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Changes to Recruitment and Retention Strategies for the Construction Industry in the Bay Area – A Case Study

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Changes to Recruitment and Retention Strategies
for the Construction Industry in the Bay Area – A Case Study

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Abstract

Since 2011, the San Francisco bay area has experienced an increasing shortage of construction and trade industry workers including the project managers, superintendents, sales and general management professionals. Major construction subcontractors, such as the ARC Lift Company, are faced with a high cost of living, competition with the technology companies and more desirable job preferences by the tech firms that make it a challenge to recruit and retain employees. The research will evaluate what changes in recruitment and retention strategies would be required in order to ensure qualified staffing based on those aforementioned challenges.

A review of relevant literature has found that the Bay Area is one of the most costly areas to live and can have a greater negative impact to non-technology firms than technology firms. In addition, the literature also examines how generational attributes can help shape organization attractiveness through the use of work life benefit analysis. The research will be conducted with a mixed method approach utilizing both qualitative and quantitative information gathering approaches such as interviews, focus groups and surveys. The results of this study can provide better insight on recruitment and retention strategies that need to be updated or changed for both public and private industry in the Bay Area in order sustain their businesses or operations.

Changes to recruitment and retention strategies for the construction industry in the Bay Area – A case study

Introduction

Background

Recruiting and retaining talent in the construction industry has become very competitive with the recent rise in construction activity in the San Francisco Bay Area. The shortage of available talent has led to companies to raid each other's talent pool to gain experienced employees with their valuable relationships. The ARC Lift Company's Northern California sub region is an area that has seen an increasing attrition rate over the last 5 years. Historically, attrition rates with this sub region has averaged between 2-3 percent a year; but since 2010, the rate has climbed several percentage points

each year to most recently being over 10% in the last 2 years (Figure 1). As part of the umbrella of the construction industry, the elevator industry specifically is oligopolistic but share similar characteristics of the other construction trades. The drivers of this trend

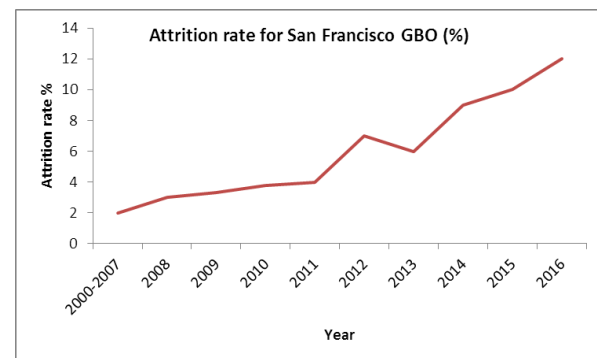


Figure 1. Attrition Rate (%) for San Francisco GBO
Source: Internal data, ARC Operational Review (ORI) 2017

and resulting negative business impacts will be explored in this research.

Problem Statement

The Bay Area has been recognized as one of the most costly areas to live in the United States as well as globally. Further, the area is also a hub for the high technology industry, which have been primarily responsible for the current boom in which these companies' establishing new offices (building new buildings) and contributing to the corresponding housing needs from

the influx of workers. This boom has created a need for skilled trades people that have been well documented; however, the primary problem that will be explored in this research is the recruitment and retention of salaried staff to manage these workers and projects. The chart below illustrates this.

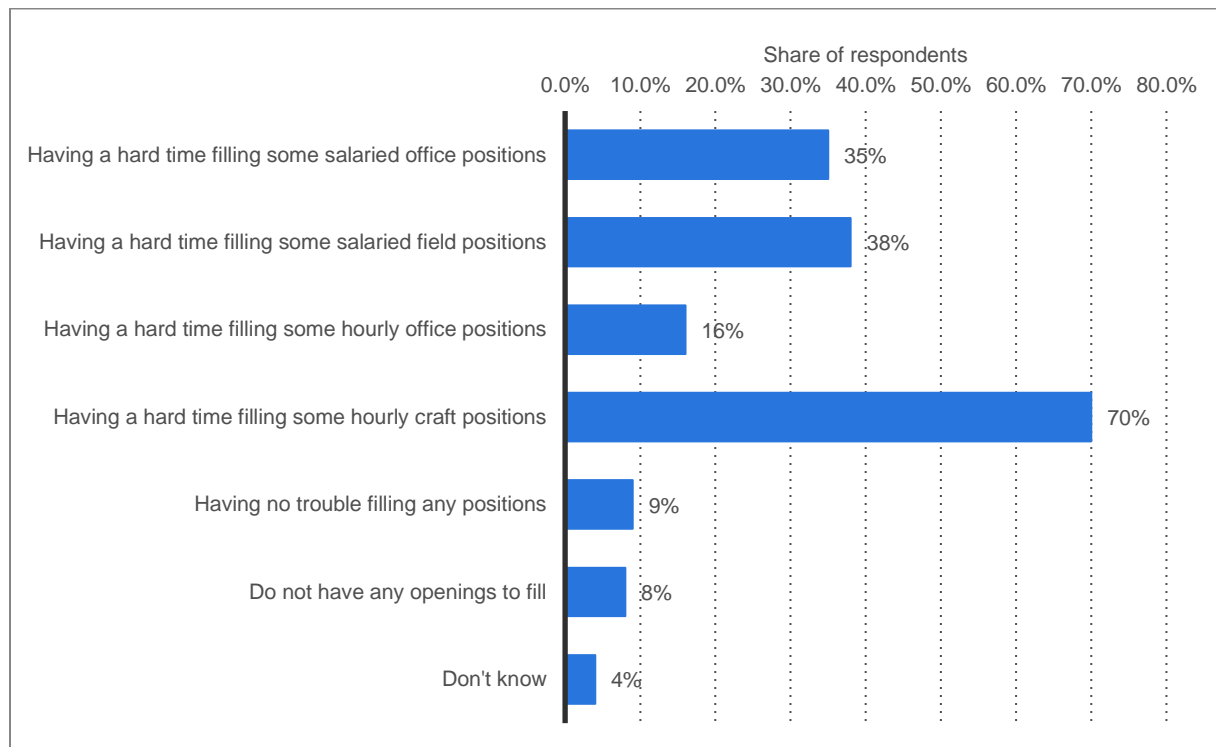


Figure 2. Recruiting situation for construction contractors in the United States as of August 2017. N=1608

Source: AGC, & Autodesk. (n.d.).

Hourly tradecraft positions represent the trade workers and the top three categories represent the target population of this research that includes professional, salaried staff members consisting of superintendents, project managers and engineers, sales, and general management personnel. Appendix C. shows the salaried positions that are most difficult to fill which are in line with the target group.

Main Research Question

This leads to the primary research question being: What changes in recruitment and retention strategies are necessary for the construction industry in the Bay Area to ensure qualified staffing? The Bay Area's combination as a hotbed of tech jobs and a high cost of living make it difficult for construction companies like the ARC Lift Company (ARC) to recruit and retain their workforce. But in order to understand what strategies need to be changed or implemented, understanding the culture and make-up of the organization is important. Looking at ARC specifically, the current recruiting strategies, company compensation targets and how those line up with current cost of living requirements for the Bay Area must be compared to other like companies as well with the tech industry to understand if those factors affect the attrition rate and difficulty of finding new hires. In addition, this research will also look at the effect of direct and non-direct compensation and how that affects the recruiting strategy as well as understanding of the generational characteristics of the available hiring pool.

Research Sub-Questions

The following research sub-questions were also examined in the study:

1. Do current strategies at ARC line up with the right recruitment target? The purpose for asking this question was to determine whether or not ARC is looking for attributes akin to Generation X'ers while fishing in a pool of Millennials? This question introduces another aspect that may contribute to the difficulty of recruiting people for the construction industry: *the coolness factor*. The Bay Area's many tech companies boast well-known names such as Google, Twitter, Salesforce, Uber, and Facebook. Professional salaried positions in the construction industry often compete for the same talent pool as these tech giants.

2. Another sub-question asks, “Does the construction industry appeal to the available pool of candidates where these tech companies have the *coolness* factor?” Many of the popular *Best Companies to Work For* lists outline the many perks given to employees such as catered meals, sleeping pods, and *innovation* hours where employees are allowed to work on non-work projects. The construction industry frankly does not have the same type of aura or perks. Being located in the Bay Area, this is something that non-tech companies as well as public agencies must compete with; and in an industry that also requires technical skills and high education, companies like ARC and public agencies involved in engineering and procurement struggle to match these offerings. But is this entirely true? ARC specifically offers many perks such as a tuition reimbursement program of up \$70K for advanced degrees as well covered vehicle and commuting expenses. The examination of this question will help determine why such valuable perks are not attractive and if applicant are more salary driven? Asking and getting answers to these questions will help to explain why new strategies must be explored to promote the desirable characteristics of the construction industry.

Assumptions and Limitations

The research will not be inclusive of other aspects that could have an affect on recruitment such as organizational behavior and structure and job description and analysis. Also, the targeted population is the salaried positions and the research is not focused on strategies for the hourly, union tradecraft roles. These could be future research areas that could supplement the results of this research topic.

The Elevator Industry

An understanding of ARC's organization structure and culture is also important as it sets the framework that the company is currently required to operate within. Further, some of these corporate cultural aspects are what influence decisions to make change in order to improve the recruitment and attrition rates. The employees that are most affected are salaried individuals with less than 3 years' experience and vary between sales, project management, and operations roles. Operations roles include field supervisory and high potential general management individuals. The next section will outline the basic structure of the organization and provide further background context to the elevator industry.

ARC is a subsidiary of industrial conglomerate First Technology Corporation (FTC). FTC has two main business areas: aerospace and building systems. The aerospace business is comprised of FTAS (First Technology Aerospace Systems), which is a collection of acquired aerospace companies such as Goodrich and Hamilton Sundstrand and then Pratt & Whitney, manufacturer of jet engines for both commercial and military applications. The building (commercial) part of UTC consists of ARC (elevators and escalators), and CCS (Climate, Controls and Security), which is another group of acquired companies. FTC is a very hierarchical organization that has overarching policies driven down to the core business units.

ARC' structure is very similar. ARC consists of a World Headquarters (WHQ) and there are four main regions: The Americas, Europe, Middle East/Africa, and Asia Pacific. This paper focuses on the Northern California sub region that includes offices located in San Francisco, Oakland, San Jose, and Sacramento. The sub region belongs to The ARC Americas organization. Each main region has a President that reports to WHQ President who reports to the FTC CEO. The ARC Americas includes both North and South America. The North American Area (NAA)

is the main region in the research regarding internal data metrics. NAA has five main regions: West, Midwest, South, East and Canada. The organization chart in Appendix B highlight the structure of the company and shows where the Northern California sub region and San Francisco fall in the structure. Understanding the how the structure is set up is important as ARC NAA has a general Human Resources (HR) department that oversees the regional HR activities. In addition, HR at the NAA level has reporting duties to both WHQ HR and FTC HR. This relationship emphasizes one of the potential problems in the recruiting and compensation strategy.

Significance of the Study

Reviewing the current strategies for construction companies like ARC are required in order to assess if different approaches are needed. Where does ARC recruit? How can they address the cost of living challenges? Is that even a factor in retention and recruitment? It is imperative that ARC (and likewise other construction companies) needs qualified field supervisors and project managers/ engineers as the mainstay for executing projects during this boom in the Bay Area (Rojas, 2013). Primarily, the high costs of living and the draw of tech companies limit the available pool of candidates for construction contractors. Those two factors combined with a comparison or analysis of compensation (direct and indirect) structure can help in the development of more effective strategies to recruit and retain. Changing these efforts can lead to a successful means of ensuring qualified, long term staffing.

The public sector also faces many of the same challenges being presented here. There are numerous public agencies requiring highly technical skill sets in construction and design ranging from departments of transportation, facilities management, building inspectors, and code/regulation enforcing agencies. The lack of qualified staffing has the same negative effects

that the private industry in construction face affecting reduced efficiency and expertise (institutional knowledge). Further, within the Bay Area, public agencies are challenged with the same cost of living, compensation levels, and benefits that tech companies offer drawing more potential recruits away from those opportunities. Similar techniques and strategies for recruitment and retention employed by the construction industry can be transferred as well to public agencies faced with similar circumstances.

Expected Impact of Research

The results of this research can also translate into other organizations, private and public, to review their own policies and practices to determine if a shift is required in order to stay competitive and relevant. The generational diversity existing in the hiring pool along with the unique characteristics of the Bay Area (high technology and cost of living) present specific challenges to large construction contractors like ARC. Hence, the industry must evaluate current strategies and recognize changes that can be made in order to enhance their recruiting and retention efforts.

Literature Review

Changing the recruitment and retention efforts of construction companies in the Bay Area requires understanding the external drivers that are causing the need to reevaluate them. There were numerous literary sources found that have been recently published that relate to understanding why the construction industry would need to evaluate a change in their hiring strategies. The main literary contributions that relate to this research study focuses on understanding that the Bay Area is one of the highest cost of living places to reside. Another strong theme discovered in this literature review was the effect of competition between the Bay Area's technology and the construction industries. This competition presents recruitment and retention challenges for each of these industries as job seekers look for more desirable places to work. The desirability is often affected by the different compensation and benefit structures that exist between technology and construction organization. The final theme examined in this literature review highlighted the importance of understanding generational groups in the hiring pool. Literature concerning this theme describes how the hiring managers within each industry must be able to evaluate the different perceptions of attractiveness for work. Further, the construction industry must look at how to market itself appropriately by potentially changing their work-life benefit offerings.

These challenges in the construction industry are not confined to just the private industry. Public agencies that are related to aspects of the construction trades face similar challenges of recruiting and retaining qualified persons. Since construction professionals also require a technical education and background that leads to challenging work, strategic hiring and retention plans must be employed to successfully recruit and retain each of these types of workers (Harper, 2017).

Cost of Living

Cost of living in the Bay Area, specifically San Francisco has increased tremendously the past few years with rental and median housing prices being one of the highest in the nation. A look at the median housing prices across the U.S. in 2016 (Appendix X) show that San Jose and the San Francisco Bay Area (Oakland and East Bay) had the highest median price at \$1.0M and \$838K respectively (ProQuest. (n.d.). Median sales price of existing single-family homes in the United States in 2016, by metropolitan area (in thousand U.S. dollars). In *Statista - The Statistics Portal*). Further, rental costs in San Francisco for one-bedroom apartments was also the highest in the country in 2017 as shown in Figure 2 below. The below chart is representative of data that exists in determining cost of living. New recruits will often do similar online searches if coming from outside of the local Bay Area.

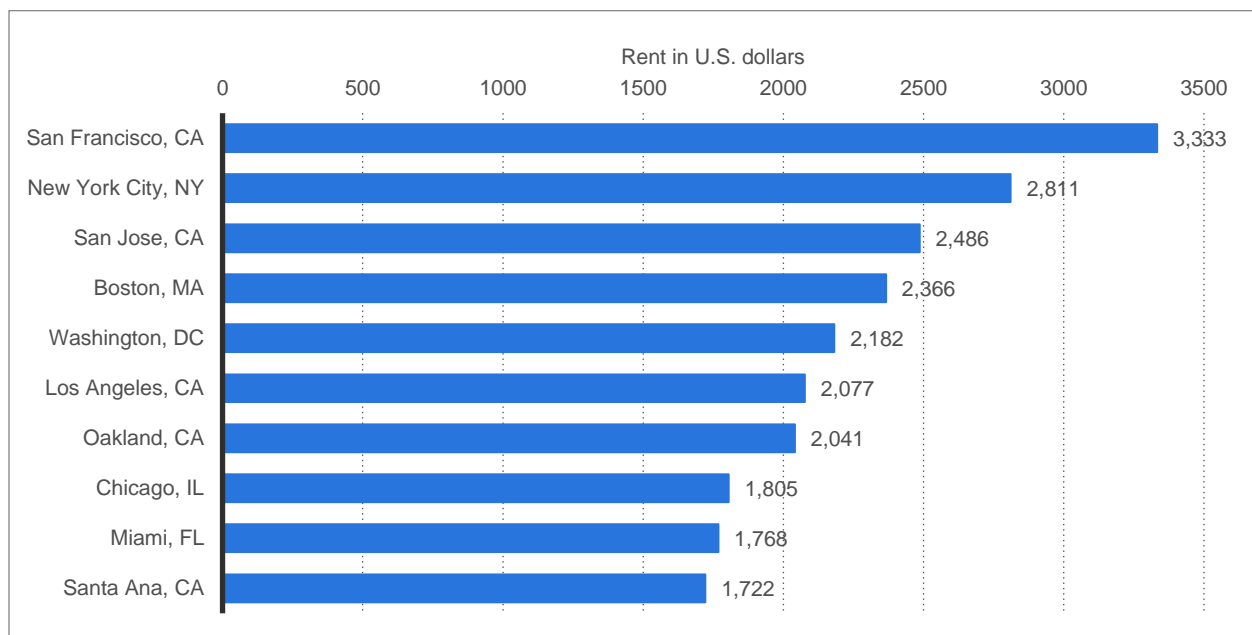


Figure 3. Abodo. (n.d.). Average rent for one-bedroom apartments in the United States in 2017, by city.

Source: In *Statista - The Statistics Portal*. Retrieved February 22, 2018, from <https://0-www.statista.com.library.ggu.edu/statistics/609632/cities-with-highest-rents-for-1br-apartments-usa/>.

In an article titled “Why the High Cost of Big-City Living is Bad for Everyone”, the author, Mark Gimein, suggests that cities like New York, San Francisco and Washington have always been associated with high costs of living. He explores how these cities’ housing costs have come to what they are today. Such that these cities are large economic centers that draw people in, thus subsequently driving up cost. But the recent trend today is that these high-wage locales have become increasingly limited to those who *already* had high paying jobs. The question then becomes: “Does that opportunity also come with the need to pay a bajillion dollars in rent?” (Gilliam, Pg 4). This is an important aspect as generally recruiting new employees for ARC comes from a centralized, national recruitment effort. Meaning, often, candidates are brought into the Bay Area and are thus hit with *sticker shock* at rental prices. This in effect, either deters potential candidates or can cause them to leave after a short period. Further, the target population of individuals having less than 3 years’ experience generally means that they are not in the *high-paying job* category already.

Competition with the Technology Industry and Desirability

The attraction of the high-tech industry in the Bay Area is another aspect in addition to cost of living that makes it difficult for construction companies to attract and retain talent. In a study published by the Harvard Business Review, San Francisco was ranked number 10 in the most attractive cities to move to for work. The study was conducted by AIRINC, a global research company, using data from its in-house survey team that work with over half of the *Fortune* 100 Companies. The study broke down the data into three main criteria: 1) Financial ranking (salary, tax, and cost of living data) 2) Lifestyle ranking (living conditions, social benefits, crime, climate) and then 3) An overall ranking combining financial and lifestyle with financial factors having a heavier weight. San Francisco made the top 10 in large part due to

tech companies' high salaries. But the tech industry growth has also contributed to the very high housing costs and stresses on lifestyle due to urban displacement, widening income inequality and declining ethnic diversity. (Randall, 2017). The interesting part of this study is how smaller European cities dominated the top 10 largely in part to larger cities having higher housing costs and that European countries tend to offer more generous social benefits. The fact remains that San Francisco, although desirable, was primarily ranked high because of salaries offered by the tech industry. With an average wage of \$175,000 per year per worker in information technology within Silicon Valley (Doti, 2017), this makes it very tough for new employees coming into Northern California ARC at an average wage of \$55,000 to \$65,000 (Internal data, 2018) over the last 3 years. But the positive aspect is that the city does remain a desirable place, and that can potentially contribute to factors to keep employees in place and lower attrition rates.

While cost of living can often times be mitigated by direct compensation benefits (higher salary); consideration of other indirect methods must be considered when developing total compensation packages. In a survey done by the Boston-based Northeast Human Resources Association (NEHRA), they found that 52% of the 254 members polled find it harder to adequately fill vacancies because it is so expensive to live in the Boston area. Many respondents opine the difficulty in recruiting and retaining prospects, as well as the high salaries they must pay to stay competitive. However, some of the respondents commented that while the cost of living is not a deterrent for local candidates, it could be quite a shock to those considering relocation to the Boston area (Compensation & Benefits for Law offices, 2005). This is an interesting aspect as that the thinking of local candidates not being affected as much by cost of living challenges than non-local candidates could be a factor in recruitment sourcing and compensation package development. Further, the article also states that financial incentives that

encourage employees to live healthier lifestyles appear to be a promising option for reducing cost of living effects related to healthcare costs. Unique and different healthcare options that encourage better lifestyle appears to be a trend welcomed by those surveyed.

It is the notion of indirect compensation benefits that appear to have an impact in determining *desirability* of organizations. Why is it that tech companies seem to have a better appeal or that *coolness* factor over other industries? The chart below from Glassdoor shows that Facebook, Google and HubSpot all rank in the highest for best companies. Glassdoor is a third-party website in that solicits feedback from its users who have registered about the companies they work for. Further, in *Fortune* 100 Best Companies to Work For in 2018, Salesforce was the number one ranked company and 3 out of the top 10 were technology-based firms. No major construction firms were mentioned in the top 100. These rankings are based on employee surveys and highlight the many aspects and attributes that make these companies desirable. Could it be that most major construction firms like ARC are just not interviewed and thus are not included? But the data is compelling in understanding what attributes make companies desirable. But desirable to whom? One area that needs to be explored is the effect that generational groups have on recruitment. Does the culture of construction companies have compatibility with the generational target group?

Another aspect of desirability affects the ability of public agencies to recruit and retain; especially with circumstances like what is occurring in the bay area and the ongoing construction boom. Public agencies such departments of transportation (DOTs) have found themselves at a disadvantage in competing for new engineering graduates as well as retaining current engineering personnel (Glagola, 2001). Further other DOTs such as the state of Washington and regions like the South-Central States (New Mexico, Texas, Oklahoma, Louisiana, and Arkansas)

have launched recent studies to improve hiring strategies and prolong skilled trades workers. Competition for these public agencies with the private industry is a challenge as benefits like salary and non-compensatory items are seen as more desirable than salary structures of the public agencies like DOTs.

Generational Understanding and Work Life Benefits

A study published by Human Resources Management titled, “The Lure of Work-Life Benefits: Perceived Person-Organization fit as a Mechanism Explaining Job Seeker Attraction to Organizations” addresses this correlation. The study consisted of a sample of 189 MBA students representing two generational groups (Millennials and Gen Xers) that were surveyed about seeking employment. This particular study is of interest as it addresses directly what makes an organization desirable. Although the study was conducted in 2010 during a time of economic recession, the outcomes regarding the benefit of non-compensatory benefits still reside today. Work-life benefits (WLBs) are one of many inducements that are currently utilized by companies to attract potential applicants. As seen in the Fortune 100 list of Best Companies to Work for, the top companies mentioned are expanding and diversifying their work-life programs in an attempt to help employees balance their work and non-work demands (Firfiray, 2017). The research explains how Person- Organization (P-O) Fit theory reflects the perceived compatibility between individuals and their work organizations (Chatman, 1989, Kristoff 1996). The provision of WLBs may satisfy the psychological needs of young job seekers because they may utilize this information to make inference about the extent of which an organization is likely to espouse values that are similar to their own and thereby affect their P-O fit (Chatman, 1989). P-O fit also demonstrates that employees are attracted and committed to organizations that better fit their values. Firfiray further defines *organizational attractiveness* as an individual’s affective

and attitudinal thoughts about a company as a potential place of employment. The underlying premise is that individuals are attracted to organizations that have similar personalities to their own, and that allow them to obtain outcomes they desire from work (Firfiray, 2017). The suggestion infers that job seekers' perceptions of P-O fit are a good predictor of their attraction to organizations.

The need of understanding different generations cohabiting in the workplace is an area that has received attention in recent years (Firfiray, 2017). There are four main generational categorizations that exist in today's workplace (Mills-Sen, 2017).

1. The Silent Generation (born 1925-1945)
2. The Baby Boomers (Born 1946-1964)
3. Generation X (born 1965- 1981)
4. Millennials (born 1982-1999)

Each generation has had profoundly different experiences and event encountered by during their developing years and may produce varied expectations and preferences about work and job choices. Millennials are one of the fastest growing segment within the job market at present, and efforts aimed at recruiting this group of workers are generating incessant interest and are being prioritized by several organizations (Firfiray, 2017).

Another article published by Credit Union Management titled "Building Up Millennials' Strengths" also addresses the generational difference and currently employee pool of Millennials for the financial industry. Here, the industry has been hit with high attrition rates as well due to fast turnover of Millennials coming into the industry. They recognize that rethinking their messaging in the early stages of recruiting is critical by incorporating techniques using social media to be in line with what Millennials are accustomed to. The P-O fit must be strong and in

line with their values. The credit union industry has recently incorporated programs that are promoted during the recruiting phase such as leadership development and the “fun patrol” to encourage and foster fun work environments that are appealing to the Millennial group (Mills-Sen, 2017).

The survey conducted by Human Resources Management found that Millennials attach more significance to freedom-related work values such as work-life balance and autonomy in comparison to previous generational groups (Firfiray, 2017). Overall, the findings suggested that organizations must convey the right set of values to attract a larger pool of job applicants. The study does comment that further research must be done to determine if WLB's enhance the quality of the applicant pool, and not just the size of it. These two studies regarding generational differences and correlating WLB are of importance in determining how to recruit from a pool of applicants. Does the tech industry do something that others aren't that makes them more attractive? The research show that companies that want to build strong relationships with key stakeholder groups such as Millennial job seekers will benefit from developing appropriate communication channels to express their businesses' agenda. Work-life issues that might be experienced by prospective employees is a key component of that agenda. The construction industry needs to review how they advertise and promote themselves against companies that have already realized the importance of understanding generational differences.

Conclusion

The research reviewed has outlined a strong basis in the need for construction companies to review their recruitment and retention strategies. It is evident that other industries have already made efforts to make changes. Cost of living challenges can be overcome through a review of direct salary structure and revised comparators as well as evaluating the effect of non-

compensatory benefits that appeal to the applicant pool. Also, the communication and positioning of construction companies must start early in the recruitment process in order to identify with potential applicants for a positive P-O fit, thus improving the attractiveness of the firm. Essentially, a marketing effort must be done that previously was not emphasized. Lastly, having a grasp of generational differences can help shape policies and strategies to be more effective. If offering work-life policies has the potential to enhance an organization's ability to attract the best employees, it may also result in positive repercussions for the organization beyond the recruitment domain (Firfiray, 2017).

Research Methods

The primary objective of this study is to analyze recruiting and retention strategies utilized by construction industries in the Bay Area. These strategies will be explored using a qualitative case study research method. This idiographic approach is a single case focusing on The ARC Lift Company in San Francisco, California to help understand the research question. What changes in recruitment and retention strategies are necessary in the construction industry for the Bay Area to ensure qualified staffing? ARC is representative of many of the construction industry contractors and sub-contractors operating in the Bay Area. Further, these organizations are similar in need for qualified staffing for public agencies that are heavily weighted in engineering and technical functions such as Departments of Transportations, Building departments, and Civil Engineering agencies. Additionally, the following sub-questions were addressed in the research:

1. Do current strategies at ARC line up with the right recruitment target (generational population)?
2. Does the construction industry have more or less appeal to the available pool of candidates versus the technology companies in the area that have a certain *coolness* factor?

Research Assumptions

The research will evaluate several assumptions by conducting a case study qualitative approach. The assumptions relate to the Bay Area factors regarding cost of living, competition with the tech industry, and less desirable job attributes with the local hiring pool that make recruitment and retention difficult for the construction industry. The related assumptions for the research are:

- 1) The Bay Area's high cost of living is a detractor for potential new employees.
- 2) The construction industry is not as attractive to jobseekers than technology industry jobs.
- 3) The tech industry pays higher salaries than the construction industry (for equivalent experience) that make it difficult for the construction industry to compete.
- 4) Non-compensatory perks and work-life benefits are important for the targeted population.

Operational definitions

Attractiveness: This is the perceived level of desirability by potential new applicants. This can include items terms such as salary, benefits, promotion potential, career path, and type of work. This can be obtained from literature and survey results as well as exit interview data. Also, focus groups of existing employees with less than three years' experience or those in the Millennial generation group will be interviewed to understand what attributes are associated with desirability to an organization. Compensation being equal, often the type of perks and work life benefits (WLB) that a company has to offer is the winning factor. However, the technology companies' offering of non-traditional perks and WLBs make it difficult for construction companies to make competing offers.

Type of work: Construction versus technology i.e. science, technology, engineering, and math. Defining these industries can be found using job searches and reviewing job descriptions and requirements. Also, as determined in the literature review, many lists of most desirable companies are categorized by industry already defining technology versus non-technology firms.

Construction Industry: Non -labor position in the construction industry such as sales, supervisory, project management and general management. This was found in the Statista info graphs outlining salaried positions for construction contractors.

Technology jobs/sector: Highly skilled STEM (Science, technology, engineering and math) requirements. Companies are highlighted in the *Fortune* 100 Best companies to work for and are categorized by industry.

High cost of living: Costs of housing, food, and utilities. As reviewed in the previous section, cost of living comparators is based on numerous metrics with housing and rental cost being the primary driver. Further, equivalent salary surveys and research can be gathered to determine levels of cost of living. The data shows though that the San Francisco Bay Area consistently ranks as one of the costliest areas to live amongst numerous data sources.

Pool of new employees: Generation groups such Gen X'ers and Millennial as well as the source (college grad, military, etc.). Of the groups, less than three years' experience is typically Millennial and between three and seven years' experience includes both Millennial and GenX. This group can be identified internally through focus groups and online surveys.

Non-compensatory perks: These perks are circumstantial opportunities that become reasons to choose one job over another. Often defined as something that could help an employee do their job. Items such as company cars, gym memberships, and casual dress codes are viewed as perks. There are also a growing number of perks in the workplace that make technology companies more attractive than non-technology companies and public agencies such as provided meals, wellness activities, and day care.

Work-life benefit: These opportunities are often mistaken as perks described above. But work-life benefits (WLB) include circumstances like commute length, growth opportunities, flexible work hours, and education assistance.

Data Collection Plan Overview

Data collection will primarily be done in two-ways. The first approach is qualitative in nature to obtain primary data utilizing focus groups, key informant interviews, and participant observation of construction-based workforce. The information gathered would be based off a series of questions listed below targeted to understand what drives desirability to work for a company and what are detractors. The intent is to identify secondary data such as: common themes, trends, and best practices in order to develop a survey to target a larger sample population both inside and outside of the construction industry. The survey is the second phase.

Population Sampling Strategy

Participants of this study will consist of the following primary focus groups:

1. Millennial and GenX employees in the construction industry. These employees will have less than 3 years' experience and between 3 to 7 years' experience respectively. Within ARC, a target of approximately 30 to 40 employees will be included in the group. The focus groups will be separated into three types: Sales, Project Management, and Field Operations. Further, the Sales groups will be broken up into two sub-groups to keep the size small. Additionally, a survey will also be deployed based on the themes and trends from the focus group sessions. The survey will be sent to residents in the San Francisco area to potentially validate the themes garnered from the focus groups.

2. ARC Human Resource managers. Key informant interviews will be conducted with the Vice President of Human Resources for the Americas, Sr. Human Resources Director, Western Region, Talent Acquisition Manager, Western Region and five General Managers of branch offices in high cost of living areas (San Francisco, Seattle, Oakland, Sacramento and San Jose).
3. Participant Observation. My own field notes and experiences will be included in the research as my position allows for access to recent transactions in the business to include exit interviews of several employees who have left the company. Further, a review of data from the last two years of national employee surveys will also be reviewed for relevant secondary data on retention.

Procedure

First, interviews will be done on Millennial and Gen X employees with less than 3 years' experience and those with between 3 to 7 years respectively. These interviews will be conducted in focus group settings based on functional areas such as: Sales, operations, project management and general management. Further, key informant interviews would be conducted with HR managers and other managers with hiring responsibilities. Questions for employee focus groups include:

1. What perks do you currently enjoy most?
2. What attracted you most to ARC?
3. How important was your starting salary level to you?
4. Do you feel you have professional growth opportunities? How important is that to you (scale of 1 to 5 with 1 being the least important and 5 being the most important)?

5. What aspects of your job do you like most? Do you like least?
6. What values are important for you to see with a company?

Questions for informational interviews with HR and general managers:

1. What have been the best recruitment strategies you've experienced?
2. What is the attrition rate for your organization?
3. What have been the top reasons for leaving the company (can also use information based on exit interview data)
4. How often are cost of living data reviewed for compensation purposes?
5. What new benefits (if any) are being considered?

Second, a review of organizational data from employee surveys and internal company metrics from the past three years (2016-2018) will be used to validate whether the current strategies support the output from the interviews and focus groups. Also, surveys will be conducted using the NextDoor application to gather further secondary data from residents in the San Francisco area. The researcher using their own internal notes, emails and briefings related to the research topic will include their participant observation data.

Data Processing and Analysis

The research design is based on using multiple methods of data gathering. Part of the first phase is to conduct informational interviews with key HR personnel within the construction industry. Obtaining information such as attrition rates and worker demographics amongst the affected population are one of items during the informational gathering phase. Additionally, an understanding what ARC' recruiting strategy is at a national level can help identify gaps that could possibly be solved at regional or local levels. Lastly, gathering information on potential

changes to current benefit and compensation structures will help frame competitiveness with other industries and companies. Interview discussions will also be conducted with the targeted employees in focus groups to pull out trends and themes. These trends and themes will be analyzed alongside internal organization data and summarized. The intent is to understand what the drivers are for employee attrition and what best practices are needed to improve recruitment and retention efforts in the construction industry. Further, an expected outcome would also be understanding what attributes make one company or job more attractive than others in order to define specific hiring and marketing strategies.

Dependent and Independent Variables

The main research question can be converted into a statement in order to examine the variables for this study. “Changes in recruitment and retention strategies are necessary in the construction industry for the Bay Area to ensure qualified staffing” The dependent variable is ensuring qualified staffing for the construction industry in the Bay Area. The independent variables are retention and recruiting strategies. These strategies include other aspects that make up those strategies such as: Work-life benefits, Non-compensatory perks, compensation Packages. Changing those types aspects for professional level job offers can make construction industry employment more attractive over other industries in the area.

Internal and External Validity

The research has a number of factors that can affect the internal validity of the study. During the study, any sudden changes to economy that affects the construction business or tech industry can have an impact on the outcome of changing strategies. Although it is unlikely for this to occur due to the short duration of the research timeframe. Further, the study is focused on

three main factors that can affect recruitment: cost of living and compensation, attractiveness of the industry, and generational understanding and the relation to work-life benefits. Changes in climate to any of these areas can affect the internal validity of the study. If an economic downturn occurs or massive job layoffs in the tech sector arise, that can have an impact on employee feelings regarding the main factors of this study. The external validity of this research can actually extend beyond the construction industry and apply to most any organization facing similar challenges outlined in this research. Recruitment is an evolving process and should be evaluated along with the current business or operational environment. The transferability of the research outcomes to the public sector is another means of external validity as organizations, both private and public, can benefit in new recruitment and retention strategies to match the changing needs of the workforce. Further, the themes gathered from the key informant interviews and focus group sessions can be used for a mixed-method research with public organizations. Surveys can be generated and distributed amongst public agencies as well as technology companies to gather more robust themes and strategies for recruitment and retention.

Limitations

Limitations to the research include other aspects that could affect job attrition such as organizational culture, job description, and life changes. Those items can be explored further as a follow-on research topic. Further limitations also rely on the quality of data obtained during the interview and focus group phase. As the researcher is a senior level manager, there could be bias in answers that may not necessarily reflect true feelings. However, if those trends are prevalent, the survey to random participants could reveal what the true trends are. Another constraint also exists with the number of responses during the survey process as well as the availability of

individuals during the focus group sessions. Maximum participation will be critical to ensure a broad coverage of needs regarding recruitment and retention are understood.

Conclusion

In summary, the research will be conducted with a case study qualitative approach. First, using qualitative approaches with key informant interviews and focus group sessions and discussion will help extract themes and practices to support the need for change (or no change) to current recruitment and retention strategies in the construction industry. Secondly, a review of internal data regarding attrition, current strategies and employee surveys will be used to evaluate the impact of current and newly proposed changes to hiring strategies. The researcher and author of this proposal has been working in the construction industry for over 14 years and is currently an Executive level manager within the Bay Area who has had hiring authority throughout the tenure of work.

Results and Findings

This chapter provides a review and analysis of the primary data collected. It also includes observations from the researcher and a review of secondary data obtained from ARC (the researcher's employer). The analysis of the data in this chapter will help answer the research question: What changes to recruitment and retention strategies are needed for the construction industry in the Bay Area to ensure qualified staffing?

Overview of Results

The methodology for this research project was first conducted by holding focus group sessions with participants in the target population. Also, key informant interviews were conducted with human resource managers and general managers with direct action for recruiting and retention. Analysis was then done of secondary data and surveys to further support recommendations for improvement recruitment and retention strategies in the construction industry. Included below are the raw data, analysis and significant findings from the focus group interviews and surveys.

Focus Group Interview Data and Findings

1. What perks do you currently enjoy most?

SG-1-1: *I really like the flexibility in work hours that my job provides. I'm not constricted to a 9 to 5 setting so I can be flexible with my commute times as I'm coming from the East Bay. Oh, and it's great that I've got parking as well when I get to the office.*

PM-1-5: *What I like most? Ha... I know I don't like the benefit package. But if there was something I like, I guess it would be the free coffee in the office.*

FO-1-3: *The 401K program with the company match is really nice.*

SG-2-2: It's pretty cool that we get lunch delivered to the office fairly often.

FO-1-2: We have fun here (San Francisco). We volunteer as a group around the city with organizations like the Boys and Girls Club and Junior Achievement and routinely have team building outings. Our office is very diverse with great rapport and the engagement is a lot of fun.

Analysis: It is clear that ARC in particular has a wide range of benefits and perks to offer. From the more formal offerings of 401K and flex time to the non-traditional as parking, tolls, and engagement activities, the organization must know how to best promote those during the recruiting phase. Having these perks also lead to a strong means for retention as well.

2. What attracted you most to ARC?

SG -2-4: One of the most attractive benefits I saw coming in was the Employee Scholar Program. Getting my MBA has always been a goal and seeing that the company would cover 100% of the costs was such an added benefit. A "no-brainer" quite frankly.

FO-1-1: The legacy of ARC. I grew up in the ARC family as my father and grandfather both worked for ARC as a mechanic. So having the opportunity to be a part of this trade as a field supervisor was an easy choice.

FO-2-4: Knowing that there is an ARC office in every major city in the world was enticing. As I'm fairly young in my career, having the potential choice to move around to different areas was pretty cool.

SG-1-4: Really it was about the money. The incentives were much higher than where I was previously (commercial property management).

Analysis: The responses to this question were wide ranging. Everything from salary, to legacy, type of work, and benefits popped up. From this, it is important for the organization, whether public or private and construction or non-construction, to evaluate their offerings and find means to promote those as part of a job offer.

Highlighting certain aspects based on a targeted candidate profile could help drive greater interest for any organization.

3. How important was your starting salary level to you?

SG-1-2: *Very important. It was the first thing I considered. By the way, that's base salary, not this total compensation thing you do with incentives and benefits.*

FO-1-2: *It's not everything, but it was the first thing I compared amongst multiple offers.*

SG-2-4: *Ummm, if the salary wasn't there, I wasn't going to consider anything else. So it was very, very important.*

PM-1-3: *Well, the offer I received was the best by far against other PM (project management) opportunities, so it's very important.*

Analysis: Developing a strong offer from the outset is important and having a significant first offering is what caught the attention of many of the employees. The challenge is that the construction industry and often public agencies don't have the capital backing as many of the technology companies hiring in the Bay Area. So putting together a competitive compensation package is an extreme challenge for highly qualified persons.

4. Do you feel you have professional growth opportunities? How important is that to you (scale of 1 to 5 with 1 being the least important and 5 being the most important)?

SG-1-4: *I do. I'd rank that about a 4.*

SG-2-4: *I really feel I do. I mean, in the 4 years I've been here, I've been promoted once and I see where the opportunities are. I would rate that as 5.*

FO-1-4: *Absolutely. There are so many places to go within the operations track. I rank that as 4.*

PM-1-2: *Now that I've been here for 1 year now, I really don't see a lot of places for a project manager to move up in this company. It's very important to me as I rate that as a 4, but I just seem my opportunities as being limited.*

PM-1-9: *I agree with PM-1-2. Look, I'm glad I made the move as I enjoy the work, but the path for growth seems limited. I rate that as a 4 for me as well.*

Analysis: The focus groups were primarily made up of the millennial generation. The notion of forward advancement with the company was a recurring theme. It seemed however that the timing of such advancement was viewed as too slow. The new hires expect a faster progression within the company.

5. What aspects of your job do you like most? Do you like least?

FO-1-1: *I like the fact that I can lead people directly and have a real impact on the business. The antiquated systems however need drastic improvement.*

SG-2-4: *I love the autonomy and freedom in my job, but the CRM platform needs to go.*

PM-1-3: *The technical challenges and problem solving are what I enjoy the most. Dealing with General Contractors yelling at me all day is something I could live without, but it comes with the territory.*

SG-3-1: The stability of my job and that it's been recession resistant has been great. I think the internal communication with the operations group has been the least likeable aspect.

Analysis: It was apparent that the construction industry offers a satisfying work experience provided the candidate had matching skill sets and interests. But with such a large organization, the systems and technology deployed didn't match that of what the technology sector offers. Outdated mainframe systems and non-mobile platforms are one of the largest detractors for the company. Often, public agencies are criticized for same type of systems according to the focus groups

6. What values are important for you to see with a company?

SG-1-2: Ethics and doing the right thing.

FO-2-3: Having integrity and being honest.

SG-2-4: Caring for their employees.

FO-1-4: Safety, ethics, and investment in employees.

PM-1-1: Empowering employees and promoting an inspiring experience.

FO-1-2: Yes, the work experience is very important. I value a company that strives to create a stress-free environment and a relaxed culture.

Analysis: The most common themes that came out from this question amongst the focus groups centered on ethics, empowerment, and enrichment. Organizations that “do the right thing” and promote positive values are defining what is attractive for the millennial workforce. Further, having the ability to have an immediate impact was another important theme that potential job seekers look for in a company. Lastly,

programs for further development and enhancement are almost a requirement within an organization to remain competitive.

Key Informant Interview Data and Findings

1. What have been the best recruitment strategies you've experienced?

VP-1 – For professional level positions, we have made tremendous effort in ramping up our on campus recruiting at major universities throughout the country. We rely on the regional HR teams to get out and develop partner schools to help create a feeder system. For you in Northern California, it has been challenging with direct competition of technology companies and the Silicon Valley startup culture. Also, having entry-level training programs like the Field Management Development Program (FMDP) has been a great source of bringing in quality field management as we target transitioning military leaders.

RHR-1: Other than our training programs like FMDP and CSA (Customer Service Associate), which have been great wins for us regionally, we've really made an effort to increase our social media presence through LinkedIn. Having a dedicated resource that also works with third party recruiting agencies has helped get our name out there. The number of applicants we screen for open positions has probably increased by about fifty percent.

GM-1: You know, the campus recruiting is great but we just can't get them (new hires) to stay long enough. I've essentially gone to more of a local sourcing versus relying on the traditional programs that exist in the organization. The cost of living in San Francisco and competition with the likes of Salesforce, Google, and Facebook are big hurdles.

Local sourcing has helped overcome cost of living challenges, but being a construction firm has been difficult to attract talent from the technology sector.

GM-2: I hire local, plain and simple. Fortunately, we've been able to partner with Santa Clara University here in the south bay as well as Cal Poly (California Polytechnic State University - San Luis Obispo) to create a constant source of local recruits.

Analysis: The results for this question were somewhat differing from a national perspective versus the local view. It was clear that although there were strong programs in place, the geographical locations from which candidates were coming from had more of an impact on the local managers. This is in line with some of the attrition data in which people are leaving due to the high cost of living.

2. What is the attrition rate for your organization?

GM-2: I don't even know anymore. I just know that I'm constantly recruiting and trying to fill positions. You think you have candidate that will stay, but that ends up lasting only a year.

VP-1: It's been fairly steady in the 8-10 percent range for voluntary turnover. Which has been good compared to our industry averages at about 12 percent. But some areas like where you're at (Northern California) and other high cost of living areas such as New York and Seattle, the rates are above 25 percent, which is a huge concern.

Analysis: It is apparent that the attrition rate has been increasing rapidly over past 3 to 5 years. The chart below summarizes comparisons for the Bay Area versus other area averages.

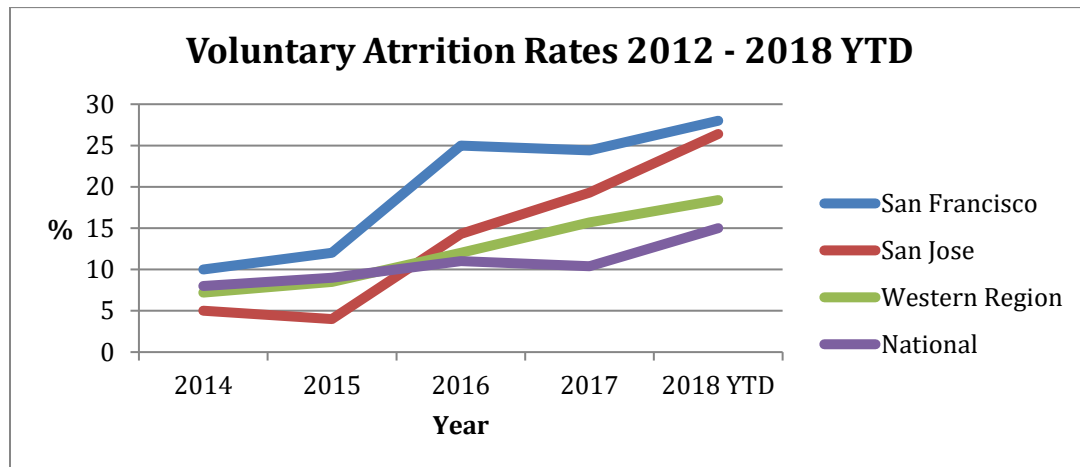


Figure 4. Voluntary Attrition Rates for 2012 to 2018 YTD. *Source: Internal ARC Data taken from Operational Review III (ORIII) 2017 and current year 2018.*

3. What have been the top reasons for leaving the company?

The pie charts below indicate the areas mentioned by the key informant interviews of what they were seeing as the major reasons for leaving the company. The data was comprised for the Northern California (Bay Area) sub region based on the attrition rates above.

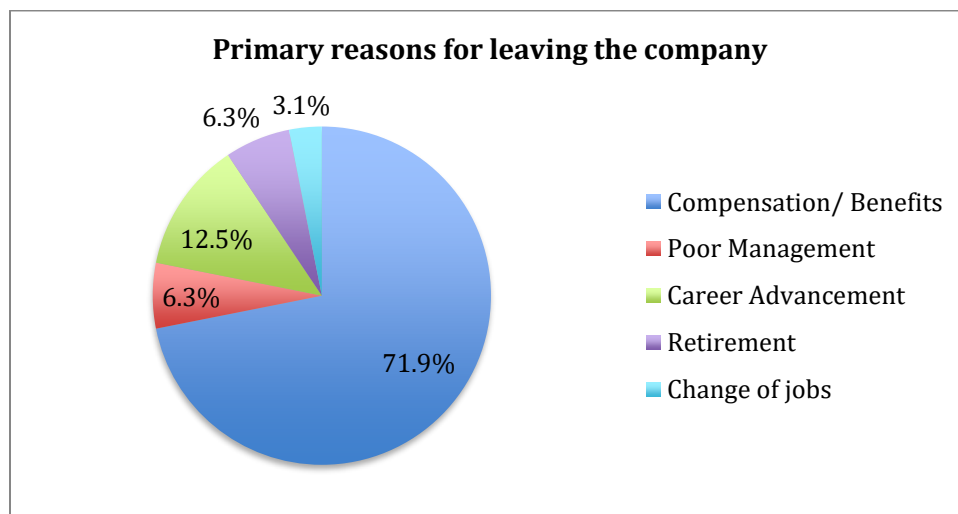


Figure 5. Primary reasons for leaving ARC 2016-2017. *Source: Key informant interview*

Compensation and benefit offerings were the number one reason for employees leaving.

The chart below shows that of the 72 percent of those choosing compensation as the

number one reason, a majority (86 percent) left California although staying within the construction industry.

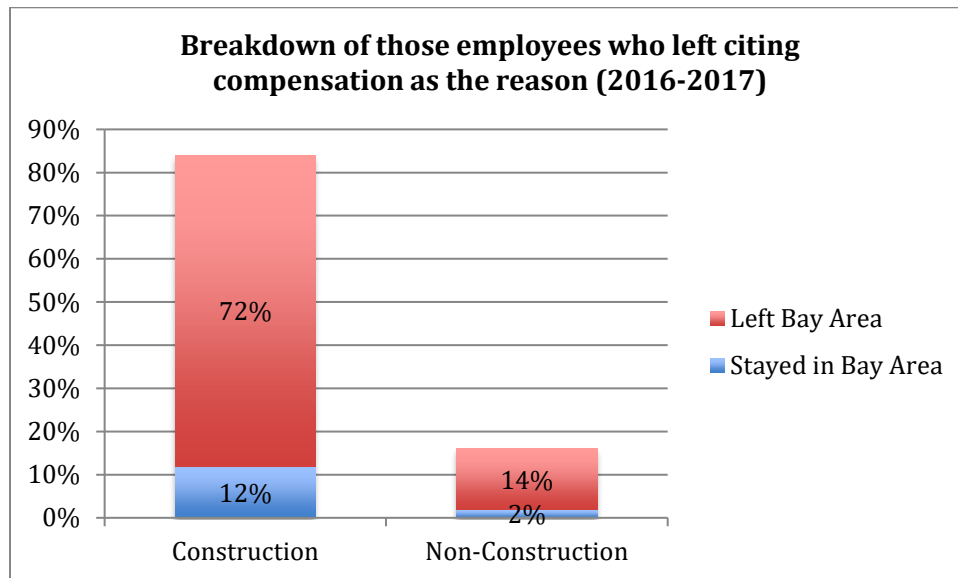


Figure 6. Job sector breakdown of employees who left company

Additionally, participant observation during April 2018 thru June 2018 showed that five individuals submitted their resignation. Four field managers and one project manager from the San Francisco and Oakland offices were affected. Of the four field managers, all left for opportunities within the industry, but outside of California and cited that the cost of living was just too high. They needed their salaries to go further in other lower cost areas. The project manager was a new hire direct from college who was from upstate New York. He cited that the job wasn't what he had expected (not enough "engineering") and that it was too expensive to live in San Francisco.

4. How often are cost of living data reviewed for compensation purposes?

VP-1: Cost of living is factored in compensation offers for high cost of living areas. We often review those several times a year and definitely when new offers are being

generated. However, the data is often based on national averages and are base lined with existing salaries for equivalent positions in those areas.

Analysis: This is the common way that new salaries are generated and are the main cause of having non-competitive salaries. For example, historical data for new college graduates going into sales roles are compiled across the country. For those grade levels, typical entry-level salary for a sales associate is \$60,000 annually. For high cost of living areas, a typical 10 to 15 percent adjustment is made. For the Bay Area, offers are in the neighborhood \$70,000 annually to compensate for cost of living. However, competing salaries with the technology sector often come in over \$100,000 annually. The construction industry must rely on other means to compete with the higher salaries offered in the technology sector.

5. What new benefits (if any) are being considered?

RHR-1: We've just added an additional week of vacation to our standard package. So now, employees come in with three weeks of vacation versus the two weeks that was common for so long. Additionally, the introduction of the new flextime program should be an added benefit.

VP-1: We are looking to expand our industry leading employee scholar program to add certificate programs along with the normal undergraduate and graduate degree offerings. This allows individuals to seek more specific skill development such as computer programming or communication skills to enhance their career.

Analysis: The addition of benefit offerings is a significant improvement for ARC in particular. The recognition of an extra week of vacation as standard as well as greater personal enrichment is in line with the comments and likes of the millennial generation.

Specifically, within the Bay Area, having a stronger non-compensatory offering is a benefit as many technology companies in the area promote more non-traditional benefits.

Survey Data Results and Findings

The following survey results were obtained through an online polling system thru the NextDoor application. The survey was administered within the neighborhoods of San Francisco consisting of SOMA, Financial District, and Mission Bay. These were selected as they are within close proximity of the ARC San Francisco office as well a high density of technology companies where potential residents work. The survey was deployed to approximately 844 persons with a response from 206 persons. The demographics of respondents are shown in the bar graph below:

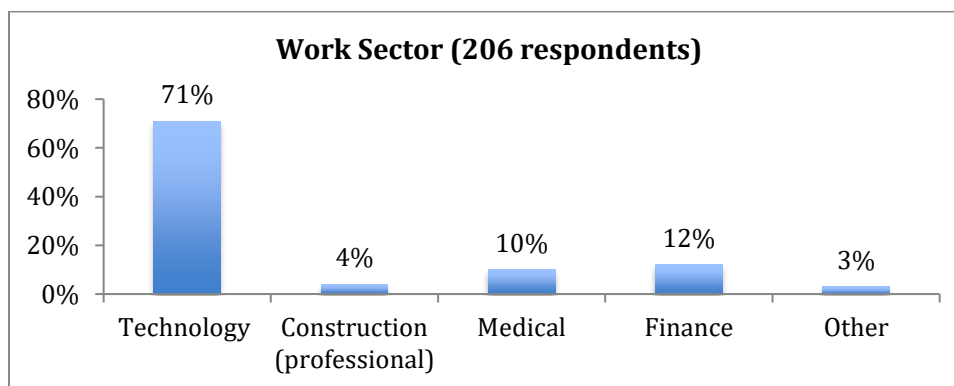


Figure 7. Work Sector of Survey Respondents. N = 206

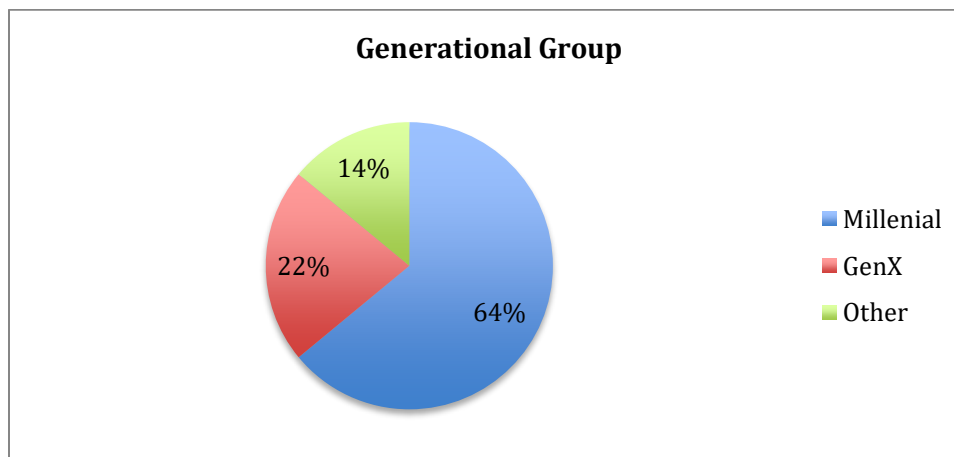


Figure 8. Generational Group of Survey Respondents. N =206

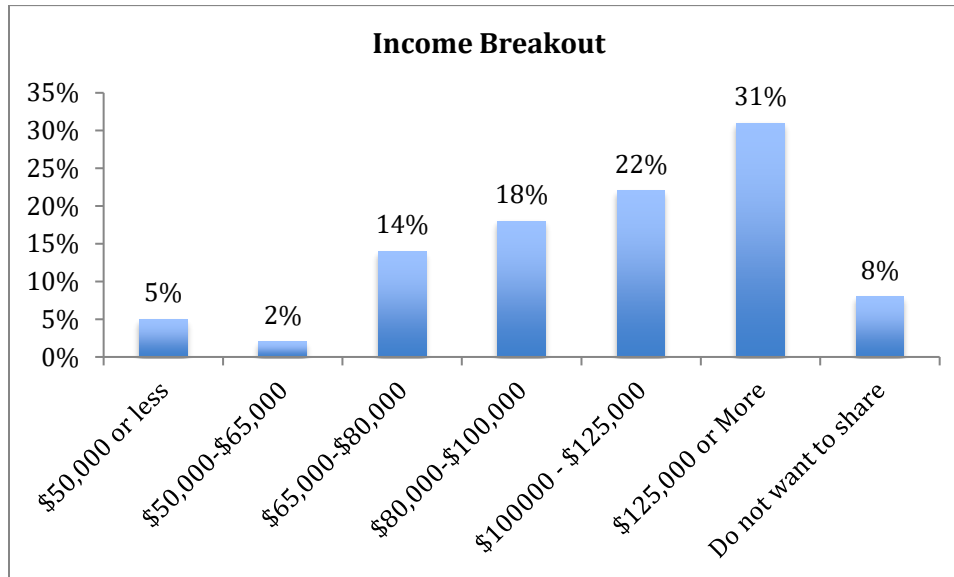


Figure 9. Income Breakout of Survey Respondents. N =206

The breakdown of the survey respondents show that a majority indeed work in the technology sector and belong to the millennial generation group. This is significant in that the pool of workforce candidates for the local area may resemble this group and understanding what is important should be incorporated into recruitment and retention strategies. Further, the graph showing the income breakout of the respondents indicate a high number of individuals earning greater than \$125,000 annually. As a comparison, the average salary for the focus groups falls in the \$65,000 to \$80,000 range for the Sales and Project Management groups and the \$100,000 to \$125,000 for the Field Operations group.

Survey Questions

1. Rank the desirability of the following benefits (1 being the most desired and 5 the least desired):
 - a. Free parking (if not available)
 - b. Covered commute expense (BART, tolls, or ferry)
 - c. Personal Development (Tuition reimbursement, training programs)

- d. Free meals
- e. Employee engagement activities (Charity, volunteering, teambuilding)

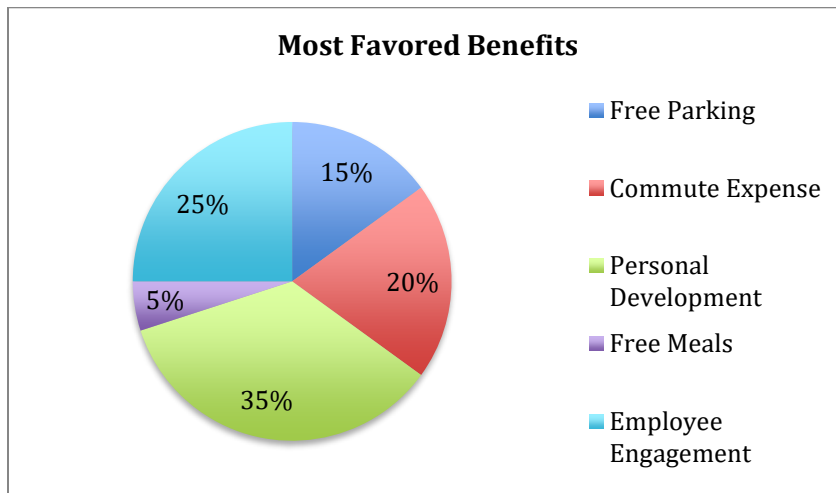


Figure 10. Survey Respondents Most Favored Benefits. N = 206

Analysis: The graph above shows how the respondents of the survey ranked the listed benefits. The list shown was what came out of the main themes from the focus group sessions. Personal development programs and commute expenses ranked high amongst the respondents. Commute expenses were a bit of a surprise as many of the respondents live in the area. However, it could be that as technology employees, their place of work could be located in Silicon Valley. A future modification to the survey should ask where their primary place of employment is.

2. Rank the desirability of the following job satisfaction factors (1 being the most satisfying and 5 the least satisfying):

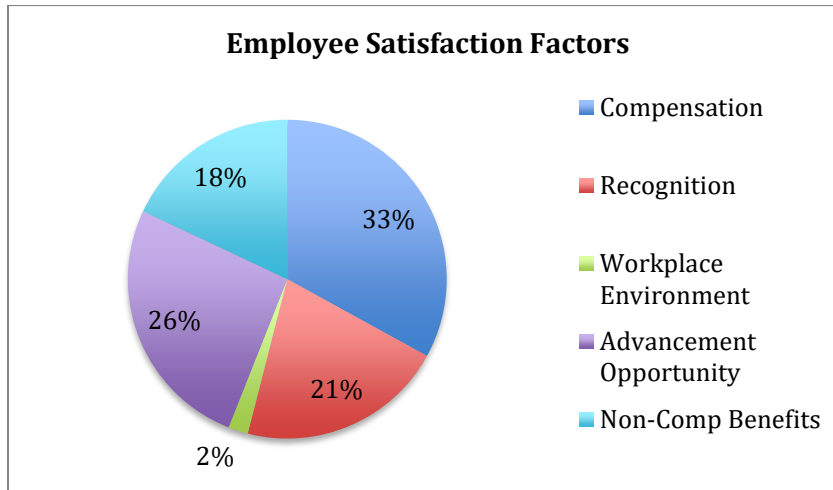


Figure 11. Survey Respondents Workplace Satisfaction Factors. N = 206

Analysis: The pie chart below shows how the respondents ranked elements of employee satisfaction from the major themes of the focus groups. Not surprising, compensation was the most satisfying indicating a majority of respondents were happy with their compensation. Career advancement also scored very high amongst this group.

3. Answer Yes or No, would you move out the Bay Area if you had an equivalent job or opportunity, but with less compensation than you have now?

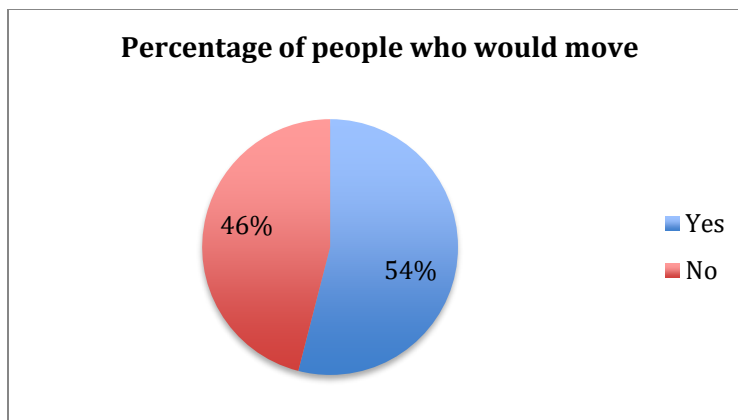


Figure 12. Survey Respondents Who Would Move. N =206

Analysis: Although reasons for respondents to move may differ, more than half of those that respondent indicated that they would leave the Bay Area for less pay for an

equivalent job. This is indicative of some of the trends that the researcher has dealt with as well with employees citing that the cost in the Bay Area is too great to sustain an acceptable work life balance.

Significant Findings

The survey results show that a majority of the workforce who responded work in the technology sector. Based on that data, the survey also indicated that compensation was a huge factor in employee satisfaction. This was in line with the focus group interviews of construction employees that fell in the millennial generation group. Further, the survey respondents also were a majority millennial. This allows for correlations to be validated of what Millennials working in the Bay Area look for in organizations. It was prevalent that advancement potential along with personal development opportunities ranked high in importance for this group. Again, this was in line with the focus group answers.

The interview with the key informants revealed that there is a general disconnect between what occurs in terms of recruiting strategy at a national level versus the local levels. It is apparent that although national strategies are in place, that they have not recently translated to success in recruiting and more importantly retaining employees. The local teams must readily find and source candidates that are more local versus those that are brought in from out of the area. Although they may be highly qualified, once in place, often the cost of living gives *sticker shock* and they don't stay. Hence, the rise in attrition rates for the past few years.

The focus group interviews also revealed that although compensation and benefits were the primary draw in accepting job offers, sometimes the type of work required for the construction industry was not a perceived good fit. Engineering graduates often don't transition well into field management or project management roles. There have been some success with

recruiting military hires through the FMDP program which generated positive outcomes to fill key field management roles. But caution must be made that the promotion opportunities and timing match that of the candidate's expectations. Promotion timelines are often slower in the construction trade versus the technology sector.

The biggest surprise was that the focus groups revealed that many of the perks offered by ARC were well received and thought of. These are areas that are often not spoken about enough during the recruitment phase as well when trying to retain employees. The Employee Scholar Program is something that is utilized often and should be promoted to all employees to take part.

Additionally, another significant finding is in how the construction industry promotes itself. As indicated from the key informant interview, one of the key strategies utilized is on campus recruiting. However, the researcher has participated in four on campus recruiting events in the past year and the observation is that interest in ARC and similar construction companies (General contractors like Webcor, Turner, Clark, and Swinerton) don't generate as much foot traffic than the typical technology companies like Facebook, Google, Salesforce, and Nvidia. When approaching potential candidates, there is no interest, as the candidates are unaware of the opportunities available because as a career fair participant said, "you're a construction company, not engineering."

Conclusion and Recommendations

Conclusions

Overall, the data from the literature review and the data collection support the need for the construction industry in the Bay Area to evaluate their recruiting and retention strategies to ensure highly qualified staffing. In addition, the construction industry is not alone in this regard as the technology sector is the dominant employer in this area offering very enticing and attractive offers. The public sector also faces similar challenges to the construction industry in terms of how we recruit and what we can offer.

The areas of recruitment and retention strategies that need further evaluation to be more effective center around the following areas:

- The available talent pool. Understanding that the available pool of potential employees is now coming from the Millennial group is critical. The values that the group finds important and desirable must be promoted by the construction organizations.
- Cost of living. Competitive salaries and means to bolster this area is clearly an important factor in bringing in qualified talent and keeping them in the Bay Area.
- Personal development. The need of the workforce to have the means to further enhance their skillsets is a highly desired benefit.
- Career Advancement. Along the lines of personal development, having the enhanced skills are desired in order to better position employees for promotion and career growth opportunities

- Work-life benefits. Finding means to enhance employees satisfaction to complement direct compensation with other means of indirect compensation can be an effective means of attracting qualified employees.
- Promoting the construction industry. This idea relates directly with the attractiveness of the construction industry versus the technology sector. This also relates to other industries including the public sector, as the technology sector appears to be the most attractive sector in the Bay Area.

The following recommendations should be implemented in order to help address the need for changes in recruitment and retention efforts to ensure qualified staffing for the construction industry in the Bay Area.

Recommendations

The following recommendations are categorized as short-term that can be implemented immediately or within six months timeframe.

Recommendation 1 – Implement localized Cost of Living (COLA) allowance to complement base salaries.

New hire job offers should be evaluated on two components, 1) base salary and 2) COLA allowance. The regional HR managers need to work with the compensation team at headquarters to establish baseline metrics for high cost of living areas. Standard tiered COLA needs to be identified as additional compensation for new job offers. The intent is to ensure base salaries are in line for each level and grade of positions and the additional compensation is to address high cost of living areas. Currently, there is not established standard program when determining cost of living allowances. Immediate implementation by hiring managers can occur and the compensation group can review geography now to build the new baseline.

Recommendation 2 – Conduct talent review and assign personal development programs

General managers and other mid-level managers should set up talent reviews with their perspective HR team to identify strengths and weaknesses of employees within their group. The HR team should communicate what training programs or education opportunities are available to match up with the talent assessment. These actions match the desires of the focus groups and should help in retention of employees along with developing a strong bench.

Recommendation 3 – Focus on sourcing local candidates of the Bay Area

Sourcing local candidates can help in reducing the attrition of new hires who come from outside of California. Reducing the potential of sticker shock in the Bay Area must be looked at immediately. Regional HR teams need to work with headquarters groups or third party recruiters to source candidates with familiarity to the high cost of living areas. Candidates that are either currently working in the local area or those that are trying to move back should have preference. This action can occur immediately for all current openings.

Recommendation 4 – Create local benefits package to enhance job offers

Local hiring managers need to include or highlight additional benefits with new job offers. Specifically, items such as free parking, covered BART and toll expenses, three weeks of vacation, and flexible time arrangements should be part of a formal offer. Current job offers only state that compensation amount and make a reference to “standard” benefits that can be found once they become an employee. These other non-compensatory benefits should be finalized in job offers and promoted during recruiting events to enhance the attractiveness of the company. This action can also be implemented immediately with current openings and scheduled recruiting events.

The following recommendations are categorized as mid to long term that should be implemented within 18 months.

Recommendation 4 – Improve the marketability of ARC (and construction industry)

The need for ARC to improve its market presence is shared with other construction and potentially public agencies as well. Especially in markets like the Bay Area or Seattle where technology companies dominate the industry. Improving the positive name recognition with the potential Millennial work pool and general public that the construction industry has professional level positions requiring the need for engineering, management, and other technical sales skills. An ongoing project has begun within ARC to revamp their marketing and branding strategy to leverage their long history and technological innovations. This campaign is aimed at generating increased interest for the industry and company. The corporate marketing group has been engaged in working with local field offices to build stories as part of their marketing campaign. The researcher has currently participated in developing this new plan that will be ready to roll out nationally in third quarter of 2018.

Recommendation 5 – Review overall benefits package

This action is a greater long-term effort that will require headquarters HR team conduct benefits comparisons with technology industries. The researcher had an opportunity to attend an employee town hall session in which one of the questions asked was regarding the improvement of the overall benefits package for ARC. The challenge is that large corporations often buy insurance as bulk packages and being national or global in coverage, the benefit offerings are generally generic and limited. This overall causes an extreme challenge in competing with technology firms that often cite benefits such as student loan assistance, egg or embryo freezing, free daycare service and catered meals daily. There have been recent improvements such as

adding an additional week of vacation, implementing a flextime program, and enhancing the employee scholar program. These actions show that it is possible to enhance a large corporations' benefit offering.

Overall, the key in ensuring qualified staffing for the construction industry is to review the current strategies for recruitment and retention and understand the local environment that they are competing in. Only then can local managers partner with human resource professionals within the organization to develop enhancements to improve these strategies. It is clear that in the Bay Area, cost of living, desirability, and career advancement and development are important factors that non-technology firms as well as the public sector must review in order to attract qualified talent.

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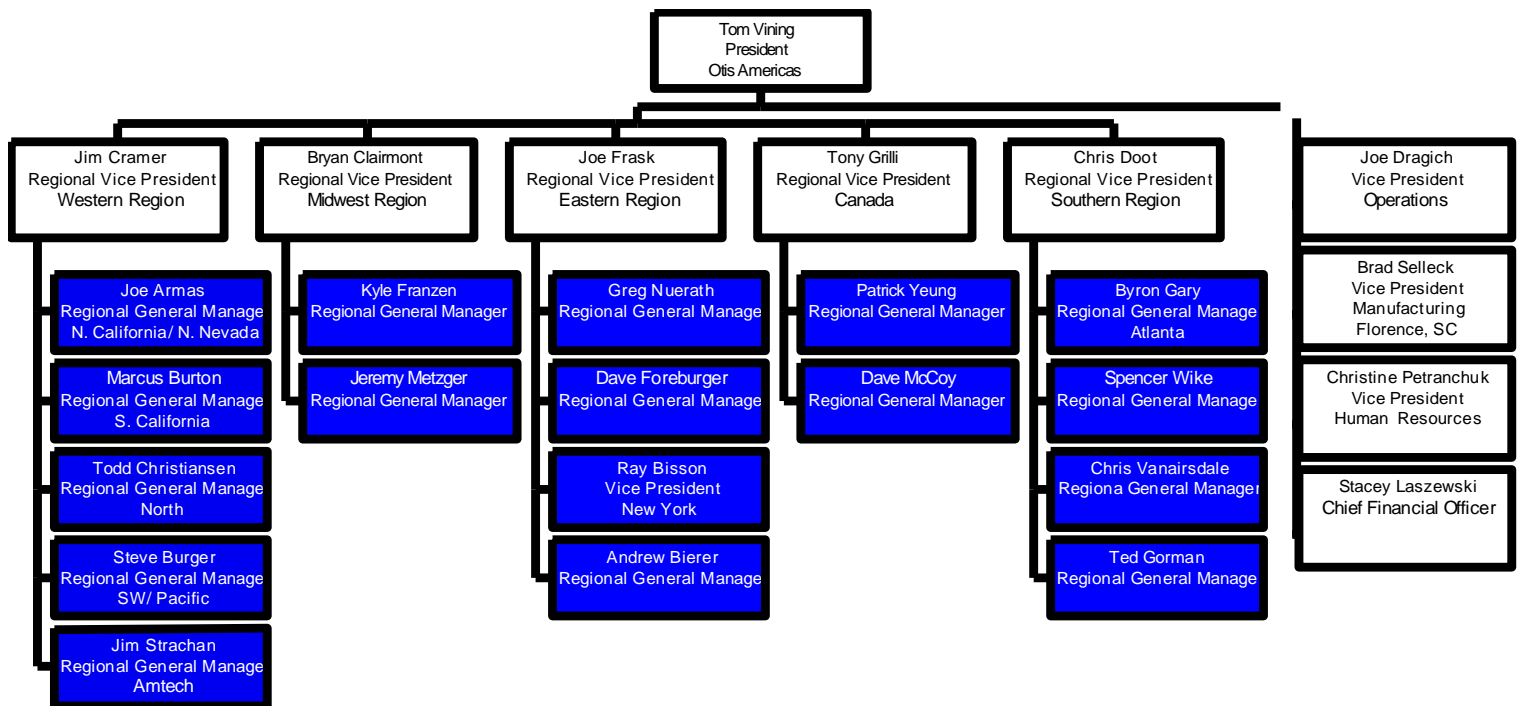
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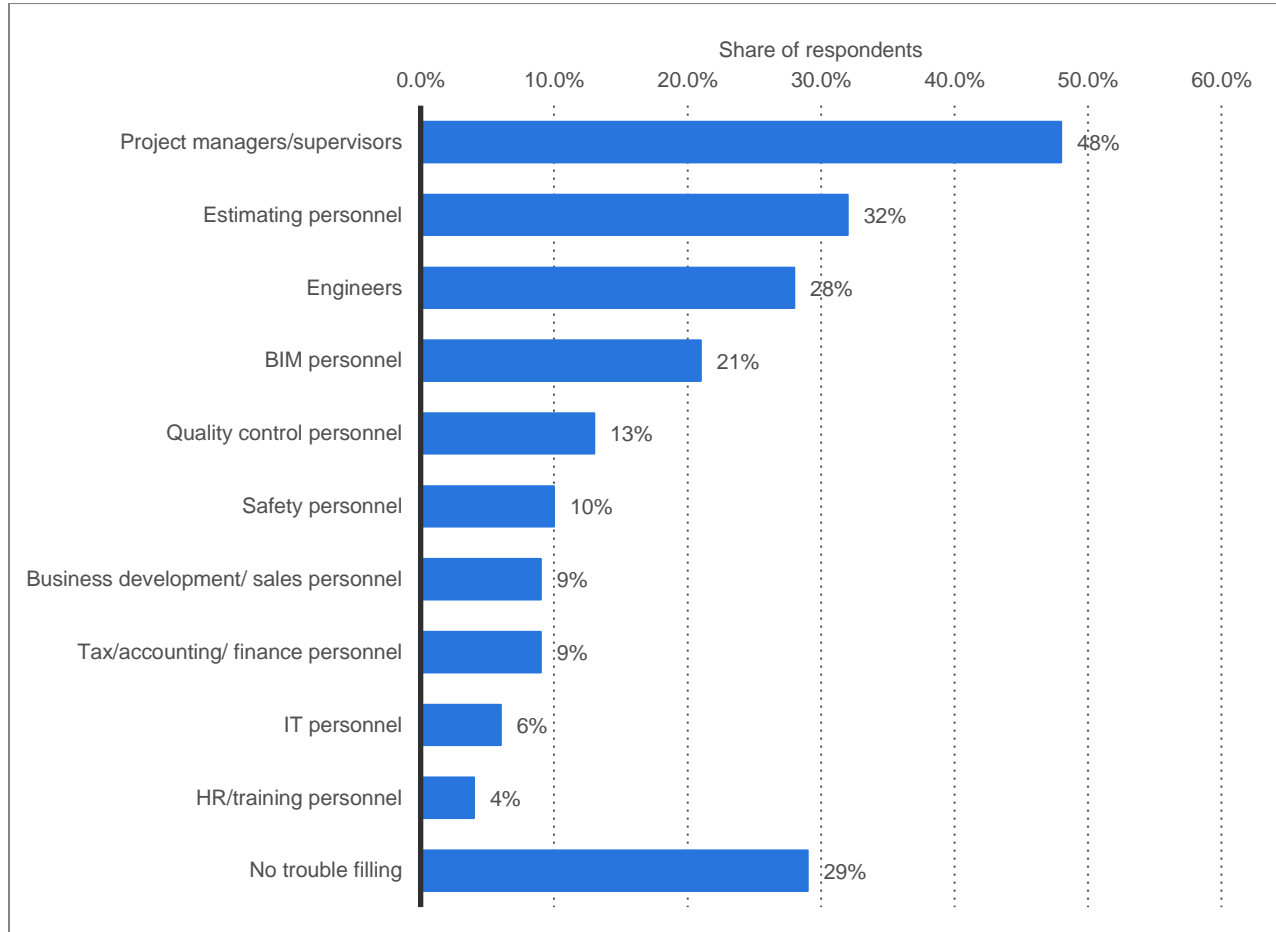
Appendix A: Focus Group Participant List

Sales Group 1	Name	Experience (yrs)	Project Management Group 1	Name	Experience (yrs)
SG-1-1	Brian E.	4	PM-1-1	Antonio I.	2
SG-1-2	Laura P.	6	PM-1-2	Cesar M.	1
SG-1-3	Bree K.	1	PM-1-3	Henry B.	1
SG-1-4	Michael B.	2	PM-1-4	Nick P.	1
SG-1-5	Zachary R.	4	PM-1-5	Andres A.	2
SG-1-6	Cassidy R.	3	PM-1-6	Ken L.	7
SG-1-7	Nick G.	5	PM-1-7	Kevin P.	3
			PM-1-8	Cheer Yang L.	5
			PM-1-9	Stalin P.	2
Sales Group 2	Name	Experience (yrs)	Field Operations Group 1	Name	Experience (yrs)
SG-2-1	Matt T.	7	FO-1-1	Xavier S.	3
SG-2-2	Brandon E.	3	FO-1-2	Derrick H.	2
SG-2-3	J.M. B.	4	FO-1-3	Brice F.	10
SG-2-4	Alexandra B.	6	FO-1-4	Shendan M.	1
SG-2-5	Rose S.	1	FO-1-5	Bo B.	7
SG-2-6	Brooke W.	2	FO-1-6	Mike F.	2
Sales Group 3	Name	Experience (yrs)	Field Operations Group 2	Name	Experience (yrs)
SG-3-1	Dean C.	25	FO-2-1	Jason K.	2
SG-3-2	Jim S.	18	FO-2-2	Elisha M.	3
SG-3-3	Marcus R.	15	FO-2-3	David L.	1
SG-3-4	Chris K.	12	FO-2-4	Carlos P.	3
			FO-2-5	Justin D.	3
			FO-2-6	Adrian M.	1

Appendix B. Organization Chart



Appendix C.
Leading salaried positions that construction contractors have difficulty filling in the United States as of August 2017



Appendix D.
Recruiting situation for construction contractors in the United States as of August 2017

