

Carpenter

At a Glance

Carpenters use wood to build and repair all kinds of structures. They use a wide range of power and hand tools to construct doors, staircases, houses, and more.

16 Career Clusters

Architecture & Construction

Earnings

Earnings Range: 12 - 35/hr

Level of Education

- 2-Year College or Technical Training

Core Tasks

- Read blueprints to lay out the project
- Measure and cut lengths of wood
- Assemble the frames of buildings using nail guns
- Lift walls, floor joists, and roof beams into place and secure them
- Install cabinets, doors, stairs, porches, and other wooden structures within buildings

Attributes & Abilities

- Work well with your hands
- Hand-eye coordination
- Physically fit with a good sense of balance
- Able to solve math problems quickly and accurately
- Communication skills

Workplace

- Most work for construction companies, carpentry contractors, or the maintenance departments of large organizations
- Many are self-employed
- Most work about 50 hours a week during the busy construction season
- Those who work outdoors either stop working for the coldest winter months or have shorter workdays
- Potential hazards include falls and cuts from tools or sharp materials

Job Description

Carpenters are an essential part of society. We rely on them to construct everything from fireplaces to furniture to houses. They build smaller pieces out of wood, and install doors and staircases. They also repair old and damaged structures.

There are many areas of specialization in carpentry. But the basic duties and skills are the same for the majority of people in the trade. Most carpenters complete a job from start to finish. They must be knowledgeable in every step of the process, from planning to the selection of materials and building.

Each project begins with creating a plan. Carpenters use drawings and blueprints to plot out their build. Plans provide the dimensions and layout of what they are building.

Once they have a plan, they select the type of materials to use. Carpenters work mostly with wood. They must know the qualities of the wood they use. They should understand its type of grain, density, and flexibility. They may use other materials such as cement, steel, and copper.

After selecting a wood, carpenters decide the best way to go about assembling the project. This is usually referred to as the layout. Once this planning is complete, they can begin the actual construction.

First, carpenters measure and cut the wood to size. They use a variety of power and hand tools, from big table saws to handheld chisels. Then, they fasten the pieces together. They may use a hammer and nails, or drills and screws.

Framing carpenters lay out and create the supporting structure of buildings. The frameworks they build become floors, walls, and roofs.

The work of finish carpenters is easier to appreciate. They create and install the visible wood elements in a building. This typically includes doors, stairs, and porches. It can also include cabinets and any other wooden structures in a building.

Working Conditions

Most carpenters work for construction companies and carpentry contractors. Some of them work in the maintenance departments of:

- factories
- plants
- schools
- government buildings

Many carpenters are self-employed.

People in this trade are often mobile, working in a variety of places. Most of their jobs are on construction sites. But they may also work in their own shops or at clients' homes.

Depending on where they live, the number of hours carpenters work can vary by season. In some areas, summer and fall are the busy construction season. Most full-time carpenters in these areas work about 50 hours a week during this period.

Carpenters in northern states can still work during the cold winters. But those who work outdoors tend to have a shorter workday, especially where winters are harsh. Finish carpenters, and those who work indoors, often stay busy all year.

People in this trade can often set their own hours, but most work under tight deadlines. For example, carpenters who build a staircase must complete the work quickly. They can't hold up the work of the painters and decorators. Carpenters who are on a tight deadline often work 14-hour days.

There are a few hazards on the job. Carpenters risk injuries from slips or falls. They can also get hurt from working with power tools and sharp or rough materials. They do a lot of bending, kneeling, climbing, and standing.

Earnings

Carpenters are usually paid an hourly wage. Wages range from about \$13 to \$38 an hour. If they work full-time hours all year, this adds up to an income range of \$27,000 to \$79,000. The median income is about \$21 an hour, or around \$44,000 a year.

Apprentices and helpers earn the lowest wages. They earn about half what qualified carpenters earn to start. Each year, their wages increase until they are fully trained.

Hourly wages for carpenters depend on their level of skill and qualifications. Location and employer are also factors. Wages are higher in some areas of the country than in others.

Annual incomes vary widely in this field. Carpenters who work in maintenance often have a steady income. Those who work in construction can be affected by the economy. Downturns in the economy can limit the number of hours they work. Carpenters who work outdoors can also lose work time because of bad weather.

People in this trade can advance to higher paid positions. Often, they become carpentry or general construction supervisors. They have more of a chance than other construction workers to become general supervisors. In their trade, they are exposed to the entire construction process.

Many carpenters belong to a union. Their wages and benefits are negotiated on their behalf by union leaders. Benefits can include health insurance, paid sick days, and vacation time. Unionized carpenters often earn more than those who don't belong to unions.

Massachusetts Wages

Occupation: Carpenters

Level of Experience	Hourly	Annual
Entry Wage	\$20.86	\$43,380
Median Wage	\$26.84	\$55,830
Experienced Wage	\$34.72	\$72,210

Source: U.S. Department of Labor, Bureau of Labor Statistics <http://www.bls.gov>

Massachusetts Outlook

Occupation: Carpenters

Employment

2014	23,510
2024	24,630

Change

Number	1,120
Percentage	4.8

Annual Average Openings

Total	Growth	Replacement
380	--	--

Source: Projections Central <http://www.projectionscentral.com>

Education

There are a few ways you can become a carpenter. Some people learn the trade informally on the job. They start out as helpers to carpenters with a lot of experience. Others take courses at vocational schools or 2-year colleges. A third option is to enroll in an apprenticeship or training program.

No matter which route you choose, you'll need to find someone to hire and train you. Employers tend to prefer hiring high school graduates. Take classes like carpentry, mechanical drawing, and math while you're in school.

Most employers say apprenticeship is the best way to learn this trade. These programs combine on-the-job training with classes. Programs usually last 3 or 4 years.

As an apprentice, you will spend a lot of time working with trained carpenters. You will earn a wage and learn hands-on skills. You learn about structural design, layout and rough framing, and outside and inside finishing. You will learn how to use the tools and machines of the trade.

You will have to take some classes each year as well. You study topics like blueprint reading, math, and carpentry methods. You also learn about safety and first aid.

Related College Programs

- Carpentry/Carpenter
- Construction Trades, General

Other Suggested Qualifications

Manual dexterity, eye-hand coordination, physical fitness, and a good sense of balance are important. The ability to solve arithmetic problems quickly and accurately is also helpful, as carpenters should be able to estimate the nature and quantity of materials needed to properly complete a job. They must also be able to estimate, with accuracy, how long a job should take to complete, and its cost. Effective communication skills, both written and oral, are a must for carpenters who deal directly with clients. That's because they must be able to listen to their customers, determine what they want, and reach an agreement. Sometimes, this can require a great deal of tact and patience since clients may change their minds or not know what they really want. Accounting and business management courses are helpful for carpenters who are self-employed.

Sample High School Program of Study

This Program of Study can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals.

Construction Architecture & Construction

Grade 9	Grade 10	Grade 11	Grade 12
English/Language Arts			
English/Language Arts I	English/Language Arts II	English/Language Arts III Technical Writing	English/Language Arts IV
Math			
Algebra I	Geometry	Algebra II	Construction Math Statistics

Grade 9	Grade 10	Grade 11	Grade 12
Science			
Earth or Life or Physical Science	Biology	Physics	Chemistry
Social Studies/Sciences			
State History Civics or World History	U.S. History	Economics Psychology	
Career & Technical Courses			
Introduction to the Built Environment	The Language of Architecture and Construction Information Technology Applications	Safety, Health and the Workplace Environment Principles of Construction	Applications in Construction

States' Career Clusters Initiative, 2008, www.careerclusters.org.

Important

- Check with your advisor to make sure that your course selections satisfy your graduation requirements.
- Courses available may vary from school to school.

Sample Career Path

People take different pathways through their careers, but no one starts at the top. This is an example of how the earnings, education and experience requirements, and responsibilities might progress for someone in this occupation.

Level 1

Sample Title	Apprentice
Earnings	\$12 to \$15 an hour
Requirements	<ul style="list-style-type: none"> • High school diploma • Enrolled in an apprenticeship program
Responsibilities	Sanding; providing general assistance to the senior carpenter; cleaning up; setting up machines (for example, bandsaw, jigsaw, and drills).

Level 2

Sample Title	Carpenter
Earnings	\$30,000 to \$45,000 a year
Requirements	<ul style="list-style-type: none">• Completion of apprenticeship program
Responsibilities	Designing and building projects individually; providing estimates; building client relationships/connections.

Level 3

Sample Title	Senior Carpenter / Manager
Earnings	\$40,000 to \$55,000 a year
Requirements	<ul style="list-style-type: none">• Over 10 years of carpentry experience
Responsibilities	Supervising; overseeing large projects; taking on apprentice carpenters; coordinating a team of carpenters.

Level 4

Sample Title	Business Owner
Earnings	\$40,000 to \$75,000 a year
Requirements	<ul style="list-style-type: none">• Knowledge of the business aspects of the industry: estimates, accounting, invoicing• Reliable contacts or client base
Responsibilities	Managing employees; accounting; administration; advertising.

Related Careers

Here are some other occupations that you might be interested in. Click on an occupation name to learn more.

- Bricklayer / Stonemason
- Building Inspector
- Cabinetmaker
- Concrete Mason
- Drywaller
- Electrician
- Flooring Installer
- Glazier
- Home Inspector
- Insulator
- Ironworker

- Plasterer
- Plumber
- Renovator
- Roofer
- Tilesetter

Related Military Careers

- Construction Specialist

Career Clusters

Career Clusters are groups or families of occupations that share common characteristics such as knowledge requirements, skill sets, and/or goals.

Architecture & Construction

National Employment by Industry

Industry	% Employed
Construction	49
Self-Employed	39

Source: O*Net Online, Browse by Industry, US Department of Labor
<http://online.onetcenter.org/find/industry>

Other Resources

United Brotherhood of Carpenters and Joiners of America (UBC)

A union representing carpenters and related workers across North America. Click on UBC Crafts to learn more about the different trades represented by the UBC.

<http://www.carpenters.org>

Home Builders Institute (HBI)

HBI provides training for careers in the building industry. Scroll over Programs and click on Career & Certification Services to learn more about the services they offer.

<http://www.hbi.org>

American Woodworker

The online home of American Woodworker magazine. Be sure to check out the Techniques section for great professional advice.

<http://www.americanwoodworker.com>

Building Advantage – Apprenticeship Program

This organization aims to raise awareness about construction and trade unions. Here you can find excellent career videos to help you learn more about a variety of careers.

<http://www.buildingadvantage.org/apprenticeship>

Choose Construction

This is a career and education guide for students focusing on the construction industry in the US. Click on

Career Options to discover different careers.
<http://www.chooseconstruction.org>

Careers In Wood

On this website from the Wood Manufacturing Council, a Canadian organization, you can find helpful career and industry information.
<http://www.careersinwood.ca>

Amateur Woodworker

This is a helpful Internet magazine aimed at amateur woodworkers. Be sure to check out the Wood Types and Tool Glossary sections.
<http://www.am-wood.com>

ConstructMyFuture.Com

This is a career and education guide focusing on the construction industry. Click on Jobs to discover different careers.
<http://www.constructmyfuture.com/students>

Occupational Outlook Handbook – Carpenters

Career information from the US Department of Labor.
<http://www.bls.gov/ooh/Construction-and-Extraction/Carpenters.htm>