

Occupation Overview

EMSI Q2 2015 Data Set

AC, Heating & Refrigeration Technology Program
October 2015

Western Technical College



400 Seventh Street
La Crosse, Wisconsin 54601
608.785.9200

Parameters

Occupations

Code	Description
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Regions

Code	Description
55011	Buffalo County, WI
55023	Crawford County, WI
55053	Jackson County, WI
55057	Juneau County, WI
55063	La Crosse County, WI
55081	Monroe County, WI
55121	Trempealeau County, WI
55123	Vernon County, WI

Timeframe

2016 - 2020

Datarun

2015.2 – Employees

AC, Heating & Refrigeration Technology (2 yr) 2015 (AED) in 8 Counties

Heating, Air Conditioning, and Refrigeration Mechanics and Installers (SOC 49-9021): Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Sample of Reported Job Titles: Refrigeration Mechanic Systems Mechanic Service Technician Maintenance Mechanic HVAC-R Tech (Heating, Ventilation, Air Conditioning and Refrigeration Technician) Refrigeration Technician VRT Mechanic (Variable Retention Time Mechanic) Transportation Refrigeration Technician Technician

Related O*NET Occupations: Heating and Air Conditioning Mechanics and Installers (49-9021.01) Refrigeration Mechanics and Installers (49-9021.02)

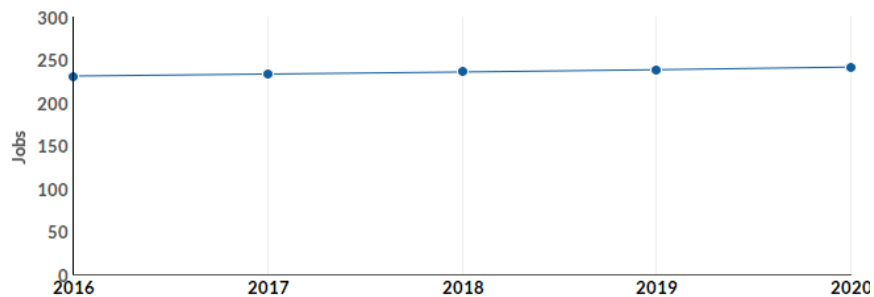
SOC	Description	2016 Jobs	2020 Jobs	2016 - 2020 Change	2016 - 2020 % Change	Openings	Annual Openings	Median Hourly Earnings
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	232	242	10	4%	37	9	\$23.18

Occupation Summary for AC, Heating & Refrigeration Technology (2 yr) 2015 (AED)

229 Jobs (2015) 19% below National average	4.5% % Change (2016-2020) Nation: 6.3%	\$23.18/hr Median Hourly Earnings Nation: \$21.46/hr
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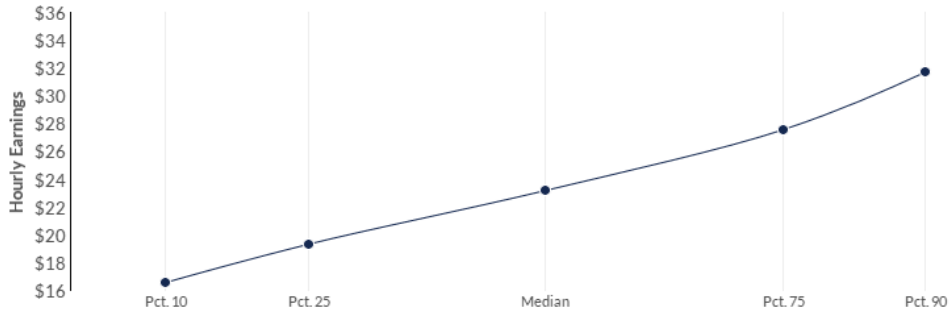
Growth for Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

232 2016 Jobs	242 2020 Jobs	10 Change (2016-2020)	4.5% % Change (2016-2020)
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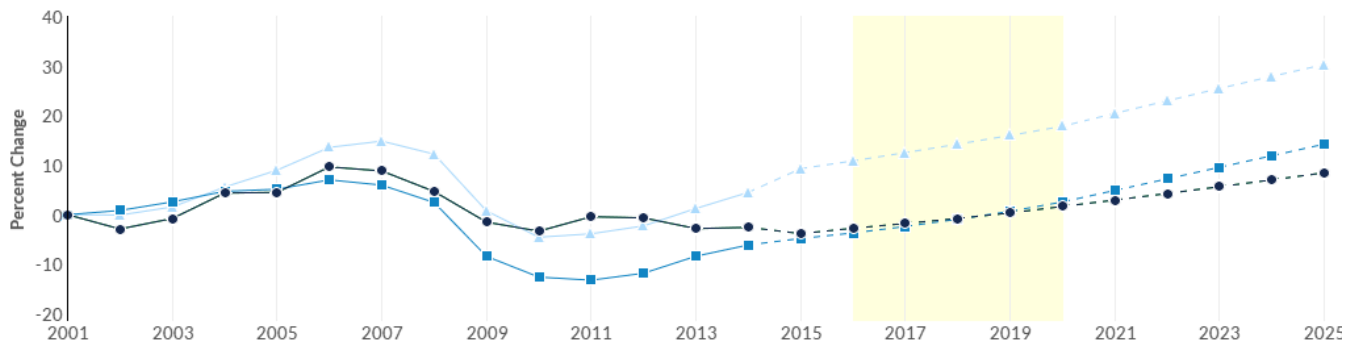


Percentile Earnings for Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

\$19.31/hr 25th Percentile Earnings	\$23.18/hr Median Earnings	\$27.55/hr 75th Percentile Earnings
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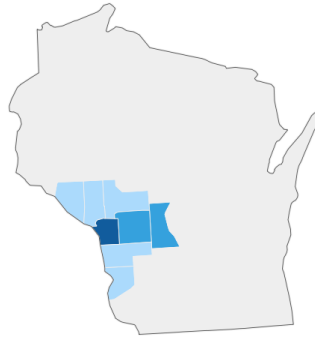


Regional Trends



Region	2016 Jobs	2020 Jobs	Change	% Change
● Region	232	242	10	4.3%
● State	4,710	5,016	306	6.5%
● Nation	284,483	302,415	17,932	6.3%
● Western Technical College District	232	242	10	4.3%

Regional Breakdown



County	2020 Jobs
La Crosse County, WI	184
Monroe County, WI	22
Juneau County, WI	15
Trempealeau County, WI	<10
Buffalo County, WI	<10

Occupation Gender Breakdown



Gender	2015 Jobs	2015 Percent
Males	227	99.1%
Females	2	0.9%

Occupation Age Breakdown



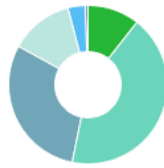
	Age	2015 Jobs	2015 Percent
●	14-18	1	0.5%
●	19-24	20	8.7% █
●	25-34	64	27.9% █
●	35-44	61	26.6% █
●	45-54	52	22.8% █
●	55-64	26	11.5% █
●	65+	5	2.0% █








Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2015 Jobs	2015 Percent
●	White	224	97.8% █
●	Hispanic or Latino	2	0.9% █
●	Black or African American	1	0.5% █
●	Asian	1	0.4% █
●	American Indian or Alaska Native	0	0.1% █
●	Two or More Races	0	0.1% █
●	Native Hawaiian or Other Pacific Islander	0	0.0% █

National Educational Attainment



	Education Level	2015 Percent
●	Less than high school diploma	10.6% 
●	High school diploma or equivalent	42.6% 
●	Some college, no degree	29.8% 
●	Associate's degree	12.9% 
●	Bachelor's degree	3.5% 
●	Master's degree	0.5% 
●	Doctoral or professional degree	0.1% 

Occupational Programs

	2 Programs (2014)	19 Completions (2014)	6 Openings (2014)
CIP Code	Program		Completions (2014)
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician		19
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician		0

Industries Employing AC, Heating & Refrigeration Technology (2 yr) 2015 (AED)

Industry	Occupation Jobs in Industry (2015)	% of Occupation in Industry (2015)	% of Total Jobs in Industry (2015)
Plumbing, Heating, and Air-Conditioning Contractors	155	67.7%	21.7%
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	15	6.5%	0.9%
Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	<10	2.7%	3.2%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	<10	2.2%	3.1%
Local Government, Excluding Education and Hospitals	<10	2.2%	0.1%

Appendix A - Data Sources and Calculations

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.

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.

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.

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.

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.

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.

State Data Sources

This report uses state data from the following agencies: Illinois Department of Employment Security, Employment Projections; Iowa Workforce Development; Michigan Department of Labor and Economic Growth, Bureau of Labor Market Information and Strategic Initiatives; Minnesota Department of Employment and Economic Development; Wisconsin Department of Workforce Development, Bureau of Workforce Information