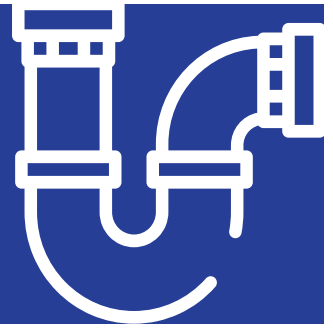




Roadmap to Opportunity

PLUMBING AND PIPEFITTING

COLLEGE. CREDENTIAL. CAREER.



Plumbing and Pipefitting Are Hot Jobs in Michigan

Plumbers and pipefitters assemble, install, and modify pipe systems used to carry liquids and gases. Plumbers install and repair piping systems in homes, businesses, and factories, while pipefitters work with pipes that are typically found in manufacturing, commercial, and industrial settings. Although plumbing and pipefitting are generally considered to be separate trades, many qualified workers are skilled in both.

To succeed in this industry, you must enjoy being physically active and working with your hands. Plumbers and pipefitters are detail-oriented and are skilled troubleshooters. A steady hand will help plumbers and pipefitters manage tools with precision, and a keen eye will help them find, diagnose, and repair problems.

Cool Classes You Can Take

Plumbers and pipefitters have to be knowledgeable, precise, and adaptable. Some of the classes that will help prepare you for success in this field include:

Fundamentals of Gas and Arc Welding

In this course, you will learn how to set up and operate gas welding and shielded metal arc welding equipment, as well as how to safely function in a welding shop. You will practice welding various joints using gas welding and arc welding processes in the flat position.

Plumbing—Heating

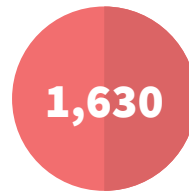
This course will outline the principles of steam and hydronic heating. You will learn about various types of steam systems and the proper sizing and trapping of steam units. You will participate in extensive study of hydronic heating, including one pipe, two pipe, high temperature, and pressure systems.

Pipefitting—power Piping System

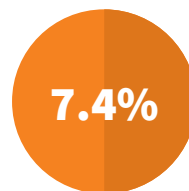
In this course, you will study power generation for industrial application and the piping systems necessary to convert water to steam for power. This course will teach you about proper safety, definitions, and application of piping terms. You will thoroughly examine standards of threaded and welded systems and fabrication, including hot and cold bending of steel and tubing.

Financial Help

There are many federal grants, work-study funds, and low-interest loans available to help students cover the costs of tuition and fees, room and board, books and supplies, transportation, and other college-related expenses. The first step in securing necessary financial aid is to complete the Free Application for Federal Student Aid ([FAFSA](#)).



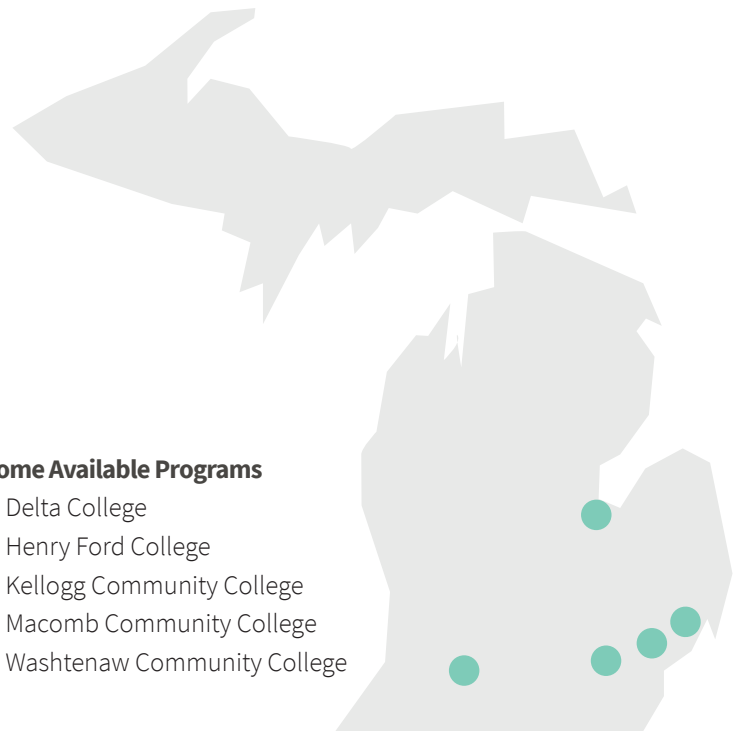
Projected job openings annually



Estimated job growth



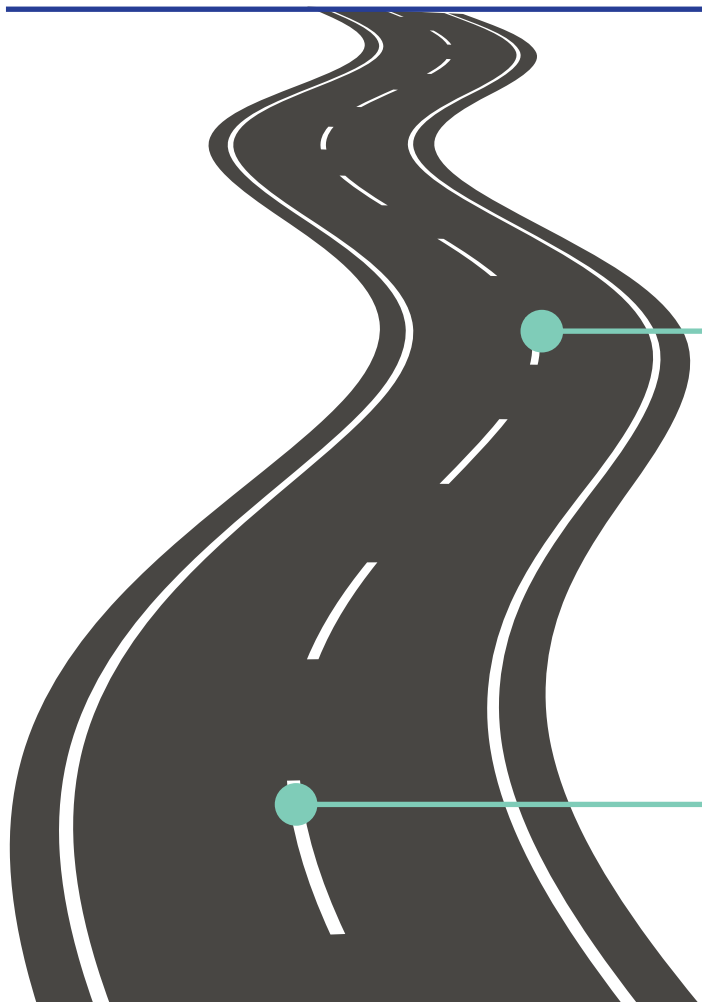
Hourly rates for plumbers and pipefitters



Some Available Programs

- Delta College
- Henry Ford College
- Kellogg Community College
- Macomb Community College
- Washtenaw Community College

There are many different education and career paths in **PLUMBING AND PIPEFITTING**. Here are a few you might follow after graduating from high school.



CERTIFICATE / ASSOCIATE DEGREE

Depending on the program and your future educational plans, you may decide between earning a certificate or an associate degree. Often the difference is only a few classes. Students earning a certificate or associate degree in this field are qualified for the same jobs. With an associate degree you may qualify for a higher salary and/or be considered a stronger candidate for an apprenticeship. You might also have more responsibility or be a stronger candidate for promotions than those with a certificate only. Apprenticeships are also required for this field.

Plumber, Pipefitter, or Steamfitter
\$65,750 annual salary

BACHELOR'S DEGREE

Civil Engineering
\$77,430 annual salary
Mechanical Engineering
\$89,990 annual salary
Construction Manager
\$96,660 annual salary

WHERE

College refers to an educational institution or establishment that provides education beyond high school and/or specialized professional training that is credit bearing.

WHAT

A **credential** verifies an individual's qualification or competence in a particular area and is usually issued by colleges in the form of certificates and academic degrees.

WHY

A **career** is a series of jobs or professional undertakings for a significant period of your life that offers opportunities for advancement and provides a life-sustaining wage.

WHEN

Now! Don't wait to go to **college** to earn a **credential** that leads not only to your first job but also to a full and rewarding **career**!



To learn more about this pathway, check out the video at roadmap2opportunity.org.

All occupational information provided by Roadmap to Opportunity is from O*NET Online and is available at ononline.org.