Manufacturing refers to companies that take raw materials or parts and finish them into new goods using tools, human labor, machinery, and chemical processing. Manufacturing is no longer dirty smoke stacks and boring, repetitive work. Today’s manufacturers are using cutting edge technologies such as 3-D printers, robotics, and computer-aided modeling.

The manufacturing sector in Philadelphia is smaller than it used to be, but it has a lot of well-paying jobs. Annual wages for positions requiring some training start in the mid $40,000s. There is also a shortage of workers in manufacturing: 65 percent of employers surveyed by the National Association of Manufacturers said their inability to attract and retain employees was a primary challenge.

There are three general career pathways for starting off in manufacturing: machine operators, fabricators, and CNC (Computer Numerically Controlled) precision machining. Here are example careers for each:

### MANUFACTURING CAREERS

**MACHINE OPERATOR**
- Metal and Plastic Machine Worker
- Tool and Die Maker
- Packaging/Filling Machine Operator and Tender

**FABRICATOR**
- Welder
- Solderer & Brazier Fiberglass Laminator

**CNC PRECISION MACHINING**
- CNC Machinist

### WAYS TO EXPLORE CAREERS IN MANUFACTURING

**#1.** Identify your strengths, talents, and interests as a way to think about what manufacturing careers might be best for you. **ACTION STEP:** Check out Career Cruising for useful information on 16 career clusters (free with a library card).

**#2.** Look for training programs in manufacturing careers that you think might be a good fit for you. **ACTION STEP:** Visit the Career Training Database and connect with programs.

**#3.** Seek guidance and support from a trusted friend, relative, or advisor as you launch your manufacturing career. **ACTION STEP:** Find PA CareerLink® events at neighborhood libraries that offer one-on-one job search guidance.

Sources:
1. Definition adapted from Investopedia.