

# A Case Study of the Construction Labor Market and Impact of Retiring Baby Boom Generation

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## **Abstract:**

Construction firms often analyze the impacts of schedule, cost, and quality when reviewing the risk associated with a project. An important aspect of the project execution effort; available skilled labor resources, can have a significant impact on the success of the project but may not always be considered as part of the risk analysis effort. The intent of this paper is to discuss the contribution of the baby boom generation, how the retirement of baby boomers will impact the labor market, what this means for the construction industry and how construction firms can mitigate risks associated with this phenomenon. Since this study is limited to a sub-set of the California labor market, follow-up research will be helpful in assessing the impact of available skilled labor and how it impacts the Golden State in its entirety, as well as the construction industry nationwide.

Key Words: Labor Market, Productivity, Schedule Impacts, Unskilled Labor, Baby Boomers

## **Introduction**

The labor market is a procyclical cycle, in which labor markets rise during economic expansions and decrease during economic downturns. This was the case for those born in the United States between 1946 and 1964, a time-period known as the baby boom generation. This combined with an increase in female participation during the same time period created a strong working class that helped the economy boom after World War II. With many from the baby boom generation having already retired and the youngest baby boomers reaching the age of 54 this year, the need to back fill the labor force is an industry concern.

The US recession of 2008 has complicated the normal process of generational labor pool replacement. The Great Recession caused chaos with the US labor market. Instead of a normal cycle of baby boomers retiring at the same ages as previous generations, with a younger work force entering, older workers had to continue to work to retire comfortably. Due to the recession in 2008, many companies were forced to keep only the most experienced laborers which led to construction companies laying off many young laborers, ages 18-24. Construction companies needed workers, but work slowed down tremendously. This forced construction companies to lay off younger laborers in favor of experienced laborers who already knew company procedures due to the downturn in business. This encouraged younger individuals to stay in school and

pursue higher education to increase their chances of securing employment. Now that the economy has cycled back, there is a lower percentage of individuals who are interested in working as construction laborers. These dynamics have led to a gap in skills, resulting in a difficult transition between unskilled new labor entering and older skilled labor leaving the pool of available construction workers. According to Construction Industry Index, the number of qualified construction workers are insufficient to replenish the aging workforce that is entering retirement age.

## General Background

### *Labor Impacts*

In analyzing the labor force from 2001 to present, the largest decline of labor force participation was people listed as 16-24-years of age. This was caused by a handful of reasons, including the recession of 2008, which drove individuals to seek a higher education degree to guarantee a job during tough economic conditions. Currently, the oldest members of the baby boomers will be 72 this year, with the youngest members of this generation now reaching age 50-55, and in a few years eligible for retirement.

As depicted in the following table, the share of the US population that was 55 or older from 1980 to 2000 was stable while during the time frame from 2000 to 2010 this population segment as a percentage of the total population began to increase significantly. According to the Bureau of Labor Statistics, this population age group will continue to increase until 2020, as this entire generation will move into the 55 and older category. By 2020, 37 percent of the population will be in the oldest category, a phenomenon that will not be repeated during our lifetime.

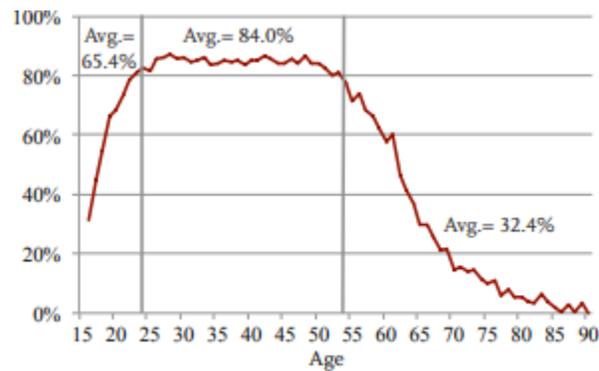
#### **Share of the Population Age 16 and Older by Age, 1980-2020:**

Age	1980	1990	2000	2010	2020
16-24	22.2%	17.1%	16.1%	16.0%	14.5%
25-54	50.5	55.9	56.8	52.7	48.9
55 and older	27.3	26.4	27.1	31.4	36.6
<b>Total 16 and older</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

As illustrated in the following chart, the average labor participation rate is very low for the youngest workers, increases sharply to age 25, levels off and once the worker reaches 55, starts dropping sharply and continues this trend as age increases. The transition of the baby boomers into the oldest category where the participation rate is less than one-half of those in their prime

working years, raises concerns for the labor-intensive construction market. To add to these concerns, industry experts estimate that some 10,000 construction workers nationwide are retiring each year.

### **Labor Force Participation Rates by Age, 2000**



Source: US Census Bureau, Current Population Survey, Center for Retirement Research

### *Quality Assurance*

With retirement now being considered by many members of the baby boom generation, a steep learning curve will be a reality for the available pool of laborers who based on less job-related experience have lower skill levels. This will result in the need for supervisors and managers of construction firms to work closely with the available pool of entry level workers to ensure that the quality of work is consistent on all projects. This will require additional training from labor unions and merit shops to make sure skill levels for workers are adequate when entering the work force. This also requires that young laborers take initiative as they advance in their careers to move into superintendent roles. The retirement of experienced foreman from superintendent roles, will necessitate that younger workers take on responsibility for quality, roles they may not be ready to undertake.

### **Objective**

The aim of this report is to gain a better understanding of the current labor market and the possible effects to cost, schedule, and budget. This objective was accomplished by researching the labor market, and evaluating the impact to individual construction companies. By comparing results from several companies, I gained a better understanding of the labor issues that the construction industry might face in the next 5-10 years. These impacts could affect construction jobs for the foreseeable future and should be considered by those within construction firms that have responsibility for staffing projects.

## Methodology

### *Current Industry Standard*

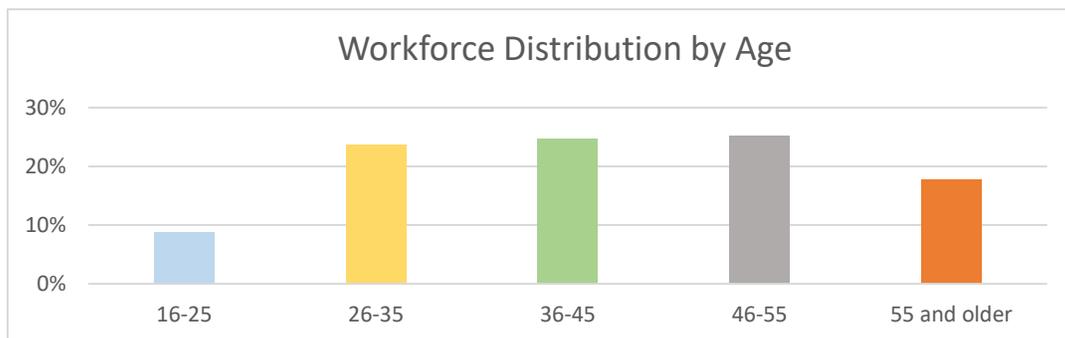
The steps undertaken to determine the make-up of the labor force included comparing several construction companies. If the results of the study determine that the issue is an industry problem, unions and merit shop management may consider implementing program changes. These entities can implement strategies to combat these issues by increasing the demand for workers in the 16-24-year age category and recruiting these younger employment candidates to the work force.

### *Procedure*

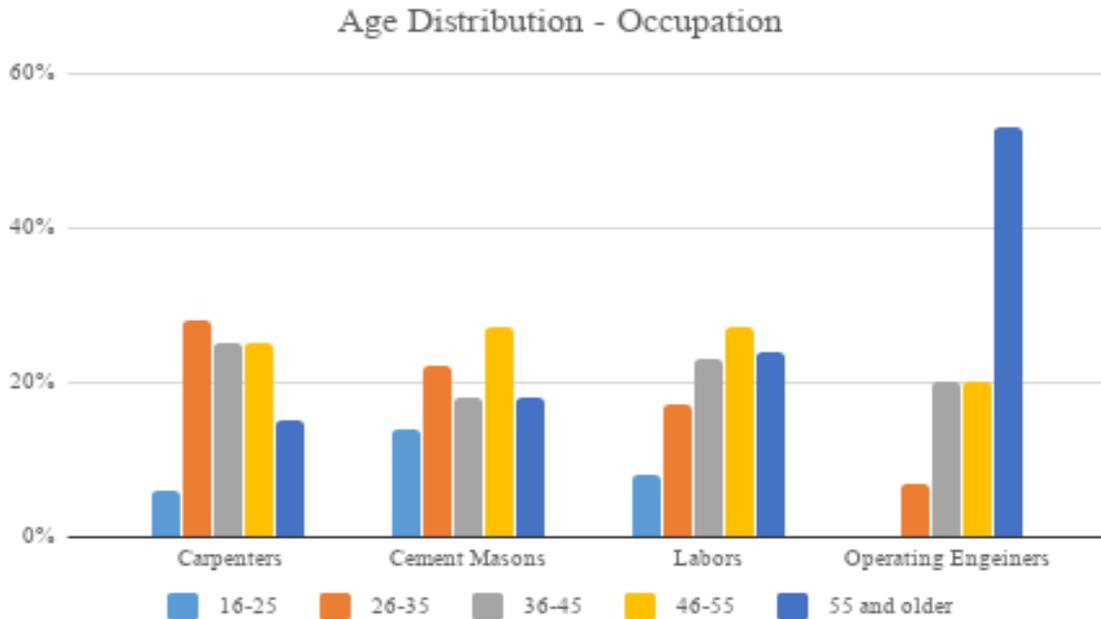
1. Research general labor trends for baby boomers
2. Contact individual construction companies and request labor age data
3. Request information on all four spectrums of construction labor; including finishers, carpenters, operators, and laborers
4. Request information from local union organizations
5. Analyze individual companies and compare results against union standards as well as labor standards for all industries

## Results and Discussion

While collecting data from construction companies in southern California, I found some interesting findings. As depicted in the Workforce Distribution by Age chart below, there is an almost even distribution of workers ages 26-35, 36-45, and 46-55. In addition, workers 55 and older represented 18 percent of the workforce compared to those workers between the ages of 16-25, that represent only nine percent of all workers. With these facts in mind, steps need to be taken to address this discrepancy as those newly recruited to the industry do not match the number that are retiring.. Since most individuals enter the construction market shortly after graduating from high school, the chances of individuals switching professions to construction in their mid-twenties seems unlikely. By further breaking down the overall employment data by occupancy type, we will get a better representation of the impact on each area of specialty.



The second chart below, Age Distribution – Occupation, provides a breakdown of workers into four occupation subsets for companies that were willing to provide this level of detail. These four categories comprise the four major types of laborers on a construction site, including carpenters, cement masons, labors, and operating engineers. The most interesting set of data is the operating engineers which include over half the workers that are 55 years or older. However, with the understanding that most individuals get promoted from within the company for this skilled position, this is not necessarily considered to be a warning sign.



In reviewing the age make-up of laborers in the construction market, we see a left skewed distribution of data which involves some 70% of laborers over the age of 36 and 50% of workers over 46 years of age. This is an alarming trend that seems to continue as individuals under the age of 25 are entering the workforce at a lower rate in comparison to other categories of workers. On the other hand, carpenters had the most promising data with a majority of this occupancy category ranging between the ages of 26-35. This is reassuring as the majority of construction workers are carpenters. Lastly, cement masons seem to have the most evenly spread age categories of the four trades. This is a good sign as the percentage of workers in the first and last age bracket contain similar percentages which indicates a much easier transition between unskilled and skilled labor in this occupation category.

As a follow-up to this study, steps should be taken by construction industry management to alleviate the labor shortages for younger workers that are needed to replace those baby boomers that are retiring. One recommendation is an awareness program focuses on workshops for local high schools and tech programs be implemented to inform graduating seniors of careers in the construction industry as well as practical skills. The industry should focus on recruiting candidates from high schools and tech programs as this seems to be one of the biggest issue that we face. If those entering the workforce are given the opportunity to choose a construction trade

and understand the financial benefits, more 16-35-years of age will join the work force with some level of awareness of the work that is performed by our laborers. This will shorten the learning curve needed for workers entering the industry.

## **Future Research**

A valuable follow up case study topic would include analysis of the impact of available labor resources throughout the United States to supplement the findings of this research which focused solely on the southern California market. This study would involve contacting local labor unions across the US and requesting labor data. The proposed study would provide an analysis of the national labor market and eliminate potential regional labor variances. With this information, it could be detected whether this issue was a state problem or a broader issue.

These results would give a more insightful look at the current labor trends for construction companies across the US and the impact the industry faces in utilizing this information in estimating projects. A brand-new wave of skilled and unskilled labor could impact the three most crucial elements of construction projects; schedule, cost and quality.

## **Conclusion**

The construction industry is in a unique place due to the recent shift in the labor market. Understanding the labor market helps us identify the implications of cost, schedule, and quality on a project that is being undertaken. This case study has found that there are issues on the horizon that will result in a significant number of skilled workers leaving the industry in the next five years.

Due to construction companies' standard of delivering a high quality product to the customer, obstacles will have to be overcome to adjust to the changes in the labor market. Therefore with a greater number of unskilled workers on site, quality will be decreased on many aspects of the job. As this does not meet industry quality standards, work will have to be redone until it meets the client's needs. This constant rework of tasks will affect the speed at which these laborers can complete the job. Ultimately this will impact the cost of the overall project as workers will have to get paid double for the same amount of work. These complications can compound over time, making construction managers face tough decisions to combat these issues while still maintaining quality, cost, and schedule.

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