

Plumbers

WHAT THEY DO

Assembles, installs, alters, and repairs pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Belongs to the Architecture and Construction cluster and Construction pathway.

IS THIS FOR YOU?

Work Interests are described in the following categories (compatible with Holland's Model) by people who tend to succeed in this career:

- **Realistic** – You are a "doer". You like physical activities and projects. You like to find the answers to problems by doing hands-on work instead of talking about solutions.
- **Conventional**—You are an "organizer". Keeping things neat and organized is important to you. You like working with charts and reports, and work well with power and authority.
- **Investigative**—You are a "thinker". When you have a problem, you like to analyze it and look at different ways to solve it. You like to work by yourself, and you don't like explaining your ideas to other people.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

- **Independence** – It's very important to you that your work allows you to make decisions on your own. You want to try out your own ideas and work with little supervision.
- **Relationships**—It's very important to you that you have friendly co-workers. You would like to be of service to others without compromising your sense of right and wrong.
- **Working Conditions**—It's very important to you that your work satisfies your needs in areas like salary, job security and your working style preferences, such as working alone, staying busy all the time or having variety in your work tasks.
- **Support** – It's very important to you to know the company stands behind its workers and has competent, considerate and fair management.

Aptitudes reflect a person's ability to acquire skills and knowledge. The following aptitudes are important for success in the career:

- **General Learning Ability**
- **Spatial Perception**
- **Form Perception**
- **Manual Dexterity**



SKILLS YOU NEED

Basic Skills:

- Reading Comprehension
- Active Listening
- Speaking
- Critical Thinking
- Active Learning
- Monitoring

Transferable Skills (applicable in other careers): Medium level

- Following construction blueprints and plans
- Following written construction work orders
- Making large fixed structures and objects
- Repairing large fixed structures and objects
- Repairing small objects
- Using construction hand and power tools
- Working as a member of a construction team

Workplace Skills:

Medium level

- Complex Problem Solving
- Coordination
- Equipment Maintenance
- Instructing
- Judgment and Decision Making
- Operation and Control
- Operation Monitoring
- Quality Control Analysis
- Repairing
- Service Orientation
- Time Management
- Troubleshooting

Additional skills for this occupation may be found at <http://www.iowaworkforcedevelopment.gov/career-exploration-resources>

Source: <https://secure.ihaveaplaniowa.gov/>

ESTIMATED & PROJECTED EMPLOYMENT

Occupational Title	2012 Estimated Employment	2022 Projected Employment	2012-22 Employment Change	Annual Growth Rate (%)	Total Annual Openings
Total, All Occupations	1,758,205	1,955,480	197,275	1.1	61,665
Construction & Extraction Occupations	75,710	93,145	17,435	2.3	2,980
Plumbers, Pipefitters, & Steamfitters	6,290	7,745	1,455	2.3	225

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

2015 WAGE & SALARY (\$)

Occupational Title	Average Wage	Average Salary	Entry Wage	Entry Salary	Experienced Wage	Experienced Salary
Total, All Occupations	19.77	41,122	9.55	19,858	24.88	51,755
Construction & Extraction Occupations	20.49	42,624	13.28	27,621	24.10	50,125
Plumbers, Pipefitters, & Steamfitters	22.62	47,050	14.00	29,125	26.93	56,013

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

EDUCATION & TRAINING

Education	Work Experience	Job Training
High School Diploma	None	Apprenticeship

A 4- or 5-year apprenticeship is how most plumbers learn their trade. Each year, apprentices must have at least 1,700 to 2,000 hours of paid on-the-job training and a minimum of 246 hours of related technical education. Apprentices learn safety, local plumbing codes and regulations, and how to read blueprints. They also study mathematics, applied physics, and chemistry. They become familiar with different types of piping systems and plumbing tasks. After completing an apprenticeship program, plumbers are considered to be a journey worker, which qualifies them to perform duties on their own. Apprenticeship programs are offered by unions and businesses. Although most workers enter apprenticeships directly, some start out as helpers. To enter an apprenticeship program, a trainee must meet these requirements: Be at least 18 years old Have a high school diploma or equivalent Pass a basic math test Pass a drug test Know how to use computers. **Approved apprenticeship programs/sponsors in Iowa can be found at http://access.bridges.com/ext/cp/custom_state_data/iowa_licensed_occupations/47-2152.htm** Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0> and <https://secure.ihaveaplaniowa.gov/>

NATIONAL CAREER READINESS CERTIFICATE (NCRC)

Skill	Median Skill Level
Applied Mathematics	4
Locating Information	4
Reading for Information	4

This ACT-developed credential demonstrates achievement and a certain level of workplace employability skills. The greater the score, the greater the skill level (Bronze = 3, Silver = 4, Gold = 5, Platinum = 6).

Source: <http://www.act.org/workkeys/analysis/occup.html>

ADDITIONAL SOURCES:

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PRIMARY INDUSTRY SECTORS

(Where are Plumbers Employed?)

Specialty Trade Contractors
Self Employed
Agriculture
Construction
Machinery Mfg

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>