SECTOR SHEET JUNE 2023

# DEVELOPING THE CONSTRUCTION AND ARCHITECTURE WORKFORCE

## Career and technical education (CTE) supports America's construction and architecture needs by

preparing learners to enter this critical workforce, which contributes roughly 4% to U.S. GDP¹ and employs about 7.9 million people, with more than 700,000 additional workers needed each year to meet demand.²

CTE programs in construction and architecture develop students' technical, academic and employability skills through work-based and hands-on learning, ensuring that they are prepared to enter **high-wage**, **in-demand** careers in areas such as residential, commercial, institutional, heavy civil and industrial construction.

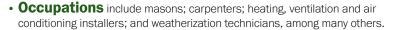
This infographic describes a small sample of the career opportunities available in the construction and architecture sector.



#### RESIDENTIAL AND COMMERCIAL

#### CONSTRUCTION

- Residential construction employs 3.2 million construction workers nationwide.<sup>3</sup>
- Median wages in the construction trades range from about \$48,500 to more than \$98,000 annually.<sup>4</sup>



 Apprenticeship credentials, industry certifications, postsecondary certificates and degrees can help individuals build fulfilling careers and move into construction management positions.

## INFRASTRUCTURE CONSTRUCTION

- Electricians, plumbers, pipefitters and steamfitters are among the construction occupations that create and maintain the physical structures that society relies on.
- There were about 2.4 million
  employees in infrastructure construction in 2021, with many more
  needed due to increased state and federal investments.<sup>5</sup>
- Jobs in infrastructure construction pay more than the national median wage, up to \$91,000 per year.<sup>6</sup>
- Individuals can start and grow their infrastructure construction careers through industry certifications, apprenticeship credentials, postsecondary certificates and degrees.

## ARCHITECTURE AND ENGINEERING

- **Occupations** that use design and engineering skills for the built environment include architects, landscape architects, civil and construction engineers, and drafters.

- The median salary for the architecture workforce is about \$80,000.7
- Jobs for civil engineers are projected to grow by 7% through 2031.8
- Postsecondary and advanced degrees are needed for many, although not all, occupations in architecture and engineering.











## **NORE JOBS**IN CONSTRUCTION AND ARCHITECTURE

In addition to the previously mentioned careers in construction and architecture, CTE prepares youth and adults for these further occupations:

- Civil engineering technician
- Building inspector
- Cost estimator
- Property appraiser
- Solar installer
- Construction manager
- Surveying technician
- Ironworker

- Architectural photographer
- Environmental engineering technician

At the Kansas City Construction Career Academy, students can concurrently earn a high school diploma and an Associate of Applied Sciences degree in Building Maintenance and Construction through Metropolitan Community College at no additional cost. Program completers are eligible for a paid apprenticeship with one of the program's partner contractors.

## HOW CTE PREPARES THE CONSTRUCTION AND ARCHITECTURE WORKFORCE

CTE programs of study and career pathways prepare secondary, postsecondary and adult learners for the construction and architecture workforce in many ways:

- **Courses** in construction estimating, framing carpentry, masonry, building repair and maintenance, residential wiring, plumbing and more that span secondary and postsecondary education.
- Opportunities to earn **postsecondary certificates and degrees** in construction management; heating, ventilation, air conditioning and refrigeration maintenance; drafting and design engineering technology; surveying technology; civil engineering; and more.
- Opportunities to earn **industry credentials** from the Home Builders Institute (HBI), the National Center for Construction Education and Research and the United Brotherhood of Carpenters, among others.
- Work-based learning experiences like job shadowing, internships and apprenticeships.
- Competitive events, service learning and leadership development through career and technical student organizations such as SkillsUSA and the Technology Student Association.
- Activities that build technical, academic and employability skills such as teamwork, communication and problem solving.

#### Learn More

This Sector Sheet highlights just a few occupations within the construction and architecture workforce. To learn more, please visit the U.S. Department of Labor at www.CareerOneStop.org/ExploreCareers and MyNextMove.org.





#### **Citations**

- <sup>1</sup>Federal Reserve Bank of St. Louis. (October 2022). Value added by industry: Construction as a percentage of GDP. Retrieved from https://fred.stlouisfed.org/series/VAPGDPC
- <sup>2</sup> Home Builders Institute. (Spring 2023). *The Home Builders Institute (HBI) construction labor market report*. Retrieved from https://hbi.org/wp-content/uploads/2023/06/Spring-2023-construction-labor-market-report\_final-PDF.pdf
- 3 Ihid
- <sup>4</sup> Ibid.
- <sup>5</sup> Kane, J. W. (December 2022). Seizing the U.S. infrastructure opportunity: Investing in current and future workers. Brookings Institution. Retrieved from https://www.brookings.edu/wp-content/uploads/2022/12/InfraJobsUpdate\_final.pdf
- <sup>6</sup>Tate, P. (2022). The employment outlook for occupations tasked with building America's infrastructure. U.S. Bureau of Labor Statistics. Retrieved from https://www.bls.gov/opub/btn/volume-7/the-employment-outlook-for-occupations-tasked-with-building-americas-infrastructure.htm
- <sup>7</sup>U.S. Bureau of Labor Statistics. (2022). *Occupational outlook handbook: Architects*. Retrieved from https://www.bls.gov/ooh/architecture-and-engineering/architects.htm
- <sup>8</sup>U.S. Bureau of Labor Statistics. (2022). Occupational outlook handbook: Civil engineers. Retrieved from https://www.bls.gov/ooh/architecture-and-engineering/civil-engineers.htm