

Occupation Overview

EMSI Q2 2015 Data Set

Machine Tool Operation
October 2015

Western Technical College



400 Seventh Street
La Crosse, Wisconsin 54601
608.785.9200

Parameters

Occupations

18 items selected. See Appendix A for details.

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

Machine Tool Operation 2015 (AED) in 8 Counties

| SOC | Description | 2016 Jobs | 2020 Jobs | 2016 - 2020 Change | 2016 - 2020 % Change | Openings | Annual Openings | Median Hourly Earnings |
|---------|---|-----------|-----------|--------------------|----------------------|----------|-----------------|------------------------|
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal and Plastic | 294 | 323 | 29 | 10% | 64 | 16 | \$16.88 |
| 51-4012 | Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic | 71 | 80 | 9 | 13% | 18 | 5 | \$22.83 |
| 51-4021 | Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic | 103 | 96 | (7) | (7%) | <10 | Insf. Data | \$13.61 |
| 51-4022 | Forging Machine Setters, Operators, and Tenders, Metal and Plastic | 39 | 39 | 0 | 0% | <10 | Insf. Data | \$12.57 |
| 51-4023 | Rolling Machine Setters, Operators, and Tenders, Metal and Plastic | 15 | 17 | 2 | 13% | <10 | Insf. Data | \$18.45 |
| 51-4031 | Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic | 477 | 464 | (13) | (3%) | 22 | 6 | \$16.90 |
| 51-4032 | Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 29 | 28 | (1) | (3%) | <10 | Insf. Data | \$16.93 |
| 51-4033 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 194 | 198 | 4 | 2% | 23 | 6 | \$15.99 |
| 51-4034 | Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 74 | 78 | 4 | 5% | <10 | Insf. Data | \$17.68 |
| 51-4035 | Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic | 15 | 16 | 1 | 7% | <10 | Insf. Data | \$19.04 |

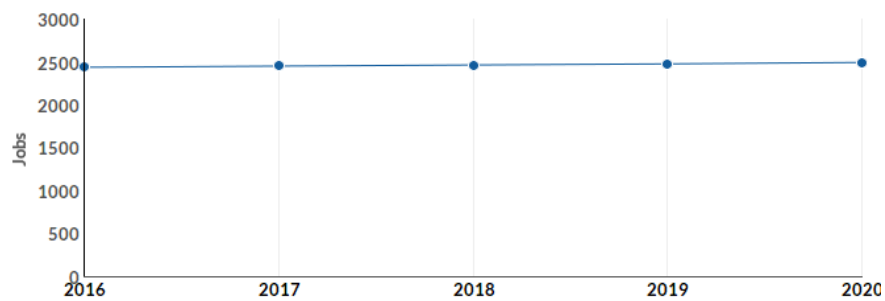
| | | | | | | | | |
|---------|--|-------|-------|---------------|---------------|-----|------------|---------------|
| 51-4041 | Machinists | 489 | 530 | 41 | 8% | 90 | 23 | \$18.67 |
| 51-4081 | Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 361 | 339 | (22) | (6%) | 28 | 7 | \$15.46 |
| 51-4111 | Tool and Die Makers | 160 | 160 | 0 | 0% | <10 | Insf. Data | \$22.98 |
| 51-4191 | Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic | 21 | 24 | 3 | 14% | <10 | Insf. Data | \$18.89 |
| 51-4192 | Layout Workers, Metal and Plastic | <10 | <10 | Insf. Data | Insf. Data | <10 | Insf. Data | Insf. Data |
| 51-4193 | Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic | 49 | 55 | 6 | 12% | <10 | Insf. Data | \$15.98 |
| 51-4194 | Tool Grinders, Filers, and Sharpeners | 16 | 16 | 0 | 0% | <10 | Insf. Data | \$19.38 |
| 51-4199 | Metal Workers and Plastic Workers, All Other | 27 | 27 | 0 | 0% | <10 | Insf. Data | \$17.57 |
| | | 2,440 | 2,497 | 57 | 2% | 304 | 76 | \$17.37 |

Occupation Summary for Machine Tool Operation 2015 (AED)

| | | |
|---|---|---|
| 2,425 Jobs (2015) 79% above National average | 2.3% % Change (2016-2020) Nation: 0.0% | \$17.37/hr Median Hourly Earnings Nation: \$17.72/hr |
|---|---|---|

Growth

| | | | |
|---------------------------|---------------------------|---------------------------------|-------------------------------------|
| 2,440 2016 Jobs | 2,497 2020 Jobs | 57 Change (2016-2020) | 2.3% % Change (2016-2020) |
|---------------------------|---------------------------|---------------------------------|-------------------------------------|

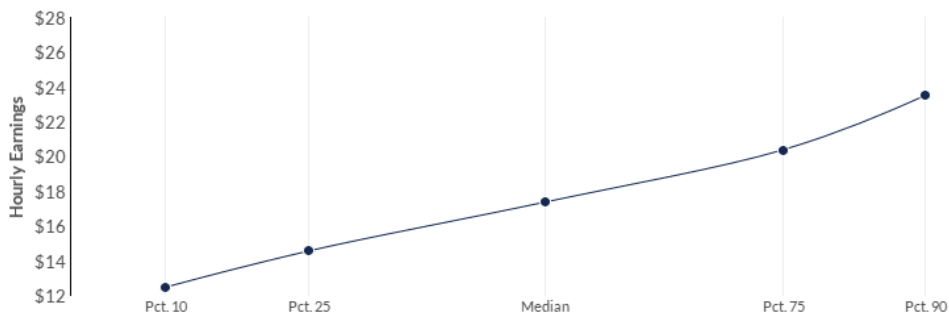


| Occupation | 2016 Jobs | 2020 Jobs | Change | % Change |
|---|-----------|-----------|--------|----------|
| Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011) | 294 | 323 | 29 | 10% |
| Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012) | 71 | 80 | 9 | 13% |
| Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4021) | 103 | 96 | -7 | -7% |
| Forging Machine Setters, Operators, and Tenders, Metal and Plastic (51-4022) | 39 | 39 | 0 | 0% |
| Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (51-4023) | 15 | 17 | 2 | 13% |
| Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031) | 477 | 464 | -13 | -3% |

| Occupation | 2016 Jobs | 2020 Jobs | Change | % Change |
|---|-----------|-----------|--------|----------|
| Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032) | 29 | 28 | -1 | -3% |
| Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033) | 194 | 198 | 4 | 2% |
| Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034) | 74 | 78 | 4 | 5% |
| Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4035) | 15 | 16 | 1 | 7% |
| Machinists (51-4041) | 489 | 530 | 41 | 8% |
| Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081) | 361 | 339 | -22 | -6% |
| Tool and Die Makers (51-4111) | 160 | 160 | 0 | 0% |
| Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191) | 21 | 24 | 3 | 14% |
| Layout Workers, Metal and Plastic (51-4192) | 7 | 8 | 1 | 14% |
| Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (51-4193) | 49 | 55 | 6 | 12% |
| Tool Grinders, Filers, and Sharpeners (51-4194) | 16 | 16 | 0 | 0% |
| Metal Workers and Plastic Workers, All Other (51-4199) | 27 | 27 | 0 | 0% |

Percentile Earnings

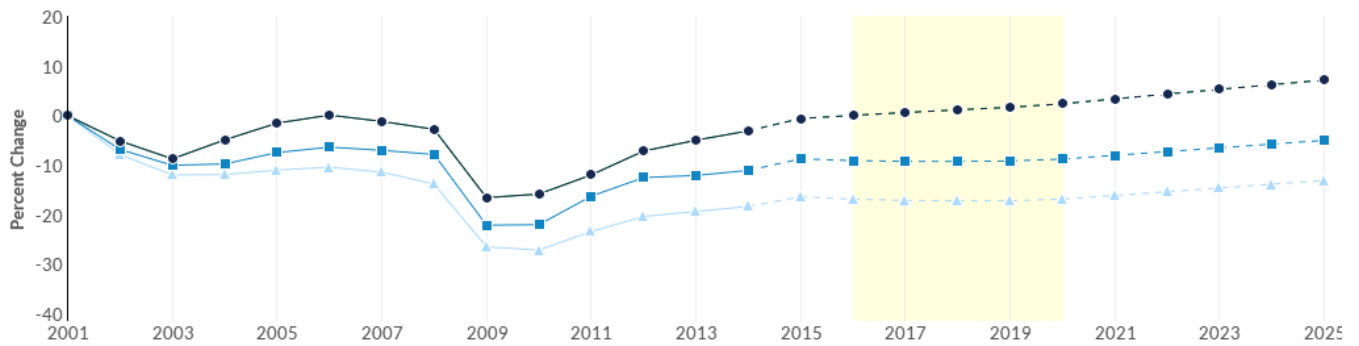
| | | |
|---|--------------------------------------|---|
| \$14.54/hr 25th Percentile Earnings | \$17.37/hr Median Earnings | \$20.37/hr 75th Percentile Earnings |
|---|--------------------------------------|---|



| Occupation | 25th Percentile Earnings | Median Earnings | 75th Percentile Earnings |
|---|--------------------------|-----------------|--------------------------|
| Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011) | \$14.34 | \$16.88 | \$20.12 |
| Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012) | \$18.75 | \$22.83 | \$26.50 |
| Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4021) | \$12.09 | \$13.61 | \$15.44 |
| Forging Machine Setters, Operators, and Tenders, Metal and Plastic (51-4022) | \$10.84 | \$12.57 | \$14.73 |
| Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (51-4023) | \$15.00 | \$18.45 | \$21.25 |
| Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031) | \$14.35 | \$16.90 | \$19.30 |
| Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032) | \$14.65 | \$16.93 | \$19.17 |
| Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033) | \$13.22 | \$15.99 | \$18.78 |
| Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034) | \$15.77 | \$17.68 | \$19.51 |
| Milling and Planing Machine | \$16.82 | \$19.04 | \$21.11 |

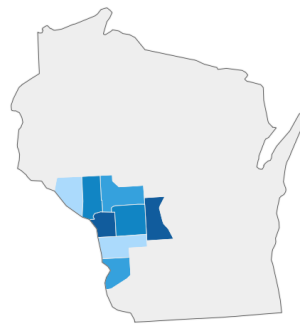
| Occupation | 25th Percentile Earnings | Median Earnings | 75th Percentile Earnings |
|--|---------------------------------|------------------------|---------------------------------|
| Setters, Operators, and Tenders, Metal and Plastic (51-4035) | | | |
| Machinists (51-4041) | \$14.98 | \$18.67 | \$22.79 |
| Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081) | \$13.16 | \$15.46 | \$17.95 |
| Tool and Die Makers (51-4111) | \$19.07 | \$22.98 | \$26.86 |
| Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191) | \$15.86 | \$18.89 | \$21.95 |
| Layout Workers, Metal and Plastic (51-4192) | \$22.71 | \$23.20 | \$23.72 |
| Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (51-4193) | \$13.12 | \$15.98 | \$19.02 |
| Tool Grinders, Filers, and Sharpeners (51-4194) | \$15.69 | \$19.38 | \$22.85 |
| Metal Workers and Plastic Workers, All Other (51-4199) | \$13.62 | \$17.57 | \$21.81 |

Regional Trends



| | Region | 2016 Jobs | 2020 Jobs | Change | % Change |
|---|------------------------------------|-----------|-----------|--------|----------|
| ● | Region | 2,440 | 2,497 | 57 | 2.3% |
| ● | State | 60,596 | 60,802 | 206 | 0.3% |
| ● | Nation | 1,339,078 | 1,339,082 | 4 | 0.0% |
| ● | Western Technical College District | 2,440 | 2,497 | 57 | 2.3% |

Regional Breakdown



| County | 2020 Jobs |
|------------------------|-----------|
| La Crosse County, WI | 732 |
| Juneau County, WI | 532 |
| Trempealeau County, WI | 425 |
| Monroe County, WI | 412 |
| Crawford County, WI | 170 |

Occupation Gender Breakdown



| | Gender | 2015 Jobs | 2015 Percent |
|---|---------|-----------|--------------|
| • | Males | 2,037 | 84.0% |
| • | Females | 388 | 16.0% |

Occupation Age Breakdown



| | Age | 2015 Jobs | 2015 Percent |
|---|-------|-----------|--------------|
| • | 14-18 | 6 | 0.3% |
| • | 19-24 | 175 | 7.2% |
| • | 25-34 | 438 | 18.1% |
| • | 35-44 | 497 | 20.5% |
| • | 45-54 | 685 | 28.3% |
| • | 55-64 | 557 | 23.0% |
| • | 65+ | 67 | 2.8% |

Occupation Race/Ethnicity Breakdown



| | Race/Ethnicity | 2015 Jobs | 2015 Percent |
|---|---|-----------|--------------|
| ● | White | 2,247 | 92.7% |
| ● | Asian | 81 | 3.3% |
| ● | Hispanic or Latino | 59 | 2.4% |
| ● | Black or African American | 22 | 0.9% |
| ● | American Indian or Alaska Native | 8 | 0.3% |
| ● | Two or More Races | 8 | 0.3% |
| ● | Native Hawaiian or Other Pacific Islander | 0 | 0.0% |

Occupational Programs

| | | 7 | 13 | 116 |
|----------|--|--------------------|--------------------|-----------------|
| | | Programs (2014) | Completions (2014) | Openings (2014) |
| CIP Code | Program | Completions (2014) | | |
| 48.0503 | Machine Shop Technology/Assistant | 7 | | |
| 11.0201 | Computer Programming/Programmer, General | 6 | | |
| 48.0599 | Precision Metal Working, Other | 0 | | |
| 48.0507 | Tool and Die Technology/Technician | 0 | | |
| 48.0506 | Sheet Metal Technology/Sheetworking | 0 | | |

Industries Employing Machine Tool Operation 2015 (AED)

| Industry | Occupation Group Jobs in Industry (2015) | % of Occupation Group in Industry (2015) | % of Total Jobs in Industry (2015) |
|---|--|--|------------------------------------|
| All Other Miscellaneous Fabricated Metal Product Manufacturing | 243 | 10.0% | 26.3% |
| Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing | 218 | 9.0% | 13.1% |
| Nonupholstered Wood Household Furniture Manufacturing | 186 | 7.7% | 4.8% |
| Bolt, Nut, Screw, Rivet, and Washer Manufacturing | 167 | 6.9% | 56.4% |
| All Other Plastics Product Manufacturing | 144 | 5.9% | 20.5% |

Appendix A - Occupations

| Code | Description |
|---------|---|
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal and Plastic |
| 51-4012 | Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic |
| 51-4021 | Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4022 | Forging Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4023 | Rolling Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4031 | Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4032 | Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| 51-4033 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| 51-4034 | Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| 51-4035 | Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4041 | Machinists |
| 51-4081 | Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| 51-4111 | Tool and Die Makers |
| 51-4191 | Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic |
| 51-4192 | Layout Workers, Metal and Plastic |
| 51-4193 | Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic |
| 51-4194 | Tool Grinders, Filers, and Sharpeners |
| 51-4199 | Metal Workers and Plastic Workers, All Other |

Appendix B - 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