

## CONSIDER CONSTRUCTION

*You Could Be Building Skyscrapers, Interstates, Bridges & Stadiums While Earning Great Money.*

“These are the best years of your life.” How many times have you heard that? Probably too many to count. And while your teen years can be great, they don’t last forever. Your goal should be to make each new year the best year ever.

The way to do that is to make good decisions. What type of occupation do you want after high school? What type of training program should you pursue? It is much easier to make good decisions when you have good information on which to base those decisions. Are you looking for a career that will provide an exciting, rewarding and challenging future? If so, hold on and enjoy the ride. You are about to be introduced to one of the most rewarding careers of the 21<sup>st</sup> Century.

Close your eyes and imagine how the men and women who constructed the Golden Gate Bridge felt when the project was completed, what a sense of accomplishment. Or the new Panther Stadium. Imagine being able to tell your buddy while driving by “I helped build that stadium”. The Construction Industry offers opportunities and rewards as unique as the individuals pursuing them, from carpentry to crane operations, the possibilities are endless. Construction is truly a field in which you can work your way to the top, if that is what you choose. With training and experience, you could move steadily along a career path that suits your own talents and preferences.

## AVERAGE SALARIES

Occupation	Education Requirement	Salary Range
Carpenter	HS/apprenticeship	\$22K-\$39K
Electrician	HS/apprenticeship	\$25K-\$45K
Plumber	HS/apprenticeship	\$22K-\$39K
Mason	HS/apprenticeship	\$23K-\$39K
Equipment Operator	HS/apprenticeship	\$24K-\$60K
Foreman	HS/apprenticeship	\$25K-\$59K
	CAGC supervisory course	\$20K-\$40K
Estimator	HS/2yr associate or 4 year college recommended	\$28K-\$59K
Superintendent	HS/apprenticeship/ CAGC supervisory course	\$35K-68K
Project Managers	HS/2yr associate or 4 year college recommended	\$30K-\$85K

# GREAT CAREER CHOICES

- CARPENTERS
- PAINTERS
- CONCRETE FINISHERS
- PLUMBERS
- WELDERS
- ELECTRICIANS
- HEAVY EQUIPEMENT OPERATORS
- HVAC TECHNICIANS
- SHEET METAL WORKERS
- MASONS
- PIPEFITTERS
- METAL BUILDING ASSEMBLERS
- SPRINKLER FITTERS
- IRONWORKERS
- MOBILE CRANE OPERATORS

## Carpenters

**\$22K- \$39K**

Carpenters cut, fit, and assemble wood and other building materials. They make frames and foundations for buildings; install trim; construct cabinets, fences, and porches; and maintain and repair structures. Carpenters have so many different kinds of responsibilities that they must be versatile. They must know how to use different tools, read blueprints, and change structures. They should also be physically fit and have good communication skills. Some carpenters learn their trade through years of working with more experienced carpenters. Others learn through craft and apprenticeship programs, which last about four years. These programs include classroom and on-the-job training.

## Painters

**\$23K-\$40K**

Painters apply paint and coating on a structural surface. They must decide what type of paint or coating to apply to a surface and know how the environment will affect the painted or coated surface. They must be able to work with a variety of hand and power tools to prepare the surface and apply the paint or coating. These tasks require precision and knowledge. Some painters specialize in working in dangerous situations, such as on bridges or high-rise office buildings. Some painters learn their trade by working for experienced painters. Others learn through craft and apprenticeship programs, which last about three years.

## Concrete Finishers

**\$24K-\$32K**

Concrete finishers help build skyscrapers, sidewalks, houses, highways, dams, and many other concrete structures. They finish horizontal surfaces such as airport and roadway pavements, floors, and foundations, and vertical surfaces such as walls, cast columns, piers, beams, and girders. Concrete finishers must be physically fit because the objects they move are often heavy and bulky. They must have manual dexterity and good eye-

hand coordination. They must also have good math skills to be able to calculate things such as verticals, squares, and right triangles. Concrete finishers learn their trade as helpers or through apprenticeship or on-the-job training program. Finishers can advance into leadership roles—such as estimators, foremen, or even designers.

## **Plumbers**

**\$22K-\$39K**

Plumbers design and install piping systems that distribute water and remove waste from buildings. These systems include those connected to washers, bathtubs, sinks, toilets, heating, and cooling systems. Plumbers must know about water distribution, including how to determine the source of water flow and its anticipated water pressure level. They should be familiar with blueprint reading, local ordinances and regulations, mathematics, mechanical drawing, physics, and welding and soldering. In most parts of the United States, plumbers must become licensed. Plumbers learn their trade through craft and apprenticeship programs, which last four or five years. There are many opportunities for continuing education.

## **Welders**

**\$28K-\$40K**

Welders join objects together by applying heat or pressure. Entry level welders have a basic understanding of welding principles and can perform a variety of assembly type welds and other simple weld operations. Skilled welders have a thorough knowledge of welding principles and metals and can weld objects or fixtures to specification from drawings. They can do all three types of welding: arc, gas, and resistance. Welders learn their trade through craft and apprenticeship programs. After several years of on-the-job experience, an entry level welder may gain enough knowledge to become a skilled welder. Some skilled welders study welding in high school, at a technical school, junior college, or a company or association training program.

## **Electricians**

**\$25K-\$45K**

Electricians plan the electrical systems for structures. They install wiring and other electrical components such as breaker boxes, switches, light fixtures, and telephone and television wiring. They must be familiar with local and national codes. Electricians must be carefully trained and safe because they can be exposed to hazardous conditions and situations. In most parts of the United States, electricians must become licensed. Electricians learn their trade through craft and apprenticeship programs. These programs provide classroom instruction and on-the-job training with experienced electricians.

## **Heavy Equipment Operators**

**\$24K-\$60K**

Heavy equipment operator install, transport, operate, and maintain heavy machinery such as rigging devices, hoists, and jacks. They may have skills in other trades as well. These workers must be physically fit and able to solve problems. Some heavy equipment operators learn the trade through on-the-job experience. Others learn through craft and apprenticeship programs, which last about three years. These programs include classroom and on-the-job training.

## **HVAC**

HVAC technicians install, maintain, and repair heating, ventilating, and air-conditioning systems. These systems allow people to control the air temperature inside structures. There are different kinds of HVAC systems, such as oil-fired furnaces and commercial refrigerators, and technicians can specialize within the trade. HVAC technicians must be able to understand the operating principals of different systems and to interpret written specifications. Some HVAC technicians learn their trade through high school, or craft and apprenticeship training programs. These programs may also offer on-the-job opportunities. Experienced HVAC technicians expand their skills and keep up with current technology by taking additional industry-sponsored courses such as craft and apprenticeship programs.

## **Sheet Metal Workers**

**\$21K-\$34K**

Sheet metal workers cut and mold sheets of metal into products used for installing and repairing ventilation and air ducts. They also construct aluminum siding, metal roofing, and gutters. These workers must have knowledge of mathematics, blueprint reading, and drafting. They must be able to use some hand and power tools such as riveting machines and hammers. Sheet metal workers learn their trade through craft and apprenticeship programs, which last about four years. These programs include classroom and on-the-job training.

## **Masons**

**\$23K-\$39K**

There are several different types of masons. Bricklayers construct walls of brick, block, or panels by laying these materials on a structure's footing. Stone and block masons specialize in building walls of stone and concrete block. Most masonry work is done by hand and is labor-intensive. Masons must be dedicated and patient. They must also have good math skills and be able to read blueprints. Masons can learn their trade through craft and apprenticeship programs, which last three to four years.

## **Pipefitters**

**\$21K-\$37K**

Pipefitters design and install various piping systems in most industrial and commercial structures. The types of piping systems include hot water, sprinkling, lubricating, heating, and cooling. Pipefitters need to know how to work with different piping materials and installation tools. They must be familiar with state and local regulations regarding their work. Pipefitters generally learn their trade through craft and apprenticeship programs, which last about five years. These programs include classroom and on-the-job training.

### **Metal Building Assembles**

Metal building assemblers construct industrial, storage, and commercial structures using pre-constructed framing and siding materials. These buildings can be constructed more quickly and less expensively than conventional buildings. Metal buildings assemblers learn their trade through craft and apprenticeship programs, which metal building manufactures and various construction organizations offer. The length and requirements of the training are similar to those for iron- and sheet-metal workers.

### **Sprinkler Fitters**

Sprinkler fitters design, install, and test automatic fire and exposure protection sprinkler systems and components such as sprinklers, piping, and valves. They should be familiar with local and national codes pertaining to sprinklers. Sprinkler fitters can learn their trade through craft and apprenticeship programs. These programs educate sprinkler fitters about different areas in the trade, such as field operations, design, and sales.

### **Ironworkers**

**\$27K-\$34K**

There are several different types of ironworkers. Structural ironworkers move and install large girders and beams on bridges and building frames. Ornamental ironworkers install pre-constructed materials on elevators, stairways, and balconies. Reinforcing ironworkers strengthen the concrete in walls, piers, and roads. Ironworkers must be physically fit and must be able to solve problems and communicate well with other workers. They should be familiar with subjects like drafting, mathematics, blueprint reading, welding, and riveting. Ironworkers learn their trade through craft and apprenticeship programs, which last about three years. These programs include classroom and on-the-job training.

### **Mobile Crane Operators**

**\$34K-\$60K**

Mobile crane operators hoist and swing loads with complex, rotating machine called a mobile crane. This work can be dangerous to others if not performed correctly so mobile crane operators must be physically fit, alert, and careful. They must satisfactorily

complete a series of written, verbal, and operational examinations covering topics such as operational characteristics, emergency control skills, load/capacity chart usage, and proficiency in handling the specific type of crane for a particular job. Mobile crane operators learn their trade through craft and apprenticeship programs.