



# CONSTRUCTION

The construction industry is key to the economy of the Mid-Ohio Valley, employing more than 4,500 workers at an average earnings level of around \$50,000 per year.

Construction jobs are cyclical — there are times when construction workers work 1,000 hours a year (of 2,080) and times when they work 2,500+ hours per year. Income depends on availability of work, weather, and willingness to work out of town. If you're looking for a "routine" nine-to-five job and a "regular" paycheck, construction occupations may not be for you.

## Construction occupations at-a-glance

ALL construction occupations require a high school diploma/equivalent; some require experience or on-the-job training (OJT) such as an apprenticeship programs. Some trades, such as electricians, plumbers/pipefitters and crane operators require a license.

Apprenticeship programs are available for many construction occupations. For information about training see **STEP 4**.



*Construction work is physically demanding and is done outdoors in all weather conditions.*

## In demand

- **MATH SKILLS**
- **COMPUTER SKILLS:** Microsoft Office, Microsoft Excel
- **COMMUNICATION SKILLS:** writing, preparing reports
- **ORGANIZATION SKILLS:** project management, planning
- **LEADERSHIP**

## Skills needed in all construction occupations

KNOWLEDGE	SKILLS	ABILITIES
Building & Construction	Active Listening	Near Vision
Mechanical	Critical Thinking	Problem Sensitivity
Administration & Management	Coordination	Oral Comprehension
Mathematics	Speaking	Multi-limb Coordination
Customer & Personal Service	Reading Comprehension	Manual Dexterity

# Construction occupations

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*Safety awareness is a priority with employers.*

FOR ADDITIONAL INFORMATION ON THESE OCCUPATIONS, VISIT

-  [onetonline.org/](http://onetonline.org/)
-  [wvapprenticeships.com/](http://wvapprenticeships.com/)
-  [jfs.ohio.gov/apprenticeship/index.stm](http://jfs.ohio.gov/apprenticeship/index.stm)



## Asbestos/Hazardous Materials Removal Workers

Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks. **SOC Code: 47-4041**



High school diploma or equivalent



\$13.84 – \$17.24 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Chemistry	Critical Thinking	Problem Sensitivity
Mechanical	Monitoring	Control Precision
Education & Training	Operation & Control	Deductive Reasoning
English Language	Active Listening	Multi-limb Coordination
Public Safety & Security	Coordination	Oral Comprehension

**NOTICE**

**THIS IS A  
DRUG-FREE  
WORKPLACE**

*Expect random drug testing and background checks..*

## Boilermakers

Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats by following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines. **SOC Code: 47-2011**



High school diploma or equivalent



\$19.25 – \$27.33 per hour


### TOP COMPETENCIES NEEDED


KNOWLEDGE	SKILLS	ABILITIES
Mechanical	Operation Monitoring	Problem Sensitivity
Building Construction	Critical Thinking	Arm-Hand Steadiness
Customer & Personal Service	Operations & Control	Control Precision
Engineering & Technology	Quality Control Analysis	Manual Dexterity
Mathematics	Active Listening	Near Vision

## Brickmasons, Blockmasons, Stonemasons

Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures. Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.

**SOC Codes: 47-2021 and 47-2022**

 High school diploma or equivalent

 \$12.90 – \$17.35 per hour



*Construction workers are required to wear safety gear while on the job.*


### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building & Construction	Critical Thinking	Manual Dexterity
Mathematics	Monitoring	Static Strength
Mechanical	Coordination	Trunk Strength
Customer & Personal Service	Quality Control Analysis	Arm-Hand Steadiness
Administration/Management	Time Management	Dynamic Strength

## Carpenters

Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways. Construct, erect, install, and repair structures and fixtures of wood, plywood, and wallboard, using carpenter’s hand tools and power tools. Build rough wooden structures, such as concrete forms, scaffolds, tunnel, bridge, or sewer supports, billboard signs, and temporary frame shelters, according to sketches, blueprints, or oral instructions. **SOC Codes: 47-2031**

 High school diploma or equivalent

 \$12.71 – \$18.99 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Active Listening	Manual Dexterity
Mathematics	Coordination	Problem Sensitivity
Mechanical	Monitoring	Visualization
English Comprehension	Critical Thinking	Arm-Hand Steadiness
Design	Judgment/Decision Making	Oral Comprehension



## Cement Masons, Concrete Finishers, Plasterers, and Stucco Masons

Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster. Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints. **SOC Codes: 47-2051 and 47-2161**



High school diploma or equivalent



\$10.60 – \$21.25 per hour



*Construction work is physically demanding and is done outdoors in all weather conditions.*

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building & Construction	Monitoring	Arm-Hand Steadiness
Administration & Management	Active Listening	Manual Dexterity
Mathematics	Coordination	Near Vision
Design	Critical Thinking	Trunk Strength
Customer & Personal Service	Judgment/Decision Making	Multi-limb Coordination

## Construction Laborers

Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris and other waste materials. May assist other craft workers. **SOC Code: 47-2061**



High school diploma or equivalent



\$9.57 – \$16.28 per hour


### TOP COMPETENCIES NEEDED


KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Active Listening	Manual Dexterity
Mechanical	Coordination	Arm-Hand Steadiness
Administration/Management	Operation Monitoring	Multi-limb Coordination
Public Safety & Security	Reading Comprehension	Static Strength
Mathematics	Social Perceptiveness	Control Precision



## Electricians

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. **SOC Code: 47-2111**

 High school diploma or equivalent


 \$15.74 – \$26.15 per hour


### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Troubleshooting	Problem Sensitivity
Mechanical	Repairing	Deductive Reasoning
Mathematics	Active Listening	Inductive Reasoning
Design	Critical Thinking	Near Vision
English Language	Judgment/Decision Making	Oral Comprehension

## Glaziers (Glass Workers)

Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops. **SOC Code: 47-2121**

 High school diploma or equivalent

 \$12.31 – \$18.65 per hour


### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Coordination	Arm-Hand Steadiness
Mathematics	Critical Thinking	Near Vision
Customer & Personal Service	Operation & Control	Manual Dexterity
	Reading Comprehension	Finger Dexterity
		Information Ordering

## Heating, Ventilation, Air Conditioning

Install, service, or repair heating and air conditioning systems in residences or commercial establishments. **SOC Code: 49-9021**

 Associate Degree

 \$10.97 – \$16.64 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Mechanical	Equipment Maintenance	Problem Sensitivity
Customer & Personal Service	Installation	Deductive Reasoning
Building Construction	Quality Control	Finger Dexterity
Design	Troubleshooting	Near Vision
Physics	Repairing	Arm-Hand Steadiness



## Industrial Equipment Operators

Transports, performs set-ups, inspects, operates, maintains and repairs high pressure water-blasting equipment and industrial vacuuming equipment to perform proper removal, containment, transporting, and disposal of both hazardous and non-hazardous materials for the purpose of cleaning. Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses. **SOC Code: 53-7061**



High school diploma or equivalent



\$10.01 – \$15.01 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Customer & Personal Service	Operation & Control Quality Control Analysis	Near Vision Multi-limb Coordination Manual Dexterity Problem Sensitivity

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## Iron Workers

Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. **SOC Code: 47-2221**



High school diploma or equivalent



\$16.17 – \$25.45 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Operation & Control	Arm-Hand Steadiness
Production & Processing	Operation Monitoring	Multi-limb Coordination
Mechanical	Coordination	Static Strength
Design	Critical Thinking	Manual Dexterity
English Language	Judgment/Decision Making	Control Precision

## Millwrights

Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. **SOC Code: 49-9044**



High school diploma or equivalent



\$12.92 – \$22.79 per hour

### TOP COMPETENCIES NEEDED


KNOWLEDGE	SKILLS	ABILITIES
Mechanical	Installation	Arm-Hand Steadiness
Mathematics	Equipment Maintenance	Finger Dexterity
Building Construction	Operation Monitoring	Control Precision
English Language	Critical Thinking	Manual Dexterity
Engineering & Technology	Repairing	Multi-limb Coordination




## Operating Engineers/Heavy Equipment Operator

Operate one or several types of power construction equipment, including motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. **SOC Code: 47-2073**



 High school diploma or equivalent

 \$14.25 – \$23.48 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Operation & Control	Control Precision
Mechanical	Operation Monitoring	Depth Perception
	Monitoring	Multi-limb Coordination
	Coordination	Near Vision
	Equipment Maintenance	Far Vision







## Painters

Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. **SOC Code: 47-2141**



High school diploma or equivalent



\$10.71 – \$18.99 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Public Safety & Security	Active Listening	Arm-Hand Steadiness
Administration & Management	Critical Thinking	Trunk Strength
English Language	Social Perceptiveness	Extent Flexibility
Customer & Personal Service	Time Management	Gross Body Equilibrium
Building Construction		Near Vision

## Plumbers and Pipefitters

Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters. Lay out, assemble, install, or maintain pipe systems, pipe supports, or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems. **SOC Code: 47-2152**



Associate Degree




\$12.92 – \$22.71 per hour


### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Mechanical	Critical Thinking	Arm-Hand Steadiness
Building Construction	Active Listening	Control Precision
Design	Judgment & Decision Making	Problem Sensitivity
Mathematics	Complex Problem Solving	Deductive Reasoning
English Language	Operation Monitoring	Multi-limb Coordination

## Roofers

Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures. **SOC Code: 47-2181**

 High school diploma or equivalent

 \$9.25 – \$13.97 per hour

### TOP COMPETENCIES NEEDED


KNOWLEDGE	SKILLS	ABILITIES
Building Construction	Coordination Operation & Control Active Listening Critical Thinking Time Management	Gross Body Equilibrium Arm-Hand Steadiness Trunk Strength Extent Flexibility Near Vision




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## Sheet Metal Workers

Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes. **SOC Code: 47-2211**

 High school diploma or equivalent

 \$17.85 – \$24.92 per hour

### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Mechanical	Critical Thinking	Near Vision
Mathematics	Coordination	Multi-limb Coordination
Building Construction	Judgment /Decision Making	Visualization
Administration/Management	Mathematics	Information Ordering
English Language	Monitoring	Arm-Hand Steadiness



## Truck Drivers

Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. **SOC Codes: 53-3032 and 53-7051**



High school diploma or equivalent and commercial driver's license



\$13.08 – \$17.84 per hour

### TAKE NOTE

*Construction jobs are cyclical – There are times when construction workers work 1,000 hours a year (of 2,080 hours possible) and times when they work 2,500+ hours per year.*

#### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Transportation	Operation & Control	Control Precision
Public Safety & Security	Operation Monitoring	Far Vision
English Language	Monitoring	Multi-limb Coordination
Customer & Personal Service	Time Management	Near Vision
Mechanical	Critical Thinking	Response Orientation

## Welders, Cutters, Solderers, and Braziers

Use hand-welding, flame-cutting, hand-soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

**SOC CODE: 51-4121**



High school diploma or equivalent



\$12.90 – \$21.68 per hour

#### TOP COMPETENCIES NEEDED

KNOWLEDGE	SKILLS	ABILITIES
Production & Processing	Critical Thinking	Arm-Hand Steadiness
Design	Operation & Control	Near Vision
Administration & Management	Monitoring	Control Precision
Mechanical	Reading Comprehension	Multi-limb Coordination
Mathematics		Problem Sensitivity