

# Welding Technology Occupation Report

**CIP 48.0508**

Cochise, Pima, SC

## Welding Technology/Welder

CIP 2010: A program that prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards

## Occupation Gender Breakdown 2016

Gender	Jobs	Percent
Males	682	94.9%
Females	36	5.1%

## Occupation Age Breakdown 2016

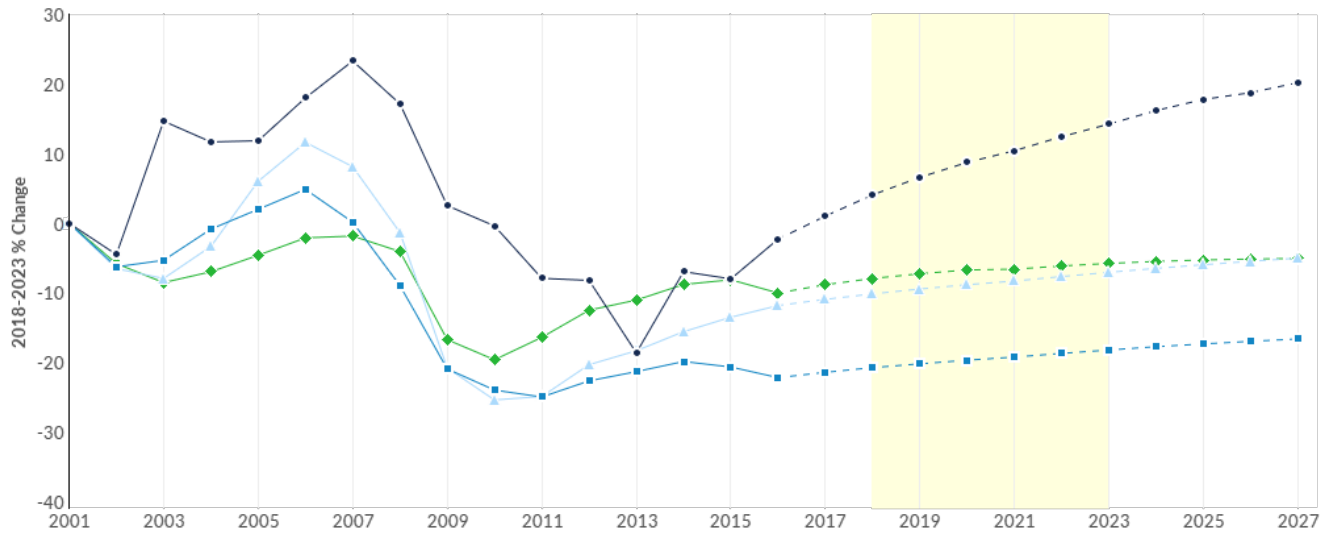
Age	Jobs	Percent
14-18	2	0.3%
19-24	56	7.8%
25-34	145	20.2%
35-44	161	22.5%
45-54	209	29.0%
55-64	123	17.2%
65+	22	3.0%

## Occupation Summary for 48.0508

<p><b>718</b></p> <p>Jobs (2016)</p> <p>47% below National average</p>	<p><b>3.1%</b></p> <p>% Change (2018-2023)</p> <p>Nation: 2.3%</p>	<p><b>\$17.70/hr</b></p> <p>Median Hourly Earnings</p> <p>Nation: \$18.57/hr</p>
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October 10, 2017

# Occupation Change Summary



	Region	2018 Jobs	2023 Jobs	Change	% Change	Median Hourly Earnings
●	Cochise County, AZ	53	58	5	9%	\$14.34
●	Cochise, Pima, SC	732	755	23	3%	\$17.70
●	Arizona (AZ)	6,461	6,684	223	3%	\$17.79
●	United States	463,929	474,826	10,897	2%	\$18.57

SOC	Description	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	High school diploma or equivalent	None	Moderate-term on-the-job training

## Occupation Breakdown - 2018 Jobs

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
51-4121	Welders, Cutters, Solderers, and Brazers	50	692	5,853	416,619
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	<10	40	608	47,310
	Total	53	732	6,461	463,929

October 10, 2017

## Occupation Breakdown - 2023 Jobs

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
51-4121	Welders, Cutters, Solderers, and Brazers	55	715	6,102	430,416
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	<10	40	582	44,410
	Total	58	755	6,684	474,826

## Occupation Breakdown - Change

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
51-4121	Welders, Cutters, Solderers, and Brazers	5	23	249	13,797
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	--	0	-26	-2,900
	Total	5	23	223	10,897

## Occupation Breakdown - Median Hourly Earnings

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	--	\$18.47	\$17.57	\$17.65
51-4121	Welders, Cutters, Solderers, and Brazers	\$14.22	\$17.66	\$17.84	\$18.66
	Total	\$14.27	\$17.71	\$17.81	\$18.56








## Top Industries – Change from 2018 - 2023

NAICS Code	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
237110	Water and Sewer Line and Related Structures Construction	--	1	7	368
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1	3	53	530
333120	Construction Machinery Manufacturing	--	--	11	160
333911	Pump and Pumping Equipment Manufacturing	--	--	4	-56
901199	Federal Government, Civilian, Excluding Postal Service	--	0	0	-83
	Total	4	7	76	921

Source: QCEW Employees, Non-QCEW Employees & Self-Employed - Emsi 2017.3 Class of Worker

### National Educational Attainment








Welders, Cutters, Solderers, and Brazers (51-4121)

Education Level	2016 Percent
Less than high school diploma	21.3% 
High school diploma or equivalent	48.0% 
Some college, no degree	21.8% 
Associate's degree	6.4% 
Bachelor's degree	2.2% 
Master's degree	0.2% 
Doctoral or professional degree	0.1% 

\* National Educational Attainment - Settings

## National Educational Attainment

Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)

	Education Level	2016 Percent
●	Less than high school diploma	21.3% 
●	High school diploma or equivalent	48.0% 
●	Some college, no degree	21.8% 
●	Associate's degree	6.4% 
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●	Master's degree	0.2% 
●	Doctoral or professional degree	0.1% 

\* National Educational Attainment – Settings

# Appendix A - Data Sources and Calculations

## Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

## Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

## Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.

## Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

## State Data Sources

This report uses state data from the following agencies: Arizona Department of Administration, Office of Employment and Population Statistics