, 2001, p. 1071).

**Gender Stereotype:** Refers to the oversimplified or generalized characteristics of one’s gender. Often they are demeaning in nature (Renzetti, & Curran, 2003).

**Non-Traditional Career:** As defined by the U.S. Department of Labor – Those occupations in which women comprise 25 % or less of total employed. (U.S. Department of Labor, 2007).

**Organization of the Thesis**

The organization of this thesis is as follows. Chapter 1 consists of the introduction, the reason why the thesis is being written and some theory on what women have experienced in education and the work environment. Chapter 2 consists of a review of the relevant literature on the topic of gender, education needed to help gain entrance into non-traditional careers and the hardships women face in non-traditional careers. Chapter 3 focuses on the methodology of the thesis and explains the procedures utilized in the study. Chapter 4 presents an analysis of the qualitative and qualitative data. Chapter 5 includes the conclusions drawn from the study, the actual limitations that were faced and then followed by the proposed recommendations for further study. I have also included supplementary materials in a set of Appendences.

**Background of the Researcher**

Rose K. Trotter-Hamilton earned her Bachelor of Vocational Education degree in Vocational Education from California State University, Sacramento in 2007.
She is interested in this study and issues because of her own work history. She has worked predominately in fields occupied by men. Having statistical knowledge of non-traditional careers and the reasons women choose them would benefit her in her future career goals, help women have better opportunities and success in non-traditional careers through her research, as well as helping to remove the limitations placed upon the female gender. Teachers who teach k-8 grade will also benefit from Rose’s research by teaching their students the present biases and how to reconstruct their curriculum so that all children receive equal opportunities to be all that they desire.

A mentor and friend, Dr. Sherrie Thuss-Carinci, is a professor and Coordinator of the Master in Education with an emphasis in Gender Studies at CSUS. Her lectures on the inequalities present in American education and more specifically how our society treats girls and women differently ignited in Rose a passion to want to make changes in regard to women working in non-traditional careers.

Changing the boundaries for women so that they may pursue their career and life time goals is a personal quest for Rose. It is her belief that if boys and girls received the same attention and expectations, girls would fair better in critical areas such as science and mathematics. In just a few short years, Rose’s first and only granddaughter will be facing her own career choices. Rose’s knowledge and research will help in the steps towards a better, more equitable future for her granddaughter as well as for other women who choose to be different and explore a world outside of traditional boundaries.
Chapter 2

REVIEW OF RELEVANT LITERATURE

The literature review includes an examination of the history of women’s entrance into traditional careers as well as non-traditional careers. The review will take a look at gender equity issues in education, gender equity issues involving sexual harassment and discrimination specific to non-traditional careers, as well as gender equity issues in regard to pay in these occupations. Each of these areas combine to provide the context for the study of women working in non-traditional careers.

History of Women Working in America

Entrance of Females in the Workforce in Traditional Careers

Women have been working outside the home for over 200 years. Mostly in traditional fields like teachers, nurses, secretaries, sales and other service occupations. One of the reasons that this change took place was because the American economy shifted from being mostly an agriculture workforce to a more industrialized workforce around the turn of the nineteenth century. Essentially “moving production off the farm and into factories” (Renzetti & Curran, 2003, p. 176). Women who came from wealthy or middle class income rarely worked outside of the home. However women from poor, working class families, single mothers with children, minority women and white immigrant women did not really have the luxury of just staying home. In order to survive, women from poor working class families and who were single mothers had to find paid employment outside the home, however the reality of working stood in direct
conflict of the prosperous image of womanhood and family (Renzetti & Curran, 2003).

By 1850, there was a major influence of women workers in the factories. These women were mostly seamstresses who work in urban places like the garment industry and textile mills. Some women did “piece work like folding books, rolling cigars or making flowers for wealthy ladies’ hats” (Renzetti & Curran, 2003, p. 177). These women worked approximately eighteen hours a day, work environments that were extremely unsafe and received a daily pay of fewer than 20 cents (Renzetti & Curran, 2003).

Women have always been perceived as passively innate and physically weaker than their male counterparts and therefore were only able to handle the more mundane and repetitive work. Additionally, the fact that the reason women were working outside of the home was crucial to the welfare of the family’s survival and it was strongly believed that eventually they would marry. This was the justification for paying them such a low wage (Renzetti & Curran, 2003).

The workforce in manufacturing was available primarily to white women. Women of color or other minorities though were more likely to work and receive pay for their services more than white women; however they found their employment largely limited to areas like agriculture, domestic work and laundry services (Renzetti & Curran, 2003).

Resisting the temptation to seek careers in traditional fields can be intimidating, anxiety provoking and even frightening for some women but even those
who are working in traditional careers are cheering on the women who are breaking out of tradition. Women need to resist the temptation of what men would have them conform to as stereotypical like being a nurturing, loving person who always appears to offer a shoulder to cry on and they should be aware of the challenges that allowing them to be placed in a stereotypical role will cause added pressures to compromise (Cavanagh & Cree, 1996).

There have always been women throughout history that have opted to follow a different path in life and have looked outside the traditional career fields for paid employment with great success.

*Entrance of Females in the Workforce in Non-Traditional Careers*

The definition of ‘non-traditional’, According to the U.S. Department of Labor is as follows.

1) Non Traditional occupations are those in which women comprise 25 percent or less of total employed 2) Nontraditional occupations span all major occupational groups and provide many employment options for women. 3) Nontraditional jobs are attractive to women because they generally offer higher entry-level wages and a career ladder with pay between $20 and $30 per hour. 4) As more women enter jobs that were once dominated by men, many jobs that were nontraditional for women in the 1986 were no longer nontraditional for women in 2007. (U.S. Department of Labor, 2007)

With an understanding of what non-traditional means, we can now begin to take a look at some successful and unknown women who have crossed over into more
male dominated fields and their accomplishments. There was Deborah Sampson Gannett: alias Robert Shurtleff (1760-1827) who served in the Continental Army during the American Revolution. When she was injured, she decided to remove the musket ball on her own, in order to hide her identity. In 1792, she fought for her pension with the assistance from Paul Revere. There was Harriet Tubman, an abolitionist (1820-1913) who organized the under ground railroad for the slaves. She made 19 trips and never lost a passenger. Harriet was also a nurse, cook and a spy for the Northern Army during the Civil War. Amelia Earhart (1897-1937) hated planes as a child. She would say that she thought they were a thing of rust, wood and wire. No one could guess that she would develop a love of flying, go on to set many records and die doing what she adored; flying. Grace Hopper (1906 -1992) was a Pioneer Computer Scientist who became Admiral in the Navy. Grace was most known for her invention of the “Complier”; an intermediate program that translates English language instructions into the language of the target computer. Rose Will Monroe (1922 -1997) was the “Real Rosie the Riveter”. She symbolized what women meant to the war effort at home. There are hundreds of women who currently set forth great role models in non-traditional roles. Unfortunately, most of them were not deemed worthy enough to be recorded in the official records. There are a few women in our records that we do know by name. One is Sandra Day O’Connor, who is a retired Supreme Court Justice (1930-Present), and another is a fantastic Scientist /Astronaut named Dr. Sally Ride (1951-Present). Dr. Ride joined NASA in 1978, was the first American woman in space, and is also the youngest Astronaut to circle the Earth.
There are many careers that are considered non-traditional for women and instead of trying to discuss each of them; I have opted to focus on three very specific and highly visible careers. These careers are law enforcement, firefighting and construction. I will look at the history of women in these three fields, followed by the educational needs of women in non-traditional careers, the sexual harassment and discrimination these women face, and the pay differential between men and women in these careers. By looking at these specific issues in each career, we can gain an understanding of what it takes for a woman to choose, obtain and hold a non-traditional career.

History of Women in Law Enforcement

Wells and Alt (2005) explain, “In the 1800s almost no employers offered pensions or death benefits if the male breadwinner died” (p. 2). But more often than not, women were hired as matrons to provide them with an income if they were unmarried or widows. In 1893, a woman named Mary Owens received the title and pay of a policeman when her husband, a Chicago police officer, died. This was a huge break through for women in law enforcement, and Owens held that title, pay and actual job for over 30 years (Wells & Alt, 2005).

A look back to 1820 reveals that women were volunteering in law enforcement by providing religious and secular training to women inmates in penal institutions. They were soon joined by other upper-middle class women who wanted to help reform the female inmates. The facilities that held these female inmates were placed in the countryside and staffed solely by women due to the fact that these reformers believed
that cities had a corrupting influence and other facilities that were staffed by men made the female inmates sexually vulnerable. These women were not hired because workers were needed and they were knowledgeable workers but because they were female and female workers had become necessary for the growing female inmate population (Wells & Alt, 2005).

After the civil war, female activists won roles in jails as police matrons. Again, caring for the religious and secular needs of the female inmates, but also taking on duties such as interviewing accused women and making sentencing recommendations that today would be done by a probation officer (Wells & Alt, 2005).

As early as 1845, women found positions as full time police matrons in New York City. Even though this was a great leap forward for women, in 1887 the Men's Prison Association opposed having matrons in each station house. Back then, New York City annually detained approximately 14,000 female prisoners and got 42,000 homeless females. The men’s association contended that there was not room for the female matrons, and that they feared that the female matrons would not be able to handle the violent state of the female inmates (Wells & Alt, 2005).

In 1910 Alice Stebbins Wells was hired by the Los Angeles Police Department in the USA. In late 1915, “Edith Smith was sworn in and given arrest powers in Grantham, England” (Heidensohn, 1995, p. 29). These two women were the first women to become official police officers. Their jobs were strictly laid out and limited to working with women, children, and typewriters for more than half a century.
Schulz (2004) explains the answers are as varied as the women who seek out the positions. Some women may want to follow in a family member’s foot steps, while others may desire the income or the challenge, while yet others may be looking to cut themselves a path that can be remembered. She continues by saying, “Every woman police officer can recall instances of being asked, either literally or in so many words: What is a nice girl like you doing in a job like this?” (p. 2). It is not always just one source, i.e. a coworker or superior, which this question or others like it are coming from. It could be someone at the company picnic or Christmas party. It could be the individual whom she gave a traffic ticket to or the crime victim, a co-worker or superior (Schulz, 2004).

Chief Nannette Hegerty of Milwaukee, Wisconsin can recall growing up in the 1960s and 1970s when she would see the cars patrolling her neighborhood and she thought it would be ‘neat’ to be able to have a job where she could help others if only they would hire women officers. In 1976, Chief Nannette Hegerty of Milwaukee, Wisconsin, realized her dream of becoming a police officer (Schulz, 2004).

In the mid 1970s women’s names were showing up more and more on applications for the positions of cadet and reserve officer. The women that could get into such positions would only be allowed to work clerical positions. The women used available programs to reinforce their seriousness about being police officers and having careers in law enforcement. In the smaller areas, where rules could be bent some women would impress their chiefs enough to be hired for full time positions. Chief Patricia Medina of the Rio Dell, California, Police Department started out as a
cadet and over her 19 years in law enforcement, had worked in four police
deptments, the last two of which she was the chief. Medina, one of the few
surnamed chiefs and was the first Hispanic woman police officer and first police
supervisor (Schulz, 2004).

Nicknamed ‘hot pants’ for her undercover arrests in Miami, Florida, Boyd-
Savage became the first African-American female major followed by being the first
female assistant chief. Gwendolyn Boyd-Savage began as a public service aide with
the Miami Police Department, in Miami, Florida. This led to becoming a police
officer, vice president of administrative services at Florida International University,
and then on to three chiefs’ positions. When she was selected as chief in Miami, prior
to the chief position in North Miami, Riviera Beach, Florida had planned on offering
Boyd-Savage their chief position. If Gwendolyn Boyd-Savage had waited for their
offer and taken it, she would have also been the first woman to head a police
department in Palm Beach County (Schulz, 2004).

Vickie Peltzer joined the Albuquerque, New Mexico, Police Department
Explorer program in 1972, just over one year after it began accepting women. The
program was originally opened by the Boy Scouts of America and only to boys
between the ages of 14 and 16. An Explorer would assist police officers, and attend
lectures. Through doing the program, Explorers would be competing for various
college scholarships. It was in 1971 that the age limit was moved to 21 and women
were allowed to participate (Schulz, 2004).
According to Grant, Garrison, and McCormick (1990), “Police women at the local, state, and federal levels who in 1971 comprised less than 1.5 percent of the force now account for 4 to 5 percent of the sworn officers in 1985” (p. 1). The percentages have been going up since 1971, but the increase is astonishingly low.

According to the Department of Labor, in 2008, the number of women who were police and sheriff patrol officers amounted to 99,000, which accounts for 14.7 percent of the total officers employed in the United States (U.S. Department of Labor, 2008).

*History of Women in Firefighting*

When you ask a child who a fireman is, you will get a response that goes something like this, “A fireman is a guy like my daddy who puts outs fires.” Combating fires is often perceived as a man's job. Rosell, Miller, and Barber (1995) state, “Dragging heavy hoses off trucks and up the stairways of burning buildings, hoisting and climbing ladders, packing and using tools for forcible entries, and carrying victims requires physical strength, ability, and stamina” (p. 1).

Rae (2006) told a story about a young woman named Becky Davison who as a young girl once had a dream to become a fire fighter just like her father. In fact, Becky had once promised her father that she would make brigade. “I've wanted to be a firefighter since I was a little girl. I always told my dad that I wanted to join and I was even more determined to do so when he died suddenly from a heart attack when I was 16” (p. 2). At the age of 21, Becky Davison serves at the Rainton Bridge Fire Station.

"Becky told her dad her aim was to be in the brigade and she said he would be very
Women have been firefighters for longer than most people realize: in fact, for almost 200 years. The earliest record of a women actually being utilized was back in 1818. The woman’s name was Molly Williams. She was an African-American slave owned by a man who was a volunteer for the Oceanus Engine Company No. 11 in New York City. She was basically required to wear a calico dress with a checkered apron to the fires (Kaczor & Weinstein, 2005).

In 1875, a young woman named Aledlheid von Buckow worked a hand pumper all night long next to United States Fire Company No. 1. She was part of a collective group of firefighters working hard to extinguish a fire at an Atlantic City, New Jersey lumber mill. She was 21 old at the time. She later married one of the members of the company and became Aledlheid von Buckow Disston. She was made a member of the Atlantic City Fire Department in 1904 and is the only woman to have ever served in a firefighting capacity since then (Kaczor & Weinstein, 2005).

In 1912, a woman by the name of Marie Stack, who held the rank of Captain, was put in charge of the first all female member company of the Los Angeles Fire Department. This company only had three members. Just on the outskirts of Los Angeles, there was a Volunteer Fire Brigade, which was made up of more prominent woman from society. These two units merged and became known as the Society Fire Department (Kaczor & Weinstein, 2005).

In 1926, after the death of her husband, who was a member of the Westside Hose Company #1, Emma Vernell took his place and became the first woman
officially recognized by the State of New Jersey as a firefighter. She was 50 years old (Kaczor & Weinstein, 2005).

The year 1944 became an historic moment for both the Scott Field and the Savanna Ordnance Depot, which are both located in northern Illinois. Both of these Volunteer Fire Companies were put into place while the men went off to war and staffed exclusively by women for a portion of the war time. During this time 98 women who were working for the fire service died in the line of duty, 23 of these women were British (Kaczor & Weinstein, 2005).

In 1962, there was a fire company known as “The Firettes”, which was comprised of all women in King County, Washington. The function of this fire company was to provide not only firefighting services, but first-aid as well during business hours because the men volunteers were scarce and there appeared to be an abundance of women. “The Firettes” provided services to King County Fire District No. 44 (Kaczor & Weinstein, 2005).

Modern fire departments did not start hiring women until around the 1970s. The literature does state that the Arlington Virginia fire department hired Judith Livers, as the first paid female firefighter in 1974. She became interested in the fire department while assisting her husband with his fire science classes and learned how much devastation a fire can cause. This information was a motivating factor to her wanting to become a firefighter herself. Judith Livers became Judith Brewer and in 1999 she retired from the Arlington County Fire Department at the rank of Battalion Chief (Kaczor & Weinstein, 2005).
Throughout the timeline of women in firefighting there have been tremendous gains over the years. There once was a day when you would not see a woman wearing the gear of a fire fighter. Today however, it has become more common place to see our daughters putting it on the line. Women have made it to the ranks of Captains as well as Battalion Chiefs, “…And yet despite two decades of activism, the actual number of women firefighters remains low” (Olson, 1997, p. 1).

According to the Department of Labor, in 2008, the number of women who were firefighters amounted to 14,000, which accounts for 4.8% of the total firefighters employed in the United States (U.S. Department of Labor, 2008).

*History of Women in Construction*

Another area of non-traditional career choices that women have enter into is the construction industry.

In the construction industry, family connections are extremely important and tend to help gain entrance into the occupation. White men tend to have fathers, male siblings and uncles who either work in the construction field or have contacts that help get them in to apprenticeship programs. This is not always the case for women. Even though women tend to have fathers, brothers and uncles who work in the industry, they do not necessary lend a helping hand in getting their daughters, sisters or nieces into these programs (Applebaum, 1999).

Women have only been entering this occupation since around the 1950s. There was a group of 16 women working in construction in the Fort Worth, Texas. These women came together to find support and networking in their career endeavors. This
group became known as the National Association of Women in Construction (NAWIC). This organization was designed, “To enhance the success of women in the construction industry” (NAWIC, n.d.).

The first woman to make history in the construction industry was Rose Will Monroe (1922-1997); better know as Rosie the Riveter. The story of Rosie was more about the women who were willing to help out their country when the men went off to war. Rose Monroe was a widow with two young children and she left her home in Kentucky to go north for not only a defense job, but a job with better pay and a way to provide for her family. She was hired by Ford Motor Co.’s Willow Run plant in Ypsilanti, Mich., to build airplanes and she was a riveter. She was a very attractive and capable woman who became an American Icon for women everywhere. After the war, Rose still needed to provide for her family and eventually opened up her own home construction company called “Rose Builders” (Marcano, 1997).

Charlene Thompson was a female electrician who had been working in new construction for over 15 years. She was only 19 years old when she got hired by a company that handled electrical, plumbing, a/c and heating for both commercial and residential construction. It was a beginning position and she was not really hired with a specific occupation in mind. It was very difficult for her to get hired by a large company in the first place, and it was the company that decided what occupation to train her in. This company was very progressive towards equal opportunity long before it was required. She always had the attitude that she could do anything better than the next person. This was one of the reasons this job was so perfect for her. She
eventually made her way through the ranks by proving herself and was rewarded with a crew of her own. She stopped listening and paying attention to the chauvinist comments and noticed over time that men who did not want to change, did not last long with the company. No matter how much she proved herself, that did not mean she was accepted. Each and everyday she had to prove she could handle the job and even that did not keep her out of someone’s crosshair’s, but it did help her to get better and faster at her job. She no longer works as an electrician, but her tool belt still remains a source of pride and she feel a sense of accomplishment every time she see it hanging in her craft shop (Thompson, n.d.).

In a personal interview with Jan Postlewait Jenson, Rose Trotter-Hamilton discovered that Jan Postlewait Jenson would be a current day Rosie. After a divorce had left her the sole supporter of her daughter, Jan found that she could not raise a child on minimum wage, and so began to look for higher paying jobs. In 1975, a powerhouse opened in central North Dakota and Jan was hired on the dirt crew, counting loads. Over the next year, Jan was promoted to the underground pipe crew, and she was driving a scraper, a push cat and a backhoe. Her efforts paid off. In 1976, Jan Postlewait Jenson was accepted as the first female ironworker in North Dakota.

Between 1975 and 1980, Jan worked at a coal gasification plant in North Dakota. Jan worked at a total of three powerhouses with men from all over the world. Jan continued to work and in 1979 she achieved JIW (journeywoman) and became what the industry calls a “boomer”. This would mean that she followed the best contracts.
In April of 1980, Jan “boomed” to a coal mine in Montana for six months. Within 30 minutes of the completion of the coal mine job, Jan had called the Union Halls in Anchorage, Alaska and San Francisco, California. A coin flip sent her to San Francisco for nearly nine years. “They were the best years of my life” as Jan recalled.

In 1989, San Francisco and the Hawaiian Islands suffered from major earthquakes. These events “boomed” Jan out of San Francisco and over to Maui where she worked on the Maui Airport and then the Grand Hyatt Hotel. Jan recalls that there were nearly 50 women there, from almost every trade, helping to rebuild what had been destroyed. Jan said, “We hardly ever saw each other - that job was so huge.... but we did manage to have a picture taken at the topping out party! 20+ women worked that night and missed our photo op.”

Jan’s daughter, Shelly Roberts, has followed in her mother’s foot steps. Shelly worked in Charlotte, North Carolina for Carolina Steel & Stone for five years. In 1983, Shelly was accepted into Ironworkers local 377 apprenticeship and graduated in 1986. Shelly moved to Tacoma, Washington in the summer of 2003, where she helped build the two prototype barges for the Navy. Jan says that Shelly is making new friends among the tradeswomen in the greater Seattle area and hopes to make more.

Jan is now happily retired, lives in central North Carolina and works three days a week. Jan does ad sales and marketing for several publications, does website order fulfillment for Breathing.com, and has launched a raw food potluck discussion group, newzine and website: www.WELLthyChoices.net.
According to the Department of Labor, in 2008, the number of women who were working in the construction fields amounted to a total of 51,000, which accounts for approximately 3.1% of the total construction workers employed in the United States (U.S. Department of Labor, 2008).

Educational Needs of Women in Non-Traditional Careers

There are various types of educational needs that will help women become successful in the non-traditional careers that they choose. Most careers require at least a high school diploma or a GED just to get started. Some require more formalized training that will help with future career advancements, while others are looking for a complete four year degree. Education can consist of formalized education at a community college or a university, a police or fire academy or an apprenticeship program. There is also OJT (on the job) training which will continue after you get on the actual job.

Educational Needs of Women in Law Enforcement

Police departments use many different types of assessments to help with the selection and hiring process. These assessments include basic intelligence tests, special-aptitude tests, some sort of physical testing, and personal interviews, extensive background investigations, psychic testing and finger printing. Even with all of these assessments being performed, there is no guarantee that the candidates will be successful in this career (Baker, 1995).

These assessments are known as tests which include a cognitive ability test, which is similar to a written exam. This written exam is used to gauge a person’s
intellectual skills, how they learn and what type of problem solver strategies they will incorporate. Next, would be an aptitude test to basically gauge one’s ability to perform the various job-related tasks. This area of assessment can not be done just by the use of pen and paper; it must be done by one’s physical abilities. The third type of assessment would include the personal inventories such as emotional and organizational stabilities and incompatibilities. Another area of assessment would likely include a polygraph test to verify a candidate’s ability to be trustworthy. The last part of the testing process would be the drug screening and fingerprinting. If one passes all of these tests, they can proceed to being hired (Baker, 1995). After being hired, they will then attend formal training known as the Police Academy.

Though higher education is not required, it is something that is recommended to help a person have a greater chance of success. One police chief in Houston, Texas, basically stated that the qualities that the leaders in law enforcement were claiming that they wanted in new recruits could be found in liberal education. These qualities included the ability to nurture and acknowledge an ever changing “social, economics and political conditions” (Baker, 1995, p. 42). Higher education also would help understand the various types of human behavior and the ability to communicate with all walks and types of people in the community. To have knowledge in these areas plus certain “moral values, habits of mind, and qualities of self-discipline” (Baker, 1995, p. 42), will help make a more substantial commitment to public service as a police officer (Baker, 1995).

Those police officers who seek higher education have a greater potential to
perform better throughout the academy, require less time off and have better community relations once they get on street patrol. All of this will help them have a greater chance at being successful in their careers (Baker, 1995).

*Educational Needs of Women in Firefighting*

The path to becoming a firefighter is a tough one and requires as much classroom education as physical fitness. A person must not only just have a dream to work as a firefighter, but also have the want to become a firefighter. It could take years to become a firefighter and the best place to start is at a community college with some sort of fire technology program (Prziborowski, 2008).

Each fire department has different requirements and it is best to start calling the various agencies to find out their requirements and to start taking the entrance exams. There are minimum requirements like age, drives license, and current certificates like EMT, Paramedic, Firefighter 1, Firefighter 1 State and a current CPR card. Even with some of these requirements being met, they will only allow you to participate in the hiring process, not necessarily guarantee your success in this occupation (Prziborowski, 2008).

In addition to those minimum requirements, there are additional qualifications that will help you stand out from others and help give you a better chance to shine in the hiring process. These additional qualifications can include being bilingual (not necessarily just Spanish), by being a volunteer with a fire agency, being a volunteer in other areas of the fire department, taking fire technology courses from a community college, and other training or certificates like rescue, confine spaces, raging waters,
hazardous material and even having a special restrictive type of license (Prziborowski, 2008).

You as a candidate want to score as high as possible throughout the entire process. There are 11 areas of the hiring process and each area is just as important as the one before. The areas include the application, a screening process, a written exam, physical agility test, oral interview, a chief’s interview, a psychic exam background investigation, a medical physical, the actual fire academy and your probationary period (Prziborowski, 2008).

The best way to be successful on one’s career path to becoming a firefighter is to be prepared. Investigate the career by going down and talking to veteran firefighters and then follow the advice that is being given.

*Educational Needs of Women in Construction*

Usually women have to enter the construction industry through some training program that will give them the appropriate job training and then help them find employment into the field after their training is completed (Applebaum, 1999).

The purpose of an apprenticeship training program is to help individuals entering the various construction occupations to gain skills and knowledge about the construction industry and to help them eventually gain journey level status. There is basically an apprenticeship training program for just about every field including plumbers, electricians, auto mechanics and heavy equipment operators to name just a few. These programs combine both classroom instructions with on the site hands on training supervised by experienced craft or journey level workers (Riccucci, 1991).
Both the private and public sectors of industry have found that preparing workers through some formalized training program helps them gain the required knowledge and skills needed to not only perform the job, but gain journey level status while being a benefit for the employers (Ricucci, 1991).

After several years of working in the industry, Jan Jenson had to go through an apprenticeship program to gain additional experience and credentials to become a journey level worker. Her daughter, Shelly Roberts was required to go through an apprenticeship program of at least three years to enter the construction field. Becoming an electrician holds its own apprenticeship program which Charlene Thompson had to go through.

In today’s careers, it is important to gain as much training and knowledge as possible in order to be as successful as a person can be in their chosen career. Along with completing an apprenticeship training program and gaining proper skills, experience and knowledge also comes greater prestige and financial security. The 1937 National Apprenticeship Training Act, which is also known as the Fitzgerald Act helps govern and regulate the use of apprenticeship training programs (Ricucci, 1991).

Sexual Biasing Women Face

Throughout history women have faced many challenges in both their private and public lives. Those challenges in their private lives only come up when the law has been violated and charges are brought either by the woman or the agencies that have interceded on their behalf. In their public lives, which includes their working
lives, women face issues from discrimination to full out sexual harassment and this has an affect on both them and the employer.

Feminist activists first coined the term “sexual harassment” some 25 years ago and it has been at least 20 years since the federal courts even recognized it as a major issue. The federal courts allowed women to take action under “Title VII of the Civil Rights Act of 1964” (Crouch, 2001, p. 3). This action allowed women to file lawsuits to recover damages from the suffering they experienced. Today, there is over a 40% chance of workplace discrimination lawsuits happening with sexual harassment allegations as a major reason that companies are now forced to carry “sexual harassment insurance” just to ensure that they are protected (Crouch, 2001).

Women in Law Enforcement

Departments within law enforcement have various levels of hierarchy which in turn varies the amount of positions available for moving up. The state patrol agencies have Troopers, Corporals, and Sergeants and so on. The hierarchy closely follows that of the military ranks. However, not all police departments have a high number of command positions available. This can greatly limit the upward mobility of lower ranking officers.

The limited availability of positions in command often causes competition and conflict among officers. The women who are trying to move upward in law enforcement continue to struggle as they try to break through what some in policing affectionately call the “brass ceiling” (Wells & Alt, 2005).
Promotion does not come easy for women in law enforcement. The procedure for promotion is usually a promotional examination. Most work on the “rule of three”: take the top three examinations and give them to the Chief of Police who can choose which ever one they like. If there is only one position available and four apply, the Chief will choose one in the top three for hire; moving the fourth applicant to the top three. When the next position becomes available, the Chief then chooses from the ‘list of three’ without regard to who may have been on the list longer. Potentially, a qualified candidate could be passed over for promotion time after time simply because the Chief keeps choosing someone else. In promoting using the “rule of three”, there can be a great potential for bias (Wells & Alt, 2005).

Some women and some minorities will choose to pass on a promotion to a supervisory position if they think they will have to face discrimination or have conflict in the new position (Wells & Alt, 2005).

Today women still face biasing, sexual harassment and discrimination in this occupation. The blue wall is still prevalent and women who do make it to the top positions in this occupation still are questioned about their ability to lead and command. This is also true at the lower patrol positions as well.

*Women in Firefighting*

Women firefighters are prime candidates for sexual harassment. The literature suggests that their minority status in the fire service may magnify their vulnerability to sexual harassment. Not all women in male-dominated organizations, however, are sexually harassed. Although a significant number of the female firefighters in the 1991
nationwide study experienced sexual harassment, there were women firefighters not reporting it. The literature pays scant research attention to exploring differences between sexually harassed women and their non harassed female co-workers working in male-dominated organizations. This analysis focuses on whether women firefighters who are targets of sexual harassment differ from their non-harassed female co-workers (Rosell, Miller, & Barber, 1995).

It is said, being a woman in firefighting that you set yourself up for various kinds of sexual harassment; anything from name calling, to unwelcomed touches and worse. Not all women in a non-traditional field or career experiences sexual harassment. Although the research shows that over half of the women firefighters have or do experiences sexual harassment or sexual biasing, there are still those who do not report any abuse. There has been very little research on the comparison between women in firefighting who have experienced sexual harassment and the women in firefighting who do not experience sexual harassment (Rosell et al., 1995).

This study uses data extracted from a survey designed to explore the working conditions concerning women firefighters: Rosell et al. (1995) explain

Of the 103 departments employing women firefighters out of 12,456 total firefighters, 37 department chiefs returned their administrative surveys (a 35.9% response rate). Of the 1,108 women firefighters employed by the departments, 206 returned employee surveys (an 18.6% response rate). Over half of the sampled female firefighters (58.2%) reported sexual harassment (p. 1).
Women firefighters who are harassed are reluctance to file formal complaints because they fear retaliation. Their work environment is extremely stressful and often time’s sexual harassment involves not only co-workers, but supervisors as well. Because of the high stress level and isolation, women fear that they will often not be believed and so try to handle the situation on an informal basis, relying on other resources for help (Rosell et al., 1995).

Women in Construction

Women tend to recognize sexual harassment quickly and understand that its primary design is to let them know that they are not wanted. Any type of harassment can isolate a woman and make her work experience incredibly uncomfortable (Colatosti, 1996).

In a magazine article that Susan Eisenberg wrote, she talks about what she felt in the early days of her career in construction and how the industry felt in regards to women. Eisenberg (1989) states, “When I walked onto a construction site as an apprentice electrician in the fall of 1978, it was a new experience not only for me but for everyone on the jobsite” (p. 1). The author continues, “As I fumbled with unfamiliar tools and tasks, male co-workers gathered in small clusters at the foot of my ladder and gawked” (p. 1). Male apprentices, fumbling with unfamiliar tools would not be noticed by fellow crew members unless the fumbling was detrimental to the task or other crew members (Eisenberg, 1989).

There has been obvious types of harassment that women have faced working in a male dominate career like construction. One woman found a dead rat in her lunch
box, another women, who sat eating her lunch in the lunch shack was faced with multiple pictures of pornographic pictures that seem to increase daily and a black women found her hard hat filled with urine. Though none of these incidents resulted in any physical harm, they are still indicators that women are not wanted in careers that have always been occupied by men (Eisenberg, 1989).

During a personal interview with Jane Doe (alias), Rose Trotter-Hamilton learned about a personal sexual harassment incident that she personally faced while working as a carpenter. When she went to work for a school district, as their carpenter, she thought she would have a great “retirement” job. Then the harassment started. Her tools started to disappear from her shop over the weekend, and the director seemed uninterested in improving security, although she and a couple of other employees made direct requests. Someone started playing obscene sounds over the walkie-talkies during school hours and although the director himself heard it, he seemed unconcerned. It got so bad that she went to the Superintendant and the Police Department She got two flat tires on her work vehicle all on the same day with the same kind of screw discovered in both. Someone had told her that they knew who was doing these things, and why. One of the harasser’s friends had applied for the carpentry job and now they were trying to get her to quit so their friend could get the carpenter position. These guys were friends with the director. She finally had had enough and filed a lawsuit. There were enough people who came forward and verify her story that she won a small settlement.
Though this helped, it did not make up for the loss of pay, benefits, and self esteem that these jerks caused her. Even though they were named in the suit, they kept their jobs, and one of them even got a promotion. She had to move on to other jobs.

Women who work in the construction field usually belong to some formal union depending on their occupation. It is the responsibility of not only the union, but the employer to ensure a safe and harassment free work environment. Unfortunately this is not always the case (Colatosti, 1996).

Though women compose a large percentage of a unionized workforce, they usually only hold about eight percent of the top elected and appointed union positions. This means that even when women make formal complaints against their male counterparts, usually very little happens to the men because of the good old boy’s club (Colatosti, 1996).

Most unions play both side of the complaint issue. They represent the female worker who is making the complaint and then when the perpetrator is punished, they represent him and get his punishment reduced. This type of behavior basically shows the female construction worker that she should just accept the harassment or leave the occupation (Colatosti, 1996).

Pay Differentials Between Men and Women

There are many reasons why women have entered a predominately male occupation, but one of the most given reasons is the ability to earn a decent wage and support their family.
Applebaum (1999) stated, “Women tend to earn substantially less than white men and white men tend to have advantages in their access to the most desirable jobs” (p. 129).

Back in the 1960s, civil rights legislation basically stated that it was illegal not to pay men and women the same pay for the same job. This meant that employers could not pay a man a higher wage than a woman for the same exact job. This also applied to hiring, job assignment and promotions. Fast forward 20 years later and one will see that the ratio between what women earn and what men earn has shown little improvement. When it comes to occupational distribution, there are major sex differences with regard to predominately female jobs receiving less money than predominately male jobs (Johnson & Solon, 1984).

The pay differential between women entering occupations that have been predominately held by men has stimulated efforts by those in both the judicial and political forums to set “comparable worth” policies to help ensure that wages are competitive and fair without regard to gender. This “comparable worth” policy might not help eliminate any negative image relationship or the fact that there is still disparity between the wages that men make compared to the wages that women make (Johnson & Solon, 1984).

When one starts to investigate the pay differences between men and women there appears to be little reasoning for paying men higher wages than women. However the statistics show that this is what is happening.
Women Compared to Men in Law Enforcement

In law enforcement there does not appear to be much of a pay gap between the genders in regards to being on patrol. The difference between the hourly wage for a male patrol officer and a female patrol officer is approximately 20 cents (see Appendix D, Figure 2). There does appear to be a greater pay difference in regard to the overall occupation of law enforcement. Men police officers are paid approximately $3.32 more per hour than women police officers (see Appendix D, Figure 1). These figures appear to be strictly based on gender alone.

One can understand a pay differential for factors like experience, degrees, credentials or location; however gender alone should not be used as criteria.

Women Compared to Men in Firefighting

In firefighting there does appear to be a pay gap between men and women firefighters. The difference between the hourly wage for a male firefighter and a female firefighter is approximately $2.37 per hour (see Appendix D, Figure 3). These figures appear to be strictly based on gender alone. When one becomes a supervisor in the fire department there appears to be a pay differential based on gender as well. The pay difference between a male supervisor and a woman supervisor in the fire department is approximately $3.60 per hour (see Appendix D, Figure 4).

One can understand a pay differential for factors like experience, degrees, credentials, age or location; however gender alone should not be used as criteria.
Women Compared to Men in Construction

In construction there does appear to be a pay gap between men and women in general regardless of the field. The difference between the hourly wage for a male construction laborer and a female construction laborer is approximately $2.06 per hour (see Appendix D, Figure 5). The pay difference between a male equipment operator and female equipment operator is approximately $2.85 per hour (see Appendix D, Figure 6). The pay difference between a male foreman and a female foreman is approximately $1.59 per hour (see Appendix D, Figure 7). These figures appear to be strictly based on gender alone.

One can understand a pay differential for other factors like experience, credentials, age, degrees, company or location; however gender alone should not be used as criteria.

Summary

From the very beginning, women in America have been mothers and wives. They have been delegated to cooking, cleaning, raising the children, handling family crises when their husbands were away, but most were not educated nor did they work outside of the home for wages.

Women have been working for wages for over 200 years and though it has been frowned upon, it has been a necessity for those who did not come from wealth or middle class status. When men were called to defend their country and had gone off to war, women were asked to step in and keep the economy going, making sure that the men got what they needed to be successful. This was great, women felt needed more
than just mothers and wives, but as major contributors to society. This however was not a permanent stance and when we were done with war, and the men came home, they were asked to step aside and go back to being housewives and care givers of the children.

Over time things have changed and society has taken a different view of women in general.

When women did take up employment for wages, most did so in traditional jobs like domestic services, clerical positions, teachers and nurses. These types of jobs were considered well suited for women because of their natural abilities to be mothers, wives and care givers. For some women, this sort of work was perfect and they enjoyed the camaraderie they could share with other women, however this was not true for all women. There were some women, who enjoyed more physical and demanding jobs. They took advantage of the training that the government gave them during World War II and became known as Rosie the Riveters. These women opted to follow a different path in life and looked outside the traditional career fields for paid employment with great success.

There are many careers that are considered non-traditional for women. The literature review has been focus on three very specific and highly visible careers. They are law enforcement, firefighting and construction. By looking at these specific careers and the issues that accompany them we gain an understanding of just why woman have chosen to enter them.
The current research does indicate that there are educational requirements that need to be satisfied to get through the hiring process of these careers. Depending on the chosen career, a person may want to do some research to see if there are any additional educational requirements or special requirements that may help them to be more successful once they get hired.

The current research does point out that women face an insurmountable amount of sexual biasing when working in a non-traditional career. This harassment or discrimination can include anything from minor pranks and practical jokes to threats on their lives. The literature suggests that their minority status may magnify their vulnerability to sexual harassment. The worse cases of harassment that women have and currently face appear to be in both firefighting and construction. With regards to law enforcement, women appear to face harassment more when it comes to promotions.

The current research does indicate that men are paid slightly more than women in regards to the same job. One would expect that there would be a difference in pay with regard to length of employment or experience, credentials or certificates, if one had a degree or not, as well as title and status, but not solely based on gender.

Today, the number of women in law enforcement, firefighting and construction are statically very low compared to the total amount of individuals employed in these careers. Since 2007, only women employed in law enforcement gained in overall numbers by approximately 7,000. The other two careers lost women; firefighting lost approximately 1,000, while the construction field lost approximately 31,000 (U.S.
Department of Labor, 2008). These careers are not in danger of being removed from
the non-traditional career list provided by the U.S. Department of Labor.
Chapter 3

METHODOLOGY

The purpose of this study was to examine the reasons why women choose to work in non-traditional careers. Thirty-nine female participants from three specific non-traditional careers with at least three to five years of working experience from Northern California served as participants in this study. Participants were given a questionnaire to complete that included multiple choice and open-ended questions that focused on gender stereotyping and personal experience with gender in non-traditional careers. There was also a small group of non-traditional Vocational Education Instructors who participated as well, not just because of their work experiences in non-traditional careers, but also because of what they pass on in an educational environment.

Participants

There were a total of 39 women who participated in the study. Participants included 27 women working in non-traditional careers like law enforcement, firefighting and construction in Northern California. There were another 12 women who participated, who were students in the Vocational Education program at CSU, Sacramento with backgrounds from other non-traditional careers. All of the participants have or had been working in non-traditional careers for a minimum of three years in California at the time the study was conducted. Ages of the participants ranged from no age given to 65 years of age. Two (5%) of the participants gave no age on their questionnaire, one (3%) listed their age between 20-30, and the remaining 34
participants were divided in age with 13 (33%) being between 31-41 and 23 (59%) ranged from 42-65 years of age.

Table 1

*Age of Participants*

<table>
<thead>
<tr>
<th>Age</th>
<th>None</th>
<th>20-30</th>
<th>31-41</th>
<th>42-65</th>
</tr>
</thead>
<tbody>
<tr>
<td>#Of Participants</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>Percent</td>
<td>5%</td>
<td>3%</td>
<td>33%</td>
<td>59%</td>
</tr>
</tbody>
</table>

The questionnaire was given to three focus groups which are considered non-traditional careers as defined by the Department of Labor. The three focus groups were law enforcement, firefighting and construction. A fourth group of Vocational Education Instructors was included to gain additional knowledge about how young girls are gaining information about other non-traditional careers.

Table 2

*Participants in the Four Different Non-Traditional Careers*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Law Enforcement</th>
<th>Firefighting</th>
<th>Construction</th>
<th>Vocational Education</th>
</tr>
</thead>
<tbody>
<tr>
<td># Of Participants</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Percent</td>
<td>26%</td>
<td>18%</td>
<td>26%</td>
<td>31%</td>
</tr>
</tbody>
</table>
Materials

The questionnaire used for data collection for this thesis was modeled after Dr. Sherrie Thuss-Carinci’s EDTE 165 Impact Survey (Carinci, 2004) (see Appendix B for questionnaire).

Additional materials included paper, ink and large manila envelopes for the distribution of the questionnaire packet along with address labels and postage stamps for the completed questionnaire packet to be returned to the researcher. Participants who were sent the questionnaire packet via electronic e-mail were given a return address to mail their completed questionnaire packet back to the researcher. All questionnaire packets were required to be returned to the researcher by the end of April 2009.

Design

The methodology applied for this study involved both qualitative and quantitative research methods. Quinn (1990) noted that the use of multiple methods including combinations of qualitative and quantitative data has increased and is an acceptable way to conduct research. Qualitative and quantitative methodologies have their own advantages and disadvantages. By using both methods, researchers can minimize those disadvantages while increasing the number of advantages (Cowan, 2000). For example, a disadvantage to using qualitative methodology is that it is very difficult to generalize any results to the entire population (Quinn, 1990). If quantitative measures are used along with qualitative methods, results could then have more
potential to be generalized because qualitative data is not easily reduced to numbers as is quantitative data (Babbie, 1998).

Qualitative research, also known as evaluative research, is used to “inform action, enhance decision making and apply knowledge to solve human and societal problems” (Quinn, 1990, p. 12). This type of research allows the investigator to evaluate specific issues in depth and detail. An advantage to using qualitative methodologies is that they produce a wealth of detailed information about individual people or small groups of people. Shank (2002) believed that qualitative research is all about the “act of reasoning toward meaning” (p. 1). It allows the researcher to understand and capture the points of view of other people. Quinn points out that qualitative inquiry reveal “respondent’s depth of emotion, the ways they have organized the world, their thoughts about what is happening, their experiences and their basic perceptions” (p. 24). Quantitative research, by design, does not permit the use and study of varying opinions and experiences to obtain research results.

While qualitative methods of research include the use of unstructured instruments, quantitative procedures require the use of an instrument that must be administered in a standardized manner decided upon before the study begins (Quinn, 1990). One advantage of using quantitative methodology is that it is designed to make it possible to measure the reactions of a large sample while using a limited set of questions (Quinn, 1990). Data obtained using quantitative methodology provides a broad, generalized set of findings exhibited concisely and parsimoniously.
This study included a self-administered questionnaire, which included both multiple choice and open-ended questions. Gay (1996) stated that surveys seek to collect data from members of a population in order to ascertain the present condition of that population with respect to one or more variables. Variables involve a variety of types of information including characteristics, attitudes, opinions, and demographic information. The type of survey used in this investigation was a census survey. A census survey is defined as an “attempt to acquire data from each and every member in a given population…and is usually conducted when a population is relatively small and readily accessible” (p. 252).

Qualitative procedures were conducted through a series of open-ended questions. These questions were designed to examine the participant’s personal experience as a member of a non-traditional career. The questions also asked the participant to give possible suggestions to improve the work environment for future women entering the career field, what and who might have contributed to them choosing a non-traditional career and what if any special training or education would be beneficial in order to be successful in the chosen career. Quantitative methods were conducted by using a Likert-scale questionnaire. The quantitative questions sought to investigate the presence of gender stereotyping with regards to the participant’s beliefs and attitudes towards their work environment, promotions, pay and about gender training.
Procedure

In order to begin the process of collecting data and handing out her first questionnaire packet, Rose Trotter-Hamilton collaborated with Dr. Sherrie Thuss-Carinci to distribute 40 questionnaire packets to Dr. Sherrie Thuss-Carinci’s Vocational Education class. The researcher introduced herself, her thesis, and explained what was in the questionnaire packet to the class. Rose Trotter-Hamilton picked up the completed questionnaire packets from Dr. Sherrie Thuss-Carinci a week later. Rose Trotter-Hamilton also contacted the sheriff, police, fire departments and construction companies in multiple counties to distribute the questionnaire packets to the willing participants via e-mail. Rose Trotter-Hamilton first spent time looking for the phone numbers of the local police, sheriff and fire department and contacting their human resources personnel to explain who she was and what her thesis was about. The person then would ask her to e-mail them the questionnaire packet so that they in turn could distribute it to the appropriate female personnel. This would allow the women to participate if they wanted to, while not giving out the individual’s personal information. For women working in the construction field, Rose Trotter-Hamilton searched the internet for trade organizations and then basically followed the same procedure that she had for the other occupations. This process was very frustrating due to the lack of cooperation from some of these organizations.

The thought process was that within one or two weeks after the participants received the questionnaire packet via e-mail, the participants would return their completed packet back to the researcher by either e-mail or regular mail to the address
provided. This approach appeared to work for some; however others required a couple of follow-up e-mails to inquire on how things were progressing and were there any questions that the researcher could answer. The researcher also extended her deadline from April 2009 to June of 2009 to collect as many questionnaires as possible in order to gain a better understanding of what women experienced in their careers.

At the end of the data collection timeframe, the researcher had 39 completed questionnaires instead of the original 100 that she had set out to collect in her proposal.
Chapter 4

FINDINGS

This study examined 39 women who work in non-traditional careers like law enforcement, firefighting, construction and a Vocational Education group in Northern California. Figure 1 below shows the breakdown of participants by occupation.

![Participants by Occupation](chart.png)

Figure 1. Participants by Occupation.

The purpose of this study was to examine why women would choose to work in a non-traditional career and their personal attitudes on gender and their experiences and beliefs regarding gender equity issues in the work environment. In order to
accomplish the research objectives, two sources of information were analyzed: a Likert scale questionnaire, and a series of five open-ended questions.

Quantitative methods were conducted by using a Likert-scale questionnaire. Data collected from the questionnaire were entered into the SPSS statistical software program. The quantitative questions sought to investigate the presence of gender issues in regards to the participant’s beliefs in their chosen occupations. Qualitative procedures were conducted through a series of five open-ended questions. These questions were designed to examine each participant’s personal experience as a woman in a specific non-traditional career and what advice they would want to pass on to future women, and how to help them to be more successful in those careers.

Questionnaire Results

The Likert-scale questionnaire was designed to measure the presence of gender issues in regards to the non-traditional career that the participant has chosen. The data was combined from three specific non-traditional careers and a Vocational Education group. (See Appendix E for graphic presentation of the findings for each Likert Scale question.) For example the first statement was Gender Bias Exist in Your Career. We can look at Figure 2, and see that 41% strongly agreed with this statement, whereas 17.9% disagreed. Though the table shows the combined response to the individual statement, it is interesting to note that when we break it take by occupation that we clearly can see what women feel in regards to their own career. Women in law enforcement agreed with this statement 30%, yet women in firefighting agreed with it 57.1% and women in construction strongly agreed with it by 70%. The Vocational
Education group was similar to the combined percentage, which was 41.7% (see Appendix E, Figure 1).

![Gender Bias in Your Career](image)

**Figure 2**. Gender Bias in Your Career.

When asked about women needing gender equity training, we can look at Figure 3, and see that most women were undecided on the issue by 30.8%, yet more than 28.2% agree that gender equity training was needed. When we look at the breakdown per the occupation we see a similar pattern. Women in law enforcement were undecided by 40% that they needed training. Women in firefighting were split between 42.9% being undecided and 42.9% agreeing with the statement. Women in
the construction field agreed/strongly agreed that there was indeed a need for gender equity training by 30%. This patterned held true for the Vocational Education group with 33.3% being undecided and 33.3% agreeing with having gender equity training (see Appendix E, Figure 2).

![Women Need Gender Equity Training](chart.png)

**Figure 3.** Women Need Gender Equity Training.

When the participants were asked about whether men specifically have a need for gender equity training, most women strongly agreed by 43.6%. When we look at the breakdown per the occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 40%. Women in firefighting agreed with the statement by 71.4%. Women in the construction field strongly agreed that men
definitely have a need for gender equity training by 80%. Women in the Vocational Education group strongly agreed by 50% but also were undecided with this statement by 30% (see Appendix E, Figure 3).

![Men Need Gender Equity Training](image)

*Figure 4. Men Need Gender Equity Training.*

When asked about whether current training for your career is equitable for both genders, most women agreed by 38.5%. When we look at the breakdown per the occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 40%. Women in firefighting agreed with the statement by 57.1%. Women in the construction field were evenly split between the disagreed and strongly
disagreed that current training was equitable for both genders by 30%. Women in the Vocational Education group agreed with this statement by 41.7% (see Appendix E, Figure 4).

![Current Training Equitable for both Genders](image)

*Figure 5. Current Training Equitable for Both Genders.*

When asked about whether people choose their career based on gender, most women agreed by 46.2%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 50%. Women in firefighting agreed with the statement by 57.1%. Women in the construction field agreed with this statement by 50%. Women in the Vocational Education group agreed with this statement by 33.3% (see Appendix E, Figure 5).
When asked about the role your parents played in your career choice, most women disagreed by 51.3%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement disagreed with this statement by 80%. Women in firefighting agreed with the statement by 42.9%. Women in the construction field disagreed with this statement by 40%. Women in the Vocational Education group disagreed with this statement by 50% (see Appendix E, Figure 6).
Figure 7. Parents Played a Role in Your Career Choice.

When asked about whether employers treat their male and female employees equally in their career, most women disagreed by 41%. When we look at the breakdown per occupation we see a similar pattern occurring. The women in law enforcement agreed with this statement by 40%, but also had just as much of a disagreement by 30%. Women in firefighting disagreed with the statement by 42.9%. Women in the construction field strongly disagreed with this statement by 50%. Women in the Vocational Education group disagreed with this statement by 58.3% (see Appendix E, Figure 7).
Figure 8. Employers Treat Their Male/Female Employees Equal in Career.

When the participants were asked about whether employers place their employees in their careers according to their gender, most women agreed by 48.7%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 60%. Women in firefighting disagreed with the statement by 42.9%. Women in the construction field agreed with this statement by 50%. Women in the Vocational Education group agreed with this statement by 50% (see Appendix E, Figure 8).
When asked if more accepted, women would choose a non-traditional career, most women agreed by 46.2%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 50%. Women in firefighting agreed with the statement by 42.9%. Women in the construction field strongly agreed with this statement by 60%. Women in the Vocational Education group agreed with this statement by 66.7% (see Appendix E, Figure 9).
When asked whether men are more accepting of women in your career, most women agreed by 38.5%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 50%. Women in firefighting were evenly split between agreeing and undecided with the statement by 42.9%. Women in the construction field however disagreed with this statement by 40%. Women in the Vocational Education group agreed with this statement by 33.3% (see Appendix E, Figure 10).
Men are Accepting of Women in your Career.

When asked whether the dress code for women and men are equal in your career, most women agreed by 56.4%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 80%. Women in firefighting agreed with the statement by 42.9%. Women in the construction field disagreed with this statement by 41.7%. Women in the Vocational Education group agreed with this statement by 41.7% (see Appendix E, Figure 11).
Figure 12. The Dress Code is Equal in Your Career.

When asked if there are more men in the top positions of your career than women, most women strongly agreed by 61.5%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 80%. Women in firefighting strongly agreed with the statement by 100%. Women in the construction field strongly agreed with this statement by 100%. Women in the Vocational Education group strongly agreed with this statement by 41.7% (see Appendix E, Figure 12.).
When asked if your employers promote their employees based on abilities and qualifications, most women agreed by 41%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 50%. Women in firefighting agreed with the statement by 71.4%. Women in the construction field strongly disagreed with this statement by 40%. Women in the Vocational Education group agreed with this statement by 33.3% (see Appendix E, Figure 13).
Figure 14. Employers Promote Based on Abilities & Qualifications.

When asked if you feel like your suggestions for improvement are listened to, most women agreed by 41%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 60%. Women in firefighting agreed with the statement by 42.9%. Women in the construction field strongly agreed with this statement by 50%. Women in the Vocational Education group agreed with this statement by 33.3% (see Appendix E, Figure 14).
When asked if men and women receive equal pay for equal skills, most women agreed by 38.5%. When we look at the breakdown per occupation we see a similar pattern occurring. Women in law enforcement agreed with this statement by 70%. Women in firefighting strongly agreed with the statement by 57.1%. Women in the construction field disagreed with this statement by 40%. Women in the Vocational Education group strongly disagreed with this statement by 33.3% (see Appendix E, Figure 15).
Open-Ended Questionnaire

When I was deciding on how to analyze the qualitative section of the questionnaire, I started by separating the five questions into their own stacks. This allowed me to clearly see how the participants responded to each question. By analyzing each question, I could then start to identify suggestions from the focused occupations.

Three suggestions were evident when examining the first open-ended question, which was, “If you could give women entering your field some advice, what advice would you give them”? After examining all the responses the three most definitive
pieces of advice given were (a) do your best and know your abilities, (b) work hard against double standards, and (c) don’t be afraid to communicate. Here are some of the direct responses from each of the occupation groups. From the women participants in law enforcement, one woman said, “Leave the ego and power trips at home. Some of the worst scenarios I encountered were the direct result of Correctional Officers with huge ego problems instigating confrontations.” Another participant said, “Start young, keep yourself in physical shape and work on your verbal reasoning and manipulation skills. Don’t work to hard to prove yourself. Just work hard at being yourself. Be alert and conscientious.” From the women participants in firefighting, one woman stated, “Plan on having to prove yourself in every new venue—it’s not fair, but its reality—for now. Stay in shape and don’t lose what the women before you have fought for. Promote and change things from the top.” Another participant who is a Captain probably gave one of the best responses to this question and she said,

Be prepared for the job! While women are much more accepted in the fire service today; if a woman is not prepared to do the job, she stands out more than a man who has difficulty doing the job. I am comfortable in my job and I feel the guys accept me for who I am and know I am able to do my job. I don’t think they question my abilities, yet sometimes I still think/feel in the back of my mind that I must perform well.

I was promoted to Fire Captain two years ago. This was after I interviewed with the Chief twice. The first round, I was not hired and I was really disappointed. I had more experience than some of my male counterparts
who got promoted. I was told by my Chief that I was to nice and needed to be more assertive when dealing with personnel issues (I didn’t perform as well as I could have in this area during my promotional assessment center). The second time around when I got promoted, I actually felt better about the situation. I felt that there could be no question that I was promoted on my merit vs. because I was a woman.

From the women participants in construction, one woman said, “NEVER settle for mediocre treatment on the jobsite. ALWAYS expect respect and if hassled, tell the person that is NOT acceptable treatment and ask for an apology!” This woman continued by stating, “Stand up for your rights-and let the men know you’re out there supporting your family-just like they are.” Another woman stated, “Have a healthy dose of self confidence. Many will try to tell you that “you can’t do it.” Be sure in your abilities. Trust your common sense ability to solve problems. Have faith in your ability to learn.” From the women participants in Vocational Education, one woman said, “Use logic, not emotion. Don’t try to go out of your way to look attractive. Don’t discuss your personal life and don’t drink alcohol in public.” Another woman said, “Make sure you are physically fit to do the job. Don’t take gender comments personally and know your job better than your male counterparts.” One more woman said, “As a female, do not feel intimidated for any position you apply for in Probation. Working with juvenile delinquents can be a challenge, but as a female you can be very effective with effective verbal communication and patience.”
Three suggestions were evident when examining the second open-ended question, which was, “With regards to education and specialty training, what would help benefit them in this field? After examining all the responses the three benefits that would help them in the field the most were (a) higher education in your field, (b) have or get certifications needed and keep them updated, and (c) an apprenticeship or work provided training. Here are some of the direct responses from each of the occupation groups. From the women participants in law enforcement, one woman said, “Associate of Science degree if interested in promoting.” Another gave more information, “I would suggest taking psychology courses to enable handling difficult inmates and situations better. As well as drugs, alcohol and society courses to identify specific symptoms of drug use such as methamphetamines, heroine, etc.” Another one said, “Self defense training can help boost confidence. College degrees or credit equivalents will be required to obtain Intermediate and Advance certificates good for promotion. The following areas of study would also be beneficial: civil law, ethnicity and U.S. Constitution.” From the women participants in firefighting, one said, “Try different things and try not to be limited in where you will go in the future. In other words don’t settle to just take classes and read about the topics that are limited to one job or position.” Another woman said, “Obtaining a paramedic license increases your chances of being hired. EMT certification is a minimum requirement of many departments. Candidate Physical Ability Test or CPAT certification can be done in lieu of taking a
physical agility test. This certification is valid for one year from the date of the
test. Attending a Firefighting Academy is beneficial, but not required.

From the women participants in construction, one woman responded, “A union
apprenticeship is very thorough. Any craft in which you’re constructing something
helps with spatial orientation (sewing or birdhouses), may sound silly, but assembling
kid’s bikes and toys.” Another woman indicated, “If you plan on going into the
construction fields, go online and learn as much as you can about the craft you wish to
join.” Another woman stated, “Probably most important is a good grasp of
mathematics. Correct and safe use of basic tools is necessary and having a Bachelor’s
degree in Biology and mathematics helped me.” From the women participants in
Vocational Education, one woman said, “Go in with basic requirements, but then
continue to get education in your field of expertise. This will give you a competitive
edge, but also will give you incentive raises.” Another woman said this, “Take
advantage of every training, and pursue training outside of work.” Another one
suggested, “Having a degree in criminal justice will get you further in this field and
give you a foundation in criminal law.” Another woman gave this piece of advice,
“Strong math skills are a huge plus in managing log books and take the programs
offered for “truck driver training.”

Three suggestions were evident when examining the third open-ended
question, which was, “What suggestions can you provide to help improve the overall
work environment in your field?” After examining all the responses the three
suggestions most often given were (a) work as a team member, (b) have a sense of
humor, and (c) ongoing training. Here are some of the direct responses from each of the occupation groups. From the women participants in law enforcement, one woman stated, “The administration and (Lieutenants and higher) need to work extra hard to stay in touch with what is happening with the Sergeants and other personnel.” This person also added, “Train through positive reinforcement if possible.” Another woman said, “In order to improve the overall work environment in the field, women must apply in numbers and take on leadership roles.” Another woman stated, “Work as a team member. Leave preconceptions behind, deal with what is.” From the women participants in firefighting, one said, “The women joining the F.D. now need to be flexible and have a sense of humor. The males joining the F.D. now need to see positive female role models that can do the job without having to ‘prove’ themselves.” One made this response, “I would (and have) suggested that people are held accountable for their actions and words. So, we must remain accountable to ourselves and hold ourselves to a higher standard. I also tell women not to put up with discrimination.” From the women participants in construction, one woman responded, “Leadership training for both. If a woman tries to be the boss using authority and direct instructions, men become insulted. If a woman tries to be the boss using consensus, men think they somehow have been put in charge.” Another participant said, “Take everything with a grain of salt, do not get involved with the gossip and politics, learn to have a sense of humor and treat people the way you want to be treated.” One woman even said this, “Strict rules concerning sexual harassment, and strict enforcement. There are little jokes that the Journeymen play on the apprentices,
you need to recognize the differences between good natured teasing and mean spirited actions meant to humiliate you.” From the women participants in Vocational Education, one participant said this, “More money for expendables.” Another said, “Unfortunately we may have to wait until the old dogs retire.” One made this comment, “Work with confidence; know your job and what is expected of you. Don’t expect leeway because of your gender; expect consistency from yourself and your coworkers.” Another woman said, “Being in a male dominated field, learn the rules and your rights, they are the same as men’s”. As more women enter this field, older societal thinking is slowly changing but we still have a long way to go.”

Three suggestions were evident when examining the fourth open-ended question, which was, “What was a major contributing factor that helped you to choose this career?”

After examining all the responses the three contributing factor most often given were (a) needed or wanted more money, (b) a sense of belonging to a team, and (c) family in the trade. Here are some of the direct responses from each of the occupation groups. From the women participants in law enforcement, one woman stated, “A sense of belonging to a team.” Another woman said, “I craved a job that made me feel needed. I had a deep desire to be part of something real.” One woman put it like this, “Structure, chain of command, control over work environment.” Another pointed out, “The wage and benefits such as medical, dental and vision were a huge factor. Choice of shifts and days worked was also very nice after the first year.” From the women participants in firefighting, one said, “I went to my first fire, burned
my eyebrows, eyelashes and bangs and fell in love with fighting fire.” Another woman said this,

I started out as a paramedic, and I never had a desire to be a fire fighter. In Sacramento, ambulance service was provided by private ambulance companies in the early 1990s. I was working for the Fair Oaks Fire Department part time, but solely as a paramedic on an ambulance. Fair Oaks merged with Sacramento County Fire, and all of the part time paramedics were allowed to test for a full time firefighter job if they chose to. I was worried that I would not be able to maintain full time employment as a paramedic, so I chose to test for the firefighter position. As it turned out, I love being a firefighter. I went on to become the first woman in my department to promote to the rank of Captain.

Another woman made this point, “Both of my parents were in the F.D. through out my entire upbringing. I went to an all girl’s Catholic high school that pushed for independent women.” One woman stated this, “The need to do something that mattered, made me feel like a contributor, as well as the appreciation for the physical demand and growth potential of the job.” From the women participants in construction, one woman responded, “Money. When I divorced my first husband, I needed a way to support myself and my two kids, and going back to waitressing didn’t seem like a good option.” Another woman said this, “Be strong in your convictions to make the best wage and get the paycheck and do the best damn job possible because you will continue to be tested.” One woman made this comment, “My spouse was involved in real estate investment. She was unable to hire male contractors to do a
competent job. I began working at the house she was remodeling to keep an eye on the contractors and keep them motivated.” From the women participants in Vocational Education, one participant said this, “I found myself single, unemployed and with no professional experience to fall back on. The first year working a woman can easily earn over 30k, depending on your company, the second year can move up to over 40k.” One woman made this statement, “Pay-Pay-Pay. I was an in-home care provider before becoming a truck driver and I made $2,000.00 less a month as a nurse.” Another woman said, “Money, security and benefits.” One more said this, “Opportunity in teaching, money also was a factor. I wanted a job that was a career. I wanted more than just a job.”

Three suggestions were evident when examining the fifth open-ended question, which was, “In your early educational experience, were you encouraged to pursue a non-traditional career? If yes – how? If not – would this have been helpful – how”? After examining all the responses the three answers most often given were (a) encouraged to do whatever I wanted, (b) just chose it myself, and (c) it would have helped me choose this earlier. Here are some of the direct responses from each of the occupation groups. From the women participants in law enforcement, one woman stated, “I was always encouraged to pursue what made me happy and would provide stable income and benefits. They provided input as to whether I would do well based on my personality, not my gender.” Another woman said this, “No, in the 70’s women still were encouraged to take expected roles. When I did start taking non-traditional jobs (grocery industry, sales/delivery) women were discriminated against for
promotion.” One woman said, “I would say I had very little encouragement from counselors in high school to pursue anything untraditional, definitely “cookie cutter” in nature.” Another woman commented, “I received no encouragement to pursue a law enforcement career during my early education. I am uncertain if encouragement during my early education would have had any effect on my career decision.” From the women participants in firefighting, one woman stated, “No, it would have been helpful in that it would have helped me find my passion sooner, and increased my confidence from the outset.” Another participant said, “I don’t recall much of how I was influenced in grade school, at home I saw mom as a fire inspector and wanted to be a geologist or astronaut. I was told I could be whatever I wanted to.” One participant said this, “My parents never said I couldn’t be whatever I chose, but they never said I could either. It would have been helpful to be encouraged because then I would KNOW that I could do it and not second guess myself.” From the women participants in construction, one woman said, “Indirectly. In the third grade I was trying to do something (can’t remember now) that the boys said I couldn’t do, and she told me that girls can do anything that boys could do.” A second participant said, “I was raised in a family that believed that we could do anything. If something broke, we learned how to fix it. My father always said, ‘Tools are important. You can do anything if you have the right tool’.” A third participant said, “No, I grew up on a ranch in North Dakota and was used to doing everything that needed to be done. Often the construction sites were not as hard work as working on the ranch! They just paid WAYYYYYYYYY better.” From the women participants in Vocational Education, one
woman said, “I was encouraged to follow my heart and dreams. I would be supported
with any path I chose.” Another woman said, “No, I was not encouraged; I tended to
pursue the typical female jobs until I decided to step out of the norm and applied for
non-traditional employment.” One woman made this comment, “Yes, my father
announced (I was 7 years old) that the brain was the most important organ and the
only way to ‘make it’ in life was to exercise it.”

Conclusion

The Likert questionnaire results provided a wealth of information about the
prevalence of gender issues within the participant’s non-traditional careers that were
the focal point of this study. The results indicated that the majority of participants
agreed that gender issues do exist in non-traditional careers. Depending on the type of
non-traditional career depends on the severity of the gender issues or lack of gender
training.

The five open-ended questions yielded similar or common themes with regard
to the participant’s responses: (a) do your best and know your abilities, (b) higher
education in your field, and (c) needed or wanted more money. Responses concerning
do your best and know your abilities focused mainly around the fact that women do
better when they know their limitations and don’t try to exceed them without gaining
additional knowledge and training.

Another common theme prevalent in the responses from the open-ended
question was higher education in your field. The results suggested that the more
education a woman had in regards to her chosen occupation, the better her chances
were of being successful in that occupation. For example, if she wanted to go into the field of construction, by attending an apprenticeship training program, she would gain valuable knowledge with regards to tools and their proper usage that would help her be more successful in her daily work environment and gain confidence in her abilities as well.

The third and final theme was the need or wanting more money. Participants indicated that needing or wanting more money was a reason for why they considered working in a non-traditional career in the first place. These occupations not only challenged them in a way that traditional jobs didn’t, but they afforded them a better starting wage, job security and good benefits. This allowed women to have a sense of financial freedom, while gaining self confidence as well.
Chapter 5

DISCUSSION, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Introduction

This study was designed to examine why women would choose to work in a non-traditional career, as well as examine their personal attitudes on gender, education, experiences and beliefs regarding gender equity issues in the work environment. Little research has been conducted on why women have chosen to work in non-tradition careers and on ways to improve their work environment to help end gender biasing issues and pay discrepancies. This study sought to obtain a better understanding of women’s personal attitudes and perspectives of how their gender plays a major role in non-traditional careers.

Conclusions

When I first decided on this topic, it was because I had questions in regard to my own working history and wondered if other women got involved with certain careers just because of personal interest or for financial security. What I discovered was that the reason women choose to work in non-traditional careers in spite of the gender biasing, discrimination and pay differentials is because it gives them a more positive self-esteem and a better financial outlook.

The results of this study indicated that yes, women are very much aware that gender biasing does occur in their chosen occupation. For example, women in law enforcement agreed with this statement 30% of the time, while women in firefighting agreed 57.1%, and women in construction strongly agreed 70%. The same thing was
seen with the vocational education group which agreed with gender biasing by 41.7%. According to the responses in the open-ended questions, women clearly were able to voice their attitudes not only in how they see the occupation, but what future women could do to help make their transition better and prepare them to have a greater chance to succeed. One participant in law enforcement stated, “Start young, and keep yourself in physical shape and work on your verbal reasoning and manipulation skills. Don’t work too hard to prove yourself. Just work hard at being yourself. Be alert and conscientious.” This type of response to the questions provided valuable advice for women who are looking into a career in law enforcement. Another participant, who works as a firefighter stated, “Plan on having to prove yourself in every new venue--it’s not fair, but its reality--for now. Stay in shape and don’t lose what the women before you have fought for. Promote and change things from the top.” And a participant, working in the construction field stated, “NEVER settle for mediocre treatment on the jobsite. ALWAYS expect respect and if hassled, tell the person that is NOT acceptable treatment and ask for an apology!” These comments clearly indicate that in order to succeed, one must overcome the challenges of gender biasing and work on improving the overall environment in order to change attitudes.

The results of this study indicated that women working in non-traditional careers felt that they had little or no need for gender equity training, but this was not expressed by all of the participants or by the occupations. Women in law enforcement were undecided on their need for training by 40%, however women in firefighting were split between needing training and not needing training by 42.9%. Women in the
construction field agreed or strongly agreed that there was indeed a need for gender equity training by 30%, however the women did express that though they felt they did not need gender equity training, the men in their occupations did. Women in law enforcement agreed with the statement by 40% that men did in fact need gender equity training. Promotion does not come easy for women in law enforcement. The procedure for promotion is usually a promotional examination. Most work on the “rule of three”: take the top three examinations and give them to the Chief of Police who can choose which ever one they like. If there is only one position available and four apply, the Chief will choose one in the top three for hire; moving the fourth applicant to the top three. When the next position becomes available, the Chief then chooses from the ‘list of three’ without regard to who may have been on the list longer. Potentially, a qualified candidate could be passed over for promotion time after time simply because the Chief keeps choosing someone else. In promoting using the “rule of three”, there can be a great potential for bias (Wells & Alt, 2005). Some women and some minorities will choose to pass on a promotion to a supervisory position if they think they will have to face discrimination or have conflict in the new position (Wells & Alt, 2005).

Women in firefighting agreed with the statement by 71.4% that men needed gender equity training. Women firefighters who are harassed are reluctant to file formal complaints because they fear retaliation. Their work environment is extremely stressful and sexual harassment involves not only co-workers, but supervisors as well. Because of the high stress level and isolation, women fear that they will often not be
believed and so try to handle the situation on an informal basis, relying on other resources for help (Rosell et al., 1995).

Women in the construction field strongly agreed that men definitely have a need for gender equity training by 80%. There have been obvious types of harassment that women have faced working in a male dominant career like construction. One woman found a dead rat in her lunch box, another women, who sat eating her lunch in the lunch shack was faced with multiple pictures of pornographic pictures that seemed to increase daily and a black women found her hard hat filled with urine. Though none of these incidents resulted in any physical harm, they are still indicators that women are not wanted in careers that have always been occupied by men (Eisenberg, 1989). For example one female participant discloses the sexual harassment she experienced while working as a carpenter. When she went to work for a school district, as their carpenter, she thought she would have a great “retirement” job. Then the harassment started. Her tools started to disappear from her shop over the weekend, and the director seemed uninterested in improving security, although she and a couple of other employees made direct requests. Someone started playing obscene sounds over the walkie-talkies during school hours and although the director himself heard it, he seemed unconcerned. It got so bad that she went to the Superintendent and the Police Department. Jane Doe got two flat tires on her work vehicle all on the same day with the same kind of screw discovered in both. Someone had told her that they knew who was doing these things, and why. One of the harasser’s friends had applied for the carpentry job and now they were trying to get her to quit so their friend could get the
position. The perpetrators were close associates with the director and it appears that by harassing Jane Doe that she would in fact quit and they would be able to step in and acquire the job. She finally had had enough and filed a lawsuit. There were enough people who came forward and verify her story that she won a small settlement. Though this helped, it did not make up for the loss of pay, benefits, and self esteem that these individuals caused her. Even though they were named in the suit, they kept their jobs, and one of them even got a promotion; she was forced to seek employment elsewhere do to the settlement of the case.

Women in the Vocational Education group strongly agreed by 50% that men did in fact need gender equity training.

The results of this study also indicated that if working in a non-traditional career was more acceptable, more women would choose a non-traditional career with the higher salary than working in a traditional career with a lower salary. Women in law enforcement agreed with this statement by 50%. Women in firefighting agreed with the statement by 42.9%. Women in the construction field strongly agreed with this statement by 60%. Women in the Vocational Education group agreed with this statement by 66.7%. Participants who work in law enforcement had this to say, “I was always encouraged to pursue what made me happy and would provide stable income and benefits. They provided input as to whether I would do well based on my personality, not my gender.” Another woman said this, “No, in the 70’s women still were encouraged to take expected roles. When I did start taking non-traditional jobs (grocery industry, sales/delivery) women were discriminated against for promotion.”
One woman said, “I would say I had very little encouragement from counselors in high school to pursue anything untraditional, definitely ‘cookie cutter’ in nature.” Another woman commented, “I received no encouragement to pursue a law enforcement career during my early education. I am uncertain if encouragement during my early education would have had any effect on my career decision.” A woman firefighter stated, “I received no encouragement to pursue a law enforcement career during my early education. I am uncertain if encouragement during my early education would have had any effect on my career decision.” Another participant said, “I don’t recall much of how I was influenced in grade school, at home I saw mom as a fire inspector and wanted to be a geologist or astronaut. I was told I could be whatever I wanted to.” One participant said this, “My parents never said I couldn’t be whatever I chose, but they never said I could either. It would have been helpful to be encouraged because then I would KNOW that I could do it and not second guess myself.” A woman working in construction made this comment, “In the third grade I was trying to do something (can’t remember now) that the boys said I couldn’t do, and she told me that girls can do anything that boys could do.” A second participant said, “I was raised in a family that believed that we could do anything. If something broke, we learned how to fix it.” A woman from the Vocation Education group said this, “No, I was not encouraged; I tended to pursue the typical female jobs until I decided to step out of the norm and applied for non-traditional employment.”

This study also indicated that women feel that they receive the same pay for doing the same job as men in their occupations. Women in law enforcement agreed
with this statement by 70%. Women in firefighting strongly agreed with the statement by 57.1%. Women in the construction field disagreed with this statement by 40%. Women in the Vocational Education group strongly disagreed with this statement by 33.3%, however when actually looking at current pay scales for each occupation in this study, I found some pay discrepancies based on gender alone (see Appendix D).

In law enforcement there does not appear to be much of a pay gap between the genders in regards to being on patrol. The difference between the hourly wage for a male patrol officer and a female patrol officer is approximately twenty cents, there does appear to be a greater pay difference in regard to the overall occupation of law enforcement. Men police officers are paid approximately $3.32 more per hour than women police officers (see Appendix D, Figure 1). These figures appear to be strictly based on gender alone. In firefighting there does appear to be a pay gap between men and women firefighters. The difference between the hourly wage for a male firefighter and a female firefighter is approximately $2.37 per hour (see Appendix D, Figure 3). These figures appear to be strictly based on gender alone. When one becomes a supervisor in the fire department there appears to be a pay differential based on gender as well. The pay difference between a male supervisor and a woman supervisor in the fire department is approximately $3.60 per hour (see Appendix D, Figure 4). In construction there does appear to be a pay gap between men and women in general regardless of the field. The difference between the hourly wage for a male construction laborer and a female construction laborer is approximately $2.06 per hour (see Appendix D, Figure 5). The pay difference between a male equipment operator
and female equipment operator is approximately $2.85 per hour (see Appendix D, Figure 6). The pay difference between a male foreman and a female foreman is approximately $1.59 per hour (see Appendix D, Figure 7). These figures appear to be strictly based on gender alone. Through my own personal work experience I have discovered that pay differentials exist in regards to working in electronics. I made good money, which was one of the reasons I entered the occupation, but my male counterparts still made a couple of dollars more an hour than I did. Looking at the pay scales that I discovered in my research, this appears to be something that happens across the various occupations. Women still opt for these non-traditional occupations based on the fact that they will start at a higher wage then working in more traditional occupations.

In conclusion, it is encouraging to see that women have made great strides in the last 200 years with regard to working conditions; pay and benefits. Women in America are speaking out more often and much louder than ever before, and they have some men fighting for equality for women as well. Parents are becoming more supportive of their ‘little girls’ having a non-traditional career, employers are being forced to hire more women which is slowly forcing employers to offer more equal salaries and benefit packages. However, the presence of blatant stereotypes remains evident in some of the responses by the women in the occupations that were the focus of this study. According to the findings of this research, there is a strong need for gender equity training. Some potential participants in law enforcement and firefighting freely admitted they would “rather not make waves” when asked to participate in this
This statement brings up the question; why would they choose to remain under paid, under valued and discriminated against? Some women in non-traditional careers have worked so hard to secure their position; they simply are not willing to do anything that might risk their job.

There remains areas that need to continue to be worked on in order to end discrimination and unfair labor practices towards women in general. Both men and women need to be educated on the practices of gender equality, and employers need to be educated on why and how the unfair wages employers offer to female employees is causing the female worker to work under men and not beside them as an equal.

Limitations

When I started this process and was putting together my proposal, I had high expectations and was looking at being able to get 100 women participants for my questionnaire. That was one of the first limitations I faced. There were a few other limitations that I was confronted with during the data collection portion of this thesis. The first limitation that was presented to me was that the questionnaire instructions were not clear enough for the participants to understand how they were suppose to answer each statement. In other words, I failed to mention that only one answer could be circled in the quantitative portion of the questionnaire. This was quickly corrected for future participants by adding addition instructions or clarifying the ones I had.
Another limitation this study yielded was a small sample size from a designated area in Northern California, which could not be generalized to the entire population. I found it to be a bit challenging to find participants from my target occupations. I was hoping for a 100 women and only managed to get 39 women to participate. I wanted to make sure that I had enough participants to have a better understanding of what draws women to non-traditional careers in the first place. The information that was provided by the 39 participants was invaluable.

Another confounding variable found within this study had to do with the questionnaire design. All statements included in the Likert scale questionnaire focused on gender, training or some aspect of how women felt in regards to working in a non-traditional career. Participants could have made their own assumptions about what the statements meant in the questionnaire and responded with their own bias.

Another limitation was in getting the participants to return their completed questionnaires in a timely fashion. Some participants returned them in approximately 24-48 hours after receiving them by e-mail, while others had to have multiple follow-up e-mails before returning them.

Recommendations for Further Study

While this study sought to examine the woman’s attitudes, opinions and experiences with gender issues working in non-traditional careers, it did not go further and explore how those attitudes, opinions and experiences influence their male counterparts working in the same occupations.
Future studies could include an analysis of attitudes regarding how men feel about women working in non-traditional careers and what recommendations they might have to help handle the various gender issues or if they feel that there are gender issues to begin with.

Future studies could also help eliminate the limitations that were faced in this particular questionnaire by addressing the reasons that some women were unwilling to participate in this study. One could address the issue of discrimination or fear of retaliation that might allow more women to feel less intimidated and allow them to freely express their true feelings and experiences in order to help future women who are looking for a career in these non-traditional occupations.

The questionnaire could also encompass more non-traditional careers than were included in this target study.
APPENDIX A

Consent Letter
Survey of Why Women Choose Non-Traditional Careers

Informed Consent for Participation in a Research Study

My name is Rose K. Trotter-Hamilton and I am a graduate student in the Masters of Arts in Education and Gender Equity program at California State University, Sacramento. You are being asked to participate in a study that will be examining why women choose to work in non-traditional careers. This is an exploratory study that has not been conducted before. Your participation involves filling out a questionnaire followed by five open-ended questions that will require up to thirty minutes of your time. I will be responsible for dropping off and picking up your submitted packets. I am interested in your honest response and opinions.

Your participation is completely voluntary. You may quit at any time with no negative consequences. Although none of the questions were designed to cause you discomfort, you may leave a question unanswered if you are uncomfortable with it for any reason. However, only completed questionnaires will be useful to me. Your responses will be completely anonymous. In order to maintain anonymity, please do not put your name anywhere on the questionnaire. Putting your name on the questionnaire is strictly optional. You may use a pseudo name if you desire to. Your time and participation are greatly appreciated and much needed.

Here is my contact information: l-r2j@live.com. Please feel free to contact me if you have any questions. I will be happy to be of any assistance. Thank You.
APPENDIX B

Questionnaire of Why Women Choose Non-Traditional Careers
Questionnaire of Why Women Choose Non-Traditional Careers

Name (optional):_____________________________________
Occupation: _________________________________________
Gender: ____________________________________________
Age (optional) _______________________________________
Education Level: (Circle highest level completed)

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<th>High School</th>
<th>Some College</th>
<th>Undergraduate</th>
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<td>AA/AS degree (subject)</td>
<td>BA/BS degree (subject)</td>
<td>MA/MS degree (subject)</td>
<td>Technical/Trade School (certificate / degree)</td>
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Please rate your response to the following statements. Use the following scale to mark your responses. **Please choose only one response per question.** Thank You

1 = Strongly Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree

1. Gender bias exists in your career

2. Women need gender equity training

3. Men need gender equity training.

4. Current training for your career is equitable for both genders.
5. People choose their career based on their gender.

6. Your parents played a role in your choice of career.

7. Employers treat their male and female employees equally in your career.

8. Employers place their employees according to their gender.

9. If more accepted, women would choose non-traditional careers.

10. Men are accepting of the women in your career.

11. The dress code for women and men are equal in your career.

12. There are more men in the top positions of your career than women.

13. Your employers promote their employees based on abilities and qualifications.
14. You feel like your suggestions for improvement are listened to.

15. Men and women receive equal pay for equal skills.
APPENDIX C

Qualitative Questions for Why Women Choose Non-Traditional Careers
Qualitative Questions for Why Women Choose Non-Traditional Careers

Please answer the following questions to the best of your ability. Please add additional paper if needed.

1. If you could give women entering your field some advice, what advice would you give them?

2. With regards to education and specialty training, what would help benefit them in this field?

3. What suggestions can you provide to help improve the overall work environment in your field?

4. What was a major contributing factor that helped influence you to choose this career?

5. In your early educational experience, were you encouraged to pursue a non-traditional career?  
   If yes - how?  
   If not - would this have been helpful - how?

If you are willing to be interviewed for further explanation of your responses please fill out the following.

First name:

Phone and/or Email Address:

Thank you very much for your participation
APPENDIX D

Pay Graphs
Pay Scales for law enforcement, firefighting and construction

Median Hourly Rate by Gender - Industry: Law Enforcement (United States) (figure 1)

[Graph showing hourly rates by gender for law enforcement, with $20.70 for males and $17.38 for females.]

Currency: USD  |  Updated: 17 Apr 2009  |  Individuals reporting: 1,947
http://www.payscale.com/research/US/Industry=Law_Enforcement/Hourly_Rate/by_Gender

Median Hourly Rate by Gender - Job: Police or Sheriff's Patrol Officer (United States) (figure 2)

[Graph showing hourly rates by gender for police or sheriff's patrol officers, with $20.67 for males and $20.47 for females.]

Currency: USD  |  Updated: 29 Apr 2009  |  Individuals reporting: 2,202
http://www.payscale.com/research/US/Job=Police_or_Sheriff%27s_Patrol_Officer/Hourly_Rate/by_Gender
Median Hourly Rate by Gender - Job: Fire Fighter (United States) (figure 3)

Currency: USD | Updated: 27 Apr 2009 | Individuals reporting: 686
http://www.payscale.com/research/US/Job=Fire_Fighter/Hourly_Rate/by_Gender

Median Hourly Rate by Gender - Job: First-Line Supervisor / Manager of Fire Fighting and Prevention Workers (United States) (figure 4)

Currency: USD | Updated: 29 Apr 2009 | Individuals reporting: 65
http://www.payscale.com/research/US/Job=First-Line_Supervisor_%2f_Manager_of_Fire_Fighting_and_Prevention_Workers/Hourly_Rate/by_Gender
Median Hourly Rate by Gender - Job: Construction Laborer (United States) (figure 5)

Currency: USD | Updated: 16 Apr 2009 | Individuals reporting: 881
http://www.payscale.com/research/US/Job=Construction_Laborer/Hourly_Rate/by_Gender

Median Hourly Rate by Gender - Job: Construction Equipment Operator (United States) (figure 6)

Currency: USD | Updated: 17 Apr 2009 | Individuals reporting: 181
http://www.payscale.com/research/US/Job=Construction_Equipment_Operator/Hourly_Rate/by_Gender
Median Hourly Rate by Gender - Job: Construction Foreman (United States)
(figure 7)

Currency: USD  |  Updated: 25 Apr 2009  |  Individuals reporting: 1,409
http://www.payscale.com/research/US/Job=Construction_Foreman/Hourly_Rate/by_Gender
APPENDIX E

Data Charts
### Gender Bias exists in your career

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<th>Percent</th>
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<th>Cumulative Percent</th>
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<td></td>
<td></td>
<td></td>
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Figure 3
current training for your career is equitable for both genders

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Figure 4
people choose their careers based on gender

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Figure 5
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Figure 6
employers treat their male and female employees equally in your career

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Figure 7
employers place their employees according to their gender

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Figure 8
If more accepted, women would choose non-traditional careers

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Figure 9
### men are accepting of women in your career

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**Figure 10**
the dress code for women and men are equal in your career

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Figure 11
there are more men in the top positions of your career than women

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Figure 12
Your employers promote their employees based on abilities and qualifications

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Figure 13
you feel like your suggestions for improvement are listened to

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Figure 15

*men and women receive equal pay for equal skills*
REFERENCES


