

# Occupation Overview

EMSI Q2 2015 Data Set

Electronic & Computer Engineering Technology Program  
October 2015

## Western Technical College



400 Seventh Street  
La Crosse, Wisconsin 54601  
608.785.9200

# Parameters

## Occupations

---

Code	Description
17-2061	Computer Hardware Engineers
17-2072	Electronics Engineers, Except Computer
17-3012	Electrical and Electronics Drafters
17-3023	Electrical and Electronics Engineering Technicians
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay

---

## 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 & Computer Engineering Technology 2105 (AED) in 8 Counties

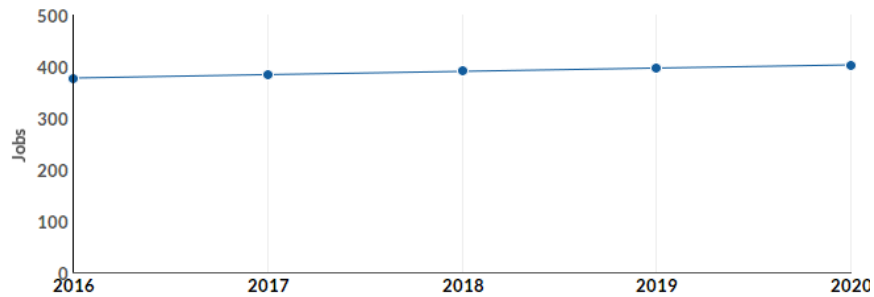
SOC	Description	2016 Jobs	2020 Jobs	2016 - 2020 Change	2016 - 2020 % Change	Openings	Annual Openings	Median Hourly Earnings
17-2061	Computer Hardware Engineers	11	12	1	9%	<10	Insf. Data	\$41.62
17-2072	Electronics Engineers, Except Computer	27	30	3	11%	<10	Insf. Data	\$33.10
17-3012	Electrical and Electronics Drafters	<10	<10	Insf. Data	Insf. Data	<10	Insf. Data	Insf. Data
17-3023	Electrical and Electronics Engineering Technicians	83	84	1	1%	<10	Insf. Data	\$24.60
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	239	258	19	8%	33	8	\$21.90
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	10	10	0	0%	<10	Insf. Data	Insf. Data
		378	404	26	7%	53	13	\$24.21

## Occupation Summary for Electronic & Computer Engineering Technology 2105 (AED)

<b>369</b> Jobs (2015) 42% below National average	<b>6.8%</b> % Change (2016-2020) Nation: 1.5%	<b>\$24.21/hr</b> Median Hourly Earnings Nation: \$34.88/hr
---------------------------------------------------------	-----------------------------------------------------	-------------------------------------------------------------------

## Growth

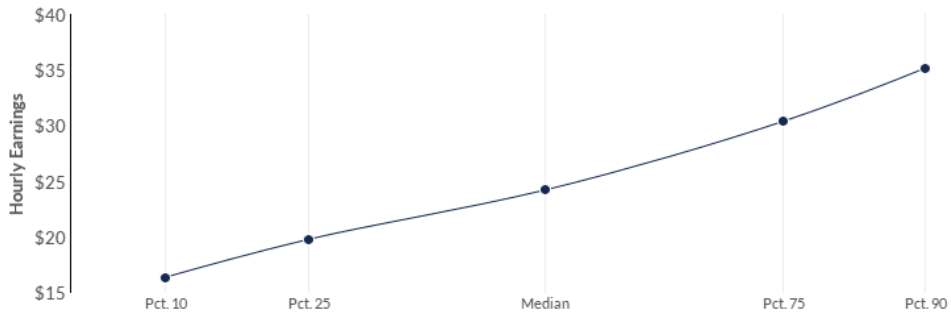
<b>378</b> 2016 Jobs	<b>404</b> 2020 Jobs	<b>26</b> Change (2016-2020)	<b>6.8%</b> % Change (2016-2020)
-------------------------	-------------------------	---------------------------------	-------------------------------------



Occupation	2016 Jobs	2020 Jobs	Change	% Change
Computer Hardware Engineers (17-2061)	11	12	1	9%
Electronics Engineers, Except Computer (17-2072)	27	30	3	11%
Electrical and Electronics Drafters (17-3012)	8	9	1	13%
Electrical and Electronics Engineering Technicians (17-3023)	83	84	1	1%
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)	239	258	19	8%
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	10	10	0	0%

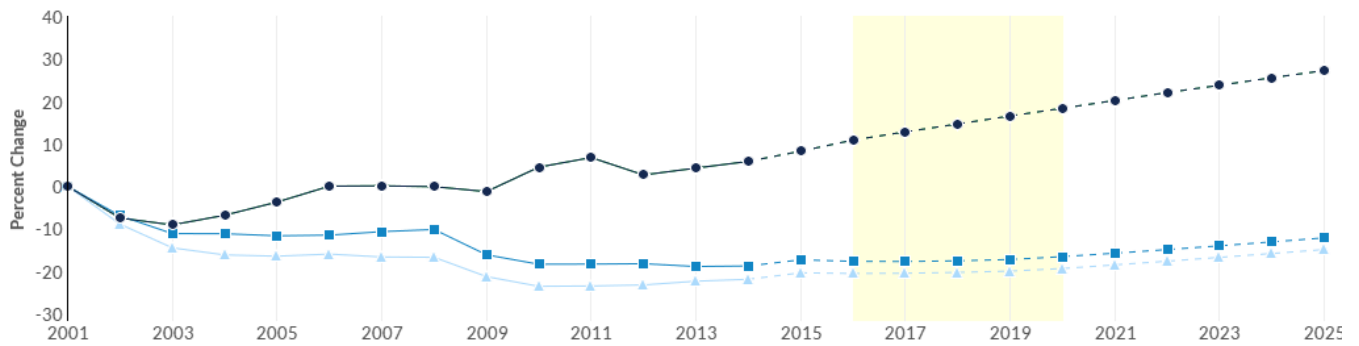
## Percentile Earnings

<b>\$19.75/hr</b> 25th Percentile Earnings	<b>\$24.21/hr</b> Median Earnings	<b>\$30.37/hr</b> 75th Percentile Earnings
-----------------------------------------------	--------------------------------------	-----------------------------------------------



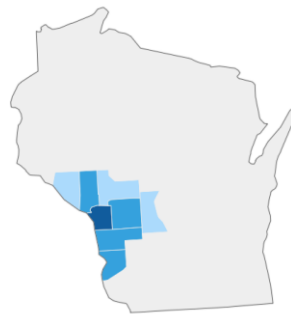
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Computer Hardware Engineers (17-2061)	\$33.20	\$41.62	\$56.23
Electronics Engineers, Except Computer (17-2072)	\$27.43	\$33.10	\$41.36
Electrical and Electronics Drafters (17-3012)	\$21.14	\$24.17	\$27.32
Electrical and Electronics Engineering Technicians (17-3023)	\$20.40	\$24.60	\$28.65
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)	\$17.62	\$21.90	\$28.46
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	\$30.54	\$35.44	\$37.90

## Regional Trends



	Region	2016 Jobs	2020 Jobs	Change	% Change
●	Region	378	404	26	6.9%
●	State	9,716	9,848	132	1.4%
●	Nation	630,213	639,450	9,237	1.5%
●	Western Technical College District	378	404	26	6.9%

## Regional Breakdown



County	2020 Jobs
La Crosse County, WI	244
Monroe County, WI	46
Trempealeau County, WI	30
Crawford County, WI	24
Vernon County, WI	24

# Occupation Gender Breakdown



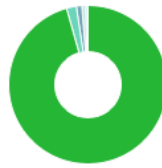
	Gender	2015 Jobs	2015 Percent
•	Males	327	88.5%
•	Females	42	11.5%

# Occupation Age Breakdown



	Age	2015 Jobs	2015 Percent
•	14-18	1	0.4%
•	19-24	24	6.5%
•	25-34	77	20.8%
•	35-44	82	22.3%
•	45-54	99	26.9%
•	55-64	76	20.5%
•	65+	9	2.5%

## Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2015 Jobs	2015 Percent
●	White	353	95.6%
●	Asian	7	2.0%
●	Black or African American	4	1.1%
●	Hispanic or Latino	3	0.7%
●	American Indian or Alaska Native	1	0.3%
●	Two or More Races	1	0.2%
●	Native Hawaiian or Other Pacific Islander	0	0.0%

## Occupational Programs

	4 Programs (2014)	37 Completions (2014)	15 Openings (2014)
CIP Code	Program	Completions (2014)	
47.0105	Industrial Electronics Technology/Technician	21	
15.1201	Computer Engineering Technology/Technician	10	
46.0302	Electrician	6	
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	0	



## Industries Employing Electronic & Computer Engineering Technology 2105 (AED)

Industry	Occupation Group Jobs in Industry (2015)	% of Occupation Group in Industry (2015)	% of Total Jobs in Industry (2015)
Wired Telecommunications Carriers	91	24.5%	34.5%
Cable and Other Subscription Programming	39	10.5%	43.9%
Electrical Contractors and Other Wiring Installation Contractors	37	10.0%	8.2%
Federal Government, Civilian, Excluding Postal Service	27	7.4%	0.9%
Fossil Fuel Electric Power Generation	19	5.1%	3.1%

# 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