

or employment service. For general information about the work of construction equipment operators, contact:

► National Center for Construction Education and Research, University of Florida, P.O. Box 141104, Gainesville, FL 32614-1104. Internet:

<http://www.nccer.org>

► Associated General Contractors of America, 333 John Carlyle St., Suite 200, Alexandria, VA 22314. Internet: <http://www.agc.org>

► International Union of Operating Engineers, 1125 17th St. NW., Washington, DC 20036. Internet: <http://www.iuoe.org>

Construction Laborers

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Significant Points

- Job opportunities should be good.
- The work can be physically demanding and sometimes dangerous.
- Most construction laborers learn through informal on-the-job training; some complete formal apprenticeship programs.

Nature of the Work

Construction laborers perform a wide range of physically demanding tasks involving building and highway construction, tunnel and shaft excavation, hazardous waste removal, and demolition. Although the term “laborer” implies work that requires relatively low skill or training, many tasks that these workers perform require a fairly high level of training and experience. Construction laborers clean and prepare construction sites to eliminate possible hazards, dig trenches, mix and place concrete, and set braces to support the sides of excavations. They load, unload, identify, and distribute building materials to the appropriate location according to project plans and specifications on building construction projects. They also tend machines; for example, they may mix concrete using a portable mixer or tend a machine that pumps concrete, grout, cement, sand, plaster, or stucco through a spray gun for application to ceilings and walls. Construction laborers may sometimes help other craft workers including carpenters, plasterers, and masons.

At heavy and highway construction sites, construction laborers clear and prepare highway work zones and rights of way; install traffic barricades, cones, and markers; and control traffic passing near, in, and around work zones. They also install sewer, water, and storm drain pipes, build manholes, and lay cement and asphalt on roads.

At hazardous waste removal sites, construction laborers prepare the site and safely remove asbestos, lead, radioactive waste, and other hazardous materials. They operate, read, and maintain air monitoring and other sampling devices in confined and/or hazardous environments. They also safely sample, identify, handle, pack, and transport hazardous and/or radioactive materials and clean and decontaminate equipment, buildings, and enclosed structures. Other highly specialized tasks include operating laser guidance equipment to place pipes, operating air and pneumatic drills, and transporting and setting explosives for tunnel, shaft, and road construction.

Construction laborers operate a variety of equipment including pavement breakers; jackhammers; earth tampers; concrete, mortar, and plaster mixers; electric and hydraulic boring machines; torches; small mechanical hoists; laser beam equipment; and surveying and measuring equipment. They operate pipe-laying machinery and use



Construction laborers do much of the physically demanding labor at construction sites.

computers and other high-tech input devices to control robotic pipe cutters and cleaners. To perform their jobs effectively, construction laborers must be familiar with the duties of other craft workers and with the materials, tools, and machinery they use.

Construction laborers often work as part of a team with other skilled craft workers, jointly carrying out assigned construction tasks. At other times, construction laborers may work alone, reading and interpreting instructions, plans, and specifications with little or no supervision.

While most construction laborers tend to specialize in a type of construction such as highway or tunnel construction, they are skilled generalists who perform many different tasks during all stages of construction. However, construction laborers who work in underground construction (such as in tunnels) or in demolition are more likely to specialize in only those areas.

Working Conditions

Most laborers do physically demanding work. They may lift and carry heavy objects, and stoop, kneel, crouch, or crawl in awkward positions. Some work at great heights, or outdoors in all weather conditions. Some jobs expose workers to harmful materials or chemicals, fumes, odors, loud noise, or dangerous machinery. To avoid injury, workers in these jobs wear safety clothing, such as gloves, hard hats, protective chemical suits, and devices to protect their eyes, respiratory system, or hearing. While working in underground construction, construction laborers must be especially alert to safely follow procedures and must deal with a variety of hazards.

Construction laborers generally work 8-hour shifts, although longer shifts also are common. They may work only during certain seasons, when the weather permits construction activity.

Employment

Construction laborers held about 791,000 jobs in 2000. They worked throughout the country but, like the general population, are concentrated in metropolitan areas. Almost all construction laborers work in the construction industry and almost 38 percent work for special trade contractors. Only about 8 percent worked part time in 2000.

Training, Other Qualifications, and Advancement

For some construction laborer jobs, employers hire people without experience or specific training in the occupation. However, the work requires more strength and stamina than most occupations, as

well as a basic education. Basic literacy is a must if a worker is to read and comprehend warning signs and labels and understand instructions and specifications.

Most construction laborers learn their skills informally, observing and learning from experienced workers. Individuals who learn the trade on the job usually start as helpers. These workers perform routine tasks, such as cleaning and preparing the worksite and unloading materials. When the opportunity arises, they learn how to do more difficult tasks, such as operating tools and equipment, from experienced craft workers. Becoming a fully skilled construction laborer by training on the job normally takes longer than the 2 to 4 years required to complete an apprenticeship program.

Formal apprenticeship programs provide more thorough preparation for jobs as construction laborers than does on-the-job training. Local apprenticeship programs are operated under guidelines established by the Laborers-Associated General Contractors of America Education and Training Fund. These programs typically require at least 4,000 hours of supervised on-the-job training and approximately 400 hours of classroom training. Depending on the availability of work and on local training schedules, it can take an individual from 2 to 4 years to complete the apprenticeship. A core curriculum consisting of basic construction skills such as blueprint reading, the correct use of tools and equipment, and knowledge of safety procedures comprises the first 200 hours. The remainder of the curriculum consists of specialized skills training in three of the largest segments of the construction industry: building construction, heavy/highway construction, and environmental remediation (cleaning up debris, landscaping, and restoring the environment to its original state). Workers who use dangerous equipment or handle toxic chemicals usually receive specialized training in safety awareness and procedures. Apprentices must complete at least 144 hours of classroom work each year.

Most apprenticeship programs require workers to be at least 18 years old (17 years of age or older in the case of some school-to-work and career preparation programs) and physically able to perform the work. Many apprenticeship programs require a high school diploma or equivalent. High school and junior college courses in science, physics, chemistry, and mathematics are helpful. Vocational classes in welding, construction, and other general building skills can give anyone wishing to become a construction laborer a significant head start.

Experience is helpful but usually is not necessary to obtain a job. Relevant work experience that provides construction-related job skills can often reduce or eliminate a wide range of training and apprenticeship requirements. Finally, most apprenticeship programs, local unions, and employers look very favorably on military service and/or service in the Job Corps, as veterans and Job Corps graduates have already demonstrated a high level of responsibility and reliability and may have gained many valuable job skills.

Construction laborers need good manual dexterity, hand-eye coordination, and balance. They also need the ability to read and comprehend all warning signs and labels on a construction site and the reading skills sufficient to understand and interpret plans, drawings, and written instructions and specifications. They should be capable of working as a member of a team and have basic problem-solving and math skills. Employers want workers who are hard-working, reliable, and diligent about being on time. Additionally, construction laborers who wish to work in environmental remediation must pass a physical test that measures the ability to wear a respirator. Computer skills also are important as construction becomes increasingly mechanized and computerized.

Experience in many construction laborer jobs may allow some workers to advance to positions such as supervisor or construction superintendent. A few become independent contractors.

Job Outlook

Job opportunities for construction laborers are expected to be good due to the numerous openings arising each year from laborers who leave the occupation. In addition, many potential workers may prefer work that is less strenuous and has more comfortable working conditions. Employment of construction laborers is expected to grow about as fast as the average for all occupations through the year 2010. Opportunities will be best for well-trained workers who are willing to relocate to different worksites.

Growth of construction laborer employment will be spurred by continuing emphasis on environmental remediation and on rebuilding infrastructure—roads, airports, bridges, tunnels, and communications facilities, for example. However, employment growth will be adversely affected by automation as some jobs are replaced by new machines and equipment that improve productivity and quality.

Employment of construction laborers, like that of many other construction workers, can be variable or intermittent due to the limited duration of construction projects and the cyclical nature of the construction industry. During economic downturns, job openings for construction laborers decrease as the level of construction activity declines.

Earnings

Median hourly earnings of construction laborers in 2000 were \$11.15. The middle 50 percent earned between \$8.79 and \$16.23. The lowest 10 percent earned less than \$7.22 and the highest 10 percent earned more than \$21.88. Median hourly earnings in the largest industries employing construction laborers in 2000 were as follows:

Nonresidential building construction	\$11.85
Miscellaneous special trade contractors	11.71
Concrete work	11.27
Heavy construction, except highway	10.90
Residential building construction	10.62

Earnings for construction laborers can be reduced by poor weather or by downturns in construction activity, which sometimes result in layoffs.

Apprentices or helpers usually start at about 50 percent of the wage rate paid to experienced workers. Pay increases as apprentices gain experience and learn new skills.

Almost 1 in 5 construction laborers are members of a union. Many belong to the Laborers' International Union of North America.

Related Occupations

The work of construction laborers is closely related to other construction occupations. Other workers who perform similar physical work include persons in material moving occupations; forest, conservation, and logging workers; and grounds maintenance workers.

Sources of Additional Information

For information about jobs as construction laborers, contact local building or construction contractors, local joint labor-management apprenticeship committees, apprenticeship agencies, or the local office of your State Employment Service.

For general information about the work of construction laborers, contact:

► Laborers' International Union of North America, 905 16th St. NW., Washington, DC 20006. Internet: <http://www.liuna.org>