

# CONSTRUCTION MANAGEMENT STUDENTS’ PERCEPTIONS ON WORK-LIFE BALANCE

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Today's work-life dynamics have changed tremendously since the 1950s. Increased participation of women in the paid workforce has highly contributed to this prominent change; and since then, work-life balance (WLB) has become an important issue for both employees and organizations. Given that construction is one of the most demanding industries, investigating work-life experiences of employees has been a focal point of researchers. However, there is not much literature on how younger generations, also known as “millennials”, perceive WLB before they get to start working in the industry. The purpose of this study is to investigate construction management students' perceptions on WLB. Additionally, the study will investigate the differences in students' perceptions and future expectations considering their gender and enrollment years (levels). For this purpose, an online survey instrument was sent to 694 construction management students who were pursuing their undergraduate and graduate degrees at Colorado State University in 2015; and 61 responses were collected. Mann-Whitney U-test and Kruskal Wallis tests were conducted to identify whether there are statistically significant differences in students' cognizance of WLB issues. Based on the results of the statistical tests, a statistically significant difference was found between the female and male students' perception of early burnout in the construction industry. The results did not provide enough evidence to identify statistically significant differences between groups of students in different enrollment years.

*Keywords:* Millennials, Construction industry, Statistic analysis, Survey.

## 1 INTRODUCTION AND PURPOSE

“Traditional” family model has been abandoned rapidly as more women started to enter the workforce and become “breadwinners” over the last five decades in the U.S. (Pew Research Center 2015). This profound shift has reshaped today's work-life dynamics, and since then, work-life balance (WLB) concept has become an indispensable part of workplaces (Lingard and Francis 2009). Contrary to conventional wisdom, today's WLB initiatives are less gender specific and more important for both men and women such that WLB is seen as one of the pillars to maintain stability in workers' lives (Francis *et al.* 2013, United States Department of Labor 1999). The workforce in the U.S., including the construction labor force, is aging; and it is expected that it will be dominated by younger generations also known as the millennial generation in the future. Providing effective policies to keep this millennial generation content at the workplace is vital (Schwatka *et al.* 2012, The Council of Economic Advisers 2014).

Given that the construction is one of the most demanding industries, investigating work-life experiences of employees has been a focal point of researchers. To date, most of the research has focused on measuring conflicts between work and non-work life activities of current employees; however, very little research has been conducted to understand WLB perceptions of younger generations who are soon to join the workforce. The purpose of this study is to investigate construction management students' perceptions on WLB. Additionally, the study will investigate whether there are statistically significant differences in students' perceptions and future expectations considering their gender and enrollment years (levels).

## 2 LITERATURE REVIEW

By the start of the 1950s, increasing participation of women in the paid workforce has tremendously changed today's business dynamics; and since then the balance between work and family has become an important issue for employees, organizations and governments (Lingard and Francis 2009). In the 1980s and 1990s, the first WLB programs were only provided to women with children; however, current WLB initiatives are more comprehensive and applicable to both men and women (Lingard and Francis 2009, Lockwood 2003). In order to achieve increased productivity and worker health and decreased turnover and absenteeism in the workplaces, various WLB policies and practices have been offered in time in the U.S.; however, more attempts are needed, especially to recover from the adverse effects of the Great Recession (Executive Office of the President of the United States 2014). The necessity of work-life programs generally stemmed from three major problems: i) increased global competition; ii) more interest in personal life and family; and iii) an aging workforce (Lockwood 2003).

The research shows that the workforce in the construction industry is aging (Schwatka *et al.* 2012). Furthermore, there are recruitment and retention challenges resulting in worker shortages. 2016 Workforce Survey results show that the construction firms in the U.S. are especially having trouble recruiting project managers/supervisors, estimating personnel and engineers to fill key salaried professional positions (AGC 2016). Considering that the construction industry has a prominent role for the U.S. economy (such that it provided the highest contribution with 1.1 percent growth in the first quarter of 2016), worker shortages and recruitment and retention issues pose a serious threat to the industry as well as to the economy (Bureau of Economic Analysis 2016). In the Associated General Contractors of America (AGC)'s Workforce Development Plan (2015), it was highlighted that worker shortages could jeopardize schedule and finance aspects of construction projects and adversely affect the economic growth.

U.S. Bureau of Labor statistics (2013) show that approximately 30 percent of the construction industry occupations are filled by relatively younger employees, known as the millennial generation, whose birth years range from the 1980s to the early 2000s (Pew Research Center 2014). To date, much research has been conducted to identify the differences between the millennial generation and others, namely Generation X, The Baby Boom Generation, The Silent Generation and The Greatest Generation. The research including WLB perceptions suggests that, the millennial generation has a different understanding of organizational support dynamics and unique ways of fitting into organizations (Hershatter and Epstein 2010; Myers and Sadaghiani 2010). Specifically, the millennial generation places more importance on the WLB than their predecessors even in high school and before they have children (Twenge 2010). To date, the work-life experiences of employees in the construction industry have been profusely investigated and solid linkages were identified such as poor WLB causing higher turnover intentions, increased burnout levels causing work-family conflict, and long working hours causing work-family conflict (Francis *et al.* 2013, Malone and Issa 2013). However, investigating work-life

perceptions of younger generations has not quite been the topic of research. Only recently, Valdes-Vasquez *et al.* (2016) focused on young construction professionals and found a strong relationship between the professionals' WLB perceptions and their short-term career intentions.

### 3 RESEARCH METHODOLOGY

This study included the students who were pursuing their undergraduate and graduate degrees in the Construction Management Department at Colorado State University in 2015. A survey instrument, which was previously utilized to investigate WLB perceptions of advertising students in the U.S., was adapted and employed in the study (Fullerton and Kendrick 2014). The survey questions were reviewed and approved by the Institutional Review Board and the recruitment e-mails were provided with a link to the online survey tool, Qualtrics. The survey instrument was sent to 649 construction management students. The survey collected the demographics of the sample population (e.g., gender, age, enrollment year, etc.) and included 12 questions (shown right below Table 1) focusing on the different aspects of WLB. A 6-point Likert scale, which ranges from "Strongly Disagree (1)" to "Strongly Agree (7)", was provided for those questions.

Considering the nature of the dependent and independent variables used in the study, Mann-Whitney U-test and Kruskal Wallis tests are employed to test statistical significance. Mann Whitney U-test is used to compare two independent groups; while Kruskal Wallis test is used to compare more than two independent groups. Since the tests are considered as non-parametric, the only assumption to conduct the tests, which is that the observations are independent, is met in this study. It is worth noting that the tests are also suitable to handle ordinal variables and unbalanced data sets (Schlotzhauer 2015, Stokes *et al.* 2000) as are the cases for this study. The statistical analyses were conducted using Statistical Analysis Software (SAS).

## 4 RESULTS

### 4.1 Respondent Demographics

A total of 61 responses were collected; and after removing the incomplete responses, 53 responses remained in the data set. Female students comprised approximately 11 percent of the respondents. For the majority of the students (64 %), the age ranged between 21 and 25. All students indicated that they were enrolled in the undergraduate program and thus no responses were collected from the graduate students. The enrollment years (levels) category showed variability; however, the majority of the students (32 %) indicated that they were in their third year of their program (first year 19%, second year 19%, fourth year 28%, and fifth year 2%).

### 4.2 Discussion of Survey Results

The percentage of the responses for each question is provided in Table 1. Approximately 53 percent of the students agreed/strongly agreed with the statement "I am prepared to work 60-80 hour weeks in the construction management industry if that's what it takes." The responses given to the question 2 showed positive tendencies, which indicates that even in an entry-level job, the quality of life is deemed as important by the students. It was also observed that working hard and having a successful career is important for the students, so much that 73.58 percent of the students indicated their strong agreement with this statement. Similarly, most of the students (62.26%) strongly agreed that spending quality time with family is also important to them. For question 5, it was seen that most of the responses accumulated on the positive side of the scale and the students tended to agree that if a person gets a college education, he or she has a responsibility to pursue a career. The responses given to the question 6 were dispersed over the

scale options and no strong positive or negative tendencies were observed, with 32.08 percent of the students choosing “Neither Agree nor Disagree” option, which was the highest ranked option for this question. Question 7 and 8 showed some similarities in the direction of given responses, with responses accumulated on the negative side of the scale, indicating disagreement with those two statements. Approximately 47 percent of the students agreed with the statement that at least one parent should try to stay at home with a young child rather than both working out of the home full-time. Any strong positive or negative tendencies were not observed for the responses given to the questions 10 and 11 and the responses were mostly dispersed over the intermediate scale options. Lastly, approximately 58 percent of the students disagreed/strongly disagreed with the statement that it is financially difficult to support a family on a construction management salary.

Table 1. Response evaluations.

Options/ Questions	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Strongly Disagree	5.66%	3.77%	-	-	3.77%	9.43%	16.98%	22.64%	3.77%	7.55%	3.77%	24.53%
Disagree	7.55%	-	-	-	7.55%	15.09%	24.53%	43.40%	7.55%	20.75%	22.64%	33.96%
Somewhat Disagree	13.21%	5.66%	-	0.00%	11.32%	13.21%	28.30%	13.21%	7.55%	13.21%	22.64%	15.09%
Neither Agree nor Disagree	1.89%	9.43%	-	5.66%	18.87%	32.08%	13.21%	7.55%	7.55%	24.53%	16.98%	16.98%
Somewhat Agree	18.87%	16.98%	1.89%	5.66%	16.98%	16.98%	5.66%	9.43%	26.42%	20.75%	20.75%	5.66%
Agree	32.08%	35.85%	24.53%	26.42%	16.98%	9.43%	9.43%	-	32.08%	11.32%	9.43%	1.89%
Strongly Agree	20.75%	28.30%	73.58%	62.26%	24.53%	3.77%	1.89%	3.77%	15.09%	1.89%	3.77%	1.89%

Q1- I am prepared to work 60-80 hour weeks in the construction management industry if that's what it takes.

Q2- Quality of life is very important to me, even in an entry-level job. I don't want to spend excessive numbers of hours at my job.

Q3- Working hard and having success in my career is important to me.

Q4- Spending quality time with my children and/or spouse someday is important to me.

Q5- I believe that if a person gets a college education, he or she has a responsibility to pursue a career.

Q6- I think society would look down on me if I chose to stay home full-time if I have children.

Q7- I think society would look down on me if I chose to work full-time if I have children.

Q8- If I have a family including children, I won't work in the construction management industry because it is too demanding.

Q9- I feel that at least one parent should try to stay at home with a young child rather than both working out of the home full-time.

Q10- I agree with some people who say that you burn out at a young age in the construction management industry.

Q11- I feel that most people who work in the field of construction management have a good "work-life balance".

Q12- It's financially difficult to support a family on a construction management industry salary.

### 4.3 Statistical Analyses

The hypotheses were constructed to test if there are statistically significant differences in the students' WLB perceptions considering their gender (i.e., female and male) and enrollment years (i.e., First, Second, Third, Fourth, Fifth year). The significance level for both tests (Mann Whitney U-Test for gender and Kruskal-Wallis test for enrollment year) was set at 0.05 and estimated p-values were compared to that. The estimated p-values for Mann Whitney U-Test and Kruskal-Wallis test are provided in Table 2.

Table 2. Estimated p-values based for Mann Whitney U-Test (gender) and Kruskal-Wallis Test (enrollment year).

Survey Question Number	Gender	Enrollment Year
Q1	0.4517	0.2125
Q2	0.508	0.2257
Q3	0.9749	0.3898
Q4	0.3731	0.593
Q5	0.1146	0.6694
Q6	0.0842	0.5544
Q7	0.0532	0.8997
Q8	0.3711	0.6042
Q9	0.9684	0.9557
Q10	<b>0.0105</b>	0.7432
Q11	0.2901	0.1113
Q12	0.5188	0.7928

*\*The bold cells show the p-values that are less than 0.05.*

For the gender-based statistical tests, the results show that there is only one question (Question 10) where the difference between the female and male students' answers is statistically significant. For that question, female students' agreement with the statement "I agree with some people who say that you burn out at a young age in the construction management industry" is statistically significantly higher than that of male students. The enrolment year (levels) category was also investigated in the same manner; however, the results did not provide enough evidence to identify statistically significant differences between groups of students in different enrollment years.

## 5 CONCLUSIONS AND FUTURE RESEARCH

The results show that having a successful career and spending quality time with family are both important issues for the construction management students as can be evidenced by the high frequencies observed in the "agree" and "strongly agree" options for those questions. Another important finding of this study was that a great majority of the students expressed their disagreement with the statement "If I have a family including children, I won't work in the construction management industry because it is too demanding". Based on the previous studies, it has not been proven that gender is a predictor of burnout (Lingard and Francis 2009), however, the results of this study show that there are statistically significant differences between the female and male students' perception of early burnout in the construction industry. In that context, female students show more agreement with the statement than the male students that burnout may exist at a young age in the construction industry. The enrolment year (levels) category was also investigated in the same manner; however, the results did not provide enough evidence to identify statistically significant differences between groups of students in different enrollment years. This indicates that students' perception of WLB in the construction industry does not change as they advance in their college tenure. It is important to note that the unbalanced data sets and limited sample size of this study might have been influential on the results. Therefore, future research with larger sample size may potentially improve the power of the statistical tests to identify other statistically significant differences between groups. Notwithstanding this, even with the small sample size, the results of this preliminary study provide evidence that an association does exist between construction management students' perceptions of WLB and gender and thus points out the need for further research.

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