

# Bio-Medical Engineering Occupation Overview

Emsi Q1 2018 Data Set

March 2018

## Western Technical College



400 Seventh Street  
La Crosse, Wisconsin 54601  
608.785.9200

# Parameters

## Occupations

Code	Description
17-3023	Electrical and Electronics Engineering Technicians
17-3029	Engineering Technicians, Except Drafters, All Other
49-9062	Medical Equipment Repairers

## Regions

Code	Description
55011	Buffalo 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

2019 - 2023

## Datarun

2018.1 – QCEW Employees, Non-QCEW Employees, and Self-Employed

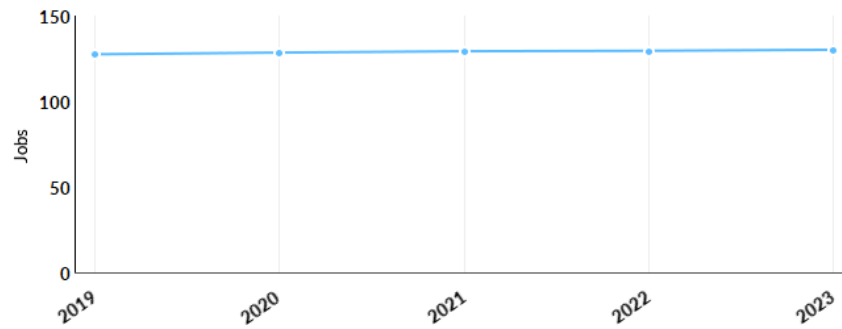
106056 BMEL in Western District

# Occupation Summary for 106056 BMEL

<b>127</b> Jobs (2019) 49% below National average	<b>2.4%</b> % Change (2019-2023) Nation: 1.8%	<b>\$25.38/hr</b> Median Hourly Earnings Nation: \$28.75/hr
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## Growth

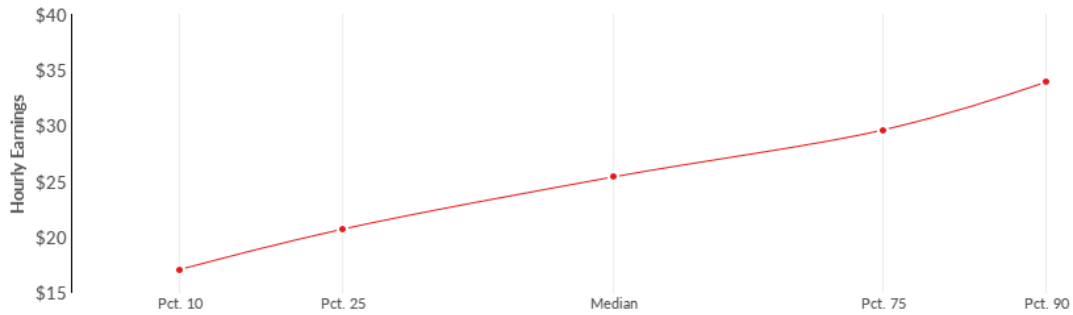
<b>127</b> 2019 Jobs	<b>130</b> 2023 Jobs	<b>3</b> Change (2019-2023)	<b>2.4%</b> % Change (2019-2023)
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Occupation	2019 Jobs	2023 Jobs	Change	% Change
Electrical and Electronics Engineering Technicians (17-3023)	58	60	2	3%
Engineering Technicians, Except Drafters, All Other (17-3029)	51	51	0	0%
Medical Equipment Repairers (49-9062)	18	19	1	6%

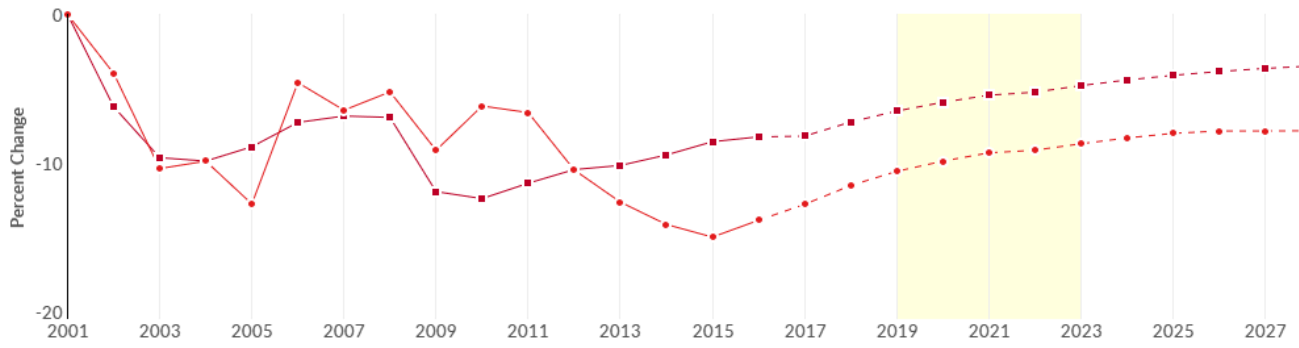
## Percentile Earnings

<b>\$20.67/hr</b> 25th Percentile Earnings	<b>\$25.38/hr</b> Median Earnings	<b>\$29.61/hr</b> 75th Percentile Earnings
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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Electrical and Electronics Engineering Technicians (17-3023)	\$20.20	\$24.57	\$28.68
Engineering Technicians, Except Drafters, All Other (17-3029)	\$23.61	\$27.68	\$31.07
Medical Equipment Repairers (49-9062)	\$15.44	\$19.44	\$24.51

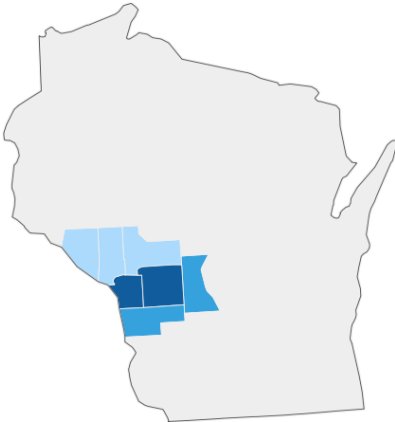
# Regional Trends



	Region	2019 Jobs	2023 Jobs	Change	% Change
●	Region	127	130	3	2.4%
●	Nation	264,806	269,657	4,851	1.8%

# Regional Breakdown

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County	2023 Jobs
Monroe County, WI	48
La Crosse County, WI	48
Juneau County, WI	11
Vernon County, WI	<10
Jackson County, WI	<10

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# Occupation Gender Breakdown



	Gender	2017 Jobs	2017 Percent	
●	Males	100	80.5%	
●	Females	24	19.5%	

# Occupation Age Breakdown



	Age	2017 Jobs	2017 Percent
•	14-18	0	0.3%
•	19-24	10	8.3% █
•	25-34	21	16.9% █
•	35-44	23	18.3% █
•	45-54	35	28.5% █
•	55-64	30	24.5% █
•	65+	4	3.3% █

# Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2017 Jobs	2017 Percent
•	White	113	90.9%
•	Black or African American	4	3.3%
•	Asian	3	2.4%
•	Hispanic or Latino	3	2.2%
•	Two or More Races	1	0.6%
•	American Indian or Alaska Native	1	0.6%
•	Native Hawaiian or Other Pacific Islander	0	0.0%

## Occupational Programs

<b>5</b>	<b>40</b>	<b>13</b>
<b>Programs (2016)</b>	<b>Completions (2016)</b>	<b>Openings (2016)</b>
<b>CIP Code</b>	<b>Program</b>	<b>Completions (2016)</b>
15.1201	Computer Engineering Technology/Technician	14
15.0401	Biomedical Technology/Technician	13
15.0503	Energy Management and Systems Technology/Technician	8
15.0101	Architectural Engineering Technology/Technician	5
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	0

## Industries Employing 106056 BMEL

Industry	Occupation Group Jobs in Industry (2017)	% of Occupation Group in Industry (2017)	% of Total Jobs in Industry (2017)
Federal Government, Civilian, Excluding Postal Service	35	28.5%	1.1%
General Medical and Surgical Hospitals	<10	7.0%	0.1%
Fossil Fuel Electric Power Generation	<10	5.2%	1.0%
Local Government, Excluding Education and Hospitals	<10	4.7%	0.1%
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	<10	3.8%	0.3%

# 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.

## 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.

## 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