

5-12-2022

Time to Expand?!: A Workforce Study of Construction Occupations in the Greater Cleveland Area, An Illustrated Executive Summary

Kathleen Bolter

W.E. Upjohn Institute for Employment Research, [Bolter@upjohn.org](mailto:bolter@upjohn.org)

Jim Robey

W.E. Upjohn Institute for Employment Research, jim.robey@upjohn.org

Gerrit Anderson

W.E. Upjohn Institute for Employment Research, anderson@upjohn.org

Follow this and additional works at: <https://research.upjohn.org/reports>



Part of the [Labor Economics Commons](#)

Citation

Bolter, Kathleen, Jim Robey, and Gerrit Anderson. 2021. "Time to Expand?!: A Workforce Study of Construction Occupations in the Greater Cleveland Area, An Illustrated Executive Summary." Report prepared for The Greater Cleveland Partnership; Construction Diversity & Inclusion Initiative. <https://research.upjohn.org/reports/276>

This title is brought to you by the Upjohn Institute. For more information, please contact repository@upjohn.org.



Time to Expand?!

A Workforce Study of Construction
Occupations in the Greater Cleveland Area

An Illustrated Executive Summary

October 2021

Prepared by

W.E. Upjohn Institute for Employment Research
300 South Westledge Avenue
Kalamazoo, MI 49007
269-343-5541

Prepared for

The Greater Cleveland Partnership
Construction Diversity & Inclusion Initiative

W.E. UPJOHN
INSTITUTE
FOR EMPLOYMENT RESEARCH



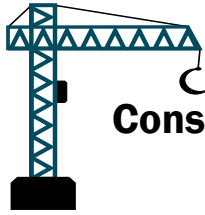
Greater
Cleveland
Partnership

ACKNOWLEDGMENTS

This report was made possible because of the generous philanthropic support of the Cleveland Foundation. Furthermore, the Upjohn Institute is pleased to have partnered with the Greater Cleveland Partnership (GCP) Construction Diversity & Inclusion initiative, specifically Vice President of Construction and Inclusive Talent Initiatives Christopher Nance, to provide an update to our 2014 research study, Demand Study for Construction Employees.

Contributing to the authorship of this report are Kathleen Bolter, Jim Robey, and Gerrit Anderson. Additional Upjohn Institute contributors are Michael Horrigan, Ben Jones, Erika Jones, Stefan Kassem, Tim Marvin, and Brian Pittelko.

We'd also like to offer our sincere appreciation for the insights of the various members of the GCP Construction Diversity & Inclusion Advisory Board, the Ohio Apprenticeship Council, the staff at Marcum LLP, and John Magill of the Ohio Board of Regents.



Time to **Expand?! A Workforce Study of Construction Occupations in the Greater Cleveland Area**

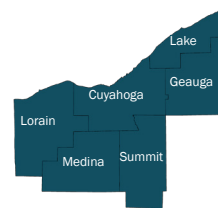
An Illustrated Executive Summary

DEMAND FOR CONSTRUCTION OCCUPATIONS

How we did it:

In the spring of 2021, we reached out to companies in the Greater Cleveland Area* to ask what their planned construction projects were for the next five years.

*Over 90% of the investment reported in the study is in Cuyahoga County.

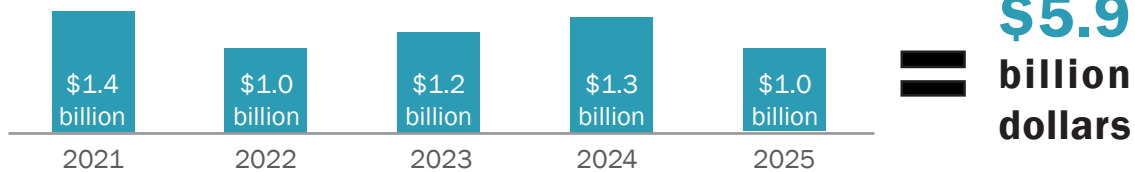


We asked about planned projects costing over \$1 million.

What we learned:

There are a **LOT** of construction projects planned. Based on our survey responses, there are **at least \$5.9 billion dollars** in planned capital investments expected over the next five years.

Total Reported Capital Investment in Greater Cleveland Area



Source: REMI and Upjohn Institute

This estimate only scratches the surface. A scan of projects not reported in our survey show billions of dollars in additional investments occurring. This means our estimates for demand are *very conservative*, and overall demand for construction workers in the area is probably much higher than what we have reported.

Over \$2.6 billion dollars in known investment is MISSING from these estimates.

Why this is important:

Based on the reported investments, we project a need for **9,066 construction workers on average over the next five years** to help complete only these projects.



Source: REMI & Upjohn Institute






This estimate should be considered THE MINIMUM number of workers needed in the next five years to meet demand.

DEMAND FOR CONSTRUCTION OCCUPATIONS (continued)

Why this is important (continued):

Many of the minimum estimated **9,066 construction workers** needed to complete the reported projects are those with high levels of training.

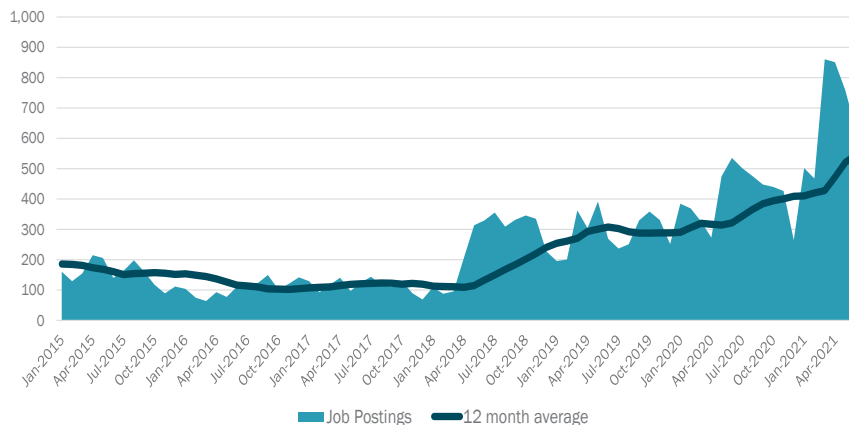
Top Construction Occupations Demanded to Meet Additional Investment

		Minimum Estimated Workers Needed Annually
1.	 Construction laborers	1,662 workers
2.	 Carpenters	1,206 workers
3.	 Electricians	1,051 workers
4.	 First-line supervisors of construction workers	930 workers
5.	 Plumbers, pipefitters, and steamfitters	761 workers

Source: REMI and Upjohn Institute

Based on job postings in the region, over the past three years, skilled construction workers are already in **HIGH DEMAND**. This demand is likely higher than we can estimate because these job postings *only represent only 75% of the demand in the region*. The other 25% of demand comes through existing union training programs, which do not necessarily advertise job postings online.

Total Job Postings – Construction Occupations in All Industries Greater Cleveland Area



Top Construction Occupations Demanded in Job Postings

1. Construction laborers
2. Painters
3. Electricians
4. Carpenters
5. Roofers
6. First-line supervisors of construction workers
7. Plumbers, pipefitters, and steamfitters
8. Cement masons and concrete finishers
9. Sheet metal workers
10. Equipment operators

Source: Burning Glass, 2021

The region is **PROJECTED TO KEEP GROWING**. To meet the demand for workers for construction projects, there needs to be an adequate supply of construction workers in the region willing and able to perform the jobs required.

THE SUPPLY OF CONSTRUCTION WORKERS

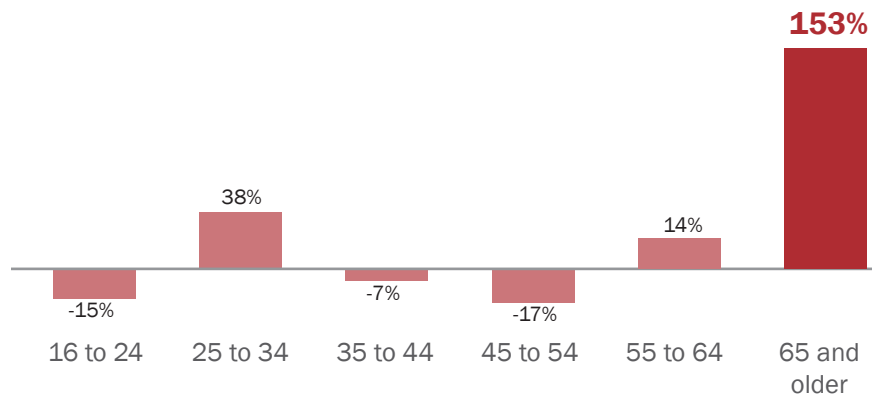
How we did it:

We used publicly available microdata from the U.S. Census Bureau's American Community Survey (ACS) to look at construction labor force in the Greater Cleveland Area.

What we learned:

The construction workforce has **CHANGED VERY LITTLE** in the past 10 years, with a few exceptions.

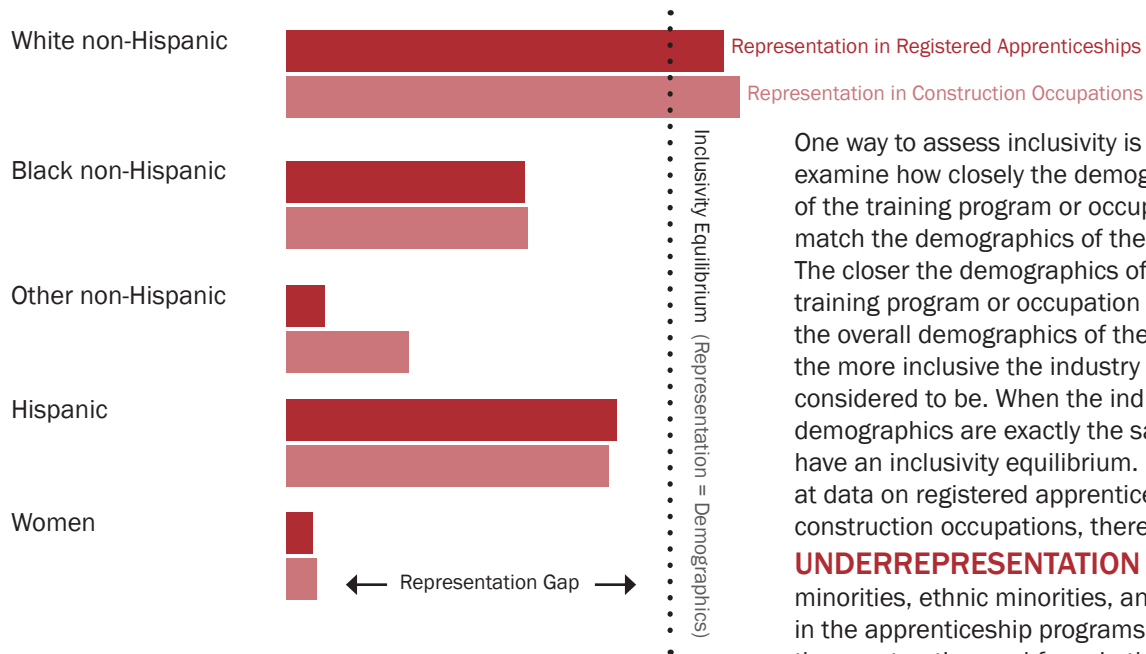
Percentage Change of Construction Workers by Age (2012 to 2019)



Since 2012, the number of construction workers age 65 and older have **INCREASED BY 153%**. The continued employment of this group is only going to last for a *limited time*, as members of this age group are past retirement age.

Source: IPUMS ACS (1-year estimates), 2019

Representation in Construction Occupations and Apprenticeships



One way to assess inclusivity is to examine how closely the demographics of the training program or occupation match the demographics of the region. The closer the demographics of the training program or occupation are to the overall demographics of the region, the more inclusive the industry is considered to be. When the industry and demographics are exactly the same, you have an inclusivity equilibrium. Looking at data on registered apprentices and construction occupations, there is **UNDERREPRESENTATION** of racial minorities, ethnic minorities, and women in the apprenticeship programs and in the construction workforce in the region.

Source: ACS 2019, 1-year estimates, Ohio State Apprenticeship Council, and Upjohn Institute

The Greater Cleveland Region is projected to become **MORE DIVERSE**. Finding ways to increase diversity, equity, and inclusion in apprenticeship programs and the construction occupations is important for building the pipeline of future workers.

THE SUPPLY OF CONSTRUCTION WORKERS

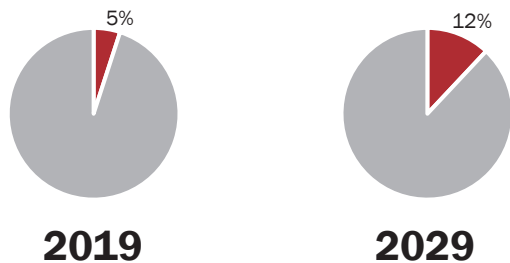
Why this is important: If changes are not made, the supply of construction workers in the region is going to shrink and older construction workers will stay in the workforce longer, leading to an unstable supply of workers.

Without intervention, over the next five years the supply of construction workers over 30 is projected to **DECLINE** by about 500 workers. Over the next 10 years, the supply is expected to **DECLINE** by about 4,000 workers.



Source: IPUMS ACS 2019, 1-year estimates and Upjohn Institute

While workers over 65 represented **less than 5 percent** of construction workers over 30 in 2019, by 2029 they are projected to make up **more than 12 percent** of construction workers over 30.

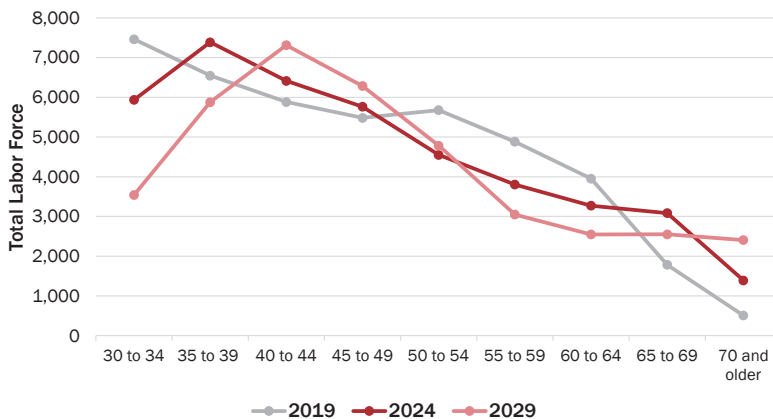


Top Construction Occupations with the Oldest Workers

1. Inspectors
2. Plasterers
3. Construction equipment operators
4. (tie) Electricians
4. (tie) First-line supervisors
4. (tie) Plumbers
4. (tie) Drywall installers

Source: IPUMS ACS 2019, 1-year estimates and Upjohn Institute

Projected Regional Construction Labor Force (2019 to 2029) Greater Cleveland Area



Source: IPUMS ACS 2019, 1-year estimates and Upjohn Institute

A ROBUST PIPELINE of new workers is needed to ensure **A FUTURE SUPPLY** of construction workers.













Part of building this pipeline means reaching out to individuals and communities who have historically not participated in construction occupations.

COMBINING THE PIPELINE WITH FUTURE DEMAND

How we did it: We combined our demand estimates with our supply projections to determine the alignment between future supply and demand.

What we learned: Current supply appears to meet current demand. However, there will **NOT** be an adequate supply of replacement workers in the **MIDTERM PERIOD** and the **LONGER RUN**.

Occupations at risk of potential worker shortages in the Greater Cleveland Area

		Additional Workers Needed to Meet Demand	Labor Shortage Risk Level
1.	 Construction Laborers	700 to 1,000 workers	Very High Risk
2.	 First-line supervisors of construction workers	300 to 700 workers	High Risk
3.	 Painters	300 to 700 workers	High Risk
4.	 Electricians	300 to 700 workers	High Risk
5.	 Plumbers, pipefitters, and steamfitters	100 to 300 workers	Medium Risk
6.	 Carpenters	100 to 300 workers	Medium Risk
7.	 Drywall and ceiling tile installers	100 to 300 workers	Medium Risk
8.	 Cement masons and concrete finishers	Fewer than 100 workers	Low Risk
9.	 Plasterers and stucco masons	Fewer than 100 workers	Low Risk
10.	 Carpet, floor, and tile installers and finishers	Fewer than 100 workers	Low Risk
11.	 Sheet metal workers	Fewer than 100 workers	Low Risk
12.	 Roofers	Fewer than 100 workers	Low Risk

Source: ACS 2019, 1-year estimates, Ohio State Apprenticeship Council, and Upjohn Institute

Technology adoption and other changes to production in the construction industry are **likely to increase the demand for skilled workers**. If training programs for the trades take between three and five years to complete, it is **NECESSARY** to begin to train workers **NOW** to meet demand for replacements in 2024.

HOW TO EXPAND THE PIPELINE

The underrepresentation of women, racial minorities, and ethnic minorities in apprenticeship programs and construction occupations is unfortunately **NOT UNIQUE** to the Greater Cleveland area. There are **several tools and best practices** that can be used to increase diversity, equity, and inclusion within apprenticeship programs and construction occupations thereby **expanding the pipeline of future workers**.



Partner with organizations that serve underrepresented populations.

To recruit a more diverse population to construction occupation jobs, it is important to specifically target outreach to women, racial minorities, and ethnic minorities. Partnering with organizations that work with these groups can be beneficial in engaging with these populations.



Make it easy to find out about apprenticeship programs and construction occupations. Utilizing a variety of technologies and outreach to educate people on the value of apprenticeship programs can be a useful way to spread information.



Support pre-apprenticeship programs. Pre-apprenticeship programs are a helpful strategy to both prepare and connect individuals to construction careers. One of the largest benefits of pre-apprenticeship programs is that they can help individuals overcome educational barriers, thus enabling people who would not otherwise qualify to become eligible for trade programs.



Find ways to address barriers to entering construction occupations.

Removing barriers (such as child care, transportation, and funding for training) to participating in construction occupations, and especially apprenticeship programs, can be particularly beneficial in building a more inclusive workforce.



Reconsider exclusionary hiring practices. The exclusion of individuals with a criminal record limits the total number of potential candidates employers have for filling positions in construction occupations.



Take steps to build equitable and inclusive workplaces. It is important for worksites to have policies to address and correct inequitable treatment if it occurs.

Key Findings of the Study

- Estimates for demand in this study are **VERY CONSERVATIVE** and show the **MINIMUM** demand for construction workers over the next five years.
- Skilled construction workers with higher levels of training are **VERY MUCH IN DEMAND**.
- The supply of construction workers is likely to be adequate for the time being. However, as workers in construction occupations retire, building up the pipeline of skilled workers will be **ESSENTIAL** for meeting future demand.
- To meet future demand for construction workers, planning, collaboration, and strategic resource development are needed from the various stakeholders in the region.