

# Carpet, Floor, and Tile Installers and Finishers

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## Significant Points

- Forty-three percent of all carpet, floor, and tile installers and finishers are self-employed, compared with 19 percent of all construction trades workers.
- Most workers learn on the job.
- Carpet installers, the largest specialty, should have the best job opportunities.
- The employment of carpet, floor, and tile installers and finishers is less sensitive to fluctuations in construction activity than that of other construction trades workers.

## Nature of the Work

Carpet, tile, and other types of floor coverings not only serve an important basic function in buildings, but their decorative qualities also contribute to the appeal of the buildings. Carpet, floor, and tile installers and finishers lay these floor coverings in homes, offices, hospitals, stores, restaurants, and many other types of buildings. Tile also is installed on walls and ceilings.

Before installing carpet, *carpet installers* first inspect the surface to be covered to determine its condition and, if necessary, correct any imperfections that could show through the carpet or cause the carpet to wear unevenly. They must measure the area to be carpeted and plan the layout, keeping in mind expected traffic patterns and placement of seams for best appearance and maximum wear.

When installing wall-to-wall carpet without tacks, installers first fasten a tackless strip to the floor, next to the wall. They then install the padded cushion or underlay. Next, they roll out, measure, mark, and cut the carpet, allowing for 2 to 3 inches of extra carpet for the final fitting. Using a device called a “knee kicker,” they position the carpet, stretching it to fit evenly on the floor and snugly against each wall and door threshold. They then cut off the excess carpet. Finally, using a power stretcher, they stretch the carpet, hooking it to the tackless strip to hold it in place. The installers then finish the edges using a wall trimmer.

Because most carpet comes in 12-foot widths, wall-to-wall installations require installers to join carpet sections together for large rooms. The installers join the sections using heat-taped seams—seams held together by a special plastic tape that is activated by heat.

On special upholstery work, such as stairs, carpet may be held in place with staples. Also, in commercial installations, carpet often is glued directly to the floor or to padding that has been glued to the floor.

Carpet installers use handtools such as hammers, drills, staple guns, carpet knives, and rubber mallets. They also may use carpetlaying tools, such as carpet shears, knee kickers, wall trimmers, loop pile cutters, heat irons, and power stretchers.

*Floor installers, or floor layers,* apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors and cabinets using rollers, knives, trowels, sanding machines, and other tools. Some floor covering materials are designed to be purely decorative. Others have more specialized purposes, such as to deaden sound, to absorb shocks, or to create air-tight environments. Before installing the floor, floor layers inspect the surface to be cov-

ered and, if necessary, correct any imperfections in order to start with a smooth, clean foundation. They measure and cut floor covering materials, such as rubber, vinyl, linoleum, or cork, and any foundation material, such as felt, according to designated blueprints. Next, they may nail or staple a wood underlayment to the surface or may use an adhesive to cement the foundation material to the floor; the foundation helps to deaden sound and prevents the top floor covering from wearing at board joints. Finally, floor layers install the top covering. They join sections of sheet covering by overlapping adjoining edges and cutting through both layers with a knife to form a tight joint.

*Floor sanders and finishers* scrape and sand wooden floors to smooth surfaces using floor-sanding machines. They then inspect the floor for smoothness and remove excess glue from joints using a knife or wood chisel and may sand wood surfaces by hand, using sandpaper. Finally, they apply coats of finish.

*Tile installers, tilers, and marble setters* apply hard tile and marble to floors, walls, ceilings, and roof decks. Tile is durable, impervious to water, and easy to clean, making it a popular building material in hospitals, tunnels, lobbies of buildings, bathrooms, and kitchens.

Prior to installation, tilers use measuring devices and levels to ensure that the tile is placed in a consistent manner. To set tile, which generally ranges in size from 1 inch to 12 or more inches square, tilers use cement or “mastic,” a very sticky paste. When using cement, tilers nail a support of metal mesh to the wall or ceiling to be tiled. They use a trowel to apply a cement mortar—called a “scratch coat”—onto the metal screen, and scratch the surface of the soft mortar with a small tool similar to a rake. After the scratch coat has dried, tilers apply another coat of mortar to level the surface, and then apply mortar to the back of the tile and place it onto the surface.

To set tile in mastic or a cement adhesive, called “thin set,” tilers need a flat, solid surface such as drywall, concrete, plaster, or wood. They use a tooth-edged trowel to spread mastic on the surface or apply cement adhesive, and then properly position the tile.

Because tile varies in color, shape, and size, workers sometimes prearrange tiles on a dry floor according to a specified design. This allows workers to examine the pattern and make changes. In order to cover all exposed areas, including corners and around pipes, tubs, and wash basins, tilers cut tiles to fit with a machine saw or a special cutting tool. Once the tile is placed, they gently tap the



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surface with their trowel handle or a small block of wood to seat the tile evenly.

When the cement or mastic has set, tilesetters fill the joints with “grout,” which is very fine cement. They then scrape the surface with a rubber-edged device called a grout float or a grouting trowel to dress the joints and remove excess grout. Before the grout sets, they finish the joints with a damp sponge for a uniform appearance. Marble setters cut and set marble slabs in floors and walls of buildings. They trim and cut marble to specified size using a power wet saw, other cutting equipment, or handtools. After setting the marble in place, they polish the marble to high luster using power tools or by hand.

### **Working Conditions**

Carpet, floor, and tile installers and finishers generally work indoors and have regular daytime hours. However, when floor covering installers work in occupied stores or offices, they may work evenings and weekends to avoid disturbing customers or employees. Installers and finishers usually work under better conditions than do most other construction workers. By the time workers install carpets, flooring, or tile in a new structure, most construction has been completed and the work area is relatively clean and uncluttered. Installing these materials is labor intensive; workers spend much of their time bending, kneeling, and reaching—activities that require endurance. Carpet installers frequently lift heavy rolls of carpet and may move heavy furniture. Safety regulations may require that they wear kneepads or safety goggles when using certain tools. Carpet and floor layers may be exposed to fumes from various kinds of glue and to fibers of certain types of carpet.

Although workers are subject to cuts from tools or materials, falls from ladders, and strained muscles, the occupation is not as hazardous as some other construction occupations.

### **Employment**

Carpet, floor, and tile installers and finishers held about 164,000 jobs in 2002. Forty-three percent of all carpet, floor, and tile installers and finishers were self-employed, compared with 19 percent of all construction trades workers. The following tabulation shows 2002 wage and salary employment by specialty:

Carpet installers .....	82,000
Tile and marble setters .....	33,000
Floor layers, except carpet, wood, and hard tiles .....	31,000
Floor sanders and finishers .....	17,000

Many carpet installers worked for flooring contractors or floor covering retailers. Most salaried tilesetters were employed by tilesetting contractors who work mainly on nonresidential construction projects, such as schools, hospitals, and office buildings. Most self-employed tilesetters work on residential projects.

Although carpet, floor, and tile installers and finishers are employed throughout the Nation, they tend to be concentrated in populated areas where there are high levels of construction activity.

### **Training, Other Qualifications, and Advancement**

The vast majority of carpet, floor, and tile installers and finishers learn their trade informally, on the job, as helpers to experienced workers. Others learn through formal apprenticeship programs, which include on-the-job training as well as related classroom instruction.

Informal training for carpet installers often is sponsored by individual contractors. Workers start as helpers, and begin with simple assignments, such as installing stripping and padding, or helping to stretch newly installed carpet. With experience, helpers

take on more difficult assignments, such as measuring, cutting, and fitting.

Persons who wish to begin a career in carpet installation as a helper or apprentice should be at least 18 years old and have good manual dexterity. Many employers prefer applicants with a high school diploma; courses in general mathematics and shop are helpful. Some employers may require a driver’s license and a criminal background check. Because carpet installers frequently deal directly with customers, they should be courteous and tactful.

Many tile and floor layers learn their job through on-the-job training and begin by learning about the tools of the trade. They next learn to prepare surfaces to receive flooring. As they progress, tilesetters, marble setters, and floor layers learn to cut and install tile, marble, and floor coverings. Tile and marble setters also learn to apply grout and to do finishing work.

Apprenticeship programs and some contractor-sponsored programs provide comprehensive training in all phases of the tilesetting and floor layer trades. Most apprenticeship programs are union-sponsored and consist of weekly classes and on-the-job training usually lasting 3 to 4 years.

When hiring apprentices or helpers for floor layer and tilesetter jobs, employers usually prefer high school graduates who have had courses in general mathematics, mechanical drawing, and shop. Good physical condition, manual dexterity, and a good sense of color harmony also are important assets.

Carpet, floor, and tile installers and finishers may advance to positions as supervisors or become salespersons or estimators. Some carpet installers may become managers for large installation firms. Many carpet, floor, and tile installers and finishers who begin working for a large contractor eventually go into business for themselves as independent subcontractors.

### **Job Outlook**

Employment of carpet, floor, and tile installers and finishers is expected to grow about as fast as the average for all occupations through the year 2012, reflecting the continued need to renovate and refurbish existing structures. However, employment of one specialty—floor sanders and finishers—is projected to grow more slowly than average due to the increasing use of prefinished hardwood and similar flooring. Carpet installers, the largest specialty, should have the best job opportunities.

Carpet as a floor covering continues to be popular and its use is expected to grow in structures such as schools, offices, hospitals, and industrial plants. Employment of carpet installers also is expected to grow because wall-to-wall carpeting is a necessity in the many houses built with plywood, rather than hardwood, floors. Similarly, offices, hotels, and stores often cover concrete floors with wall-to-wall carpet, which must be periodically replaced.

Demand for tile and marble setters will stem from population and business growth, which should result in more construction of shopping malls, hospitals, schools, restaurants, and other structures in which tile is used extensively. Tile is expected to continue to increase in popularity as a building material and to be used more extensively, particularly in the growing number of more expensive homes, leading to faster than average growth for tile and marble setters. Demand for floor layers and sanders and finishers will expand as a result of growth in construction activity, particularly that related to residential homes and commercial buildings, and as some people decide to replace their plywood floors with hardwood floors. Job opportunities for tile and marble setters and for floor layers and sanders, relatively small specialties, will not be as plentiful as those for carpet installers.

The employment of carpet, floor, and tile installers and finishers is less sensitive to changes in construction activity than is that of most other construction occupations because much of the work involves replacing carpet and other flooring in existing buildings. As a result, these workers tend to be sheltered from the business fluctuations that often occur in new construction activity.

### Earnings

In 2002, the median hourly earnings of carpet installers were \$15.67. The middle 50 percent earned between \$11.39 and \$21.03. The lowest 10 percent earned less than \$8.90, and the top 10 percent earned more than \$27.15. In 2002, median hourly earnings of carpet installers working for building finishing contractors were \$16.09, and in home furnishings stores, \$14.64.

Carpet installers are paid either on an hourly basis, or by the number of yards of carpet installed. The rates vary widely depending on the geographic location and whether the installer is affiliated with a union.

Median hourly earnings of floor layers were \$16.15 in 2002. The middle 50 percent earned between \$11.42 and \$20.81. The lowest 10 percent earned less than \$8.58, and the top 10 percent earned more than \$26.87.

Median hourly earnings of floor sanders and finishers were \$13.22 in 2002. The middle 50 percent earned between \$10.38 and \$16.97. The lowest 10 percent earned less than \$8.96, and the top 10 percent earned more than \$22.51.

Median hourly earnings of tile and marble setters were \$17.20 in 2002. The middle 50 percent earned between \$12.96 and \$22.39. The lowest 10 percent earned less than \$10.21, and the top 10 percent earned more than \$28.22. Earnings of tile and marble setters also vary greatly by geographic location and by union membership status.

Apprentices and other trainees usually start out earning about half of what an experienced worker earns, although their wage rate increases as they advance through the training program.

Some carpet, floor, and tile installers and finishers belong to the United Brotherhood of Carpenters and Joiners of America. Some tilesetters belong to the International Union of Bricklayers and Allied Craftsmen, while some carpet installers belong to the International Brotherhood of Painters and Allied Trades.

### Related Occupations

Carpet, floor, and tile installers and finishers measure, cut, and fit materials to cover a space. Workers in other occupations involving similar skills, but using different materials, include brickmasons, blockmasons, and stonemasons; carpenters; cement masons, concrete finishers, segmental pavers, and terrazzo workers; drywall installers, ceiling tile installers, and tapers; painters and paperhangers; roofers; and sheet metal workers.

### Sources of Additional Information

For details about apprenticeships or work opportunities, contact local flooring or tiling contractors or retailers, locals of the unions previously mentioned, or the nearest office of the State apprenticeship agency or employment service.

For general information about the work of carpet installers and floor layers, contact:

► Floor Covering Installation Contractors Association, 7439 Milwood Dr., West Bloomfield, MI 48322.

Additional information on training for carpet installers and floor layers is available from:

► International Union of Painters and Allied Trades, 1750 New York Ave. NW., Washington, DC 20006. Internet: <http://www.iupat.org>

For general information about the work of tile installers and finishers, contact:

► International Union of Bricklayers and Allied Craftworkers, 1776 I St. NW., Washington, DC. 20006.

► International Masonry Institute, James Brice House, 42 East St. Annapolis, MD 21401. Internet: <http://www.imiweb.org>

► Home Builders Institute, 1201 15th St. NW., Washington, DC 20005. Internet: <http://www.hbi.org>

► National Association of Home Builders, 1201 15th St. NW., Washington, DC 20005. Internet: <http://www.nahb.org>

For more information about tile setting and tile training, contact:

► National Tile Contractors Association, P.O. Box 13629, Jackson MS 39236.

For information concerning training of carpet, floor, and tile installers and finishers, contact:

► United Brotherhood of Carpenters and Joiners of America, 50 F St. NW., Washington, DC 20001. Internet: <http://www.carpenters.org>

There are more than 500 occupations registered by the U.S. Department of Labor's National Apprenticeship system. For more information on the Labor Department's registered apprenticeship system and links to State apprenticeship programs, check the Internet site: <http://www.doleta.gov>.