Wages, Workers and Conundrums

NECA Labor Relations Conference
March 21, 2023
Nashville, TN

Construction Labor Research Council
Carey Peters, Ph.D.
Executive Director

CLRC Construction Labor Research Council

CLRC

We Support the Union Construction Industry!

- Wage and Fringe Benefits Tracking
- Market Share
- Union-Nonunion Wage and Fringe Benefits Comparison
- Contract Cost Analysis
- Benchmarking
- Workforce/Labor Analysis
- Safety Surveys
- Custom Research

CLRC Construction Labor Research Council

Agenda

1. **Dollars and Cents**
   Making “sense” of the dollars and cents in the union sector of the construction industry

2. **Union Craft Labor Supply Study**
   Highlights from the 2022 National Labor Study conducted by CLRC for TAUC

3. **Contractor’s Cost Conundrum**
   The high prices of commodities and the wide variability/unpredictability of key economic factors facing contractors

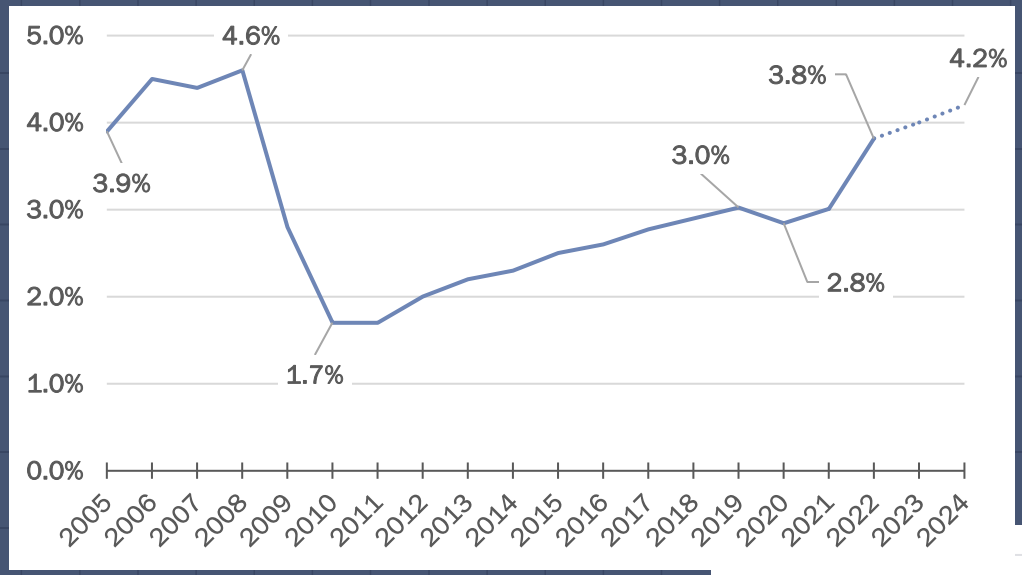
4. **Assistance**
   Five products to support associations, contractors, owners, affiliates, and others

Dollars and Cents

Making “sense” of the dollars and cents in the union sector of the construction industry

1

Increase Trends – First Year

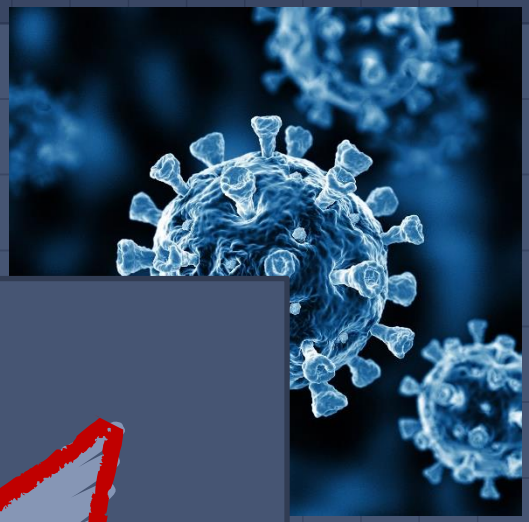


Big jumps in 2022

So What Caused the Change?

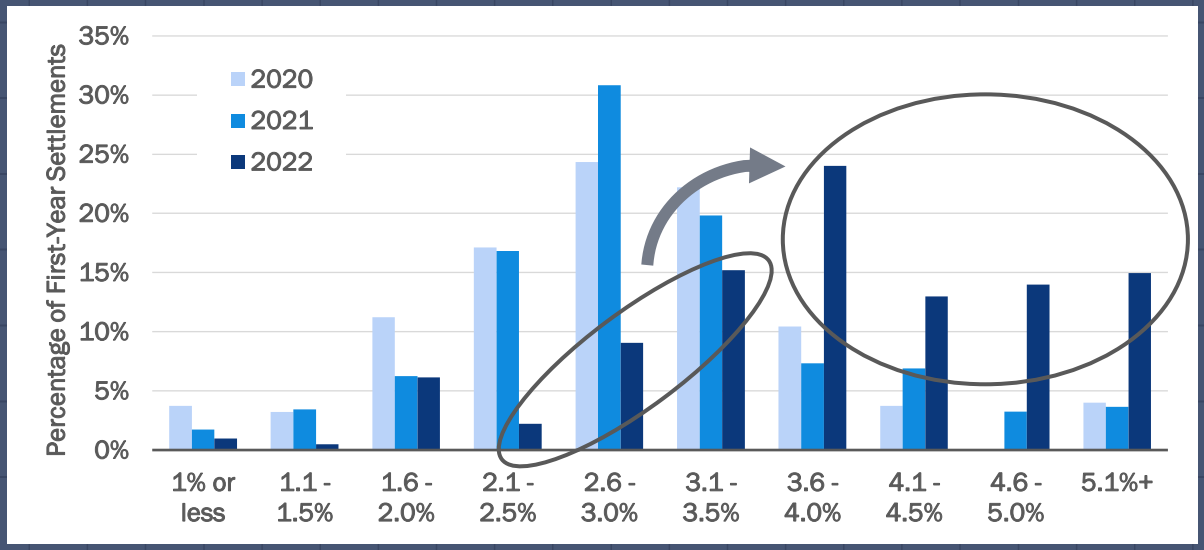
Worker Shortage?

COVID 19?

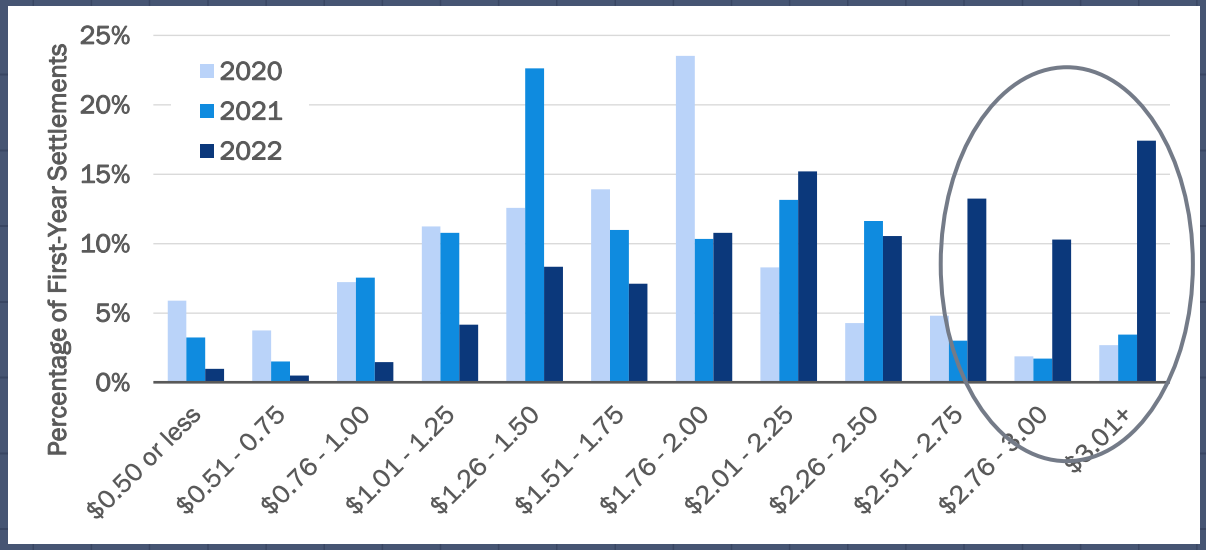


Distribution of First Year Increases

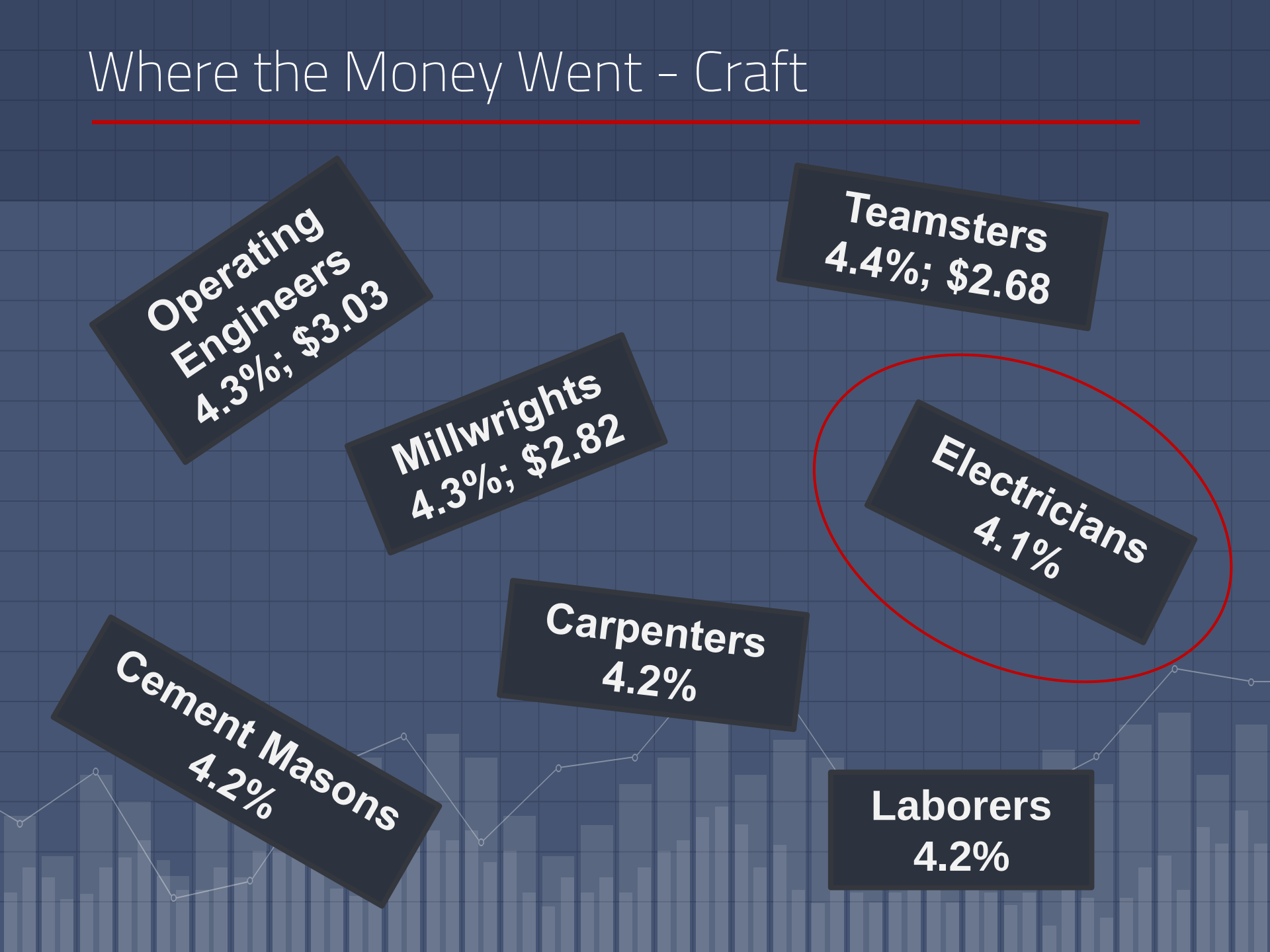
Percentage



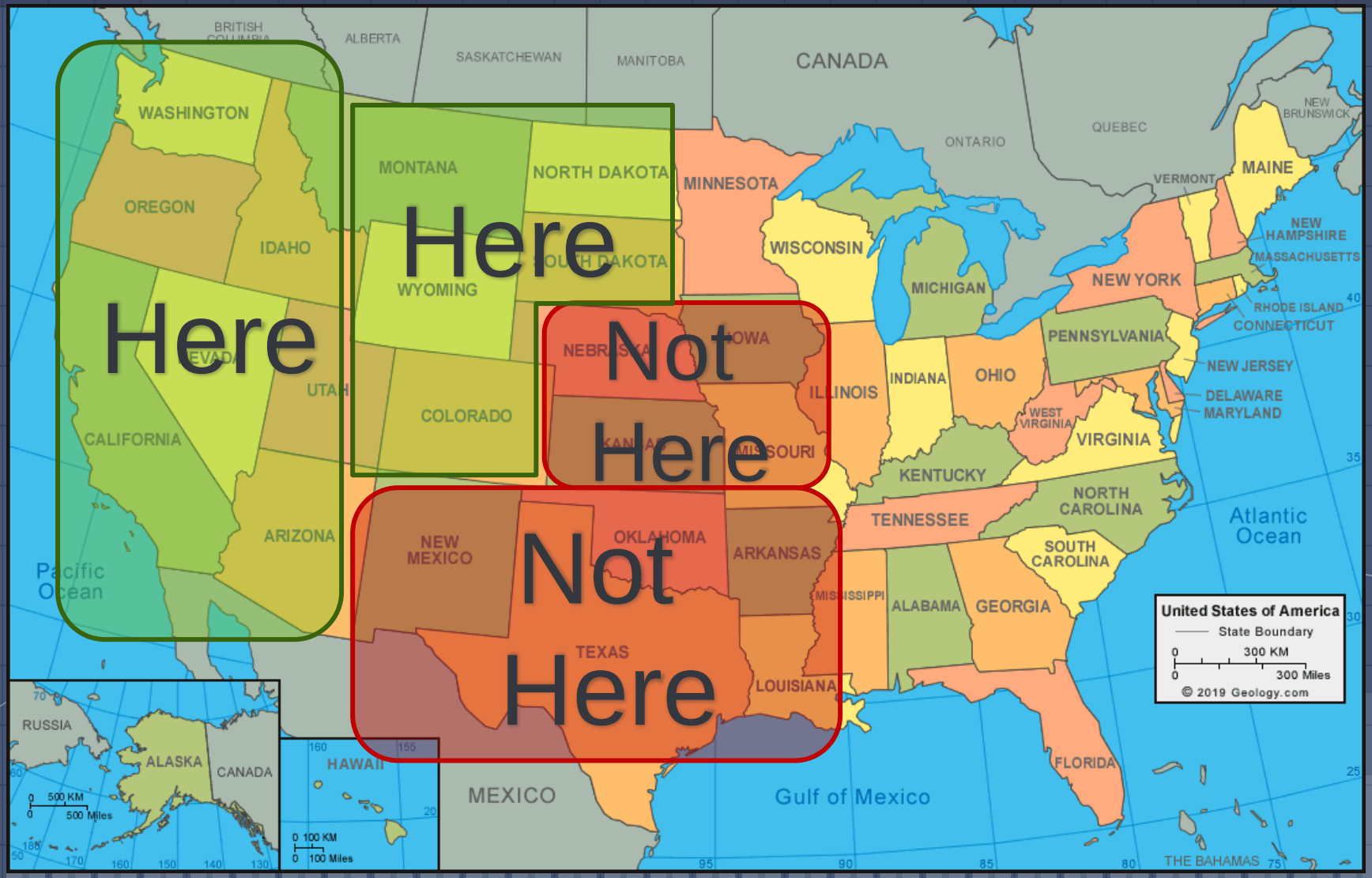
Monetary



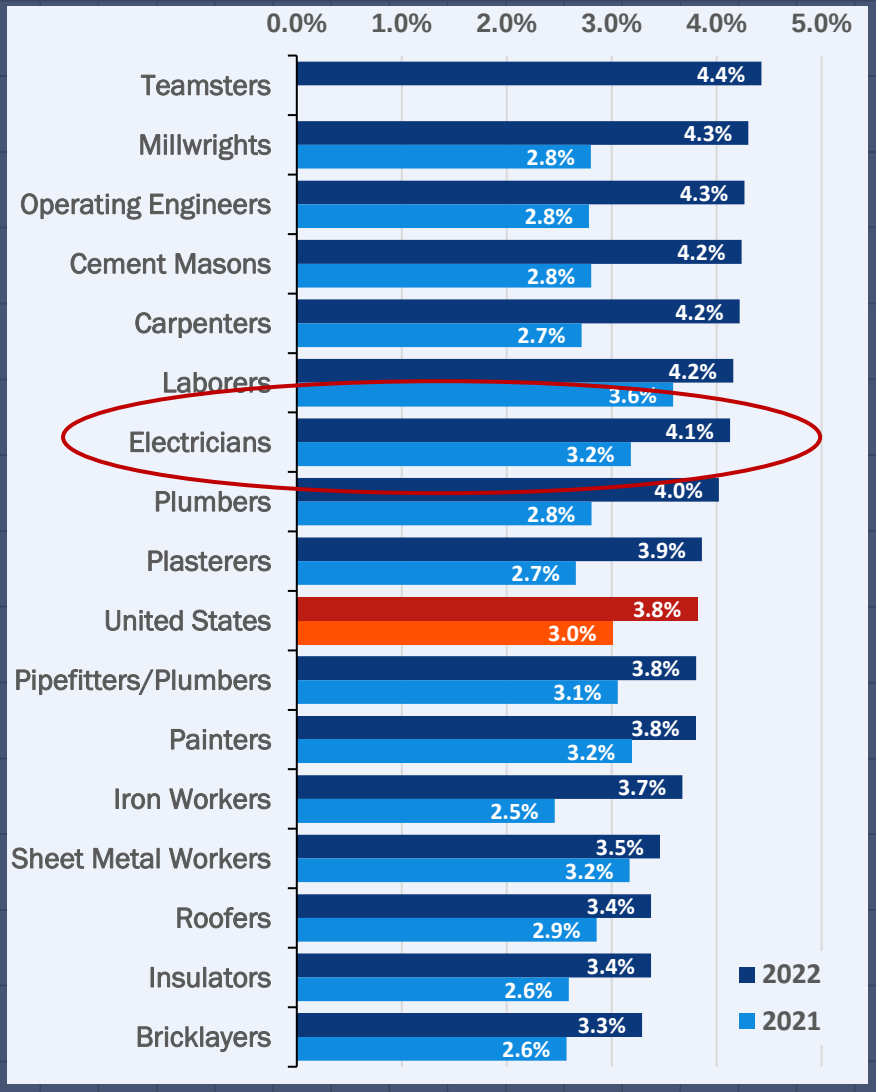
Where the Money Went - Craft

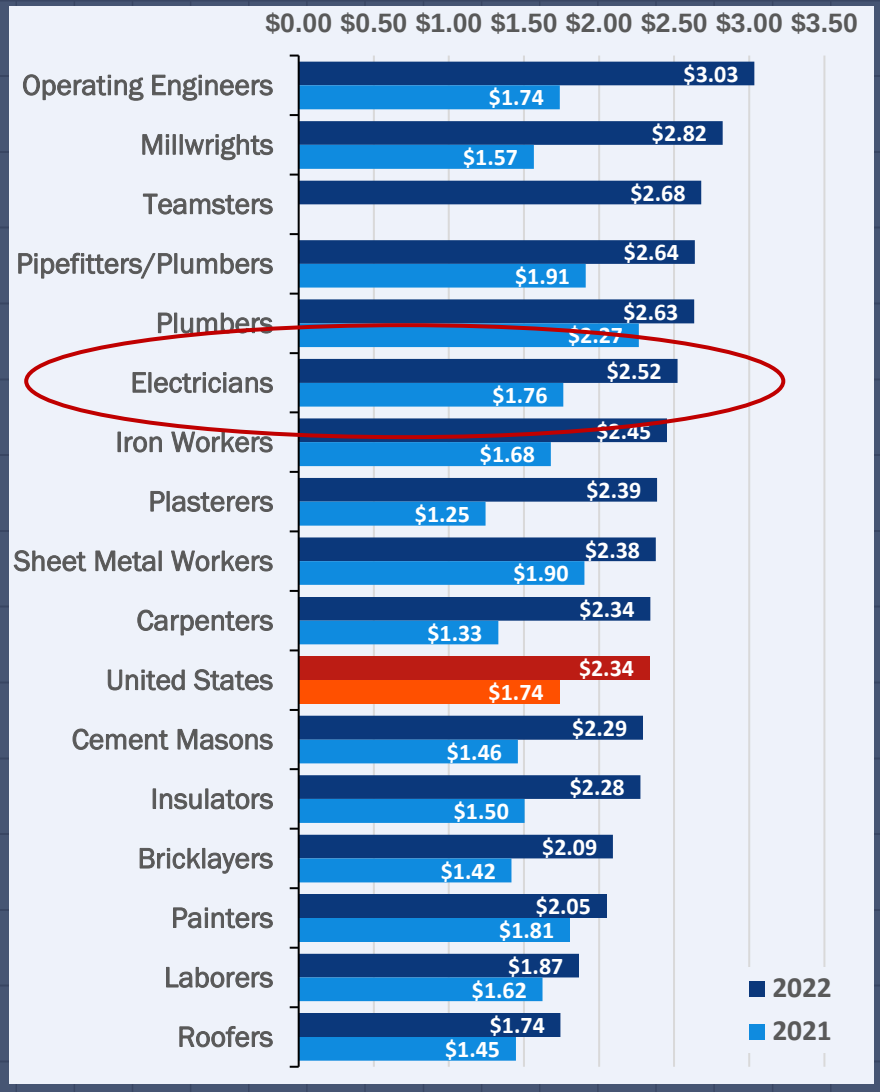


Where the Money Went - Region

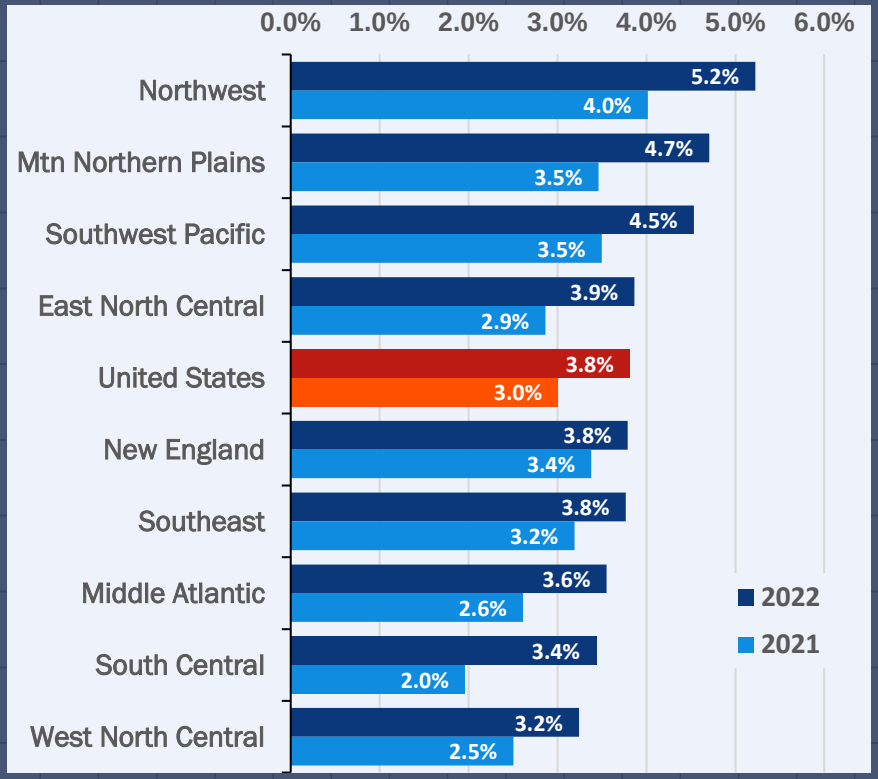


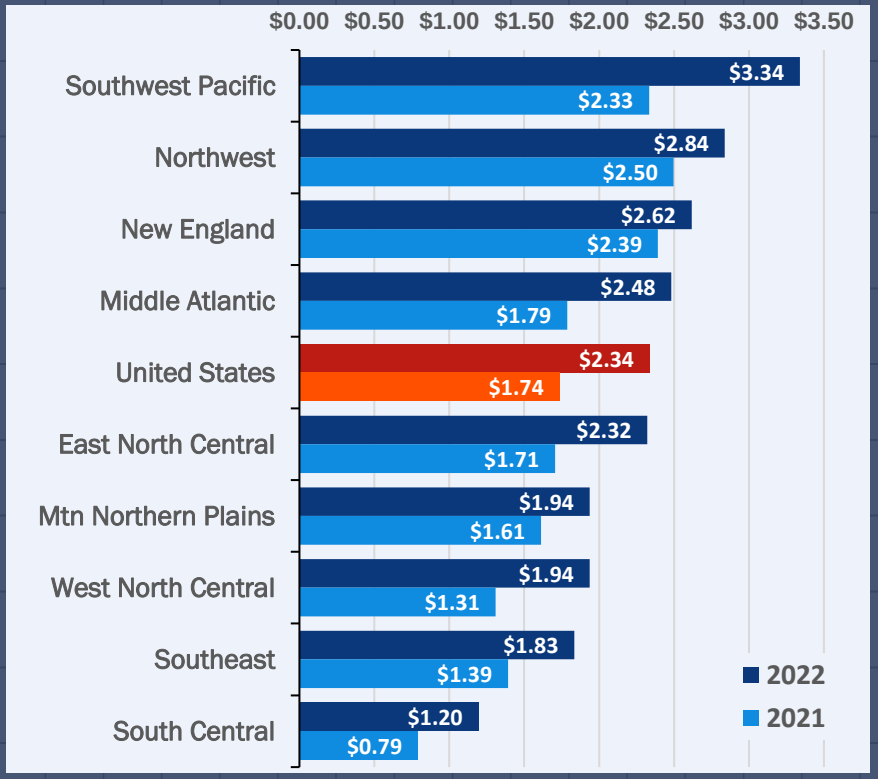
First Year Increases by Craft





First Year Increases by Region

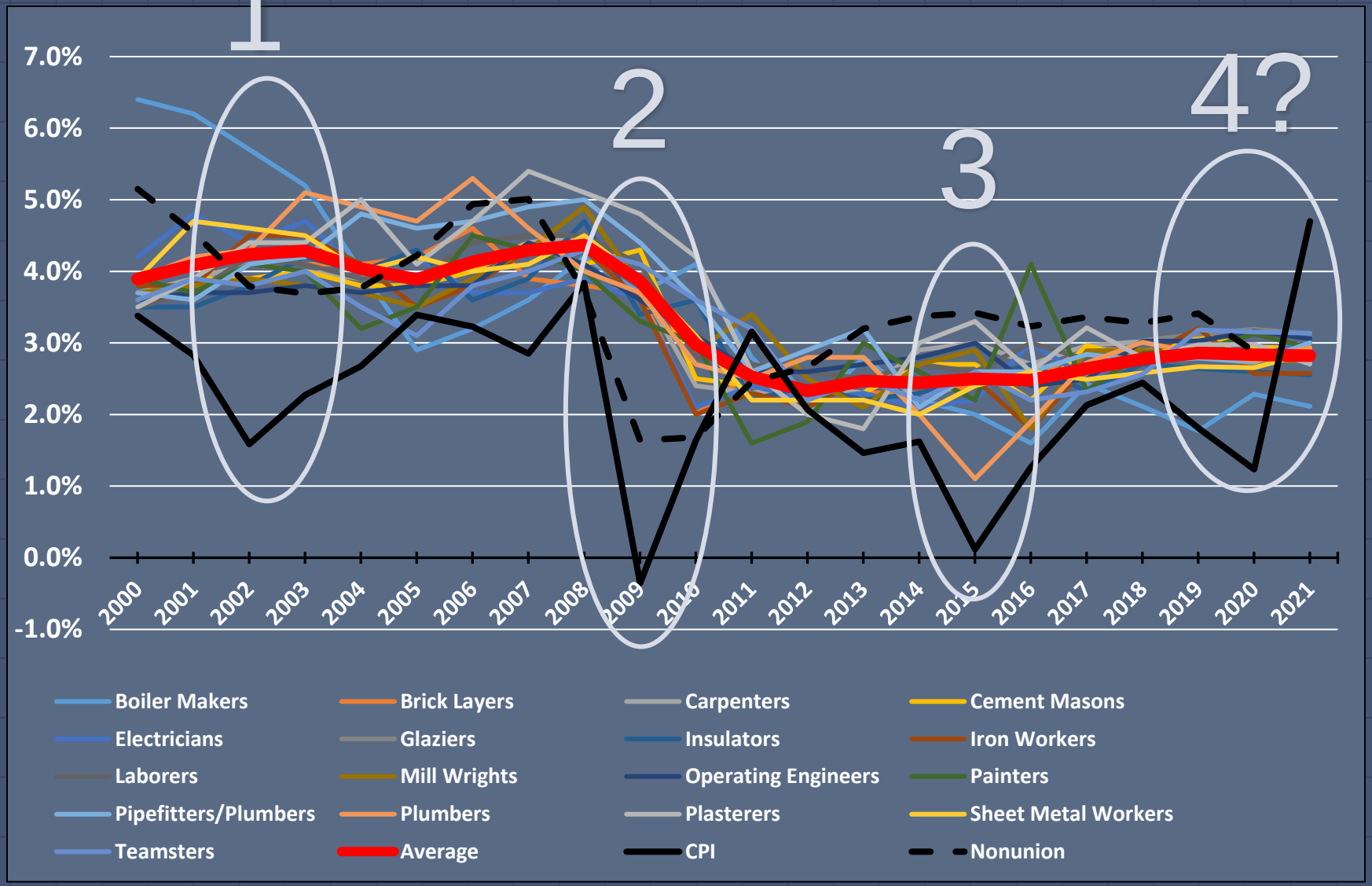




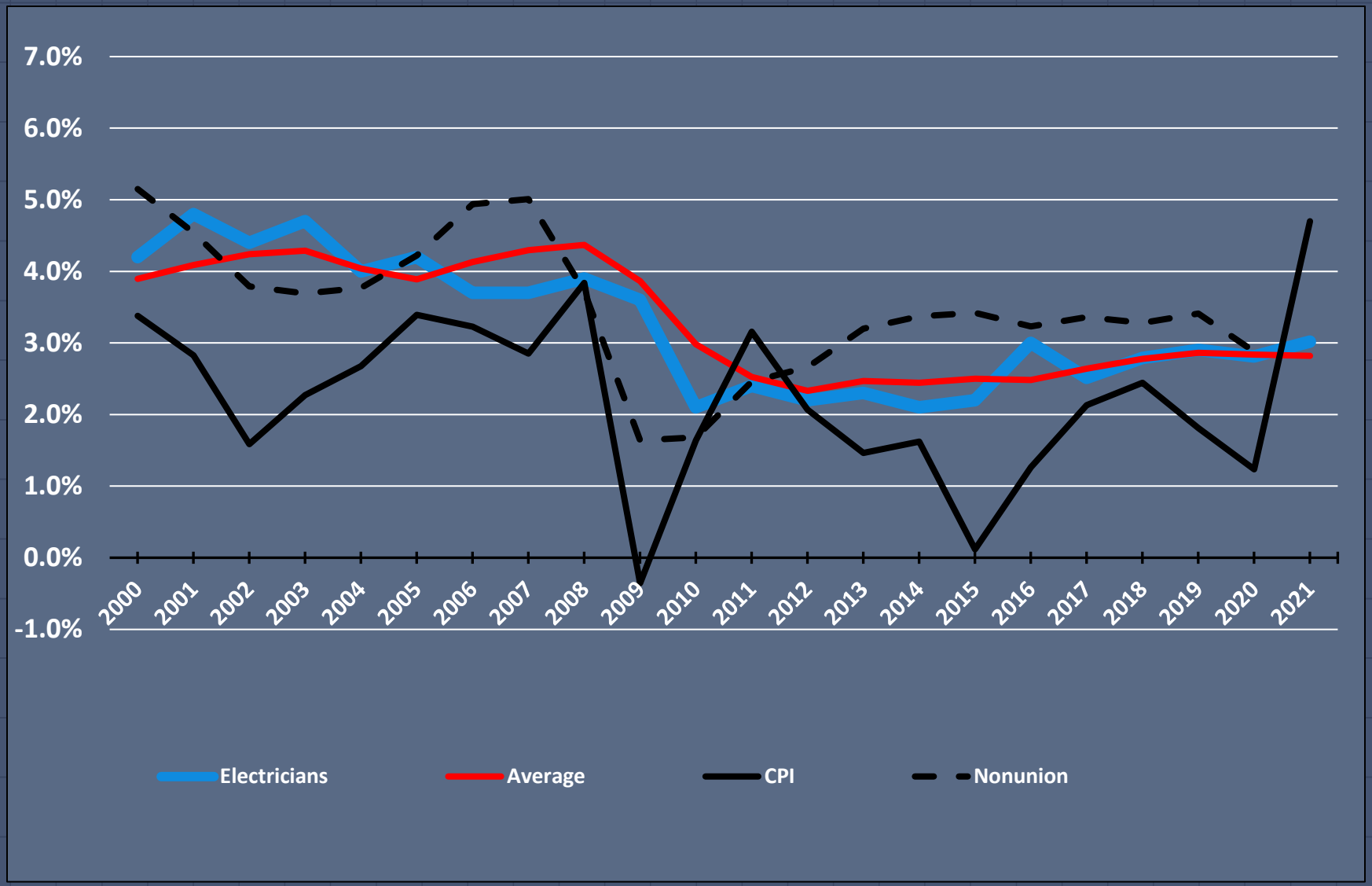
What's More Influential: Region vs Craft?

Geography affects the size of increases more than craft affiliation

Total Package Increase Trend

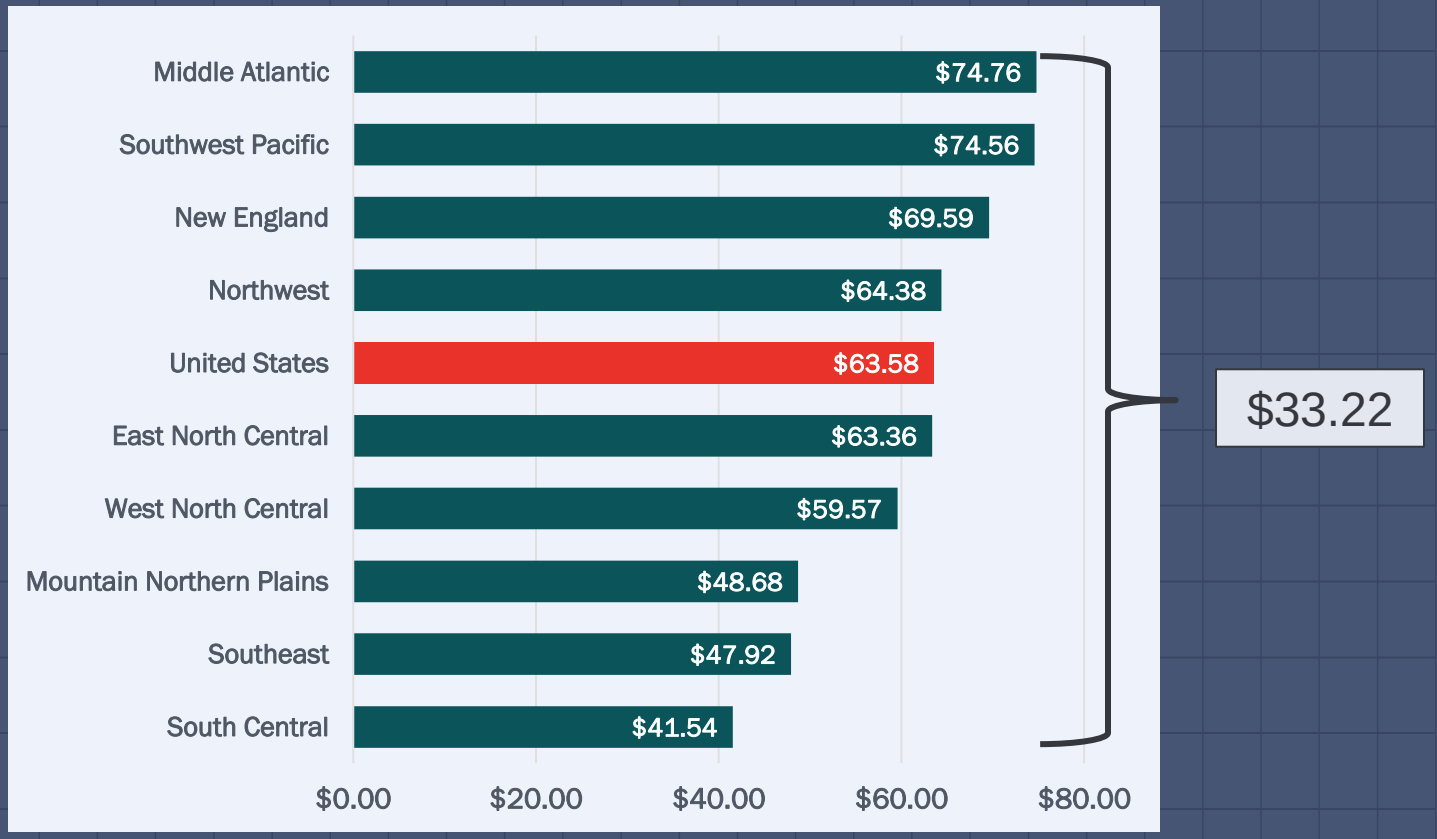


Total Package Increase Trend

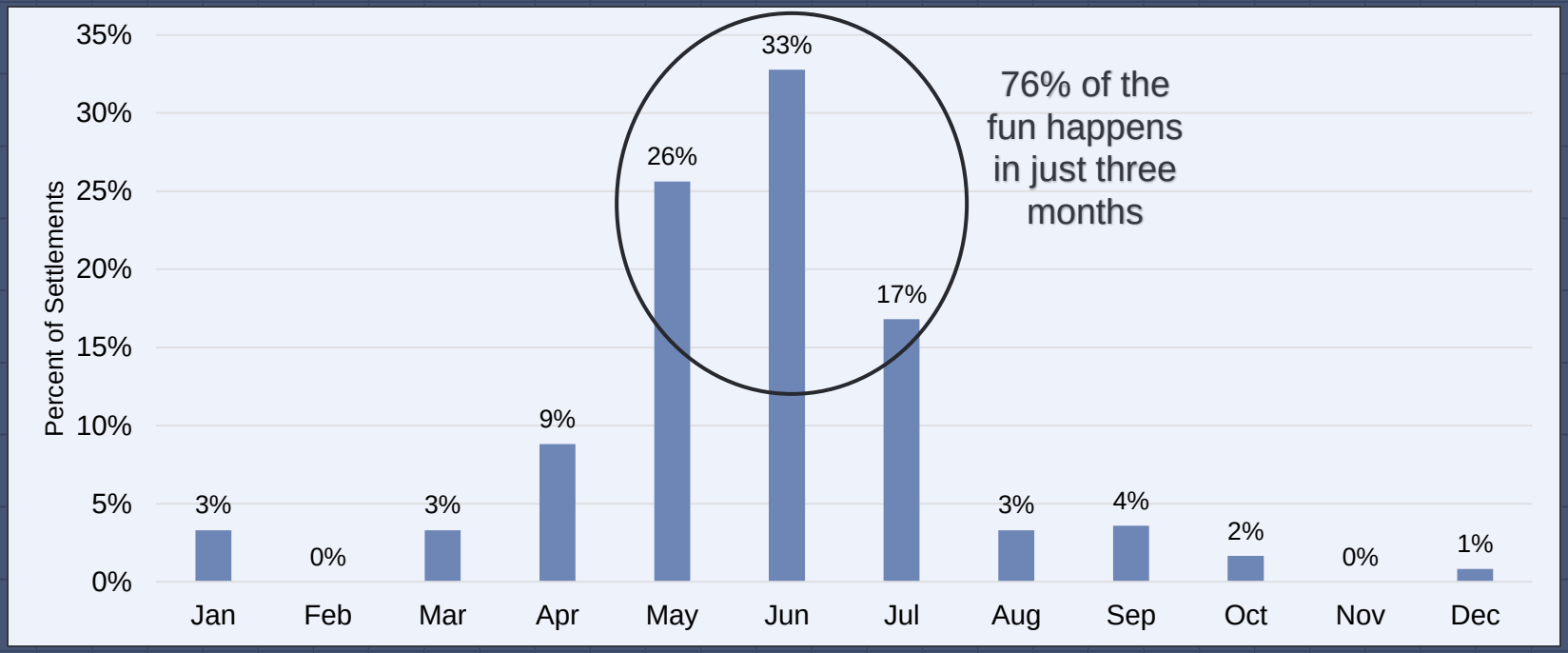


Average Total Package Rate by Craft

Average Total Package Rate by Region



Contract Effective Dates by Month



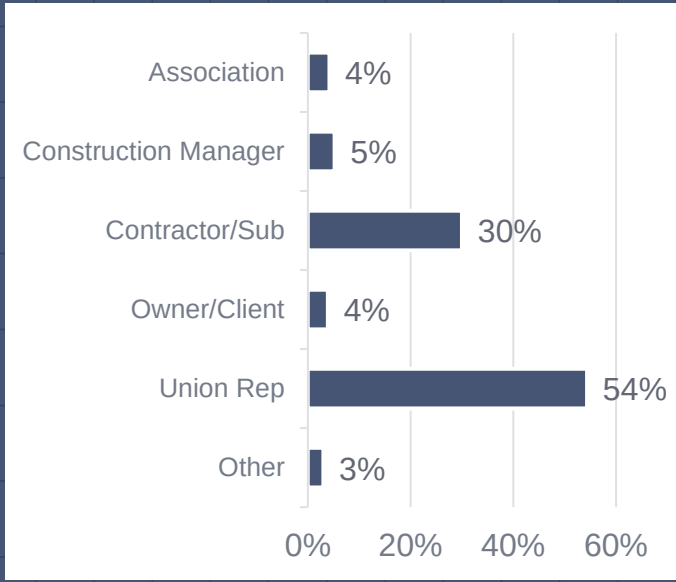
Union Craft Labor Supply Study

Highlights from the 2022 National Labor Study conducted by CLRC for TAUC

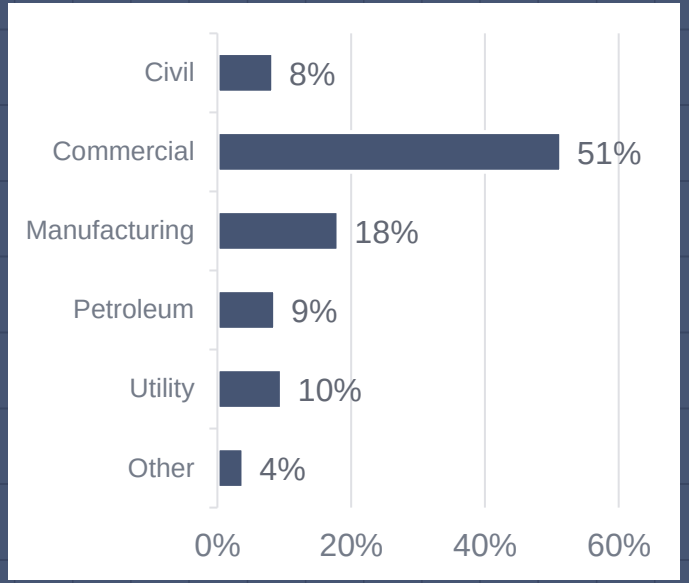
2

Demographics

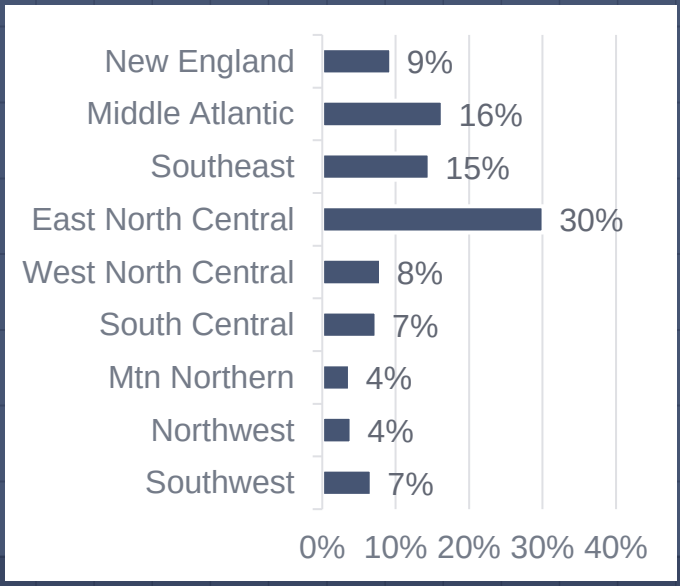
Role



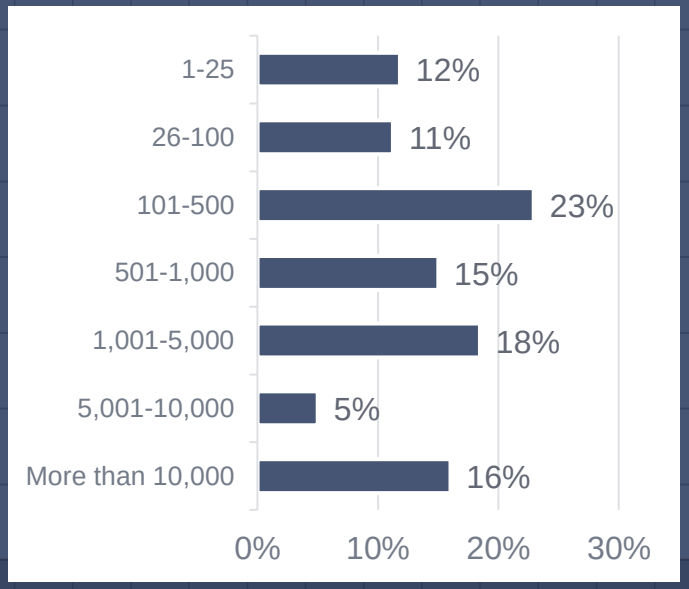
Industry



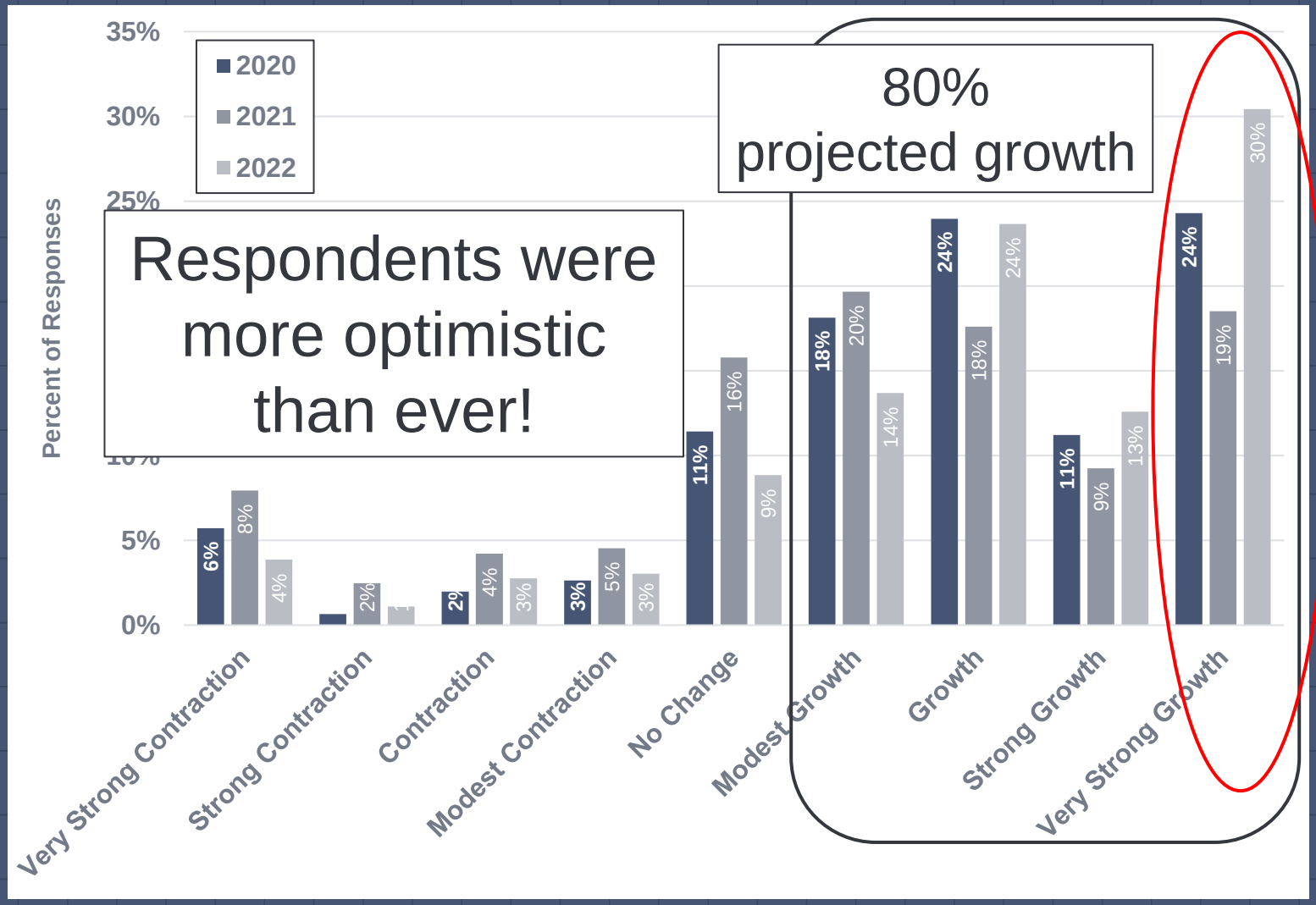
Region



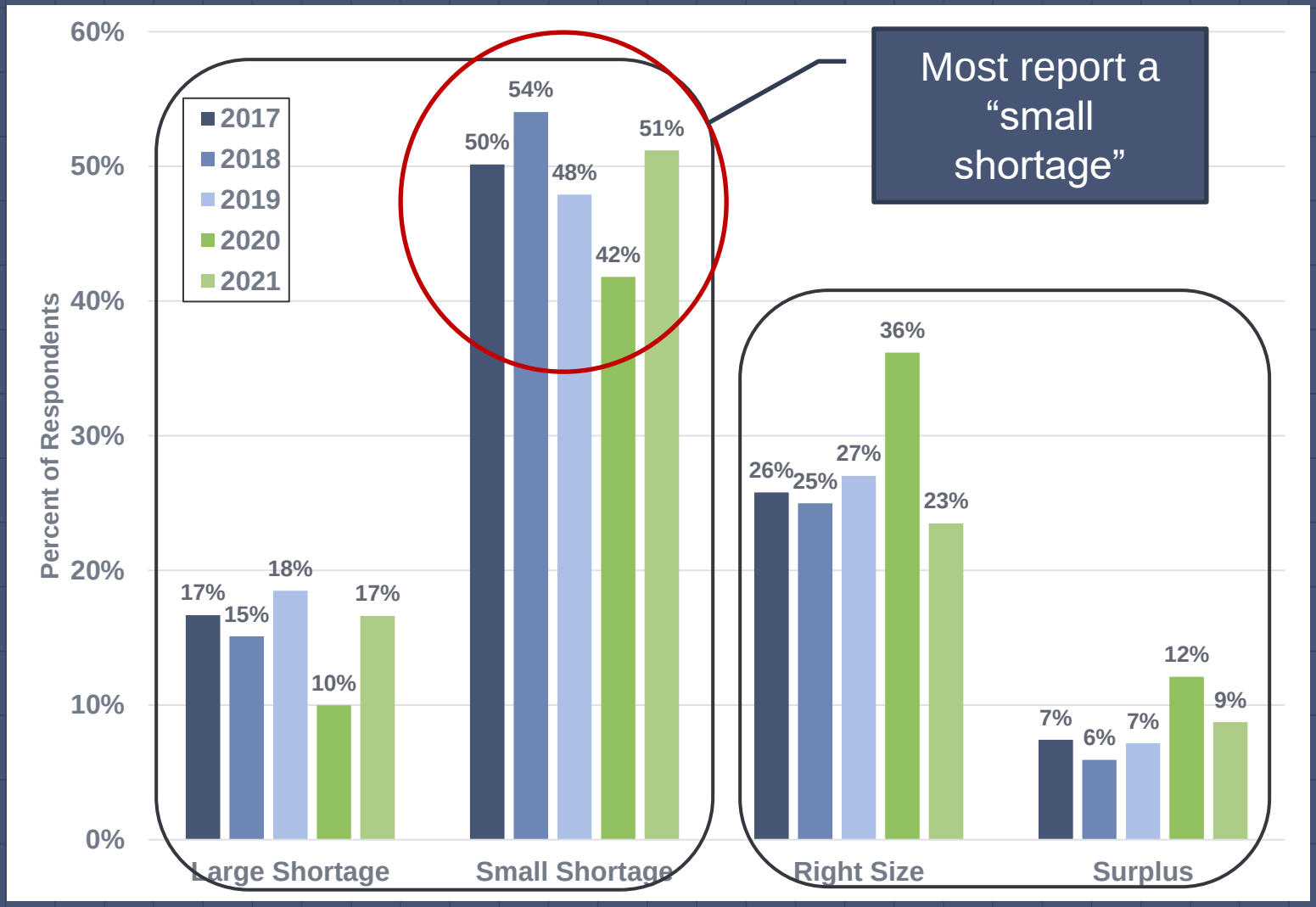
Org Size



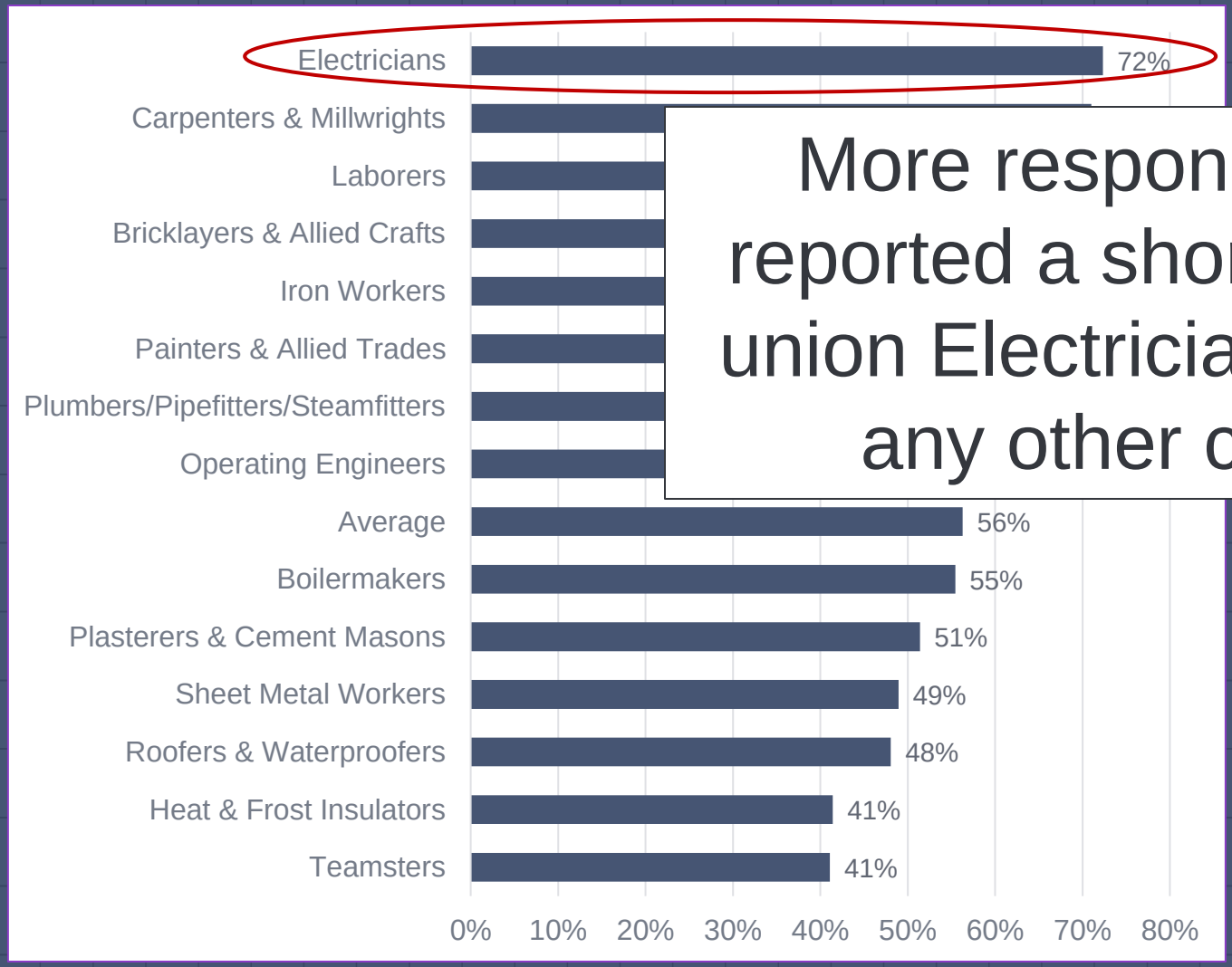
Growth/Contraction Projections



Union Craft Labor Shortage/Surplus



Union Labor Shortage/Surplus by Craft



More respondents reported a shortage of union Electricians than any other craft

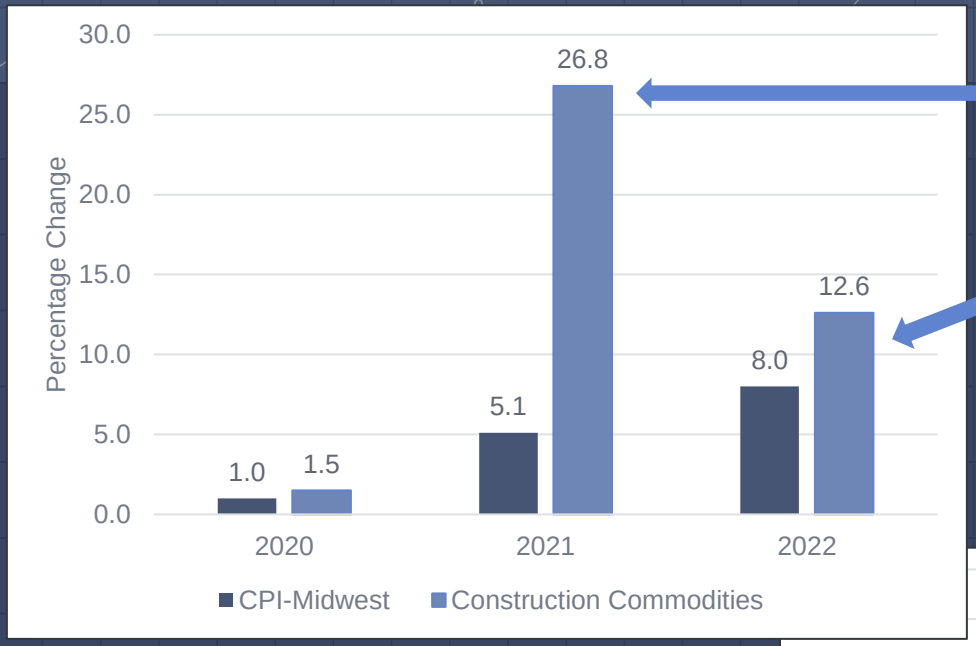
Contractor's Cost Conundrum

The high prices of commodities and the wide variability/unpredictability of key economic factors facing contractors

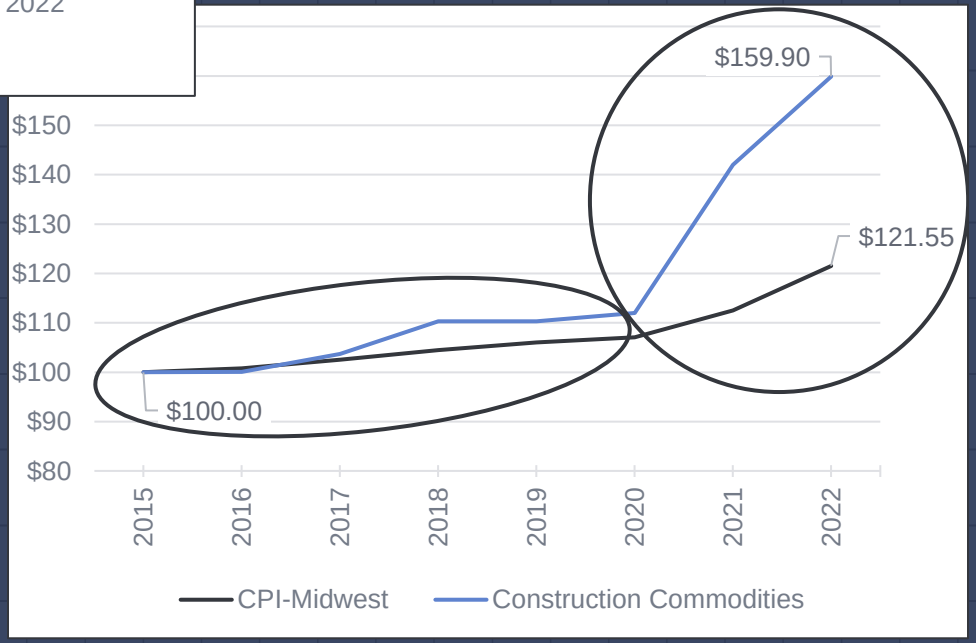
An example from the mechanical industry

3

Increases in Commodity Costs

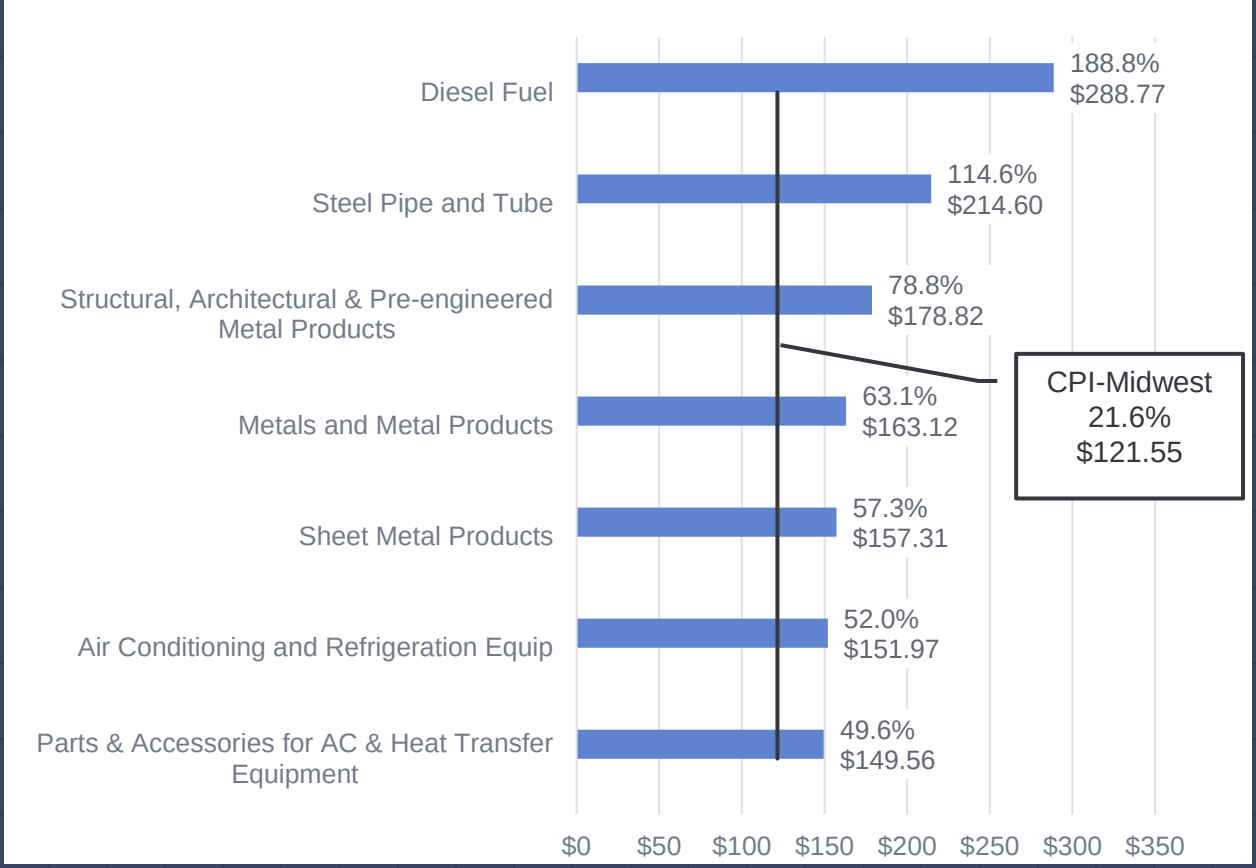


Construction commodities grew at a much faster rate than the CPI!



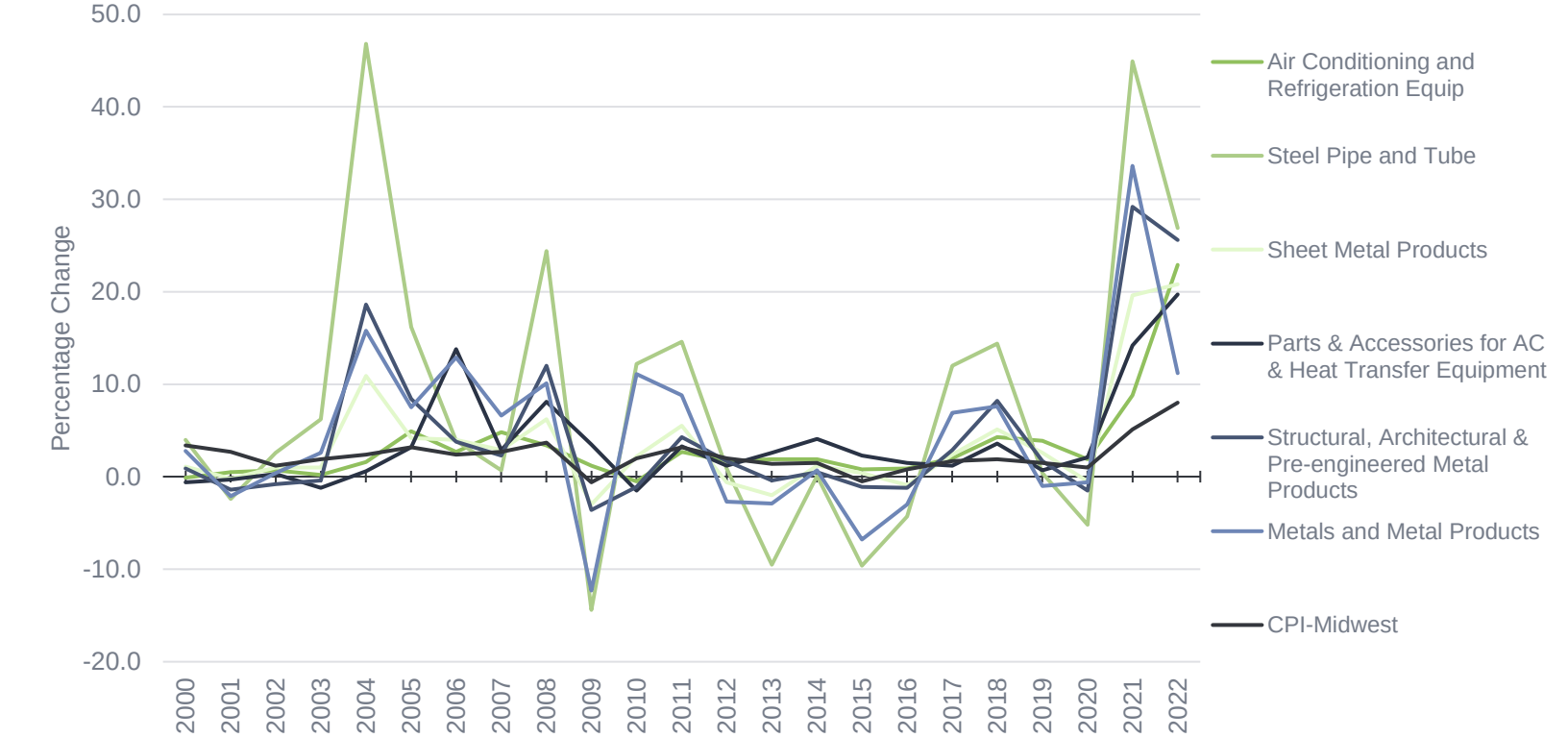
CPI and construction commodities indexed to $100 in 2015

Increases in Commodity Costs



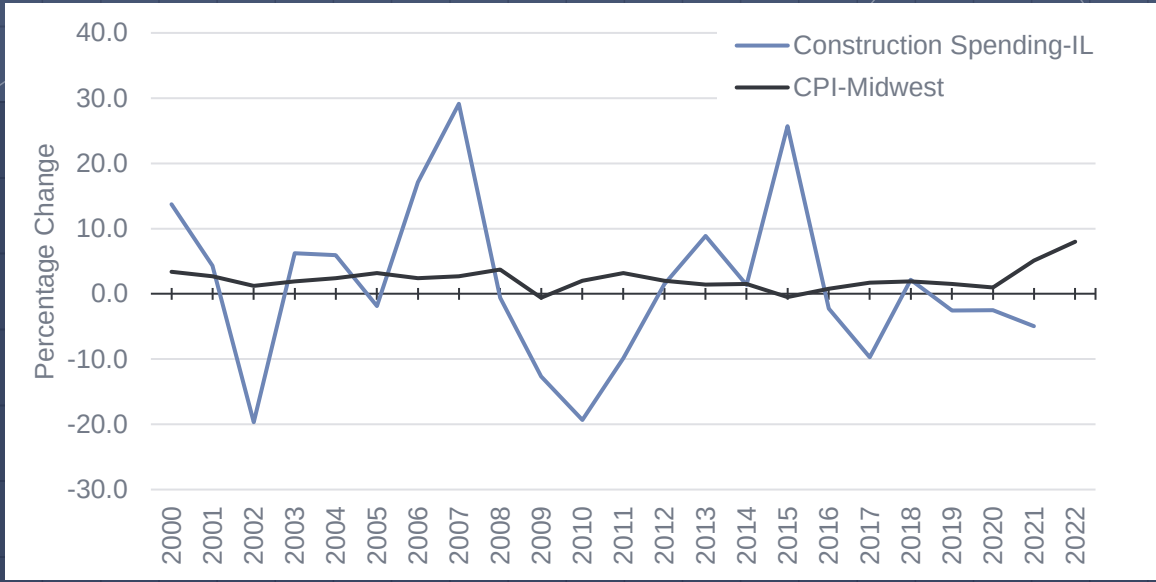
Most of the increases in commodity costs were above the CPI increases (2015 to 2022)

Variability and Unpredictability

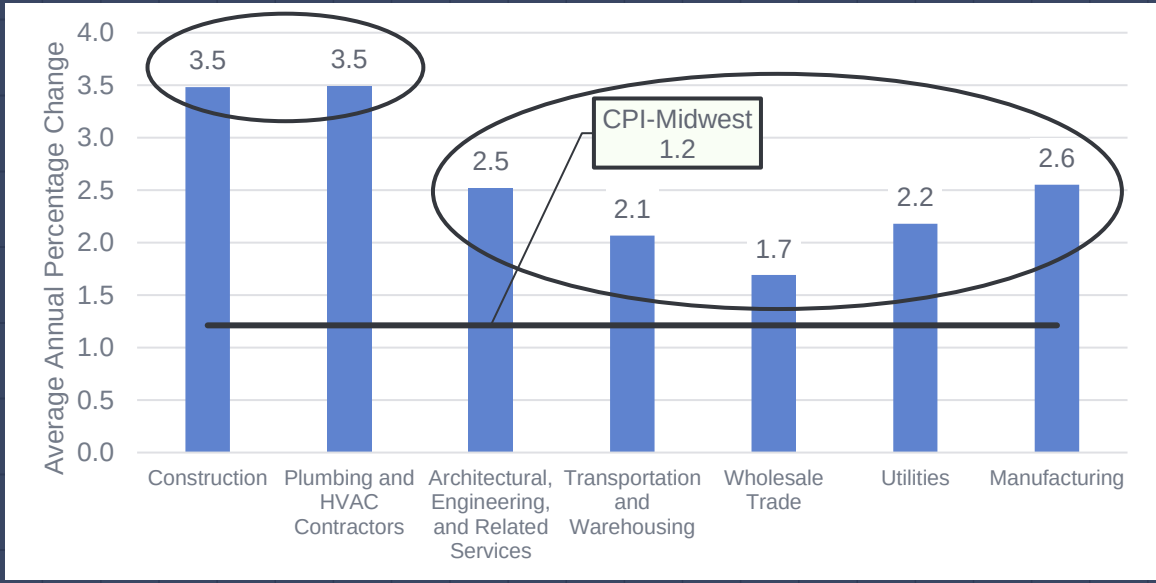


Large levels of variability in the price of commodities commonly used in mechanical work

Variability and Unpredictability



Construction spending is notably more volatile than the CPI



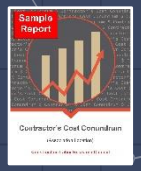
Other industries have less employment variability compared to construction

Assistance

Five products to support associations, contractors, owners, affiliates, and others

4

CLRC Products



Contractor's Cost Conundrum

NEW

Union-Nonunion Wage & Fringe Comparison

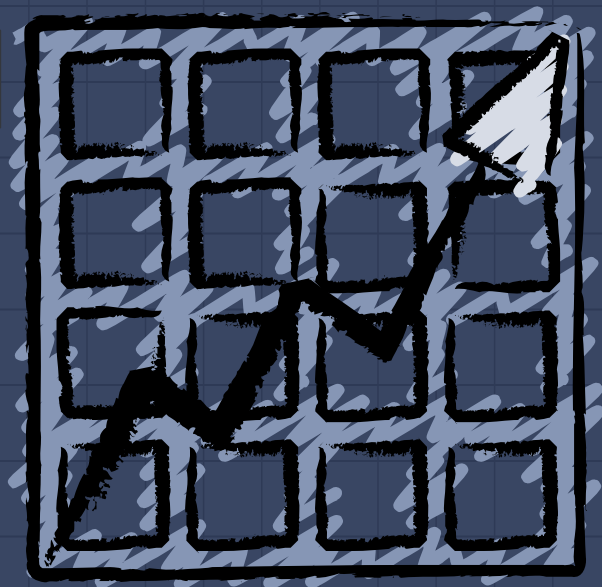
Market Share

with Sectors

Benchmark Analysis

Contract Costing

Construction Data Record

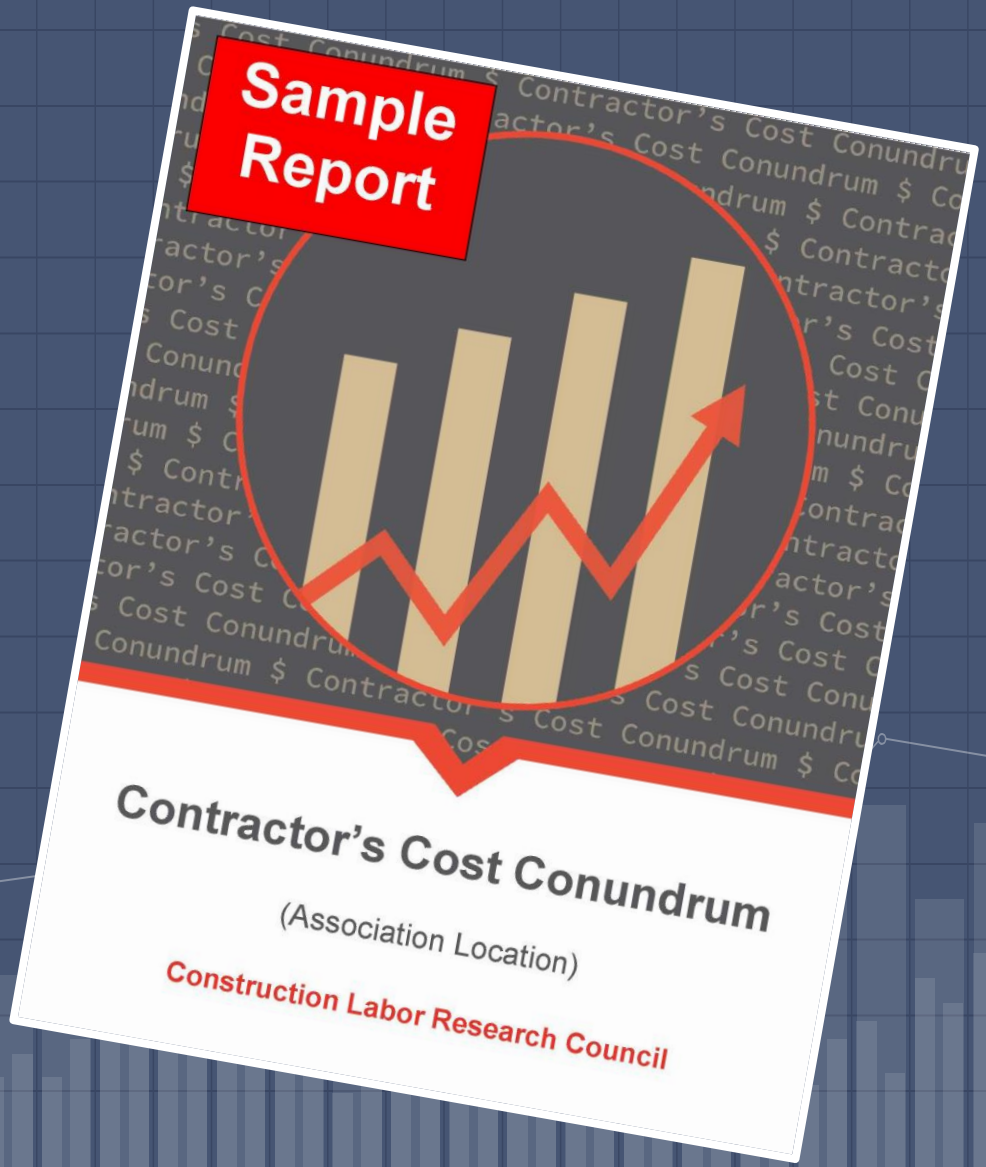


CLRC helps you be prepared!

NEW

CLRC Products

Contractor's Cost Conundrum



Contractor's Cost Conundrum

I. The High Price and Rapid Cost Increase of Commodities Used in Construction

The price of commodities (materials) constitutes a significant factor in overall construction costs, including competitive bids for new work. In **Exhibit 1.1,** the growth in two indexes for 2020, 2021 and 2022 are compared. The two indexes are:

- the CPI for (association location), which is an important benchmark tracking the cost of living for consumers
- the price of commodities used in construction

The exhibit shows the significant increase in the cost of living in (association location), and the even more dramatic increase in the price of commodities used in construction.

Specifically, in 2020 the increases in the cost of living in (association location) and in the price of construction commodities were similar—the CPI grew by 1.2% and construction commodities grew by 1.5%. However, in 2021 the average increase in prices paid for construction commodities jumped to 26.8% while the CPI increased to 4.7%. In 2022 the CPI continued to rise to a remarkably high 8.6%, yet this was far below the construction commodities index of 26.7%. Thus, although the CPI has been at its highest level since the early 1980's, the price for commodities purchased by contractors has increased significantly more, putting strong pressure on contractors' ability to be competitive, particularly with nonunion contractors.

Exhibit 1.1
The High Price and Rapid Cost Increase of Commodities Used in Construction Compared to Benchmark Data

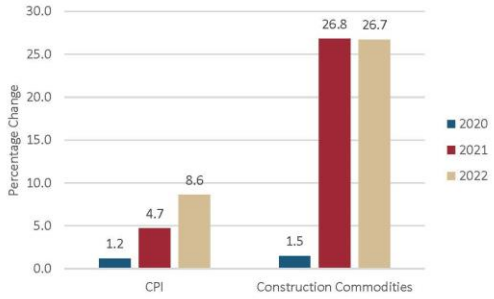


Exhibit 1.2 illustrates the modeled growth of $100 fr
indices in **Exhibit 1.1**. The exhibit conveys two findi

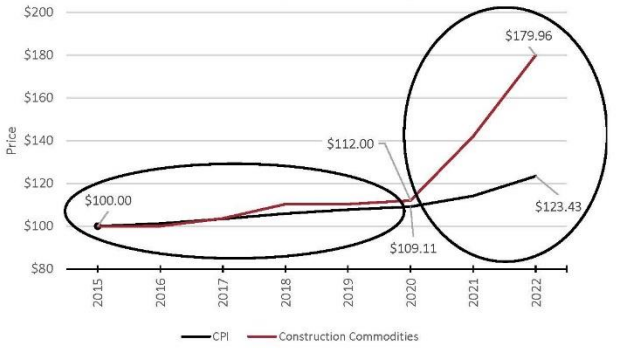
First, the $100 value was very stable and consister
similar growth for both indexes. The prices paid by consu
growing at fairly similar rates. Second, the $100 metric increased noticea
but much more so for the construction commodities factor.

In 2020 the $100 amount used in this analysis resulted in a price of $109.11 using the CPI and $112.00 using the construction commodities index. By 2022, two years later, there was a large divergence in the results. Consumers were paying $123.43 for goods and services that cost $100 in 2015, a noticeable increase; however, contractors were paying much more than that at $179.96 for construction materials that cost $100 in 2015.

Escalation of $100 in 2015 based on two indices:

Index	Price in 2020	Price in 2022
CPI	$109.11	$123.43
Construction Commodities	$112.00	$179.96

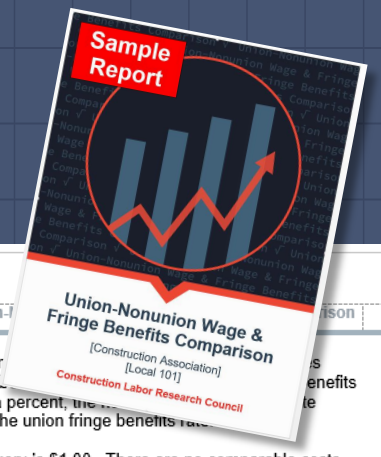
Exhibit 1.2
Growth of $100 Based on Indexes for Cost of Living and Construction Commodities



CLRC Products

Union-Nonunion Wage & Fringe Benefits Comparison

Union-Nonunion Wage & Fringe Benefits Comparison



Results

As shown in **Exhibits 1 and 2**, the union wage rate is $34.00 and the nonunion wage rate ranges from $23.00 to $29.00. The cost difference between the union and nonunion wage rates ranges from $5.00 to $11.00. As a percent, the nonunion wage rate ranges from 15 percent to 32 percent lower than the union wage rate.

Exhibit 1

Union-Nonunion Wage and Fringe Benefits Comparison Table

Category	Union	Nonunion Low	Nonunion High	Cost Difference Low	Cost Difference High	Pct Difference Low	Pct Difference High
Wages							
Base Wage	$34.00	$23.00	$29.00	$11.00	$5.00	32%	15%
Fringe Benefits							
Health & Welfare	$9.00	$3.00	$4.00	$6.00	$5.00	67%	56%
Retirement *	$9.50	$2.00	$3.00	$7.50	$6.50	79%	68%
Pension	$6.00	-	-	-	-	-	-
Annuity	$3.50	-	-	-	-	-	-
Total	$18.50	$5.00	$7.00	$13.50	$11.50	73%	62%
Other Costs							
Apprenticeship Fund	$0.65	$0.00	$0.00	$0.65	$0.65	100%	100%
Administrative Fund	$0.25	$0.00	$0.00	$0.25	$0.25	100%	100%
Other	$0.10	$0.00	$0.00	$0.10	$0.10	100%	100%
Total	$1.00	$0.00	$0.00	$1.00	$1.00	100%	100%
Total	$53.50	$28.00	$36.00	$25.50	$17.50	48%	33%

* For nonunion this reflects all retirement payments (i.e., defined benefit and defined contribution).

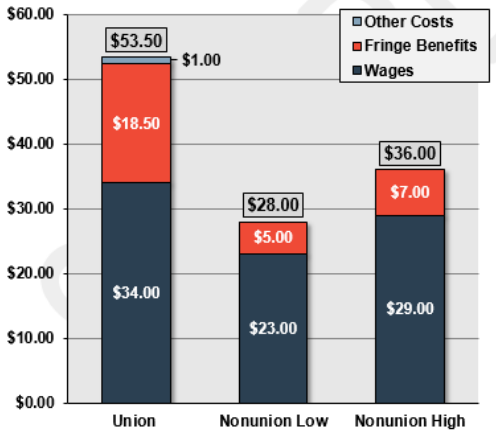
The union fringe benefits rate is $18.50 ar s from $5.00 to $7.00. The cost difference enefits rates ranges from $11.50 to $13.50. As a percent, the te ranges from 59 to 71 percent lower than the union fringe benefits ra

The union rate for the "Other Costs" category is $1.00. There are no comparable costs for nonunion workers.

The union total rate is $53.50 and the nonunion total rate ranges from $28.00 to $36.00. The cost difference between the union and nonunion total rates ranges from $17.50 to $25.50. As a percent, the nonunion total rate ranges from 33 to 48 percent lower than the union rate. (Conversely, the union rate ranges from 49 to 91 percent *higher* than the nonunion rate.)

Exhibit 2

Union-Nonunion Wage and Fringe Benefits Comparison Chart



CLRC Products

Market Share

NEW – also available with sectors (e.g., residential, commercial, institutional, industrial)

Market Share

Exhibit 1

Market Share

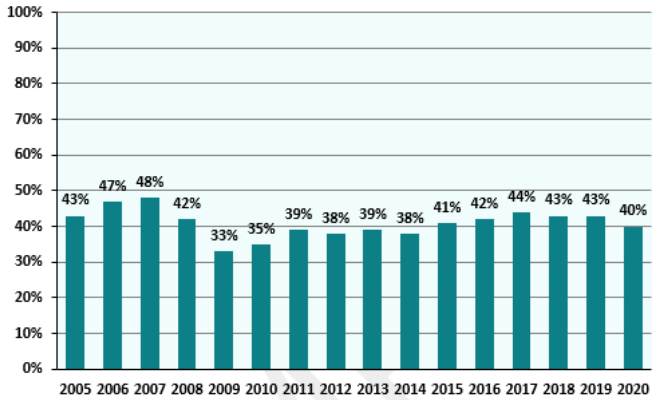
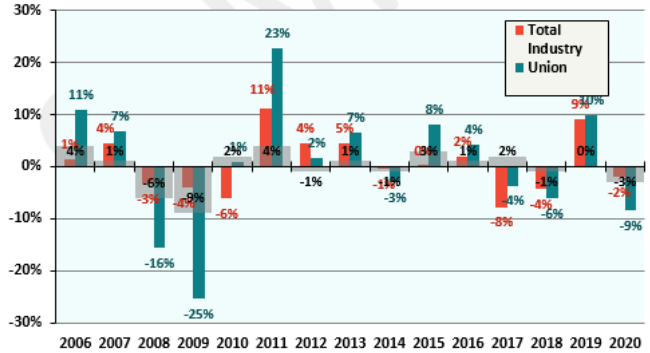


Exhibit 2

Percent Change from the Previous Year



The orange (Total Industry) and green (Union) bars in the chart above represent the change in employment. The grey bars represent the change in market share.

Exhibit 3

Employment Count (Union, Nonunion, and Tot

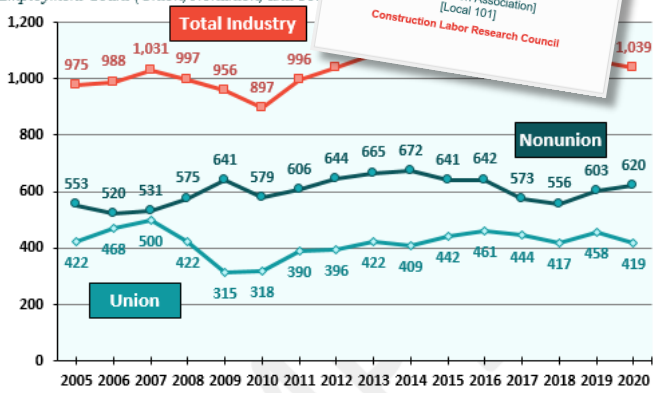


Exhibit 4

Summary Table

	Union			Nonunion			Total Industry			
		Change			Change			Change		Market
Year	Employment	#	%	Employment	#	%	Employment	#	%	Share
2005	422	-	-	553	-	-	975	-	-	43%
2006	468	46	11%	520	(33)	-6%	988	13	1%	47%
2007	500	32	7%	531	11	2%	1,031	43	4%	48%
2008	422	(78)	-16%	575	44	8%	997	(34)	-3%	42%
2009	315	(107)	-25%	641	66	11%	956	(41)	-4%	33%
2010	318	3	1%	579	(62)	-10%	897	(59)	-6%	35%
2011	390	72	23%	606	27	5%	996	99	11%	39%
2012	396	6	2%	644	38	6%	1,040	44	4%	38%
2013	422	26	7%	665	21	3%	1,087	47	5%	39%
2014	409	(13)	-3%	672	7	1%	1,081	(6)	-1%	38%
2015	442	33	8%	641	(31)	-5%	1,083	2	0%	41%
2016	461	19	4%	642	1	0%	1,103	20	2%	42%
2017	444	(17)	-4%	573	(69)	-11%	1,017	(86)	-8%	44%
2018	417	(27)	-6%	556	(17)	-3%	973	(44)	-4%	43%
2019	458	41	10%	603	47	8%	1,061	88	9%	43%
2020	419	(39)	-9%	620	17	3%	1,039	(22)	-2%	40%
Net Change: 2005-2020		(3)	-1%		67	12%		64	7%	-3%

CLRC Products

Benchmark Analysis

Benchmark Analysis

Results

[Local 101]'s actual wage and fringe benefits rates were compared to rates derived from using CPI and nonunion data. Specifically, the annual increases for the CPI and nonunion sources were applied to the union rate of $30.00 in 2000. **Exhibit 1** shows [Local 101]'s actual wage and fringe benefits rates from 2000 to 2020 compared to what they would have been if the CPI and nonunion increases had been applied each year, beginning with the starting rate of $30.00 in 2000.

As **Exhibit 1** shows, [Local 101]'s wage and fringe benefits rate in 2000 was $30.00 and in 2020 it was $56.25. If the union increases since 2000 had been equivalent to the nonunion increases, the union rate in 2020 would have been $49.36. Similarly, if the union increases since 2000 were the same as the CPI, the union rate would have been $45.49 in 2020. Thus, the wage and fringe benefits hourly rate for [Local 101] was $6.89 and $10.76 higher in 2020 than it would have been if the increases were the same as nonunion increases and the CPI, respectively.

Exhibit 1
Wage and Fringe Benefits Growth: [Local 101] Compared to Benchmark Data

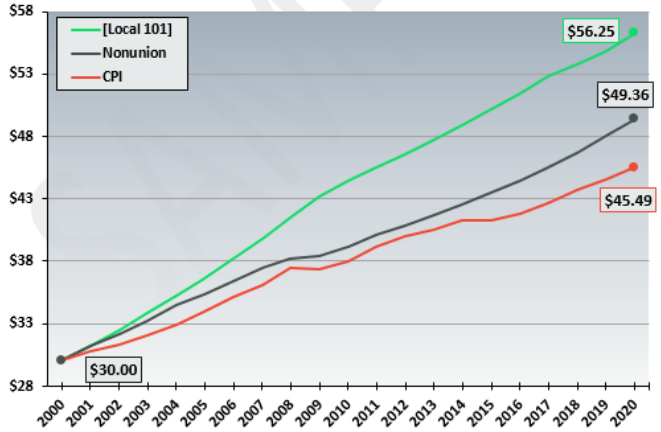
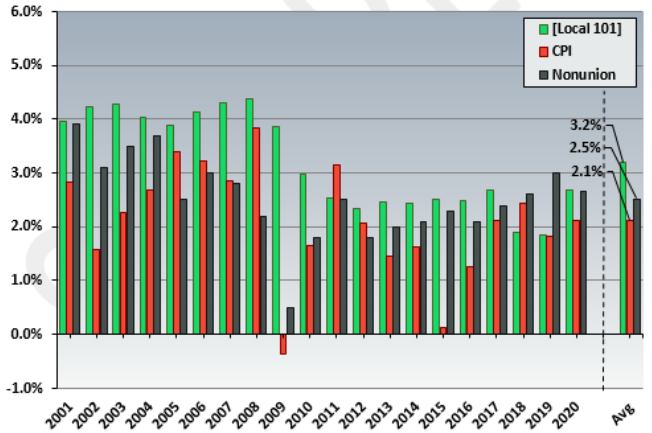


Exhibit 2 shows the percent increase, year-by
workers, and the CPI. Careful examination sh
greater than the CPI increases for 18 of 20 ye
increases 17 of 20 years shown in the chart b

Since 2001, the average annual union increase was 3.2 percent
average was 2.5 percent and the CPI average was 2.1 percent.

The first decade of increases is the primary reason for [Local 101]'s average increase being higher than the benchmarks. During this time period, the union's average (4.0 percent) was 1.3 percent higher than nonunion average increases (2.7 percent) and 1.6 percent higher than CPI (2.4 percent). Comparatively, from 2011 to 2020 the union's average increase (2.4 percent) was only 0.1 percent higher than nonunion (2.3 percent) and 0.6 percent higher than CPI (1.8 percent).

Exhibit 2
Annual Increase: [Local 101] Compared to Benchmark Data



CLRC Products

Contract Costing

Contract Costing

Exhibit 2
Cost Per Hour Per Employee Table

Category	Low$	Low%	High$	High%
Foreman	$0.50	1.0%	$1.00	2.0%
Hazard Pay	$0.22	0.4%	$0.67	1.3%
Management Time	$0.38	0.8%	$0.96	1.9%
Other	$0.35	0.7%	$0.70	1.4%
Overtime 1.5x	$0.56	1.1%	$1.11	2.2%
Overtime 2x	$0.56	1.1%	$1.11	2.2%
Reporting Pay	$0.16	0.3%	$0.31	0.6%
Shift 2nd *Low*	$0.05	0.1%	$0.10	0.2%
Shift 3rd	$0.05	0.1%	$0.11	0.2%
Steward	$0.15	0.3%	$0.36	0.7%
Travel Time	$0.29	0.6%	$0.93	1.9%
Total	$3.26	6.5%	$7.37	14.7%

High

The per hour per employee results are shown in the table (**Exhibit 2**) in alphabetical order and in descending order based on the high end of the cost range in the bar chart (**Exhibit 3**, next page).

The per hour per employee costs by category ranged from a low of $0.05 (0.1 percent of the wage rate) for 2nd and 3rd shift to a high of $1.11 (2.2 percent) for overtime at 1.5x and 2.0x. The total contract language costs ranged from $3.26 (6.5 percent of the wage rate) to $7.37 (14.7 percent) per hour per employee.

Exhibit 3
Cost Per Hour Per Employee Chart

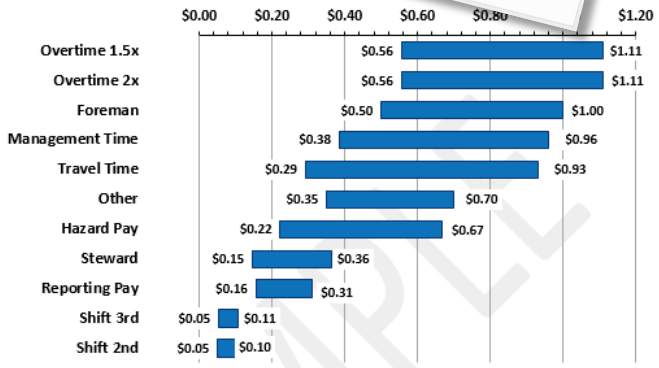


Exhibit 3 shows the data in **Exhibit 2** in descending order based on the high end of the cost range. The costs outlined in this study are based on expected typical usage. Actual costs may vary from contractor to contractor.

CLRC Products

Construction Data Record

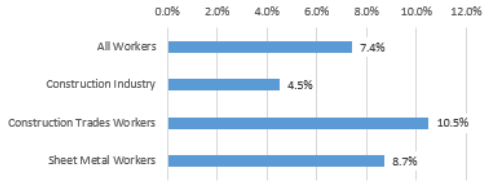
NEW

Construction Data Record

PROJECTED GROWTH AND CONTRACTION IN THE CONSTRUCTION INDUSTRY

As well as BLS, this section presents data from the annual Labor Study CLRC conducts for The Association of Union Constructors (TAUC). The Labor Study is based on a large survey of construction supervisors, construction managers, owners, union representatives and association executives.

Projected Growth to 2026 for Select Industries and Occupations-US



Projected Growth and Separations for Construction Trades-US

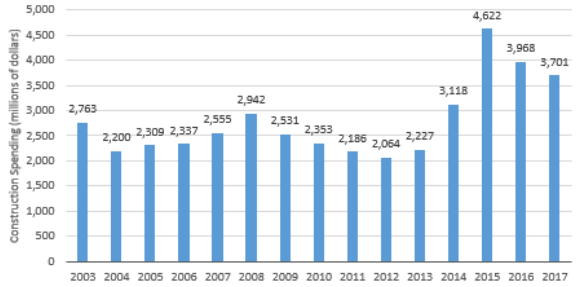
Occupation	Employment 2016	Employment 2026	2016-2026 Employment growth	2016-2026 Employment growth Percent	Annual separations percent*	Annual separations*	Total Annual Openings**
All Construction occupations	6,812.5	7,560.0	747.6	11.0	10.5	756.1	830.9
First-line supervisors	602.5	678.3	75.8	12.6	9.8	63.1	70.6
Construction trades workers	5,347.0	5,908.0	561.0	10.5	10.4	583.7	639.8
Boilermakers	17.2	18.7	1.5	9.0	9.8	1.8	1.9
Brickmasons	110.0	121.2	11.2	10.2	9.3	10.8	11.9
Carpenters	1,025.6	1,109.4	83.8	8.2	9.9	105.4	113.8
Cement masons	182.5	205.5	23.0	12.6	10.8	20.9	23.2
Construction laborers	1,216.7	1,367.1	150.4	12.4	10.7	138.3	153.3
Equipment operators	426.8	479.3	52.7	12.3	10.9	49.3	54.5
Electricians	666.9	726.5	59.6	8.9	11.1	77.2	83.1
Glaziers	50.1	55.3	5.3	10.5	11.4	6.0	6.6
Insulation workers	59.5	62.7	3.2	5.3	10.6	6.5	6.8
Iron workers (structural)	70.2	79.2	9.0	12.8	10.5	7.8	8.7
Painters	381.5	403.4	21.9	5.7	9.3	36.5	38.7
Plumbers/pipefitters/steamfitters	480.8	555.6	75.2	15.6	10.6	55.1	62.6
Plasterers	27.7	28.8	1.1	3.9	9.7	2.7	2.8
Roofers	148.2	162.4	16.2	11.1	10.1	15.6	17.2
Sheet metal workers	138.9	150.9	12.0	8.7	10.4	15.1	16.3

Data in thousands (000)
* Job exits and transfers
** Growth plus separations

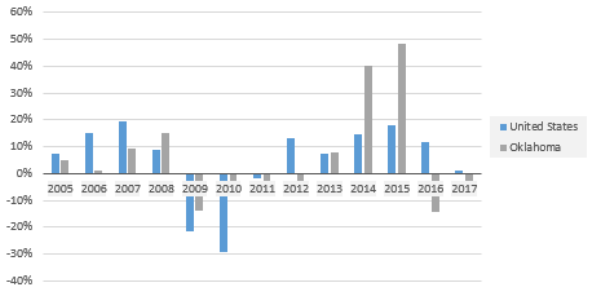
CONSTRUCTION SPENDING

The amount spent on construction is a key economic ...ety of entities in the construction industry, including contractors, ...ions and economists.

Construction Spending on Private Nonresidential Projects



Percent Change in Private Nonresidential Construction Spending by Region



Construction Labor Research Council

Carey Peters, Ph.D.
Executive Director
202-347-8440
www.clrcconsulting.org
clpeters@clrcconsulting.org

CLRC Construction Labor Research Council