

CTE JOURNEYS | HANDBOOKS

# Manufacturing

CAREER AND TECHNICAL EDUCATION

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## SECTION 1



# Is This the Field for You?

Do you enjoy putting things together? Maybe you like the flow of an **assembly line**. Are you good with details? Perhaps you enjoy working with your hands. You may excel at turning smaller parts into larger products. This is the field of **manufacturing**. It offers careers to match these skills and more.



# Chapter 1 ›

## Inside the Industry

Manufacturing is the process of making new products. First, goods start as materials. A car begins as metal, plastic, and rubber. Bread comes from flour and water. Toys start as plastic or wood. Books are printed on paper. By the end, something new has been created. This is the power of manufacturing.





Manufacturing creates almost every item we use. Furniture is designed and put together. Computers are made. Machines are built for businesses and hospitals. Food is packaged.

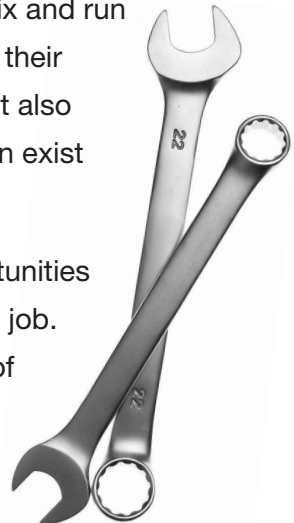






It takes different types of workers to make the items we use every day. Jobs in this field can vary. Some people work in warehouses. They might be part of an assembly line. Others fix and run machines. Workers might use tools or work with their hands. Manufacturing happens in big factories. It also happens in small shops. A manufacturing job can exist anywhere objects are made.

This industry needs skilled workers. Most opportunities do not require a degree. Training comes with the job. There is something for everyone in the process of manufacturing.







## Did You Know?

13 million people worked in the manufacturing industry in 2023.

# 13,000,000

In 2022, 91 percent of workers in the industry qualified for health insurance.

91%

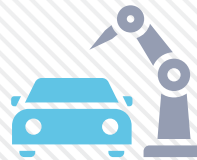
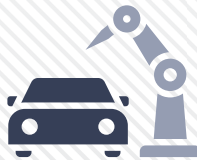
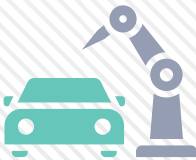


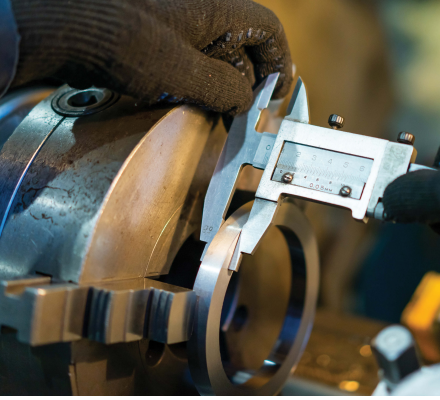
9%

The largest manufacturing sector in the U.S. is chemical manufacturing.



Building one car takes an average of 30,000 parts.





Manufacturing has many types of jobs. These roles occur in several locations. Each place needs workers with different talents. Here is a look at a few settings.

### Scene #1: Production Facility

Warehouses are one location where workers make new goods.

**Line workers** stand at assembly lines. These lines are watched by **supervisors**. **Machinists** and **welders** fix broken parts. The **millwright** adjusts parts. **Tool setters** attach blades. In the office, the **production manager** looks over plans and makes adjustments.





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## Scene #2: A Busy Office Building

Manufacturing opportunities abound in a busy office building. A **locksmith** changes locks on the doors. Inside, an **appliance repair worker** fixes a refrigerator. Nearby, a **service technician** checks the power. Some workers are outside. An **HVAC technician** puts in an air conditioner. A **cell tower technician** **troubleshoots** a problem.







### Scene #3: Storage Warehouse

There are many steps after a product is made. **Inventory** needs to be checked. A **supply clerk** does this in a warehouse. Then a **sampler** opens boxes. The **quality assurance auditor** takes notes. A **scale operator** weighs products. Those products are tracked by an **inventory control specialist**. An **expeditor** works in the office. They follow shipments and track them on a computer.





