

An Investigation of Factors that Influence Willingness to Relocate for Construction Management Students

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Workforce mobility is a significant issue for many construction firms. In order to remain competitive, firms must attract skilled employees who are willing to relocate to meet project related demands. Although workforce mobility has been widely researched, little emphasis has been placed on undergraduate construction management students entering the workforce. This study used a descriptive survey research design to investigate how four factors, identified in previous studies, are related to an individuals' willingness to relocate. The findings suggest that closeness with parents and siblings, and future plans of marriage with family are not significantly related to willingness to relocate. However, respondents seeking opportunities for career enhancement reported being more willing to relocate for work. The results of this study provide valuable insight for college faculty as they prepare students to enter the workforce. The findings will also serve recruiters for construction firms as they seek to identify individuals for opportunities that require relocation. This publication is the product of a faculty/ student collaboration stemming from the McNair Scholars program at the University of Central Missouri.

Key Words: Workforce Mobility, Job Transfer Decision, McNair Scholar Research, Construction Industry Relocation

Introduction

The globalization of today's economy has corporations in the United States relocating employees at an increasing rate. In 2012, approximately 166,500 employees of Fortune 500 companies were relocated domestically, 37% were new hire employees (Worldwide ERC, 2014). Workforce mobility is becoming an important characteristic employers are seeking in their employees. For the purpose of this study, workforce mobility is defined as the willingness and ability of employees to relocate for a job with either a current or new employer.

Workforce mobility is a significant concern for many construction firms as they choose to operate over a large geography. As the result of strong competition and other pressures many companies are soliciting work outside of the boundaries of their traditional locale, choosing to operate on a national or global scale. Construction companies are now strategically placing offices in locations that position themselves to successfully procure and properly manage projects domestically and internationally (Darwish, Nejat, & Ghebrab, 2012). As a result, these companies are now in need of a more mobile workforce.

The average length of a one to three million dollar, private nonresidential construction project from start to finish is reported to be nine months (United States Census Bureau, 2011). One can infer from this data that some employees would need to be willing to relocate to a new project on an annual basis. The alternative would be to seek different employment opportunities to afford themselves the ability to remain in the same location.

Perhaps more than ever, individuals seeking employment in the construction industry need to be willing to relocate to where the work is being performed. However, the issue is not isolated to the construction industry as is indicated by the available literature. Previous studies have investigated the factors that influence workforce mobility in U.S. based corporations (Brett & Reilly, 1988; Landau, Shamir, & Arthur, 1992).

The intent of this study is to investigate workforce mobility among construction management undergraduate students at a midwestern, public university, who will soon be entering the workforce. Workforce mobility will be treated as the dependent variable for the data analysis. The available literature has revealed four independent variables, factors that may influence each respondent's willingness to relocate. The four factors to be investigated are the type of position within a firm, opportunities for career enhancement, future plans of marriage and family, and relationship with family (mother, father, siblings).

Previous studies have acknowledged the relationship between the type of job position an individual holds and their attitudes towards relocation. Certain job positions tend to be more geographically stable than others (Brett & Reilly, 1988). In the construction industry, one would assume that relocation opportunities are more prevalent for project manager and superintendent job positions as compared to estimator and project control positions. This is because project managers and superintendents will typically have more jobsite based responsibilities where estimators and project controls professionals tend to work on multiple projects from a centralized location.

A previous study (Landau et al., 1992) reasons that relocation is a career transition. The more individuals are satisfied with the way the corporation has provided opportunities for advancement, meaningful assignments, and/or information regarding career prospects, the more likely an individual will be willing to relocate. Consistent with the research of Landau et al., 1992, construction management students may view work related relocation as a potential path to promotion, relocating to critical projects to support the needs of the company.

Research conducted by Hall and Hall (1978), suggests that different family stages create different circumstance that influence the decision to relocate. Earlier studies have also looked at spousal approval and the effects on children. It was found that spousal attitudes toward relocation were strongly related to the relocation decision (Brett & Reilly, 1988). Landau et al. 1992, hypothesized that "married individuals will be less willing to relocate than unmarried individuals" (p. 669). However, this hypothesis was not supported by their research findings. Although many individuals may begin their career as single individuals, previous studies point to marriage and children as potential factors in willingness to relocate. Therefore, future plans for marriage and children may influence their willingness to relocate for employment.

Baby boomers, a large portion of the population, are now reaching retirement age and the children of this generation, millennials, are entering the workforce. Lancaster and Stillman (2005) define baby boomers as individuals born between 1946 and 1964 and millennials as individuals born between 1981 and 1999. When describing the experiences of millennials, Lancaster and Stillman (p.31) state that "Raised by highly communicative, participation-oriented parents, millennials have been included in major family decisions since they were old enough to point." This highly interactive family decision making environment could have an influence on their willingness to relocate away from their parents. Millennials "have grown up seeing the protective perimeters rise around every aspect of their lives" (Howe, 2014, p.9). These protective perimeters have made this generation of employees hesitant of change. In addition, millennials are much more likely to seek the consult of their parents when facing major decisions as with accepting a job that requires relocation. Anecdotal observations also show close ties to siblings as well. Similar to the previous factor that considers the role of family stage (plans of marriage and children), strong ties to parents and siblings may influence an individuals' willingness to relocate for employment.

The previous paragraphs presented the importance of understanding workforce mobility in the construction industry. Four factors that may influence an individuals' willingness to relocate were identified from the available literature. The next section presents the method for exploring the four factors and their relationship with willingness to relocate.

Methodology

A descriptive survey research design was utilized to gather data from a stratified random sample of the population (Leedy & Ormrod, 2005). The sample group was undergraduate construction management majors at a mid-sized, midwestern, four-year public University. The approximate total population is 120 individuals. In order to establish a stratified random sample, individuals were invited to participate from the following classes: Plans and Specifications and Introduction to Construction Management (typically freshmen), Estimating and Scheduling (typically sophomores and juniors), Advanced Estimating and Project Controls (typically seniors).

The descriptive survey research instrument was adapted from a previous study performed by Brett and Reilly (1988). The survey instrument was approved by the Human Subjects Review Board. A complete copy of the survey is included in the Appendix. The instrument was delivered by email invitation to each student from the instructor with a link to the online survey. One week after initial delivery, a follow-up reminder was sent by the instructor. One week after the follow-up reminder, the survey was closed and data was prepared for analysis. Descriptive statistics were used to explore the demographic data and to consider trends between willingness to relocate and the type of position a respondent sought upon graduation. Rank-order correlation was then used to investigate the relationships between willingness to relocate and three additional independent factors identified in the literature. The following section presents the data analysis based on the obtained responses.

Data Analysis

Once the online survey collector was closed the data were coded for analysis in SPSS®. A total of 46 responses were collected which represents approximately 38% of the undergraduate population of Construction Management students. The class standings of the respondents were 10 freshmen, 7 sophomores, 13 juniors and 16 seniors. Of the 46 respondents two were female. The majority of respondents appeared to be traditional students, 18 to 24 years of age. Seven respondents were over 25.

The first analysis examined the relationship between willingness to relocate and the type of position sought upon graduation. Table 1 presents the cumulative data on willingness to relocate for all respondents. Here we see that 26.1% reported being unwilling or strongly unwilling to relocate and 52.2% reported being willing or very willing to relocate with 21.7% reporting that they were neutral on the question.

Table 1

Willingness to relocate frequencies

Frequencies			
	Frequency	Percent	Cumulative Percent
Strongly Unwilling	8	17.4	17.4
Unwilling	4	8.7	26.1
Neutral	10	21.7	47.8
Willing	12	26.1	73.9
Very Willing	12	26.1	100.0
Total	46	100.0	

Table 2 shows the frequencies for willingness to relocate among the 26 respondents who desired employment as a project manager. From this table we see that 57.7% report that they are willing or very willing to relocate and only 19.2% report that they are unwilling or strongly unwilling to relocate.

Table 2

Project manager, willingness to relocate frequencies

Project Manager Frequencies			
	Frequency	Percent	Cumulative Percent
Strongly Unwilling	4	15.4	15.4
Unwilling	1	3.8	19.2
Neutral	6	23.1	42.3
Willing	9	34.6	76.9
Very Willing	6	23.1	100
Total	26	100.0	

Table 3 shows the frequencies for willingness to relocate among the 14 respondents who desired employment as a superintendent. From this table we see an equal split, 42.9% report being willing or very willing to relocate and 42.9% report being unwilling or strongly unwilling to relocate.

Table 3

Superintendent, willingness to relocate frequencies

Superintendent Frequencies			
	Frequency	Percent	Cumulative Percent
Strongly Unwilling	2	14.3	14.3
Unwilling	4	28.6	42.9
Neutral	2	14.3	57.1
Willing	2	14.3	71.4
Very Willing	4	28.6	100.0
Total	14	100.0	

Table 4 shows the frequencies for willingness to relocate among the 4 respondents who desired employment in project controls. For this group 75% indicated that they were willing or very willing to relocate with no unwilling responses. Only two respondents reported an interest in a career as an estimator. One indicated that they were strongly unwilling to relocate and the other was neutral.

Table 4

Project Controls, willingness to relocate frequencies

Project Controls Frequencies			
	Frequency	Percent	Cumulative Percent
Strongly Unwilling	0	0.0	0.0
Unwilling	0	0.0	0.0
Neutral	1	25.0	25.0
Willing	1	25.0	50.0
Very Willing	2	50.0	100.0
Total	4	100.0	

In addition to considering the cumulative frequency data, the researchers also examined potential changes in willingness to relocate over time, as student's transition from their freshman to their senior year. Because the majority of respondents desired a career in project management, that portion of the sample was used for analysis. Table 5 shows the results of the crosstabulation with class standing and willingness to relocate.

Table 5

Crosstabulation, class rank and willingness to relocate

Crosstabulation						
Class Rank	Willingness to Relocate					Total
	Strongly Unwilling	Unwilling	Neutral	Willing	Very Willing	
Freshman	2	1	2	3	2	10
Sophomore	0	0	1	3	3	7
Junior	2	2	2	4	3	13
Senior	4	1	5	2	4	16
Total	8	4	10	12	12	46

Based on a visual inspection of the crosstabulation there does not appear to be a significant change in willingness to relocate over time. However, a larger data set would be necessary to test for significant trends.

Due to the ordinal nature of the data, Kendall's Tau was used to investigate the correlation between the independent and dependent variables. The first analysis examined the relationship between willingness to relocate and opportunities for career enhancement via promotion. The results showed that there was a significant relationship between the variables, $r = .24$, p (one-tailed) $< .05$. However, the obtained correlation coefficient shows a minimal effect (Field, 2009).

The second analysis examined the relationship between willingness to relocate and future plans of marriage and family. For future plans of marriage (within 5 years of graduation) there was no significant relationship, $r = .17$, p (one-tailed) $> .05$. For future plans of children (within 5 years of graduation) there was no significant relationship, $r = .20$, p (one-tailed) $> .05$.

The third analysis considered willingness to relocate and the strength of the personal relationship with close family (parents and siblings). For the relationship with parents there was no significant statistical relationship with willingness to relocate, $r = -.15$, p (one-tailed) $> .05$. For the relationship with siblings there was no significant statistical relationship with willingness to relocate, $r = -.11$, p (one-tailed) $> .05$. Although the results are not significant and show a minimal effect, it is interesting to note that in both cases the obtained value is negative. Based on the coding of the data this indicates that the stronger the reported relationship with parents and siblings, the more willing a respondent was to relocate for employment.

Summary and Conclusions

Workforce mobility is a significant issue facing the construction industry. Based on a review of available literature, the researchers identified four factors that have been shown to be related to an individual's willingness to relocate for their employment. The first relationship that was considered was willingness to relocate based on the type of position the respondent was seeking. The cumulative results indicate that a larger percentage of respondents (52.2%) were willing to relocate than unwilling (26.1%). Within each type of position (project manager, superintendent, project controls, estimator) there were no overwhelming trends that appear. However, it is somewhat concerning that half of the respondents who wish to work as superintendents are unwilling to relocate for employment. It is also interesting that the majority of respondents seeking employment in project controls (75%) do indicate a willingness to relocate. Based on the results of the crosstabulation it does not appear that willingness to relocate changes significantly over time as one moves from a freshman to a senior.

The second relationship investigated was willingness to relocate and opportunities for career advancement via promotion. The results showed that there was a significant relationship between the variables, $r = .24$, p (one-tailed) $< .05$. Although the effect is small, the data show that respondents who seek promotion within a company report a higher willingness to relocate. While there is not a perfect correlation, one can infer from the results that many respondents recognize the importance of between being willing to relocate and opportunities for work related promotion. These findings are consistent with the findings of Landau et al., 1992, when travel was a condition of future employment.

The third relationship investigated was willingness to relocate and future plans of marriage and family (within 5 years of graduation). For future plans of marriage there was no significant relationship, $r = .17$, p (one-tailed) $> .05$. For future plans of children there was no significant relationship, $r = .20$, p (one-tailed) $> .05$. The small effect size and lack of statistical significance indicate that future plans on starting a family is not related to an individual's willingness to relocate. Therefore, these two factors do not appear to be a barrier to workforce mobility for the respondents. These findings appear to disagree with Hall and Hall (1978, p.78) that predict that married couples with families "will become less likely to sacrifice family and personal needs to corporate requirements". However, this comment is made in reference to employees as they prepare to move beyond entry level positions, at about the five year point in their career. Therefore, while plans of marriage and family may influence willingness to relocate, it does not appear to be an issue for entry level employees. Landau et al., 1992, found similar results when their hypothesis that married individuals would be less willing to relocate than unmarried individuals was not supported.

The fourth relationship investigated was willingness to relocate and strength of the personal relationships with parents and siblings. For the relationship with parents there was no significant statistical relationship with willingness to relocate, $r = -.15$, p (one-tailed) $> .05$. For the relationship with siblings there was no significant statistical relationship with willingness to relocate, $r = -.11$, p (one-tailed) $> .05$. Therefore, while the available literature indicates a strong protective bond between millennials and their parents, it does not appear to be a barrier to workforce mobility.

Prior to publication the researchers sought preliminary review and comments from construction management faculty at regional peer institutions. The reviewer's comments have pointed to a number of avenues for additional research. Several reviewers asked for a more clear operational definition of the term "relocation". Does this imply living out of a hotel for nine months or changing apartments or rental homes every few years? Is there a set region one would work in or could it include the entire United States? This confusion likely extends to students seeking employment as well. Additional studies could explore a standard framework for defining what "relocation" entails, perhaps with multiple levels. Factors related to defining relocation could include included distance from an individual's "home office" (across the state or across the country) and duration of the work assignment (relocate for three weeks or three years). The reviewers also suggested a longitudinal study that would explore if attitudes towards work related relocation change as they move through their academic and early professional career.

The results of this study provide valuable insight into the issue of workforce mobility for future construction professionals. The findings can be used by faculty in higher education as they prepare students for the potential of career related relocation. The study should also serve to inform recruiters for the construction industry on how certain factors influence the decision to accept a position where relocation is required.

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Appendix

Survey Instrument

Are you an undergraduate student at the University of Central Missouri majoring in construction management? **yes, no**

Age: **18-20, 21-24, 25-28, over 28**

Gender: Male, Female

Marital Status: **single, engaged, married**

Children: **yes, no**

College **class standing: freshman, sophomore, junior, senior**

Growing up, did you have to relocate due to a parent's employment? **never, once or twice, more than three times**

Please rate your willingness to accept a position that requires relocation (at the end of each project) upon graduation. **strongly unwilling, unwilling, neutral, willing, very willing**

Select the job position you are seeking upon graduation (select one only). **superintendent, project manager, estimator, project controls**

Describe your relationship with your parents. **no relationship, not very close, neutral, close, very close**

Describe your relationship with your siblings. **no relationship, not very close, neutral, close, very close**

Describe your relationship with your friends. **no relationship, not very close, neutral, close, very close**

How important are each of the following in making the decision to accept a job that requires moving (wages). **no importance, little importance, moderate importance, strong importance, very strong importance**

How important are each of the following in making the decision to accept a job that requires moving (possibility of future promotion). **no importance, little importance, moderate importance, strong importance, very strong importance**

How important are each of the following in making the decision to accept a job that requires moving (having a challenging and rewarding job). **no importance, little importance, moderate importance, strong importance, very strong importance**

What is the likelihood of marriage within five years of graduation? **already married, no likelihood, little likelihood, moderate likelihood, strong likelihood, very strong likelihood**

What is the likelihood of having children within five years of graduation? **already have children, no likelihood, little, likelihood, moderate likelihood, strong likelihood, very strong likelihood**

Your spouse should be willing to move to further your career? **strongly disagree, disagree, neutral, agree, strongly agree**

Please note any additional factors that would influence your willingness to relocate for employment: