



## A STUDY OF THE U.S. ROOFING INDUSTRY AND ITS WORKFORCE

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**Abstract:** Roofing industry is growing fast-paced as the US economy continues to propel forward. Majority of these roofing contractors (i.e., 75 percent) anticipate increase in their revenue next several years. This growth, however, will be expected to bring along industry's biggest challenge; finding qualified workers. Therefore, there is an emerging need of a statistical analysis on real workforce data to understand of the unique challenges, trends and emerging issues of roofing industry. In order to address this need, this research study focuses on data analysis that investigates a detailed description of the roofing industry workforce, gathers employment and demographic information, geographic location, and types of operations on the roofing workforce. *Some important statistics show that 64 percent of roofing contractor firms in the United States had an employment size of between 1 and 4 employees, and almost 50 percent of roofing contractors were between the ages of 35 and 54.* This analysis will guide decisions by the roofing contractors, associations and its members to make informed critical and strategic decisions for roofing industry.

### 1 INTRODUCTION

Roofing industry in the US keeps growing as the US economy continues to grow. The residential roofing contractors generated between \$250k to \$5M, and commercial roofing contractors generated between \$2M to \$10M. Majority of these roofing contractors (i.e., 75 percent) expect an increase in their revenue through 2020 (Roofing Contractors 2018, 2017). For example, Anthony George, vice president of Delta Exteriors, LLC, of St. Louis stated that their total sales increase of 755 percent since 2014 (Roofing Contractors 2018). Even if roofing industry business continues to grow, 88 percent of roofing contractors reported that finding qualified workers is the industry's major challenge (Roofing Contractors 2017). National Roofers Association (NRCA) also stated that although construction industry trends documents exist, none of them parses out the roofing workforce to provide hard data that will guide decisions by the association and its members. *Moreover, majority of the sources relevant with roofing labor statistics are contained information regarding safety regulations and death rates within the workforce rather than industry trends. They mostly described the statistics of injuries and fatalities in the roofing contractor industry (Occupational Injuries and Fatalities in the Roofing Contracting Industry, 2005). In addition to this, it is very challenging to find comprehensive and collective information in US Bureau of Labor Statistics.* To address this gap, this study presents robust statistical analysis to accurately identify the US roofing industry workforce needs and characterizes its activities. The data analysis investigates a detailed description of the roofing industry workforce, gathers employment and demographic information, geographic location, and types of operations on the roofing workforce. The results of this study will shed a light on understanding of the

challenges and trends of the US roofing industry. Accordingly, this study will provide a statistical data resource for regulatory and federal agencies.

## 2 DATA ANALYSIS

This study focuses on capturing detailed description of the roofing industry workforce. The data is summarized in five sections: (i) demographics of the roofing contracting firms; (ii) demographics of the roofing workforce; (iii) workforce characteristics based on labor pool type; (iv) size of the roofing businesses and employees; and (v) employment projections by 2030. The following sections present the data and information on the roofing workforce.

### 2.1 Demographics of the Roofing Contracting Firms

This section presents on demographics of the roofing contracting firms by number and as a percentage of, including age, gender and ethnicity. Our analysis shows that there are 17,730 roofing contracting establishments in the US (US Census Bureau 2012a), and an average of 9.8 employees per establishment. The employment size of these establishments (see Table 1) [greatly range with a majority of establishments having 1-9 employees. About 10% of all roofing workforce establishments have 20 or more employees.](#)

Table 1: Employment Size of Roofing Workforce Establishments

Percentage of Employees	Size of Establishments
64%	1-4 Employees
17%	5-9 Employees
11%	10-19 Employees
8%	20-49 Employees
2%	50-99 Employees
.6%	100-249 Employees
.1%	250-499 Employees
.002%	500 or More Employees

### 2.2 Demographics of the Workforce

This section focuses on the distribution roofers by number and as a percentage of (i) Type of work, (ii) Age, Ethnicity, and Gender, (iii) Goods and services, and (iv) Geographic location, and average number of employees. [According to the US Bureau of Labor Statistics \(2019\), roofing contractors consists of 197,390 employees where 76.4% of employees have a background of construction and extraction. There were also many other occupations, however many of the occupations represent 1% or less of the data, and are not specified in Table 2. Construction and Extraction, Management, Business and Financial, Sales, and Construction Manger Occupations solely represent more than 2% of the data.](#)

The median age of roofers is 37.5, and 28 percent of the roofers are older than 45. More in depth analysis on the age distribution in [Table 3 shows that almost 50% of employees are in the ages of between 35 and 54. Less than 15% of all employees were 24 or younger.](#)

The race distribution in US roofing industry [shows a majority of employees classifying themselves as white](#) (see Table 4). Our initial analysis also shows that the ethnicity distribution shows that Hispanics roofers are overrepresented (i.e., 47 percent) in the roofing industry whereas total Hispanics accounted for 15 percent of total employment in US. When it comes to gender distribution, the statistical data showed that women (i.e., 0.6 percent) are woefully underrepresented in the roofing industry.

Table 2: Demographics of Roofing Workforce Occupations

Percentage of Employees	Occupation of Employees
76.4%	Construction and Extraction
9.4%	Office and Administrative Support
4.7%	Management
4%	Business and Financial
3%	Sales and Related
2.5%	Construction Manager

Table 3: Employee Age Distribution of Roofing Contractor Age

Percentage of Employees	Age of Employees
2.7%	16-19 Years
11.4%	20-24 Years
27.7%	25-34 Years
29.5%	35-44 Years
20%	45-54 Years
6.3%	55-64 Years
2.3%	65 or Older

Table 4: Race Distribution of Roofing Workforce Ethnicity

Percentage of Employees	Ethnicity
92.3%	White
4.9%	Black or African American
0.8%	Asian

Roofing contractors are primarily engaged in roofing installation such as (asphalt roof shingles, copper roofing, corrugated metal roofing, galvanized iron roofing, sheet metal, low slope roofing (cold or hot apply), steep slope, roll roofing, and roof membrane). They also perform treating roofs (i.e., spraying, painting, coating), installing skylights, performing new works additions, alterations, maintenance and repairs (Statistics Canada 2013). Roofers' average hourly and annual wages are \$20.57 and \$42,780, respectively. The highest employment level are Florida with 17,860 labors and California with 16,720 labors.

### 2.3 Workforce Characteristics

This section presents the workforce characteristics of the US roofing industry that includes Labor pool, Type and class of workers, Age of workers by ethnicity, and type of employment and occupation in all roofing sectors.

According to US Bureau of Labor Statistics (2019), roofing contractors consists of 197,390 employees. The largest workforce group in roofing industry is *construction and extraction occupations* that includes a majority roofers as shown in Table 5.

Table 5: Distribution of Roofing Workforce Labor Pool

Percentage of Employees	Labor Pool
55%	Roofers
4.9%	Helpers
3.9%	Construction Laborers
3.7%	Sheet Metal Workers
1.4%	Carpenters

## 2.4 Roofing Businesses and Employees by Size

This section presents the number and percentage of roofing businesses and employees (office vs/ field) by size. There are almost 17,730 roofing contracting establishments in the US (US Census Bureau 2012a). The overall average number of employees is 9.8 and the distribution of the employment size of these firms were summarized in Table 1. The value of business done by these firms is \$28.2 Million. Among these employees, almost 80 percent are working on the field, such as construction trade workers, construction and building inspectors, vehicle operators, truck drivers; and 20 percent are working in the office, such as managers, retail sales workers, and sales representatives.

## 2.5 Employment Projections

This section focuses on the employment projections in the US roofing industry projected employment change by 2030, and job growth and replacement needs. US Bureau of Labor Statistics (2016) predicted that the employment rate in the roofing industry will grow 11 percent (i.e., 16,200 more employment) by 2026. This is faster than the average of all occupations (US Bureau of Labor Statistics 2019). Especially replacement and repair of roofs and the installation of new roofs will create demand for roofers. It is also noteworthy to mention that the increasing demand in solar photovoltaic panels on building rooftops leads to increase demand for roofers as well (US Bureau of Labor Statistics 2019).

## 3 CONCLUSION

Roofing industry is growing fast-paced as the US economy continues to propel forward. 75 percent of these roofing contractors anticipate increase in their revenue through 2020 (Roofing Contractors 2018, 2017). Even if the roofing industry business keeps growing, the majority of roofing contractors stated that finding qualified workers is the industry's biggest challenge (Roofing Contractors 2018, 2017). In order to analyze the trends and challenges of the roofing workforce around labor, regulatory compliance and succession, there is a need of a hard data that analyzes the U.S. roofing workforce.

This study presents roofing industry workforce demographic data, such as the age, gender, and ethnicity of roofing workers within all sectors of the U.S. roofing market. In addition to an analysis of worker demographic data, the study would also look at workforce characteristics within the contracting, manufacturing, distribution and the design communities to consider the size of the labor pool, , the average number of employees in the office and field. This analysis is summarized and presented in five different sections: (1) Demographics of the Roofing Contracting Firms; (2) Demographics of the Workforce; (3) Workforce Characteristics; (4) Roofing Businesses and Employees by Size; and (5) Employment Projections

The statistical analysis on real workforce data can provide a statistical data resource for roofing industry decision-makers (e.g., roofing contractor associations and its members). It can guide them in making informed critical and strategic decisions to sustain for roofing industry. Further analysis is needed to obtain more detailed information and data on the presented sections in this paper. This can be done by conducting surveys by roofing industry stakeholders.

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