Identifying the Variables that Impact the Nontraditional Career Choices of Women

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Abstract

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Identifying the Variables that Impact the Nontraditional Career Choices of Women

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Women continue to be underrepresented in the nontraditional careers. With areas of cosmetology, health sciences, education and child care being the dominate female careers; there is limited female representation in welding, carpentry, plumbing/pipefitting, electrical and other traditional male careers. Due to facing social barriers and developing an understanding of skill measurement among peers by the age of adolescence, individuals will disregard career options that may be viable for the future based on limited exposure and inaccurate facts. In addition, as students become aware of their own interests and abilities career preferences begin to emerge. Choices tend to be toward jobs in which students find accessible and in which there is a familiarity.

The process of self-selection and differentiated task-specific beliefs among students occurs as early as elementary school. Researchers have gathered data to bring awareness that gender stereotyping occurs within the elementary setting and students are already self-selecting careers based upon those stereotypes at young ages. By the age of adolescence, the experiences students have had within the school setting, within the home, and through experiences or lack thereof, can already determine the career path for an individual. Due to females being strongly influenced by their setting and the expected gender roles they are to play, understanding the research is critical for the recruitment and retention of women within a nontraditional work setting. Recruitment and early exposure
can start at earlier ages by providing job shadowing and mentoring early in the educational life of a child. By researching ways to improve the recruitment and retention of females into nontraditional occupations, tremendous financial opportunities could be available to women who may never have considered the skill sets and talent they have as being viable.

This qualitative study uses a series of three interviews with selected participants in order to help identify a shared phenomenon; a phenomenological study. Participants met on three separate occasions to participate in the interview process. All women interviewed live in the southeastern portion of Ohio, are currently working or have worked in a nontraditional career field, and have had to overcome adversity in order to maintain a successful career.

Results from the study have identified the importance of mentorships at an early age that range beyond family background knowledge but depend more upon someone who provides opportunity for exposure to a profession in which the female may not have considered.
I dedicate this research to my mother, Julia White, the first woman to teach me the power of hard work, dedication, and kindness. She taught me to be strong, be independent, never give up, and always stand for what is right even when “right” is not popular.
Acknowledgments

Live your life each day as you would climb a mountain. An occasional glance toward the summit keeps the goal in mind. Climb slowly, steadily, enjoying each passing moment, and the view from the summit will serve as a fitting climax for the journey.

- Harold V. Melchert (Roberts, 2010, p.183)

Throughout the process of this dissertation difficulty and adversity seemed to stare me in the face. Refusing to allow those challenges to get in my way were an incredible group of people. With every challenge I faced, they were there to lend a kind word, a helping hand, or a shove in the right direction. Without their persistence and ability to see the light before me, the goal may have seemed too difficult to obtain at times. This dissertation is a reflection of the support given to me by my committee members from Ohio University; Dr. Charles Lowery, Dr. Krisanna Machtmes, Dr. Jason Stoner, Dr. Dwan Robinson, and Dr. Emmanuel Jean Francois.

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Chapter 1: Significance of the Study

Introduction

Representation and recruitment for women within the nontraditional career setting continues to be a challenge faced by business and industry. Reaching out to 50% of the population in order to fill middle skills jobs is something that currently plagues the workforce. Retirement among the current workforce and career shifts are causing significant vacancies in jobs considered traditional to the male gender within the field of industry and technology. The skilled labor workforce is experiencing a shortage in all levels. Menches and Abrahams (2007) state that adding an additional one million workers would still not address the need to fill the growing gaps, specifically in the construction trades workforce. A quarter of the science and engineering workforce is more than 50 years of age. As that workforce retires, the profession continues to grow at a rate of 5%. Therefore, finding the workforce to fill the middle skills gap and nontraditional careers that will be available will be challenging (Galeshi, 2013). By not addressing the problem of an insufficient workforce, a sense of instability can impact labor cost in the public and private sector (Menches & Abrahams, 2007). The problem of not recruiting qualified females only contributes to the growing problem.

As the gap widens and the skilled labor is not abundant enough to complete necessary jobs a variety of outcomes could occur. The lack of available workers can allow for underbidding of jobs, over charging for labor, rising wages among skilled laborers, unstable workforce, and an increase of migration issues in order to find people, skilled or unskilled, to complete the work at home (Menches et al., 2007).
Women can help fill the gaps created by this shift in employment (Greed, 2000; Menches et al., 2007; Whitehead, 2001; Whittock, 2002). By using techniques to recruit and reach out that are appealing only to males; females may walk away from a job that could offer a sense of financial stability. Jobs that are specific to women tend to be careers of low-mobility and ones that provide lower wages than those jobs specific to men (Whitehead, 2001; Whittock, 2002).

Historically, addressing the issue of equal opportunities for women within the career setting has been something in which legislators have had to address. As early as the Civil War era, women were being trained to fill nontraditional positions to support the war effort; although receiving 50% less the pay than that of men filling the same position (Gordon, 2014). Actions taken by lawmakers led to the Smith-Hughes Act of 1917, Civil Rights Act of 1964, Title IX 1972, and the Women’s Educational Equity Act of 1974. The legislative actions connected to these laws help to promote equality within the workforce in career settings that are not gender equal. Although laws are in place, women still continue to fight for equal training, equal opportunity, and equal pay within jobs that are not typical to females. Women’s pay is known to not be equivalent to a man’s of equal position within construction (Greed, 2000).

To address the need to recruit, retain, and train a new skilled labor workforce, President George W. Bush established the President’s High Growth Job Training Initiative. The initiative provided funds to organizations for recruitment in areas of high demand, high growth jobs that would economically support the continued growth and development of the United States. One organization who received $2 million in funds
was Chicago Women of the Trades. Funds were awarded to them to help with outreach and the develop of campaigns that would attract more women into the trades (MENCHES et al., 2007). Recruitment and retention for skilled labor is critical and recruiting the right person, male or female, strengthens the economy by using available human capital.

The inequities of females pursuing male-dominated careers stems back to early childhood when children are determining the role that their gender is to play within society and what it means to be male for female. Children begin to eliminate career options by the age of six based upon what they determine are appropriate male and female gender roles within society (Brott, 1996; Gottfredson, 1981; Toglia, 2013; Woodfield, 2007). Research conducted by Linda Gottfredson determined that the factors that impact gender role definitions are possible and are not limited to, the view of socioeconomic status, parental occupations, education levels, and parental expectations. All of these factors contribute to the gender identity struggles faced by children as they determine their professional roles as adults (Gottfredson, 1981; Toglia, 2013). What one believes as a gender’s self-image and understanding of sex types can determine the type of career and occupation chosen by an individual. When there is a strong belief of traditional gender roles and a strong societal belief, an individual may not consider options within a nontraditional profession even if the financial security outweighs the burden faced by conflicts of gender role (Dodson & Borders, 2006). Individuals are also naturally drawn to career fields that are compatible with the image that they wish to portray of themselves (Gottfredson, 1981). In addition, it is also suggested by researchers that a mother’s belief of her child’s ability can also impact the self-perceptions of
aptitude (Bleeker & Jacobs, 2004). This establishes a belief and attitude toward various subjects and fields; also known as social cognitive theory that can impact academic and career choices (Bleeker & Jacobs, 2004). Females are also naturally drawn to careers that promote caring and creativity. Males find themselves in more of a scientific, analytic and technical role in career choice; stemming from the types of play in which young boys engage (Gottfredson, 1981; Woodfield, 2007). Extracurricular activities in which males engage are naturally more physical and technical in nature. Therefore, making it natural for males to pursue jobs that are physical and technical. However, researchers argue that the critical thinking involved in those particular jobs are not innate in nature, but are learned abilities; making it practical for a female to equally learn the skills necessary for a technical job (Galeshi, 2013).

Females make up a small percentage of technical and industrial workers within the United States. Although women make up 50.8% of the population in the United States according to the Bureau of Labor, they only make up 5.4% of the welders (Olson, 2013). The small number of females represented within nontraditional career settings leads to stereotyping of genders within the field. This contributes to the gender stereotyping that individuals, especially females, face as they make career choice decisions that ultimately impact their financial stability and independence. Part of the gender identity issues stems back to parental socialization and gender stereotypes that are introduced at an early age. Socialization beliefs impact the way a parent will choose to encourage or discourage a child to consider pursuing a particular desired career (Ginevra, Nota, Ferrari 2015; Olson, 2013).
**Purpose of the Study**

A person who has a successful career finds a place in society. They are identified by their career choice and given a quality of life and position based upon that career. Providing an opportunity for someone to pursue a job that can increase socioeconomic standing improves individual self-esteem, one’s self efficacy, and the wellbeing of society (Cochran, Wang, Stevenson, Johnson, & Crews 2011). Pursing opportunities for career improvement and advancement are not as easy for some as it may be for others based solely upon gender.

Women who have a desire to pursue jobs, in which less than 25% are female, otherwise considered ‘nontraditional’, must overcome sex type stereotyping in recruitment and in course enrollment before even beginning work in the field (Eardley & Manvell, 2006; Toglia, 2013). This type of stereotyping attributes to the low numbers of women who consider pursuing nontraditional careers. Identity is established early within a child, male or female. Socialization and the norms within one’s culture help establish the obstacles often encountered by those choosing to pursue a nontraditional career (Lakes & Carter, 2004). This is especially detrimental to a woman due to the wages of jobs considered “traditional” to females providing substantially lower wages than those that are considered nontraditional (Toglia, 2013). Young single mothers could benefit from pursuing career technical education coursework prior to graduating from high school, or by pursing a technical field post-secondary due to the wage offerings that are available within those career fields and jobs deemed nontraditional to women (Gordon, 2014).
Within the field of education, a new focus has been established that forces schools to take a look at college and career readiness. At the national level, the Common Core Curriculum identifies career standards that teachers must embed within their daily content. The goal and purpose of establishing college and career ready standards for education is to establish pathways of understanding toward options for furthering education or gaining employment post-graduation. Unlike the past, addressing the need early for students is critical. As education debt is on the rise, more and more students need to have early exposure to career options in order to understand strengths and interests early enough in order to establish a pathway prior to high school graduation. Building an awareness of job opportunities and what is available for both male and female students will be key. However, understanding and promoting job opportunities fairly to both genders is the critical part of assuring proper career counseling has been done at the high school level. Researchers and theorists alike have stated that a child’s vocational understanding does not fully develop until one has reached their high school or college years (Brott, 1996; Cochran, et. al., 2011; Gottfredson, 1981; Toglia, 2013). However, it has also been proven that self-concept is a deciding factor in what individuals, boys or girls, use to help guide career decision making. Establishing self-concept happens between the ages of 9 and 14; years prior to the end of high school and starting college (Brott, 1996; Gottfredson, 1981).

**Theoretical Framework**

Linda Gottfredson developed the Theory of Circumscription and Compromise. In Gottfredson’s theory, she identified variables that would help an individual identify with
the role they needed to play in society and the career in which they chose to pursue (Dodson et al., 2006). According to Gottfredson, the way an individual views their individual self within the society contributes largely to career choice. In addition, individuals will circumscribe careers based upon self-image and gender roles. This begins by the age of three. As individuals age, they begin to look at careers based upon prestige, social class, academic effort required, and individual abilities (Cochran, et. al., 2011; Dodson et al., 2006; Gottfredson, 1981; Schoon & Polek, 2011). Variables that Schoon and Polek identified as being independent of career choice are family social status and the cognitive ability of the child prior to considering a particular career. The moderating variables that impact career choice are individual aspirations and the education options that are available; outcome variables are the status of the occupation and income as an adult (Cochran, et. al., 2011; Dodson et al., 2006; Schoon et al., 2011). Contributing to these social beliefs and social norms are the way in which mothers, fathers, and extended family contribute to the belief of a child as they grow and develop. As children develop they define social space and what careers they are willing to consider based upon the eyes of society, family and peers (Gottfredson, 1981). Gottfredson (1981) found in her study that as children aged and become more aware of who they were they would develop deeper understandings and opinions as to what they wanted to become. They would create value judgments about the roles in which they found compatible for the image they wanted to maintain based upon the norms in their life.
Social Cognitive Career Theory, as developed by Lent, Brown, and Hackett (1994), focuses on the role of parent support. Social Cognitive Career Theory helps define the perceptions of parental support in the career choices in which adolescents’ have a strong self-efficacy. Parental support helps strengthen the “I Can” attitude needed in order for adolescents to pursue challenging careers; this is especially the case as young women choose to pursue a career that is considered nontraditional to her gender (Ginevra et al. (2015), Nota, & Ferrari, 2015; Lent et al., 1994).

The Expectancy-Value Theory of Wigfield, Eccles, Reuman, & Midgley (1991) was “a way of measuring an individual’s choice, persistence, and performance based upon how well they do an activity and to the extent in which they value the activity”. Brooks used the expectancy-value as a framework for her research. The expectancy-value model used by Brooks highlights that there are two components attached to motivation. The two components are one’s belief that they have the ability to perform the task at hand and that the individual performing the task sees the value in the task they are performing. The individual then finds the end product as being attractive and rewarding (Brooks, 1988).

Wigfield et al. use the design to explain the motivation of students for performance and choice (1991). The theoretical framework is designed from the perspective of a child and the variables that impact the choices he/she makes in achievement related choices. The theoretical framework designed by Wigfield et al. (1991) can be found in Appendix A.
The theoretical framework displays the importance that gender can play in making decisions for future career choices and training. Beyond gender, the value placed on perceived ability and efficiency expectations are two important variables within the theoretical framework. An individual’s perceived ability can lead to positive motivational consequences or negative consequences (Wigfield et al., 1991). Wigfield et al. state, “Individual’s attempt to maintain a positive sense of ability in order to preserve self-worth (1991, p.71). An identified self-worth occurs as early as the elementary level. As a child ages, the belief they have in their own abilities becomes more negative as experiences of less than adequate performances occur. This is due to developing a stronger understanding of peer strengths and weaknesses once a child reaches middle school (Brooks, 1988; S Sampson et al., 2013; Wigfield et al., 1991). The theoretical design of Wigfield et al. (1991) addresses this in the self-schemata box. A child will begin to develop a self-concept of their own abilities as well as place value on the tasks they perform based upon what is important for their continued success; these together drive motivation(Wigfield et al., 1991).

Achievement Values are used in the theoretical framework of Wigfield et al. This measures the value that an individual places upon the completed work project. What value do they as an individual place upon the work that they complete. If the individual has a high value of achievement, they are more likely to maintain motivation to pursue further with the career. Brooks addresses this same concept in the expectancy-valence model that she created based upon motivation of occupational choice among women within the nontraditional career setting. Brooks addresses self-efficacy, structure of
opportunity, and perceived social support as being motivational variables for females pursuing nontraditional careers. Like children, a since of self-efficacy and value are important. However, Brooks takes her framework a step further with females and defines “social support” as motivation for women to pursue a nontraditional career (Brooks, 1988). Brooks sites the works of Bandura (1982), and Gottfredson (1981) and the importance that support, perceptions, self-efficacy, and role modeling play in a woman’s choice to pursue nontraditional careers. Brooks designed a theoretical framework that incorporated those variables into the decision making process for women. Brook’s theoretical framework can be found in Appendix B.

In this study, a combination of the of Gottfredson’s Theory of Circumscription and Compromise, the theoretical framework of Wigfield et.al., the theoretical framework of Brooks, and the identified variables of Schoon and Polek help provide key elements in understanding the determined influential factors of females when determining the career path in which they follow. The conceptual theory designed by the researcher can be found in Figure 1.1.

The conceptual framework of the researcher used the information provided by other studies that identified the role of the parent as being an influential part in the decision making process for careers (Menches & Abraham, 2007). Therefore, it was added as a factor that needed measured in order to determine the impact. Other factors not addressed by Wigfield et. al.(1991) and Brooks (1988) were the importance of early exposure to careers and the value that exposure or opportunity to witness someone
completing the task can have on a child’s decision to pursue something not previously considered; this was something Gottfredson did share in her research.

Hands-on experiences and role modeling in which a female has the chance to try something nontraditional or witness another female in the role has an impact on the decision to consider the career as a viable option. The attitude and locus of control in which a person has over their decisions is a factor to consider. Locus of control is defined as how the environment can help shape one’s success or failure and the ways in which an individual allows those outside influences to attribute to who they become (Algadheeeb, 2015). (Wigfield et. al. (1991) and Brooks (1988) addressed the value and choice within their theoretical frameworks, but failed to address the attitude of the individual and the locus of control in which the individual has in order to succeed. The inner drive and self-esteem of the individual contributes to their ability to overcome the obstacles faced in a work environment in which the individual is considered a nontraditional worker and a minority among another gender (Juntunen, 1996; Lent et al., 1994; Toglia, 2013).
Figure 1. Hall Expectancy Value Conceptual Framework Model of Nontraditional Career Choices

**Research Question**

The study being conducted will measure the value that hands on experiences, parental support, role modeling, and attitude/locus of control had on women choosing to enter into a nontraditional career setting. In addition, it will help identify other factors that may have gone unidentified in earlier studies. In order to gather this data, the researcher will use a phenomenological interview process with research participants. The phenomenological study will allow for the researcher to better understand the lived experiences of the participants to help identify similarities that exist among them.
Woodfield (2007) identifies qualitative methodologies and the interview process as the approach to best produce truthful data with less biased accounts as compared to other methodologies. Qualitative research and interviewing is a research technique most popular in gathering data for recurring themes among lived experiences of women when searching for a complex phenomenon and an explanation as to how that phenomena exists (Creswell, 2009, 2013). Phenomenological interviewing is a strategy that allows the researcher to become familiar with the shared human experiences around a central phenomenon (Creswell, 2009, 2013; Woodfield, 2007).

**Rationale**

Throughout career and technical education programs, enrollment is disproportionate to the population. Domenico and Jones (2006) state that the disproportionate representation of women to men within nontraditional career training facilities shows the limited accesses that females have to CTE programs. Career and Technical Education (CTE) provides students the chance to learn practical skills that can lead them to higher paying jobs (Eardley et al., 2006). Although the programs are there for men and women, it does not mean that equal access has been given to both genders upon recruitment and introduction to the field. There is a need to change the perception of women within the nontraditional field of work (Domenico et al., 2006; Eardley et al., 2006).

Identified by Schoon & Polek (2011) as being a factor in career choice, women raised in families with low socio economic status find themselves with limited access. They face more obstacles, face unrealized career expectations, and have lower career
aspiration levels due to limited exposure to career options (Gottfredson, 1981; Schoon & Polek, 2011; Toglia, 2013).

Students from homes of privilege are provided with opportunities that allow for them to explore career options and choices beyond school. They are also given the opportunity to network, establish role models and have financial support to pursue various options of career exploration (Schoon et al., 2011).

It is critical to become familiar with the variables that impact career choice among females. This is especially important for helping expose women to opportunities that provide financial stability in single parent homes. Part time positions and low wage jobs that many women fill do not provide substantial pay that will support a family. Because of this, women are at an automatic disadvantage when trying to work themselves out of poverty. Due to not having the exposure and the role models, women will automatically choose to not consider a career in which they may otherwise be highly qualified to fill with the proper training and skill abilities (Gordon, 2014; Whitehead, 2001; Whittock, 2002). The lack of consideration for careers deemed nontraditional to female relates to the self-efficacy one feels toward their abilities to performed assigned duties (Hackett & Betz, 1981). Females tend to constrict career options basing considerations upon self-efficacy and the capabilities in which they feel they have, versus their talents. By constricting their career options, women tend to find themselves at a disadvantage in pay, occupational status, and career advancement (Hackett & Betz, 1981).

By developing an understanding of what factors are most influential, the research can be shared with guidance counselors, career counselors, parents, and business owners
to help develop strategic plans for recruitment and retention programming that fit the interest and mindset of the female gender. Support systems can also be developed to help women who face occupational challenges and sex type stereotyping among coworkers and others within the nontraditional field.

**Delimitations**

Women chosen for this study will work in the southeastern Ohio area within the fields of welding/brazing, plumbing/pipefitting, carpentry, electrical, and sheet metal fabrication. The jobs chosen are ones that have high rates of employment for the southeastern portion of Ohio and provide substantial amounts in pay.

The researcher recognizes that the experiences of women in southeastern Ohio may not mirror those experiences of women in larger urban areas within the United States. By narrowing the population to women in southeastern Ohio, only a small perspective of information is being provided that will be used to analyze situations beyond southeastern Ohio. In addition, limiting the viewpoints to only those women who fill one of the higher paying nontraditional jobs may skew the data due to the high demand and level of access available.

Identifying race as part of this study was not something that the researcher chose to do. Although race is often a contributing factor to the marginalization of a group of people, in this particular case gender was the factor that allowed a person to participate in the study. Seeking out women of color was not something the researcher chose to do specifically due to this being a gender study.
Definition of Terms

Belongingness: The term that is used to define the feeling associated with being included as an individual within a particular domain. This is especially true for individuals who feel as if they must overcome a barrier in order to be part of the established domain in which they ‘belong’ (Gaucher, Friesen, & Kay 2011). It defines the feeling in which individuals, male or female, feel as they enter into a nontraditional work setting and seek to be accepted. Upon being accepted, the individual feels a sense of belonging.

Career Technical Education (CTE): Career and Technical Education programs (CTE) is the term used to define the educational plan that provides schooling specific to technical careers. Students who graduate from a CTE program receive credentialing in a specific field that allows them to begin work using the practical skills learned. Graduating from a CTE program can allow for individuals working within middle skills jobs to earn substantially more money than individuals without credentialing and specialized skill training (Eardley et al., 2006).

Circumscription: A theory used to suggest that individuals will consider occupations that they feel are acceptable to their gender and level of prestige; this defines the thought behind why children eliminate career choices based upon established beliefs at an early age (Brott, 1996). The idea behind circumscription is based upon the Career Choice Theory designed by L. S. Gottfredson (Brott, 1996; Gottfredson, 1981).

Middle Skills Jobs: These are jobs that require individuals to have a high school diploma and some type of postsecondary education or credentialing in order to complete the
technical tasks assigned. These jobs are typically technical in nature and traditionally are filled by males.

Middle Skills Gap: This is the reference or term used to define the gap that is growing between jobs that don’t require technical training and those that only require higher education degrees. The middle skills gap continues to grow due to the limited number of individuals who seek jobs in technical fields, the 5% growth per year in middle skills jobs, and the retirement of the ‘baby boom’ generation (Galeshi, 2013). Many of the jobs within the ‘middle skills gap’ are STEM related, but do not require more than post-secondary credentialing (Gordon, 2014).

Nontraditional Jobs: The term used to define a job when less than 25% of the workforce is made of a particular gender. If less than 25% of women participate in the field of welding, then it is considered to be a nontraditional job for the female workforce (Dominico et al., 2006; Toglia, 2013). The norms established for what is considered ‘traditional’ and ‘nontraditional’ are often set by society as what is considered acceptable by gender (Toglia, 2013; Woodfield, 2007).

Pipeline Theory: This theory explains the need for increasing women into male dominated fields of work and STEM programs at an aggressive rate. It represents the aggressive rate in which recruitment for nontraditional careers occurs and then directly feeds women into a full time career. Loss of retention within the same theory is referred to as the “leaky pipeline.”

Self - socialization: Children establish beliefs early within their development based upon the beliefs of their parents, their community, and other adults in their life. A child
determines what is appropriate of their gender based upon the lessons learned by those around him/her. Established beliefs and stereotypes form early impact the thought behind what is appropriate and not appropriate as norms. Self-socialization is the thought and established beliefs that occur early within one’s childhood (Zosuls, Miller, Martin, & Fabes, 2011).

Social Cognitive Career Theory: Society places norms on genders by accepting or rejecting particular behaviors. These become the established norms that children often use in order to make decisions as they grow and develop (Bleeker & Jacobs, 2004). Social Cognitive Theory impacts the choices individuals make about career development and career choice. It is the belief and attitude that surrounds various subjects and fields of work; including the thoughts and beliefs as to which gender should fulfill the role within particular work settings (Bleeker & Jacobs, 2004; Lent et al., 1994).

STEM: The acronym used to abbreviate programs in science, technology, engineering, and math. Schools that are identified as STEM schools have a strong focus on programs that will naturally transition students into jobs that require a high level of science and math. STEM programs tend to appeal to the male gender above that of the female gender.
Chapter 2: Literature Review

Human Capital and Gender Based Career Choices

One valuable lesson that must not be forgotten is that our strength as a country - in war or in peace - lies in the effective cooperation, effort, and ability of our citizens. It is imperative that as a nation we continue to maintain our ability to produce and the faculty to adjust ourselves to sudden unexpected demands on our human resources if we are to retain our position as a people confident of our destiny. However, we can no longer afford to waste any of our resources, especially our human resources. (Gordon, 2014, p. 84)

Investment in the future and in human capital means creating opportunities for students to explore career choices. In addition human capital investment means providing meaningful opportunities to learn whether it is formal, informal, on the job, specialized vocational or higher level (Sweetland, 1996). Career exploration, job shadowing, and counselor guidance help students develop a stronger understanding of the career path they feel is best suited for them (Toglia, 2013). Although America represents freedom of choice, individuals still allow barriers placed within institutions and cultural beliefs about gender to become a factor in educational choice (Lakes, 2004). This is especially true when the barrier faced is based upon the gender of the individual seeking training for a career considered nontraditional to their biological gender.

Career paths based upon gender establish the label of ‘traditional’ and ‘nontraditional’. The U.S Department of Labor defines a nontraditional occupation for women as ‘one in which women compromise 25% or less of total employment (Bureau of
Labor Statistics, 2010). Traditional jobs for women tend to be careers in nursing, teaching, or clerical (Domenico et al., 2006, Gottfredson, 1981; Lappalainen, Lahelma, Pehkonen, & Isopahkala-Bouret, 2012; Pekkarinen, 2008; Toglia, 2013). Traditional and nontraditional roles chosen by women within the American culture are based upon norms established within society (Lappalainen et al., 2012). Although America is working toward becoming a gender neutral culture, career choices still allow for barriers within genders due to the stereotyping that occurs at such an early age within the education of a student (Domenico et al., 2006, Lappalainen et al., 2012; Toglia, 2013).

Culturally, women face barriers in choosing education and career paths that men do not face. Historically, within the United States, women have been care givers of the home. The detrimental impact that World War II placed on the American labor force caused men to change their perceptions of the roles women played outside of the home (Dominico et al., 2006). Women became industrial servants by working as machinists within industrial settings that had only been fitting for men prior to the war. Although the female labor force was necessary for the betterment of the country and war effort, concern surrounded the loss of femininity that could occur if women maintained a role in the world of work (Dominico & Jones, 2006; Lappalainen et al., 2012). “Rules determined what people should do, think, and be. Differences mean that separation into female and male categories in virtually all levels of life. The hierarchy means that ‘male’ is the norm and all things considered male and masculine are automatic” (Lappalainen et al., 2012). The career choices of women tend to be influenced highly by family role expectations and issues that surround family (Menches & Abraham, 2007). When an
individual has low self-efficacy, they have a tendency to not attempt to try new tasks in which he/she may find desirable if given the opportunity. In the case of professional choices, without the proper encouragement, experiences, or opportunities to see success, females with low self-efficacy are less likely to try a career considered nontraditional (Hackett & Betz, 1981). Women have high levels of self-efficacy in careers that are social whereas men have higher levels of self-efficacy in the realistic and investigative careers; although not saying women do not have the ability to excel in the realistic and investigative career fields (Williams & Subich, 2006). Careers that fall within the realistic and investigative career clusters traditionally receive higher levels of pay due to being of strong math and science related content (Williams et al., 2006). As females self-select out of careers over time, it is natural for girls to move from traditional professional careers like teaching and nursing to ones that are semi-professional such as clerical. Boys tend to reach a stage of self-efficacy and determine occupational preference by leveling up based upon prestige (Gottfredson, 1981).

**Implications of Career Counseling**

Studies further prove that verbal persuasion and encouragement to try something new from a trusted individual or mentor can bring about opportunities for females that may not have been considered prior (Ginevra et al. (2015); Hacket & Betz, 1981). Cindy Juntunen places the expectation for “active encouragement” on the role of the career counselor. By providing positive active encouragement, the opportunities for women to try something new in order to improve their career options greatly improves when positive conversation can occur that builds a female’s self-efficacy around the career
option (Juntunen, 1996). A direct positive experience that impacts a person’s attitude is proven to have a great effect upon the desired outcome (Breaugh, 2013). Therefore, when experiences allow for an individual to gather information and form an opinion first hand, it allows for the individual to develop a higher level of interest. In addition, repeated positive exposure to an experience will result in an even stronger positive effect (Breaugh, 2013). Given the chance to try the job prior to applying, females will be able to self-select whether or not they have the qualifications necessary to successfully complete the tasks assigned to the job. Women who have the experience will use it as an opportunity to feel comfortable in the application process and job pursuit by increasing self-esteem for the job and have a stronger sense of self-efficacy (Juntunen, 1996; Lent et al., 1994).

As individual’s age and the environment in which they live becomes part of their identity, less opportunity to explore career choices is available. As stated in Gottfredson’s four stages of circumscription (1981), the internal belief about unique self by the age fourteen allows an individual to determine which jobs they feel are compatible or acceptable based upon personal belief (p. 3). At age fourteen, students are just becoming familiar with the process of exploring opportunities beyond school. Counselors are working with students by age fourteen to begin discussing opportunities beyond school. Brott added to the work of Gottfredson and states that the career choices that are eliminated at an early age within a child’s life at stage one or two of circumscription will no longer be considered when planning with the assistance of a career or guidance counselor (1996). At an early age, both males and females have
eliminated jobs based upon gender bias and beliefs determined in the formative years. Gender boundaries have also been defined by age fourteen. Males are less likely than females to cross the gender boundaries by this point in their life if gender bias and sex–type stereotyping has already been internalized. (Brott, 1996; Dodson et al., 2006; Gottfredson, 1981; Lakes et al., 2004). The guidance provided by an adult at this point in a young person’s life can determine the future path they choose to follow. The vertical social capital and relationship established between the student and the counselor has the potential, according to Pil and Leana (2009), to determine future career roles. Counselor biases and ideas of gender based expectations, known as ‘women’s work’ and ‘men’s work’ can be interpreted through the guidance and discussion that often occurs between the two (Dodson et al., 2006).

Guidance counselors and career counselors provide services to individuals who are seeking answers for future opportunities in education and career choices. Counselors who are unaware of the gender bias and sex type stereotypes that they poses will find it difficult to guide individuals who may seek jobs considered nontraditional to gender. Counselors guide individuals based upon their own perspectives and roles that individuals play within a family and a job (Brott, 1996). Those counselors who feel strongly about the role of “men’s work” and “women’s work” will not provide adequate guidance for those individuals who not fit within the ‘traditional’ gender role expectations (Dodson et al., 2006). Students who have not given much thought to career options are also likely to be swayed into a particular area based upon the perceptions and ideas of the counselor and not based upon interests and skill sets of the student (Mortimer
& Kruger, 2000). By placing the responsibility for guidance on the counselor and other influential adults, the student is more likely to be placed in a field of study based upon the gender bias beliefs of those giving guidance and support (Mortimer et al., 2000; Toglia, 2013).

Counselors who lack knowledge in current career trends or educational opportunities play a large part in the direction in which they guide their students. Without knowing the available career options and the routes necessary for entering into a particular career field, a guidance counselor may not provide adequate information for helping guide students toward a job that could pay more. In addition counselors may also allow their own culturally acceptable perceptions of occupations to overtake the ability to provide adequate guidance; counselors can mislead individuals into routes suited for their own personal interests and abilities instead of viewing career options equally without a gender bias. This is especially detrimental for individuals who wish to seek careers that are considered ‘nontraditional’ to their gender (Toglia, 2013). This lack of access for opportunity among individuals seeking ‘nontraditional’ careers is a detriment to the economy and represents a societal problem by not seeking opportunities to reach out to both genders to fulfill areas of deficit within technical careers. Inadequate counseling within the school setting is a human resources problem that impacts national development (Toglia, 2013, p.16). Women, over men, expect more of the services they seek from guidance and career counselors. They will be the first to seek help if they are uncertain of an educational or career choice. The demand that women place on seeking advice is
what makes the need for adequate career and guidance counseling at the high school level critical in helping support nontraditional careers (Hansen, 2003; Juntunen, 1996).

The opinions of educators who provide guidance into future career options are as equally detrimental if gender biases block understanding current career trends. As the career world attempts to move toward a more gender neutral culture, educators with biased ideals can create barriers not before set (Lappalainen et al., 2012). Females who wish to pursue a nontraditional employment route often face obstacles of sex discrimination in areas of recruitment, enrollment, and counseling (Eardley et al., 2006).

Looking into career saturation by gender would be a good first step that counselors could take at better understanding the trends in career choices (Dodson et al., 2006; Toglia, 2013). Providing opportunities to explore and expose ‘nontraditional’ jobs are a few suggestions that Dodson, Borders and Toglia share as ways to provide diverse career choice opportunities for both males and females (2006, 2013). Role modeling is a popular strategy that effective career counselors use in helping increase the minority gender to the nontraditional career. By individuals visually seeing their gender represented within a nontraditional career, the level of recruitment will increase.

Opportunities for students to experience career choices is part of the concern that many of the researchers addressed that was contributing to the lack of representation of minority genders within specific careers and trades. Cardoso and Marques (2008) establish identify career development being critical for raising the amount of women within particular careers. Schoon and Polek (2011) found that the cognitive abilities of
females are often overlooked due to females feeling a sense of inadequate abilities and skill sets needed in order to pursue careers that require math and science.

Marie Creager takes an additional look at the impact that self-esteem can play on the career choices that females make. Although career counselors do impact future planning, Creager would argue that the inner drive of an individual and the way they view themselves is also a large indicator of the route a person will follow within education and career choice. Students who have a high sense of self awareness and curiosity are more willing to step out of the box and try a job that is considered nontraditional (Creager, 2011). Although girls with higher self-esteem were willing to try new experiences and explore career options, a common theme was that females were more willing to step out of a career choice when faced with negative experiences, lack of support, work-family conflicts, or lack of recognition (Creager, 2011).

The Pipeline Theory was a title that Schweitzer, Ng, Lyons, and Kuron (2011) gave to the information they gathered from their research study about gender differences in establishing pre career expectations. Schweitzer et al. used the title Pipeline Theory to explain the need for increasing the number of women within male dominated fields at an aggressive rate. In addition, this theory is also used to identify how females often ‘leak’ from STEM related courses as early as middle school directly impacting a female mindset toward nontraditional careers (Galeshi, 2013). The pipeline represents the need to recruit and train individuals so that they feed directly into a full time career. Schweitzer et al.’s study places a great deal of emphasis on the need to flood specific male dominated careers with females who have the necessary skills to complete the jobs.
Although Schweitzer et al. provides rationale for why the approach she and her colleagues took would be beneficial to statistics, she recognizes that no amount of increase in the female gender within a particular nontraditional career can compensate for women who leave the workforce due to personal priorities, lack of support, and lack of self-esteem. (Schweitzer et al., 2011, p. 424). They refer to this as a “leaky pipeline” (2011, p.424). “The rate of retention increases when the environment is more accepting and does not exhibit discrimination…it enhances the program and overall female moral” (Galeshi, 2013, p. 6).

Researchers Cardoso and Marques (2008) also suggest that academic aspiration be taken into consideration when looking at the gap between the abilities and achievements of two groups; in this case the gap between the male and female gender within the workplace. Academic achievement can be impacted based upon the risk of discrimination that one gender may feel when entering into a nontraditional career setting.

**Gender Identity**

Gender identity plays a critical part in the early stages of a child’s development. Parental beliefs and environmental expectations within one’s home can impact the gender stereotypes that individuals create for themselves and others (Brott, 1996; Gottfredson, 1981; Lakes et al., 2004; Zosuls et al., 2011). Although career counseling is important in helping students determine the direction they would like to go following graduation, developing gender role stereotypes begins as early as age three. Children as early as three enter one of four stages known as circumscription. Brott (1996) states,
Circumscription is the theory that suggests individuals will consider occupations that they feel are acceptable based upon their gender and the level of prestige (p. 2). By age 9, children begin to eliminate career options based on gender and prestige and their own established belief of sex type roles. Brott’s theory of circumscription, which is based upon L. S. Gottfredson’s Career Choice Theory and Circumscription and Compromise Theory, strongly suggests that as individuals age they are less likely to be flexible in their career choices based upon what they deem to be acceptable for their gender and level of socio-economic status and prestige. (Brott, 1996, p. 3).

Gender plays a role in determining the sex type stereo types placed upon career choices. Within the early stages of a child’s life the stereotyping established by a young child is considered as “self-socialization” (Zosuls et al., 2011). The interactions a child has within the household can also determine the approach he/she takes to sex type gender stereo typing and career choices. “Biological and social factors interact to produce behavior” (Zosuls et al., 2011, p. 828)

Identities are shaped through socialization. During childhood, cultural norms can set boundaries and build barriers for individuals and the choices they wish to make into adulthood. Children begin to better understand the roles that gender plays in identity by age six. Between the ages of six and eight, children begin to consider what jobs are acceptable based on what they consider appropriate to gender and appropriate ‘work’ (Toglia, 2013). Sex role stereotyping and gender bias are two social constructs that impact career decisions; social background can equally impact the route a female takes
Social Capital Theory plays a part in the career choices that students make at an early age. Students seek guidance from teachers and guidance counselors within the school setting. At home, students use the environment in which they were raised and the guidance of their parents to help determine what they feel to be acceptable career choices. Students who receive guidance from an individual outside of their ‘horizontal social group’ may value the information more than that of someone who advises them from within. Therefore, the role of the teacher and counselor in impacting student career choice is critical. (Brott, 1996; Domenico & Jones 2006; Pil & Leana, 2009).

Both males and females face gender bias and sex-type stereotyping when seeking guidance from guidance counselors and career counselors. Although evidence supports that females often model their career choices based upon cultural family values and parental expectations, the counseling they receive still contributes to career and post-secondary educational options. It is advised by Dodson and Borders that guidance and career counselors consider their own bias and stereotypes that can hinder the advice given. Additionally, counselors need to define on their own terms what is considered ‘traditional’ and ‘nontraditional’ jobs based upon gender beliefs and expectations (2006).

**Career Choice Barriers and Stereotypes**

Traditional jobs for women are within the field of health care, education, cosmetology, and child care (Toglia, 2013, p. 14). The U.S Department of Labor in 2009 broke down the percentage of women that made up each of the following careers as; 98%
cosmetology, 87% child care, 86% health related, 4% heating/AC, 5% welding, 6% electrical/plumbing, 9% automotive (Toglia, 2013, p. 14). Common barriers that impact women within the workplace and within the educational setting for specialized ‘nontraditional’ careers are sex type discrimination and gender bias. This happens more frequently to women due to the females exhibiting greater gender-role flexibility within careers and career aspirations than males (Dominico et al., 2006).

The female gender is impacted by a variety of factors when considering education and career options for their future. Dominico and Jones quote Osipow and Fitzgerald’s 1996 research by saying, “Gender is clearly one of the most powerful of all in vocational behavior” (2006, p. 4). The cultural beliefs that females place on gender role socialization has the ability to impact young girls at an early age. The educational levels of parents, parental occupations, parental expectations, and the exposure a female receives to careers that may be considered ‘too difficult for a female’ also directly impact the willingness a female has to consider a variety of career options (Dominico et al., 2006; Toglia, 2013). Women specifically are impacted by the career choices and education of their mothers. Career choices sought by women are greatly influenced by the occupational and educational choices set by the mother. Aspirations of a mother strongly impact the way a young girl views the world of work and the education needed to be successful beyond the home (Dominico et al., 2006). If career advancement and higher education are viewed as assets in building a strong household, a young girl will use that as her own aspirations for development and career exploration. In addition to career and education norms set by parents within the household for employment options,
both genders consider the efforts required to attain the level of employment they deem appropriate when choosing a career path. Consideration is also given to the socio-economic status, prestige and social class in which a particular career may place them (Dodson et al., 2006).

A study conducted by Schweitzer et al. (2011) suggests that the mindset of women today is changing to be more assertive and willing to face the challenges that women before were unwilling to address, nor had the backing behind them to withstand the adversity. Therefore, the career expectations of today’s young woman are comparable to males from previous generations. In the research conducted by Dodson and Borders (2006), one limitation they addressed was that data gathered was not longitudinal. In order to develop a more comprehensive picture of the impact gender had on career barriers, the research would need to be conducted with the same sample over a longer period of time to allow for thought and reflection. Likewise, Schweitzer et al. presents a compelling argument that women of today’s generation are more assertive and have expectations for career development that females from previous generations do not. Schweitzer et al. (2011) does not provide the reader with analytical data to support his claim. Therefore, future researchers could look for trends in career changes made by women over time and the similar barriers faced by women globally in developed industrialized nations.

Parental support is an important variable in helping to increase female recruitment for the nontraditional career setting. Parents play an important role in career path choice. The socialization involved in potential careers and the gender stereotypes established at
an early age provide encouragement or discouragement for individuals pursuing a particular career (Olson, 2013). Parental aspirations for children and career choice set what is allowable and tolerable within the family based upon established norms (Gottfredson, 1981). These stereotypes and beliefs about gender begin at home through parental interactions (Olson, 2013). Preexisting beliefs and feelings concerning gender specific career choices can impact the path in which a female takes. Therefore, it would benefit corporations seeking to introduce females to the nontraditional career setting to invite parents to attend the site visit/open house along with the child. Breaugh (2013) suggests that successful recruitment means reaching out to individuals who have not yet established a strong opinion concerning the organization and the type of work being completed at the facility. Reaching out to parents to influence support and a positive opinion will allow for the increase in female interest for the nontraditional career setting. A paradigm shift must also occur within the way families view career choices explored by young females. Parents play a role in helping with career exploration (Parmer & Rush, 2003). It is not academic skills alone that lead an individual into a particular career path. Creager (2011) states that women prefer jobs that allow for socialization and collaborative leadership. The cultural beliefs that females place on gender role socialization has the ability to impact young girls at an early age.

Career paths chosen by individuals can connect back to the socialization opportunities they were given as a child and the gender role beliefs that they acquired during formative socialization development. Gender stereotypes often spill over into career decision-making. Based upon what individuals have learned as being acceptable,
males and females will choose career paths that are acceptable to their own beliefs and the beliefs of their families. The gender stereotypes and socialization patterns of parents strongly impact the career path of child. Beliefs parents have about what is appropriate or not appropriate can encourage or discourage a child to pursue their ideal career. Due to the powerful influence of what is believed to be ‘traditional’ and ‘nontraditional’, inequities still exist among specific fields of study. In 2010, only 5.4% of welders within the United States were female; whereas only 8% of males were nurses (Olson, 2013, p. 17).

Peripheral processing, Breaugh states, is also an important aspect to consider when designing campaigns to help pull in potential candidates. Peripheral process is when candidates already have an opinion formed about a company/employer based upon an initial impression that is made (Breaugh, 2013, p. 393). Research indicates that once an opinion and attitude about a company has been formed it is difficult to change that perception. Therefore, developing recruitment techniques that include individuals who are considered traditional workers and those considered nontraditional will allow for a larger pool of candidates. In addition, it will allow for a pool that has a higher level of cognitive ability for completing the necessary tasks (Newman & Lyons, 2009).

Establishing positive peripheral experiences for female candidates will likely lead to a sense of belonging. Belongingness is defined as the feelings that one fits in with others within a particular domain (Gaucher et al., 2011). Females who successfully participate in a site visit/open house will have the chance to see how they would fit within the hosting facility. This experience could lead to a positive recruitment experience.
Introducing potential employees to the facility in which they work and allowing for site visits is a technique that has become a popular way to increase the candidate pool. Site visits and open houses allow for individuals to develop an understanding of the culture within the facility, as well as meet potential colleagues. Organizational culture, as stated by Catanzaro (2010), can be the cause for a potential candidate to “self-select” out of the recruitment and application process. By being on site and becoming familiar with the facility, individuals are given the opportunity to develop a better visual understanding of the company in which they may seek employment (Catanzaro, Moore, and Marshall, 2010). Potential candidates value the culture and reputation of an organization when considering them as an employer. Site visits allow for companies to share positive success and allow human resource recruiters to share ways in which the company supports employees; this is especially important when females are being recruited to fill jobs within the nontraditional setting. (Breaugh, 2013; Cantanzaro, Moore, & Marshall, 2010; Collins & Stevens, 2002).

The site visit will allow for the potential applicant to develop a visual understanding of the work environment culture and climate. Statistics state that 30% of college students who are seeking employment will reject an opportunity with an organization following a site visit due to the site visit. This is also after originally being attracted to the job following a firsthand positive experience (Breaugh, 2013). Research studies conducted by Boswell in 2003 demonstrated that being able to interact with potential coworkers and upper management were positive impacts on the site visit and recruitment of potential employees. This research was further supported by Saks and
Uggerslev (2010). Using the site visit as an opportunity to develop positive social interactions with potential employees and current employees was key.

The culture of an organization can greatly influence the gender applicant pool. “Organizational culture plays a key role increasing the probability that applicants, particularly female applicants, will accept a job with the organization and influence how long they will remain with the organization once hired” (Catanzaro et al., 2010 p. 650). This means that the basic beliefs, values, and assumptions of an organization do matter to individuals seeking employment. The values of an organization should favor diverse populations and diversity among gender in order to strengthen the amount of qualified applicants seeking employment. By appealing to a more gender diverse group, organizations can increase their odds of finding a candidate who has the qualities needed for the position and can be more selective (Catanzaro et al., 2010).

Exposure to positive role model images for young women might lead to a lifestyle and career choice that does not follow along the traditional path. According to Olson (2013), “Role models are the number one recruitment strategy for increasing nontraditional enrollment” (p. 4). Role modeling is a component of support and motivation that young women need in order to feel that they are able to obtain ‘nontraditional’ careers. Two components of motivation that Brooks (1988) mentions are “expectancy dimension” and the “value of attractiveness dimension”. By using positive female role models in advertisements, the ‘nontraditional’ career choice will influence the female audience’s perception of the career and the attractiveness of the chosen occupation (Brooks, 1988). Role modeling is a popular strategy that can help increase
the minority gender to the nontraditional career. By individuals visually seeing their
gender represented within a nontraditional career, the level of recruitment will increase.

According to Jocelyn Riley, President of Her Own Words: Women of Nontraditional Careers, the use of visual displays like flyers and posters are effective tools for recruitment and historically have been effective in the past. Consider the impact that Rosie the Riveter had on the recruitment of women for industrial positions during the World War II era. Providing opportunities to explore and expose ‘nontraditional’ jobs are a few suggested ways to provide diverse career choice opportunities for both males and females (Dodson et al, 2006; Toglia, 2013).

The use of advertisements to appeal to women is one variable in gaining potential employees. Attention and detail must be given to the images and wording presented in the advertisement and how it would appeal to female audiences. American industrial work sites tend to have a competitive edge; whereas competitive wording appeals to the male gender. Females tend to appeal to words of support, encouragement, and teaming. Males are motivated by competition and individualism (Mirabela & Madela, 2012; Catanzaro et al. 2010). Advertisement approaches that appeal to females should be considered. When recruiting employees, specifically females, within a nontraditional career setting it is important to choose wording that appeals to the gender. Gender wording in job advertisements that carries a masculine tone can lead to women establishing a belief that they do not belong in the occupation. Gaucher (2011) stated, “The mere presence of masculine words, can be enough to cue a woman that she does not belong” (p.110). The decision to avoid applying for a vacant position or attending a site
visit/open house has more to do with the wording of the advertisement than with the skill sets carried by the woman (Breaugh, 2013). Using appealing wording, women are likely to respond to opportunities of site visits/open houses for exploring job opportunities (Newman et al., 2009). A study conducted by Gaucher et al., (2011) in which 28 women and 15 men were given six job advertisements and then questioned about their perceptions of the ads proved that when advertisements are unbiased women show a high level of interest in male-dominated jobs. That is, the advertisements make reference to both males and females being able to complete the task (Gaucher et al., 2011). The wording alone can be enough to send a message that either helps or hinders the recruitment process. According to findings from research conducted by Gaucher et al. (2011), words such as *competitive, dominate, and leader* sent a message of male dominance and deterred women from the job description within the advertisement. Women take a more communal approach using social and emotional words as an appeal versus those that allude to dominance and competition within the workplace (Gaucher et al., 2011).

In addition to appropriate wording that appeals to genders, corporations should consider the use of minorities within the pictures used in flyers and advertisements. Women and girls need to see someone of their gender successfully fulfilling the role within a nontraditional career setting. Through the use of advertisement images, girls and women will be provided with a role model image that displays their gender successfully filling the role in a way that will appeal to their senses and peak curiosity and interest (Newman et al., 2009; Olson, 2013). Therefore, the jobs being advertised will appeal to
women and there will be a positive response to the recruitment technique by seeing an increase in the amount of women who respond to the opportunity of employment.
Chapter 3: Research Methodology

Scenario/Situation

Economic changes that occurred in the 1990s brought awareness to employers that the pool of qualified candidates available to fill skilled labor jobs is small. Fewer skilled workers are entering the workforce to fill positions that require specific technical abilities and a qualified knowledge-base for jobs (Collins et al., 2002). Contributing to the problem is the demographic trend in the baby boom generation reaching the age of retirement. With less candidates applying for skilled technical jobs, and retirements opening up employment opportunities within skilled technical fields, employers have begun to look into ways to reach populations they may not have considered in the past. Employers must begin to consider how to attract new employees.

In addition, the techniques used in the past may not be suitable for the current workforce; specifically among minority groups and the female gender. Women continue to be underrepresented in many areas of employment throughout the United States; this includes skilled labor and technical jobs due to those jobs being considered as nontraditional career choices for females (Gaucher et al., 2011). Therefore, it is important for researchers to develop an understanding of what barriers women face in choosing to follow a path considered ‘nontraditional’. Identifying common socialization issues that occur within the classroom setting, the home, and among continuing education facilities will help uncover ways in which educators, career counselors, guidance counselors, and companies can work to better recruit and retain females for ‘nontraditional’ careers and close the skilled labor gap and wage gap.
Location of the Study

Southeastern Ohio is a manufacturing hub due to its location to the Ohio River. It is an area that has recently been impacted heavily by the shale plate natural gas pipelines that have been utilizing horizontal drilling and fracking to encumber mass amounts of natural gas. In addition to the increase in jobs to the area from natural gas drilling, Washington County also has an abundance of manufacturing facilities that employee people from the entire southeastern Ohio region. Of the top 13 employers in the county, 8 are major manufacturing facilities (Ohio Development Services Agency, 2015). Those manufacturing facilities employ individuals who work in a variety of fields, including the areas of carpentry, welding, electrical, and pipefitting. Jobs projected as having the most growth fit within the category of ‘nontraditional’ to women. Expected to grow 12.7% are construction labor jobs, 13.7% growth for electricians, and manufacturing labor is projected to grow 5.1% over the next ten years (“Occupations with the most job growth,” 2016)

In April of 2016 the Bureaus of Labor Statistics reported that the national average for unemployment was 4.7%, the state average was 5.1%, and Washington County was listed as 6.7% (“Occupations with the most job growth,” 2016). Contributing to the high percentage rate of unemployment and poverty for Washington County are women without jobs or jobs that pay below the poverty line. Poverty status is determined by the income a family receives and how many individuals or dependents are supported by that income (“Occupations with the most job growth,” 2016). Each year, the United States Census Bureau establishes a threshold for determining poverty based upon inflation
Family size and composition in relation to income of the household are determining factors for poverty. The poverty threshold for a single parent with one child in 2014 was $16,317 (DeNavas-Walt, C., & Proctor, B. D., 2015). In 2014, the state of Ohio reported that 1,648 individuals living in Washington County lived below the poverty line. Of those individuals, 35.3% were females with no husband present raising children. Additional statistics gathered show 1,483 (9.0%) women being the head of the household and contributing to the labor force of the county, while 859 (5.2%) members of the female population were head of the household but without a job. In comparison to the males of the county, the females show much higher percentages of being the head of the household, single, and without a job. Males only show 1.4% without holding a job and being the head of the household and unmarried.

Due to the high number of manufacturing opportunities in the area, many of the careers offered are traditionally male oriented (Ohio Development Services Agency, 2015).

This study provides timely support for building an awareness to career opportunities for women. As the shale plate drilling continues, an additional workforce will be needed that has the hands-on skills to manufacture, craft, build, and produce products as per the growing demand in the area. With 29.9% of the population in Washington County ranging in age from 45 - 64 and only 9.1% being between 18 - 24, it is important to consider who will be filling the growing need for manufacturing and skilled labor jobs that make up the skills gap (Ohio Development Services Agency, 2015). Located within the county are two colleges, an adult education facility, a career center and various trades organizations training facilities. Therefore this allows for a
variety of opportunities for females to become educated in a skill or trade in which they would be able to pursue for a higher wage. That is why Southeastern Ohio was chosen for the study.

**Research Question**

The question the researcher would like to answer is what experiences females face as they entered into the nontraditional career setting, and which of those experiences throughout their life shaped the decisions made to enter into a nontraditional career setting. The researcher will be looking for an answer as to which factors lead women into nontraditional careers and whether there is one factor that has the biggest impact on influencing females to pursue a nontraditional career. Specifically, the researcher will measure through phenomenological interviewing the factors of family, educational setting, gender identity, attitude, personal experiences, hands on experiences, recruitment techniques and role modeling as a way of determining if one has more impact on a female’s career choice than the others. The factors being measured were chosen from articles written by Linda Brooks, Jacquelynne Eccles and Allan Wigfield who used them for guiding their own research. Throughout the research, the chosen factors were identified as carrying weight in helping a child decide upon a desired career path. Specifically, the researcher used theoretical frameworks designed by Wigfield et. al. (1991) along with Brooks (1988) to narrow the focus to four factors; all of whom modeled their work from Linda Gottfredson’s Theory of Circumscription and Compromise.
While conducting research, the researcher will be looking to identify which factor is the most influential. In analyzing the data, the researcher is hoping to see a trend in role modeling, hands-on experiences, or recruitment. Based upon the readings, it is believed that visual imagery will be an important factor; if seeing one’s self in a particular working role and being able to associate with the image, self-efficacy increases. The researcher is also aware that additional trends may emerge in gathering of data that may add to those factors not otherwise considered.

Trades and skilled labor jobs are becoming less desired by the younger generations. Pressure from parents and educators to pursue a college education are leading fewer students to transition into the skilled labor and apprenticeship programs after high school. Galeshi (2013) provides statistical data that a quarter of the current workforce in the fields of science and engineering are over the age of 50 years. In addition to the lack of individuals, especially female, not pursuing jobs in the nontraditional setting of science and engineering employers are also faced with the 5% growth of jobs within those fields. The lack of entry, the high number of baby boomers retiring, and the increased growth in the field of study add to the continuous widening of the middle skills gap (Career Builder, 2014; Galeshi, 2013; Toglia, 2013). Due to the demand for skilled labor on the rise, the compensation for such careers is much greater than in the past. The majority of individuals who do seek skilled labor occupations as a career option are males; skilled labor and trades work are not highly sought by females.
Methodology

The research design used will be qualitative. A qualitative approach was chosen as the research design method based upon the need to gather data that shared individual experiences with the topic. The information will be gathered from the individuals in the study with the use of phenomenological interviewing. As suggested by Woodfield, “Listening to and reading participants’ accounts constitutes an attempt to map the web of meanings they give to various phenomena and experiences” (Woodfield, 2007, p. 77). The interview process allows for the data to become personal versus data points within a survey.

The phenomenological interviewing will be conducted in a series of three separate interviews that could take up to ninety minutes in length. Each interview will build upon the previous one with the questions delving deeper into the thoughts and influences that played an important part in the career choices of the research participants.

The questions used in the interviews were carefully chosen. To avoid using vocabulary that was vague or that of a reading level beyond that of the participants. The researcher shared the interview questions with three women within the age range of 35 – 47. All women who reviewed the questions had graduated from high school and had some post-secondary education / technical training. Questions they posed about the specific words or the responses given helped the researcher identify the need to make minor changes to the interview questions to assure a response provided by actual research participants will provide accurate information for identifying defining variables for career choice and development as a female.
With qualitative data being gathered, there are five approaches the researcher could take. The five strategies for inquiry for gathering qualitative data are narrative research, phenomenology, grounded theory, ethnography, and case study (Creswell, 2013; Creswell, 2009). For the purpose of this study, phenomenological interviewing will gather the best qualitative data. Woodfield (2007) identified qualitative methodologies and the interview process as the approach to best produce truthful data with less biased accounts as compared to other methodologies. Interviewing is a research technique most popular in gathering data for recurring themes and accounts. It is a favored technique for gathering data from female research participants when searching for a complex phenomenon and an explanation as to how that phenomena exists based on the social and verbal nature of a female (Woodfield, 2007).

Phenomenological interviewing is a strategy that allows the researcher to become familiar with the shared human experiences around a central phenomenon. As a researcher, it is a way to help theorize the ways in which ideas and thoughts manifest themselves and appear throughout the world (Creswell, 2009, 2013; Vagle, 2014; Woodfield, 2007). In the case of this study, the phenomenon being researched is the strength that the chosen factors play in the decisions a female makes in pursuing a nontraditional career. All individuals chosen for the study will be actively working within the field of a nontraditional female career; however it is believed that each individual ended up choosing the nontraditional career path in very different ways. Therefore, the strategy of phenomenological interviewing is the most appropriate to use
in gathering data for the study. It will allow the researcher to capture detailed lived experiences from research participants that can identify leading factors in career choice.

Phenomenological interviewing was chosen as the primary method for gathering data due to it allowing for individuals to share their lived experiences with an emphasis on the experiences of each individual and how it impacted the decision made (Creswell, 2009; Moustakas, 1994; Seidman, 2007; Van Manen, 2014). In *Qualitative Inquiry and Research Design*, Creswell (2009) stated that the purpose of phenomenological interviewing is to reduce down the experiences of those being interviewed in order to grasp the factors that are similar. The *phenomenon* in the research is the similarities that emerge among the data with those who participate in the research. Moustakas (1994) values the use of a qualitative design due to the human experiences not being “approachable” by using quantitative measures.

The researcher will gather data from the interviews and then code to allow for identifiable themes to emerge that will highlight factors that played an important role in the research participants’ decision to choose a nontraditional career. Using the data gathered from the interviews, it is possible to better understand the human behaviors associated with the choices made by the individuals. Those behaviors can then be scientifically applied to a larger population as to how they were recruited into the nontraditional work setting (Moustakas, 1994). Interviews also reveal a deeper understanding of the concrete decisions made by the participant. By exploring the lived experiences of the participant, insight is provided that brings a better understanding of their world and how their decisions can impact others in the future (Van Manen, 2014).
Participants will be chosen based upon their employment within nontraditional careers. Women chosen for the study may be former students of the local career center, adult technical training facility, local community college, and local trades unions within the southeastern portion of Ohio. Due to abundance of jobs within the areas of welding, pipefitting, carpentry, electrical, and sheet metal work, a female working within at least one of those fields will be sought for the purpose of the study. Additional nontraditional career participants could be identified if the need arises to interview further candidates, or if limited participation is a factor among the desired nontraditional fields in which to interview candidates.

The participants of the research will participate in three interviews conducted over a two-month period of time. Each interview could last approximately ninety minutes in length. The first round of interviewing will be conducted using ontological questions. Ontological questions explore the interpretive meanings that can be found within the personal information and data given during the interview process. The goal of the first interview will be to gather as much detail about the individual and their relevance to the study. The first interview will also allow the research to gather data about the field of work and the behavioral practices encompassed by being a part of a particular working group.

The second interview will be a chance for the researcher to develop a deeper understanding of the participants’ experiences. In the second interview, questions will be asked that allow for the individual to provide details by reconstructing events that led them to choosing a nontraditional career path beyond what has already been shared.
Seidman (2007) suggests that the results of the second interview should not be opinions based upon the previous details from the first interview, but instead the interview should provide details that helped the participant form their opinions. It will be a time for the researcher to gather data about choices made and the participant’s role within their home. Understanding the identity of the individual while at work and while at home will help better define the way job related stress is managed as well as success. Questions in the second interview will also allow the researcher to gather a better understanding about the career paths of the participants’ parents.

The third and final interview will serve the purpose of finding meaning within the choices. This is data that will help the researcher make the connection between the meaning of the decisions made and the “emotional connections” between work and life for participants (Seidman, 2007, p.22). The questions used for the third round will be epistemological questions. Saldaña (2013) defines epistemological questioning as questions that address the theories of knowing and understanding the phenomenon of interest. In this research, the phenomenon of interest would be the emerging factors that impact the decisions females make in choosing a nontraditional career.

The open-ended interview questions will provide the researcher with the chance to gather personal stories and information providing an in-depth and personal look that quantitative data cannot provide (Creswell, 2009). It will allow the researcher to uncover themes and trends that the women have shared over time and through lived experiences of pursuing a career in the field. Purposeful selection for the research will occur due to needing women of all experience ranges to participate. By choosing women from
nontraditional fields with multiple ages and experience levels, discoveries will be made based upon the personal stories that are shared through the interviewing process. The researcher will be searching for a phenomenological answer to the research question by combining data gathered from the three interviews.

**Analyzing and Coding Data**

Coding of the data will be based upon which interview is being used. Saldaña suggests coding the data in cycles. Within each cycle, particular approaches to analyzing and coding can occur. First cycle coding is broken down into seven subcategories (Saldaña, 2013). Within the first cycle subcategory, for the purpose of this qualitative study, the method used will be elemental. Within elemental methods, Saldaña (2013) further identifies coding techniques that are appropriate for gathering a group’s subculture terminology. The technique is called In Vivo Coding. This is the type of coding that the researcher will use within the first round of interviews. The purpose of this research and the data being collected is to capture the voices of women who have entered into the nontraditional career setting. By using In Vivo coding in the first round of interviews, the researcher will be able to better understand the subculture and micro cultures that may exist within the women who enter into a nontraditional field. Saldaña stated in his book *The Coding Manual for Qualitative Researchers* (2013) that In Vivo coding allows for the voices of the marginalized participants to be heard. “Coding of their actual words enhances and deepens understanding of their culture” (Saldaña, 2013, p.91).
In Vivo also allows for the participants to share information that highlights the problem at hand and how they as individuals within the field process the problems. It allows for participants being interviewed to provide a level of meaning and understanding to the shared phenomenological views surrounding women within the nontraditional career setting.

During second round of coding the researcher will code using another form of elemental method. In the second round of data collection, the researcher will use two techniques for coding the data. The first technique used in the second round of interview data will be emotional coding. The researcher will then review the data a second time and code the interview transcripts again using values coding.

Saldaña warns researchers that when pairing coding techniques be sure to watch for compatibility to assure that the coding process does not skew the data. “One coding method may suffice and stand alone, or two may be needed to capture the complex phenomena in the data” (Saldaña, 2013). Emotion and values coding is compatible for the purpose of this study. Emotions coding will be searching for words within the participants’ answers that provide feeling, thoughts, and propensities to act concerning the topics presented in the second interview. The researcher will then review the transcripts and code the responses based upon values coding. Key words searched for within the responses will identify the participants, values attitudes, and beliefs surrounding the topic (Saldaña, 2013).

The final round of coding will consist of searching for emerging themes. The coding for the third interview will be Focused coding. Focused coding is particularly
appropriate for use in studies in which the researcher is looking for major themes to emerge from the data to help better understand the lived phenomena of the participants (Saldaña, 2013). Within the purpose of this research, it will allow for themes to be compared and analyzed to determine the value they hold in the factors being measured.

**Limitations**

The limitations to the study will be what access the researcher has to a diverse pool of participants; in addition their willingness to participate and volunteer to be part of the study. Being an individual who did choose a “traditional” career path, gaining trust and respect by participants may be a challenge. The researcher can relate to the participants in that they share location similarities; being from the southeastern part of Ohio and choosing to live and work in southeastern Ohio. However, the experiences that the researcher faced in being trained to fulfill her current role as an educator may have been very different than that of the women who chose the nontraditional career route. Gaining that trust and respect will take time. Trust is what will lead to honest answers while conducting the phenomenological interviews.

Therefore, the time needed to gain trust and respect can bind my study. It can require more time than planned for gathering data within the field. As an outsider to the profession, the researcher will have to establish trust among the participants and a sense of importance for the study being conducted. The participants will also need to find value in the research in order to provide the necessary data for the researcher to analyze and not fear that honest answers will result in negative consequences among superiors and their professional colleagues.
The nontraditional careers in which women can be employed are great in number, what is not possible for the study is to include all of the nontraditional careers available to women within the southeastern Ohio area. Knowing that not all careers can be represented equally within the study, the researcher will have to look at which nontraditional jobs are available to females, which nontraditional jobs have females performing them, and finally which nontraditional jobs are difficult to fill due to having limited skilled labor. By pinpointing a particular type of nontraditional job, it will allow the research to remain focused and help address the limitations faced in gathering data. For example, recognizing that welders in southeastern Ohio are in high demand due to the shale plate gas line, gathering data about female welders would be possible. In addition, the data gathered would help businesses and union trades organizations better understand what may be hindering women entering into the career of welding.

Other limitations may come in the form of participant point of view. Those participants who are younger may not have as strong of opinions about the topic and not take the issues of barriers within the profession as strongly as those who have faced them regularly. Their results may be skewed. Participants in the study must find value in the gathering of the data and be able to take the time out of their schedules in order to participate. In addition, participants must have also experienced the phenomenon in which the researcher is studying. In order for the data provided to be of value to the study, it must be a lived experience that demonstrates similarities to other participants in the study. The lived experiences need to fall within the category of what the study is trying to gather (Creswell, 2013).
The researcher will also have to depend upon the resources provided by schools, career centers, community colleges, and employers in order to have access to women who have been trained for nontraditional careers. The response time from those facilities may hinder the time frame necessary to gather the data within a reasonable amount of time. It will also require for those sharing the data to find the information valuable for their own knowledge and growth as a company or training facility. When asking for the assistance of schools or training facilities, the researcher will need to be cognizant of critical dates that need to be met by the facilities. Therefore, understanding the school/training schedule will be important for maximizing participation.

Another limitation faced by the researcher is the assumption that barriers exist for women within nontraditional career settings and within their lived experiences. As a nontraditional career for a woman, it is only assumed through literature reviews and previous conducted research that women face barriers when opting to choose a career that is deemed nontraditional. The researcher may discover, upon analyzing the interview questions, that the women feel as if they have not been faced with barriers that hindered their career choice. The women may feel as if their opportunity to grow and be accepted within a male dominated career setting has been a positive experience from the start of their training.

In order to better understand the female workers and the assumed barriers they face, it will be important for the researcher to become familiar with the work environment as well as speaking to the participants face to face. Therefore, the distance between the researcher and the participants could hinder the length of time needed to
gather data for the research. Distance and time also cost money for the research. If shared experiences between the participants and the researcher do exist, that could impact the way in which data is interpreted. The researcher must be aware when analyzing the data and searching for emerging themes. As Creswell (2013) states, “The researcher must decide how and in what way his or her personal understandings will be introduced into the study” (p. 83). Being unaware will cause limitations. That is why *epoché* and ‘bracketing’ are so critical; this methodological process allows the researcher to suspend understandings and mindsets that could impact data analysis (Creswell, 2013).

**Validity and Credibility**

With the particular study being conducted, it is important that the researcher gather lived experiences of females who have entered into the nontraditional career setting. Without their stories to add to the quantifiable data, a portion of the research would be lost and understanding of the numbers would be difficult. The lived experiences will hold great weight in analyzing the data. Qualitative data provides a deeper meaning to what quantifiable data is unable to display (Whittemore, Chase, & Mandle; 2001). The majority of published research conducted thus far have been quantitative. It has not captured the lived experiences that phenomenological interviewing provides that allows for depth to be applied to numerical data and an explanation that a quantifiable study does not necessarily provide.

For the sake of validity, taking a look at the qualitative data will be especially important. Whittemore et al. (2001) clearly state, “validity standards in qualitative research are more challenging because of the necessity to incorporate rigor and
subjectivity as well as creativity into the scientific process” (p. 522). Some individuals do view the work of qualitative data gathering and analysis as vague.

Thoroughness requires giving attention to the themes that emerge and all of the ideas shared through the phenomenological interview process. It is a complete look at all of the data and assuring that the research questions that were asked are answered in a way that is convincing and accurate to the findings in which the researcher is seeking (Whittemore et al., 2001).

Attention must be given to the sensitivity of the data being collected as well. As a researcher, it will be important to be cognizant of the fact that women will be answering questions about the ways in which they have been treated by colleagues and places of employment. Protecting the rights of the individual while gathering accurate data will be key. Whittemore et al. (2001) advise that research being conducted should be beneficial to those involved in the study. Women who walk away from the study should feel as if the information they provided will help young females in the future have an easier transition from education to career no matter which route they take, traditional or nontraditional. Therefore, protection of identities of the multiple voices providing perspective and lived experiences will be important. Full disclosure of how identity is protected must be shared early within the research process with interview participants so that information is not withheld that could contribute to the data being gathered about experiences and barriers in which females face.

The study must also provide valuable information for those in the process of recruiting women for nontraditional careers. Individuals who work for training facilities
and human resources directors working for corporations will be interested in the data provided from the study due to the amount of unfilled skilled labor jobs. Therefore the study must prove valid and accurate among educational institutions and business.

The biases in which the researcher has about the topic can hinder the data. Recognizing that upon the start of data collection can help the researcher pull away from ideas in which she feels heavily impact the decisions made by the females being interviewed. It is important that the researcher should clarify the biases and share those early on to allow for the audience to see the lens in which the researcher is viewing the data (Creswell, 2013).

Creswell (2013) provides a checklist of ways in which researchers who use phenomenology can check the accuracy and validity of the data they are presenting. Therefore, in using phenomenological interviewing the researcher will use the checklist provided which asks for the researcher to clearly articulate the phenomenon being studied, identifying the phenomenological procedures, conveying participant experiences, and be transparent about researcher bias. Setting aside those biases and researcher experiences as much as possible is critical in allowing the research to take on a fresh perspective from the viewpoint and experiences of the participants. Recognizing researcher experiences that can hinder the results of the data and being transparent about them from the start is called epoche. This transparency is important to the validity of the study being conducted (Creswell, 2013).

In addition to transparency, another way of validating the data that has been collected will be through a process called member checking (Saldaña, 2013). The
researcher, while conducting subsequent interview, will data check with research participants by asking clarifying questions based upon information obtained from other participants. This also will help the researcher verify internal thought during interviews of other participants. This technique will allow for the researcher to validate information with other research participants. Information in the interviews being provided may not hold as much meaning to the researcher as it does those in the field. Therefore, by using member checking, the researcher will be able to confirm information in which she is not familiar due to lack of familiarity with the work environment and challenges that women within a nontraditional work setting face day to day.

**Conclusion**

In order to capture the data necessary for researching women within the nontraditional career setting, a phenomenological interview will occur. The researcher will ask the women to be reflective of their formative years in education and identify factors which played the biggest part in their determination to go the nontraditional career route. The factors include family, educational setting, gender identity, attitude, personal hands on experiences, and role modeling.

After conducting the three rounds of phenomenological interviews, the researcher will use the data given by all of the interview participants in hopes of finding emerging themes and trends to answer the phenomenon of the study; what factors carry the most importance in helping a young girl make the decision to enter into a nontraditional career field.
Chapter 4: Presentation and Analysis of Data

Overview

This study examined the factors that lead women into nontraditional career fields and identifies what factors are the most influential when making the decision to follow a nontraditional career route. This chapter will review the data that were collected from the interviews that were conducted with research participants who are currently working in a nontraditional field or have retired from a nontraditional field. An analysis of information gathered from the interviews will be provided in this chapter from the five women who participated.

This chapter will provide a brief description of the participants, as they all had valuable information to add to the study based upon their years of experience and exposure to circumstances most women in traditional ‘female’ careers may not face.

The results of the study will be presented in this chapter and will be used to answer the two research questions:

1. Which experiences throughout life helped shape the decision for the female participant to enter into the nontraditional field of work?

2. What experiences did the female participants face as they entered into the nontraditional career setting?

Using the data from the interviews and answering the research questions, the researcher will be looking for which factors lead women into nontraditional careers and whether there is one that has the biggest impact on influencing females to pursue a nontraditional career.
Using In Vivo Coding, Emotions Coding, and Values Coding, as suggested by Saldaña (2013), the researcher was able to extract meaning from the interview responses, code them accordingly, and then group them in an Excel spreadsheet by factors being measured.

Participants in the Study

Gathering participants for the study depended greatly upon the support and involvement of personnel at the local career center, community college, and local trades organizations. With the help of individuals who had contact information on women who completed coursework in nontraditional career fields, the researcher was able to contact local women for the qualitative study. Of the list of eleven names given to interview, only three of the women agreed. The fourth participant offered to be a part of the study upon learning about the purpose and the target audience. The fifth research participant was made aware of my study from a friend and agreed to participate; a snowball effect (Seidman, 2013). Although the original number of ideal participants was greater than five, the information provided reached data saturation prior to having to seek a sixth participant. The information provided by the participants overlapped in multiple areas of the study.

All five women in the study shared similar experiences of working in a nontraditional career field. However, the experiences they brought to the setting and the time in which they started varied among all of them.

Table 1 provides a brief overview of age range, college experience and current professional placement for the five participants. Two of the participants interviewed were
apprentices in the local plumbers and pipefitters. One of the apprentices had gone to college, received a degree in welding and then joined the local trades organization after leaving a manufacturing facility. The other female apprentice had exposure to welding within her high school education, but pursued her career in welding after her senior year at the career center without any college. However, she did receive training through the local plumbers and pipefitters training facility. One female interviewed retired from pipefitting after thirty years in the field. Continuing to value the profession, she teaches incoming apprentices in the evenings. Two of the females interviewed had career paths that were unplanned and multiple opportunities to try new tasks within their career path.

Starting out in carpentry at her father’s business, one participant gave up opportunities to play sports in college in order to make money working with her father and then later became a senior human resources director for a major southeastern Ohio manufacturing facility. The final female participant began her profession as a heavy equipment operator within a power plant coal field and then moved into a role as electrical technician following an accident that hindered her ability to perform the physical tasks of the coal fields.
Table 1. Female Research Participant Demographic Data

<table>
<thead>
<tr>
<th>Name</th>
<th>Age Range</th>
<th>College</th>
<th>Career</th>
<th>Childhood Dream Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taz</td>
<td>55-60</td>
<td>No</td>
<td>Retired pipefitter/instructor</td>
<td>Teacher</td>
</tr>
<tr>
<td>Jackie</td>
<td>30-35</td>
<td>Yes</td>
<td>Electrical technician</td>
<td>Truck driver</td>
</tr>
<tr>
<td>Anne</td>
<td>25-30</td>
<td>Yes</td>
<td>Pipefitter Apprentice</td>
<td>Flight attendant</td>
</tr>
<tr>
<td>Bella</td>
<td>20-25</td>
<td>No</td>
<td>Pipefitter Apprentice</td>
<td>Veterinarian</td>
</tr>
<tr>
<td>Beyoncé</td>
<td>45-50</td>
<td>No</td>
<td>Carpenter / Senior HR</td>
<td>Vet, nurse, accountant, dancer, politics</td>
</tr>
</tbody>
</table>

The Researcher

The experiences of the participants and researcher have an ability to impact outcomes and shape the way information is interpreted and perceived (Bourke, 2014). Learning to set aside your own mindsets in order to capture the data is part of being a qualitative researcher (Creswell, 2013). Therefore, it is important that as the researcher I am able to recognize the role I played in the process, what experiences I had as an individual living in southeastern Ohio, and the lack of familiarity I have with working in a nontraditional environment.

Growing up in a rural part of southeastern Ohio, I had the opportunity to experience what it was like to raise animals for 4-H, see a father who worked a factory job, and witness the act of completing manual tasks such as welding and carpentry in
order to build a new structure or repair an existing piece of equipment. I also experienced many male family members who farmed, got involved in trades jobs, and was successful at owning a business that would be considered a nontraditional career field for women. Although my family had an abundance of trades workers, none of those individuals were women. The women in my family pursued traditional roles and seemed to maintain the clearly defined expectation of wife/mother once married. Although my mother was a professional who made the higher income of my parents, she still maintained an office job in accounting that had a strong female presence. She did not pursue a nontraditional job. When choosing my own profession, I chose one of the most traditional female career fields for women, education.

The role I played within the household was far from the traditional role of a wife. The responsibilities were equal with a division of tasks set between both my husband and me. Construction and cooking had no gender expectation within the home; they were both shared responsibilities of living as a family.

I recognized the importance of this study when as an educator I was continually introduced to female students who did not fit the traditional mold. They did not fit within the box drawn around them in education and within society. They also did not fit within the expectations being set for them to enter into a college program post-graduation. Although they were able to use their hands and think creatively, the educational environment and society in which they lived did not support female exploration in careers considered nontraditional.
As an educator and as a woman who did not allow gender definitions to dominate within the home, it was hard for me to see students struggle with the demands placed upon them and lack of options. Therefore, the research conducted in this study forced me to truly listen to the position these women took in society and the barriers often faced without interjecting my own beliefs. I had to refrain many times from wanting to share stories from my own childhood that paralleled that of the research participants. I also had to be reflective on the roles various individuals played in the lives of these women and listen silently as stories were told about educators and family members who were supportive and unsupportive of the long term career goals they had set for themselves. As a strongly opinionated independent female, it was difficult at times to remain silent. However, it forced the words of the participants to be listened to and the emphasis they placed upon words, stories, and feelings to be heard.

**Interview Process**

The research participants met with the researcher on three separate interview dates to answer questions about the experiences they faced on the job, their role in the household, experiences they had with post high school education, and family perspectives on their career choice. The information that they provided uncovered many common themes and situations in which they encountered; many of those situations being similar although they spanned in years. The experiences they shared proved that entering into a nontraditional career field, although financially appealing, comes with a level of sacrifice and cost. Participants were open and honest about situations they encountered that would be appropriate for males, but not appropriate for females. Some participants shared
medical situations that hindered their ability to perform assigned tasks and how the situation was viewed and unfairly addressed by male supervisors. Experiences of compromise for their gender were shared by all. Learning to accept the role of “worker” within a nontraditional career field and overcome the challenges of a male dominated world proved to be hurdles for performing daily tasks. Navigating those hurdles successfully was a conversation in which all of the research participants had a strong view. Sharing those perspectives of success and offering honest viewpoints of the hard work for the profession was something in which they all were eager to do. Throughout the interviews, it was made clear that entering into a nontraditional career field for women was not something in which all women should do based upon the fact that the job requires a high level of physical performance and tolerance for behaviors not always experienced in jobs considered traditional to females.

Data Overview

Participants in the study were asked to participate in a qualitative study using interviewing as the way to gather information about the experiences they had entering in the nontraditional field of work, working alongside men, seeking family support, and then interacting with others while working within a nontraditional career field. Interviews were held over a two-month time period. Participants were interviewed on three different occasions with a different set of questions each time.

The location of the interviews varied based upon availability of the participant, work schedules, and physical location in relation to the researcher. Two of the participants met in an office setting off site of their work. Two participants allowed for
the interviews to be held at their work site while tasks were not being completed; one was an office space while the other was a training facility. The final participant lived an hour away and therefore interviews were held at an establishment close to her residence.

The interview questions were used to gather various points of information. The coding used for each interview also matched the data being gathered from each round. Interview questions were piloted with women prior to gathering data from the participants in the study. Although the questions asked were similar in nature and allowed for the researcher to gather the necessary data, the way in which the questions were posed to each research participant may have been different. Vagle (2014) states in his text, *Crafting Phenomenological Research*, that it is not “necessary or desirable to ask the same questions the same way” to each participant (p. 79). Due to the variety of ages, professions, and experiences it was appropriate to form the questions based upon the diverse research participants with the goal of gathering the same information. Although the basis of the question was the same, based upon previous information provided, the wording may have differed from participant to participant.

**Cycle Coding**

The researcher used manual coding following each round of interviews. The three styles of coding that fit the research were In Vivo Coding, Emotions Coding, and Value Coding. Each set of interview responses was coded using these strategies. While coding the data, the researcher extracted words and phrases that gave voice to the female participants, showed strong emotion, or demonstrated a strong belief or value system that defined them as an individual.
**First cycle: In vivo coding.** In Vivo coding was used to pull subculture terminology and marginalized voices from the spoken words of the participants during the first phase of coding. The researcher was searching for words that had a strong connection to the subculture of the nontraditional career as well as opportunities in which the participant shared stories of marginalization. As words were found that expressed support or lack thereof, the researcher would extract the quote from the transcript notes and place the words in the Excel spreadsheet.

**Second cycle: Emotions.** The second cycle of coding the researcher was searching for words associated with feelings, thoughts, and propensities to act; this was when Emotions Coding was used. The researcher was able to identify the personal feelings and emotions that were attached to each participants’ situations on the job, family member reactions, and reflections of current placement.

Words that evoked a strong sense of emotion or words that received strong emphasis during the interview were marked. The goal was to explore emotions attached to intrapersonal and interpersonal experiences (Saldaña, 2013). The emotions the researcher was most interested in were happiness (H), anger and frustration (A/F), or sadness (S). When coding for the feeling of anger, Saldaña suggests that the researcher also tries to locate the trigger for that emotion. When anger and frustration are found in the spoken words, there is also tension or conflict (2013).

Throughout the transcripts, the researcher would mark codes associated with those particular feelings. Additional emotions were also added to the Excel spreadsheet if they were significant to the study and could add to the findings; they were marked as
other (O) and then placed accordingly on the Excel spreadsheet. Two additional emotions that emerged with the majority of the female participants in the study were defeat and courage.

**Third cycle: Values.** Values Coding, the final cycle of coding, was used in order to pull out words associated with values, attitudes, and beliefs about working within the chosen nontraditional career fields. Values Coding allowed the researcher to identify roots connected to past experiences that may have led the women into the nontraditional career. The questions asked to the participants were reflective of past experiences, relationships, and lessons learned over time. During the third cycle of coding, the researcher looked for words that demonstrated value (V), attitude (A), and belief (B). All were marked accordingly based upon one of the three values and the codes as suggested by Saldaña (2013). The values data allowed the researcher to develop a deeper knowledge of how each participant viewed herself and the belief connected to her opinions, experiences, personal knowledge, and perceptions of the social world (Saldaña, 2013).

The third cycle of coding was critical to establishing a full understanding of the participants. The researcher had to view the participants’ spoken words from the value lens. Information offered and coded in the third cycle could provide a thorough understanding of the cultural milieu and the individual’s locus of control. The information extracted during the third cycle of coding and placed within the Excel spreadsheet helped support a deeper understanding of those two factors: locus of control and cultural milieu.
**Organizing Data**

The researcher created an Excel spreadsheet for each round of interviews and categorized the comments that were coded based upon the individual. Words were then highlighted that showed common perspectives; the coded words fit within the four factors identified in the Hall Expectancy Value Conceptual Theory shown in chapter one as Figure 1.1. Responses were placed in the chart by each participant’s name and then highlighted based upon one of four factors; parent support, role modeling, hands on experiences, and locus of control. Cultural Milieu was also color coded for the chart so that comments that helped define the cultural milieu of each participant would be noted.

The color codes were as follows:

- Blue – Parent Support
- Pink – Role Modeling
- Green – Hands On Experiences
- Orange – Locus of Control
- Yellow – Cultural Milieu

Using the color-coding system, the researcher was able to analyze the data by recognizing the frequency in which each participant commented on the importance of one of the four factors. Although the research participant may not have explicitly stated it, the coding of the data based on In Vivo Coding, Emotions Coding, and Values Coding helped to sort out the responses and then classify them based upon the four factors once the data was analyzed.
Analyzation

The conceptual framework shared in Figure 1 of Chapter 1 was used as a guide for helping analyze the data. The researcher was looking as to how cultural milieu contributed to parental support, role modeling, hands on experiences, and locus of control in order to determine career success. Using the information gathered from the three interviews, the researcher wanted to determine which of the four factors had the most significance on an individual choosing to become part of a nontraditional career field as well as maintaining a level of success while performing that job. Understanding the cultural milieu of the individuals being interviewed assisted in developing a better understanding as to why one particular factor may have been the strongest.

In the first interview the goal was to help define cultural milieu for each individual. As the interview took place, it would be easier to connect responses to one of the four factors. The researcher was seeking an understanding for how the career path evolved for each participant. The researcher asked that the participant reflect upon individuals who may have supported their progress or got in the way as they were working toward the nontraditional career path. During the second and third round of coding, the majority of this information emerged.

To understand the impact that each factor had on the participants, the researcher grouped the factors with the research questions. The first question the researcher hoped to answer was which experiences throughout life helped shape the decision for the female participant to enter into the nontraditional field of work. Of the factors being measured, responses that were color coded in the Excel spreadsheet as being cultural milieu
(yellow), hands on experience (green), role modeling (pink) provided the best support. The second question asked, what experiences did the female participants face as they entered into the nontraditional setting. The factors that provided the best evidence for this question were locus of control (orange), parent support (blue). Cultural milieu (yellow) was referenced again as well.

**Question #1: Life Experiences that Shaped Nontraditional Decisions**

The career path evolution for each individual was different. All faced challenges along the way, but some challenges were easier than others. One of the shared struggles they faced was the cultural milieu of society; cultural milieu is the acceptance of what is socially acceptable based upon gender roles, stereotypes, and beliefs. All of these women entered into their nontraditional careers in southeastern Ohio; a conservative portion of the state.

**Cultural milieu: Taz.** Taz, the veteran of the group, accepted the societal norm of marrying quickly after high school. Marriage and the need to make a steady pay was the determining factor for entering the trades. Being the youngest in her family, her other siblings had pursued college and jobs that were considered “traditional”. Taz’s parents were middle class business owners. Her father was a WWII veteran. The idea of entering into the trades was not acceptable within society, nor was it acceptable within her family. However, it was a decision she had to make based upon the life decisions she had made and the circumstances she faced. Taz shared her thoughts about the decisions she made.
“And that was—I was in a relationship at the time, and I married him, and I was married to him till I was 34.”

“I wouldn’t necessarily say a POOR CHOICE. I think my life would’ve BEEN EASIER had I gone to college.”

“This is a TOUGH FIELD to be in.”

Cultural milieu: Beyoncé. Beyoncé grew up in a household in which gender was not disparaging. Her parents had expectations for all three of the children to complete the necessary tasks and chores whether that included doing the dishes or gathering firewood. Exposure to a nontraditional career field occurred on a daily basis for Beyoncé. Her father owned his own construction and roofing company. As early has age 13, Beyoncé would be on the job site working to assist in her father’s success. Although opportunities to pursue college were present, the attitude that was instilled in Beyoncé at an early age was the value of hard physical work to make money. College was not a valued route at that time, although her father was a college graduate. The decision for Beyoncé to work for her father was the favored family decision although it was not a societal norm, it was how she was raised and what she knew.

“And then, um, probably by the time I was 13 or 14, started helping my dad do things in the business, where he would have me doing some of his correspondence, doing some of the generation of his books, and, you know, tallying out numbers. And then, basically, um, you know, that leading up to actually me working for his construction company.”
“My mom was a stay-at-home mom, who dreamed of being a librarian, who went back to school in her late 40s to get her two-year degree, and then went on to get her four-year, and is a teacher today.”

Beyoncé’s family had a different approach to the cultural milieu of society and what was considered traditional and nontraditional. Her mother, who played the traditional female roles, did not discourage Beyoncé to be involved with the business.

**Cultural milieu: Anne and Bella.** The two younger women of the study chose a nontraditional career route after exposure to the opportunities in high school. Being of the millennial generation, their approach to gender roles and societal acceptance was quite different. Millennials tend to question norms and challenge what others value if it does not align with their own beliefs (Parry & Urwin, 2011). Both women had early exposure to a nontraditional field in a high school setting. The opportunities they were provided by FFA (Future Farmers of America) and the local career center welding program are what led them to their chosen career path. Both found success in welding and felt confident enough in their skill to drop out of college or go directly into the trades. This early exposure helped support the attitude needed to address the societal norm. Being of the millennial generation, these women did not address the societal challenges in the same way as those participants who were older. This is due to the fact that they contribute to the changing views of society as a millennial.

**Cultural milieu: Jackie.** Of the five participants, Jackie was the one who knew from a very early age that she wanted to be a woman pursuing a nontraditional career. She was also the only one who did not grow up in southeastern Ohio. She grew up in
downtown Cleveland and would visit southeastern Ohio with her father during the summers. Jackie attended a large state college for a brief amount of time majoring in environmental science. Due to a dislike for the experience, Jackie dropped out and re-enrolled into a smaller state college majoring in forestry. During her time at the smaller school, Jackie participated in the Civilian Conservation Corp running heavy equipment and chainsaws. Jackie faced limited barriers in her decision to pursue a nontraditional career field from her parents. Although her parents wanted her to be a doctor and encouraged heavy academics by having her attend an all-girls private school, Jackie chose to follow her interests. Both of her parents were supportive in her decision. Jackie’s father had been a heavy equipment operator and her mother was a stay at home mom following years of working in a factory.

**Role Models and Mentors**

Within the first interview, participants were already identifying at least one key individual who led them into their current career path. Although one of the participants stretched to call the person a “mentor,” all participants were able to give credit to at least one individual with whom the concept of entering a nontraditional career field was introduced. This is the one common factor shared by all of the women participants.

The trust given to the mentor came at a time for all five of the women when they were facing circumstances in their lives that critical decisions about their future and their career had to be made. Circumstantial situations are what commonly solidified the decision for all of the women.
Role modeling: Taz. Taz stated, “Life led me to this career.” Taz shared that college was not what she wanted and therefore she had to consider another alternative for making money; especially because of the independence she wanted from family. It was her former husband who encouraged her to go the nontraditional route in order to make a substantial paycheck for the family.

Um, he suggested to me, ‘Why don’t you try and get in the trades? They’re taking women now’ I went down and took, um, a welding course at-at—it was then PCC. That guy down there TRIED HIS LEVEL BEST to talk me out of it. And I KINDA LIKE WELDING. And actually I applied at the electricians’ union and the pipefitters’ and I was in when I was 19. So, there was no thought process. It was just I WASN’T GOING TO COLLEGE and I got accepted.

When I asked Taz if she would have considered her ex-husband a mentor due to him leading her to that option, she made it quite clear that the word “mentor” was rather strong for him. She stated, “I wouldn’t exactly call him a mentor, but he introduced me to the trade.” Prior to working in the trades, Taz would admit she was a tomboy and would hang out in the garage with her father.

Role modeling: Jackie. Jackie had faced a major setback in finding a job. She had graduated from college with a forestry degree, but had little opportunity to utilize her education. Instead, she found herself making a limited income working for a major retail store as a forklift operator stocking goods.

So middle of my first semester, I realized, okay, you're not going to college—or you're not actually going to classes, so you're not gonna make it here. Classes
were WAY TO BIG anyway, and foreign teachers and - and it was just—it WASN’T MY THING.

Jackie had heard about a two year college in the southeastern portion of the state that offered classes in forestry. Without her parent’s permission, she drove down to the college to become more familiar with their offerings. After dropping out of the state college she enrolled into forestry and within two years earned her degree. She was still unable to find employment in which she could afford her bills and live on her own.

During a low point in Jackie’s life, she could pinpoint one individual who led her to her current employer. She classified him as a mentor and credited his forcefulness for her to apply at the power company as the reason she is where she is today. She was hesitant to pursue the work due to being a minority among the group.

I was the ONLY WOMAN, and there was probably 200 people in this room to take - to take a test. I mean, it WASN’T HARD, but it was—you know, I was like, okay, what the hell— Still surprising, but, you know, I GOT AN INTERVIEW.

Jackie started her nontraditional career in the coal yard working on unloading coal from the barges and the trains to be transported to the power house. She was able to be successful as an operating engineer for ten years before an industrial accident jeopardized her ability to walk. Upon returning to work following her accident, Jackie recognized that she could no longer do the physical labor. Jackie was able to quickly identify one colleague who made a difference and served as her mentor during her transition.
When I hired in, I met this one guy, Ed. He was an, uh—a technician. And I was like, ‘What do you do?’ I mean, I'd never really been even in construction. And he actually, you know, would diagnose what's wrong, fix it, you know, or that kind of thing. Like—kind of like a problem solver. And I was like, you know, that's - that's actually pretty interesting, you know. And he would—he actually—HE TALKED TO ME AT LENGTH, and he DIDN’T TALK DOWN TO ME at all.

Jackie meeting Ed was critical because of her accident. The life circumstance she faced was struggling with not being able to do the physical aspect of the job. For ten years she had been able to perform with men on a daily basis, but the cold outdoor environment in the winter and the daily physical work impacted her ability to perform. Her friendship with Ed and the respect she had gained for him became critical when she faced the challenge of her accident.

This is what I'm gonna do, you know. So it was in the back of my mind, but it wasn't right up. So, um, LIFE THROWS ME A CURVEBALL.

Jackie reflected on the way she felt now that she is working as an electrical technician and Ed continues to mentor her on a daily basis. She is still crediting him for her successes in a job that is nontraditional, but requires analytical work and not as much physical labor as in the coalfield.

…he's been there 38 years. He's—he KNOWS HIS WAY. I freaking LOVE IT. It is so much FUN. It is probably the first time in my life that I have WORKED
WITH MY BRAIN more than I work with my back. There's still some physical kind of stuff.

**Role modeling: Anne.** Anne had started college majoring in business administration. The experience was not what she had thought it would be and she dropped out within her first year. Without an education or career plan, Anne chose welding due to the exposure she was given by her FFA teacher at her high school. He was her mentor.

Anne had wanted to become familiar with welding due to her longtime goal of being able to own her own farm; welding was not a career option she had considered.

When I was in high school in FFA, our sophomore year we had to do welding for the class project. So I was probably the WORST ONE IN THE CLASS. And I remember my instructor saying, ‘You’ve gotta strike the rod like a boat, like how it goes over the seas—— and——because it’s stick rod, otherwise, if you just stick it, it’s just gonna stick.’ And I remember him tellin’ us there was one female in the class several years before. She was the worst person in the world at welding, and she ended up being a welder. I sa- told myself I was the WORST PERSON EVER, and by the end of the class, I WAS PRETTY GOOD.

Anne further described the value in taking a course like FFA (Future Farmers of America) during her time in high school. She credited the quality of FFA teacher she had as giving her the confidence to drop out of business school and pursue welding as a full time career. Prior to his course, Anne had not welded.
**Role modeling: Bella.** Bella was struggling in choosing an appropriate career path. She had decided to complete her high school education at the local career center. Not working to her potential, one of the teachers addressed her behaviors and academic progress. In Bella, he was able to recognize key skills she needed to be successful as a welder/plumber pipefitter. Due to the level of respect Bella had for the male teacher, she opted to focus on welding. He saw in her potential and opportunity. Because she had established a relationship with him, she listened.

My instructor down there, he kinda PUT A FIRE UNDERNEATH ME and says, ‘Hey, wake up. You’re almost done. You gotta adulthood.’ He LED ME in the right path. He was always PUSH’N ME.

**Role modeling: Beyoncé.** Beyoncé had a career mentor later in life. She had been successful in carpentry due to the skills her father had taught her. Recognizing her father as her mentor was something she would not do. She followed in his path due to not attending college and needing the money. Carpentry and understanding the business was a path used to better herself in all aspects of her adulthood jobs. Transferring those skills she had learned into a manufacturing setting is where Beyoncé faced most of her career success. The mentor she recognized as the one making the most impact was a colleague within the human resources department. He encouraged her to pursue a human resources career within the manufacturing setting based upon what he knew about her and the experience he had working with her. Filled with doubt, Beyoncé was uncertain if she would be qualified simply because she did not have evidence of an earned degree in human resources.
He always BELIEVED IN ME and told me to not get frustrated with the struggle. He just told me—he goes ‘YOU’RE THE EXCEPTION.’ He said you are an exception. He said you learn things very quick. You’re a natural communicator. You know, he just told me all these things, and I was like WOW, okay. And then he was the one that just kinda progressively—I’d take things to him and say hey, this is wrong, we gotta fix this, or we gotta—do this, we gotta do this, and he’d just let me run with it, you know. And he’d just be like holy cow, yeah, do it, please. And so, he was the one that turned me to HR.

This information that Beyoncé shared was the most significant of the interview. As a strong female, she became emotional when emphasizing the words he used to describe her as an individual and an employee. Although her father had guided her into construction and helped established a strong work ethic and mindset, it was Beyoncé’s interaction with her mentor that she credits for moving her from her previous position into human resources for a manufacturing facility.

Talking openly about mentors and the value that they brought to the growth and development of each of the women was natural during the conversation. All five had a quick response when asked the question, “As you progressed toward choosing a nontraditional career path, did you have a mentor?” All were able to respond and provide a name. By being able to quickly respond by name, the researcher was made aware that for all five women the mentor was a male in the nontraditional field of work or a male who had experienced the line of work in which he was encouraging the participant to pursue. In addition, the quick response also led the researcher to believe that the mentor
had a lasting impact. Although some of the participants’ fathers had worked in carpentry, equipment operation, and welding it was the mentor that had the most significant impact on the participant and the choice to try a nontraditional field of work.

**Hands on Experiences**

When analyzing data for hands on experiences, three of the participants could clearly state times in which they witnessed family members performing the jobs in which they did or do within the nontraditional career field. Only two of the women could be reflective of a time in which they had the chance to try the skill before choosing it as a nontraditional career path.

**Hands on experiences: Beyoncé.** Early exposure to the chosen career is not something that occurred for all of the women in the study. Of the five, only one of the women directly connected the experiences she had as a child to the line of work she entered into as an adult. Beyoncé credits knowing construction as a reason for why she did not pursue post high school education. Beyoncé reflected on her attempt to get a job at a local grocery store while in high school.

- “My father was BOTHERED BY all the ‘extra’ stuff with college. There was nobody to push me.”

- “DAD WOULDN’T LET ME get a job at the grocery store. If I was going to work, I was going to have to work for him.”

Motivation to pursue a job in carpentry was not necessarily what her father wanted either; he simply wanted her to be part of his workforce. Beyoncé worked for her father, but only into her early twenties. Following numerous struggles with her father,
Beyoncé decided to seek other employment. Using the skills she learned in construction and business helped her to succeed at a variety of opportunities prior to entering back into a manufacturing environment in human resources.

Key quotes stuck out that showed the anger Beyoncé had when reflecting on situations with her father and the comments he said. One quote shared that was frequently spoken by her father was, “I want you to do this so you know how hard I had to work.” The trigger to anger reflected in Beyoncé’s interview was often her father and him being unsupportive of her efforts elsewhere beyond his construction company.

**Hands on experiences: Taz.** As a child, Taz was interested in being a teacher. Although, life circumstances occurred with an early marriage and the interest of college became secondary. Taz’s mother stayed at home and helped to raise the family. Taz’s father owned his own business. Although Taz was a tom boy, having direct hands-on experiences with her father and welding was not something that happened or motivated her to make the career choice she made. Taz’s father was a WWII veteran and strong Republican. The ideals he carried did not match those of a Democratic trades organization or a nontraditional line of work. Upon making the decision to become part of the trades and start an apprenticeship program, Taz received pushback from her family.

- “They were not that happy.”
- “Your grandpa will roll over in his grave.” I said, “Well, I hope he does a double cuz I’m pretty damn happy about it.”
Hands on experience: Jackie. The last three participants did have early exposure, yet none of them credited their fathers or grandfathers for leading them into the profession.

Jackie fondly remembers time spent with her father on Sundays.

- “Sunday was Dad’s day. We would drive through the metro parks.”
- “Dad never brought me to work with him or anything.”

Jackie shared memories of her father’s interaction with her and the support that he gave, but it was not her father that planted the idea of becoming an operating engineer or an electrical technician. Jackie had experienced southeastern Ohio as a child and enjoyed the outdoors. Therefore, she took courses in forestry at the college level that provided the training she received for running heavy equipment. Faced with the dilemma of working a low paying job for a large retail chain, it was Jackie’s husband and friend who encouraged her to join the union and receive the training necessary to further her career and make good money. Due to her father being an operating engineer, he was supportive of her decision.

Hands on experience: Anne. When I asked Anne about parents and support she received by making her decision to become a welder her quick response to me was, “Mom freaked out”. Anne had the opportunity to weld during her FFA class in high school. Anne took FFA knowing that she wanted to own her own farm in the future. She felt that taking classes and becoming a member of Future Farmers of America would help her better understand all she needed to in order to own her own farm and care for the
livestock. It was that experience and exposure to welding that led her to her current career.

Grandpa told me that the job wasn’t for me and that I couldn’t do all of the heavy lifting. He also said that I wouldn’t know how the guys are going to treat me.

Once Anne’s grandfather recognized her determination, he was supportive. Anne’s grandfather had a successful career as a pipefitter, but it was the exposure to welding in FFA and the positive relationship with her teacher that gave her the strength to leave college as a business major and return to a local training college to receive her degree in welding. Anne knew that welding was a high paying career. With a successful career in welding she would be able to obtain her farm and be independent of her parents and grandparents. The determination she had for achieving that dream came early when she was the recipients of the FFA degree two years after high school. Anne credits the lessons learned in FFA for where she is today. “The FFA leads you.”

**Hands on experience: Bella.** Bella had exposure to welding at the career center. Not certain of the direction she wanted to go, welding was presented to her as a course option. It was a teacher at the career center that helped sway Bella into welding and helped her become one of the top welders at the school. Bella has been recognized by the school and local trades organizations for her precise welding. Bella talked openly about the support that her parents gave her for the direction she wanted to go professionally. Her father and mother were both military and had wished that she would follow in their tracks. However, recognizing her skill and the money that could be earned, they
supported her decision to enter the plumbers and pipefitters apprenticeship. Bella is now working a steady job making nearly $24 an hour for her skill. Bella’s father was a welder and her mother was a military nurse, but it was her teacher and union trainer with whom she gives credit for her continued drive to be a top welder.

**Question #2: Life Experiences Faced When Entering a Nontraditional Career**

Cycle Coding allowed for the researcher to identify data offered from the participants about marginalization. Within the first round of interview questions, to help gather information about marginalization, one of the questions directly asked the participants to identify the support, or lack thereof, that they were given during the time they chose to pursue a nontraditional career route.

Of the five women interviewed, four expressed in great detail the feelings of the family when the participant chose to work in a field considered nontraditional.

**Parental support: Anne.** Anne shared the shock that her family had for the decision she made to drop out of college and pursue welding at a local trade’s college. She used phases such as:

- “My mom FREAKED OUT.”
- “NOT for FEMALEs”
- “was NOT for her”

Determination played a part in Anne continuing on with her career choice. In time, Anne’s parents and her grandfather were supportive of her decision.

**Parental support: Taz.** Her father was a business owner and did not favor the union/trades mindset. Knowing that she did not want to pursue colleges, although it
would have been the route her other siblings had taken, Taz had to find a job that paid well.

I WASN’T about to go to college. I knew I DIDN’T WANT to go to college after graduation. I was National Honor Society in high school, but I DIDN’T GO to college.

Throughout the interview process, this topic continued to be discussed. Knowing that college was not the route in which she wanted to take, Taz chose to join the trades. She was not given parental support when her decision was made due to this choice not being the acceptable route in which her parents felt she should follow. Although a tom boy, it was still out of character for her as her older sisters had pursued jobs deemed very traditional. (i.e. teacher, office manager, secretary, etc.) Taz received most resistance after having a child and needing the support of her parents post-divorce to care for her daughter as she would work out of town for months at a time. In time, their attitudes changed.

- “They DIDN’T UNDERSTAND how I could work a little bit and then get laid off, work a little bit more and get laid off again.”
- “In time, my FATHER GOT IT.”

**Parent support: Beyoncé.** Beyoncé did not have the emotional support from her parents to pursue college. Although college scholarships were offered, accepting them and learning the process of applying to college was unknown.

- “NOBODY suggested options to me. You only KNOW WHAT YOU KNOW and I knew construction.”
“I DIDN’T GO TO COLLEGE—and my father and I always had a very TUMULTUOUS RELATIONSHIP.”

Based upon the expectations set by her father that hard physical work earned you money, Beyoncé focused on the money aspect of work instead of academics post high school. Beyoncé had tried to get a job at the local grocery store when she was in high school, before having the chance to interview her father intervened and would not allow it. Following graduation, he was supportive of her trying to get a job as the manager of a local lumber company.

My dad actually said why don’t you apply for the job, they’re looking for a manager. You know all that stuff, you know. It’s a building supply store. Come on.

Of the family memories shared, this was the only example where Beyoncé received direct support from her father for pursuing work outside of his construction company. It was not until Beyoncé’s early twenties when she moved out on her own, that she stopped working for her father and opted to pursue a new line of work.

**Attitude and Locus of Control**

Using what they had seen as a model, all five of the participants chose to address the barriers and pursue the nontraditional career. An individual’s attitude and locus of control can be a driving force behind setting goals and establishing expectations of success (Hackett & Betz, 1981; Juntunen, 1996). Each individual had intrinsic motivation and extrinsic motivation in order to overcome the challenges that they faced. Having a strong sense of self-perception gave all the participants the chance to overcome
the adversity that was faced along the way. Emotions and Values Coding provided the best comparable results for charting Locus of Control.

The participants often provided quotes of strength to the researcher. The conviction they had for succeeding and the emotion of courage was evident in the spoken words and tones used during the interview.

- “I WANTED a farm my entire life.”
- “I WASN’T riding any coattails.”
- “I was HELL BENT AND DETERMINED.”

All five participants shared experiences they had with their families growing up in various parts of Ohio. One participant grew up in downtown Cleveland, two grew up in a small southeastern Ohio town, and the remaining two participants were raised in a rural southeastern Ohio setting. All five participants had exposure to nontraditional careers that varied.

As children, most of the exposure participants were given came from watching a grandfather or father working in the garage or barn. Inadvertently, the participants were made aware of the skill, task, or trade in which they would pursue as adults without even realizing the impact of the limited exposure. At least four of the participants, Taz, Bella, Beyoncé, and Anne, commented that they had witnessed the act of welding or equipment operating as a child from a grandfather or father. Only one participant could reflect on working alongside her father as a child in the field in which she would later work. She credited it primarily to being due to her father’s business being a “family” business in which her brothers were also expected to be a part of the work.
Even more importantly was approaching the issue of marginalization from the perspective of a female. The work wasn’t just tough; it was tough in addition to being a female performing the job. Jackie reflected on the importance of being credited for who she was as a worker and not as a woman.

I WORKED MY ASS OFF to not have the reputation that I was getting by on my looks. I wanted to be KNOWN FOR MY SKILL.

Although the younger women in the study were more open to men helping, Taz was adamant that she would not allow help from men.

Bella was reflective of how she feels when faced with the challenges of her male coworkers. Although the negative experiences have not been as frequent as others, she recognizes that she is early into her apprentice program.

If I know they don’t like women, I WORK EVEN HARDER. I try to CHANGE THEIR MIND about things. I try and READ OFF OF THEIR PERSONALITIES. I hold a lot MORE RESPECT and I’LL DO EVEN MORE for them if I know they are respectful of women.

The determination that each of the women displayed to overcome the circumstances they faced said a lot about their strength as an individual. As stated earlier, two emotions that emerged in the data were courage and defeat. Each woman had a way of addressing their feelings of defeat and masking problems from the job. The participants shared comments such as:

- “There’s points where you just feel like there’s NO MORE that you can possibly take, but, a smooth sea never made a skillful mariner.”
“And I-I look at that, and I go no matter how bad my day has been, I don’t think it’s gonna top that one.” (While looking at her cousin’s picture on 9/11 at Ground Zero).

“A lot of the things we do day-to-day may affect people, may do things, but in the scope of, you know, how difficult something is, or if you’re not successful solving a problem, or something like that to make sure we’re making THE RIGHT DECISIONS.”

“You do get dirty. You do get burned. There are guys out there that don’t want us in there. It’s just really 50/50. And you have really, really BAD DAYS and you have really, really GOOD DAYS. I’d be honest, but it’s GREAT MONEY.”

“I enjoyed the physical part of it, the physical work, the labor-intensive work, the sweat and the—the sense of personal ACCOMPLISHMENT I got for doing something that MOST WOMEN DON’T DO, and that a lot of MEN STRUGGLE TO DO.”

**Emotional and Social Cost**

There is a cost to being part of a workforce that is considered nontraditional to females. All five of the participants talked about the struggles they faced on a variety of levels when it came to their profession; many of the struggles not being similar to those faced by men. Recognizing the cost of the profession was an issue in which the women struggled. It is also something in which they felt was important enough to share with incoming female apprentices.
**Emotional and social cost: Taz.** Of the five participants, Taz had the most experiences with “the cost” being in a nontraditional career field the longest. She was the most willing to reflect upon her experiences and being honest about how those experiences made her feel.

This was the answer Taz gave when the researcher asked her to reflect on how the job has changed her as an individual. Taz openly shared how she became known as an intimidating female simply by the clothes she wore to work and then to school functions. Gottredson refers to this change in self as a personal identity shift. People struggle to identify with their new self-based upon who they have become on the job (1981).

- “My REPUTATION preceded me.”
- “It is a TOUGH field of work. You begin to cuss like them and become a HARD ASS.”
- “You SACRAFICE a lot, but it is something to be PROUD of.”
- The union gave me INDEPENDENCE.”

The family dynamic and relationships with parents and children was something that emerged in all three interviews with Taz. Her response defined more of “the cost” she paid in order to be a part of a workforce deemed nontraditional to women. Conversations were often reflective of time spent away from her daughter in order to assure that she could make money; therefore depending upon the support of her parents to help. Although the cost of being part of such an organization was high, the benefits far outweighed the concerns.
When I divorced my first husband, all of my friends were getting divorced; they had to move back home because they COULDN’T AFFORD to live on their secretary salaries….I was the BREADWINNER in the family. I didn’t have to move home.

Taz gained independence financially by working as a pipefitter. The salary she made allowed her to not be dependent upon others during a time in which most women needed support from family and friends. She was able to support herself, her daughter, and provided payment to her former husband. When asked if she would do it all over again, Taz stated to the researcher, “It was a tough life, but not a bad life.”

As retirement approached, Taz recognized that due to the demands the job had on her time and physical health it would be best to retire. With an aging set of parents who needed her constant care, it was time to step out of pipefitting.

“WHO AM I NOW? I’m not ‘that’ person anymore.”

This was how Taz described to the researcher the struggle she faced in opting to retire. After years of struggle to make friends and prove herself, Taz paid the cost by losing an identity that she proudly gained through hard work. When Taz was asked by the researcher what kept her in the field for so long at such a high cost of family and friendship, Taz responded by saying,

“SELF-PRESERVATION overtime, that is how I SURVIVED.”

**Emotional and social cost: Anne.** The two apprentices in the program had differing views about “the cost” of being part of a nontraditional career. One of the interviewed apprentices decided that the sacrifice made to her physical health may not be
worth the money. Already faced with medical concerns, Anne has questioned her career choice. Although the amount of time to pursue veterinarian training is still unappealing to her, there is a wish that another career choice had been pursued.

- “I WISH I would’ve—I got into vet school when I first applied. I love being around animals. That’s my FAVORITE thing. I knew it was eight years of college, and back then I was thinkin’, ‘Is school ever gonna get out?’ when I just got outta high school. I was sayin’, ‘This went so slow. AIN’T NO WAY I’m gonna go eight years more’ - to school.” I was sayin’, ‘Two would be plenty for me.”

- “I get STRESSED with this job. STANDING ON CONCRETE is what gets me a lot.”

- “Being only 27 and they told me at the doctor's I need to find a different career. They told me I need to get out of this. They said, you—it's hard to tell if you'll be able to walk later because of being on the concrete. They said there's people that can put up with it, they said, but your back can't. I DON’T WANT TO QUIT… so that's been a decision with me.”

Anne recognized that her career choice allowed her to meet her goals of owning her own farm and being independent from her family. Understanding the physical cost is what she is forced to face in the near future and whether or not she should continue.

**Emotional and social cost: Bella.** Bella has also decided that her current position as a welder is not where she would like to be professionally in the near future. To the researcher, she expressed an interest in taking her knowledge of welding and
applying it to safety regulations in a manufacturing setting. Recognizing the challenges she would face with having a family, considering other options within her field have become appealing over that of welding and pipefitting. She would remain in a nontraditional setting, but she would find a job within that would allow her to work in a less physical environment day to day.

“In the future I would like to get out from under the hood, but I would ENCOURAGE OTHER females to do this job. I would do it all OVER AGAIN.”

Bella was optimistic about her job. Due to being a young apprentice, she had not faced some of the direct challenges that many of other females in the study had faced when it came to the work environment. She was not naive to the situations that could occur and how she would handle them. The cost she had to pay was knowing that in her line of work, addressing issues of harassment would not be as easy for a woman as in other traditional fields due to the response she may get from others she works with. Understanding how to properly navigate the work environment is a “cost” to these women.

If I’m getting HARASSED, then I think of it like it’s my RESPONSIBILITY to stop it., ‘cause I knew what I was GETTING INTO. If that don’t work and you gotta go to a higher-up. Then you feel, like, well, if I need help from this guy, this guy AIN’T GONNA HELP ME I think girls really feel, like, if they do tell somebody, then they’re not gonna want—they’re-they’re gonna have problems on the floor.
Shared Themes

During the third and final interview the researcher wanted the participants to be reflective of decisions they had made specifically to the decisions that impacted career choice. If given the opportunity one more time, would those decisions be the same and would the participants feel compelled to follow the same path. The researcher would then ask the participants to expand upon their response in more detail adding a framework of understanding to their decision.

The first question asked of the participants during the third interview was, “What do you feel was the defining moment in you choosing the career path you chose?” Four of the five participants made a reference to being aware of the money earned on the job and knowing that the wage earned would help them obtain what they needed in order to live the lifestyle they wanted. Jackie was the only one that was reflective of other circumstance.

My accident. I am really HAPPY where I am in life. I did go to college, but continued with technical training for my current job. Because of that, I’ll have MORE OPPORTUNITIES for advancement in the future. I can get the same job no matter where I live.

Of all five participants, Jackie did not provide a monetary reason as to why she continued on in her career field or pursued it. Her circumstance was one of being faced with limited physical abilities following her industrial accident. In order to work, she had to consider another option. The option she chose was another nontraditional female career moving from an operating engineer in the coal fields to an electrical technician.
The other four participants all responded that the money was the reason for working in their current career, and the money was also the reason they stayed. Anne clearly stated that she wanted a farm and she knew that welding would pay the money she needed in order to be self-sufficient. When I asked about the strongest factor for leading to the profession her response was, “money”. Oddly enough, when I asked Anne if she would consider following the same career path she said, “No, I wouldn’t do it all over again.” Anne attributed her decision to the health factors that she has already faced and the medical advice that she has received from her doctors about how quickly her job is impacted her health and body.

Bella went directly from the local career center into the apprenticeship program. She had success as a young student and then used that in order to climb professionally within the association. She had not received the same diagnosis from doctors and was still going strong as an apprentice.

“I would do it all again, yes! I am making over $23 an hour.”

Bella stated a strong commitment to her career. In previous interviews she had stated her goals for advancement and that they would not always involve welding. She did state that she would like her advancements in the future to remain within the nontraditional career field, but would be in safety regulations. That was the goal she had set for herself.

As the retired member of the group, Taz also spoke with conviction and commitment to the trade. When asked what led her to the career her response was “life and money”. Due to marrying early and not attending college, Taz knew that she was
going to need a steady income. A successful career in the trades seemed like the most logical option.

The researcher asked Taz if she would do things differently if given the chance. Taz responded by saying,

Should I have done things differently? There is NO GOING BACK once you’ve started. I would do it all again; it was my BADGE OF HONOR.

Numerous times throughout all three interviews Taz explained that being a part of a nontraditional career in plumbing and pipefitting was her “badge of honor”.

Beyoncé was exposed to the nontraditional career options of females at an early age. In her early teens, Beyoncé was expected to work for her father in the roofing and carpentry business. Beyoncé had options for being an athlete at the collegiate level, but turned them down due to feeling that making money took priority.

“I just NEEDED to make money; that was my MOTIVATION and NOT COLLEGE. MONEY was the DRIVER.”

Beyoncé worked for her father and turned down the opportunity to further her education at the college level. Beyoncé clearly stated that money was the driver, but if given the chance to do it all again she would attend college. In an earlier interview she summed it up by saying,

“You only know what you know; I knew construction.”

Four of the five women stated the money was the appeal for the profession while two of the five stated that they would reconsider the choices they have made. One clearly wanted to consider options based on health, while the second participant just wished she
had the chance to experience college and athletics. It was not due to displeasure in her career path.

**Essence of the Study**

Throughout the interview process and while analyzing the data, the researcher was able to find an essential structure to the phenomenon shared by the women in the study. The essence of a study is a reference to the intentional meanings that present themselves through the information offered by the participants. It is the idea of “capturing the meaning” of the words used by those in the study (Vagle, 2014).

The women in the study were often asked to be reflective of why they made the moves in life that they did. They were posed questions that made them seek understanding for their current place and the experiences they had early in life that may have lead them in the career path direction they chose. Repeatedly the researcher heard quotes from the participants that showed strength and evidence that the option of failing was not considered in any situation especially due to being female. Each woman shared experiences in which they felt they had to prove themselves above all others in order to be successful. That was a shared belief that females who are successful must prove themselves above that of men especially when a female is in a nontraditional role. Taz offered the most reflective points of view about the experiences she faced and how her role as a female was different in all aspects of her life due to her profession.

You’re not the typical housewife if you’re a construction female. Um, you’re—your give a shits are different, you know? Um, ‘cuz when you go through crap at work, you come home and things aren’t—it’s just in more perspective of what—
pick your battles. Pick your battles….” You have to pick what you wanna fight for yourself and how you wanna do it. And that just transfers over into your everyday life. To me, it did anyway. Um, you know, um, so I guess in that respect, and like I said last week, when you are a female doing this kind of work, you have a different persona about yourself.

As two of the youngest participants, Bella and Anne had not faced the same challenges and marginalized views as Taz and Beyoncé. Both had faced adversity, but they had yet to pay the social costs that Taz and Beyoncé paid over time in order to remain in the nontraditional field. Although they had not experienced the same comments negative views, and jobsite abuse, working alongside of men still presented challenges.

Bella shared how she deals with the negative attitudes she receives from men in which she must work with on a job site.

You’ll have like your certain set of people that you can tolerate, as I’d put it. Like cuz there’s some of them that are pieces of work. But, I don’t know, you just feel out the personality, just kinda like get their vibe. I have a certain group that are kinda just—I go off their personalities and I’ll stay around them… nobody wants to be around negativity.

From a research perspective, the women simply wanted to be respected for their job skills and not degraded as women. Gottfredson addresses the conflict between men and women when women pursue nontraditional careers. Gottfredson refers to the behaviors of men who do not want women on job sites as “macho ideology” (1981). She further defines macho ideology as the behavior among working class men who do not
want women entering into their world of work for fear of how it may establish a belief
that their line of work is not as difficult if a “woman” has the ability to perform the task
(Gottfredson, 1981).

All five participants shared a common understanding that you are not going to be
able to change some behaviors and they accepted it; one of the accepted behaviors was
the joking around on the sites. Knowing that and learning to accept it made the job
easier. However, all five felt that being degraded, misunderstood as females, and
disrespected as a female was something that was not acceptable. All five participants
were passionate about their role on jobsites, their skills as a laborer, and their ability to
perform challenging tasks alongside of men. The common expectation and desire for all
five was a respect for their skill regardless of their gender. As the researcher, that was
the essence of the study that was easily found when analyzing the data and responses
given by the women.

In the responses from the research participants, it became clear that the
relationship established with the mentor during a time of need is what lead them to the
career decisions made. Motivation to succeed and the need to be financially independent
kept the women going even during times of adversity when they were marginalized based
upon their gender. The mentor relationship and role modeling was the most dominate
factor among all of the women who participated in the study.
Chapter 5: Interpretations, Conclusions, Recommendations

Introduction

In an interview with Yahoo Finance, Warren Buffett stated, “America has forged this success while utilizing, in large part, only half of the country’s talent. For most of our history, women — whatever their abilities — have been relegated to the sidelines. Only in recent years have we begun to correct that problem” (Wright, 2013). Later using Warren Buffet as an inspiration, Sheryl Sandberg stated “A truly equal world would be one in which women ran half of our countries and companies, while men ran half of our homes” (Sandberg, 2013). Although this research study was not about assuring gender equality in the workforce and within the home, it was purposeful in trying to better understand the role women played in a nontraditional workforce that was not designed for them, and how early exposure throughout a child’s education could assist in recruitment into careers deemed nontraditional to women. By not considering nontraditional careers as an option, fifty percent of the workforce’s skills are unutilized, women continue to struggle in lesser paying jobs, and the middle skills gap continues to widen.

This study supported the idea that women face different challenges when entering into a nontraditional career field. It also exposed the challenges that women faced in order to maintain the level of respect and support they wanted from their coworkers. Identifying the role that family played in the decision, the view of continued education, and the reason that staying in a challenging work environment was worth it each day. By interviewing the research participants, a personal viewpoint was added to studies
conducted in the past that only shared quantifiable data. This phenomenological study provided insight from years of lived experiences and exposure of working in a nontraditional career setting, and it also provided further detail as to the many routes available for entering into a nontraditional career field that many women may not know exists.

**Summary of the Study**

The middle skills gap continues to grow as more and more workers of the baby boom generation are reaching retirement age. Skilled labor jobs that are traditionally male dominated are faced with the challenges of trying to recruit and retain a workforce to fill the current jobs and growing jobs as an aging workforce retires and a new workforce is established (Galeshi, 2013; Menches & Abraham, 2007). By not finding the skilled labor necessary to complete current jobs and jobs being designed for the future, rising costs for training can occur, overcharging for labor, rising wages for skilled labor, and an unstable workforce are some of the problems that could plague career fields that are vital to the ongoing growth and sustainability of the United States (Mehenes & Abraham, 2007). Women can help fill the gaps created by this shift in employment (Greed, 2000; Menches et al., 2007; Whittock, 2002).

In order to understand how to properly recruit and retain female workers, it is important to understand the viewpoints and experiences of women who worked or are currently working in a nontraditional career field. Seeking a shared phenomenon among nontraditional working females will help current businesses and growing businesses to build a qualified workforce that spans beyond just the male gender. By using techniques
to recruit and reach out that are appealing only to males, females may walk away from a
job that could offer a sense of financial stability and independence.

Another focus of the research was to establish a better understanding for the
pathway that the women chose that led them to their current career field. The researcher
was looking for the answer as to how and why the research participants chose to be part
of a nontraditional workforce. Was their decision based upon early exposure, hands on
experiences with a father figure, or circumstantial. In asking the critical research
questions, seeking an understanding as to what kept them working in the field or drove
them away was as equally important as finding out what drew them in to start.

Purpose Statement

Women are faced with personal and societal challenges when they decide to enter
into a career that is nontraditional to the female gender. In seeking jobs that provide
stability, independence, and substantial pay, women often times do not consider
nontraditional careers due to the challenges they know they are going to face. It is
natural for women, based upon research conducted by Gottfredson (1981), to eliminate
jobs early in their educational career due to sextyping, establishing a belief about societal
norms, and family beliefs and aspirations. Guidance counselors, career counselors, and
educators who provide early exposure to career opportunities may not introduce the idea
of nontraditional career fields to females due to their own beliefs or an understanding that
there is limited interest; this leaves women without the opportunity to make a value
judgment as to whether or not they would be successful in a skilled labor job (Eardley et
al., 2006; Toglia, 2013). Limited exposure at an early age and limited opportunity to
explore career options within the education setting contributes to the compromise and circumscription defined by Gottfredson (1981). Without the early exposure, young girls are eliminating possibilities before having the chance to consider the benefits. This is especially detrimental to a woman due to the wages of jobs considered traditional to females providing substantially lower wages than those that are considered nontraditional (Toglia, 2013).

**Research Questions**

It was previously stated that a person who is successful in his/her career field will find a place within society. They are able to identify with a group and base their quality of life off of their success, skill, and ability to perform the task in which they are employed.

The researcher established key essential questions based upon the designed theoretical frameworks of Gottfredson (1981), Brooks (1988), and Wigfield et al. (1991). The researcher created a conceptual model that merged the theoretical frameworks of the other three. The researcher’s conceptual model helped guide the questions in which the researcher was seeking to answer by the data gathered in the interviews. The framework also provided a model for guiding the way data would be processed upon the completion of the interviews.

Using the conceptual framework as a guide, the researcher was seeking to find answers to the value placed upon hands on experiences, parental support, role modeling and attitude/locus of control when choosing to enter into a nontraditional career field. Is there one factor that is the most influential for females when it comes to deciding a
career, especially within a nontraditional area? The researcher also wanted to determine if there were other valuable factors that played a part in the female participants choosing to enter into the nontraditional field of work as well as the reason for staying even though the work environment can be challenging. Were there factors that researchers in previous studies had missed due to only gathering quantifiable data and not gathered from conversations during the interview process? What additional data would be uncovered through the interview process that the researcher had not considered?

**Review of Methodology**

The research design for this particular study was qualitative. A qualitative approach was chosen based upon the need to gather data that shared individual experiences with the topic. In addition, many of the studies sited in the literature review were conducted by gathering quantifiable data, therefore not having the voice of women and lived experiences in the past studies. This study allowed for women to participate in three interviews over time that focused on a set of questions that allowed for experiences in the field to be shared. As Woodfield (2007) states, “Listening to and reading participants’ accounts constitutes an attempt to map the web of meanings they give to various phenomena and experiences” (p. 77). The interview process allows for the data to become personal versus data points within a survey. That was why the researcher conducted interviews over a two month span of time.

The chosen questions were based upon the Hall Expectancy Value Conceptual Theory designed by the researcher and modeled after theoretical frameworks of Gottfredson (1981), Brooks (1988), and Wigfield et al. (1991). In the case of this study,
the phenomenon being researched was the strength that the chosen factors played in the decisions the research participants made in pursuing a nontradtional career. Therefore, the strategy of phenomenological interviewing was the most appropriate to use in gathering data for the study. It allowed the researcher to capture detailed lived experiences that can identify leading factors in the participants making the career choice decisions that were made.

In previous studies, data points were shared based upon quantifiable studies that were done with women or other minorities who faced challenges in careers considered nontradtional. For the purpose of this study, the information gathered needed to have a personal view that allowed for an explanation about the leading factors. The researcher wanted to know how early the individual starting considering the nontradtional career, to what extent family played a part in the decision, and what were the sustaining purposes for remaining with the chosen nontradtional career. These were elements that had not been personally shared in previous studies. By conducting a qualitative study using an interview process, the human experience becomes approachable to the researcher and those who read the study in the future (Moustakas, 1994). Factors could be identified. **Major Findings**

Using the interview process, the researcher sought to identify a common factor shared by all of the participants in the study. All of the participants had entered into the field without having a plan set in place ahead of time. Entering into the nontradtional fields of construction, plumbing and pipefitting, welding, and operations was all a result
of life circumstances. Each one of the women had to make a decision about their career based upon a critical need at the time.

Each participant faced the “life circumstance” at different points. Taz faced the decision to find a job of substantial pay when she chose to marry early. Although the opportunity to attend college was an option, it was not a viable route for her based upon the life she had chosen. Needing financial support and stability, it was her ex-husband who encouraged her to enter into the trades.

Bella was encouraged to enter into the trades after not taking schooling seriously. She had enrolled at the local career center, but was not taking advantage of the educational opportunities she was given. She had made a connection with a welding instructor at the school who encouraged her to make better decisions. Recognizing her skills and talents, he encouraged her to focus on the skill of welding and become better at the craft. Accepting his advice, Bella decided to direct her energy into the program and compete at the state level for her talent in welding. Bella entered into the trades following high school.

Anne and Jackie had originally wanted to pursue college. Both females enrolled and started taking courses at state colleges. Both quickly realized that their current placements and majors were not what made them happy, nor were they areas of interest. Both wanted to pursue more hands-on careers. Anne and Jackie both received college degrees at different institutions, but they found majors that allowed them to use their hands and enter into a line of work that was not traditional to females. Anne became a welder because of the experiences she had during her FFA classes and the encouragement
she had received from her teacher. Welding had not been something she had tried or considered prior to her high school experiences. Due to the admiration and encouragement of her teacher, Anne felt that she could make the most money by entering into the field of welding and use the skills she learned to be independent of her family and meet her lifelong goal of owning her own farm.

Jackie faced different challenges. She did not have as easy of a transition into the working world as the other participants. She struggled post-graduation to find a job that met her graduated major. As a forestry major, the skills she learned of operating heavy equipment did not allow for a high paying career until entering into a local trades organization. Jackie used her skills and affiliation with the trades organization to find a job operating equipment in a coal yard and later becoming an electrical technician at a large power plant. It was the encouragement of a trusted friend and husband that led her to applying for the position at the power plant. Faced with unhappiness and a meaningless job, Jackie’s life circumstance forced her to consider other options so that she could afford daily living.

Beyoncé defined her life situation as, “you know what you know.” Beyoncé was the only participant that grew up in the field of construction. Her father had his own construction business and it was natural for Beyoncé to work alongside of him from a very early age. College opportunities presented themselves, but Beyoncé opted to work at the family business due to the level of pay she received. Without a college education, Beyoncé used her knowledge of skilled labor to better herself. As Beyoncé advanced from construction into business and into human resources at a manufacturing facility, it
was the support and encouragement she received from a mentor that led her to the professional she is today. By listening to him and trusting his suggestions, Beyoncé was able to advance into a role beyond a skilled labor job and become a senior human resources director for a global manufacturing facility located in southeastern Ohio.

All five women interviewed for the study shared two major factors. All five women entered into their nontraditional career field following a life circumstance that required a closer look at independence and financial stability. It was not a father figure or a family member who stirred them. It also was not years of exposure and previous experience that guided them in that direction either. The relationship established by a trusted mentor or friend who recognized a skill set or ability is what led them all to a successful career path within a nontraditional field.

When asking the women to reflect upon what made them stay in a career that had some negative impacts on building limited friendships, gender conflicts, and work environment struggles, all five of the women interviewed responded in the same way. All of the women shared a common belief that the financial stability and independence that their career choice offered was something in which they were not willing to compromise by choosing a different path. The struggles of the job were well worth the independence and financial gains that it allowed. All five women in the study were able to identify specific points in their life and career where they reflected upon the power of independence. For one woman it was her ability to purchase her first farm and for another it was being able to walk away from a bad marriage and not have to change her quality of life due to the income she made within a nontraditional career field. Financial
stability and independence were woven throughout the responses given by the women during the interview process. This is coupled with the power of a trusted friend and mentor who introduced the women to the field.

**Findings Related to Literature**

Linda S. Gottfredson established the Theory of Circumscription and Compromise (1981). In this theory, Gottfredson defines the four phases in a child’s development that allow them to define their place in society and understand the role they should play as an adult. It is also a time in which children better understand socio economic status and prestige. As children age and develop through each phase, their awareness for self and society help them to determine what is right and wrong in the world and the economy based upon the norms they learn from their community and their family. They begin to define who they are, who they want to be, and whether or not their decision is an appropriate one based upon the norms they know (Brooks, 1988; Brott, 1996; Cochran et al., 2011; Gottfredson, 1981).

By adolescents, students have entered into the final phase of circumscription and compromise and will set occupational goals that they feel are compatible with the social attributes in which they feel are reasonable (Gottfredson, 1981). In comparison to the amount of time an individual spends in their life within the world of work, this decision of what is appropriate and what is not appropriate occurs very early in the development of a child. The decision to rule out occupations in which an individual has not been exposed to could potentially be detrimental to one’s future and financial stability.
Opinions can be based upon limited knowledge or a lack of understanding. Instead of establishing a deeper understanding of a profession, individuals look at the societal prestige in often determining what is appropriate or inappropriate. This occurs when individuals are seeking career counseling at the high school level. Without a deep understanding of careers, guidance counselors may not provide the proper resources or guidance needed to set a student on the right path for a particular career. This is especially true for females wishing to enter into a nontraditional career following their high school graduation (Brooks, 1988; Brott, 1996; Cochran et al., 2011; Cross & Bagilhole, 2002; Gottfredson, 1981).

Understanding options and what is available was a suggestion made by Gottfredson when she first introduced her Theory of Circumscription and Compromise. Females especially need to have early exposure to options that are available to them that may require thinking outside of the box and outside of societal norms. Only one of the women in the study had daily exposure to the lifestyle of a construction contractor. Early in her life she was taught that gender didn’t matter when it came to hard work. All of the other women in the study had limited exposure to nontraditional careers as children, but one experience or a bit of encouragement and they were willing to try something outside of the societal norm. Student’s minds “crystallize” early and therefore early exposure to opportunities could potentially lead more females to trying something out of the norm (Brott, 1996). To provide opportunities to females could mean allowing a female to find interest in something using a skill she has and then turning that skill into a job that provides financial stability and independence.
The women in the study could easily identify mentors, teachers, and trusted friends in their life that provided the support they needed during a time in their life when circumstances were not in their favor of being independent. Without hesitation all five participants named names and gave examples of a time when their mentor steered them into the world of work in which they were currently performing. Of all the theorists read, Gottfredson (1981) was the one who explicitly stated, “comments by teachers, parents, particular experiences and aptitude” can lead an individual to a job that otherwise may have not been considered (p. 567). Ericksen (2013) further backs up this claim when she addresses opportunities that are lost by females due to limited exposure, inaccurate counseling, and cultural or institutional barriers that are in place that could impede the advancement of women into a nontraditional field.

**Unanticipated Outcomes**

Seidman (2013) suggests when conducting a qualitative study using interviews as the source of data, it is best to do so over a span of time. It is suggested to do this in a series of three. By following this advice and spreading out the interviews over two months, the researcher was able to establish a sense of trust and build a relationship with the women who participated in the study. They openly shared situations they had faced on job sites, comments they received from superiors, and challenges they faced on a daily basis. By the third interview, they were able to openly explain their thoughts about the challenges they faced without holding back on information.

What the researcher did not expect to learn from the women was how much they wanted to be viewed as feminine. Taz specifically spoke about the judgement she felt
when attending her daughter’s events at school. Having to come directly from the job site, Taz often went to school functions still wearing job site clothing and steal toed boots. Jackie shared information about a time when she felt out of place by dressing up for a holiday party. When she arrived at the party all of her male coworkers had arrived wearing similar clothing to what they wore daily on job sites, she had opted to wear a formal black holiday dress. Meeting many of the workers’ wives for the first time, Jackie felt uncomfortable because women were placing judgement on her as a female and not as a skilled worker.

When I asked Anne about her role at home she quickly stated that it was an 80% and 20% split when it came to household chores. Coming home from work, Anne shared that she looks forward to cooking dinner and baking.

This was one of the most unanticipated outcomes of the study. It is implied that women who perform jobs typically sought by men must have a manly quality about them. Their sexuality and personal preferences are always in question by males with whom they work as well as females in society. Having sat and spoken with all five women over a period of two months, the level of femininity was of no less present than that of any other women who did not opt to pursue a nontraditional career. These women displayed no less desire to want to be viewed as a woman although they were performing jobs typically given to men.

The second unanticipated outcome was the toughness displayed by these women. They were well aware of how individuals viewed them on job sites, and therefore they all spoke about going above and beyond the expectations that others placed upon them to
prove that they were more than skilled and capable of performing the assigned task. The toughness came through the most when asked about whether or not they would do it all over again. Two of the women spoke about other opportunities that they would have liked to try and given the chance they would consider it. The other three quickly responded that they may take different steps to getting into the trade, but they would still be working as a skilled laborer due to the financial benefits. All five stated throughout the three interviews that the barriers, headaches, and costs paid by being part of a nontraditional workforce was easy to accept when considering the amount of money being made for skills and talents that they have and can use on the job.

**Implications for Action**

Early exposure is critical. Females need to be able to understand and see the possibilities that are available for them before they enter into a stage of compromise in which they no longer consider technical nontraditional jobs.

The focus in education has become to establish a direct line for students to enter into higher education. Students are provided counseling that forces the hands of the parents and the students to define the pathway to career success by which college program the student enters. The No Child Left Behind Act (2001) encouraged educators to make students college ready. With the recent signing of the Every Student Succeeds Act by President Barrack Obama, the focus has been taken off of making all students college ready and instead making students “college and career ready”. Counselors must be aware of what options are available for students if college is not of interest. In addition, counselors need to start early and allow opportunities for students to be exposed
to a variety of careers. They need to have the chance to address their own bias through proper training and better exposure to the opportunities that exist for young women.

In order for this to have an impact, counselors need to be trained on career options that are available and how to properly counsel students on options other than college. By providing guidance and training to counselors, they will be able to recognize opportunities and establish partnerships with businesses that they may not have considered prior. Partnerships will then lead to conversation as to how the educational system can be supported to help build human capital within a community in order to build a strong workforce to close the middle skills gap that exists. Without thinking outside of the box and considering viable options for students, the middle skills gap will continue to grow and female students will continue to eliminate options that would benefit them financially and bring career success due to having a skill set that may fit within a nontraditional career field; without exploring options female students may never know the potential that exists.

Early exposure also means establishing mentorship opportunities or early work programs for youth. The next generation of workers, the millennial generation, approach the world of work much differently than those before them. Millennials are attracted to organizations that invest in the development and training of their employees. They also seek companies that care for their employees as individuals, provide opportunities for growth, offer variety in their day, and have progressive thinking about the future (Parry & Urwin, 2011).
Eric Spiegel, the President and CEO of the Siemens Corporation, has modeled the recruitment of his new workforce based upon the needs of the next generation of employees (Schneider, 2013). Recognizing the need to build a strong qualified workforce at the Siemens factory in Charlotte, NC, Spiegel implemented a high school recruitment plan with students at partnering high schools to establish a pipeline of young apprentices who would later become trained, licensed, and qualified full time employees with specialized skills (Schneider, 2013).

This example of a public-private partnership among education and business is something that cannot go ignored. Siemens had the foresight to create a program that works in Europe; early exposure and apprenticeship training during high school. Although the educational model in the United States does not mirror educational systems throughout Europe, educational leaders in the United States can still learn from what is effective elsewhere. Creating partnerships with area businesses who need a growing workforce is exactly what educators and school districts need to be doing. By creating the partnerships, teachers, parents, and students have the chance to establish a better understanding of what is available to them at an early age. They can also have early exposure and be provided opportunities that they may have otherwise not considered. Quoted earlier, Hackett and Betz state that without the proper encouragement, experiences or opportunities to see success, females with low self-efficacy are less likely to try a career considered nontraditional (1981). Now is the time to question the policies and procedures that exist in education that hinder these critical conversations. Educators, policy makers, and business owners need to take a closer look at practices of the past and
how to make change that creates a pipeline of employees for future development in jobs that are considered within the middle skills area.

The state of Ohio has started by creating a policy that forces schools to address the career needs of at risk students (Ohio Revised Code Policy on Career Advising, 2014). That is just a small first step. Schools need to take it one step further and establish partnerships with business that will allow students to see and understand what it means to perform a specific line of work. Schools also need to work to establish mentorships throughout the community that allow students to gain exposure to opportunities that they may otherwise not have had.

The women in the study had the opportunity to witness nontraditional acts such as construction, welding, and equipment operation as children by family members, but it wasn’t the family member that encouraged the career field. Entry into the career field was clearly brought on by experiences from a mentor during a time of need. That is why going further and establishing partnerships, building bridges with mentors, and encouraging parents to become involved in the conversation is key to successfully leading more women into the nontraditional career pipeline. A direct positive experience that impacts a person’s attitude is proven to have a great effect upon the desired outcome (Breaugh, 2013; Hansen, 2003). The mindset of the influential adults in a child’s life can greatly impact the decisions later made. By assuring that parents are aware of opportunities and continually inviting them to enter into the conversation, counselors can help reshape the thinking of individuals already in the workforce. Parents will be able to
have a better understanding of the options available to their child and be able to recognize the benefits of pursuing jobs that may be considered nontraditional to the female gender.

**Conclusion**

Gottfredson (1981) established a theory about circumscription and compromise. Wigfield et al. (1991) created a value model centered on motivation and Brooks (1988) established the model for motivation in occupational choice. All of these models combined along with literature written about the importance of parent support, proper early exposure, and mentors are what helped design the Hall Expectancy Value Conceptual Framework. Within that framework the transition from an individual’s cultural milieu, as well as one of the four factors, leads to a person’s career aspirations and career success. All four factors can play a part in the career success of an individual. Based upon this phenomenological study, the power that role modeling and mentors played in helping women overcome barriers during a time of struggle was much greater than the other three. Knowing the power that a mentor program or career counseling opportunity has within an educational setting is important for moving forward and beginning to help fill the growing skills gap that exists in jobs considered nontraditional for women.

As educational leaders it is important to establish programs early enough for females that allow job shadowing, career exploration, mentoring, and role modeling to occur before the final stage of Gottfredson’s career compromise is reached. Without such opportunities, females will continue to eliminate job opportunities without even trying them. These opportunities must occur within the educational setting to assure that a
majority of females are reached and the proper career counseling must occur. Reaching out to organizations that employ individuals to work in the trades will be important for providing opportunities for female students. Females need the opportunity to visually see nontraditional jobs being performed by other females. Opening up the dialogue with trades organizations, adult education facilities, contractors, and career centers is part of building strong partnerships and creating positive experiences for all students, and especially for females. By providing these opportunities early, more women will understand the benefits of a job that allows for financial independence that can lead to professional jobs not otherwise considered.
References


Van Manen, M. (2014). *Phenomenology of Practice.* Walnut Creek, California: Left Coast Press, Inc.


Appendix A: The Expectancy – Value Model of Achievement Motivation

Note. The Expectancy – Value Model of Achievement Motivation is from Wigfield et al. (2000)
Appendix B: The Expectancy – Valence Model for Occupational Choice

Note. The Expectancy – Valence Model of Motivation for Occupational Choice is from Brooks (1988)
Appendix C: Interview Questions

First Interview:
  1. Tell me about your career plans as a child.

  2. Can you reconstruct for me the path you took that allowed you to enter into 
     the current field of work in which you work?

  3. How did that plan evolve?

  4. What past experiences did you have that could have helped direct you toward 
     your career choice?

  5. Identify the support, if any, you were given when choosing to go the 
     nontraditional route with your career.

  6. As you progressed toward choosing a nontraditional career path, did you have 
     a mentor? Was that mentor a male or a female? How did that mentor, or lack 
     thereof, impact your career success?

Second Interview:
  1. Within the home, what is your role?

  2. How does your role at work impact your responsibilities at home?

  3. Based upon your past experiences, how has your role as a female been 
     challenged or accepted within the nontraditional career setting?

  4. Has your opinion about the career path you have chosen changed now that 
     you are working within the field?

  5. Tell me a little more about the relationships with those individuals in which 
     you work.

Third Interview:
  1. Given your past experiences, what do you feel was the defining moment in you 
     choosing the career path you chose?

  2. Would you follow the same career path if given the chance to do it all again?