

BuildND.org

Ironworker

Job Description

Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings.

Work Conditions

Ironworkers perform physically demanding and dangerous work, often working at great heights. As a result, workers must wear safety harnesses to reduce the risk of falling.

How to Become an Iron Worker

Although most structural iron and steel workers learn through an apprenticeship, some learn on the job. Certifications in welding and rigging can be helpful.

- **Education**

- A high school diploma is generally required.
- Courses in math, shop, blueprint reading, and welding can be particularly useful.

- **Training**

- Most ironworkers learn their trade through a 3- or 4-year apprenticeship.
 - For each year of the program, apprentices must have at least 144 hours of related technical training and 2,000 hours of paid on-the-job training.
 - Nearly all apprenticeship programs teach both reinforcing and structural ironworking.
 - On the job, apprentices learn to use the tools and equipment of the trade; handle, measure, cut, and lay rebar; and construct metal frameworks. In technical training, they are taught basic mathematics, blueprint reading and sketching, general construction techniques, safety practices, and first aid.
- After completing an apprenticeship program, they are considered to be journeymen who perform tasks with less guidance.
- A few groups, including unions and contractor associations, sponsor apprenticeship programs. The basic qualifications required for entering an apprenticeship program are as follows:
 - Minimum age of 18
 - High school diploma or equivalent
 - Physical ability to perform the work
 - Pass substance abuse screening

- **Licenses, Certifications, and Registrations**

Many ironworkers become welders certified by the American Welding Society. Certifications in welding, rigging, and crane signaling may increase a worker's usefulness on the jobsite and result in higher pay.



Associated General Contractors of North Dakota
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- **Important Qualities**

- **Balance**
Because workers often walk on narrow beams, a good sense of balance is important to keep them from falling while doing their job.
- **Depth perception**
Ironworkers must be able to envision the distance between objects and themselves to work safely. Ironworkers that misjudge the distance between girders, for example, may cause the girders to collide, which can be dangerous and costly.
- **Physical stamina**
Ironworkers must have physical endurance because they spend many hours on their feet while connecting heavy and cumbersome beams.
- **Physical strength**
Ironworkers must be strong enough to guide heavy beams into place and tighten bolts.
- **Unafraid of heights**
Some ironworkers must not be afraid to work at great heights. For example, as they erect skyscrapers, workers must walk on narrow beams—sometimes over 50 stories high—while connecting girders.

Wage Information:

The table below shows the estimated Employment Wage Statistics for individuals in North Dakota employed as Ironworkers in 2013.

Rate Type	Entry level	Mean	Experienced
Annual Wage	\$29,600	\$43,910	\$51,070
Hourly Wage	\$14.23	\$21.11	\$24.55

For more information [click here](#).



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