

## Construction and Extraction

### Helpers- Pipelayers, Plumbers, Pipefitters, and Steamfitters

**Helpers for Pipelayers, Plumbers, Pipefitters and Steamfitters** assist them in performing their duties. They are responsible for supplying or holding materials, cleaning work areas and equipment, helping plumbers perform rough-ins (which is putting in piping in a house before the sheetrock is laid), repairing and replacing fixtures. They often will have to cut or drill holes in walls or floors to accommodate new pipes, measure, cut, thread and assemble new pipe and place the pipe in hangers or supports. Sometimes they are given the tasks of mounting brackets and hangers to hold pipes, selecting the type and size of pipe and transporting materials to the worksite. These helpers learn how to fit valves, couplings, or assemblies to tanks, pumps, or systems. They understand the layout, assembly, and installation of piping, and often locate and repair leaking or broken pipes.

Helpers for plumbers work in commercial and residential areas where they need to install and maintain water and septic systems. Helpers for pipefitters and steamfitters work in industrial and power plants. Helpers for pipelayers work in outdoor and sometimes remote areas laying pipes. A great amount of strength and stamina is required in order to lift heavy pipes, stand for long periods of time, and work in uncomfortable or cramped positions. Helpers may have to work with their bosses in inclement weather and are subject to falls from ladders, cuts from sharp tools, and burns from hot pipes or soldering equipment. Being a helper for pipelayers, plumbers, pipefitters, and steamfitters is often the transitional job while apprenticing, on the way to becoming a fully qualified practitioner of the trade.

Most plumbers, pipelayers, pipefitters, and steamfitters work more than 40 hour weeks and their helpers likely work similar schedules. As they frequently must lift heavy pipes, stand for long periods, and sometimes work in uncomfortable or cramped positions helper pipelayers, plumbers, pipefitters, and steamfitters need physical strength and stamina. They may be on call 24 hours a day in case of an emergency.

### Education/Training

#### *How to Obtain:*

Generally a High School Diploma or equivalent is not required. Most plumbers, pipefitters, and steamfitters get their training in jointly administered apprenticeships or in technical schools and community colleges. Pipelayers typically receive their training on the job.

Apprenticeship programs generally provide the most comprehensive training available for these jobs. Such programs are, for the most part, administered jointly by union locals

and their affiliated companies or by non-union contractor organizations. Organizations that sponsor apprenticeships include the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada; local employers of either the Mechanical Contractors Association of America or the National Association of Plumbing-Heating-Cooling Contractors.

Apprenticeships - both union and nonunion - consist of 4 or 5 years of paid on-the-job training and at least 144 hours of related classroom instruction per year. Classroom subjects include:

- Drafting and blueprint reading
- Mathematics
- Applied physics and chemistry
- Safety
- And local plumbing codes and regulations

Although most plumbers, pipefitters, and steamfitters are trained through apprenticeships, some still learn their skills informally on the job or by taking classes on their own.

Most states require a license in plumbing, in New York licensure is done by cities rather than a state wide licensing process. Journeyman plumbers must register with their city's Department of Buildings or Department of Public Works. In some cities to register an applicant must have:

- Minimum of 5 years experience under direct supervision of a master plumber
- Having satisfactorily completed a state registered training program

Additionally, in order to become a Licensed Master Plumber cities often require that the applicant, aside from passing the Master Plumber Examination, have at least one of the following:

- 7 years total experience under the supervision of a licensed master plumber
- Have received a bachelor's degree in an appropriate area and 5 years experience
- Be a registered and licensed architect or professional engineer with 3 years experience.

After the examination the applicant must submit documentation to prove claimed experience. Often the requirements are the listings of previous jobs and statements from previous employers about job duties. Licensing requirements for different cities can often be found through the Department of Buildings, Public Works or the city's building code.

*More Information on Licensing, Certification and Apprenticeship Programs:*

New York registration and Licensing for plumbers:

- New York City:  
[http://www.nyc.gov/html/dob/downloads/pdf/journeyman\\_guide.pdf](http://www.nyc.gov/html/dob/downloads/pdf/journeyman_guide.pdf)
- Rochester:  
<http://www.cityofrochester.gov/article.aspx?id=8589939642>
- Check with your local Department of Buildings or Public Works for other areas in New York.
- State by State information on licensing requirements:  
[http://www.clsi.com/state\\_contractor\\_license\\_board.htm](http://www.clsi.com/state_contractor_license_board.htm)
- How to Become a New York City Licensed Master Plumber  
[http://www.nyc.gov/html/dob/downloads/pdf/master\\_plumbers\\_license\\_exam.pdf](http://www.nyc.gov/html/dob/downloads/pdf/master_plumbers_license_exam.pdf)
- The Plumbing-Heating-Cooling Contractors Educational Foundation:  
<http://www.phccweb.org/AboutUs/content.cfm?ItemNumber=2581&navItemNumber=5216>

*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.

The cost of licensing varies by state and locality, and generally ranges from around \$40 to a few hundred dollars.

The Master Plumber application or examination fee varies by state. For example the NY examination fee is \$210 while the NJ application fee is \$100.