



# Market Conditions Q2 2024

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# About this report



As we step further away from the disruptions of the pandemic, a theme of stability has emerged across the construction industry, providing a solid foundation for strategic planning and project execution. This quarter, we see a consistent pattern in supply and pricing, although notable exceptions such as rising copper prices remind us of the complexities still at play.

In the latest edition of CRB's Horizons: Market Conditions Report, we evaluate these patterns, drawing on a blend of our internal data, feedback from our strategic partners, and broader industry trends. Our detailed look at these elements aims to equip you with the insights necessary to make informed decisions and strategically steer your projects in this stable yet dynamic environment.

Your [feedback](#) continues to be invaluable to us, shaping each edition of our report to better serve your needs and respond to the evolving market landscape. We encourage you to share your experiences and insights as we collectively navigate the future of construction, aiming for enhanced productivity and efficiency in all our endeavors.

A handwritten signature in black ink, reading "Mike Barrett" with a stylized flourish at the end.

Mike Barrett

Vice President, Project Delivery Services, CRB



CRB's procurement team works with our trusted strategic trade partners and suppliers to maintain a database of lead times for equipment and materials, particularly those specific to the life sciences and food + beverage industries. We frequently add new equipment and materials to our database to better support our clients with current information and options.

**FIGURE 1**

*Database of lead times for equipment and materials*

### CRB Lead Time Database

● Improving    ● Stable    ● Increasing

CURRENT LEAD TIMES FOR EQUIPMENT AND MATERIAL: Q2 2024		
Equipment/Material	Lead Time (wks)	Trend
F+B Equipment – CIP Skid	30	●
F+B Equipment – Ribbon Blender	30	●
Media Prep & Hold Skids-316SS	46	●
Media Prep & Hold Skids-AL6XN	54	●
Buffer Prep & Hold Skids-316SS	46	●
Buffer Prep & Hold Skids-AL6XN	54	●
Purified Water Skids	26	●
WFI Distribution Skids	28	●
USP Water Distribution Skid	26	●
Pure Steam Generators	28	●
Stainless Steel Vessels - ID > 98"	40	●
Stainless Steel Vessels - ID < 98"	24	●
Single Use Bioreactors	30	●
Single Use Bioreactor Bags	18	●
Stainless Steel Bioreactors - ID > 98"	50	●
Stainless Steel Bioreactors - ID < 98"	45	●
Chromatography Skids	40	●
Stainless Steel Tubing 316L	0	●
Stainless Steel Tubing AL6XN SF4	0	●
Modular Cleanroom Panels	10	●
Roof Joists	12	●
Metal Decking	12	●

Source: CRB

(continued)



## FIGURE 1 (CONT.)

Database of lead times for equipment and materials

● Improving ● Stable ● Increasing

CURRENT LEAD TIMES FOR EQUIPMENT AND MATERIAL: Q2 2024		
Equipment/Material	Lead Time (wks)	Trend
Medium Voltage GIS Switchgear (35kV class, 1200A)	70	●
Medium Voltage Fused Switchgear (15kV class, 1200A)	68	●
Medium Voltage Fused Switchgear (4160V class, 1200A)	68	●
Medium Voltage Transformer - 3Ph - 45-500kva	75	●
Medium Voltage Transformer - 3Ph - 501-1500kva	75	●
Medium Voltage Transformer - 3Ph - 1501-3000kva	75	●
Medium Voltage Transformer - 3Ph - 3001-5000kva	85	●
Medium Voltage Transformer - 3Ph - 5001+ kva	85	●
ANSI Switchgear (3000-4000A)	48	●
Switchboard (3000A-4000A)	45	●
Switchboard (2000A-2500A)	45	●
Panelboards (480V, Any ampacity)	8	●
Panelboards (208V, Any ampacity)	8	●
Dry Type Transformers (112.5kVA and below)	6	●
Busway (Any Ampacity)	20	●
Standard MCC	40	●
Smart MCC	72	●
Copper Tubing and Fittings	0	●
Standard Packaged RTUs	32	●
Cooling Towers	16	●
Water-Cooled Centrifugal Chillers	28	●
Air-Cooled Chillers, < 250 Tons	28	●
Air-Cooled Chillers, > 250 Tons	30	●
Boilers, 500 HP Water Tube	20	●
Boilers, 800 HP Fire Tube	20	●
Large-diameter Control Valves-Modulating	10	●
Stainless Steel Zero-Static/Block Body Valves	10	●
HEPA Filters & Housings: 1 Rd Housings	10	●
HEPA Filters & Housings: Multi Rd Housings	18	●
HEPA Filters & Housings: Orticlean	18	●

Source: CRB

(continued)



FIGURE 1 (CONT.)

Database of lead times for equipment and materials

● Improving    ● Stable    ● Increasing

CURRENT LEAD TIMES FOR EQUIPMENT AND MATERIAL: Q2 2024		
Equipment/Material	Lead Time (wks)	Trend
Sterile Pass-Thrus	25	●
Sanitary Heat Exchangers	16	●
Custom AHUs (Small Indoor Units)	22	●
Custom AHUs (Large Outdoor Units)	26	●
DOAS AHUs (Dedicated Outdoor Air System)	30	●
Semi-Custom AHUs (Small Indoor Units)	22	●
Semi-Custom AHUs (Large Outdoor Units)	30	●
HDPE Piping <4"	4	●
HDPE Piping >4"	14	●
Insulated Metal Panels (IMP)	10	●
RO Skids	40	●
BloWaste Kill Skids	30	●
Waste Neutralization Skids, 100 GPM	26	●
Waste Neutralization Skids, < 25 GPM	20	●

Source: CRB

LOOKING FOR SOMETHING ELSE?

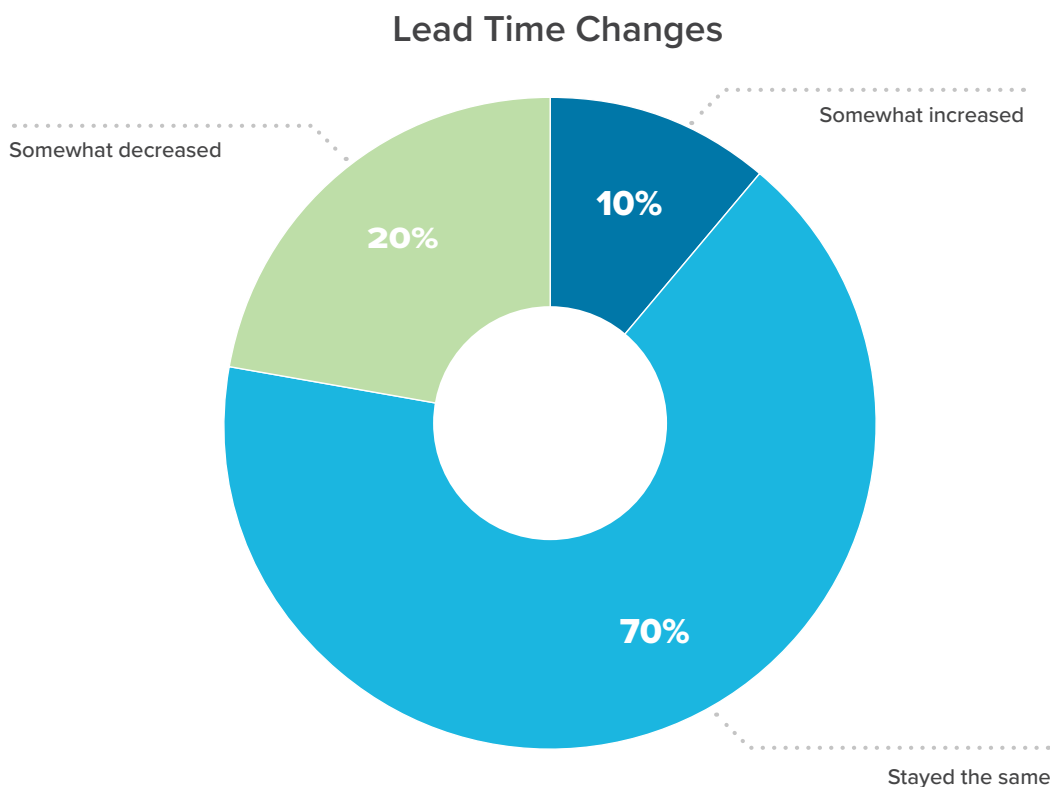
REQUEST LEAD TIME DETAILS



Most lead times remain the same, with 67% of partner companies reporting no changes from Q1 to Q2, indicating a steady supply chain. This overall stability, combined with improvements for some, is in line with what we have experienced on recent projects.

## FIGURE 2

*How would you describe the lead times for your products in the second quarter (Q2) as compared to the first quarter (Q1)?*



Source: CRB

Even with relatively stable lead times, most materials take much longer to procure than they did just a few years ago. If you're planning a major capital investment within the next few years, it's never too early to identify and start tracking long-lead items.

By planning early, alternative solutions come into play. Offsite fabrication, which involves manufacturing components offsite before transporting them, offers reduced time needed on-site. Warehouse storage, where materials and equipment are purchased and stored in advance, ensures immediate availability, though it requires planning for storage costs. Purchasing used equipment and materials can also provide immediate availability while promoting sustainability, but it's crucial to ensure they meet project standards.



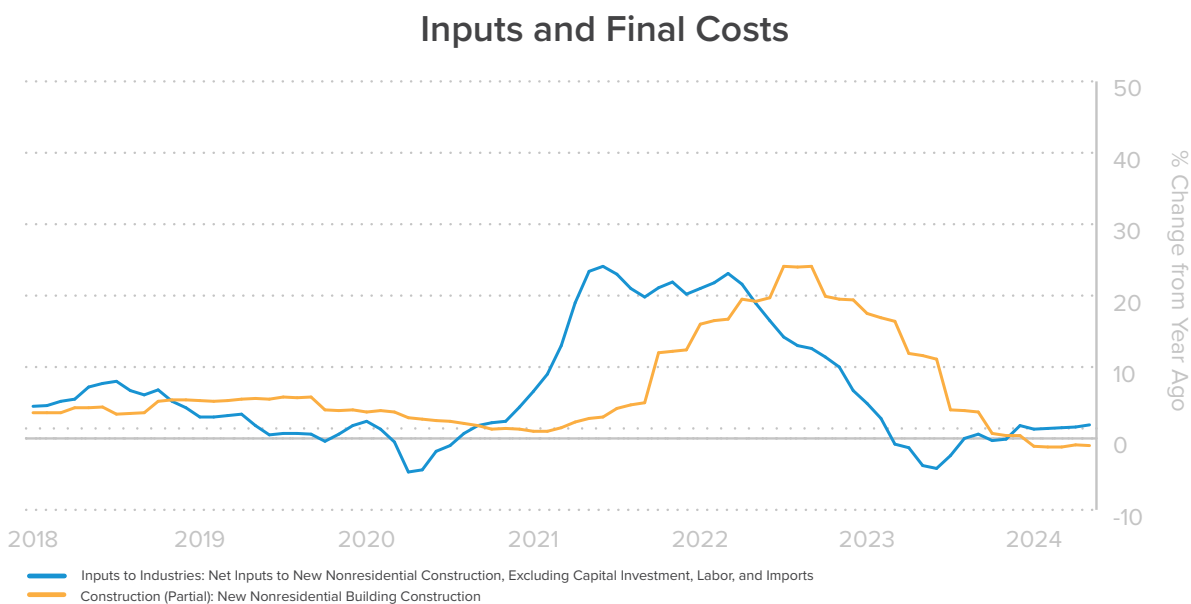


Producer price indexes (PPI) are a family of indexes that measure the average change over time in selling prices received by domestic producers of goods and services. The price information is provided to the U.S. Bureau of Labor Statistics by over 16,000 establishments, providing approximately 64,000 price quotations per month. CRB uses data from PPIs to measure price movement specific to the construction industry and the products we purchase for our projects.

Figure 3 illustrates two different types of indexes. The blue line is an input index that represents the most common composition of materials used in non-residential building construction projects. The yellow line is considered a selling-price index, or, in other words, an index that measures the change to final construction costs for consumers, inclusive of labor, material, overhead and profit costs. For this figure, each data point shows the percentage of change in the index value over the preceding twelve months.

**FIGURE 3**

*Construction inputs and bid price producer price indexes*



In May, construction input prices decreased for the first time since December. Nonresidential construction input prices fell by 0.8% but still remain higher than a year ago. Commonly used materials in non-residential construction are 1.9% higher than May 2023.





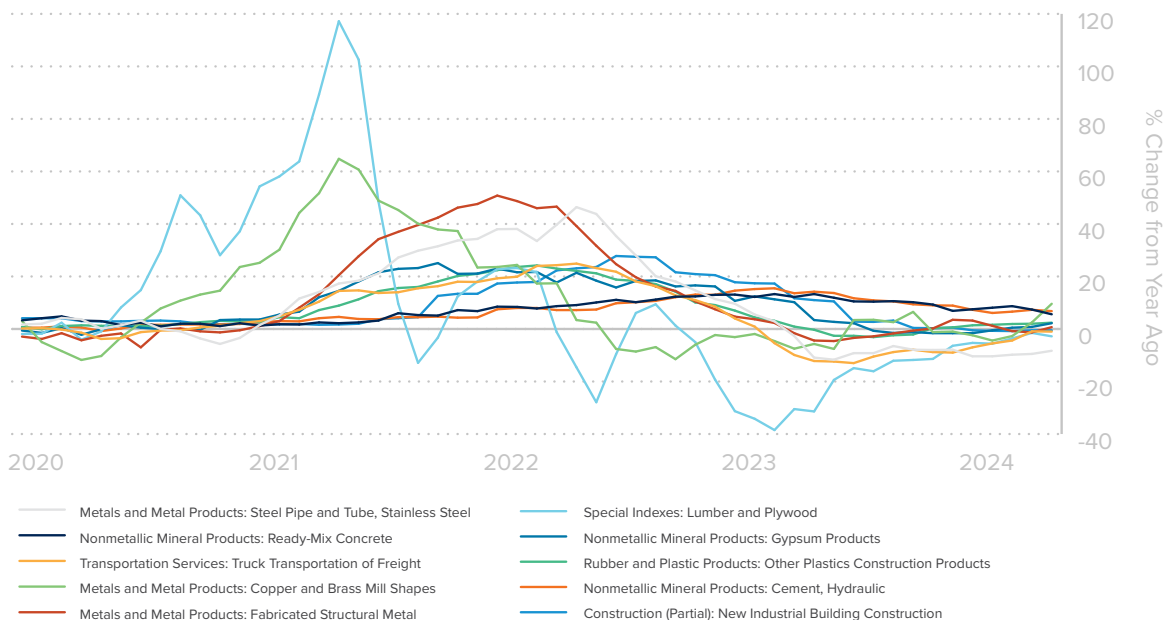
Figure 4 overlays individual input indexes for common materials with the selling price index for new industrial building construction, presented as a percentage of change over the last year.

Inputs remained relatively steady in the second quarter, with one obvious outlier. The PPI for copper is 9.6% higher than this time last year.

**FIGURE 4**

*Construction inputs and bid price producer price indexes*

### Detailed Inputs



Source: U.S. Bureau of Labor Statistics

Copper is a critical material in renewable energy generation which has seen a significant surge in demand recently. Even though it's unlikely that [copper supply](#) would ever be depleted, experts say the price could increase 75% to [record highs](#) by 2025.

### Key takeaway:

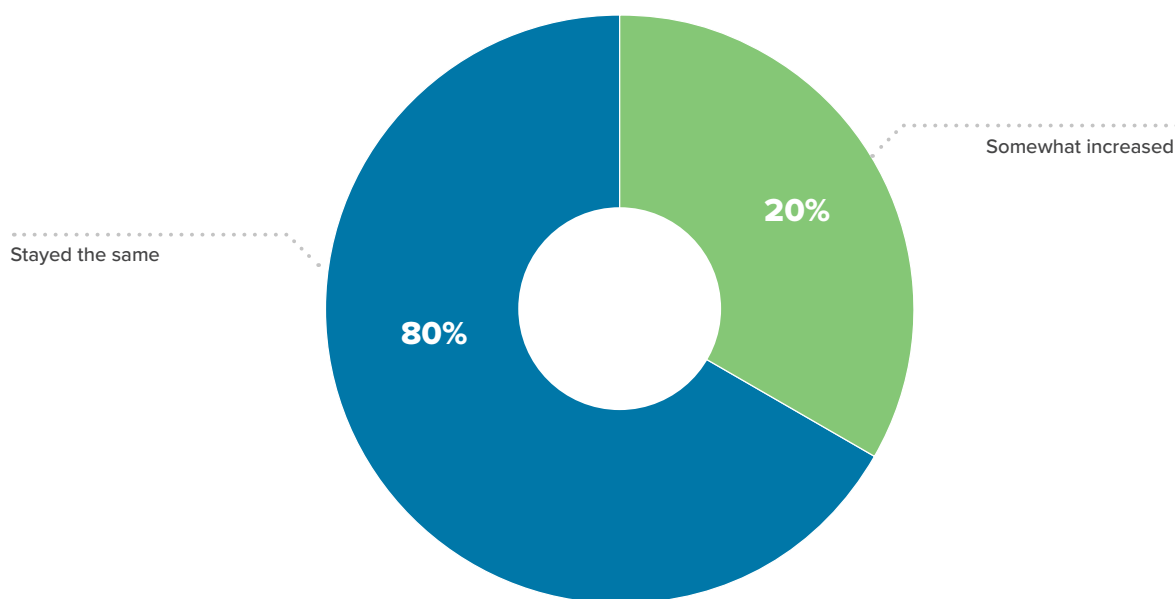
*Copper prices are rising and expected to continue the upward trajectory for years to come. This will translate into higher costs for copper-intensive building materials such as electrical wiring, plumbing and HVAC systems.*

Survey responses on material and equipment prices from our partners in Figure 5 are in line with the macro-level data of the producer price indexes in Figure 4. The majority of respondents saw no changes in their prices from Q1 to Q2. Some respondents reported that prices did increase, but only 20% which is an improvement from last quarter's 33%.

## FIGURE 5

*How would you describe the prices of your products in the second quarter (Q2), as compared to the first quarter (Q1)?*

### Price Changes



Source: CRB

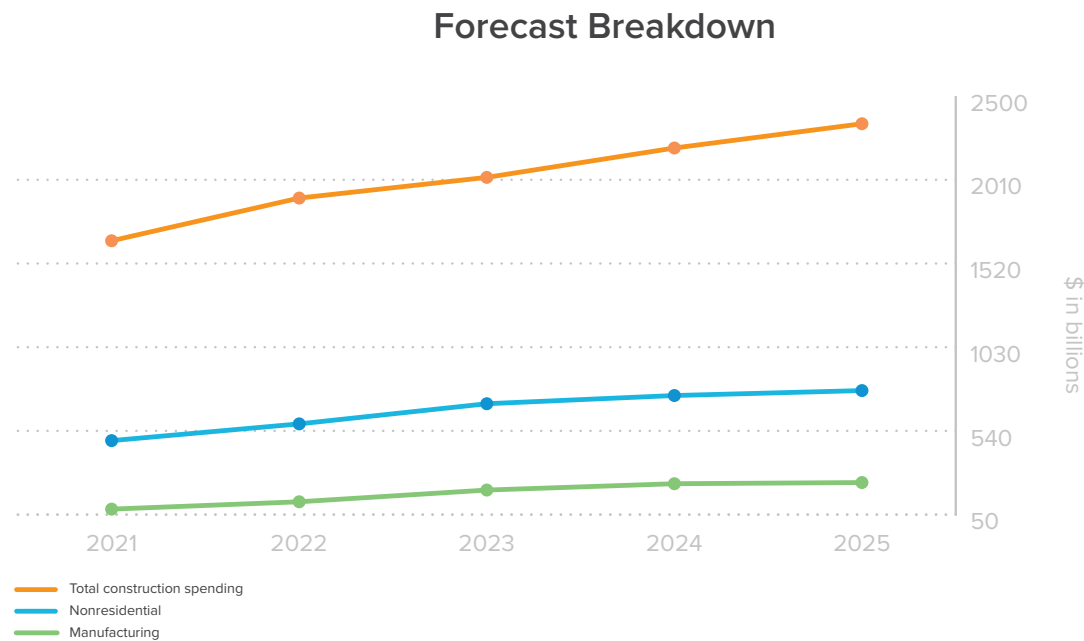
Some partners noted that they have concerns of an impending economic slowdown and that incoming requests for qualifications have slowed. This could be because many businesses are holding off on capital investments until [interest rates](#) decline, as expected later this year.

Chief economist at Dodge Construction Network expects growth of private construction in 2024. “High interest rates have weighed on the pattern of starts this year, but the stability in the Dodge Momentum Index, which tracks projects in the planning stage, provides optimism that once rates start to move lower a broader acceleration in starts will occur.”

Construction spending forecast from [Construction Analytics](#) indicates the same, now forecast at 8.5% higher than in 2023, after recent revisions to Census data.

**FIGURE 6**

*Total U.S. construction spending forecast (\$ in billions)*



In the Europe, however, a slight [decline is anticipated](#). Renovations and sustainability projects are steady, but applications for new permits have decreased significantly.

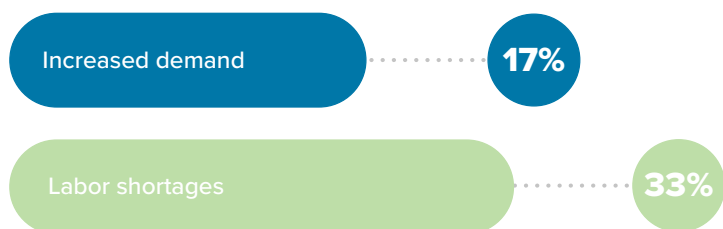


For the fourth straight quarter, our survey respondents have reported that labor shortages are their most common challenge. Increased demand is the second most common challenge for the fourth straight quarter as well.

## FIGURE 7

*What factors have contributed to any challenges or constraints in the second quarter (Q2)?*

### Current Market Challenges



Source: CRB

An interactive map, built by [BYE](#), shows that eight states top the demand for craft professionals. Texas, Florida, California, Ohio, Georgia, North Carolina, New York and Louisiana each show demand for more than 300,000 craft professionals through the end of 2026.

### Projects to know:

*Multiple projects over \$1 billion broke ground in the second quarter of 2024 including UC Davis Health Medical Center in Sacramento, CA, Amplify Cell Technologies in Byhalia, MS, Harris Health System in Houston, TX, Port Arthur LNG in Port Arthur, TX, Norfolk International Airport in Norfolk, VA, Dominion Energy in Virginia Beach, VA, Northvolt AB in Heide, Germany, and NeuConnect in Wilhelmshaven, Germany.*

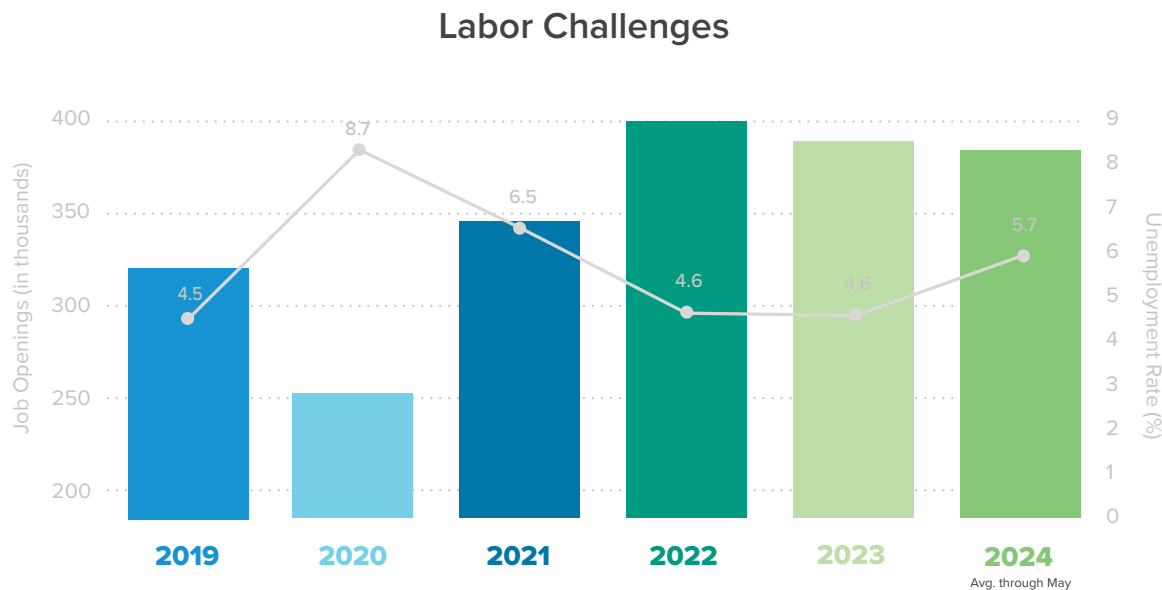


Figure 8 depicts the relationship between job openings and the unemployment rate in the construction industry from 2019 to 2024. The most obvious spike was in 2020, when the COVID-19 pandemic caused a major reduction in job openings and an increase in the unemployment rate but 2024 is also trending towards higher unemployment rate so far. The increase in the unemployment rate in 2024, despite a stable number of job openings, could indicate emerging challenges for the construction labor market.

While there could be several emerging challenges, one prominent issue is the skill gap. Overall, the available workers do not align with the job opportunities available.

**FIGURE 8**

*U.S. construction job openings (in thousands) and U.S. construction unemployment rate*



Source: U.S. Bureau of Labor Statistics

Another challenge the industry is experiencing is [productivity](#). Despite the increase in other sectors and the amount of technology available today, one construction worker produces less today than one construction worker in 1970.

To combat these challenges, it's important to implement lean construction practices. By focusing on lean principles, such as upfront planning; and lean practices, like [PPMOF](#); it's still possible to execute efficient projects, on schedule and budget.



**Greg Casper** is the Director of Estimating, leading a team of estimating professionals across CRB's global offices. Greg has over 15 years of experience providing preconstruction, procurement, estimating and scheduling services for life sciences and food + beverage projects.



**Valerie Silva** is the Director of Procurement and has more than 15 years of experience with global cost optimization, project management and supply chain issues. She leads a team of procurement experts to offer our clients end-to-end sourcing and managing of equipment and construction services for capital projects.



**Brad Goodman** is a Procurement Manager with more than 45 years of experience in equipment procurement, subcontractor management and contract negotiation. He works closely with CRB's key trade partners and suppliers to actively monitor market conditions.

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# Reference Data

Much of the economic information in this report is compiled from third-party resources that are available to the public and not owned by CRB. All references are included in the body of the report.





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