



Explore a Career as a **TOOLMAKER OR WELDER**

Target Occupation Profile

What do Toolmakers and Welders do?

Toolmakers and welders are important occupations in manufacturing and include a variety of job titles. For example, tool and die makers set up and operate a variety of machines to produce precision metal parts, instruments, and tools. They work in machine shops, tool rooms, and on factory floors, and often use CAD, a specialized computer program, to develop products and parts. Welders use heat to melt and fuse together metal pieces to permanently join two or more metal parts and sometimes have additional titles such as cutters, solders, and brazers. Welders use many different welding methods for specific purposes including maintenance and repair, as well as operate, set, and tend the machinery involved. Welding is used to join steel beams in the construction of buildings, bridges, and other structures and to join pipes in pipelines, power plants, and refineries. Toolmakers and welders are employed across a broad range of industries including construction, car racing, oil and gas, mining, and manufacturing.

Toolmakers and Welders are in demand in Cook County!

Cook County employment of toolmakers and welders is expected to grow through the year 2020.

Training & Educational Opportunities

You will have plenty of employment opportunities as a toolmaker or welder but first you will have to complete on-the-job training and possibly earn a certificate. Courses in design and blueprint reading, welding, cutting tools, and CNC programming and operations will lead to many opportunities in manufacturing.

As a Toolmaker or Welder you will:

- Compute and verify dimensions, sizes, shapes and tolerances of work pieces
- File, grind and adjust parts so that they fit together properly
- Read blueprints, sketches, specifications, or CAD and CAM files for making tools and dies
- Set up, operate, and disassemble conventional, manual, and CNC machine tools
- Test completed tools and dies to ensure that they meet specifications
- Weld components in flat, horizontal, vertical or overhead positions

Toolmaker or Welder

Training Providers

There are many training providers available in Cook County to supply you with the training you need for a career as a toolmaker or welder.

To access a list of training providers for these occupations and many more, please visit Illinoisworknet.com and select the 'Training and Credentials' menu option to view 'WIOA Approved Training Programs.'



Types of Employers

There are many types of employers looking to hire toolmakers and welders in Cook County, including:

- Construction and building companies
- Machine shops
- Manufacturing companies
- Utility and energy companies

Wages & Openings

Toolmaker and Welder Employment Data for Cook County

Average Starting Hourly Wage	\$12.96
Average Hourly Wage With Experience	\$20.72
Average Annual Job Openings Cook County	151
Average Annual Job Openings Chicago Metro	287

*Source: Emsi, 2017.2

Opportunities

After you complete your training or earn your certificate as a toolmaker or welder, you will have many opportunities for additional certification and specialization, including:

- Certified Robotic Arc Welder
- Certified Welding Educator
- Die Maintenance Specialist
- Tooling Engineer



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312.603.0200



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