# Understanding the Trends of Construction Labor Earnings and Availability

Research Summary

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# Executive Summary

The North American construction industry has faced a recurring skilled labor shortage since the 1980s, but current conditions have pushed this shortage to its highest levels in decades. This challenge is compounded by the low mobility of the construction workforce, which intensifies regional shortages. As a result, addressing skilled labor shortages requires a county-level or metro-level approaches rather than national solutions, allowing for targeted strategies that reflect the unique labor dynamics and demands of individual areas.

The research goal is to avoid and mitigate labor-related challenges through proactive quantification of skilled labor shortages. The research approach is split into two modules. Module 1 focused on *quantifying* and *forecasting* skilled labor shortages in five metro areas: (1) **St. Louis MO-IL**, (2) **Austin TX**, (3) **Charlotte NC-SC**, (4) **Denver CO**, and (5) **Phoenix AZ**. Module 2 expands the research approach to be replicated in the individual counties of the five areas as well as other counties and metro areas in the form of a web-based platform (moccilabor.com). In each of the counties/metro areas, the research analyzed 11 labor trades, namely: (1) Concreting, (2) Ironworking, (3) Framing, (4) Masonry, (5) Glass Glazing, (6) Roofing, (7) Electrical, (8) Plumbing and HVAC, (9) Drywall, (10) Painting, and (11) Flooring.

A **Skilled Labor Shortage Index** is developed to gauge the severity of labor shortages in a metro area in any given quarter. Negative values of the developed **Skilled Labor Shortage Index** indicate the existence of a shortage, while positive values indicate improved labor market conditions. To put the index into the appropriate context, a national benchmark is calculated to compare the **Skilled Labor Shortage Index** for each trade in each metro area to the corresponding national average conditions. The developed index combines the trends of several national, state-level, and metro area level economic and labor market indicators. AI-based algorithm is then utilized to forecast the trade-specific **Skilled Labor Shortage Index** in each

investigated metro area as well as the national benchmark. To ensure that the results of this research are not static and can be frequently updated, the index is calculated using many variables that are publicly available, frequently published, and reliably maintained by institutions such as the US Bureau of Labor Statistics (BLS) and the US Census Bureau.

**If you are interested in more information about this research, you can contact Dr. Islam El-adaway by phone at 573-341-4030 and/or by e-mail at eladaway@mst.edu.**