

Construction and Extraction

Carpenters

Carpenters are skilled craftspersons who construct, erect, install, and repair structures and fixtures made from wood and other materials. This ancient profession is generally dominated by men and has always involved a wide variety of work. Carpenters do many different kinds of construction, from the building of highways and bridges to the installation of kitchen cabinets or furniture. Each carpentry task is somewhat different, but most involve the same basic steps. Working from blueprints or instructions from supervisors, carpenters first do the layout - measuring, marking, and arranging materials - in accordance with local building codes. They cut and shape wood, plastic, fiberglass, or drywall using hand and power tools, such as chisels, planes, saws, drills, and sanders. They then join the materials with nails, screws, staples, or adhesives. In the last step, carpenters do a final check of the accuracy of their work with levels, rules, plumb bobs, framing squares, and surveying equipment, and make any necessary adjustments. Some materials come prefabricated, allowing for easier and faster installation.

Carpenters may specialize in one or two carpentry tasks. A scenery carpenter works in show business constructing and dismantling sets for movies. Others specialize in fields like shipbuilding or can become trim carpenters skilled in the making of moldings, door mantels and window casings. Carpenters who enjoy doing detailed work sometimes become cabinetmakers specializing in the making of cabinets or wardrobes made from wood. When carpenters in this area achieve a level of artistry the demand and price they can ask for their work increases; those at the higher level often build on commission or sell to specialty furniture stores.

Carpenters who remodel homes and other structures need a broad range of carpentry skills. As part of a single job, they might frame walls and partitions, put in doors and windows, build stairs, install cabinets and molding, and complete many other tasks. Well-trained carpenters are able to switch from residential building to commercial construction or remodeling work, depending on which offers the best work opportunities. Carpenters who work for large construction contractors or specialty contractors may perform only a few regular tasks, such as constructing wooden forms for pouring concrete, or erecting scaffolding. Some carpenters build tunnel bracing, or brattices, in underground passageways and mines to control the circulation of air through the passageways and to worksites. Others build concrete forms for tunnel, bridge, or sewer construction projects.

Carpenters employed outside the construction industry perform a variety of installation and maintenance work. They may replace panes of glass, ceiling tiles, and doors, as well as repair desks, cabinets, and other furniture. Depending on the employer,

carpenters install partitions, doors, and windows; change locks; and repair broken furniture. In manufacturing firms, they may assist in moving or installing machinery.

Work is often strenuous and hours vary depending on what the project entails. A work week is typically 40 hours unless the business is doing a rush job for a client which might require overtime. Long hours are spent on foot sometimes using loud machinery to cut wood and other materials. Upper body strength is needed to lift heavy materials and precision is essential when measuring and sawing wood.

Education/Training

How to Obtain:

Generally a High School Diploma or equivalent is needed, and many workers also have a technical certificate from a vocational school, or through an Associate's degree program. Many individuals learn on the job as helpers or laborers. Another option is to join an apprenticeship program, which typically lasts between 3 and 4 years. Apprenticeships can usually be located through local unions, contractors, or professional associations. In addition to on-the-job training, as helpers or laborers, apprenticeships will require classroom instruction, in areas such as:

- Safety
- First aid
- Blueprint reading
- Freehand sketching
- Basic mathematics
- Elementary structural design
- And various carpentry techniques

Training or apprenticeship opportunities are available through several organizations. The Residential Construction Academy (RCA) is a Home Builders Institute (HBI) initiative that aims to bridge the critical skills gap that exists within the residential construction industry. Another option is The United Brotherhood of Carpenters which provides information about finding training centers in localities. They can assist people interested in locating apprenticeships, or pursuing specialized certification. Requirements for specialty certifications vary.

A state license in carpentry is required in many states, though not in New York. Carpenters who are trained in formal apprenticeship programs automatically become certified as journeypersons. Carpenters can gain certification in related areas such as scaffolding, pump work and high torque bolting to prove that they are able to complete the particular task. Requirements for the scaffolding certification for example include the completion of safety classes which cover Occupational Safety and Health Administration standards and regulations. Typical components of the certification program include:

- 4 Hour User Supported Scaffold Training
- 32 Hour Erector Supported Scaffold Training

Some national organizations also offer certification. The National Association of the Remodeling Industry (NARI) offers a Certified Lead Carpenter (CLC) certificate which can be achieved by:

- At least 5 years of practice in remodeling, at least 2 of those as a lead carpenter.
- Adhere to NARI's Standards of Practice and Code of Ethics
- Successfully completed a comprehensive application that details their background and experience
- Successfully complete a half-day written examination on pre-construction issues, technical knowledge, and special skills (people and job management)
- Submit all required application materials and fees

More Information on Licensing, Certification and Apprenticeship Programs:

- Home Builders Institute:
<http://www.hbi.org/page.cfm?pageID=69>
- National Contractors.Com:
<http://www.nationalcontractors.com/carpenter/>
- United Brotherhood of Carpenters:
http://www.carpenters.org/CraftsAndSkills/Training_cs.aspx
- National Center for Construction Education and Research (NCCER):
<http://www.nccer.org/default.aspx>
- National Association of the Remodeling Industry (NARI):
<http://www.nari.org/certify/who/index.asp>

Average Costs:

Apprenticeship programs generally do not charge the apprentice for classroom instruction, provided the apprentice maintains employment with a contractor affiliated with the apprenticeship program, throughout the apprenticeship period of 3 to 4 years.

Certified Lead Carpenter certification costs from \$410 - \$525. Annual recertification costs are \$49 - \$98*. Costs of specialty certifications vary based on area and vendor.

*Note: Costs of recertification and license renewal vary.