

# Occupation Overview

EMSI Q2 2015 Data Set

Electronic Systems Installation and Maintenance Program  
October 2015

## Western Technical College



400 Seventh Street  
La Crosse, Wisconsin 54601  
608.785.9200

# Parameters

## Occupations

Code	Description
47-2111	Electricians
47-2231	Solar Photovoltaic Installers
47-4099	Construction and Related Workers, All Other
49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2097	Electronic Home Entertainment Equipment Installers and Repairers
51-2021	Coil Winders, Tapers, and Finishers
51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers

## 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

Electronic Systems Installation and Maintenance 2015 (AED) in 8 Counties

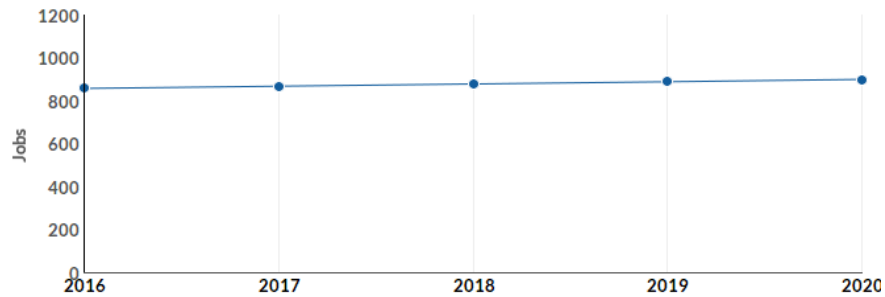
SOC	Description	2016 Jobs	2020 Jobs	2016 - 2020 Change	2016 - 2020 % Change	Openings	Annual Openings	Median Hourly Earnings
47-2111	Electricians	437	489	52	12%	89	22	\$26.26
47-2231	Solar Photovoltaic Installers	<10	<10	Insf. Data	Insf. Data	<10	Insf. Data	Insf. Data
47-4099	Construction and Related Workers, All Other	20	21	1	5%	<10	Insf. Data	\$16.21
49-2011	Computer, Automated Teller, and Office Machine Repairers	42	42	0	0%	<10	Insf. Data	\$17.53
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	30	32	2	7%	<10	Insf. Data	\$24.55
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	16	18	2	13%	<10	Insf. Data	\$17.19
51-2021	Coil Winders, Tapers, and Finishers	13	13	0	0%	<10	Insf. Data	\$18.35
51-2022	Electrical and Electronic Equipment Assemblers	226	215	(11)	(5%)	19	5	\$13.67
51-2023	Electromechanical Equipment Assemblers	72	67	(5)	(7%)	<10	Insf. Data	\$18.28
		859	901	42	5%	135	34	\$21.05

## Occupation Summary for Electronic Systems Installation and Maintenance 2015 (AED)

<b>848</b>	<b>4.9%</b>	<b>\$21.05/hr</b>
<b>Jobs (2015)</b>	<b>% Change (2016-2020)</b>	<b>Median Hourly Earnings</b>
25% below National average	Nation: 2.5%	Nation: \$21.11/hr

## Growth

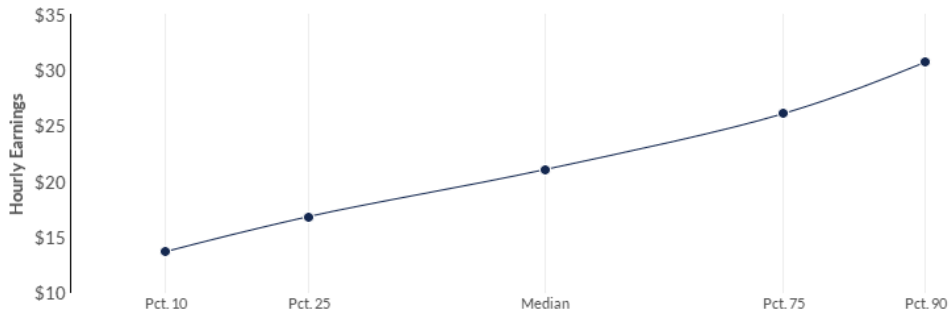
<b>859</b> 2016 Jobs	<b>901</b> 2020 Jobs	<b>42</b> Change (2016-2020)	<b>4.9%</b> % Change (2016-2020)
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Occupation	2016 Jobs	2020 Jobs	Change	% Change
Electricians (47-2111)	437	489	52	12%
Solar Photovoltaic Installers (47-2231)	4	4	0	0%
Construction and Related Workers, All Other (47-4099)	20	21	1	5%
Computer, Automated Teller, and Office Machine Repairers (49-2011)	42	42	0	0%
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)	30	32	2	7%
Electronic Home Entertainment Equipment Installers and Repairers (49-2097)	16	18	2	13%
Coil Winders, Tapers, and Finishers (51-2021)	13	13	0	0%
Electrical and Electronic Equipment Assemblers (51-2022)	226	215	-11	-5%
Electromechanical Equipment Assemblers (51-2023)	72	67	-5	-7%

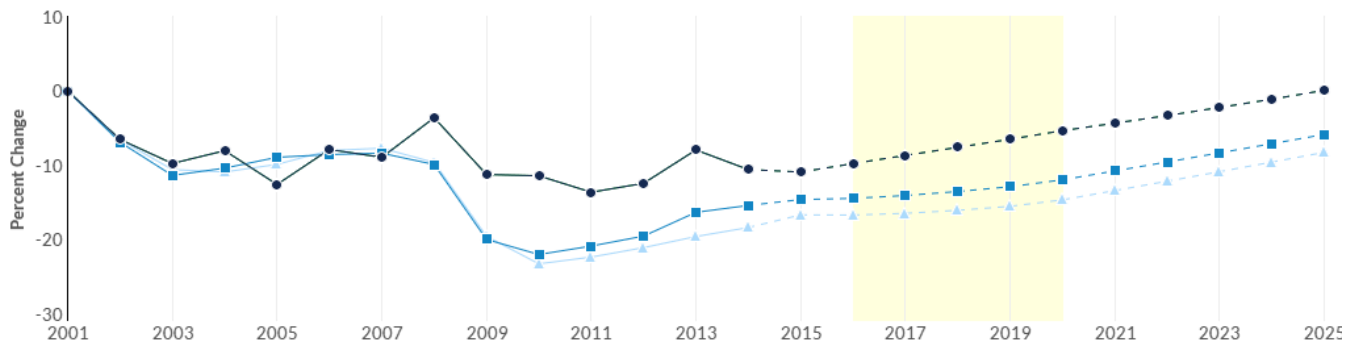
## Percentile Earnings

<b>\$16.80/hr</b> 25th Percentile Earnings	<b>\$21.05/hr</b> Median Earnings	<b>\$26.06/hr</b> 75th Percentile Earnings
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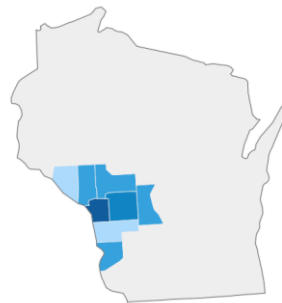
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Electricians (47-2111)	\$20.47	\$26.26	\$33.30
Solar Photovoltaic Installers (47-2231)	\$15.96	\$17.99	\$20.01
Construction and Related Workers, All Other (47-4099)	\$13.27	\$16.21	\$19.94
Computer, Automated Teller, and Office Machine Repairers (49-2011)	\$13.87	\$17.53	\$22.33
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)	\$20.90	\$24.55	\$27.50
Electronic Home Entertainment Equipment Installers and Repairers (49-2097)	\$14.48	\$17.19	\$20.49
Coil Winders, Tapers, and Finishers (51-2021)	\$15.03	\$18.35	\$20.49
Electrical and Electronic Equipment Assemblers (51-2022)	\$11.30	\$13.67	\$16.35
Electromechanical Equipment Assemblers (51-2023)	\$15.30	\$18.28	\$21.34

## Regional Trends



	Region	2016 Jobs	2020 Jobs	Change	% Change
●	Region	859	901	42	4.9%
■	State	25,304	26,043	739	2.9%
▲	Nation	1,122,574	1,150,138	27,564	2.5%
●	Western Technical College District	859	901	42	4.9%

## Regional Breakdown



County	2020 Jobs
La Crosse County, WI	434
Monroe County, WI	176
Jackson County, WI	68
Juneau County, WI	66
Crawford County, WI	59

## Occupation Gender Breakdown



	Gender	2015 Jobs	2015 Percent
•	Males	671	79.1%
•	Females	177	20.9%

## Occupation Age Breakdown



	Age	2015 Jobs	2015 Percent
•	14-18	4	0.5%
•	19-24	73	8.6%
•	25-34	180	21.2%
•	35-44	184	21.7%
•	45-54	214	25.3%
•	55-64	166	19.6%
•	65+	26	3.1%

## Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2015 Jobs	2015 Percent
●	White	793	93.5%
●	Asian	27	3.2%
●	Hispanic or Latino	13	1.6%
●	Black or African American	9	1.1%
●	American Indian or Alaska Native	3	0.4%
●	Two or More Races	2	0.3%
●	Native Hawaiian or Other Pacific Islander	0	0.0%

## Occupational Programs

	3 Programs (2014)	39 Completions (2014)	26 Openings (2014)
CIP Code	Program	Completions (2014)	
47.0105	Industrial Electronics Technology/Technician	21	
15.0403	Electromechanical Technology/Electromechanical Engineering Technology	12	
46.0302	Electrician	6	



## Industries Employing Electronic Systems Installation and Maintenance 2015 (AED)

Industry	Occupation Group Jobs in Industry (2015)	% of Occupation Group in Industry (2015)	% of Total Jobs in Industry (2015)
Electrical Contractors and Other Wiring Installation Contractors	248	29.2%	54.7%
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	106	12.5%	6.4%
Motor and Generator Manufacturing	59	7.0%	24.5%
Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	29	3.4%	19.4%
Local Government, Excluding Education and Hospitals	28	3.3%	0.4%

# 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