

2023



UNION CRAFT

LABOR SUPPLY

REPORT



**MEASURING TODAY FOR A
SUCCESSFUL TOMORROW**





INTRODUCTION

The *2023 TAUC Union Craft Labor Supply Report* marks the ninth year that The Association of Union Constructors (TAUC) has commissioned the Construction Labor Research Council (CLRC) to conduct a comprehensive analysis of the current state of the union construction and maintenance industry. The first study was completed in 2015.

Copies of the previous year's report can be obtained by visiting the TAUC website: www.tauc.org/laborsupply

THE ASSOCIATION OF UNION CONSTRUCTORS (TAUC)

The Association of Union Constructors (TAUC) is the premier national trade association for the union construction and maintenance industry. Membership is made up of contractors who use union labor for their projects, as well as local contractor associations and vendors in the construction and maintenance industry. TAUC's mission is to act as an advocate for union contractors and to enhance cooperation between the three entities involved in the successful completion of construction and maintenance projects: the union, the contractor, and the owner-client (the company for which the work is being completed). TAUC's ultimate goal: to demonstrate that union construction and maintenance is the best option because it's safer and more productive and provides a higher-quality, cost-competitive product.

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CONSTRUCTION LABOR RESEARCH COUNCIL (CLRC)

The Construction Labor Research Council (CLRC) is the nation's foremost source of labor cost and related information for the unionized sector of the construction industry. It serves as a key resource for data on labor costs, workforce issues, market share, labor contract terms, safety and associated topics. The CLRC database contains wages, fringe benefits and contract language information on nearly 3,000 contracts in 285 cities for 17 crafts. CLRC is supported by management associations whose member firms employ union construction craftworkers.

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EXECUTIVE SUMMARY & KEY FINDINGS

The 2023 Union Craft Labor Supply Report was conducted by the Construction Labor Research Council (CLRC) and sponsored by The Association of Union Constructors (TAUC). This important, annual research project provides a useful, detailed and data-driven picture of the state of the union craft workforce in construction and maintenance activity throughout the United States.

TAUC, CLRC and their partners know that a data-based approach is the best way to achieve shared goals of improving business performance and increasing union market share.

STUDY FOCUS

This study covers the following topics:

- **Growth in the construction and maintenance industry (union and nonunion)**
- **Labor supply for union craftworkers covering:**
 - **Recent history**
 - **Projections for 2023 and beyond**
 - **Apprentice levels**
- **Detailed findings for 14 union crafts**
- **Skills shortage**
- **Special pay**

NEW FOR 2023

- Questions focusing on the prevalence of paying above the wage scale and providing per diem payments.

UNIQUE FEATURES OF THE STUDY

A number of features make this study a trusted and useful resource for professionals interested in the construction and maintenance industry.

- Respondents were instructed to report information based on their own organization, not their perceptions of an overall generic labor market, hearsay or what they may have read in some publication. This type of data collection enhances the validity of the results.
- The population from which the sample was drawn is knowledgeable and engaged regarding the topic of craft labor supply.
- A large number of craft-specific results are included in the report.
- Detailed analyses, including data cuts by the five demographic variables (i.e., role, industry, region, organization size, age) are presented throughout the report.
- Many charts and tables, along with helpful explanatory text, are included to ensure that the study results can be efficiently and accurately understood by the reader.
- Each year, a new set of custom questions is included as a one-time event. This year the questions focus on special pay.

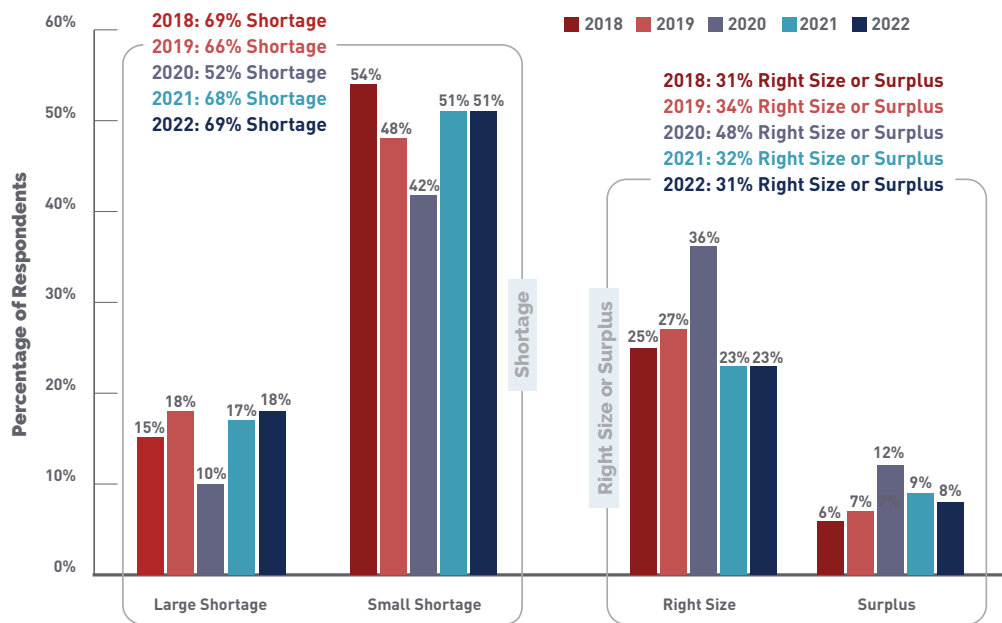
KEY FINDINGS

1. Continuing Union Craft Labor Shortages

Overall, 69% reported a shortage of union craft labor in their organization in 2022, but most of the shortage (51%) was reported to be "Small." About a fifth of the study respondents (18%) reported a "Large Shortage." Another 23% said they had the right number of workers and 8% said they had a surplus in their organization.

For 2022 and projected for 2023 at least 50% of the respondents reported a shortage (large or small shortage) for every craft except one. See **Sections III and IV** for detailed analysis.

PREVALENCE OF A SHORTAGE OF UNION CRAFT WORKERS



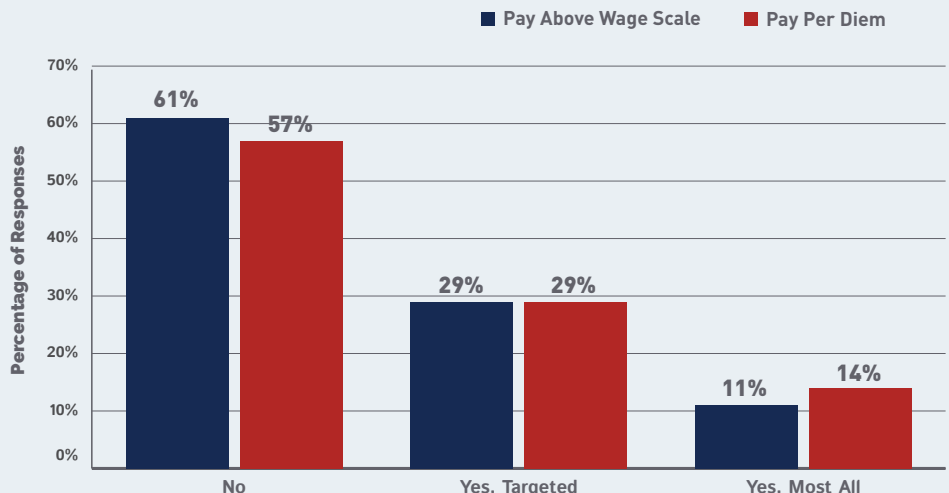
2. Extra Pay – Pay Above the Wage Scale and Per Diems

One intriguing aspect each year of the TAUC Union Craft Labor Supply Study entails assessing new, "hot ticket" topics. For the 2023 study, two timely topics were covered:

- Pay above the wage scale and
- Per diem pay

The Figure shows that most organizations do not pay above the wage scale or offer per diems. However, in some instances, these two compensation tools are used in a targeted manner (29%) and in a few instances they are employed very often (per diem 14% and pay above wage scale 11%). See **Section V** for detailed analysis.

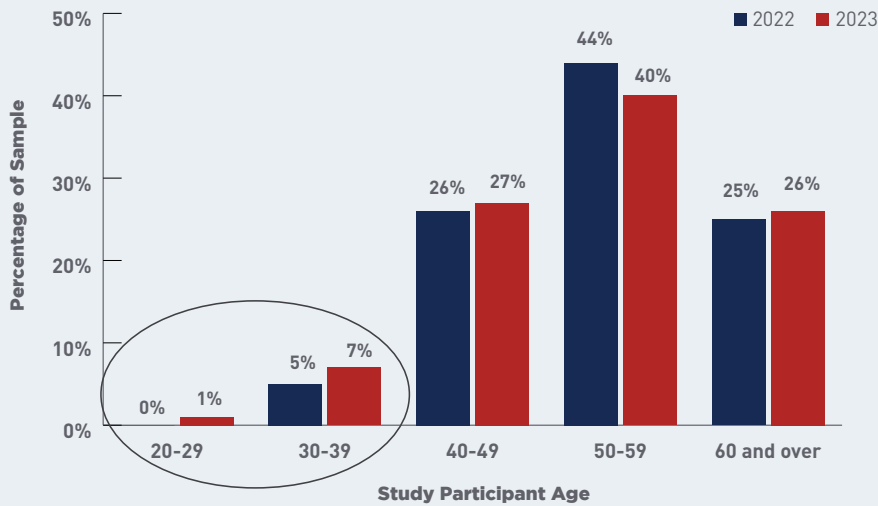
USE OF PAY ABOVE THE WAGE SCALE AND PER DIEM PAYMENTS



3. Where Are All the Young People?

Like last year, perhaps the most surprising finding of the Union Craft Labor Supply Report was the absence of younger people completing the survey. There were only two respondents in the 20-29 age category and just 7% were in the 30-39 grouping! That means that 93% of the sample was age 40 and over. The 50-59 age range was easily the most populous, with 40% of the respondents.

AGES OF STUDY PARTICIPANTS



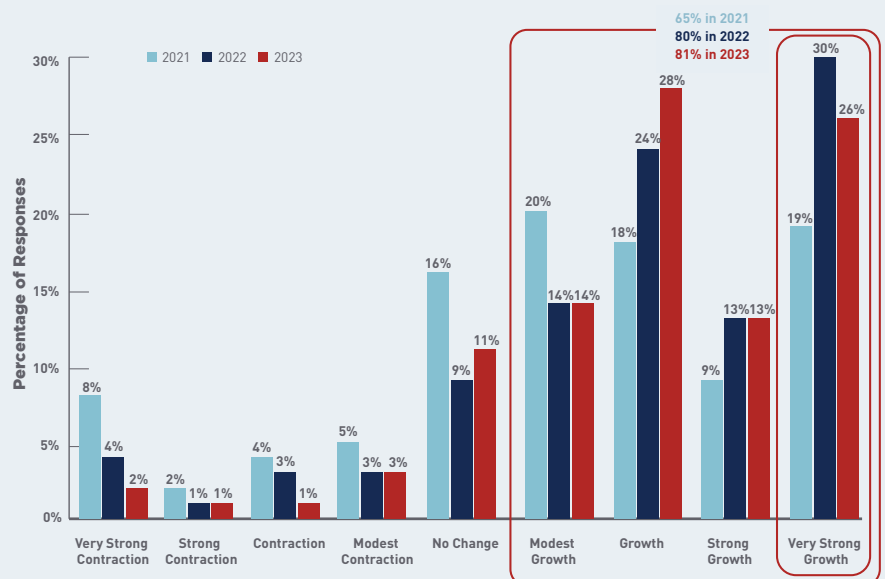
Assuming the sample responding to the survey is representative of the overall population of workers in the construction and maintenance industry, it is certainly a mature industry regarding age. See **Section I** for detailed analysis.

4. Strong Growth Optimism

There was again strong confidence in the growth prospects for the construction and maintenance industry. In fact, 81% projected growth with 26% projecting "Very Strong Growth" for 2023.

Regarding the role data cut, the high growth projections were especially strong with Construction Managers: regarding industry, Manufacturing; regarding region, the Northwest and Southwest Pacific. See **Section II** for detailed analysis:

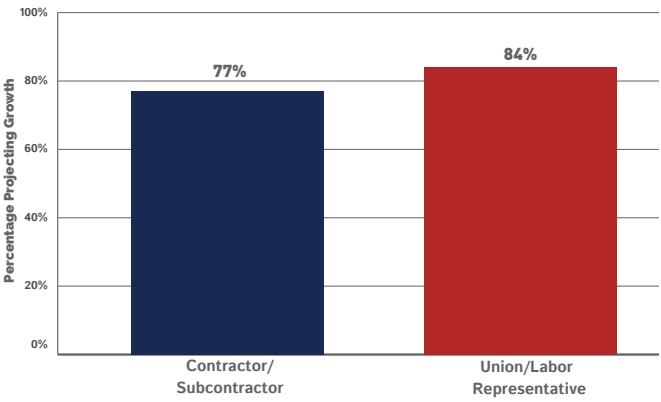
GROWTH/CONTRACTION PROJECTIONS



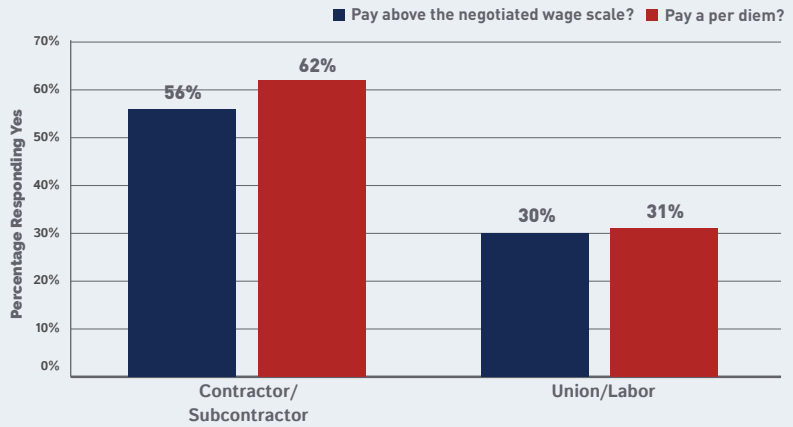
5. Perspectives: Management and Labor

A consistent theme each year in this study are the perspectives that labor and management have on the issues. The management group is best represented by the "Contractor/Subcontractor" role, which has the majority of the management category. The two roles were similar in their projections for growth and different in their evaluations of the union craft labor shortage and special types of pay. See **Sections II, III and V** for detailed analysis.

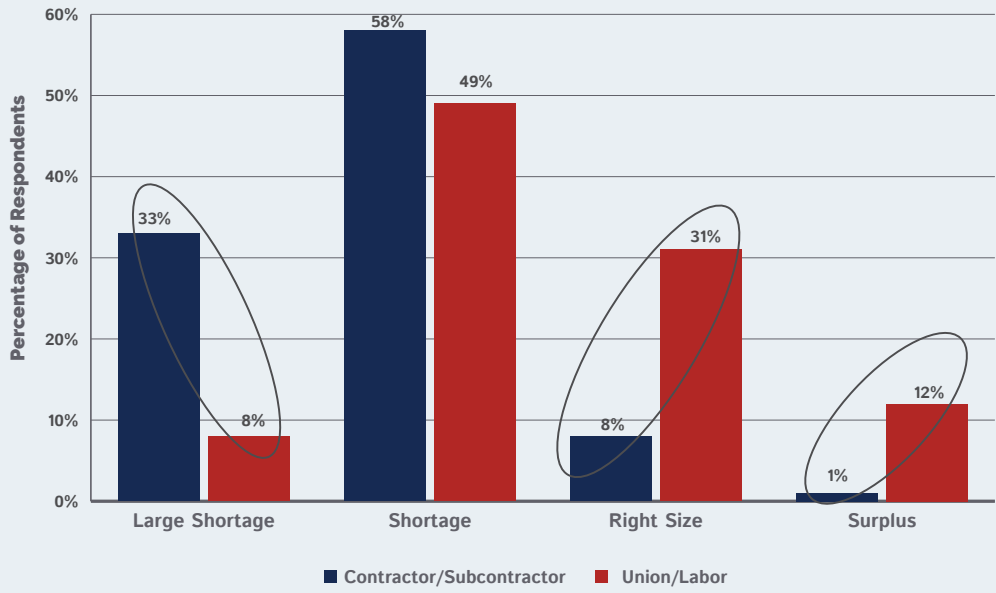
GROWTH/CONTRACTION PROJECTIONS – SIMILAR PERSPECTIVES



SPECIAL PAY – UNIQUE PERSPECTIVES



UNION CRAFT LABOR SHORTAGE – UNIQUE PERSPECTIVES



STUDY RESULTS

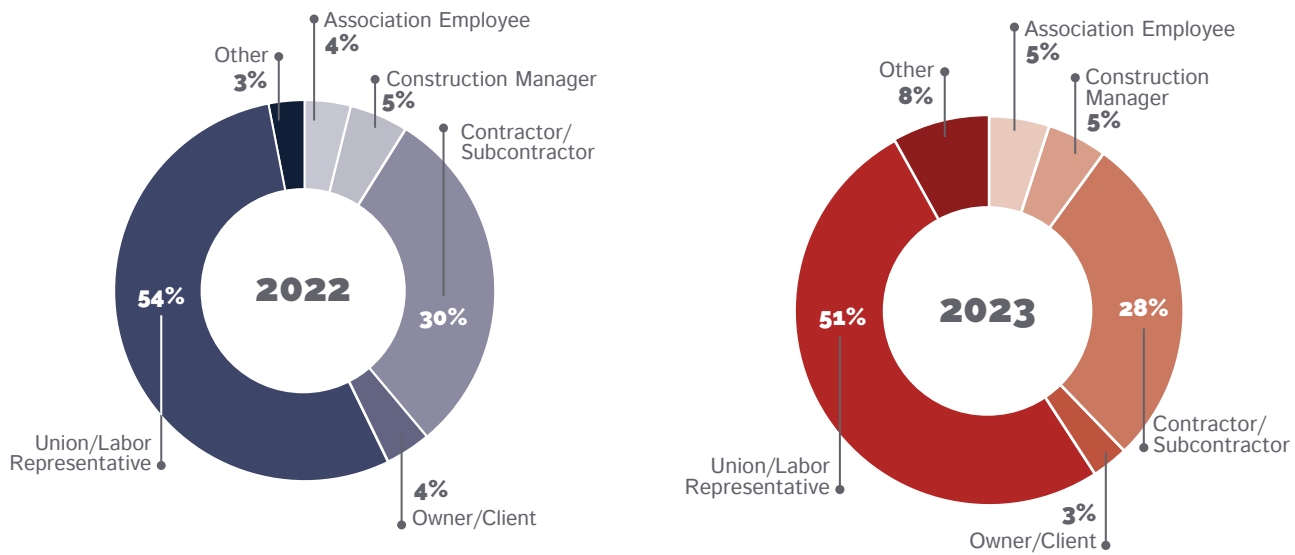
Beginning on January 12, 2023, a questionnaire focusing on union craft labor in the construction and maintenance industry was circulated to individuals directly engaged in that industry. A total of 463 people responded, representing a variety of roles in their organizations, industries, geographic regions, organization sizes and ages.

I. STUDY DEMOGRAPHICS

A. Role

As shown in **Figure 1.1**, in 2023 most respondents were either a Union/Labor Representative (51%) or a Contractor/Subcontractor (28%). The remaining roles represented 21% of the study sample. The past three years the proportion of the sample in the Contractor/Subcontractor role has fluctuated from 28% to 46% while the percentage of the sample in the Union/Labor Representative role has ranged from 36% to 54%. The size of the total management cohort (Association Employee, Construction Manager, Contractor/Subcontractor and Owner/Client) was 41% in 2023.

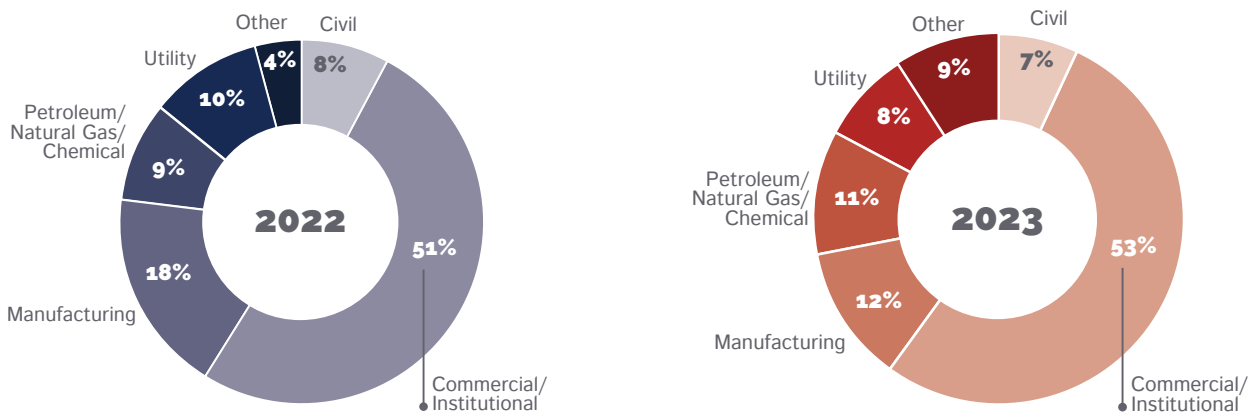
FIGURE 1.1 | RESPONDENT ROLE



B. Industry

Study participants were asked to indicate the industry in which their organization performed the most union construction and maintenance work. The Commercial/Institutional industry sector was again the most common one in 2023, representing 53% of the sample (57% in 2021 and 51% in 2022), as displayed in **Figure 1.2**. The Petroleum/Natural Gas/Chemical category grew from 9% last year to 11% while the Utility sector fell to 8% this year from 10% last year. The Other category grew noticeably from 4% in 2022 to 9% in 2023.

FIGURE 1.2 | INDUSTRY

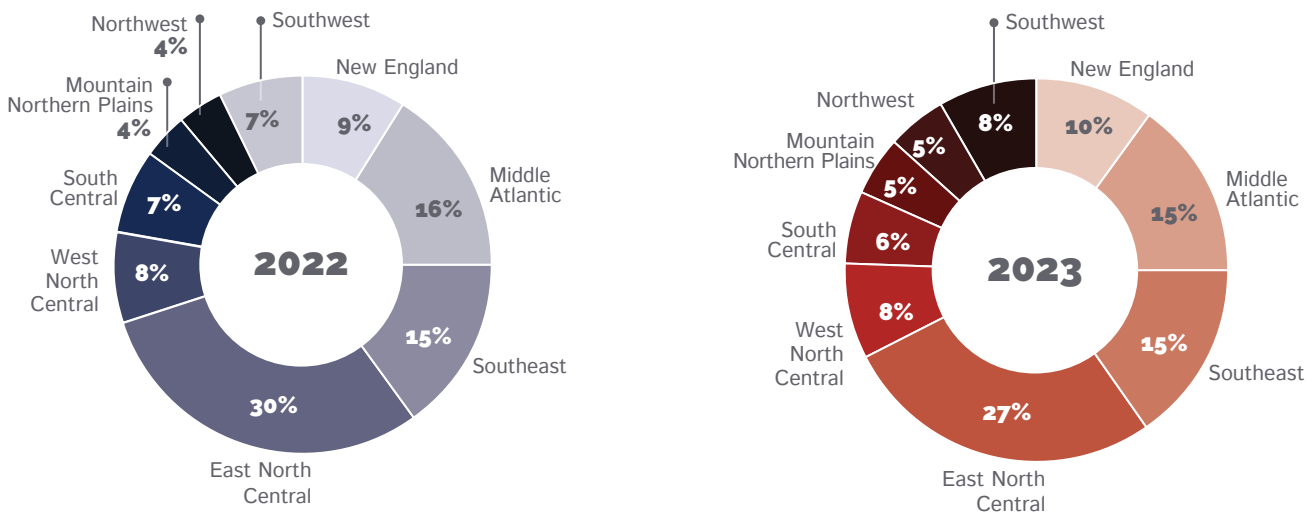


C. Region

Respondents were instructed to indicate the region(s) for which they were most familiar with their organization’s union construction and maintenance work activity. To ensure reliable data from knowledgeable participants, respondents were asked to provide data only for those regions they were familiar with and where their organization had performed work.

As illustrated in **Figure 1.3**, the East North Central region had the plurality of responses both in 2022 and 2023 at 30% and 27%, respectively. Other regions with a double-digit percentage of the responses in 2023 were the New England (10%), Middle Atlantic (15%) and Southeast (15%) regions. Overall, there was strong consistency from 2022 to 2023 in how the respondents were distributed across the regions.

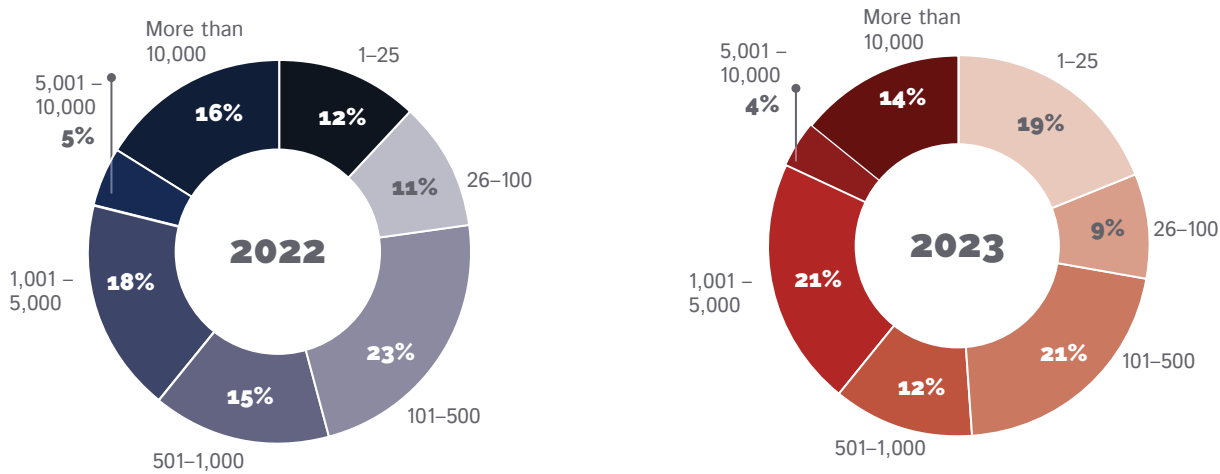
FIGURE 1.3 | REGION



D. Organization Size

Figure 1.4 shows that the participants in the study were fairly evenly distributed across various sizes of organizations. The most common sizes in 2023 were 101-500 and 1,001-5,000 employees (21% each). All other organization sizes, except 5,001-10,000 (4%), had from 9% to 19% of the respondents.

FIGURE 1.4 | ORGANIZATION SIZE



E. Age

One of the most surprising findings of the study, as shown in **Figure 1.5**, is that in 2023 there were almost no respondents in the 20-29 age category (1%) and just 7% were in the 30-39 range. The most common age range, by far, was 50-59, representing 40% of the respondents.

Figure 1.6 shows the average age by role. Interestingly, excluding the Other category, the Owner/Client category had the youngest survey respondents on average (48.3) and Association Employee the oldest (57.7). The two roles that contain the most respondents—Contractor/Subcontractor and Union/Labor—had almost identical average ages.

FIGURE 1.5 | AGE DISTRIBUTION

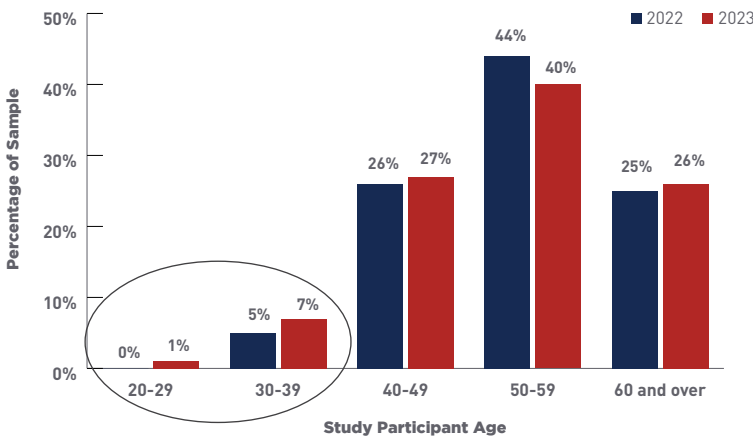


FIGURE 1.6 | AVERAGE AGE BY ROLE

Organization Role	Average Age
Association Employee	57.7
Construction Manager	50.6
Contractor/Subcontractor	53.3
Owner/Client	48.3
Union/Labor Representative	53.0
Other	60.2

II. GROWTH AND CONTRACTION IN THE CONSTRUCTION AND MAINTENANCE INDUSTRY

Section II refers to *all* construction and maintenance work, including both union and nonunion (the remainder of the report after **Section II** focuses specifically on *union only*). This section documents the degree of growth or contraction projected by those in the study sample for 2023 (and also projections from previous years as useful points of comparison).

Section II is divided into two parts:

- **Part 1. Overall Growth/Contraction**
- **Part 2. Growth/Contraction by Demographic Data Cut**
 - Role
 - Region
 - Industry by Region
 - Industry
 - Organization Size

Part 1. Overall Growth/Contraction

Figure 2.1 illustrates how the data for 2021–2023 fell into each of the rating options for growth (i.e., modest growth, growth, strong growth, and very strong growth), contraction (i.e., modest contraction, contraction, strong contraction, very strong contraction) and no change.

The percentage of respondents projecting growth this year—81%—was the highest it has been since this study began in 2015. From 2017-2020, over 75% of the respondents projected growth each year. In 2021 there was a dip in the results to 65%, likely due to COVID-19. Then in 2022 and 2023 there was a strong rebound and at least 80% projected growth those two years. Although there was a modest decline in the number projecting “Very Strong Growth” this year, there was still a sizable cohort of 26% who were that optimistic.

FIGURE 2.1 | GROWTH/CONTRACTION PROJECTIONS

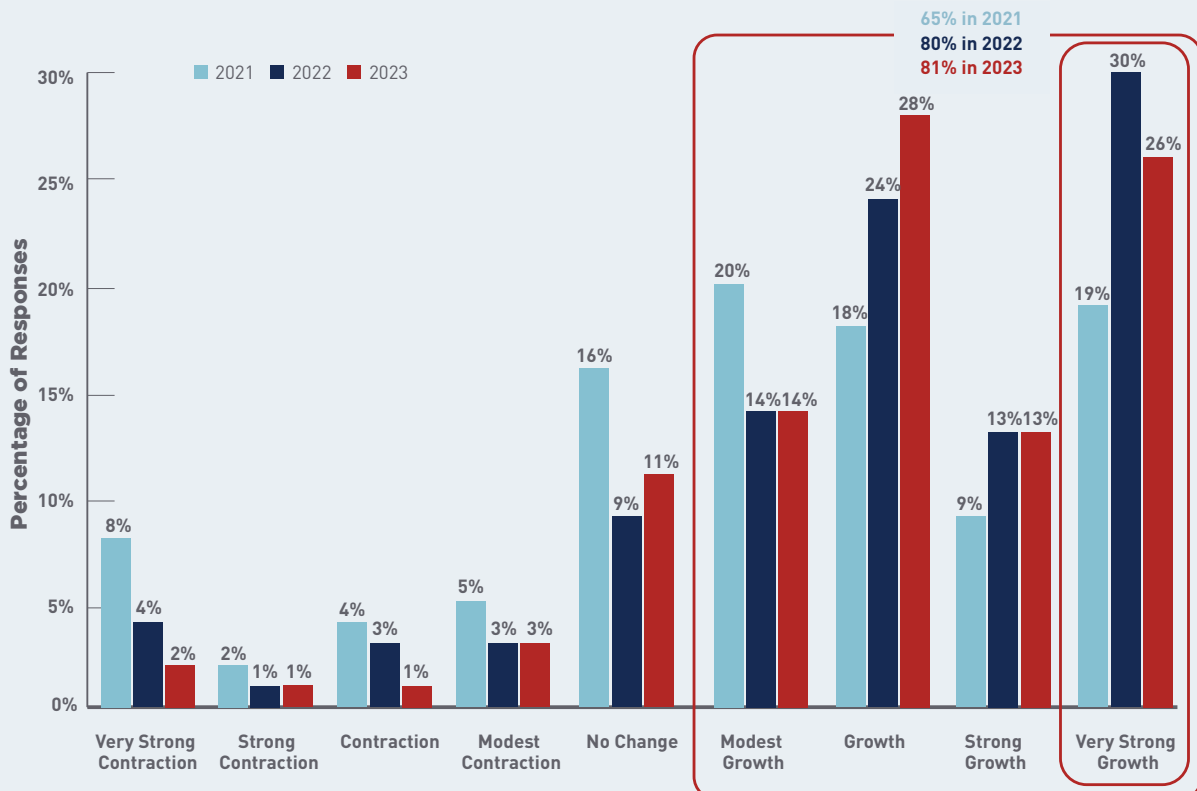


FIGURE 2.2 | GROWTH TRENDS

As already noted, after a decline in 2021, the results for 2022 and 2023 indicate a significant degree of optimism for growth.

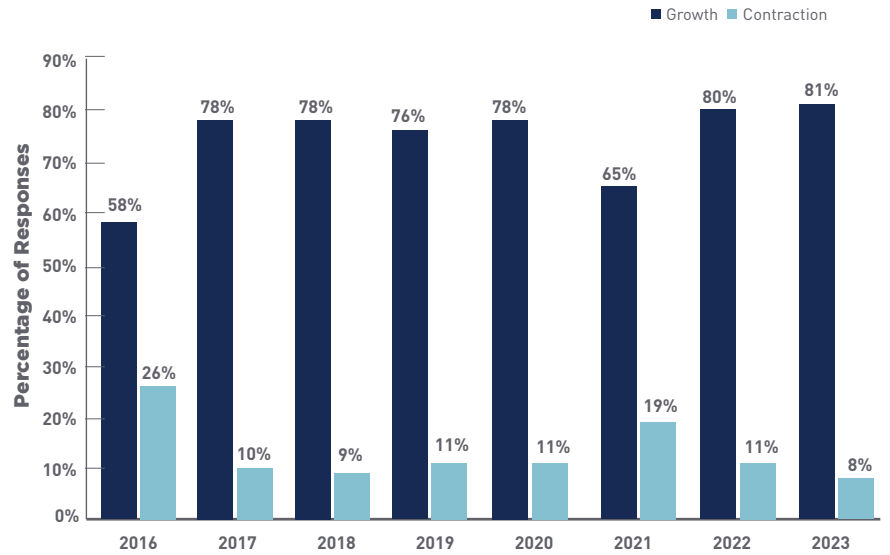
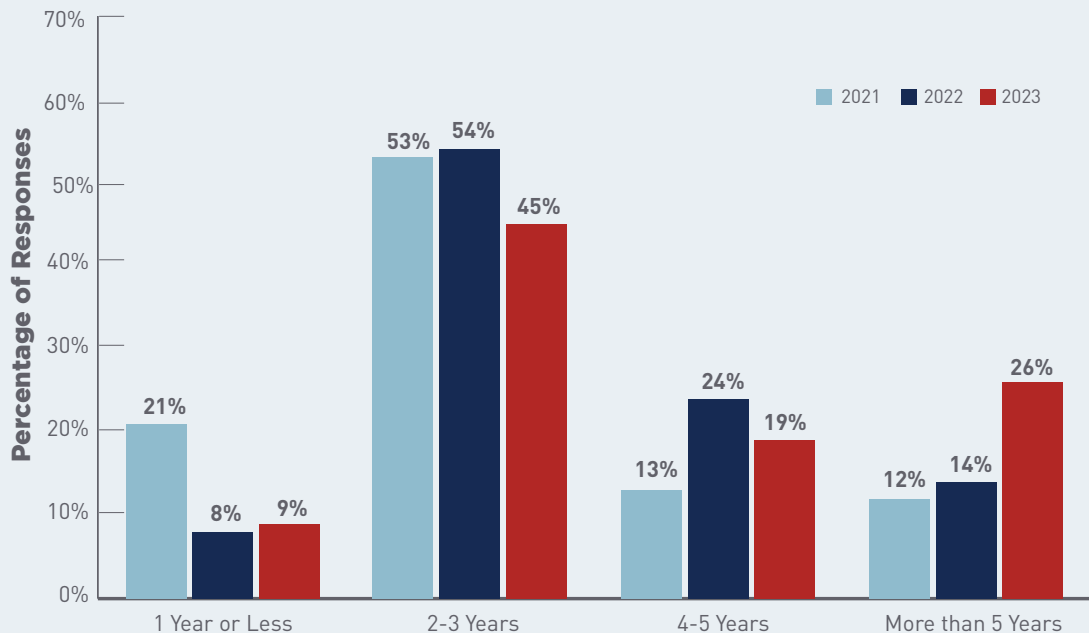


FIGURE 2.3 | GROWTH TIMESPAN

Study participants have increased the length of time they believe growth will last. For example, this year 26% thought growth in the construction and maintenance industry will last more than five years. Last year just 14% believed growth would last that long. The most common timeframe, however, continued to be 2-3 years.





Part 2. Growth/Contraction by Demographic Data Cut

Figures 2.4-2.11 show results for growth/contraction by four data cuts: role, industry, region and organization size.

Figures 2.4, 2.6, 2.8, 2.10 (even numbered figures)

The bars represent the percentage of the sample providing each rating (i.e., growth, strong growth, contraction, strong contraction) not the actual percentage of growth or contraction projected for the construction and maintenance industry.

Figures 2.5, 2.7, 2.9, 2.11 (odd numbered figures)

The odd numbered figures take into account all ratings and calculate the average degree of growth expected, the size of the growth.

There was a dramatic increase in growth prospects among Construction Managers. The percentage projecting growth increased from 61% last year to 100% in 2023. The Owner/Client role, although still high at 80%, declined from the very high 96% in 2022. The Union/Labor role was essentially unchanged from 2022 to 2023, with a large percentage projecting growth both years.

FIGURE 2.4a | PERCENTAGE OF RESPONDENTS PROJECTING GROWTH/CONTRACTION BY ROLE





Figure 2.4b is a subset of **Figure 2.4a**; it shows a comparison of the two most populated roles in the study—Contractors/Subcontractors and Union/Labor. Typically, Union/Labor has had more positive ratings than

Contractors/Subcontractors. Interestingly, this year there were mixed results: Union/Labor had *fewer positive* ratings for “Strong Growth” but *more positive* ratings for “Growth.”

FIGURE 2.4b | PERCENTAGE OF RESPONDENTS PROJECTING GROWTH/CONTRACTION BY ROLE (CONTRACTOR/SUBCONTRACTOR – UNION/LABOR)

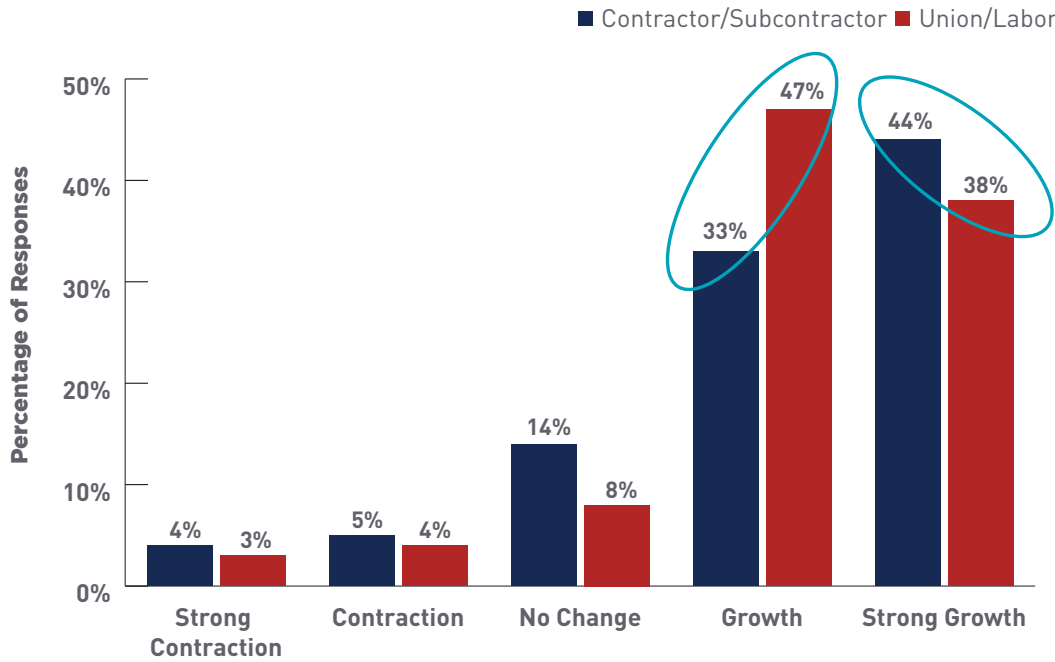
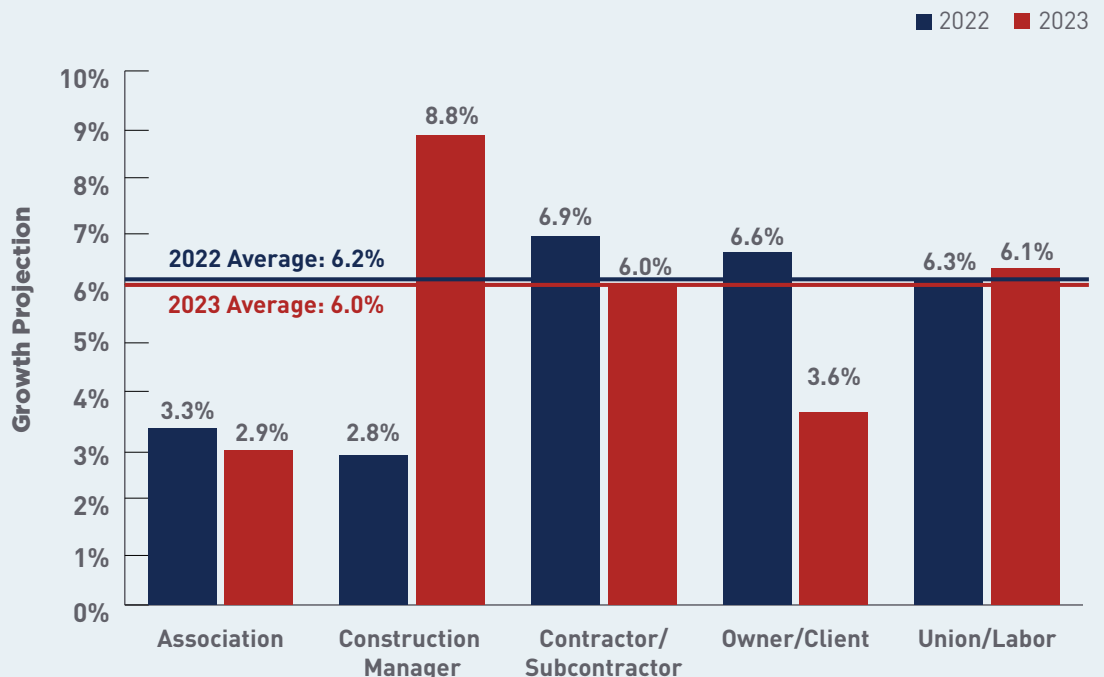


FIGURE 2.5 | AVERAGE SIZE OF PROJECTED GROWTH BY ROLE

The overall average growth projection in 2023 (6.0%) was similar to 2022 (6.2%). Consistent with **Figure 2.4a**, Construction Managers were much more growth oriented this year, jumping to 8.8% from 2.8% last year. Owner/Client were less optimistic in 2023, dropping to 3.6% from 6.6% last year.



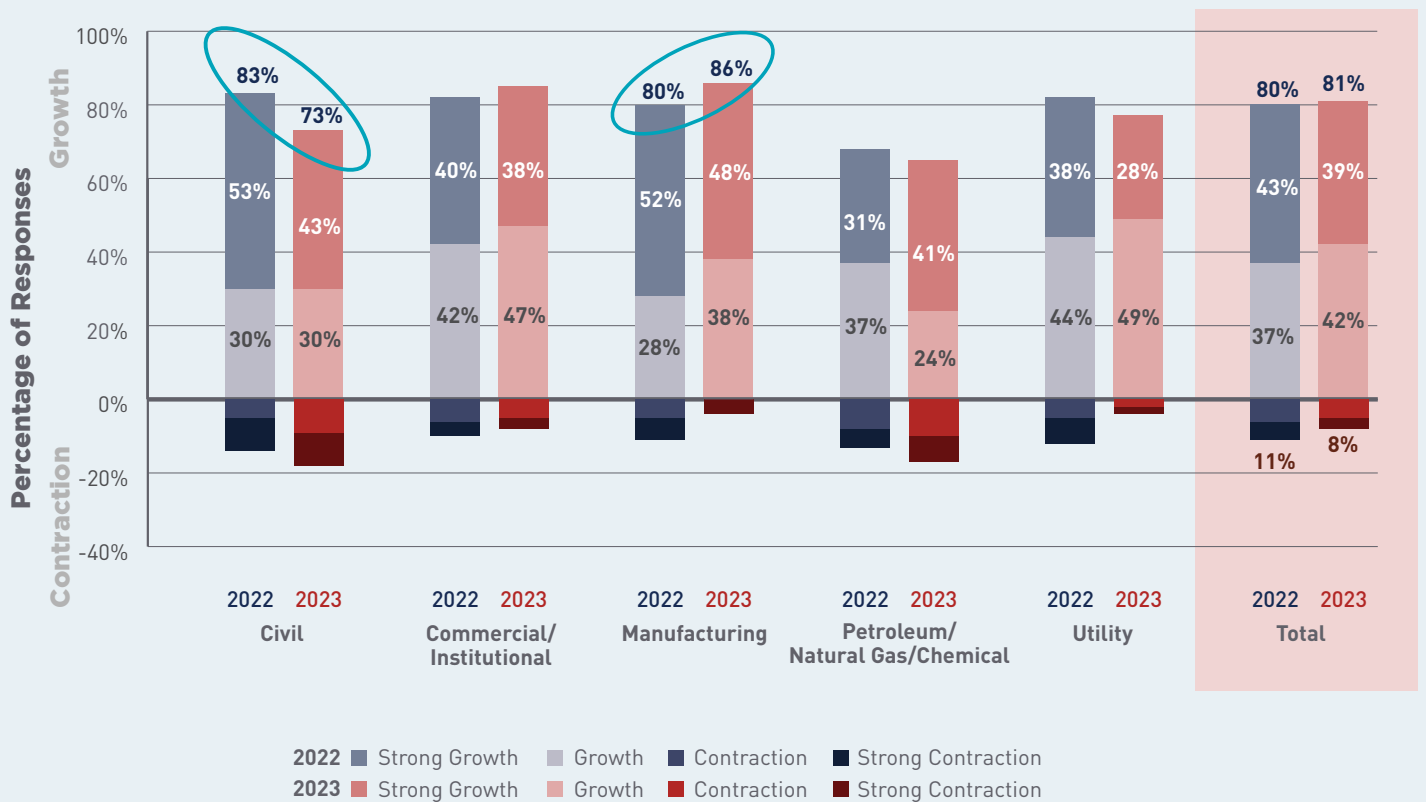
Unlike the data cuts for respondent role (Figures 2.4a and 2.5), there were no dramatic changes in the industry data cuts. However, there was a modest decline in the percentage of respondents that thought there would be growth in the Civil industry (83% in 2022 to 73% in 2023). And there was a modest increase in the growth prospects for Manufacturing (80% in 2022 to 86% in 2023). The other industries were consistent from last year to this year.

Technical Note

It is useful to note that the values shown for Figures 2.5, 2.7, 2.9 and 2.11 are the average of all ratings—those reporting growth, those reporting contraction and those reporting no change. Although the charts are valuable because they concisely and accurately summarize all ratings, the contraction ratings (negative values in the analysis) and growth ratings (positive values) tend to cancel each other out somewhat when calculating the average.

As a result, the averages contained in these charts are somewhat “muted.” In other words, if the average were calculated separately for those reporting growth and those reporting contraction the results would be more pronounced.

FIGURE 2.6 | PERCENTAGE OF RESPONDENTS PROJECTING GROWTH/CONTRACTION BY INDUSTRY

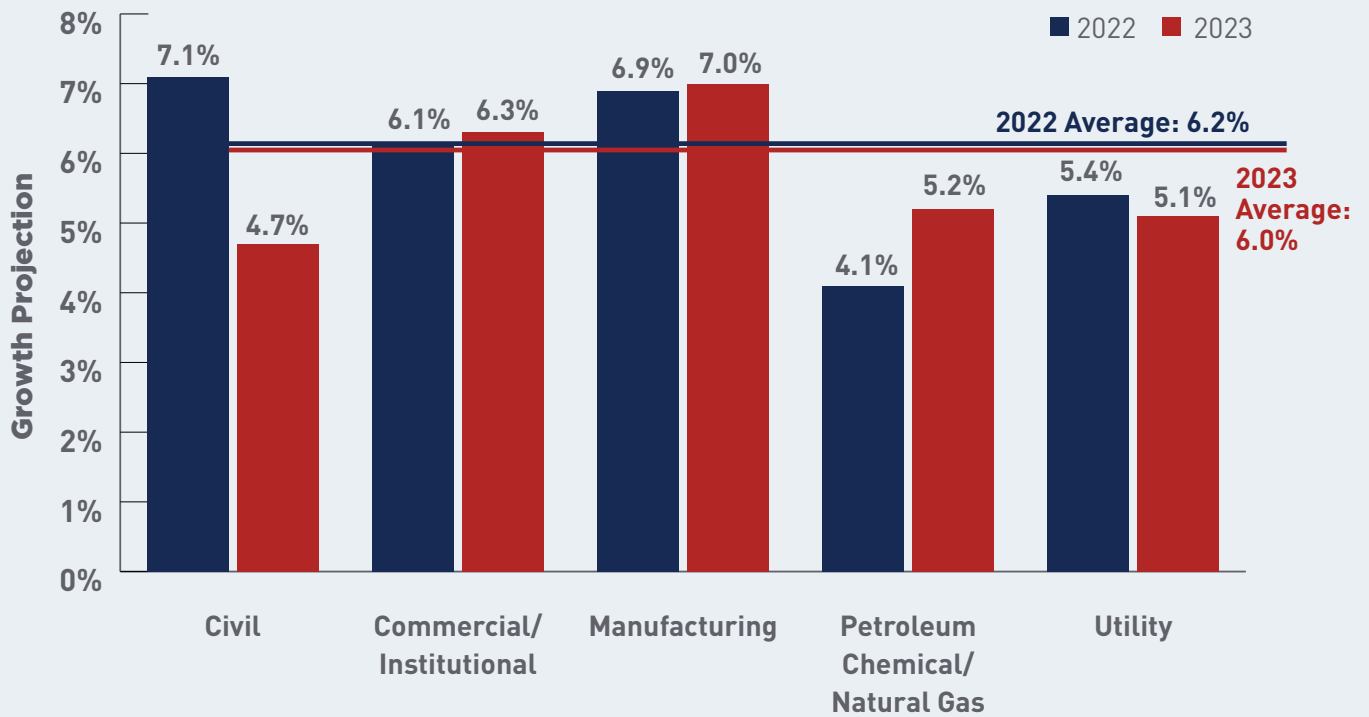




The average expected growth for 2023 reported by respondents to the survey fell for Civil (7.1% in 2022 to 4.7% in 2023) and increased for Petroleum/Natural Gas/Chemical (4.1% in 2022 to 5.2% in 2023). The results for

the other industries were consistent for the two years shown. The highest growth ratings in 2023 were for Manufacturing, averaging 7.0%.

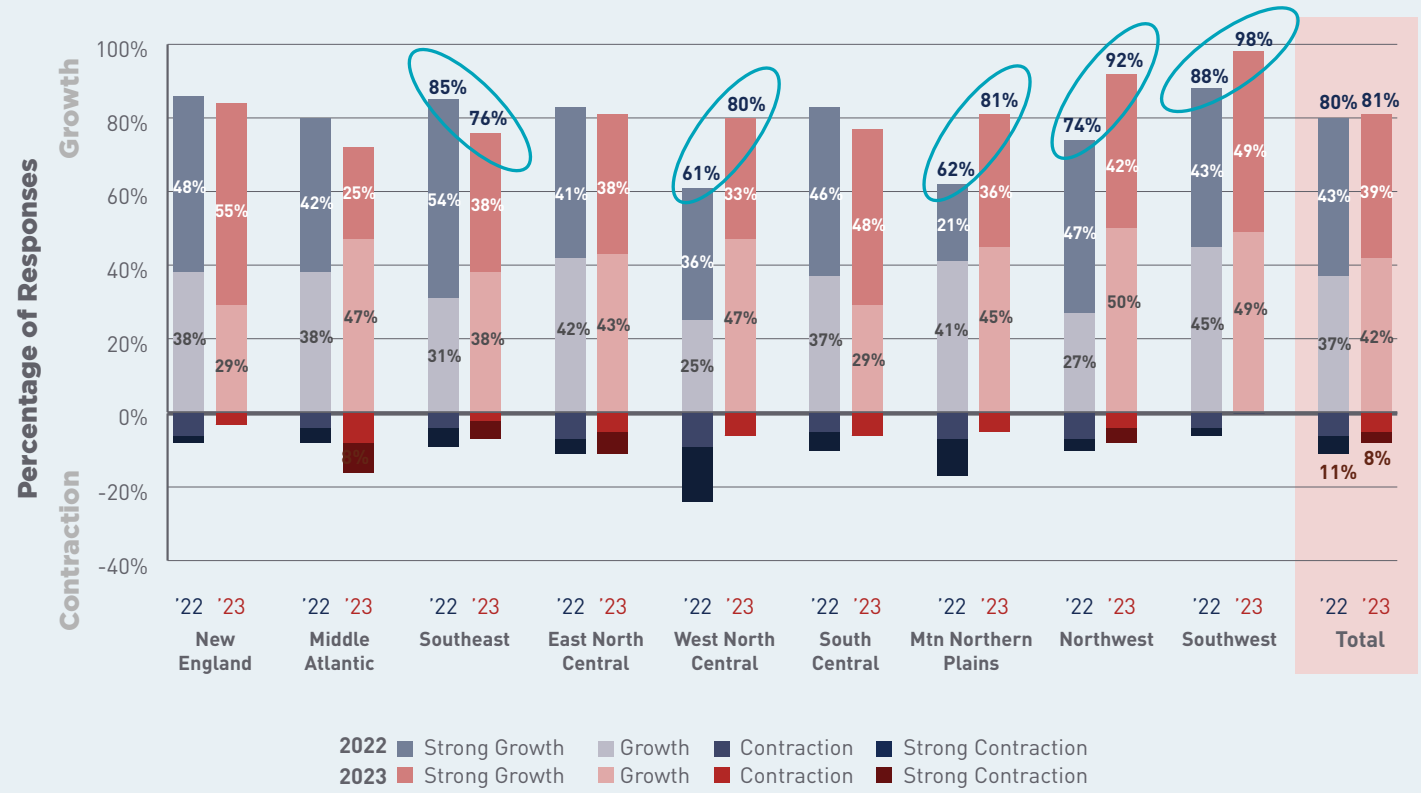
FIGURE 2.7 | AVERAGE SIZE OF PROJECTED GROWTH BY INDUSTRY



Regarding the region data cuts, four regions saw a significant increase in 2023 over last year and one region had a notable decline. The increases were as follows for 2022 and 2023 results: West North Central 61% in 2022 to 80% in 2023, Mountain Northern Plains 62% to 81%,

Northwest 74% to 92% and Southwest 88% to 98%. The Southeast fell from 85% to 76%. The highest ratings in 2023 were for the Southwest region where 98% projected growth, up from an already high 88% in 2022.

FIGURE 2.8 | PERCENTAGE OF RESPONDENTS PROJECTING GROWTH/CONTRACTION BY REGION



Region	States
New England	Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont
Middle Atlantic	District of Columbia, Delaware, Maryland, New Jersey, New York, Pennsylvania
Southeast	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia
East North Central	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, West Virginia
West North Central	Iowa, Kansas, Missouri, Nebraska
South Central	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Mountain Northern Plains	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Northwest	Alaska, Idaho, Oregon, Washington
Southwest	Arizona, California, Hawaii, Nevada

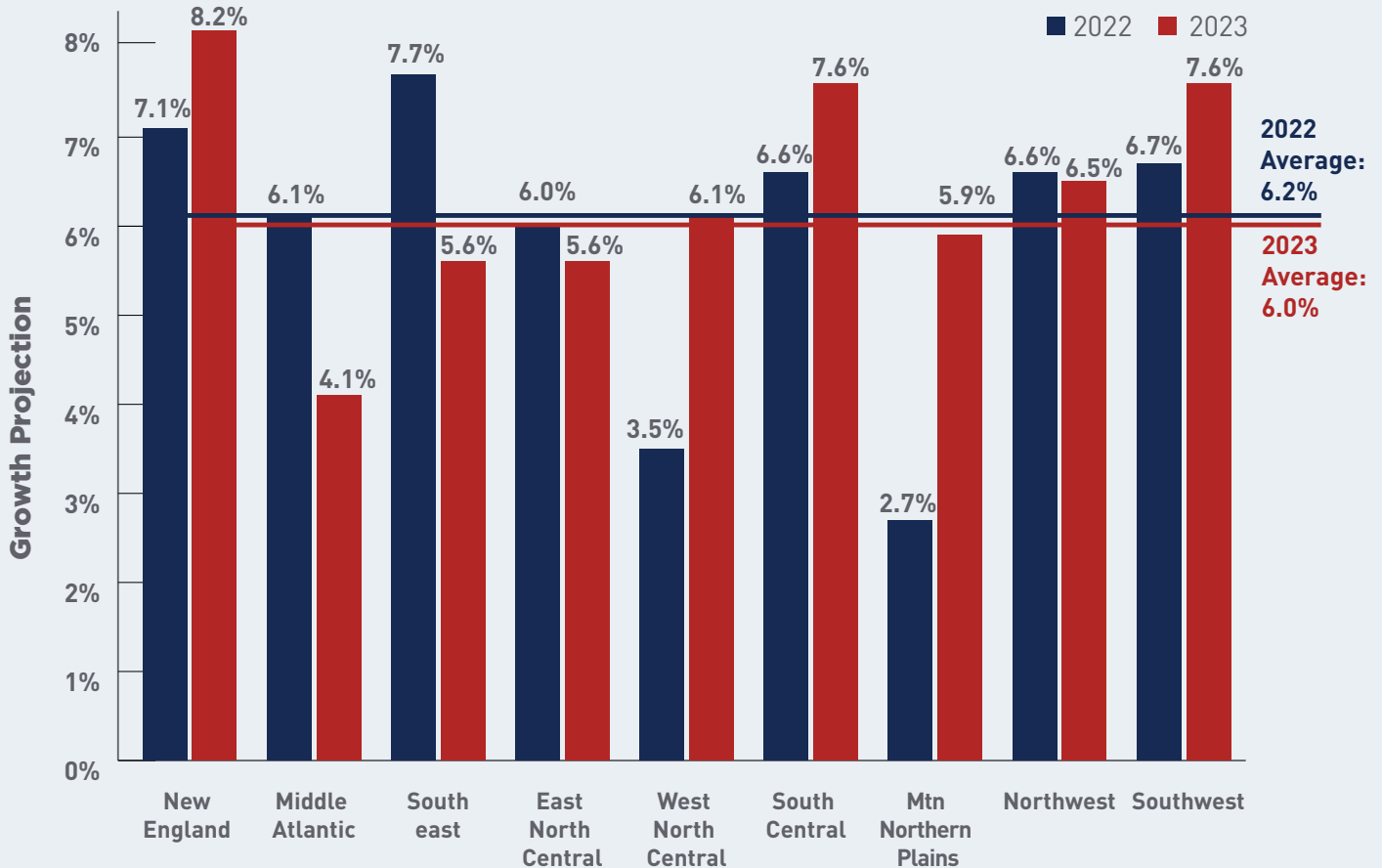


As illustrated in **Figure 2.9**, there were four regions with significantly higher average growth ratings in 2023: New England (7.1% in 2022 to 8.2% in 2023), West North Central (3.5% to 6.1%), South Central (6.6% to 7.6%), and Mountain Northern Plains (2.7% to 5.9%). Two regions reflect a significant decline from 2022 to 2023: Middle Atlantic (6.1% to 4.1%) and Southeast (7.7% to 5.6%).

Technical Note

As a reminder, the analyses for these averages include all ratings—growth, shortage and no change—whereas the statistics in the segmented bar charts in this section look at just the growth and shortage data (no change is excluded) and show what percentage of the responses fell into each rating category.

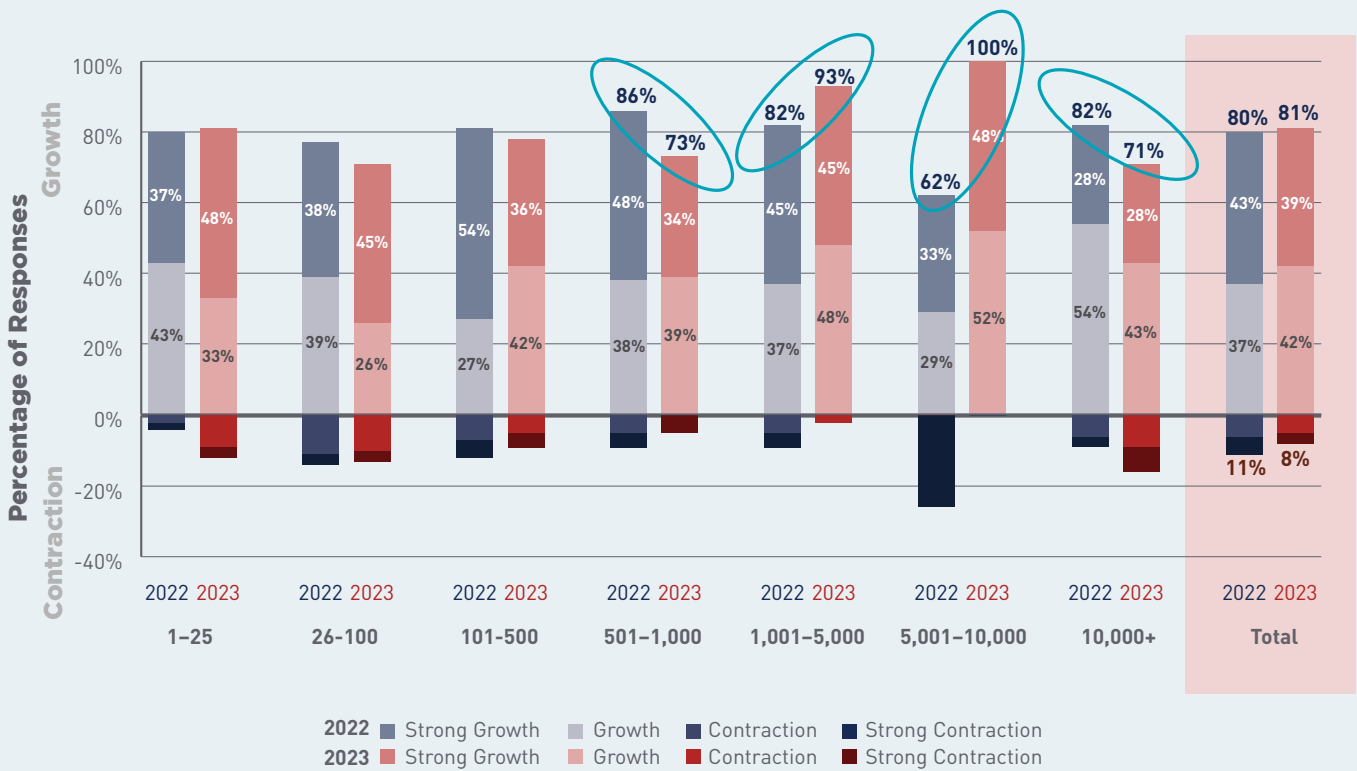
FIGURE 2.9 | AVERAGE SIZE OF PROJECTED GROWTH BY REGION



There were mixed results for the larger organizations. That is, organizations with 1,001-5,000 and 5,001-10,000 employees expect much higher growth in 2023 whereas organizations with 501-1,000 and 10,000+ employees project a decline in 2023. Data for the smaller

organizations were mostly consistent between 2022 and 2023. Interestingly, those organizations with 5,001-10,000 employees had the lowest ratings in 2022 and the highest ratings in 2023, a very large jump of 38%.

FIGURE 2.10 | PERCENTAGE OF RESPONDENTS PROJECTING GROWTH/CONTRACTION BY ORGANIZATION SIZE



As expected, **Figure 2.11** shows a huge jump in the average growth rating for organizations with 5,001-10,000 employees, from 0.3% in 2022 to the highest average in 2023, 8.3%. No other organization size reflected an

increase of more than 1.0%. Two mid-sized organization size groupings fell in 2023: 101-500 went from 7.4% to 5.6% and 501-1,000 from 7.2% to 5.3%.

FIGURE 2.11 | AVERAGE SIZE OF PROJECTED GROWTH BY ORGANIZATION SIZE

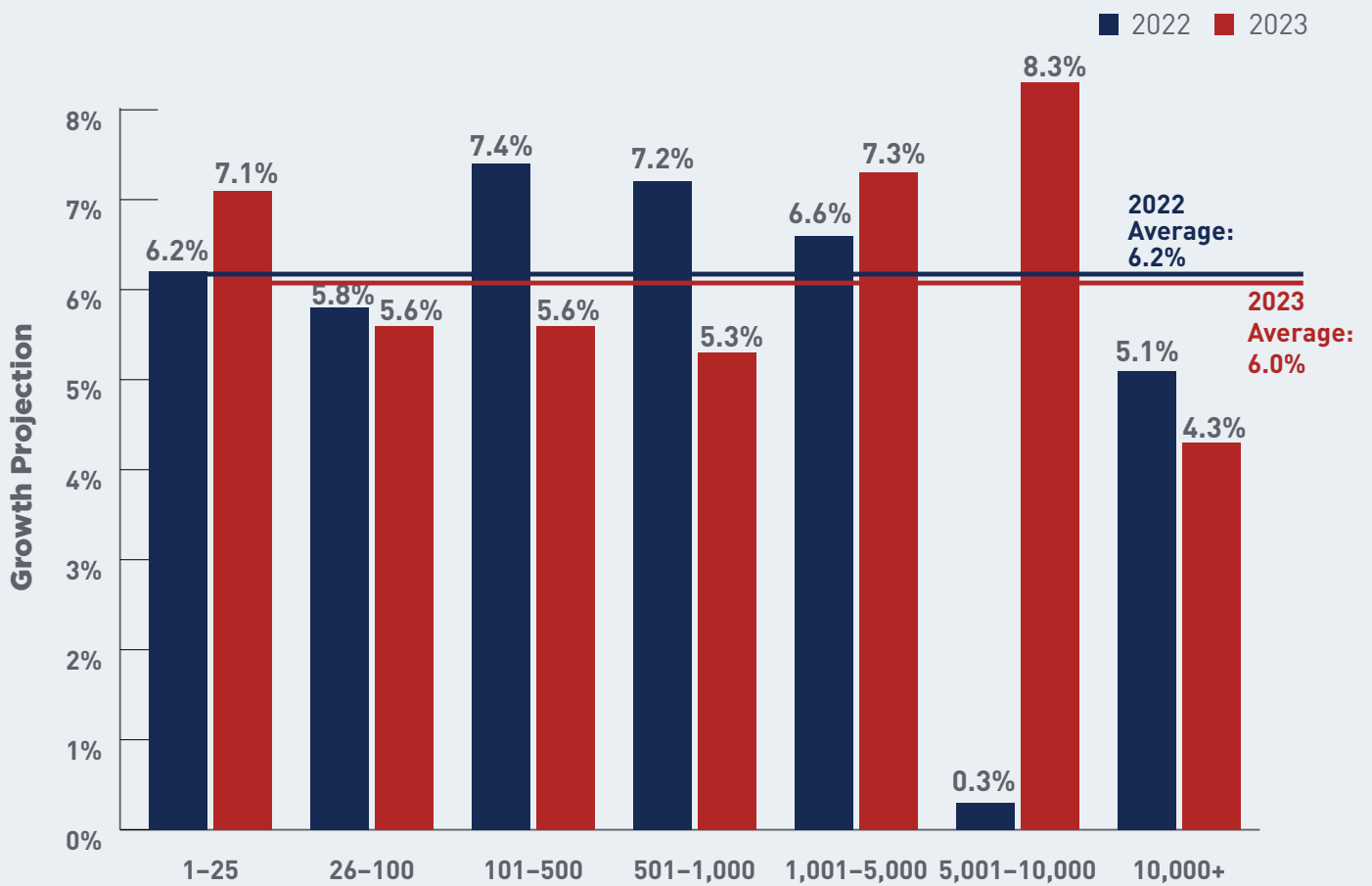
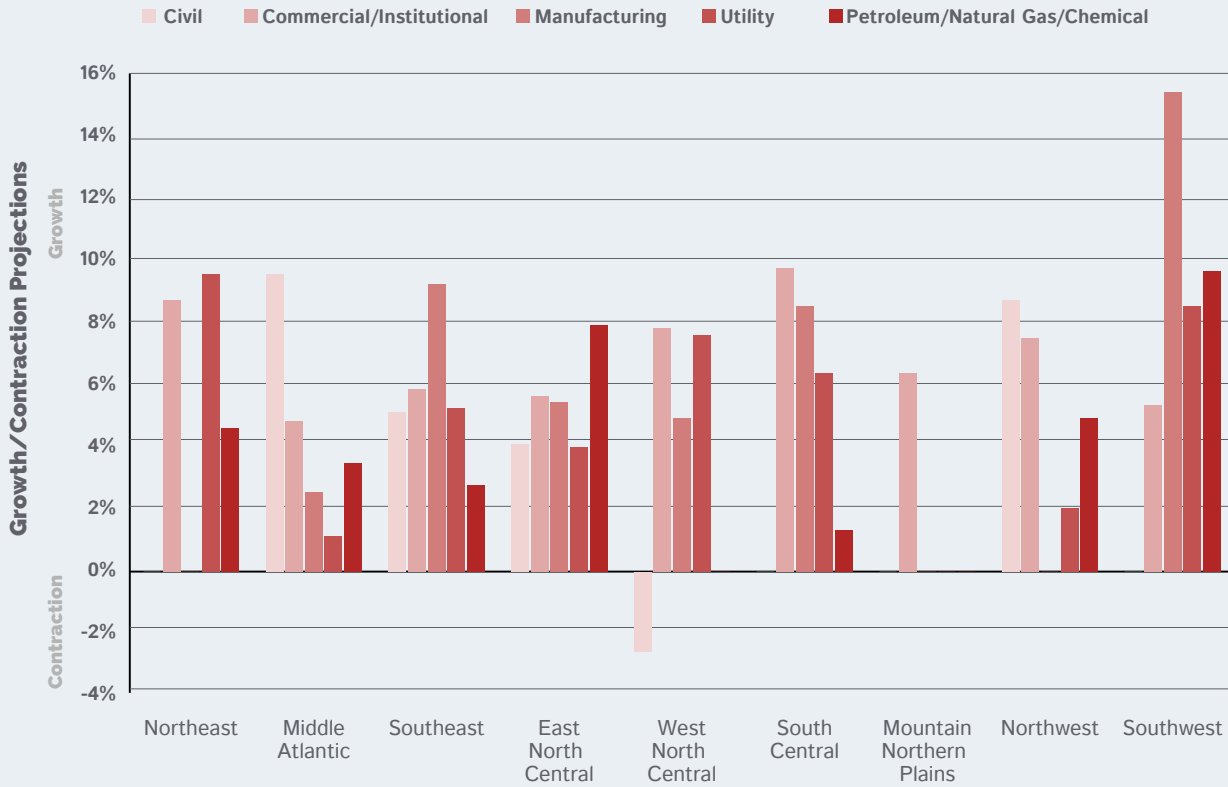


Figure 2.12 illustrates the results for the average growth/contraction projections that were further analyzed by looking at the data in an even more detailed manner:

industry by region. In other words, the growth/contraction ratings were examined for each industry in each region.

FIGURE 2.12 | AVERAGE SIZE OF PROJECTED GROWTH: INDUSTRY BY REGION



Highlights of Figure 2.12

The table below summarizes the data in Figure 2.12. Cells highlighted in blue reflect those geographic areas for each industry (industry by region) where growth was predicted to be

above average in 2023. Cells in red are where below average growth was projected. Manufacturing in the Southwest received the strongest growth endorsement (15.0%) and Civil in the West North Central the weakest (-2.5%).

	New England	Middle Atlantic	Southeast	East North Central	West North Central	South Central	Mountain Northern Plains	Northwest	Southwest
Civil		9.3%	5.0%	4.0%	-2.5%			8.5%	
Commercial/Institutional	8.5%	4.7%	5.7%	5.5%	7.6%	9.5%	6.2%	7.3%	5.2%
Manufacturing		2.5%	9.0%	5.3%	4.8%	8.3%			15.0%
Utility	9.3%	1.1%	5.1%	3.9%	7.4%	6.2%		2.0%	8.3%
Petroleum/Natural Gas/Chemical	4.5%	3.4%	2.7%	7.7%		1.3%		4.8%	9.4%



Figures 2.13 - 2.16 aggregate the more detailed response options in the survey (e.g., very strong growth, strong growth, very strong contraction, strong contraction, etc.) into three categories: contraction, no change and growth.

Results are displayed using a separate chart for each industry. The growth third (right side) of each bar chart clearly was the most prevalent sentiment among study participants.

FIGURE 2.13 | PERCENTAGE PROJECTING GROWTH/CONTRACTION: REGION BY CIVIL

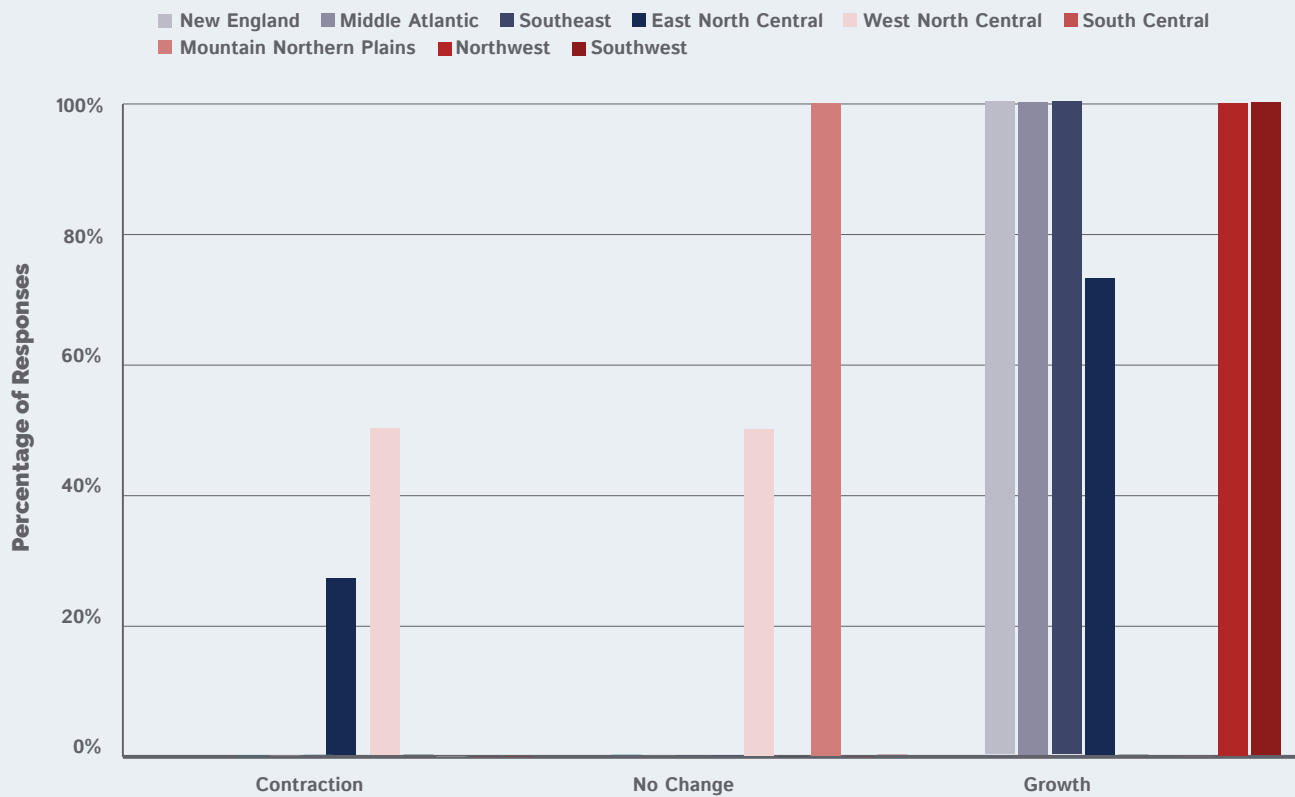




FIGURE 2.14 | PERCENTAGE PROJECTING GROWTH/CONTRACTION: REGION BY COMMERCIAL/INSTITUTIONAL

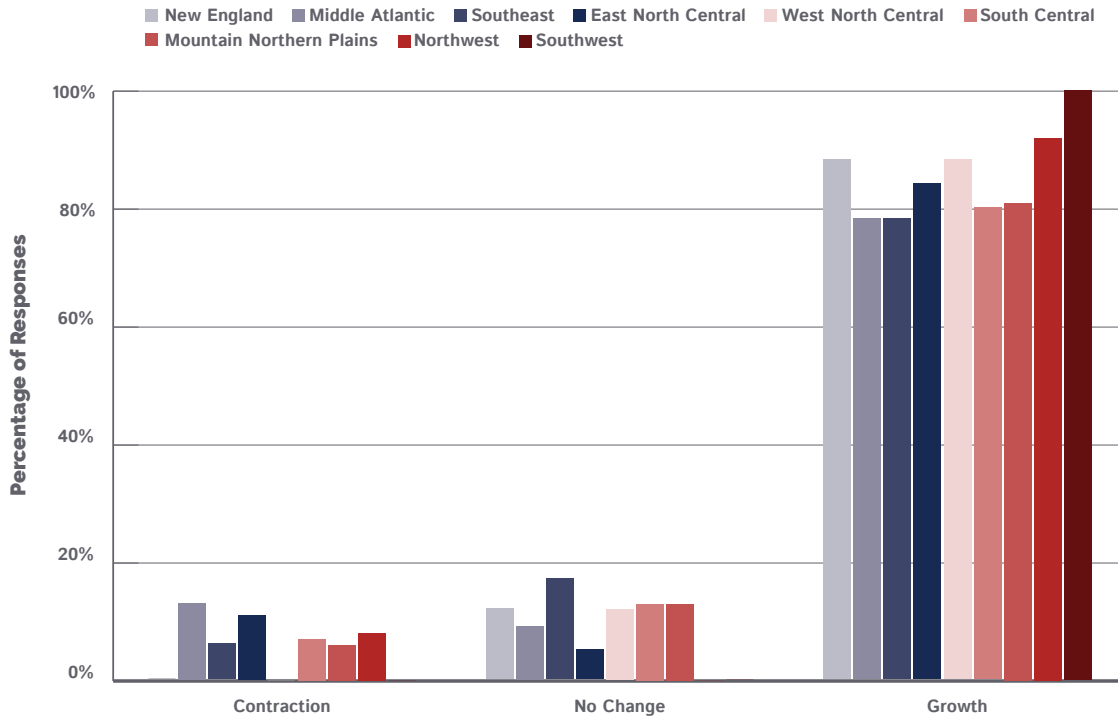


FIGURE 2.15 | PERCENTAGE PROJECTING GROWTH/CONTRACTION: REGION BY MANUFACTURING

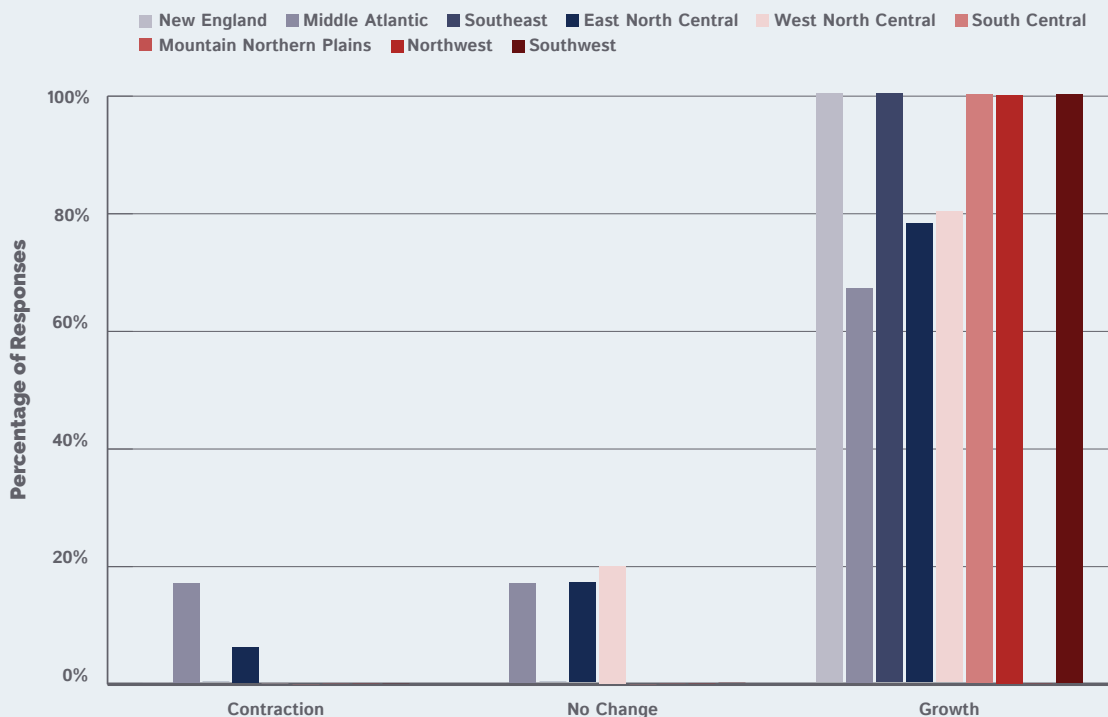




FIGURE 2.16 | PERCENTAGE PROJECTING GROWTH/CONTRACTION: REGION BY UTILITY

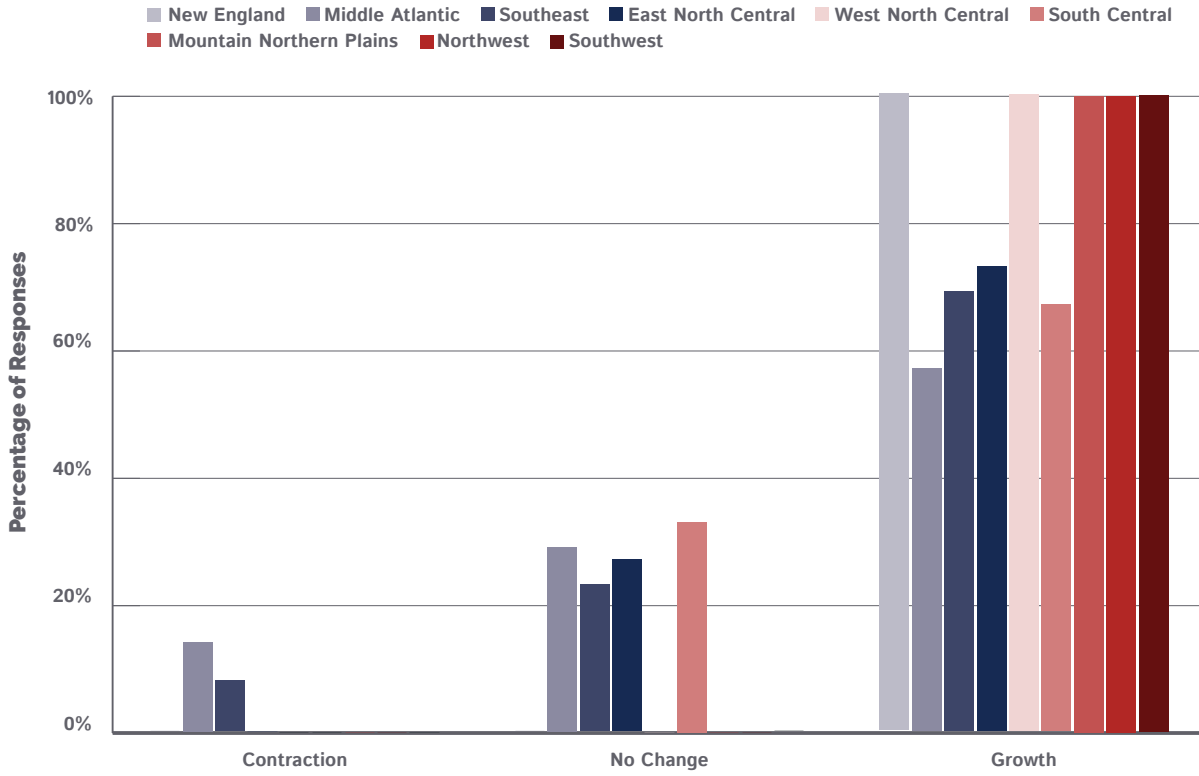
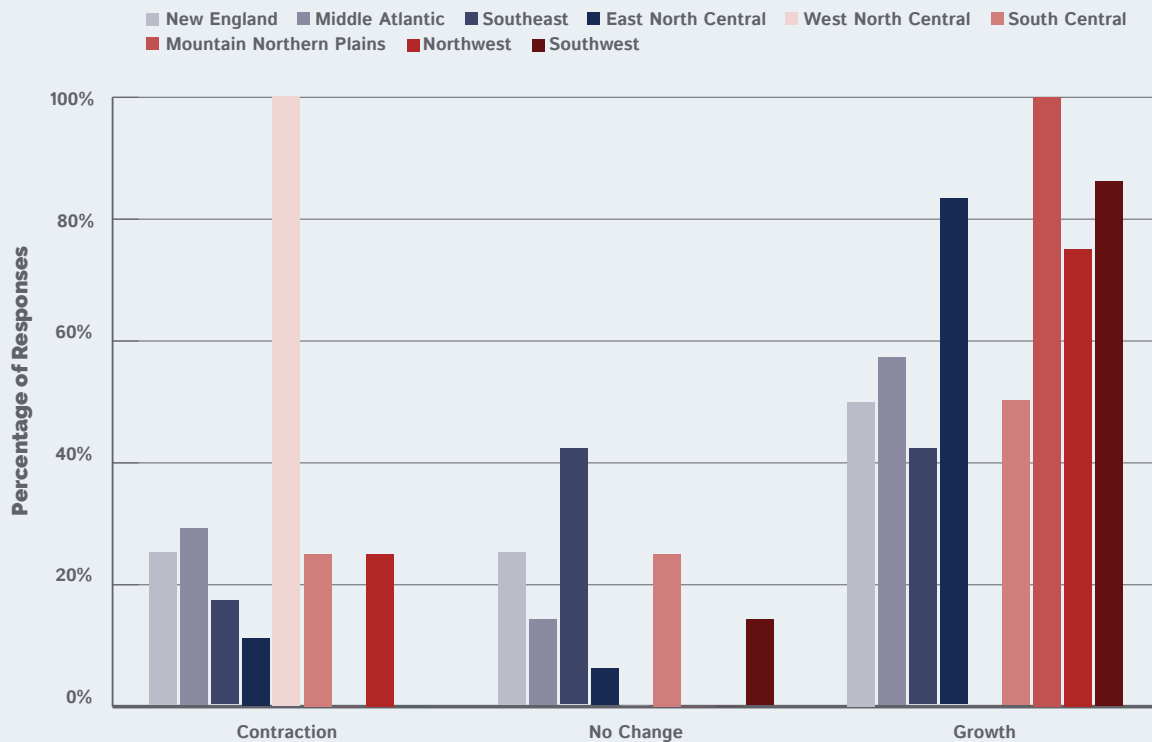


FIGURE 2.17 | PERCENTAGE PROJECTING GROWTH/CONTRACTION: REGION BY PETROLEUM/NATURAL GAS/CHEMICAL



III. UNION CRAFT LABOR SHORTAGE AND SURPLUS

Section III refers specifically to *union craft labor*. This section describes how respondents reported the union craft labor shortage or surplus in *their organization* in 2022 (not what they assumed was happening in other organizations where they did not have first-hand knowledge). These are termed “actual” results since respondents reported their company’s experience from the previous year—2022 (not more subjective projections for upcoming years).

Like the layout of **Section II**, **Section III** provides results in two parts:

- **Part 1. Overall Union Craft Labor Shortage/Surplus**
- **Part 2. Union Craft Labor Shortage/Surplus by Demographic Data Cut**

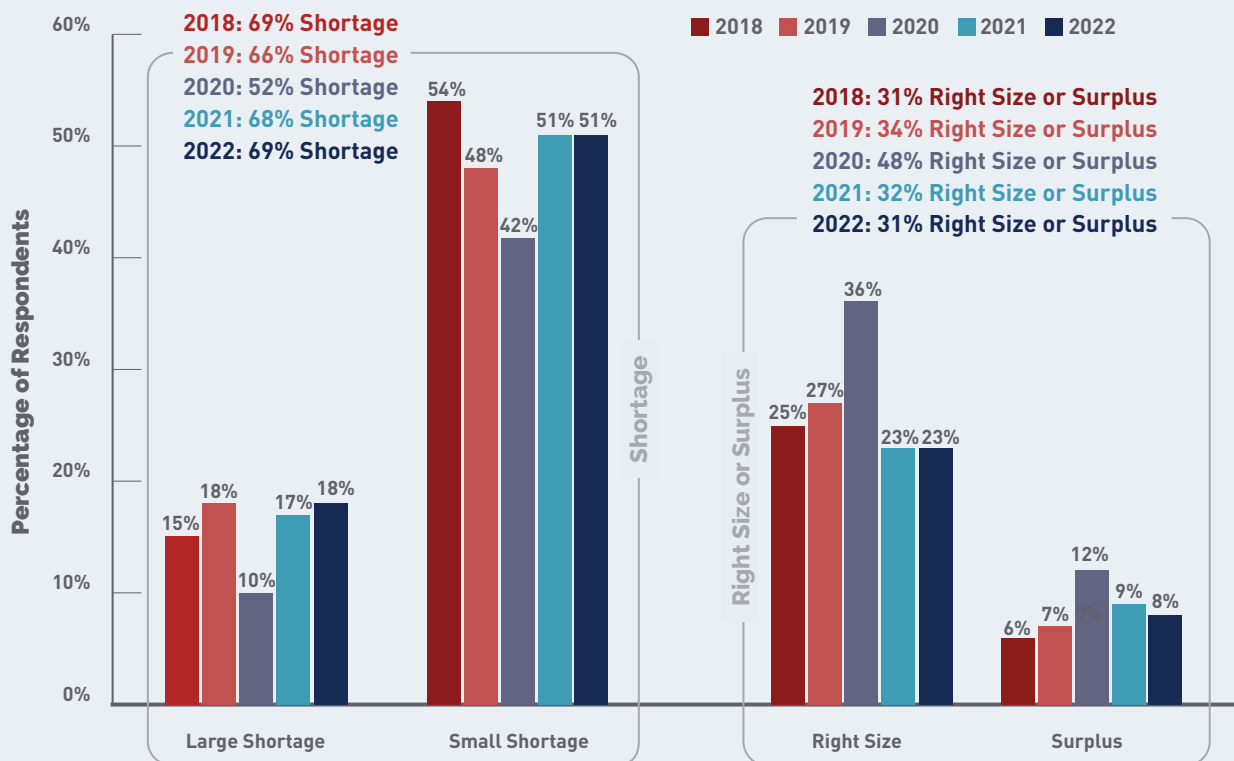
Part 1. Overall Union Craft Labor Shortage/Surplus

After a modest change two years ago (the COVID-19 year), results from this year’s study (2022 data) were remarkably similar to last year (2021 data).

A majority (51%) of respondents reported a shortage in their organization in 2022, but most of them said it was a “Small Shortage.” Eighteen percent reported a “Large Shortage.” About a third (31%) said they either had the right number of union craft workers in their organization or a surplus.

For several years this study has signaled that the union craft labor shortage is not quite as severe as some sources seem to indicate. That is not to suggest that there is no shortage, or to downplay its importance. Rather, the TAUC Union Craft Labor Supply Study shows the shortage as fairly modest, except for 10–18 percent of the construction and maintenance industry (depending on the year) where there has been a large shortage throughout recent history.

FIGURE 3.1 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS IN THEIR ORGANIZATION



Part 2. Union Craft Labor Shortage/Surplus by Demographic Data Cut

Figures 3.2 - 3.6 show results for the union craft labor supply in 2022 (and 2021 for comparison) by four data cuts: role, industry, region and organization size. The different colored segments in the bars (excluding Figure 3.3) represent the percentage of the sample providing each rating (i.e., large shortage, small shortage, right size, surplus), not the actual percentage size of the shortage (or surplus). In Figure 3.2, the results for 2021 and 2022 from Figure 3.1 are broken out by respondent role.

Contractors/Subcontractors reported a shortage more than any other role (91% reported a shortage). In this year's study, a smaller percentage of Association Executives and Construction Managers respondents reported a shortage while a greater percentage of Contractors/Subcontractors reported shortage. For the total results, the percentage reporting a shortage was nearly unchanged from 2021 to 2022, 68% and 69%, respectively.

FIGURE 3.2 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS BY ROLE

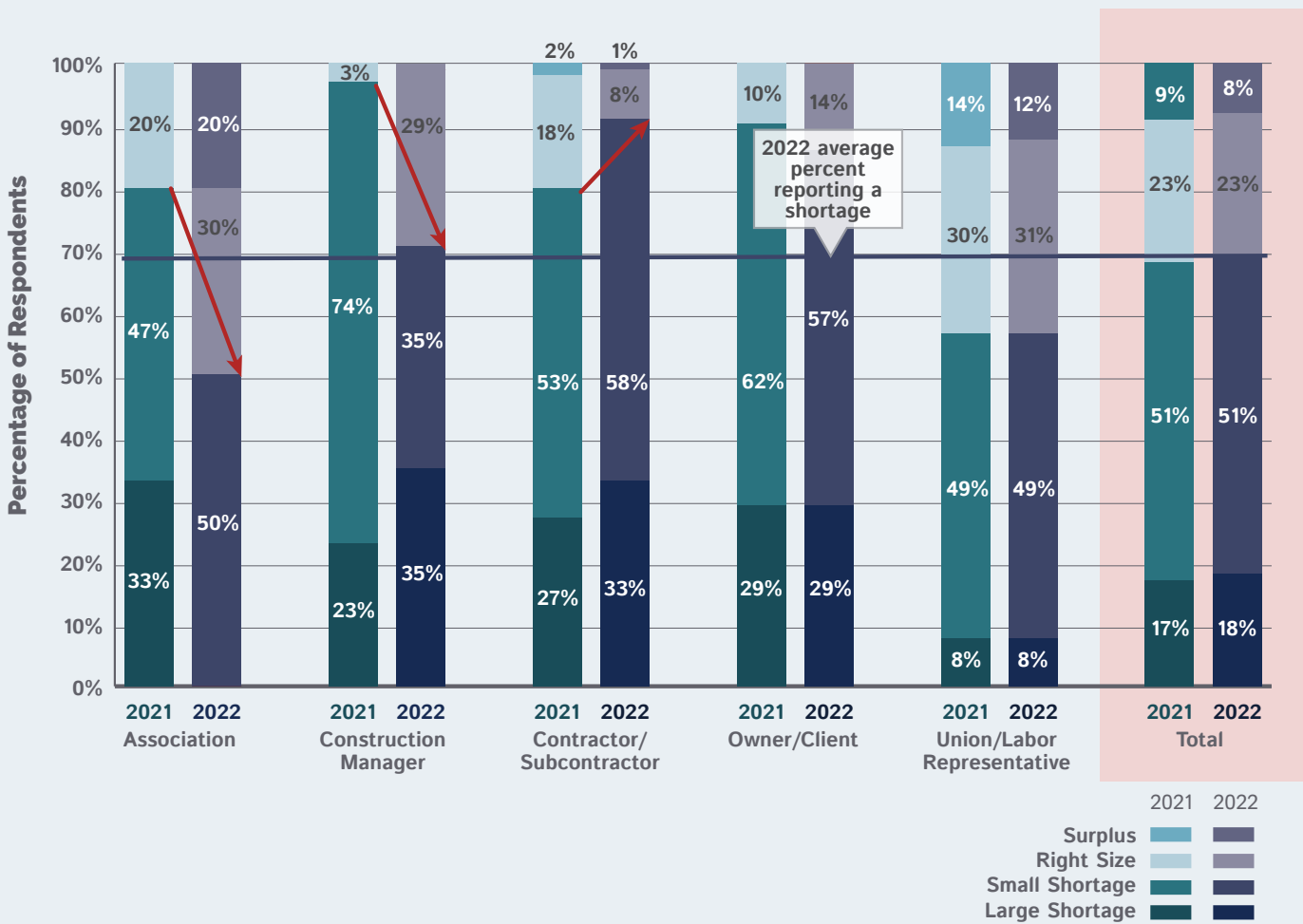
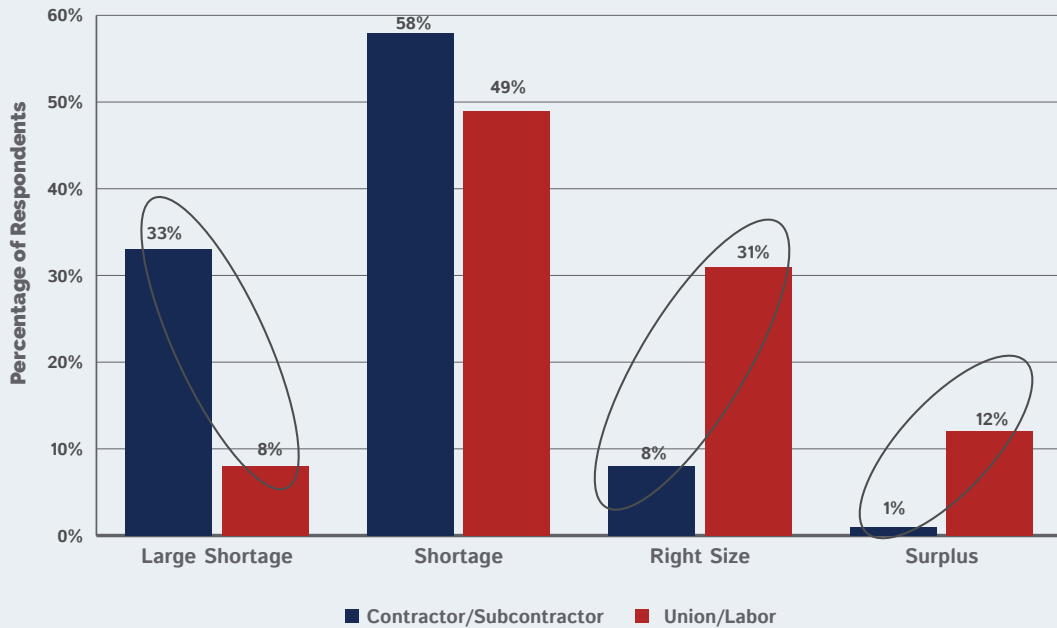


Figure 3.3 represents a subset of **Figure 3.2**; it portrays the unique perspectives between the two largest roles providing data for the study: Contractors/Subcontractors and Union/Labor Representatives. As the Figure displays, Union/Labor Representatives were much more optimistic.

They had significantly fewer individuals indicating a "Large Shortage" and many more reporting the "Right Size" or even a "Surplus."

FIGURE 3.3 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS BY ROLE (CONTRACTOR/SUBCONTRACTOR - UNION/LABOR)



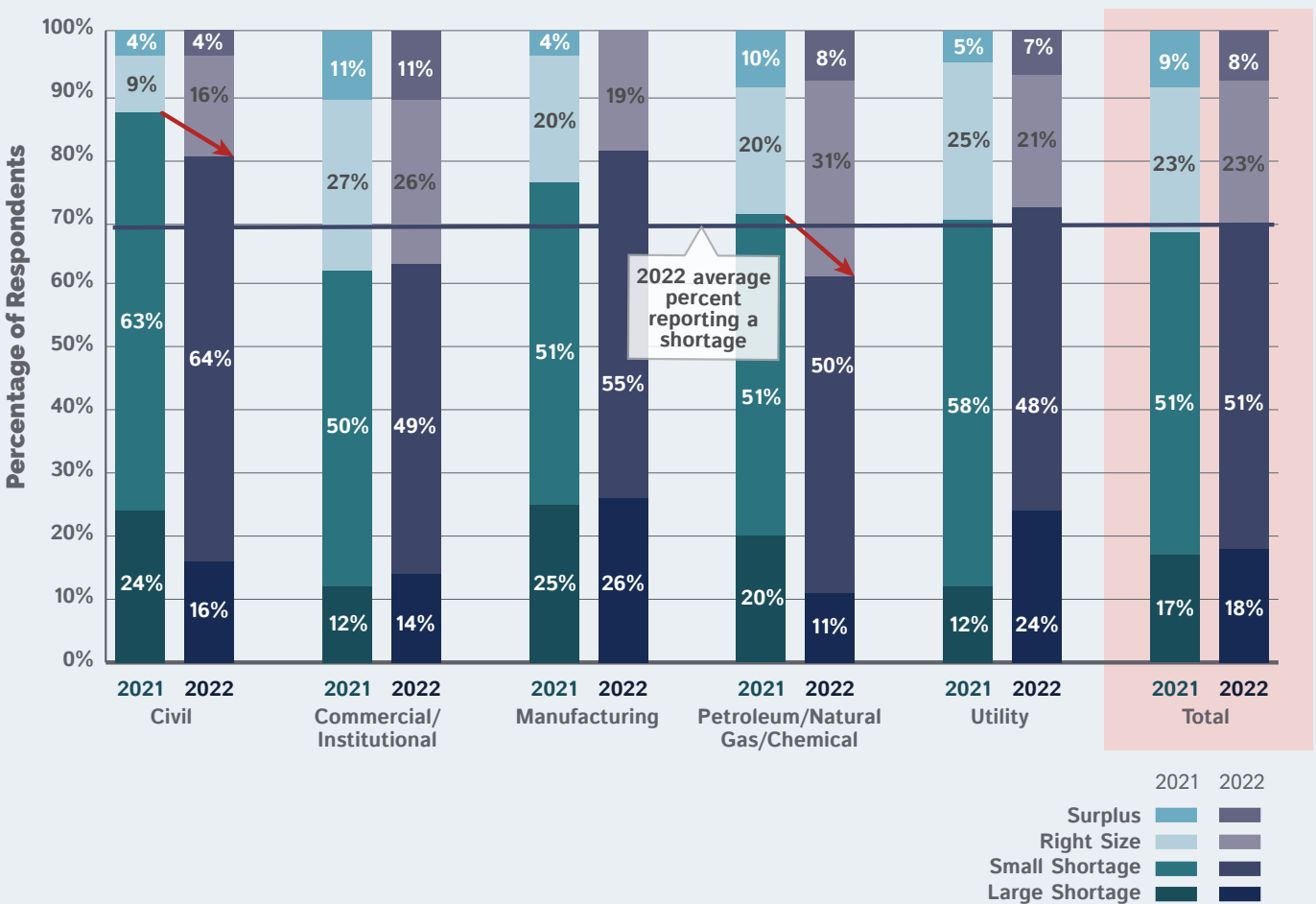


The largest union craft worker shortage in 2022 was reported in the Manufacturing industry (81% reported a shortage), which also had the top growth projections (see **Figure 2.6**). This is likely to prove extra challenging in 2023—*Manufacturing has the strongest growth projections and the greatest union craft worker shortages*. Like last year, the Civil

industry also had some of the larger shortages where 80% of the study respondents said they had a shortage in their organization (down slightly from 87% last year).

The Commercial/Institutional and Petroleum/Natural Gas/Chemical industries had the smallest percentage reporting a shortage in 2022.

FIGURE 3.4 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS BY INDUSTRY

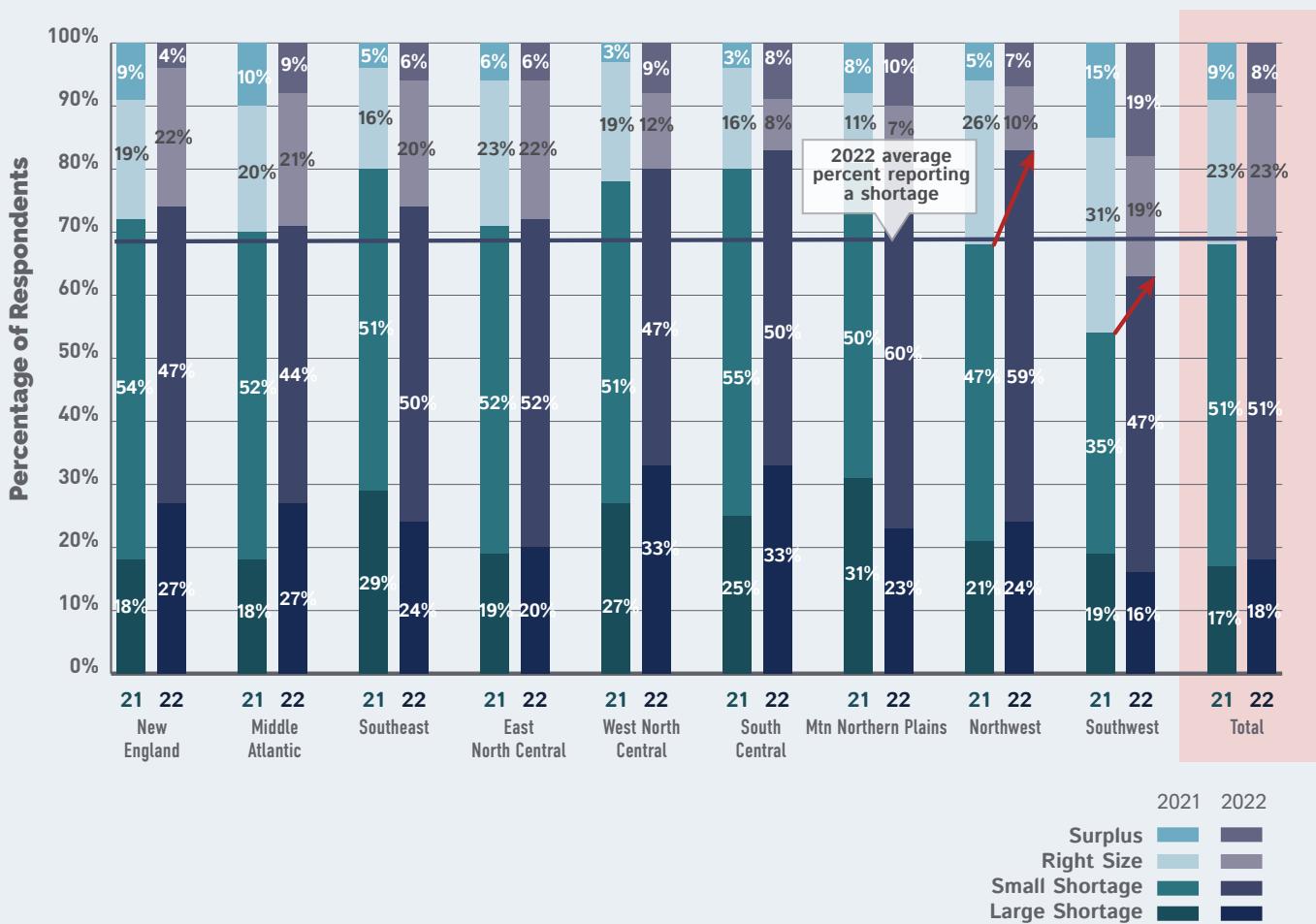




Most of the regions had about the same percentage reporting a shortage this year as last year, which is not surprising since the total percentage with a shortage was nearly the same this year as last year. Of note is the increase in the shortage for the Northwest region (68% in 2021, 83% in 2022). The Northwest, along with the South

Central, region also had the largest shortage for 2022. Interestingly, although there was an increased percentage indicating a shortage in the Southwest (54% in 2021, 63% in 2022), it still had the smallest shortage and largest surplus (19%) of union craft workers in 2022.

FIGURE 3.5 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS BY REGION

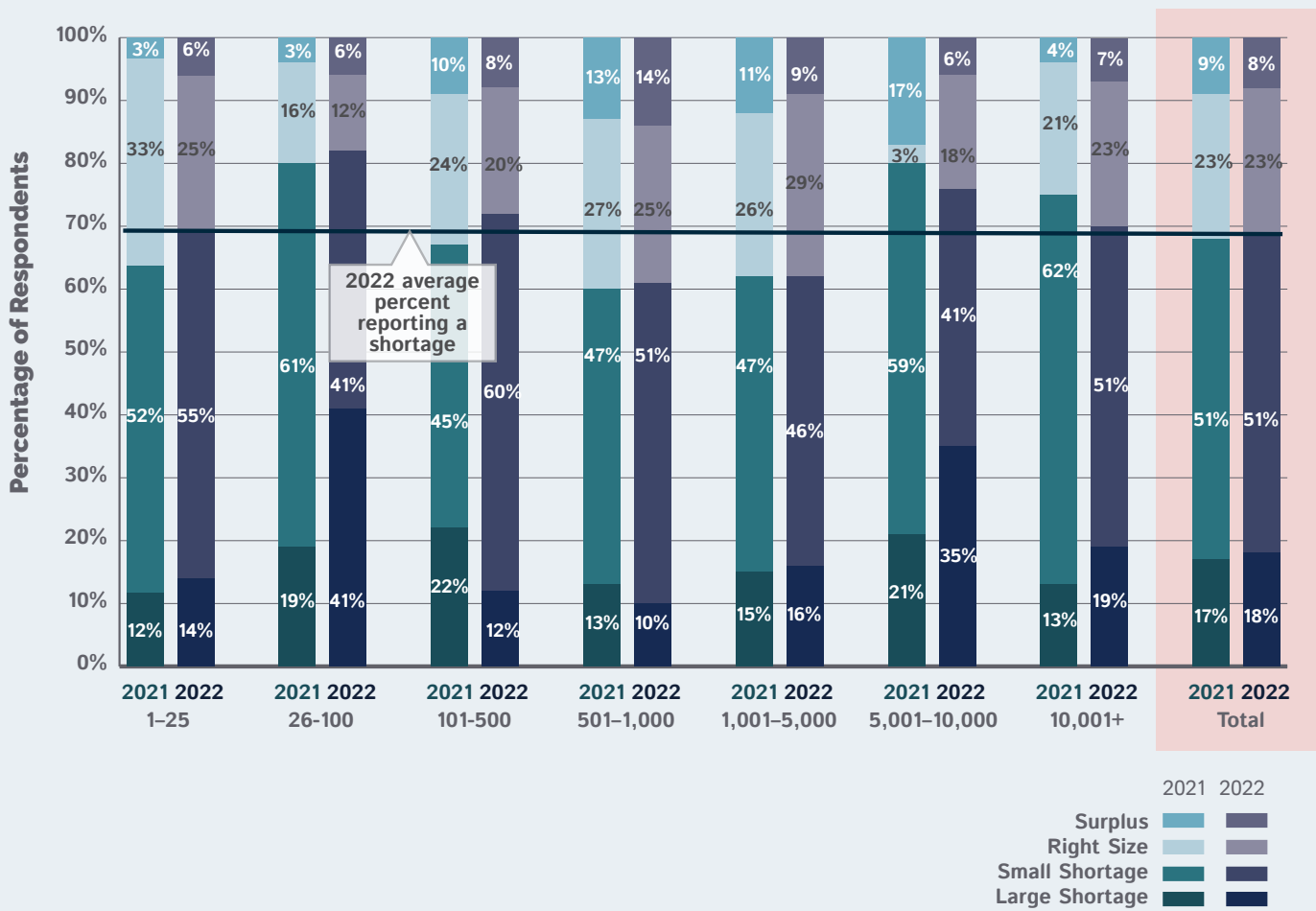


Region	States
New England	Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont
Middle Atlantic	District of Columbia, Delaware, Maryland, New Jersey, New York, Pennsylvania
Southeast	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia
East North Central	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, West Virginia
West North Central	Iowa, Kansas, Missouri, Nebraska
South Central	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Mountain Northern Plains	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Northwest	Alaska, Idaho, Oregon, Washington
Southwest	Arizona, California, Hawaii, Nevada

There was great consistency from last year to this year based on the organization size data cut. The most notable finding is that the second smallest category (26-100 employees) has the greatest needs. In fact, the percentage

saying they had a “Large Shortage” jumped from 19% in 2021 to 41% in 2022. Last year 80% of this organization size reported a shortage and that increased to 82% this year.

FIGURE 3.6 | PERCENTAGE REPORTING A UNION CRAFT LABOR SHORTAGE/SURPLUS BY ORGANIZATION SIZE





To gain an even better understanding of the worker shortage/surplus data, the interaction between industry and geographic region was studied. That is, in **Figures 3.7-3.15** each of the nine charts represents a different geographic region. Within each chart, the percentage of ratings that fall in each rating option (large shortage, small

shortage, right size, surplus) is shown for each of the five industries. These charts are valuable in order to pinpoint more precisely where the union craft labor shortages (and surpluses) exist relative to two key parameters simultaneously: industry and region.

FIGURE 3.7 | NEW ENGLAND

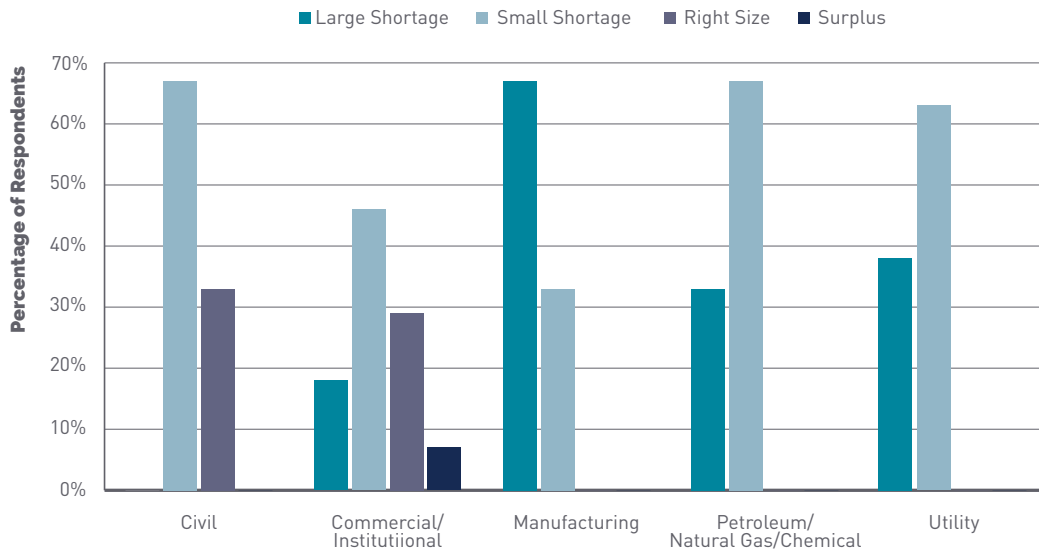


FIGURE 3.8 | MIDDLE ATLANTIC

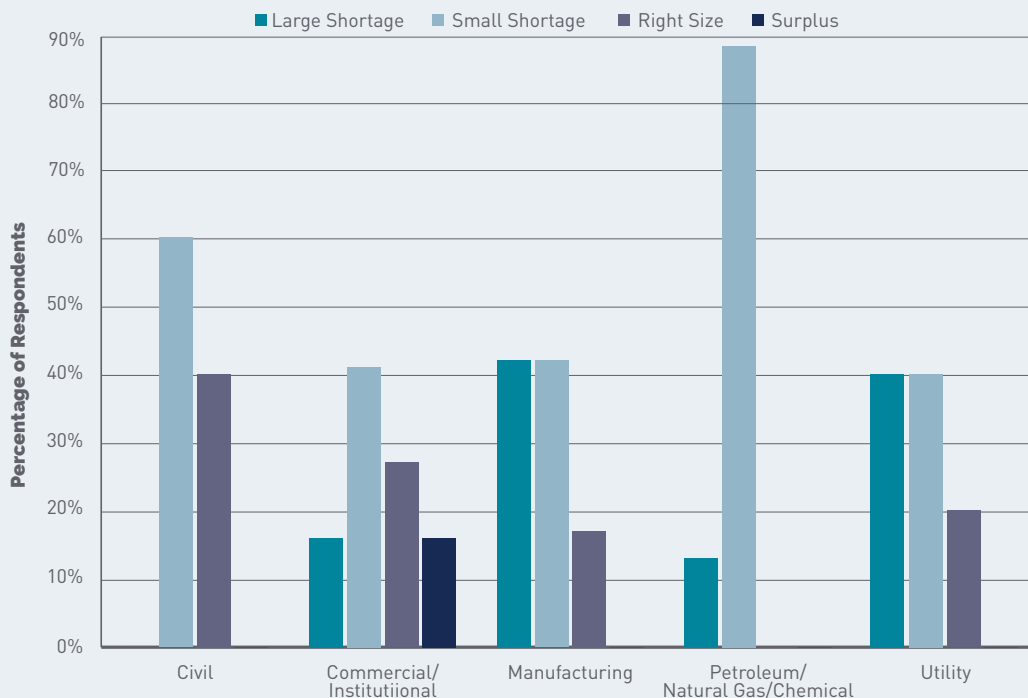


FIGURE 3.9 | SOUTHEAST

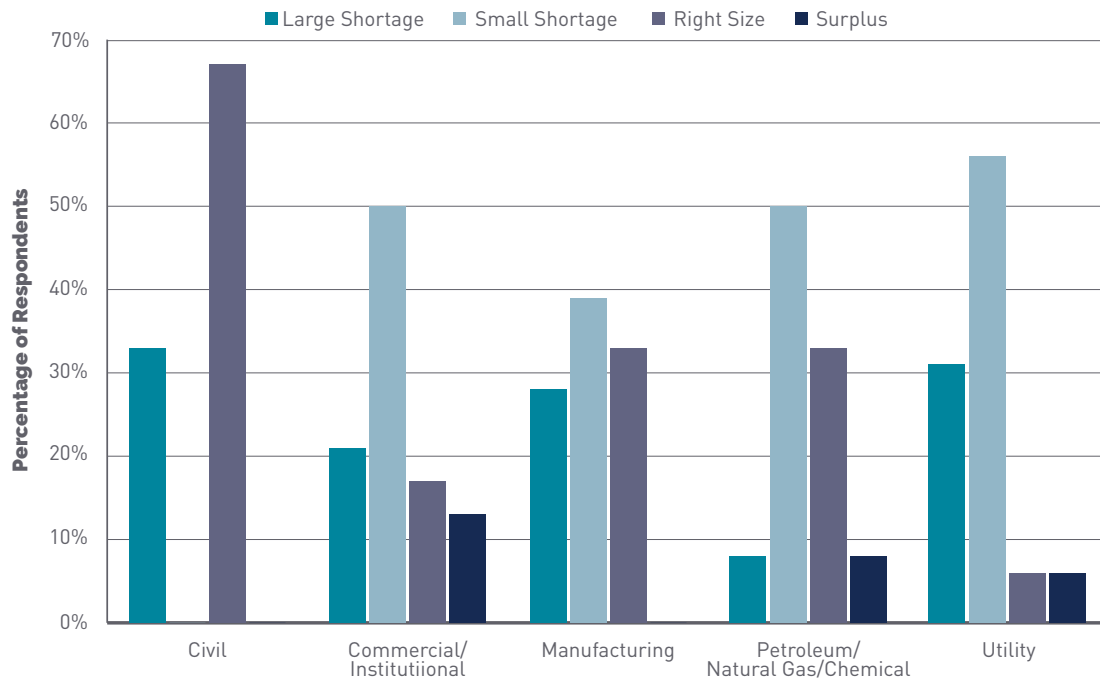


FIGURE 3.10 | EAST NORTH CENTRAL

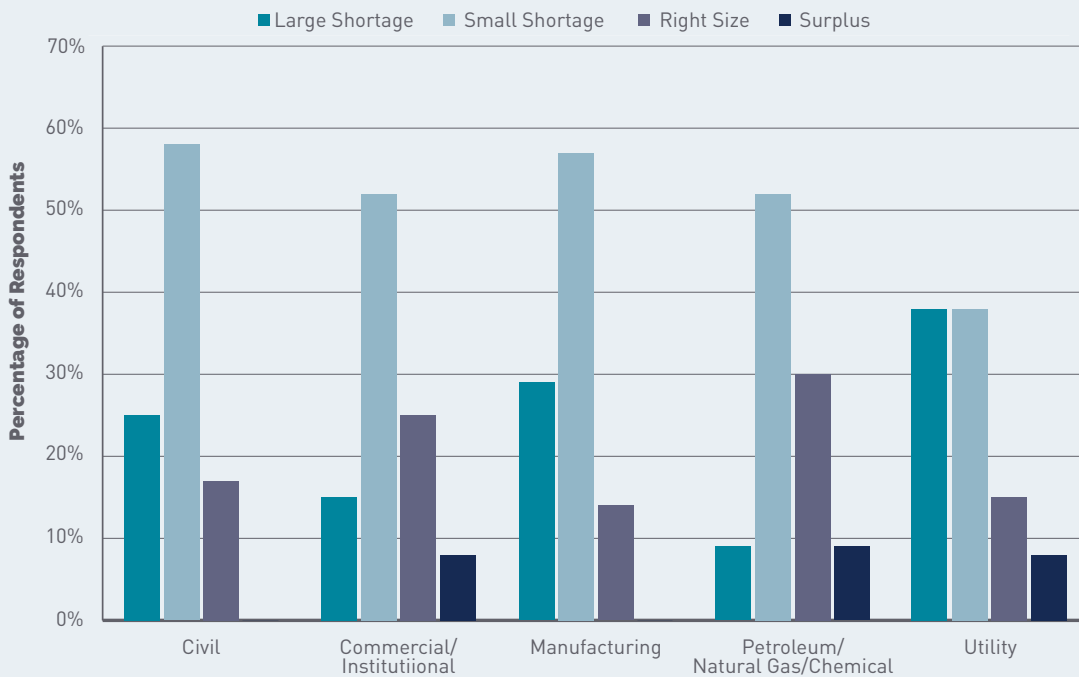


FIGURE 3.11 | WEST NORTH CENTRAL

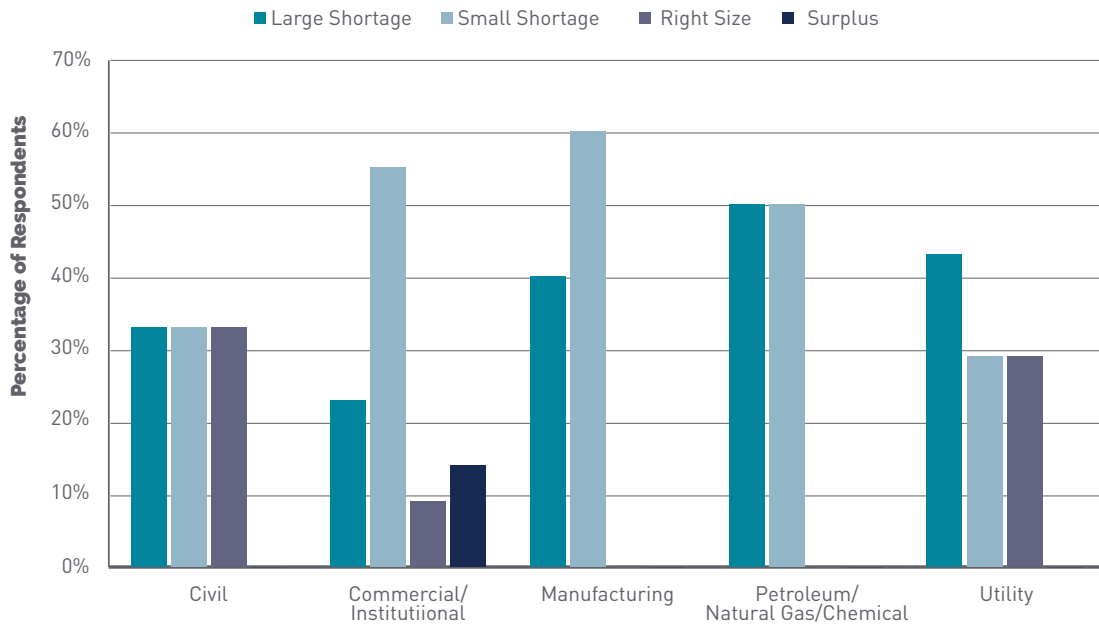


FIGURE 3.12 | SOUTH CENTRAL

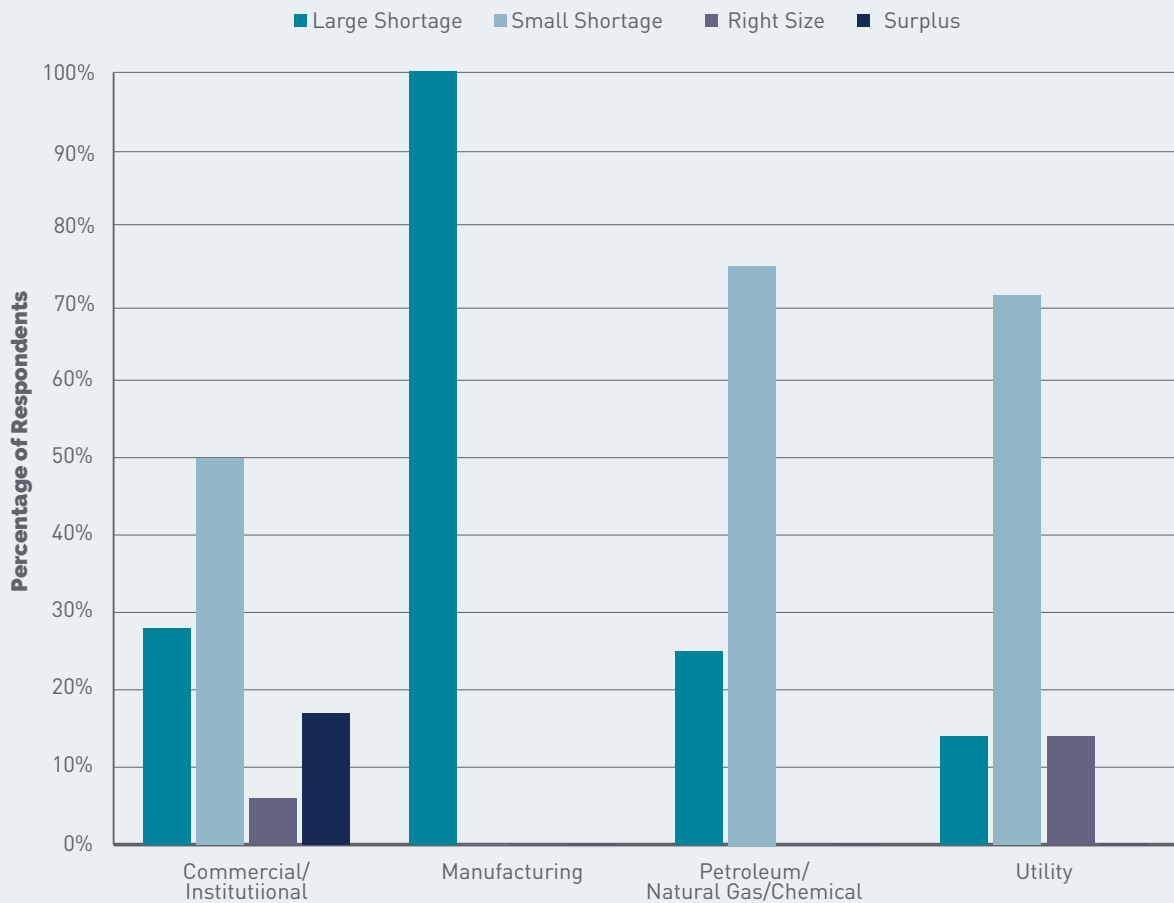




FIGURE 3.13 | MOUNTAIN NORTHERN PLAINS

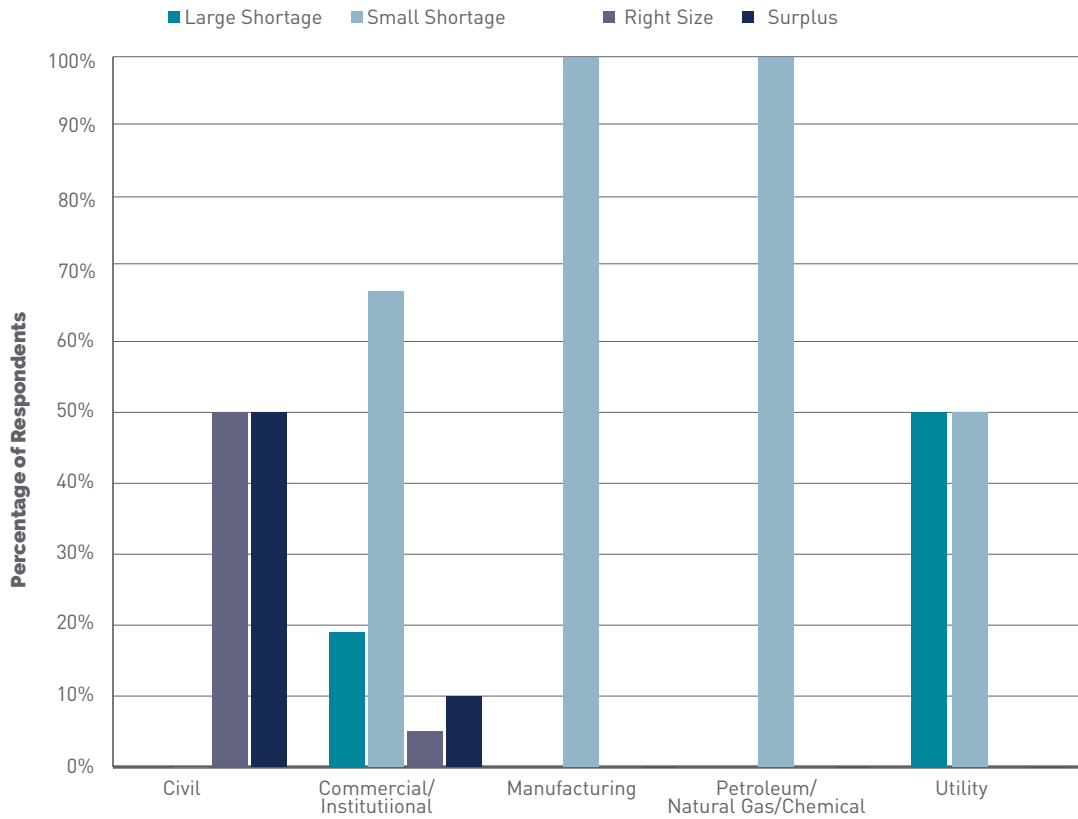


FIGURE 3.14 | NORTHWEST

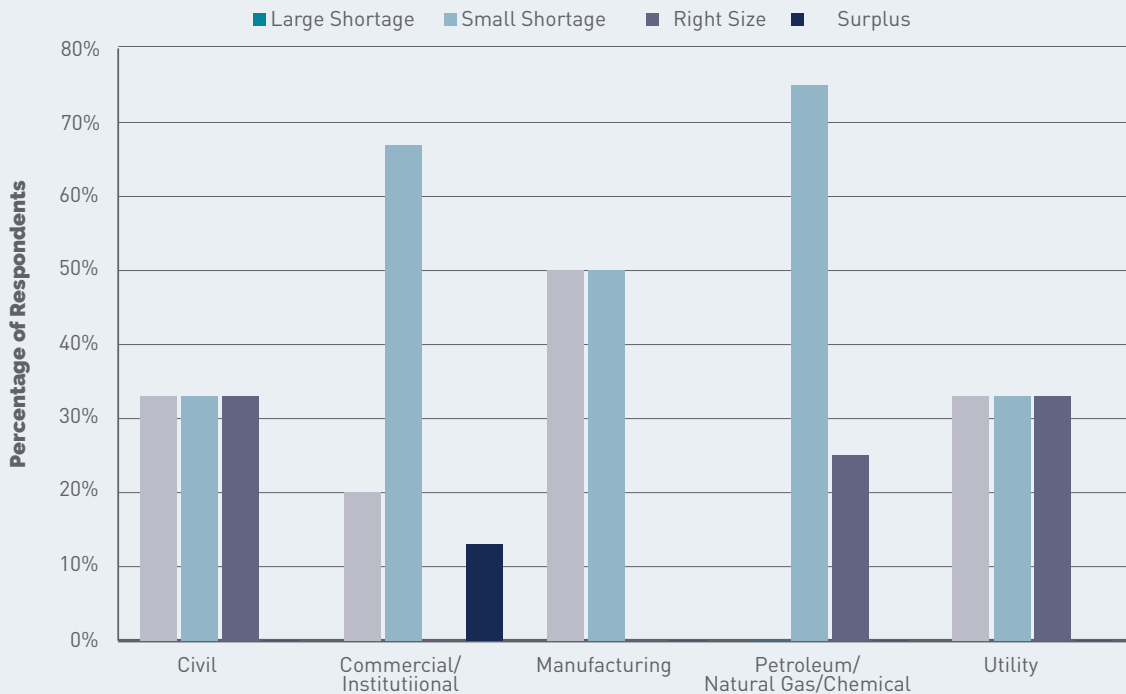
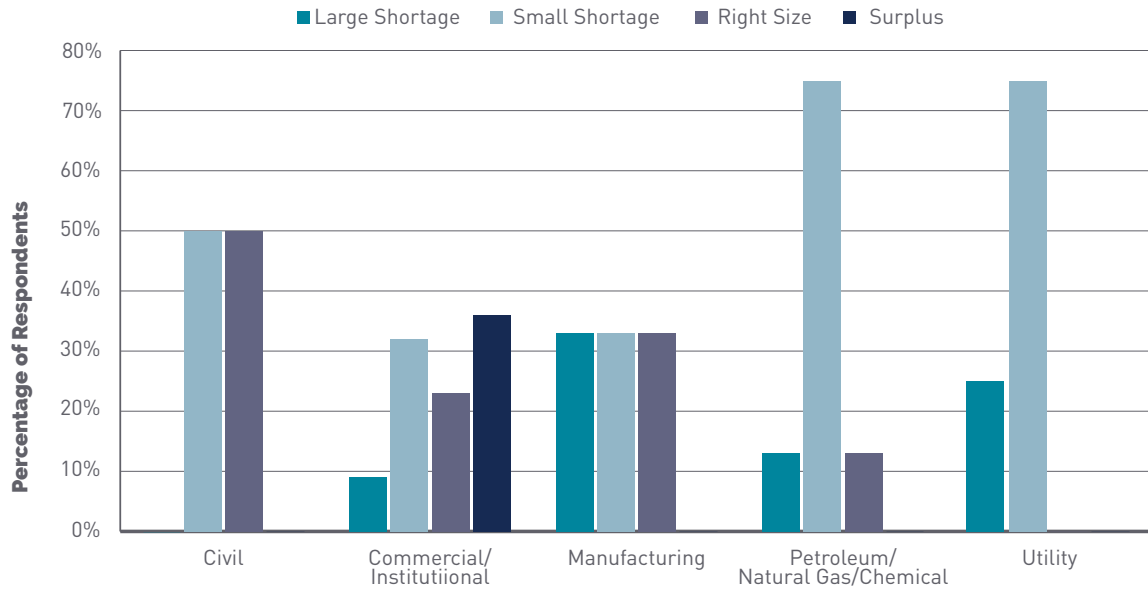


FIGURE 3.15 | SOUTHWEST





IV. UNION CRAFT LABOR SHORTAGE AND SURPLUS—CRAFT COMPARISON

The findings in **Section IV** are organized into four parts. Comparisons among the 14 crafts covered in this study will be shown for the first three parts.

- **Part 1. Actual Shortage/Surplus in 2022**
- **Part 2. Projected Shortage/Surplus for 2023**
- **Part 3. Actual Shortage/Surplus in 2022 for Apprentices**
- **Part 4. Difficult to Find, High Demand Skills**

Within **Parts 1-3** listed above, results will be shown in two ways. First, by *prevalence* by listing the percentage of the study participants for each craft whose ratings fell into four categories:

- Shortage (1% – 6%)
- Large Shortage (7% and greater)
- Surplus (1% – 6%)
- Large Surplus (7% and greater)

Second, by *intensity* by showing the average shortage rating for each craft.

Figures 4.1a, 4.3 and 4.5 (odd numbered figures)

These figures show the *percentage (prevalence)* of *responses* falling into each surplus/shortage category.

Figures 4.2, 4.4 and 4.6 (even numbered figures)

These figures show the size (*intensity*) of the shortage.

Technical Note

It is useful to note that the intensity values shown for **Figures 4.2, 4.4 and 4.6** are the average of all ratings—those reporting a shortage, those reporting a surplus and those reporting neither. Although these graphs are valuable because they concisely and accurately summarize all ratings, the shortage ratings (negative values in the analysis) and surplus ratings (positive values) tend to cancel each other out somewhat mathematically when calculating the average.

As a result, the averages contained in the line graphs look somewhat “muted.” In other words, if the average were calculated separately for only those reporting a shortage the values would be much larger or more pronounced. Similarly, an average calculated only on a subset of the study sample containing just those reporting a surplus would be more pronounced as well.

The percentages shown in **Figures 4.1, 4.3 and 4.5** in the segmented bars may not sum to 100% within each bar. This is because those who reported that there was neither a shortage nor a surplus in their organization are not shown.



Part 1. Actual Shortage/Surplus in 2022

Figures 4.1a, 4.1b and 4.2 focus on the union craft labor supply last year, in 2022, with comparison data for 2021.

Technical Note

On average, 63% of the sample for these craft specific items in **Section IV** said there had been a union craft worker shortage in their organization in 2022 and 14% said there was a surplus. An interesting point of comparison are the results in **Section III** for the more general question, "Did your organization experience a union craft labor shortage in 2022?"

For those results in **Section III**, 69% said there was a shortage in their organization (see **Figure 3.1**).

Thus, tallying data for each specific craft (**Section IV**) resulted in a lower percentage (63%) reporting a shortage than when a general question about union craft labor shortage was asked (63% in **Section III**). The reason for this difference is that the data come from different questions with different rating scales. Additionally, respondents provided answers when thinking about each craft individually in **Section IV** rather than All Crafts combined as in **Section III**.



Figure 4.1a illustrates, by craft, what percentage (the *prevalence*) of the ratings in this study fell into four rating categories:

- shortage
- large shortage
- surplus
- large surplus

Data are sorted in descending order based on the percentage reporting a union craft labor shortage in

their organization in 2022. Data for 2021 are included for comparison purposes.

Results show that the most frequently reported shortages for 2022 were with Plasterers & Cement Masons and the fewest for Teamsters. There were more people reporting a shortage this year for 11 of the 14 crafts covered in this report. For every craft but one, at least 50% of the sample said there was some sort of a shortage (large or small) for that craft in their organization in 2022.

FIGURE 4.1a (PREVALENCE) | PERCENTAGE REPORTING A SHORTAGE/SURPLUS BY CRAFT FOR 2022

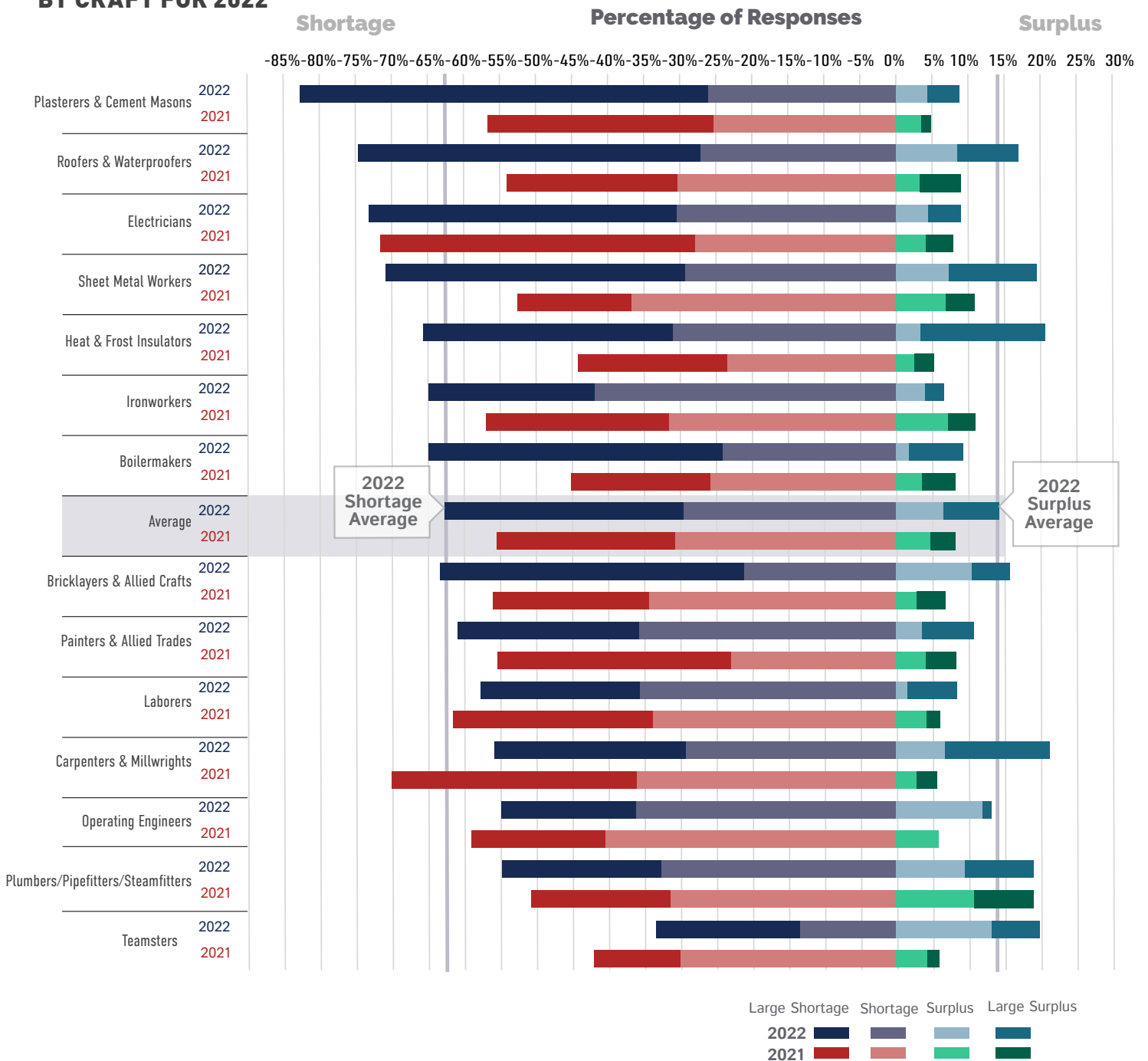




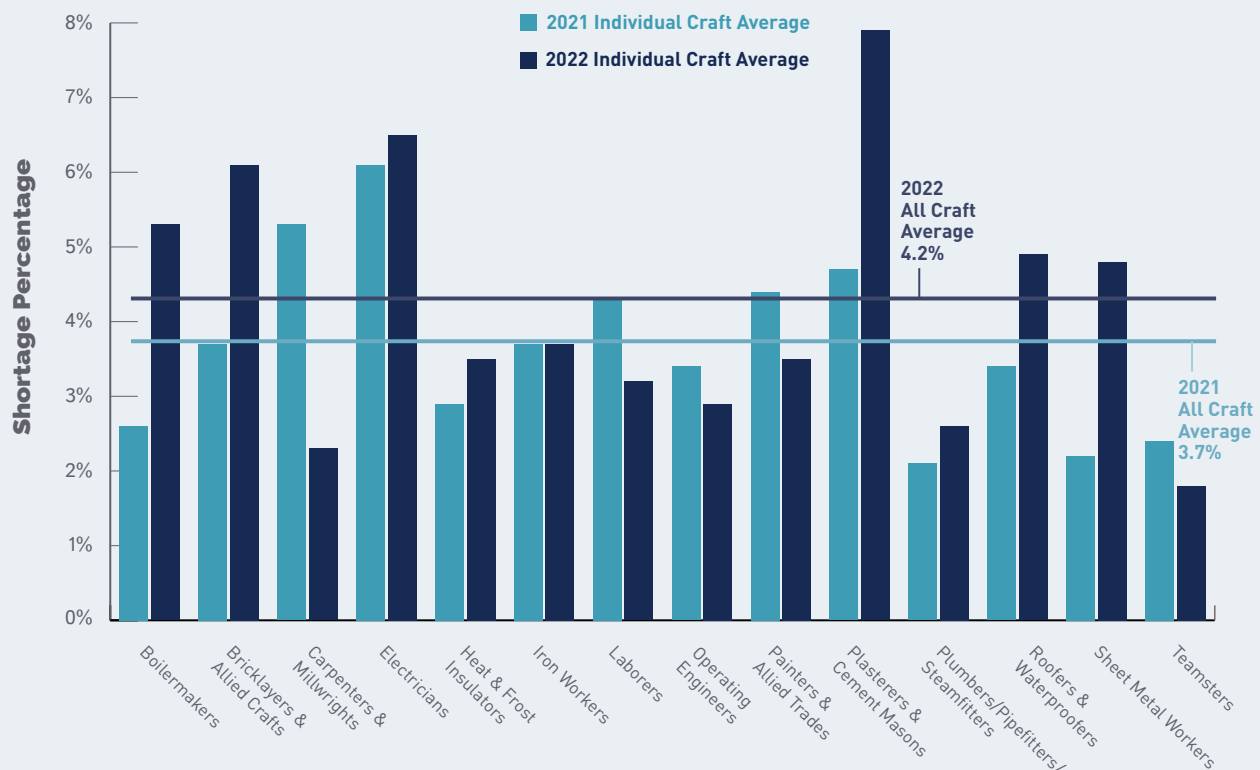
FIGURE 4.1b (PREVALENCE) | PERCENTAGE REPORTING A SHORTAGE FOR 2022

Craft	2021	2022
Boilermakers	45%	65%
Bricklayers & Allied Crafts	56%	63%
Carpenters & Millwrights	70%	56%
Electricians	72%	73%
Heat & Frost Insulators	44%	66%
Iron Workers	57%	65%
Laborers	61%	58%
Operating Engineers	59%	55%
Painters & Allied Trades	55%	61%
Plasterers & Cement Masons	57%	83%
Plumbers/Pipefitters/Steamfitters	51%	55%
Roofers & Waterproofers	54%	75%
Sheet Metal Workers	52%	71%
Teamsters	42%	33%
Average	55%	63%

The table (Figure 4.1b) displays the data in Figure 4.1a in tabular form, in alphabetical order. This provides a simple, easy-to-read format for reviewing the union craft labor shortage data.

FIGURE 4.2 (INTENSITY) | AVERAGE SHORTAGE/SURPLUS BY CRAFT FOR 2022

As a complimentary analysis, Figure 4.2 shows the average shortage or surplus rating for each craft—the intensity of the shortage. The average shortage in 2022 was 4.2%, up from 3.7% in 2021.

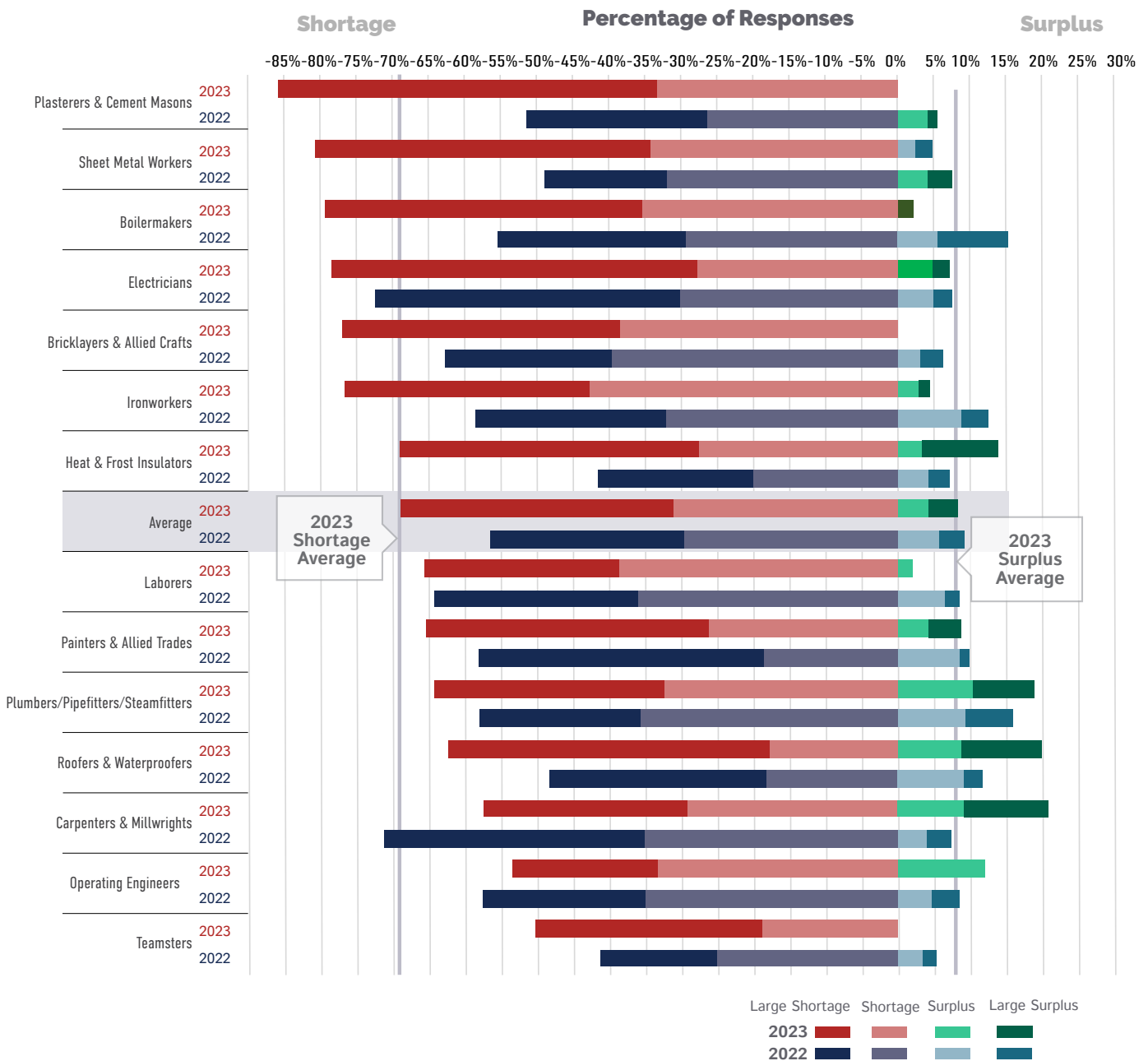


Part 2. Projected Shortage/Surplus for 2023

Figures 4.3 and 4.4 focus on the projected union craft labor supply for the upcoming year, 2023, whereas Figures 4.1a, 4.1b, and 4.2 in Part 1 look back in time at union craft staffing levels in 2022. The crafts are listed in descending order based on the 2023 data. Data from last year's report are included as points of comparison.

The greatest prevalence of shortages for 2023 was similar to the shortages reported for 2022 (Figure 4.1). That is, Plasterers & Cement Masons, Sheet Metal Workers and Electricians were in the top four both years. There was a greater prevalence of shortages this year than last year for 12 of the 14 crafts. At least 50% of the sample forecasted some sort of a shortage (large or small) for each craft.

FIGURE 4.3 (PREVALENCE) | PERCENTAGE PROJECTING A SHORTAGE/SURPLUS BY CRAFT FOR 2023



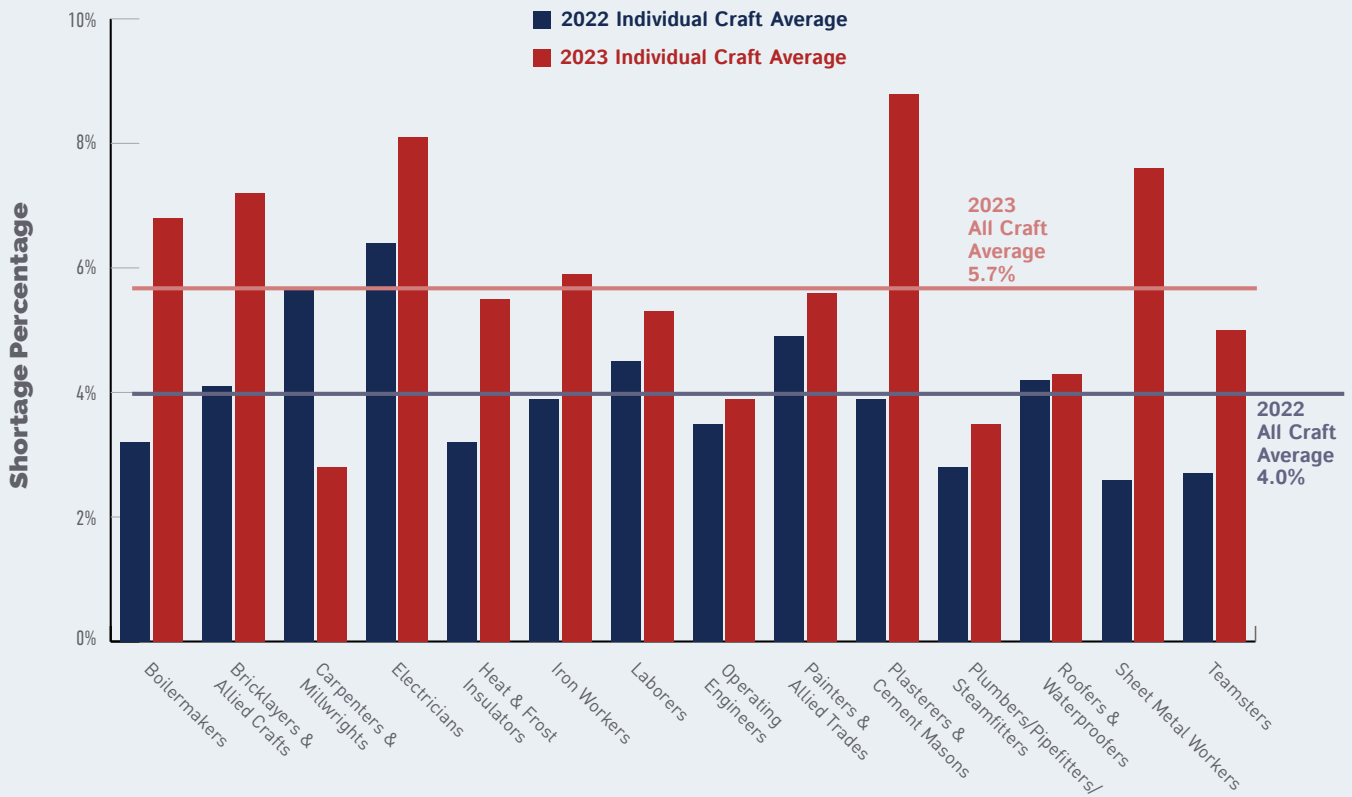


As expected, these results parallel those in **Figure 4.3** with Plasterers & Cement Masons, Sheet Metal Workers and Electricians having the greatest average shortages. The intensity (i.e., size) of the shortages was greater this year

than last year for all but one craft, Carpenters & Millwrights, which had one of the greatest rated shortages last year.

The average shortage rating increased to 5.7% for 2023, up from 4.0% in 2022.

FIGURE 4.4 (INTENSITY) | AVERAGE PROJECTED SHORTAGE/SURPLUS BY CRAFT FOR 2023





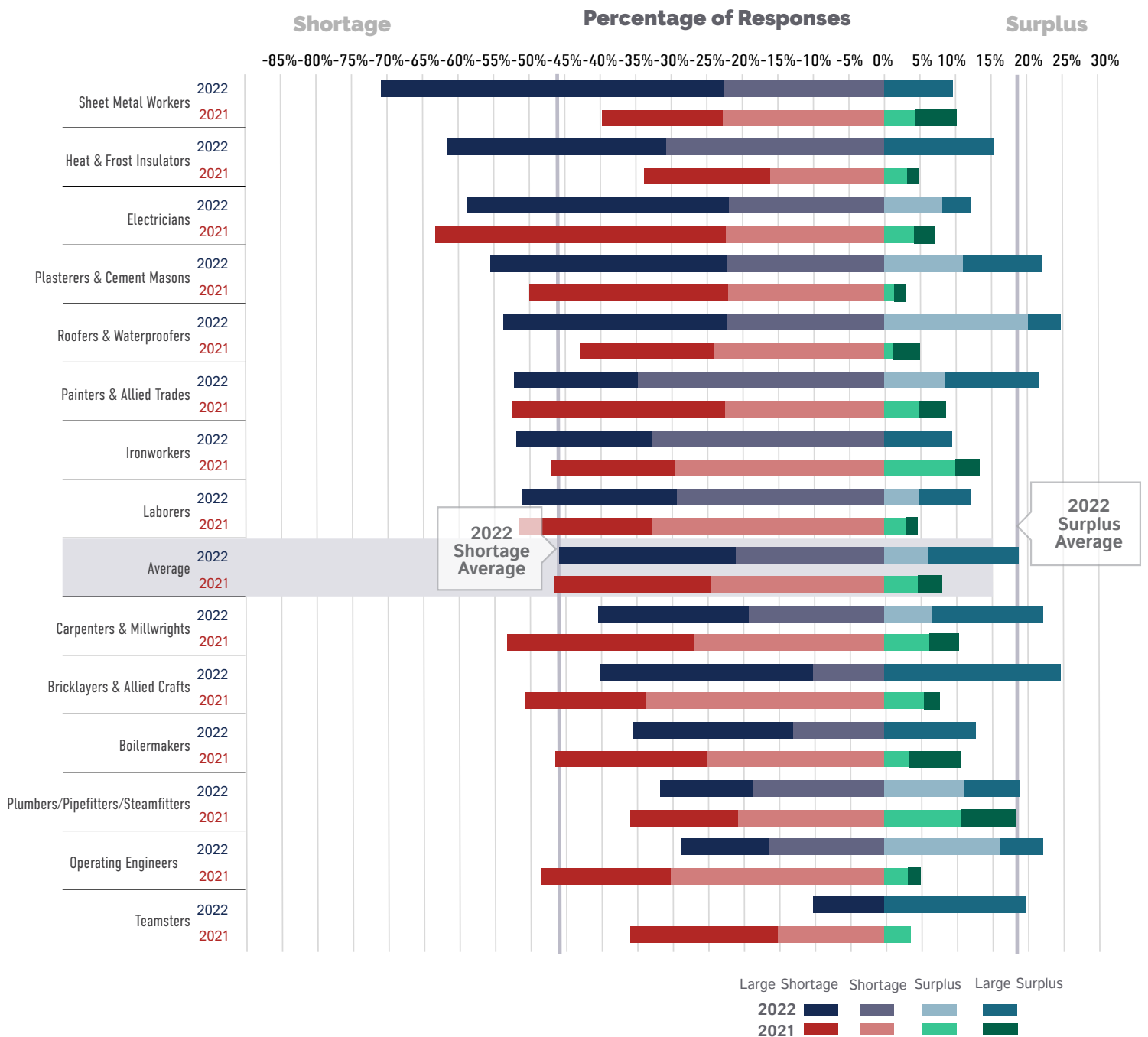
Part 3. Actual Shortage/Surplus in 2022 for Apprentices

Figures 4.5 and 4.6 focus on the union craft labor supply of apprentices last year, in 2022. The crafts are listed in descending order based on 2022 data with data from last year's report included as points of comparison.

The greatest needs for apprentices in 2022 were with

Sheet Metal Workers, Heat & Frost Insulators, Electricians and Plasterers & Cement Masons. Three of these are the same crafts with the greatest shortages for journeymen (see Figure 4.1a). Surprisingly, just five crafts had a greater shortage of apprentices in 2022 than in 2021 and only about half of the crafts (N=8) had at least 50% of the study respondents report a shortage in their organization in 2022.

FIGURE 4.5 (PREVALENCE) | PERCENTAGE REPORTING A SHORTAGE/SURPLUS BY CRAFT FOR 2022—APPRENTICES





The average degree of shortage for apprentices was actually less in 2022 (2.0%) than in 2021 (3.1%). Nearly every craft (12 of 14) had less of a shortage in 2022 than in

2021. Moreover, the apprentice shortage was less than the journeyman shortage in 2022.

FIGURE 4.6 (INTENSITY) | AVERAGE SHORTAGE/SURPLUS BY CRAFT FOR 2022-APPRENTICES

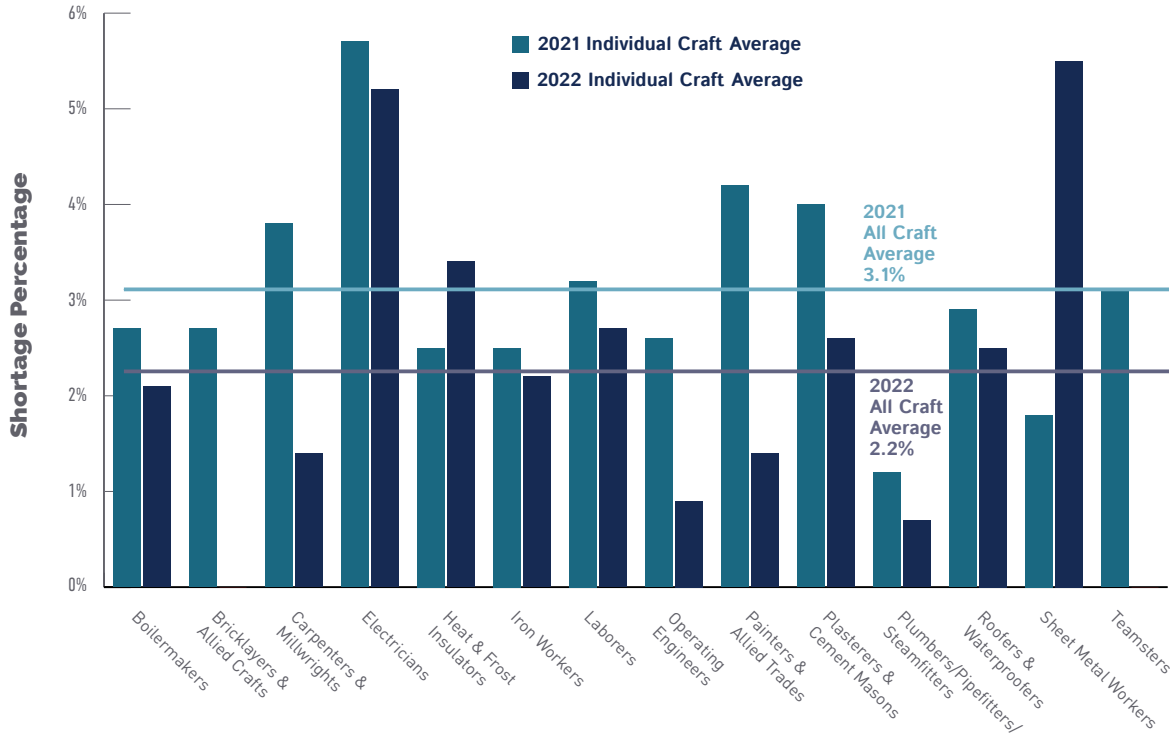


FIGURE 4.7 | COMBINED SHORTAGE/SURPLUS RESULTS

The table summarizes the results for **Parts 1-3** in this section. The crafts are listed in alphabetical order with results marking the percentage of respondents reporting a journeyman shortage for 2022, the projected journeyman shortage in 2023 and a shortage in 2022 for apprentices. Cells are colored according to the severity of the shortage, the darker the shade the greater the shortage.

	2022 Journeyman	2023 Journeyman	2022 Apprentice
Average	63%	69%	46%
Boilermakers	65%	79%	35%
Bricklayers & Allied Crafts	63%	77%	40%
Carpenters & Millwrights	56%	57%	40%
Electricians	73%	78%	59%
Heat & Frost Insulators	66%	69%	62%
Ironworkers	65%	76%	52%
Laborers	58%	65%	51%
Operating Engineers	55%	53%	29%
Painters & Allied Trades	61%	65%	52%
Plasterers & Cement Masons	83%	86%	56%
Plumbers/Pipefitters/Steamfitters	55%	64%	32%
Roofers & Waterproofers	75%	62%	54%
Sheet Metal Workers	71%	80%	71%
Teamsters	33%	50%	10%

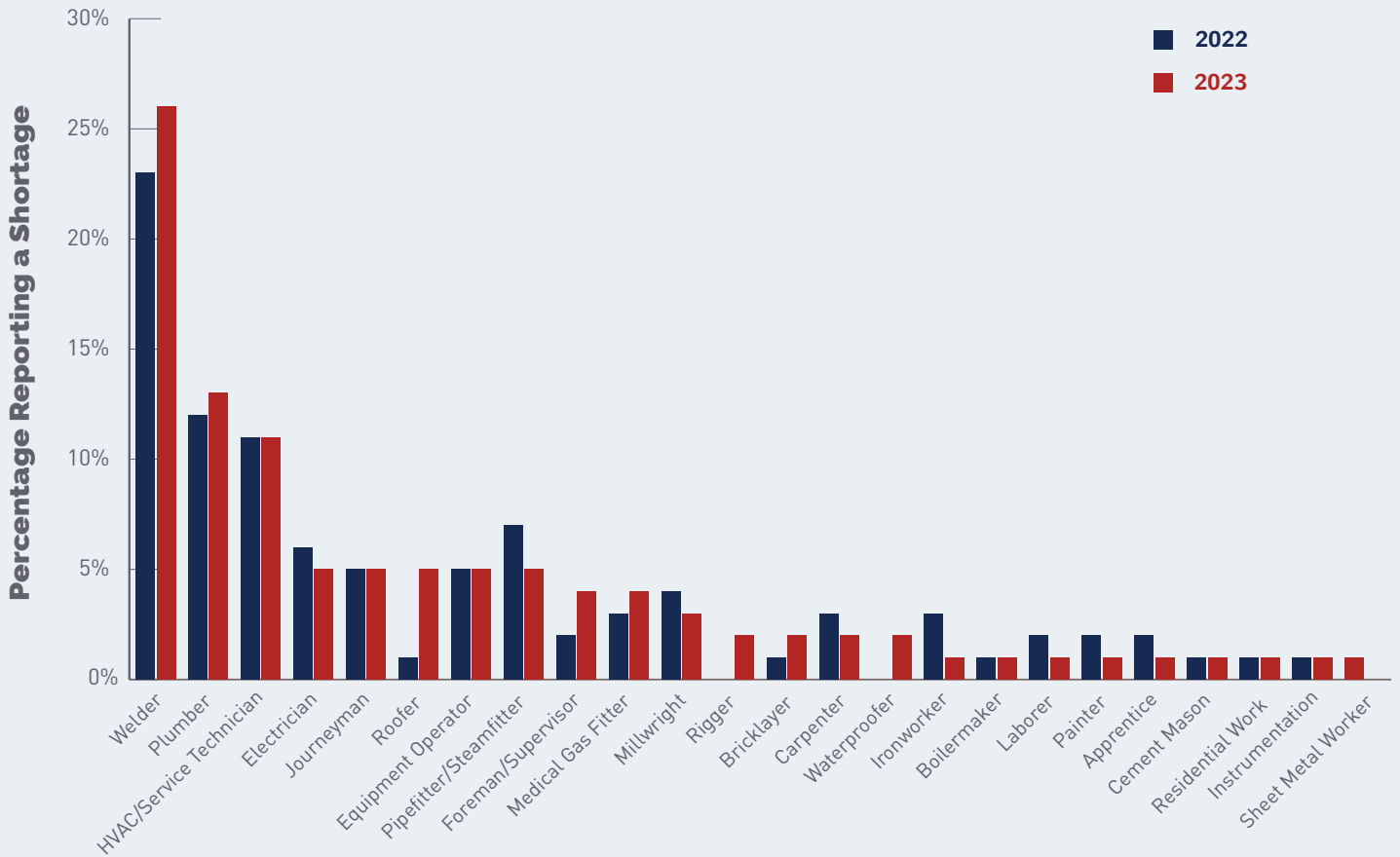


Part 4. Difficult to Find, High Demand Skills

Participants in the study had the opportunity to list, in an open-ended manner, the skills/tasks that were most difficult to fill in their organization, and thereby in high

demand. **Figure 4.8** lists those in descending order based on the number of times that needed skill was identified by the respondents in 2023. Results for 2022 are also shown for comparison.

FIGURE 4.8 | DIFFICULT TO FIND, HIGH DEMAND SKILLS



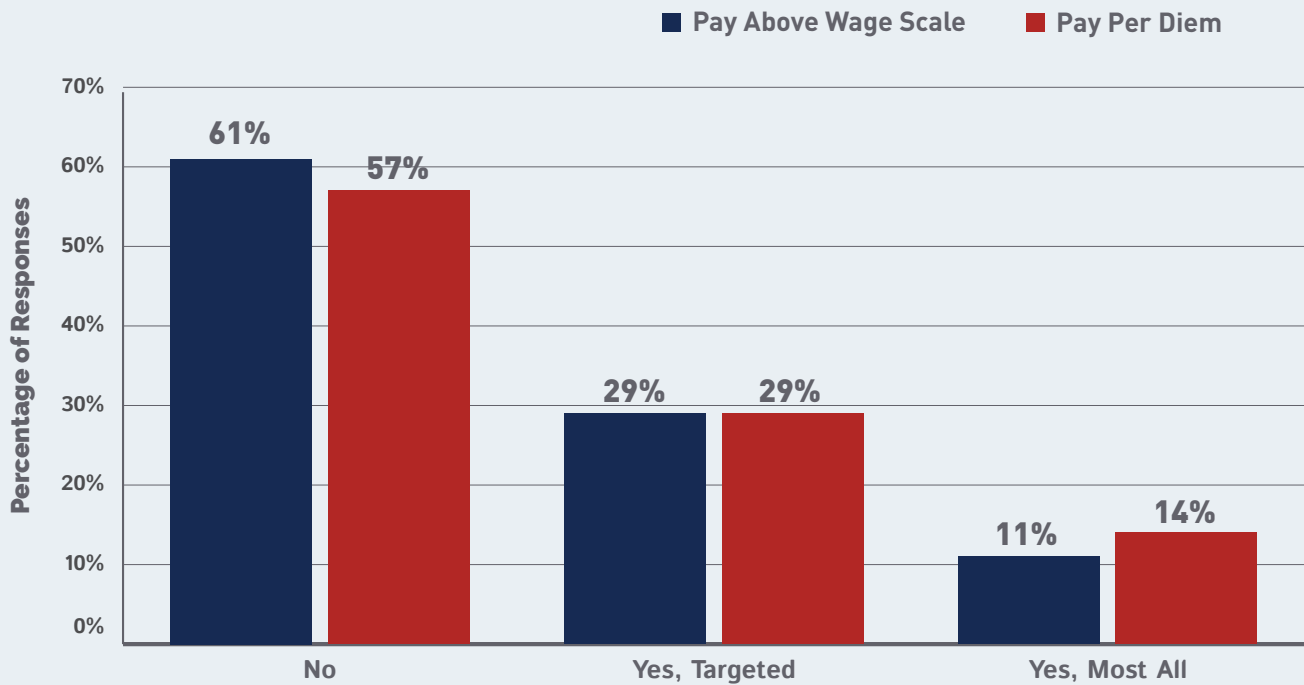
V. PERSPECTIVES ON PAYING ABOVE THE WAGE SCALE AND PER DIEMS

One intriguing aspect each year of the TAUC Union Craft Labor Supply Study entails assessing new, “hot ticket” topics. For the 2023 study, two timely topics were covered:

- Pay above the wage scale and
- Per diem pay

Figure 5.1 shows that *most organizations do not pay above the wage scale or offer per diems*. However, in some instances, these two compensation tools are used in a targeted manner (29%) and in a few instances they are employed very often (per diem 14% and pay above wage scale 11%).

FIGURE 5.1 | USE OF PAY ABOVE THE WAGE SCALE AND PER DIEM PAYMENTS



Figures 5.2 - 5.5 show data cuts by the four demographic variables for pay above the wage scale.

Association Employees (100%) were the most likely to

say that union craft workers were not paid above the wage scale, followed by Union/Labor (70%). More than half of Construction Managers and Contractors/Subcontractors said that pay above the scale occurred in their organization.

FIGURE 5.2 | USE OF PAY ABOVE THE WAGE SCALE BY ROLE

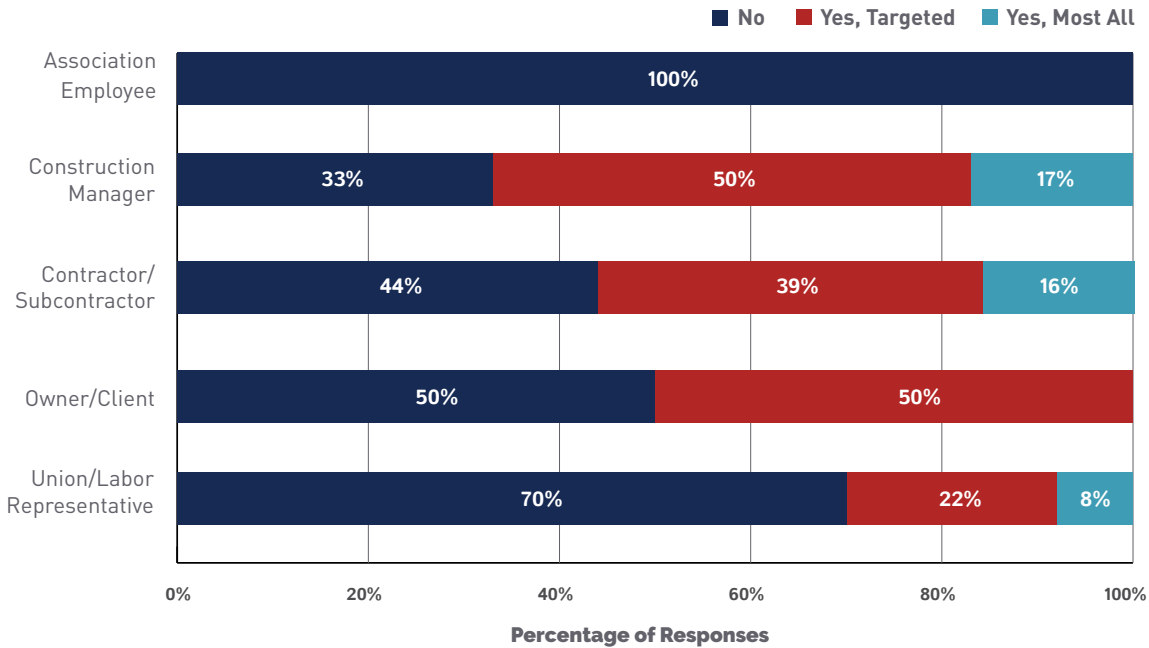
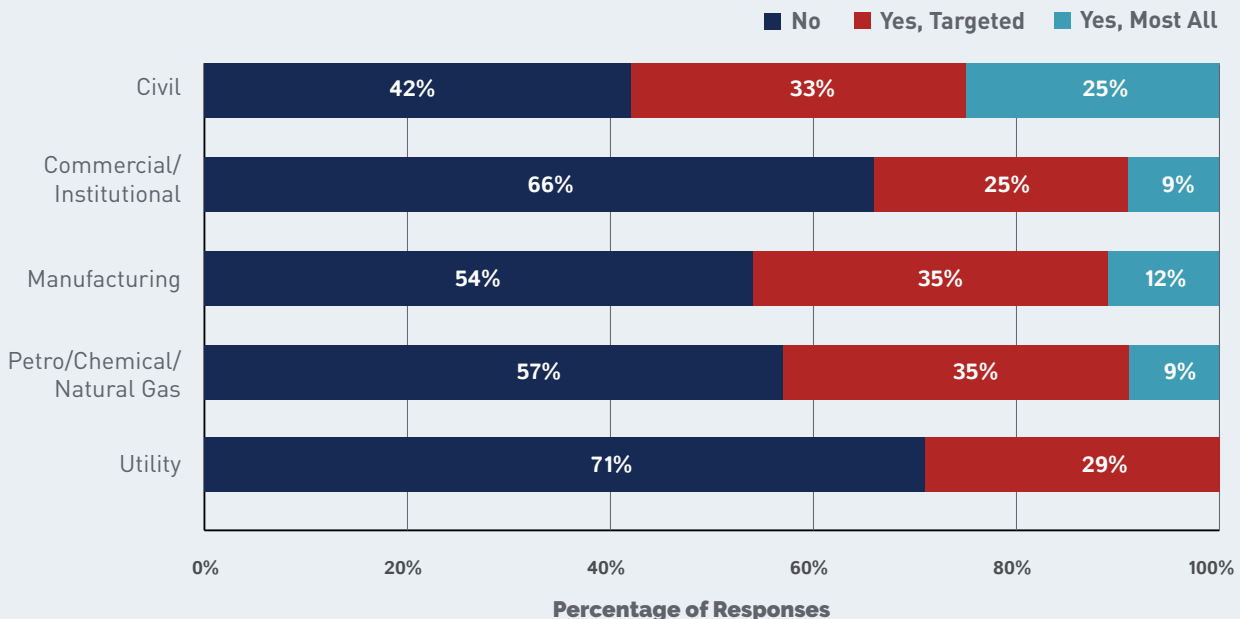


FIGURE 5.3 | USE OF PAY ABOVE THE WAGE SCALE BY INDUSTRY

Paying above the wage scale was not practiced in most industries. If used, paying above the wage scale was generally used on a targeted basis fairly consistently across the five industries, from 25% to 35% of the time.





A plurality of respondents in all but one region said that pay above the wage scale was not used in their organization. In the Northwest, however, a majority (59%) said their organization paid above the wage scale on a targeted basis and another 14% said they did so most of the time.

The largest organizations (5,000+ employees) were more likely to pay above the wage scale, whether it be in a targeted manner or in most instances.

FIGURE 5.4 | USE OF PAY ABOVE THE WAGE SCALE BY REGION

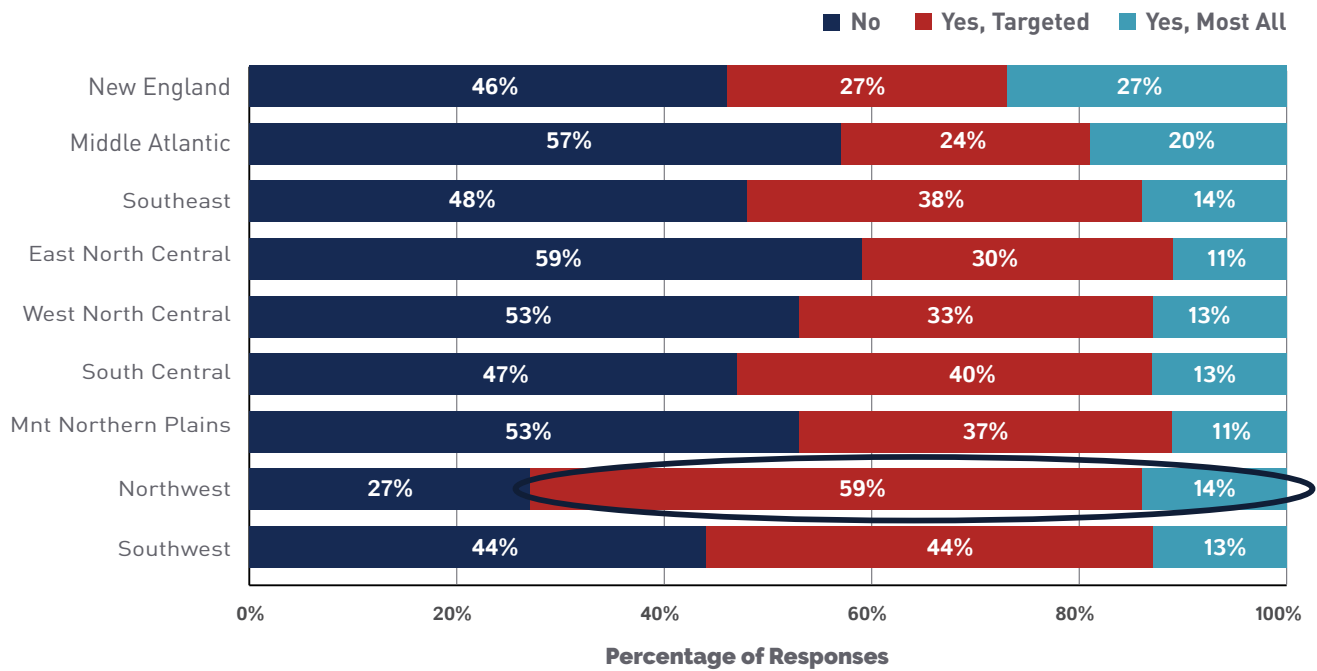
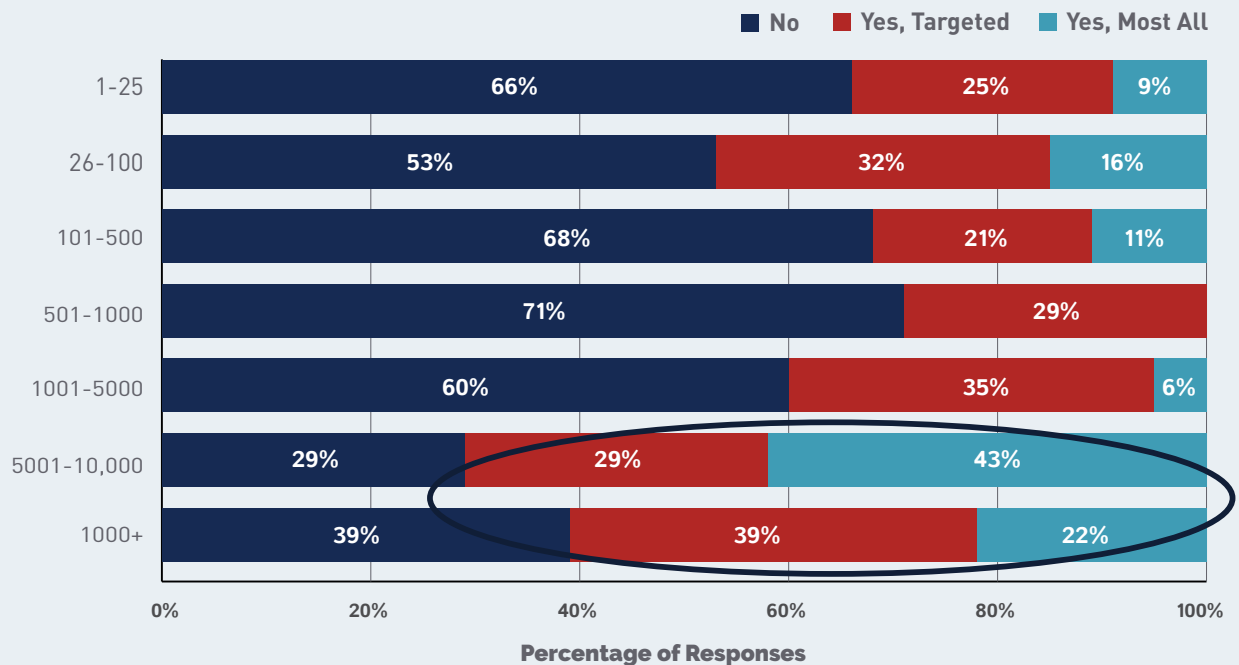


FIGURE 5.5 | USE OF PAY ABOVE THE WAGE SCALE BY ORGANIZATION SIZE





Figures 5.6 – 5.9 show data cuts by the four demographic variables for per diem payments.

Like paying above the wage scale (Figure 5.2), Association Employees and Union/Labor workers were more likely to indicate that their organization did not pay per diems. Construction Managers were the most likely to report that per diems were used.

FIGURE 5.6 | USE OF PER DIEMS BY ROLE

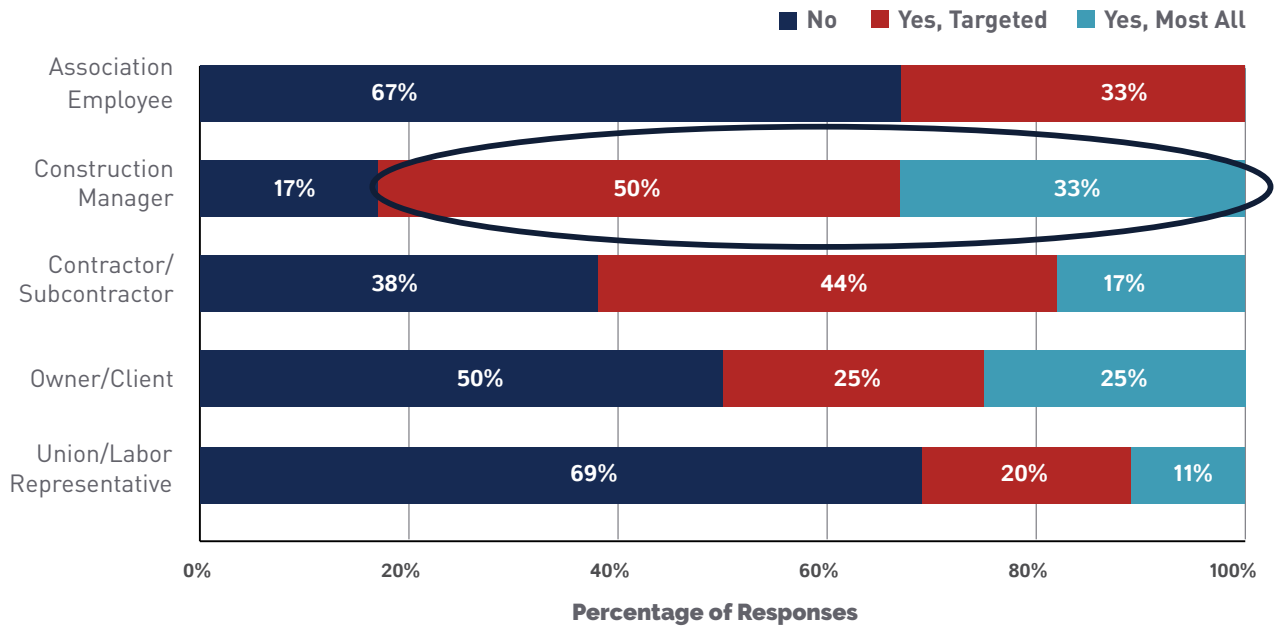


FIGURE 5.7 | USE OF PER DIEMS BY INDUSTRY

Per diem payments were most common in the Civil, Manufacturing and Utility industries. They were used the least in the Commercial/Institutional industry. When used, it was typically in a targeted manner, not widespread.

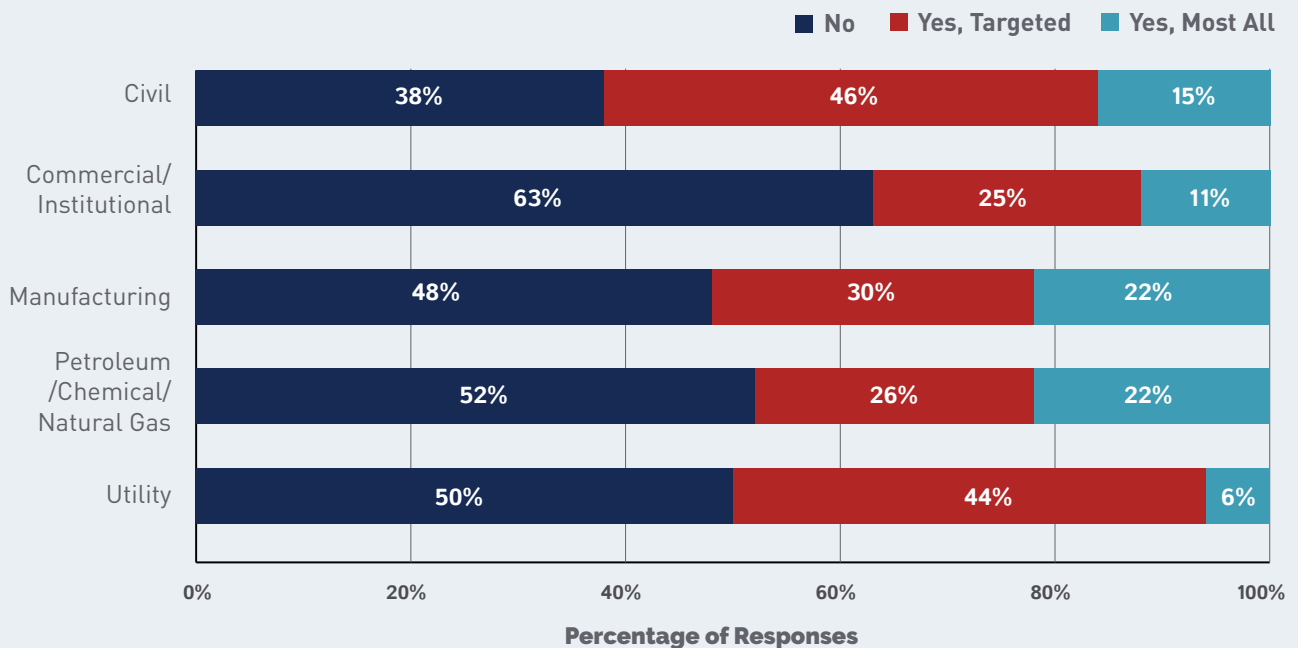
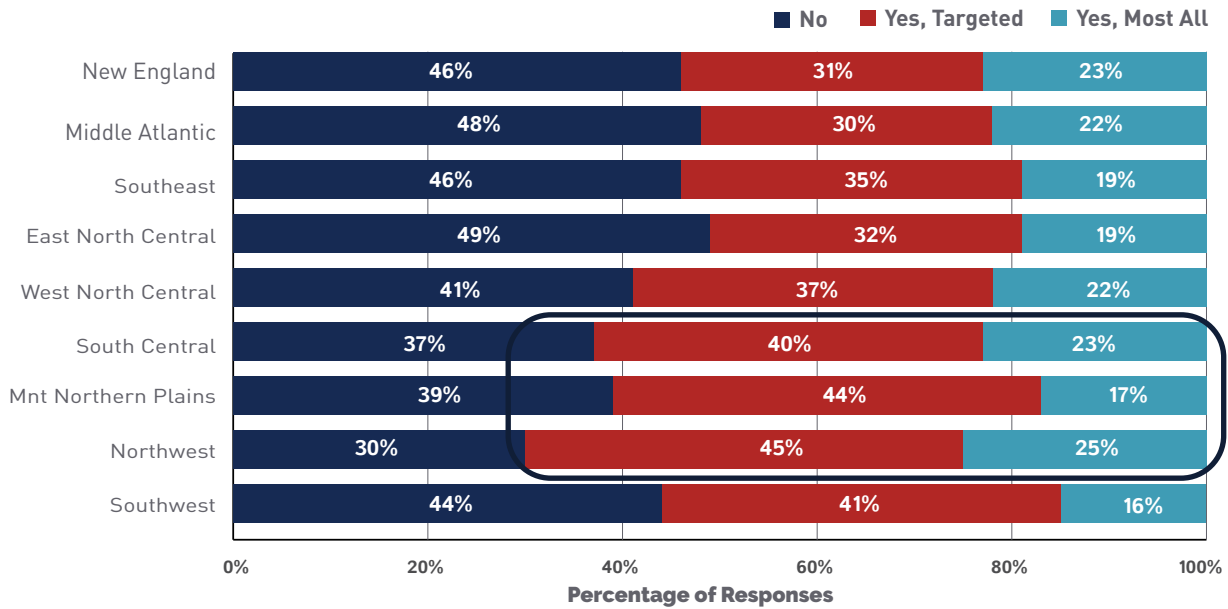


FIGURE 5.8 | USE OF PER DIEMS BY REGION

Consistent with results for pay above the wage scale (Figure 5.4), per diems were used the most in the Northwest. Additionally, they were used extensively in the South Central and Mountain Northern Plains regions.



Large organizations (5,000+ employees) used per diems much more than the smaller ones. Thirty percent of the smallest organizations (1-25 employees) used some sort of per diem payment while 68% of large organizations did so.

FIGURE 5.9 | USE OF PER DIEMS BY ORGANIZATION SIZE

