

Analyzing the Gender Gap in Field Positions on Commercial Construction Projects

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The percentage of women working in the construction industry is on the rise. However, most women working in the construction industry often fill administrative roles, office positions, and project management roles rather than field positions such as tradeswomen, foremen, or superintendents. According to the United States Bureau of Labor Statistics, as of 2020, women constitute 10.9 percent of the entire construction industry. Specifically, 86.7 percent of those women are in office positions with only 3.5 percent of women in trade positions. Those numbers signify that the construction industry is not benefitting from women in field positions. That is due to challenges that women working in field positions face such as male-dominated culture and work environment, perception of capabilities, and unsafe work environments. This research includes a literature review as well as a summarization of results concluded from semi-structured interviews with women currently working in field positions in the commercial construction industry.

Key Words: Male-dominated, harassment, barriers, bias, field positions

Introduction

When someone mentions a male-dominated industry, the first industry that may come to mind for many people is construction. While the number of women entering the construction industry is increasing, the number of women on the front lines of job sites working in field positions continues to remain small; only one for every 100 employees in the field. The shortage of labor in the industry presents an opportunity to hire even more women in construction jobs. At Cal Poly, the number of students, male and female, applying to major in Construction Management is increasing. However, more often than not, women who graduate with a Construction Management degree from Cal Poly tend to take the project management route. There are several challenges that prevent women from occupying field positions on commercial construction projects such as male-dominated culture and work environment, perception of capabilities, lack of respect, communication barriers, harassment, and unsafe work environments. These challenges are a main factor in women leaving field positions in the construction industry. The overall intent of this project is to analyze and bring awareness to the challenges that women occupying field positions in the construction industry face and to bring

forward possible methods and ideas to encourage more women to pursue careers in field positions on commercial construction projects.

Benefit to Construction Management Students and Industry

This research will benefit the construction management industry because women can bring many skills to the construction industry. Considering that women make up 47 percent of all employed individuals, the construction industry only benefits from about 1.25 percent of women in the workforce, as women only make up about ten percent of the construction industry. As the commercial construction industry grows, females occupying field positions should grow too. Since female and male brains work in different ways, they both may have different ideas for problem solving which the construction industry can benefit from as new perspectives bring new ideas. In order to encourage more women to pursue field positions in construction as a career, it is critical to identify the challenges women face that contribute to less women choosing to work in field positions and staying in it. Identifying these challenges is the first step to eliminate them.

Literature Review

There are several barriers women working in field positions face on site. It is vital to analyze and be aware of these problems to understand why women have a lower participation rate in field positions and the challenges that come with being a woman in the field on construction sites. From the literature review, three major barriers women face are the male-dominated culture and work environment, perception of women's capabilities, and unsafe work environments (Dainty et al, 2000; Fielden et al, 2000, Bennett et al,1999).

There has been a significant amount of research conducted in the past ten years that has analyzed the under-representation of women in nontraditional occupations in the construction industry (Dainty et al., 2000; Fielden et al., 2000). Although gendered power inequalities can be evident in all companies, they are especially common in male-dominated industries, such as construction. One of the commonly cited issues that women report in the construction industry is the male-dominated nature of the field (Gale, 1994a; Fielden et al 2000; Fielden et al 2001; Bennett et al 1999, Amaratunga et al 2006). This masculine workplace culture does not provide adequate support for women working in construction and poses obstacles to the retention of women in the field and their career development (George & Loosemore, 2019). Agapious (2002) explained that the male-dominated image in construction portrays an industry requiring brute strength and a good tolerance for outdoor conditions, inclement weather and bad language. Some of the main reasons why women do not stay in male-dominated industries are sexual harassment, bullying, and assault (Jenkins et al. 2019).

Another main barrier that women face in field positions on construction sites is the perception of women's capabilities. Women receive a lack of respect and face challenges with the ability to communicate effectively with male coworkers. In order for a construction project to be successful, the project team needs to work collaboratively to problem solve and respect must be shared amongst all people on the job. In the construction industry males are automatically presumed to be capable and respect does not have to be earned, however, women have to constantly earn respect and their professional capability is devalued, scrutinized, or questioned (Galea et al., 2018). In order to be productive on site, women need to feel respected and supported by their coworkers. Due to cultural stereotypes, female leaders face a double bind (Eagly & Carli, 2004). They are expected to be

communal because of the expectations ingrained in the female gender role, and they are also expected to be agentic because of the expectations inherent in most leader positions. However, because agentic displays of assertion and confidence can come off as conflicting with being communal, women are then vulnerable to becoming targets of prejudice. Since respect more often than not has to be earned by women in the industry, it is common to experience ‘spotlighting’ where they feel they are being constantly watched and subsequently feel the need to work harder than male coworkers to earn respect (Jenkins et al. 2019). There is also a common theme of gender misconception on jobsites whereby when a mistake is made by a woman, it is perceived as a “gender capability” issue as opposed to an individual mistake (Bridges et al., 2019). This notion results in women assuming they need to work harder than men to be respected, heard and valued on jobsites.

Although all people working in the field on construction projects are posed with safety and health problems, there are specific safety and health issues that women face. Personal protective equipment (PPE) is required to be worn by all people working in the field to protect them from workplace hazards. However, studies conducted by the National Institute for Occupational Safety and Health (NIOSH) show that the majority of construction clothing, equipment and tools are not designed to fit women’s physique. PPE is more suited to the male physique, and this compromises women’s safety as PPE that does not fit does not protect against the hazards it is intended to. Sexual harassment and assault are additional safety issues that are especially endured by women working in occupations where they are not the majority, particularly in physical environments (Willness, Steel, and Lee 2007) or environments focused on traditionally male-oriented tasks (Fitzgerald et al. 1997). There have been several studies conducted that have shown that female construction workers suffer from gender and sexual harassment. In a survey from the early 1990s, around six in ten women working in construction report being touched or asked for sex (LeBreton and Loevy 1992). In another study from 2013, three in ten women construction workers report experiencing sexual harassment daily or frequently, with similar numbers reporting harassment based on sexual orientation, race, or age (Hegewisch and O’Farrell 2015). This contributes to women leaving the construction industry, forced job change, reduced opportunity for advancement, psychological and physiological health problems, and workplace injuries.

Methodology/Analysis

Interviews

Semi-structured interviews were conducted with women who currently work in field positions in the commercial construction industry. Five women in roles including foreman, assistant superintendent, and superintendent at Clark Construction, Cahill Contractors, XL and Devcon were interviewed over the phone. By utilizing a semi-structured interview guide for interviews, critical issues identified were explored, and interviewees were able to explain issues relating to their own experiences. This interview process incorporated a qualitative research strategy with the objective of finding relevant perceptions and opinions based on current experience.

Results/Summarization

Semi Structured Interview Questions	Summary of Responses
1. What motivated you to work in a field position in construction? Rather than taking the project engineer or project manager route for example	Office position was getting stagnant, in order to be a successful project manager needed more field experience, enjoyed being active, learned better by seeing things instead of having them be explained, money purposes
2. What are the challenges you face being a woman in a male dominated field?	Having to repeat myself, men not listening for example a male asks me a question and when given an answer he does not listen and then that male asks another male who gives him the same answer and he listens, not enough training resources, sexual harassment, career advancement, inadequate PPE, constantly having to prove myself, balance between being too nice which is considered being flirty and telling people what to do is considered bossy, men stealing tools, being one of the few women in the field, isolation in the field, being seen as a liability due to safety issues, night work, etc., having to prove myself, being degraded, not taken seriously, being timid or afraid to speak up
3. How do you overcome those challenges?	After years of working in the field you become used to it, try to establish good relationships early on, speak about what is going on with other women, women in construction support groups, view challenges as opportunities
4. Would you encourage other women to work in a field position in the construction industry?	All interviewees answered yes
5. On a scale of 1-10 (1 being no respect whatsoever and 10 being utmost respect) how respected do you feel by coworkers?	Average 5.8
6. If you had to come up with three main factors that you think keep women from working in field positions, what would you say they are?	Money, male dominated training, the fear of men, not many women are in the field, fear of not being good enough, many women don't even realize they can be in the field, fear of being incompetent, fear of making mistakes, safety concerns
7. What has helped you get to where you are now? For example, mentors, classes	Male and female superintendent role models, field training programs, women in construction support groups, view challenges as opportunities

you've taken, specific training, etc.?	
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Discussion/Conclusions

Women who choose to work in male dominated industries, such as construction, face many challenges both entering the industry and staying in the industry. Although all women who pursue a career in the construction industry face these challenges, women working in field positions are particularly susceptible. The literature review explained in detail three main challenges women in field positions face: male-dominated culture and work environment, perception of women's capabilities, and unsafe work environments. The five women interviewed currently work in positions such as assistant superintendent and superintendent on commercial construction projects. Their responses confirmed the research that was done. As far as construction having a male-dominated culture and work environment, the women interviewed stated that in the field they faced challenges such as: isolation being that they were usually the only woman in the field on projects, constantly having to prove themselves to the men they work with and being questioned about their knowledge, and not having any other females in superintendent positions as role models.

Another challenge from the research done those women in the field face was perception of women's capabilities. Each of the five women interviewed explained a situation where they were asked a question by a male coworker, and they gave the correct answer to them. However, the male that asked the question disregarded the answer the woman said and went on to ask a different male. The answer the next male gave was the same answer the woman gave in each of those situations, but the male only listened to his male coworker. Each of the women also explained that when asked what they did for work, people were surprised to hear the answer of assistant superintendent or superintendent. The women were often questioned about their strength and construction knowledge.

In each of the interviews that were conducted, all five women had endured many problems with unsafe work environments. All the women brought up the fact that construction PPE such as construction safety vests always fit inadequately. They also mentioned harassment in many forms being a common occurrence on jobsites, however three of the women said they felt harassment decreased as they gained respect from males.

This paper reviewed literature on the challenges women face in construction and interviews were conducted with women currently working in field positions on commercial construction projects. The construction industry is not benefitting from enough women in field positions. In order to encourage more women to pursue field positions in the construction industry and to stay in those positions, it is vital to bring awareness to the challenges women face. This is a step in the right direction to eventually eliminating those barriers.

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