

Jobs that
pay high
wages

Careers with
benefits and
opportunities for
advancement

BUILD YOUR FUTURE: Ohio's Construction Industry

A practical guide for students and their families

Ohio

Pathways that
require little
educational
debt



The construction industry in Ohio offers many great jobs that pay well, are fulfilling, and provide terrific benefits.

UNITED STATES
790,440
 construction jobs added by 2024¹

OHIO
>195,000
 construction jobs currently²

OHIO
\$54,000
 average income/year³

Opportunities abound!

➔ The purpose of this workbook is to provide a helpful overview of the types of jobs and associated educational pathways available, with links to specific resources for further exploration of the best options for you.

These educational pathways are affordable and accessible through high school programs, registered apprenticeships, employer-based training, and certificates and associate's degrees from many of the 23 community and technical colleges in Ohio. This workbook references specific jobs and highlights the success stories of students like you.

The National Alliance for Partnerships in Equity (NAPE), which produced this workbook through funding from the Ohio Department of Education Office of Career-Technical Education, is dedicated to ensuring that every student has full access to high-skill, high-wage, and high-demand career pathways and jobs.

Explore It!

OHIO'S CONSTRUCTION INDUSTRY

Construction is a diverse industry, both in the people who work in it and the jobs they do. Construction projects require people with various interests and skills, so there are many opportunities to find your future in construction. **Construction jobs have a great return on investment** with competitive pay, terrific health benefits, postsecondary opportunities, and plenty of potential for advancement.

A career in construction can lead to a future where you can enjoy creative, challenging work on a steady basis with established companies. You may have opportunities to travel, lead teams, and manage projects. Some people even decide to start their own businesses. Many skilled workers are retiring, so **the construction industry is ready to invest in the next generation of workers.**

What kinds of students might find a future in construction?



STUDENTS WHO ENJOY working outside



STUDENTS WHO ENJOY working on a computer



STUDENTS WHO ENJOY drawing and designing



STUDENTS WHO WANT TO BEGIN careers after high school



STUDENTS WHO WANT TO GO TO college after high school



STUDENTS WHO ENJOY physical work

➔ Meet Monica.

Monica Betts attended a two-year electrical program at C-TEC of Licking County while in high school. In her senior year she secured a registered apprenticeship that led to full-time employment after she graduated.

"I am in an industry, a local (union), and with a contractor that want[s] me personally to succeed to my full potential. I am currently entering my third year of apprenticeship classes, and am immensely grateful to the institutions in place that have allowed me to pursue being a journeyman. I am earning an associate's [degree] through Columbus State Community College simultaneously, and at no expense to me.

Once I finish my apprenticeship, I also intend to continue my education, using our local (union)'s generous education fund to pursue a bachelor's in project management, and eventually, earn a degree in electrical engineering."

Monica



OHIO
+ 42,000
construction jobs by 2020⁴

UNITED STATES
\$25/hour
average non-supervisor wage⁵

UNITED STATES
Ohio #2
for registered apprenticeships⁶

Plan It!

Ohio needs skilled workers, and the jobs below are in demand. Information is available at OhioMeansJobs (ohiomeansjobs.com) and BuildOhio.org and by searching "construction" at the Ohio Department of Education's website (education.ohio.gov/).

	Average Annual Job Openings	Median Annual Wage	Average Starting Wage	Education and Training
Carpenters	869	\$42,420	\$28,760	HS Diploma* and Apprenticeship
Construction Managers	523	\$78,480	\$49,680	Associate's or Bachelor's Degrees
Heavy Equipment Operators	456	\$44,510	\$32,560	HS Diploma and On-the-job Training
Plumbers and Pipefitters	409	\$48,990	\$31,900	HS Diploma and Apprenticeship
Construction Laborers	1242	\$36,520	Varies	HS Diploma and On-the-job Training
Electricians	746	\$49,660	\$33,470	HS Diploma and Apprenticeship

Source: OhioMeansJobs (ohiomeansjobs.com)

*High School (HS) Diploma or HS equivalency

➔ Meet Bradley.

Bradley Shields is a student in the Construction Technologies program at Delaware Area Career Center. An honor roll student and baseball player, Bradley decided to take advantage of a career and technical program to jumpstart his career. While building a house in class, he learned not only carpentry but also general plumbing and electrical skills. While still in high school, he also earned his skid-steer loader (e.g., Bobcat®) license and certification on hand and power tool safety, and received training on the Hilti gun and forklift.

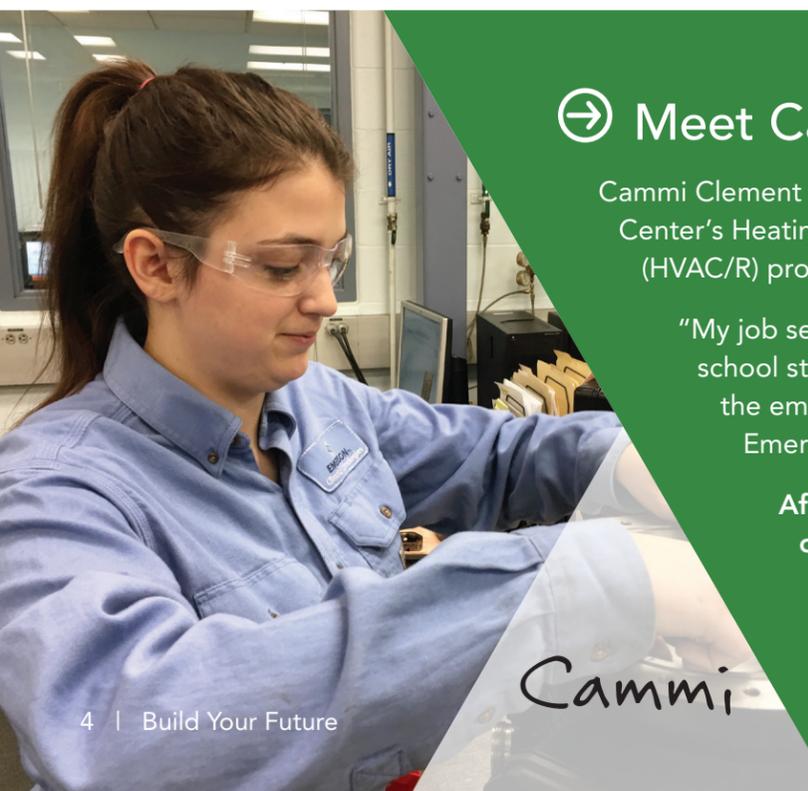
Bradley secured a job as a framer at a local construction company and plans to attend Hocking College where he can test out of courses based on what he has already learned in Construction Technologies. He expects to continue his education and earn his construction management degree in the next five years, so that he can run his own crew or own his own framing company.

Bradley



Find It!

Enrolling in two-year career and technical programs during high school not only equips you with the academic and industry skills you need to be prepared, but also helps you earn industry credentials and college credit. Ohio even offers middle school programs to introduce students to industry pathways. For more information, talk with your school counselor or a recruiter from your local career center.



➔ Meet Cammi.

Cammi Clement graduated from the Upper Valley Career Center's Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) program.

"My job search was a bit different than a lot of other high school students'. I didn't have to do a lot of searching. In fact, the employers came to me. I was offered a job shadow for Emerson Climate Technologies based in Sidney, Ohio.

After almost a year of working at Emerson, I was offered a full-time position as a buildup technician. They also offered to reimburse me for my college tuition. I can't even begin to explain the amount of weight that's been lifted off my shoulders."

Cammi

Career and technical education programs prepare students with the essential skills they need to be successful in construction.

- ▶ **Continuous Learning**
Improving your skills and knowledge
- ▶ **Decision Making**
Making a choice among options
- ▶ **Document Use**
Reading and interpreting documents to extract information
- ▶ **Job Task Planning and Organizing**
Working independently to plan and organize daily tasks
- ▶ **Numeracy**
Working with numbers to perform calculations
- ▶ **Oral Communication**
Conveying or exchanging information verbally
- ▶ **Problem Solving**
Coming up with solutions to challenges
- ▶ **Reading Text**
Reading documents of varying complexity
- ▶ **Significant Use of Memory**
Performing tasks that call upon greater memory use
- ▶ **Thinking Skills**
Making decisions, solving problems, planning and organizing tasks
- ▶ **Working with Others**
Interacting to get the job done
- ▶ **Writing**
Conveying ideas by writing text

Source: <http://www.careersinconstruction.ca/en/careers/essential-skills>

Pathways

Just as there are many different jobs for people with diverse interests and talents, there are many different pathways to prepare for a career in construction. No matter where you are in your education, it is never too late to get started.

The graphic below shows pathways available to jobs in the construction industry. You will notice large ranges in salaries, which exist because there are many opportunities for specialization and additional training and credentials. Construction jobs enable continual learning and advancement in the industry.

Middle School Career and Technical Programs

Many middle schools are now offering career and technical education (CTE) programs. Look for Structural Systems; Mechanical, Electrical and Plumbing; Construction Design and Management; and Project Lead the Way.

High School Career and Technical Programs

Career Centers or Joint Vocational Centers (JVS) offer programs for high school students in which they earn college credit, industry credentials, and/or secure registered apprenticeships to prepare for a career in the construction industry.

Multiple Postsecondary Options

Registered apprenticeships for skilled trades (3-5 years)

CTE programs at community colleges (1-3 years)

College/university bachelor's degrees (4-5 years)

Skilled trade jobs (apprenticeship and journeyman)

Salaries from \$29,000-\$88,000. These jobs are in high demand in Ohio.

Ohio's 23 community and technical colleges offer two-year programs, in which you can earn associate's degrees and key credentials to prepare for jobs such as construction drafting, inspection, or management. You can also become certified in skilled trades, such as HVAC or electrical. Other jobs, such as architecture or civil engineering, may require a four-year degree.

Design and engineering jobs (2-4 years) offer salaries from \$40,000-\$128,000 and faster tracks to upper management.

Management and Administrative jobs (2-5 years) offer salaries from \$30,000- \$180,000 with a large variety of possible careers.

Apprenticeships

Ohio boasts the second largest registered apprenticeship system in the United States⁷ with 20,000 young Ohioans learning on-the-job training under the watchful eye of a master craftsworker, and getting classroom-related technical education in which the theory behind the practice is learned.

Apprentices in registered programs are paid while they learn necessary skills, and they enjoy benefits such as healthcare and retirement plans. These apprentices typically make 75-80 percent of a journeyman's income, and they receive raises as they develop additional skills. In the evenings, they attend classes at training or career centers or community colleges. Several programs offer college credit for the coursework or even certificates or degrees for apprenticeship completers.⁸ For more information on Ohio Registered Apprenticeships visit <http://jfs.ohio.gov/apprenticeship/index.stm>

Where do I start?



OhioMeansJobs.com

Get started planning your future with a guided tour and online backpack. This backpack will hold the results of a career interest survey, all career information you search and save, and a cost of living budget. You can learn about career fairs, create a resume, and read interviewing tips. You can also find crucial information about funding your training and education, including registered apprenticeships and paths to your dream job.



Education.ohio.gov

Ohio Department of Education keyword search "construction" provides useful information about the middle and high school courses available to get started on a pathway to a construction career.



BuildOhio.org

Build Ohio also has useful information for students and their families about careers in construction. You can learn about the locations of technical centers and apprenticeship opportunities. You can explore two- and four-year programs and learn about scholarships to help fund your education. Watch videos with your family to learn more about people like you working in Ohio's construction industry.



Search "construction" to learn more about the labor market, employers, and Ohio's construction career pathways. These pathways were developed around in-demand occupations, and they provide multiple starting points for high school graduates or people with high school equivalency.



Construction jobs in Ohio hold great promise for all Ohioans!

Start now! Explore the many opportunities available through middle and high school programs and pathways, as well as postsecondary training, including registered apprenticeships, on-the-job training, certificates, and associate's degrees.

This workbook is designed to be a useful tool for students and their families to explore resources and opportunities available in Ohio. Remember to ask your school counselors and teachers about these and other career pathways available to you. We wish you the very best in your future educational and career pursuits, and we look forward to seeing you in the construction industry in Ohio!





N A P E
National Alliance for
Partnerships in Equity
Education Foundation

Ohio

The nation's leading
professional alliance
for **access, equity,**
and **diversity** in
education, training,
and careers

 www.napequity.org  [NAPEquity](https://www.facebook.com/NAPEquity)  [@NAPEquity](https://twitter.com/NAPEquity)  [NAPEquityTV](https://www.youtube.com/NAPEquityTV)

 Special thanks to Meagan Pollock, PhD, NAPE Director of Professional Development, Molly Wassmuth and the students of Westerville North High School, the Ohio Construction Advisory Council, and the Ohio State Apprenticeship Council members who supported the development of this workbook and provided valuable insight and information.

- | | |
|---|--|
| AEP (High Power Lines) | IBEW |
| Affiliated Construction Trades of Ohio (ACT) | Kelchner Construction |
| Allied Construction Industries (AGC) | Laborers' District Council of Ohio |
| Ashland County West-Holmes Career Center | Messer Construction |
| Association of Builders & Contractors (ABC) | National Association of Women in Construction |
| Cleveland Construction, Inc. | Ohio Carpenters Apprenticeship and Training |
| Columbus City Schools | Ohio Contractors Association (OCA)
Division of Opportunity, Diversity and Inclusion |
| Construction Employers Association (CEA) | Ohio Department of Education |
| Corna Kokosing Construction Company | Ohio Department of Transportation |
| Eastland Career Center | Ohio Masonry Association |
| George J. Igel & Co., Inc. | Pioneer Pipe, Inc. |
| Governor's Office of Workforce Transformation | Plumbers & Pipefitters Local 189 |
| Great Oaks Career Centers | |

© 2016 NAPEEF Developed by Lisa Riegel, PhD and Ben Williams, PhD.
This workbook was made possible through funding from the Ohio Department of Education, Office of Career-Technical Education.

¹ Bureau of Labor Statistics, U.S. Department of Labor. (2015). Employment projections—2014-24 [Press Release]. Retrieved from <http://www.bls.gov/news.release/pdf/ecopro.pdf>

^{2,3} Begin building your career. (2016). Retrieved from <http://www.buildohio.org>

⁴ Ohio Department of Jobs and Family Services. (2012). 2022 Ohio Job Outlook: Employment projections. p. 13. Retrieved from http://ohiolmi.com/proj/Projections/Ohio_Job_Outlook_2012-2022.pdf

⁵ Average hourly and weekly earning of production and nonsupervisory employees. (2016). Retrieved from <http://www.bls.gov/news.release/empsit.t24.htm>

^{6,7} U.S. Department of Labor (10/1/15-6/30/16). Office of Apprenticeship Performance Score Card Report Fiscal Year: 2016 (as of Quarter 3).

⁸ Information provided by Steve Lipster, Director of The Electrical Trades Center, Columbus, Ohio, May 25, 2016.