

Q2 2018

April - June

DETROIT MSA

WIN Labor Market Report



INTRODUCTION

Detroit-Warren-Dearborn MI MSA | Q2 2018

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About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of six Michigan Works! Agencies (MWAs) and ten community colleges across a 16-county region in Michigan. The counties in the WIN partnership include: Genesee, Hillsdale, Huron, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Saint Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

This report highlights labor market information and real-time job posting data for the Detroit-Warren-Dearborn Metropolitan Statistical Area. A workforce overview is provided within identifying key components of the area's labor market including labor force status, demographic, and commuting data. WIN's analysis of online job postings, a proxy for employer demand, is a pioneering method for tracking the health of the labor market. This data is used to provide a real-time demand overview, detailing posting related findings for both employers and job seekers. WIN's data and research team analyzes job posting data at the occupation level within eleven customized occupation groups built using specific Standard Occupational Classification (SOC) codes to provide more contextualized information. Occupation groups combine data for jobs with similar skillsets, educational attainment, and experience requirements, which provides a more in-depth snapshot of the current labor market when compared to traditional industry data based upon North American Industry Classification System (NAICS) codes. Occupation outlook sections utilize these metrics to identify and display the top in-demand jobs, their entry requirements, and their earning potential.

This report analyzes data from the second quarter of 2018 in the Detroit MSA and includes summative data for April, May, and June of 2018.

For more information pertaining to the labor market in southeast Michigan, the custom occupation groups within this report, or any other workforce-related data projects, please visit www.WINintelligence.org or contact the data and research team directly at research@WINintelligence.org.



ANNUAL STATE OF THE LABOR MARKET

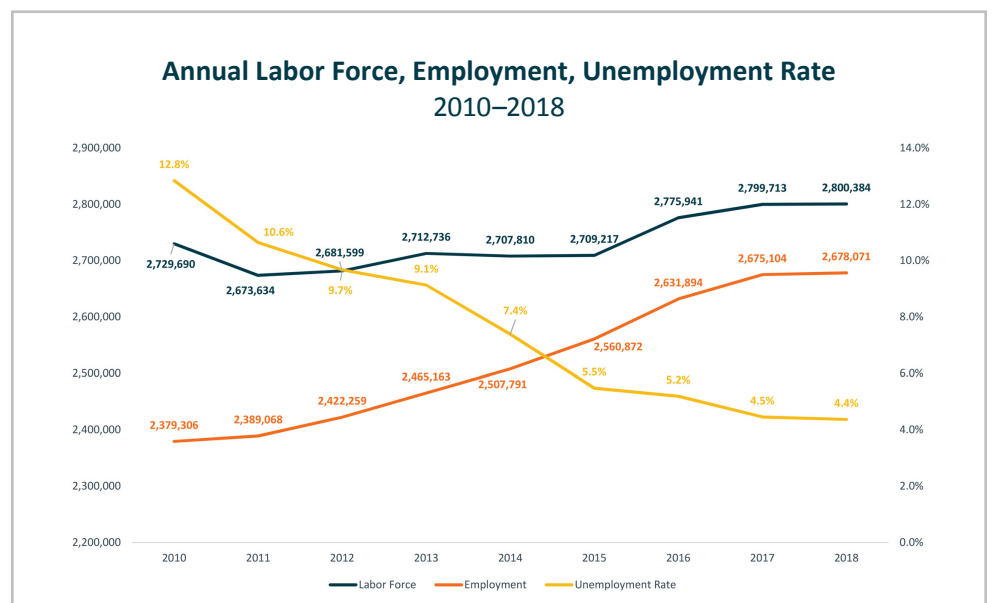
Detroit-Warren-Dearborn MI MSA | Q2 2018

State of the Labor Market in the Detroit-Warren-Dearborn MI MSA

As of the second quarter of 2018, the labor force and employment figures in greater Detroit rebounded, following a slight decline into Q1. Employment has risen at a greater rate than the labor force, meaning a smaller proportion of the labor force is looking for work. This has caused the year to date (YTD) unemployment rate to fall slightly to 4.3 percent from the annual rate of 4.4 percent during 2017. The quarterly unemployment rate in Q2 2018 declined significantly to 3.9 percent (- 0.7 percentage points). Employer demand remains high for business and finance- related workers. The business and finance occupation group reported the highest demand among the five key groups analyzed for the MSA, with 24,735 job postings during Q2 2018. Other occupation groups also offer great job opportunities for active job seekers: skilled trades postings grew by 29.7 percent since Q2 2017, and 33 percent of health care postings were open to entry-level applicants.

Annual Labor Market Information

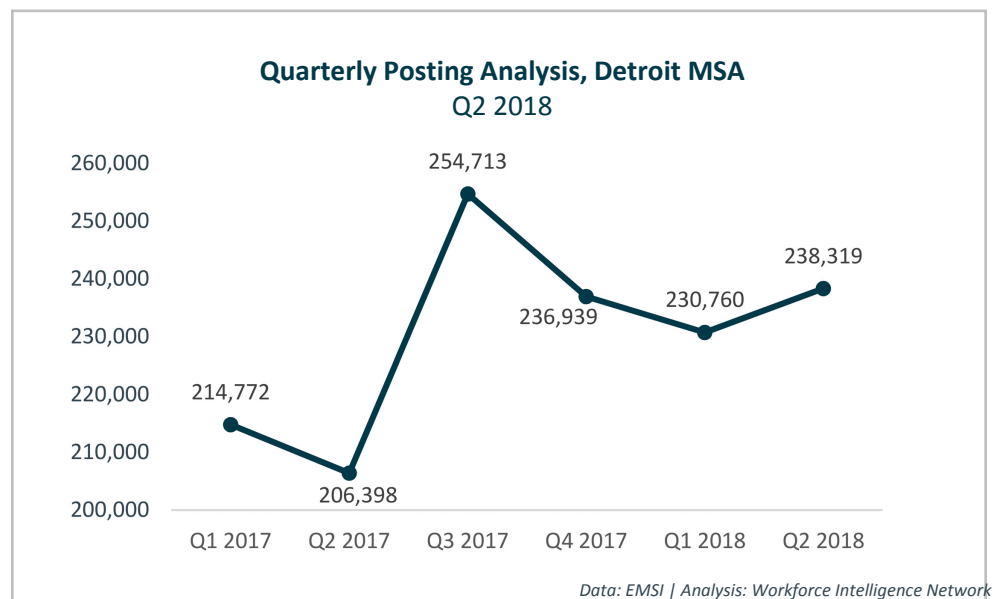
Continuing a ten-year high, the labor force in the Detroit MSA increased slightly by 556 individuals between 2017 and 2018. Employment also grew by 3,444 workers between 2017 and 2018. With employment increasing at a greater rate than the labor force, the unemployment rate fell by 0.1 percentage points to a current YTD rate of 4.3 percent in the Detroit-Warren-Dearborn MSA.



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data from the second quarter of 2018, including posting information from April, May, and June, indicated strong employer demand throughout the Detroit MSA. There were 238,319 postings in the area during Q1 2018. Demand rose by 7,559 postings between Q1 2018 and Q2 2018. Further, Q2 levels were 31,921 postings greater than those in Q2 2017. Typically, the first half of the year reports lower postings than the second half.



Data: EMSI | Analysis: Workforce Intelligence Network



QUARTERLY WORKFORCE INDICATORS

Detroit-Warren-Dearborn MI MSA | Key Findings for Q2 2018

Business and Finance Postings

Business Operations Specialists, All Other
\$34.02 Per Hour – Median Wage

24,735 Q2 2018 Postings
1,100 Posting Growth | Bachelor's Degree Preferred

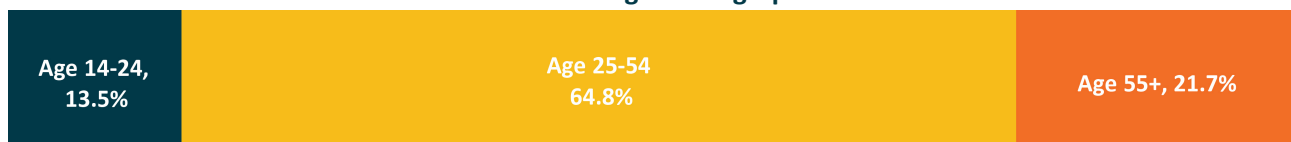
The business and finance occupation group continues to grow in demand during Q2 2018.

Employers seeking business and finance workers posted more jobs (24,735 online job postings) than those in many occupation groups during Q2 2018, though they still trail the largest groups such as customer service and transportation, distribution, and logistics (TDL). Many of the occupation groups analyzed by WIN grew in demand moving into Q2, but with over 1,100 more ads posted for business and finance workers in Q2 2018 than in Q1 2018, this group saw especially dramatic growth. Meanwhile, the IT occupation group also saw an increase in demand, with about 900 more postings during Q1 2018 than in Q4 2017. Both occupation groups typically prefer a bachelor's degree for entry and present job seekers with well-paying entry-level opportunities. For more information about the business and finance occupation group, see page 12.

The age gap between older and younger workers in southeast Michigan continues to widen in several custom occupation groups analyzed by WIN.

Of the 1.9 million workers in the Detroit MSA, only 13.5 percent identified as under the age of 24. Some occupation groups reported smaller percentages of workers under 24, including skilled trades (6.7 percent), Energy (5.0 percent), and business and finance (5.1 percent). As the workforce continues to age, employers may need to focus on training younger workers to reduce the labor lost when older workers retire. For more information about worker demographics, see page 6.

Workforce Age Demographics



Data: EMSI | Analysis: Workforce Intelligence Network

The Detroit MSA's unemployment rate is currently at 3.9 percent, down 0.7 percentage points from Q1 2018.

The unemployment rate decreased between Q1 2018 and Q2 2018, a typical annual pattern for the labor market in the first half of the year. Unemployment decreased by 14.5 percent (14,000 individuals), while 17,000 individuals joined the labor force between Q1 2018 and Q2 2018. Despite this recent uptick, the unemployment rate is slightly higher (+0.3 percentage points) in Q2 2018 than in Q2 2017. For more information about this quarter's unemployment rate and other labor market indicators, see page 5.

Quarterly Labor Market Data

| Quarterly Labor Market Data | | | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|--------------------------------------|------------------------------|--------------------------------------|
| | 2nd Quarter 2017 | 3rd Quarter 2017 | 4th Quarter 2017 | 1st Quarter 2018 | 2nd Quarter 2018 | Change from 1st Quarter 2018 | Percent Change from 1st Quarter 2018 | Change from 2nd Quarter 2017 | Percent Change from 2nd Quarter 2017 |
| Labor Force | 2,782,418 | 2,830,220 | 2,804,807 | 2,785,285 | 2,808,226 | 22,941 | 0.8% | 25,808 | 0.9% |
| Employment | 2,676,711 | 2,682,186 | 2,688,208 | 2,653,392 | 2,697,006 | 43,614 | 1.6% | 20,295 | 0.8% |
| Unemployment | 105,708 | 148,034 | 116,598 | 131,893 | 111,220 | -20,673 | -15.7% | 5,512 | 5.2% |
| Unemployment Rate | 3.8% | 5.2% | 4.2% | 4.7% | 4.0% | -0.8% | na | 0.2% | na |

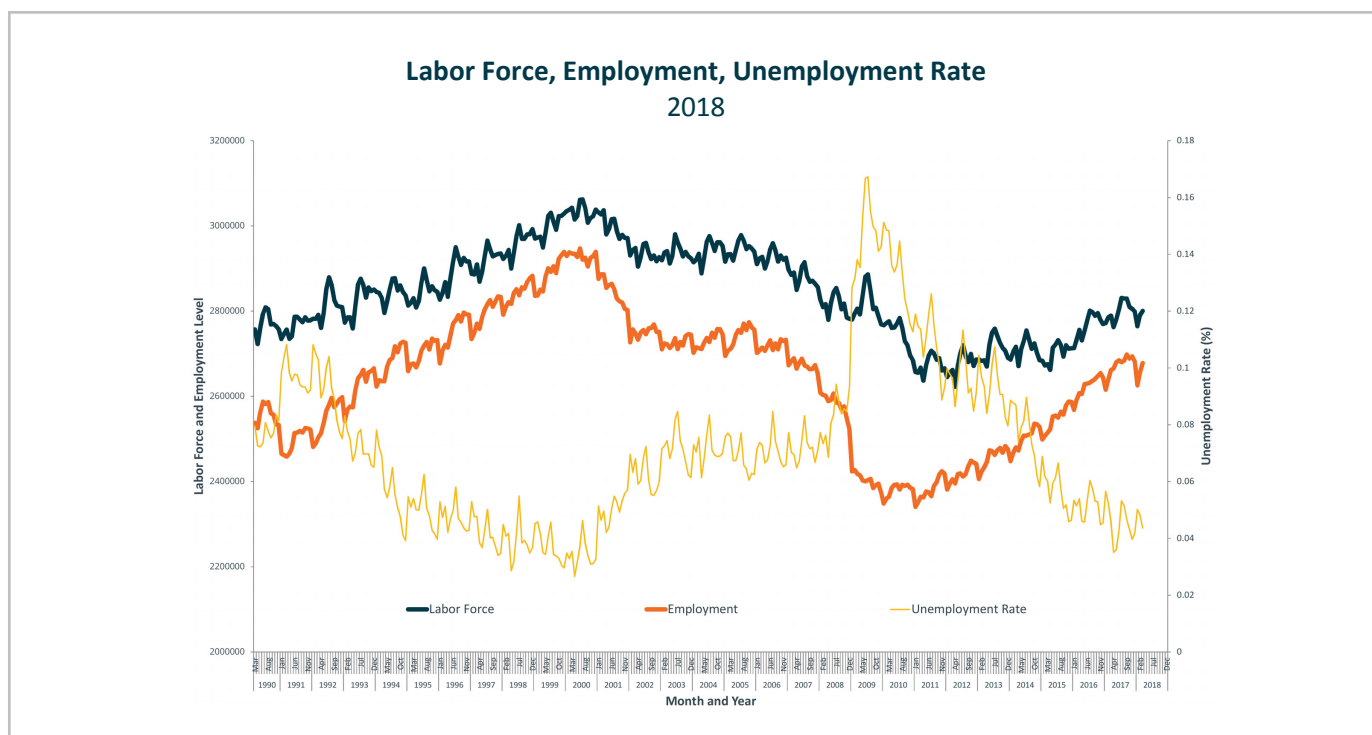
*Note: Monthly data averaged by quarter
Data: Bureau of Labor Statistics

Note: Monthly data average by quarter | Data: BLS



WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA | Labor Market Information Q2 2018



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data

Quarterly Labor Market Data

| | 2nd Quarter 2017 | 3rd Quarter 2017 | 4th Quarter 2017 | 1st Quarter 2018 | 2nd Quarter 2018 | Change from 1st Quarter 2018 | Percent Change from 1st Quarter 2018 | Change from 2nd Quarter 2017 | Percent Change from 2nd Quarter 2017 |
|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------------|---|------------------------------------|---|
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*Note: Monthly data averaged by quarter
Data: Bureau of Labor Statistics

Note: Monthly data averaged by quarter | Data: BLS

Labor Force, Employment, and Unemployment

The labor market in the Detroit MSA has been growing steadily year over year since 2010, though there is still variation between quarters. The labor force increased by 17,000 workers (+0.8 percent) between Q1 2018 and Q2 2018. Employment in the metropolitan area has also increased from Q1 2018, by 31,333 workers (+ 1.6 percent). With employment rising faster than the labor force, the unemployment rate fell this quarter: the quarterly unemployment rate fell by 0.7 percentage points between Q1 2018 and Q2 2018 to 3.9 percent.



WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA | 2016 Annual Population Demographics

Population Demographics

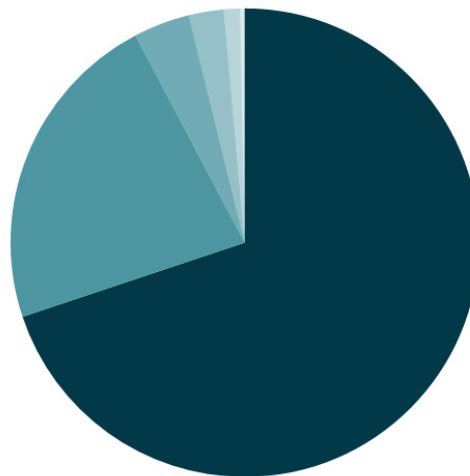
According to the data from the most recent Census Bureau 2016 ACS Five Year estimates, during 2016, 4,296,731 people were living in the Detroit MSA, just 315 more than in 2015. The sex of the populace was split almost evenly, with about 51.4 percent of the population identifying as female, and the other 48.6 percent identifying as male. The majority of the population identified as white (69.9 percent) with the second largest number of individuals identifying as black or African American (22.4 percent). The area as a whole is facing an aging population; 28.4 percent of population was over the age of 55, compared to 31.9 percent under the age of 25.



4,296,731
People in the Region
Increase of 315
Individuals from 2015

Population Race and Ethnicity Demographics

- White, 69.9%
- Black or African American, 22.4%
- Asian, 3.9%
- Two or More Races, 2.4%
- Other Race, 1.1%
- American Indian or Alaska Native, 0.3%
- Native Hawaiian or Other Pacific Islander, 0.02%



Population Gender Demographics



51% Females



49% Males

0 10 20 30 40 50 60 70 80 90 100

Population Age Demographics

Age 14 and under
18.7%

Age 15-24
13.1%

Age 25-54, 39.7%

Age 55+
28.4%



WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA | 2016 Annual Labor Force Demographics

2016 Labor Force, Employment, and Unemployment Demographics

| Civilian Labor Force by Demographic Group | | | | |
|---|----------------------|------------------|--------------------|-------------------|
| Demographic Group | Civilian Labor Force | Total Employment | Total Unemployment | Unemployment Rate |
| Total Population 16 + | 2,137,435 | 1,941,875 | 196,644 | 9.2% |
| Sex | | | | |
| Male 16+ | 1,109,853 | 1,005,253 | 104,600 | 9.4% |
| 16-19 | 45,764 | 33,127 | 12,637 | 27.6% |
| 20-24 | 110,991 | 91,853 | 19,138 | 17.2% |
| 25-54 | 723,017 | 664,775 | 58,242 | 8.1% |
| 55-64 | 182,276 | 170,277 | 11,999 | 6.6% |
| 65 Plus | 47,805 | 45,221 | 2,584 | 5.4% |
| Female 16+ | 1,027,725 | 935,169 | 92,556 | 9.0% |
| 16-19 | 46,981 | 35,588 | 11,393 | 24.3% |
| 20-24 | 106,354 | 90,011 | 16,343 | 15.4% |
| 25-54 | 660,850 | 607,419 | 53,431 | 8.1% |
| 55-64 | 171,305 | 161,942 | 9,363 | 5.5% |
| 65 Plus | 42,235 | 40,209 | 2,026 | 4.8% |
| Race | | | | |
| White | 1,550,173 | 1,447,156 | 103,862 | 6.7% |
| Black / African American | 438,298 | 357,049 | 80,647 | 18.4% |
| Native American | 6,094 | 5,340 | 756 | 12.4% |
| Asian | 84,323 | 79,695 | 4,553 | 5.4% |
| Native Hawaiian / Pacific Islander | 562 | 512 | 23 | 4.1% |
| Some Other Race | 21,843 | 19,582 | 2,272 | 10.4% |
| Two or More Races | 36,428 | 31,575 | 4,845 | 13.3% |
| Ethnicity | | | | |
| Hispanic | 80,594 | 71,813 | 8,704 | 10.8% |

Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

Labor Market Demographics

During 2016, the most recent census year, there were about 2.14 million people in the labor force, meaning they were either working or looking for work, in southeast Michigan. Slightly less than half of the population of 2,071,285 individuals (49.7 percent) living in the region were participating in the labor force. The highest unemployment rates were seen in those aged 24 years old or younger. Males under the age of 19 face an unemployment rate of 27.6 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 21.0 percent.



WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA |

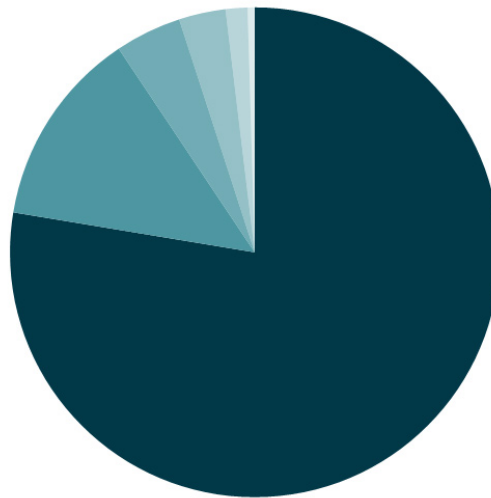
2017 Annual Working Population Demographics

Current Workforce Demographics

While the Census Bureau data is lagged by about two years, Emsi uses predictive modeling to estimate workforce information for the previous year, allowing for more current analysis. During 2017, there were a total of 1,942,332 individuals working in the Detroit MSA. A slight majority (51.6 percent or 1,005,790 workers) were male, while 48.4 percent (941,964 workers) of the workforce was female. Most of those working in the region were white, accounting for 72.5 percent of the workforce, while African American or black workers accounted for 17.7 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 3.9 percent. Eighty-seven percent of the workforce was 25 years or older. Only 13.5 percent of those working were under the age of 25, indicating an aging workforce in southeast Michigan.

Workforce Race and Ethnicity Demographics

- White, 77.60%
- Black or African American, 13.01%
- Hispanic or Latino, 4.38%
- Asian, 3.09%
- Two or More Races, 1.44%
- American Indian or Alaska Native, 0.43%
- Native Hawaiian or Other Pacific Islander, 0.04%



Workforce Gender Demographics

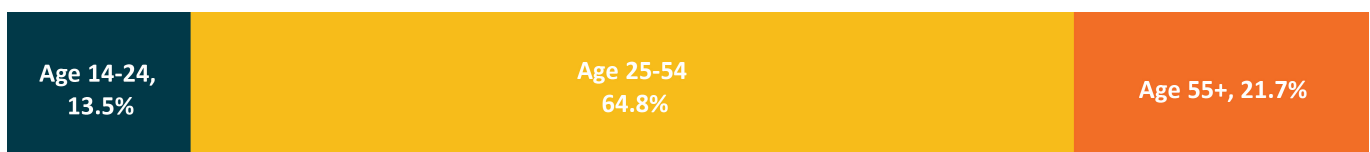


52% Males

48% Females



Workforce Age Demographics



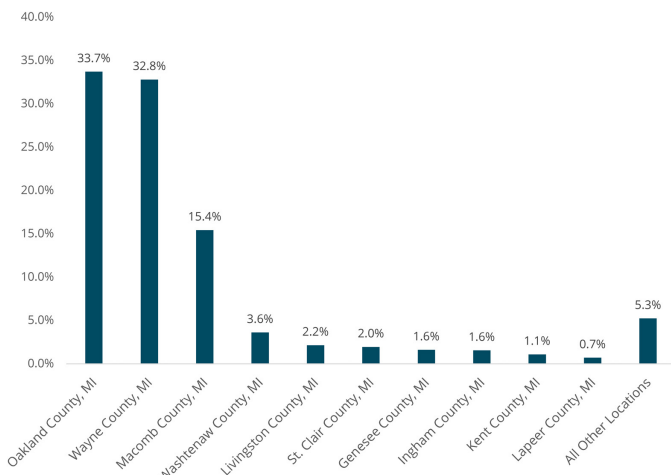
WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA | 2015 Regional Commuting Patterns

Regional Commuting Patterns

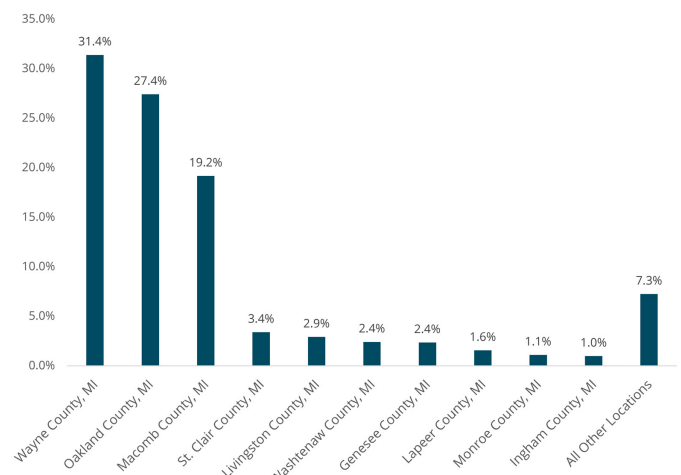
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the region's workforce consisted of 1,754,307 residents. 1,523,259 (86.8 percent) of the residents lived and worked within the MSA, while the remaining 231,048 residents (13.2 percent) traveled outside of the region for work. There were 1,773,896 workers employed in the region during 2015. Of those, 250,637 workers (14.1 percent) lived outside of the area's borders and commuted in. From this information, we can see that the Detroit MSA is a net importer of jobs, with more workers commuting into the area for employment than leaving.

Where Detroit MSA Residents Work

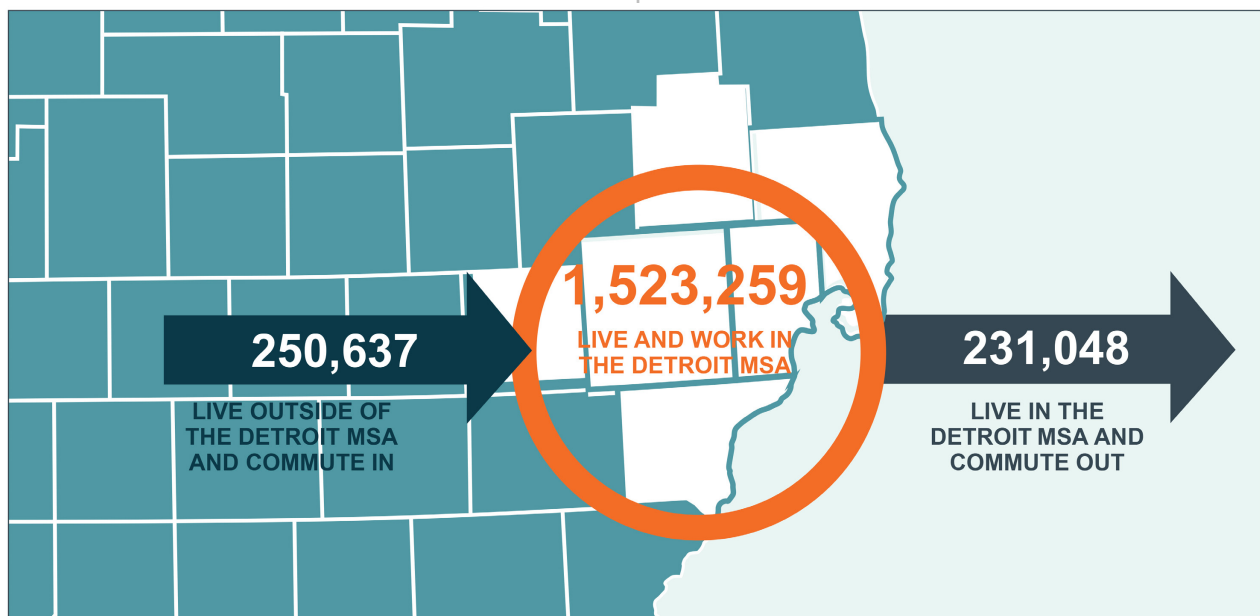


Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

Where Detroit MSA Workers Live



Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

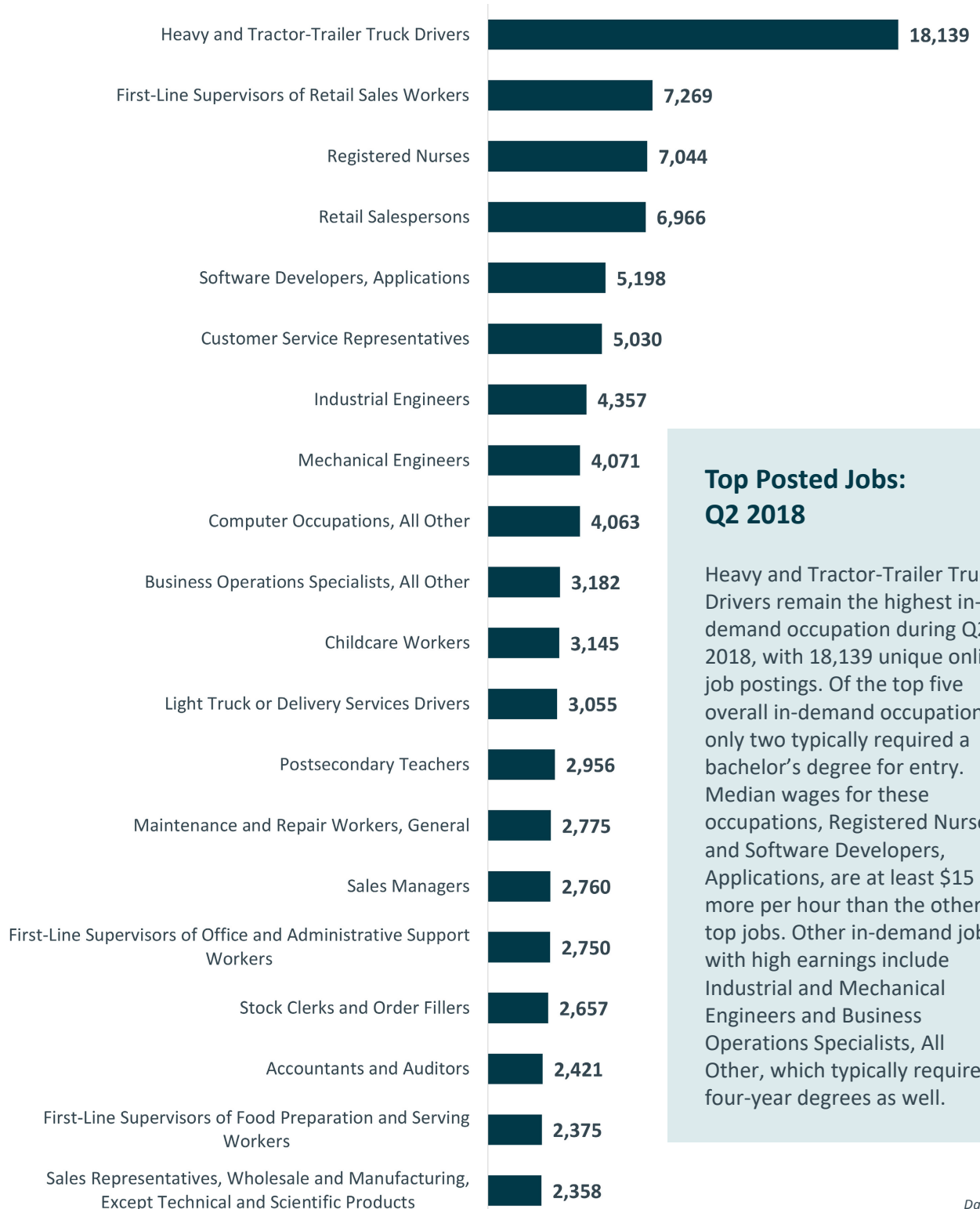




REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Top Posted Jobs | Q2 2018

Top Posted Jobs Q2 2018



Top Posted Jobs: Q2 2018

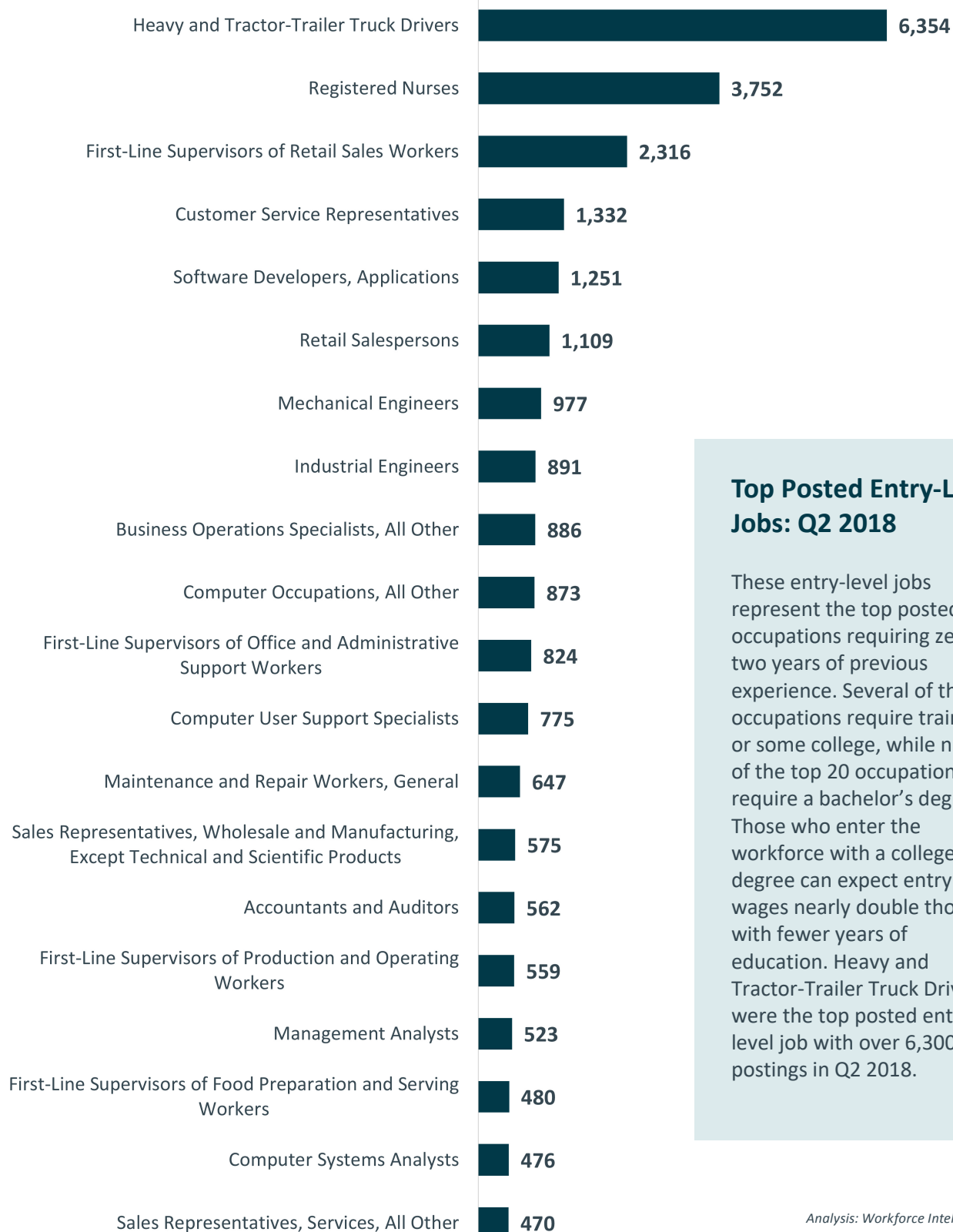
Heavy and Tractor-Trailer Truck Drivers remain the highest in-demand occupation during Q2 2018, with 18,139 unique online job postings. Of the top five overall in-demand occupations, only two typically required a bachelor's degree for entry. Median wages for these occupations, Registered Nurses and Software Developers, Applications, are at least \$15 more per hour than the other top jobs. Other in-demand jobs with high earnings include Industrial and Mechanical Engineers and Business Operations Specialists, All Other, which typically require four-year degrees as well.



REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Top Posted Entry-Level Jobs | Q2 2018

Top Posted Entry-Level Jobs Q2 2018



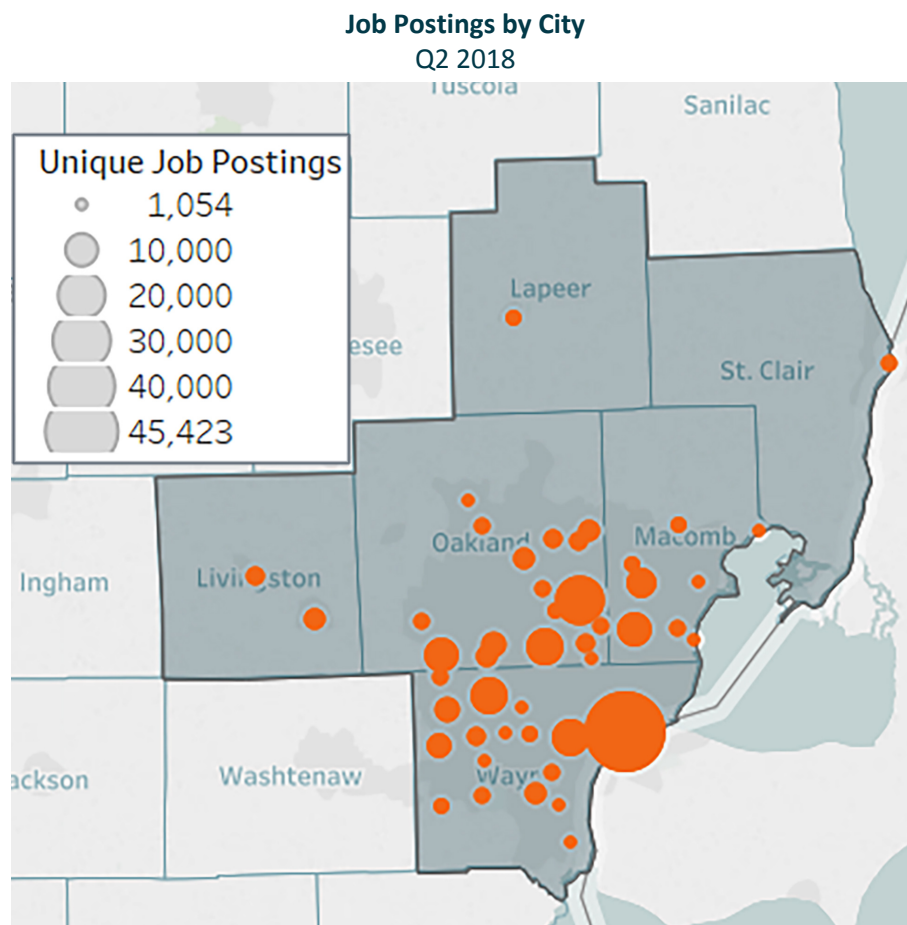
Top Posted Entry-Level Jobs: Q2 2018

These entry-level jobs represent the top posted occupations requiring zero to two years of previous experience. Several of these occupations require training, or some college, while nine of the top 20 occupations require a bachelor's degree. Those who enter the workforce with a college degree can expect entry wages nearly double those with fewer years of education. Heavy and Tractor-Trailer Truck Drivers were the top posted entry-level job with over 6,300 postings in Q2 2018.



REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Job Postings by City | Q2 2018



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Licensed Practical Nurse
- Certified Nursing Assistant
- Associate of Science in Nursing
- Critical Care Registered Nurse (CCRN)
- Certified Public Accountant
- CNOR Certification
- Nurse Practitioner
- Certified Medical Assistant
- Patient Care Technician

Top In-Demand Skills

- Merchandising
- Selling Techniques
- Accounting
- Restaurant Operation
- Purchasing
- Nursing
- Customer Experience
- Customer Satisfaction
- Warehousing
- Microsoft Access

Top Posting Employers*

- CRST International, Inc.
- The Home Depot Inc
- Lyft, Inc.
- William Beaumont Hospital
- Henry Ford Health System
- CVS Health Corporation
- McDonald's Corporation
- Oracle Corporation
- Michigan Works Service Center, Alpena C
- General Motors Company
- Tutree, Inc.
- Kelly Services, Inc.
- Robert Half International Inc.
- C.R. England, Inc.
- Urbansitter, Inc.

**Employer names are listed as they appear in online job postings.*



BUSINESS FINANCE OCCUPATION GROUP

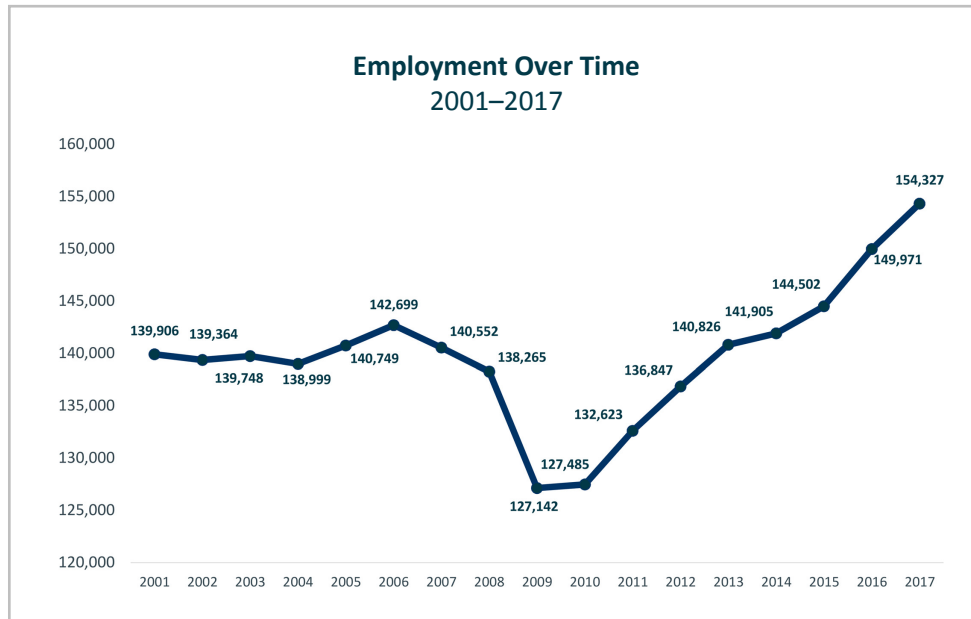
Detroit-Warren-Dearborn MI MSA | Q2 2018

Introduction

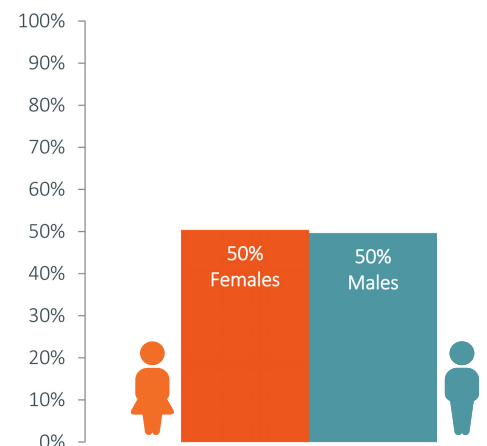
Jobs in the business and finance occupation group can be found in nearly every type of establishment/firm throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast Michigan.



154,327
Business and
Finance Workers
0.3% Increase from 2016



Population Gender Demographics



Business and Finance Worker Demographics

According to the most recent Emsi data set available (2017), the business and finance occupation group is a relatively diverse occupation group with respect to its over 150,000 workers. Half the working population identify as female (50 percent). However, 80 percent of workers are white, so the field may offer opportunity for minority workers. Only five percent of the working population is under the age of 25, indicating a large aging population of business and finance workers.

Race and Ethnicity Demographics

79.7% White | 11.9% Black or African American | 4.4% Asian

Workforce Age Demographics

Age 14-24,
5.1%



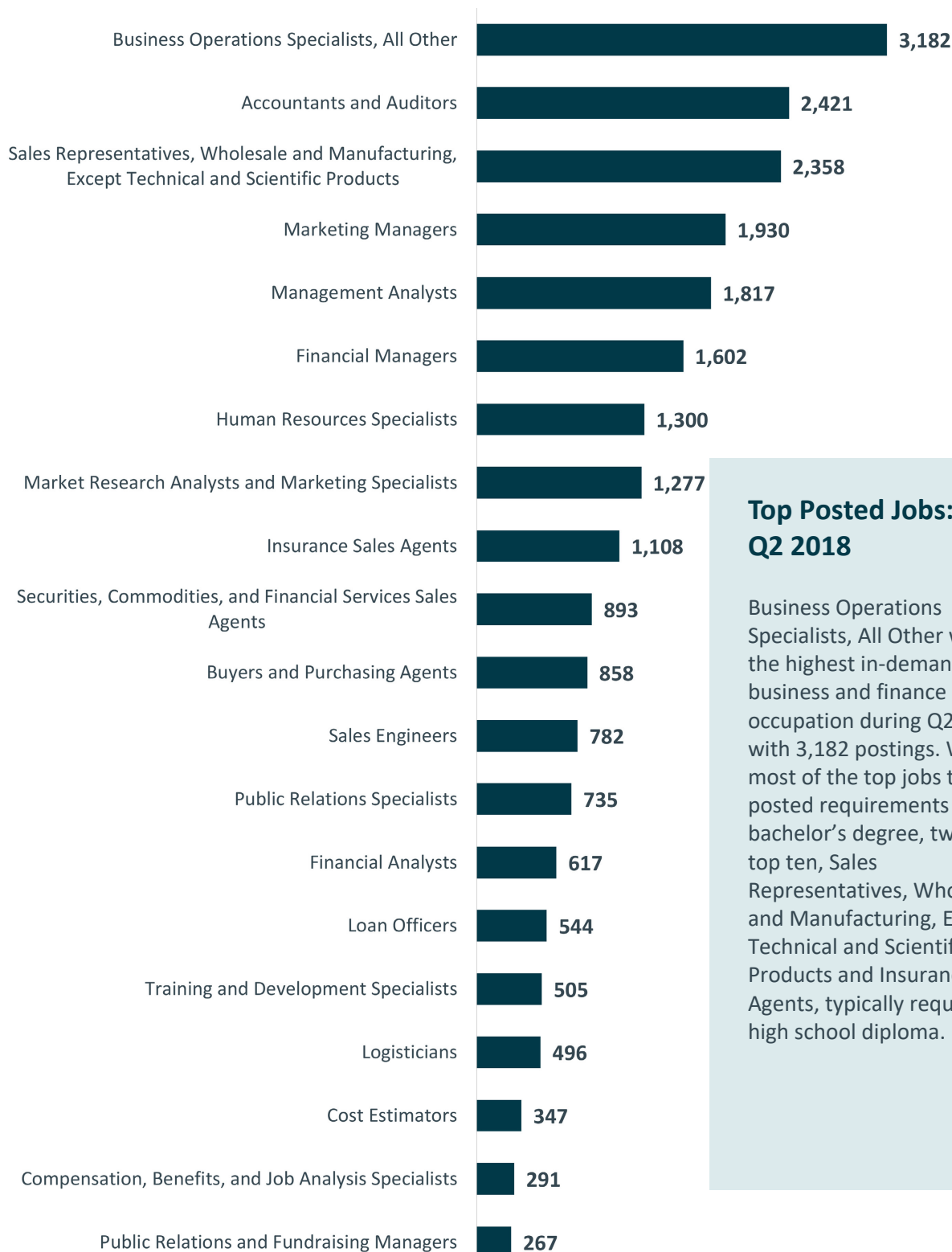


24,735 Business Postings:
1,105 More than Q1 2018



Bachelors Degree Required for
Most Business and Finance Jobs

Business and Finance Top Posted Jobs Q2 2018



Top Posted Jobs: Q2 2018

Business Operations Specialists, All Other were the highest in-demand business and finance occupation during Q2 2018, with 3,182 postings. While most of the top jobs typically posted requirements for a bachelor's degree, two of the top ten, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products and Insurance Sales Agents, typically require a high school diploma.



High Earning Potential for Marketing Managers



Certified Public Accountant: Most In-Demand Certification

Business and Finance Wage Overview

Most business and finance related jobs offer high wages, making for a lucrative opportunity for job seekers willing to attain the necessary education. According to the Bureau of Labor Statistics (BLS), the top posted business and finance job, Business Operations Specialists, All Other, offers median hourly wages of \$34.02, translating to annual earnings of approximately \$71,000. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to wages around \$60 hourly, or about \$125,000 annually.

Wage Overview for Top Posted Business and Finance Occupations Q2 2018

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|-----------------|--|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| 13-1199 | Business Operations Specialists, All Other | \$18.51 | \$24.27 | \$34.02 | \$46.28 | \$57.80 |
| 13-2011 | Accountants and Auditors | \$21.27 | \$26.31 | \$34.13 | \$45.67 | \$59.97 |
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | \$14.39 | \$21.15 | \$30.90 | \$46.05 | \$62.02 |
| 11-2021 | Marketing Managers | \$35.31 | \$46.35 | \$62.97 | \$80.58 | \$116.88 |
| 13-1111 | Management Analysts | \$24.86 | \$31.22 | \$41.77 | \$58.26 | \$84.58 |
| 11-3031 | Financial Managers | \$35.34 | \$44.69 | \$58.89 | \$78.48 | \$113.62 |
| 13-1071 | Human Resources Specialists | \$17.60 | \$22.19 | \$29.07 | \$38.35 | \$50.19 |
| 13-1161 | Market Research Analysts and Marketing Specialists | \$16.03 | \$22.58 | \$32.03 | \$44.84 | \$59.20 |
| 41-3021 | Insurance Sales Agents | \$15.04 | \$19.88 | \$28.57 | \$48.53 | \$71.72 |
| 41-3031 | Securities, Commodities, and Financial Services Sales Agents | \$15.63 | \$18.25 | \$24.94 | \$38.89 | \$77.25 |

In-Demand Technical Skills

- Accounting
- Selling Techniques
- Auditing
- Business Development
- Purchasing

In-Demand Foundational Skills

- Management
- Sales
- Communications
- Operations
- Leadership

In-Demand Education Level

- High School Diploma: 11.0%
- Associate Degree: 5.9%
- Bachelor's Degree: 49.0%
- Master's Degree: 12.0%

In-Demand Certifications

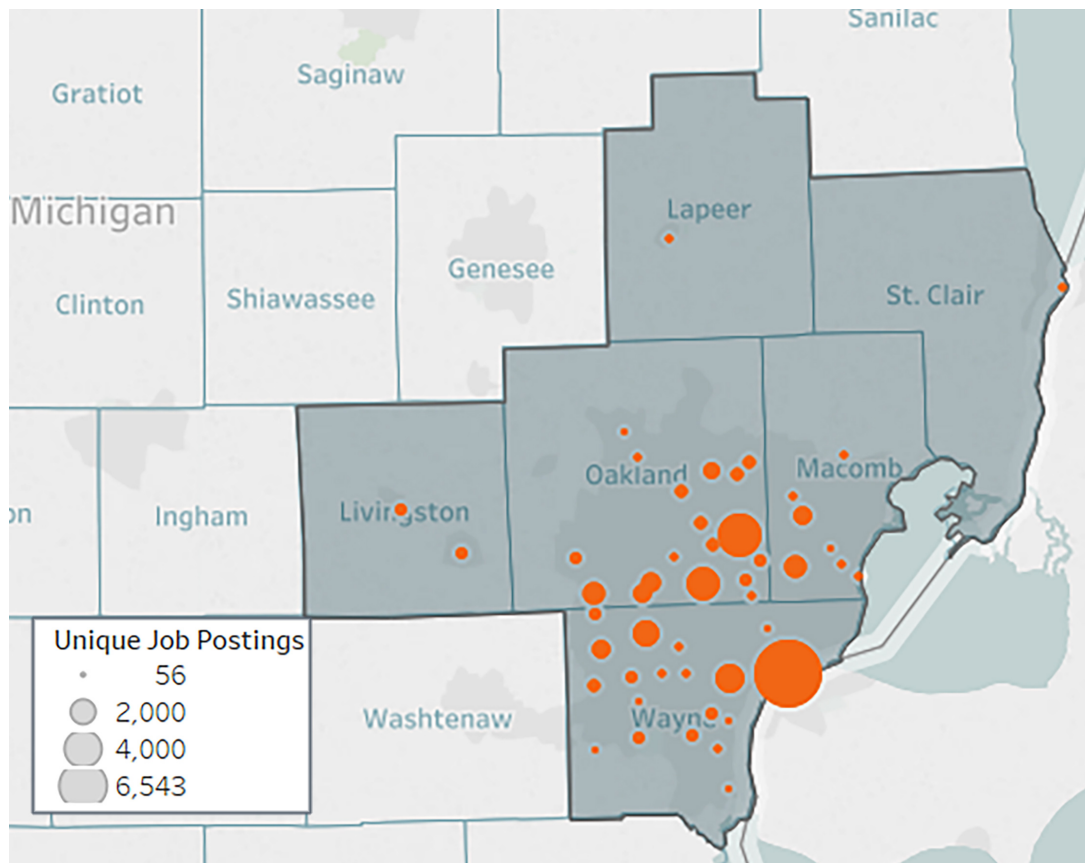
- Certified Public Accountant
- Series 7 General Securities Representative License (Stockbroker)
- Series 6 Investment Company and Variable Contracts License (Mutual Funds/Variable Annuities)
- Certified Internal Auditor
- Certified Financial Planner



Banks and Insurance Firms Seeking Business and Finance Workers



Accounting and Management Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top Posting Employers*

- Robert Half International Inc.
- Oracle Corporation
- Anthem, Inc.
- H&R Block, Inc.
- Deloitte LLP
- Huntington Bancshares Incorporated
- Comerica Incorporated
- Bank of America Corporation
- JPMorgan Chase & Co.
- ACCENTURE, INC.

*Employer names are listed as they appear in online job postings.

Job Postings by City

1. Detroit, MI: 6,543 Postings
2. Troy, MI: 2,686 Postings
3. Southfield, MI: 1,560 Postings
4. Dearborn, MI: 1,179 Postings
5. Livonia, MI: 997



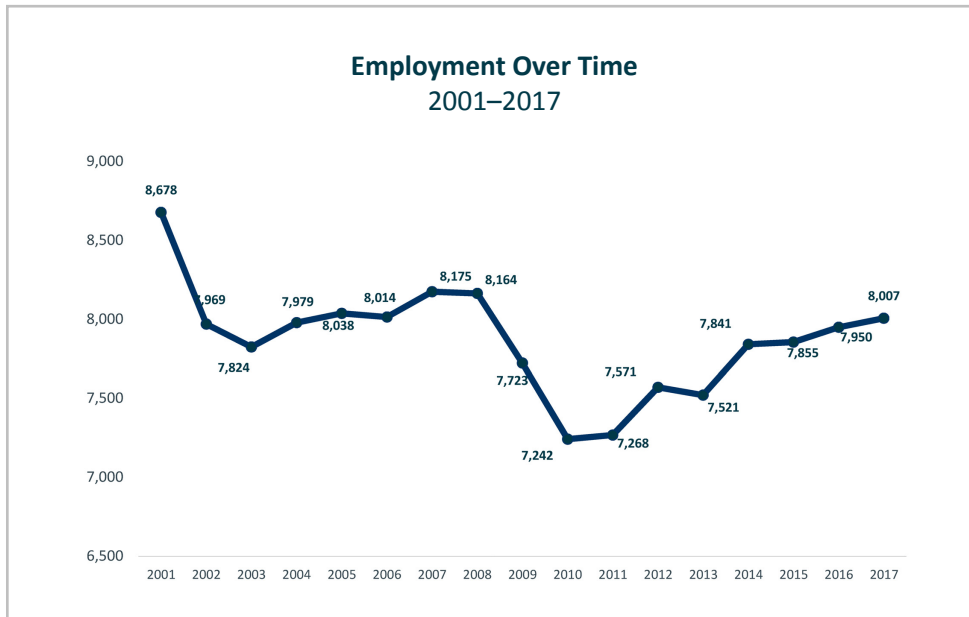
ENERGY OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q2 2018

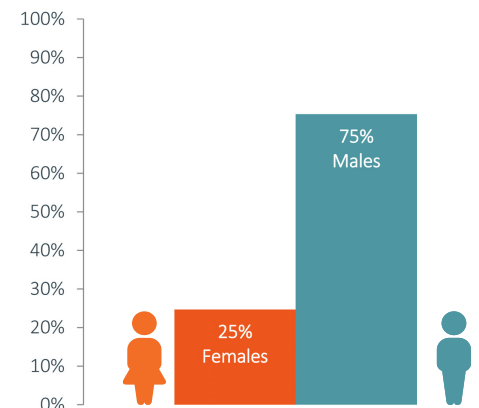
Introduction

Energy-related occupations encompass jobs in engineering, science, mining, and extraction. Workers in this field have a range of skills all related to keeping businesses and homes powered. Energy companies employ workers in a variety of occupations, many of which are also included in other WIN occupation groups. Data referenced in this section pertain only to job postings from energy-related businesses.

8,007
Energy Workers
0.1% Increase
from 2016



Population Gender Demographics



Energy Worker Demographics

According to the most recent Emsi data set available (2017), The over 8,000 workers in the energy occupation group are primarily white males between the ages of 25 and 54, with 25 percent of workers identifying as female and just 22 percent identifying as a racial minority. Only five percent of the workers in the occupation group are under the age of 24, indicating that the energy field faces a particular threat from the region's aging workforce.

Race and Ethnicity Demographics

79.3% White | 10.4% Black or African American | 6.0% Asian

**Age 14-24,
5.0%**

Population Age Demographics



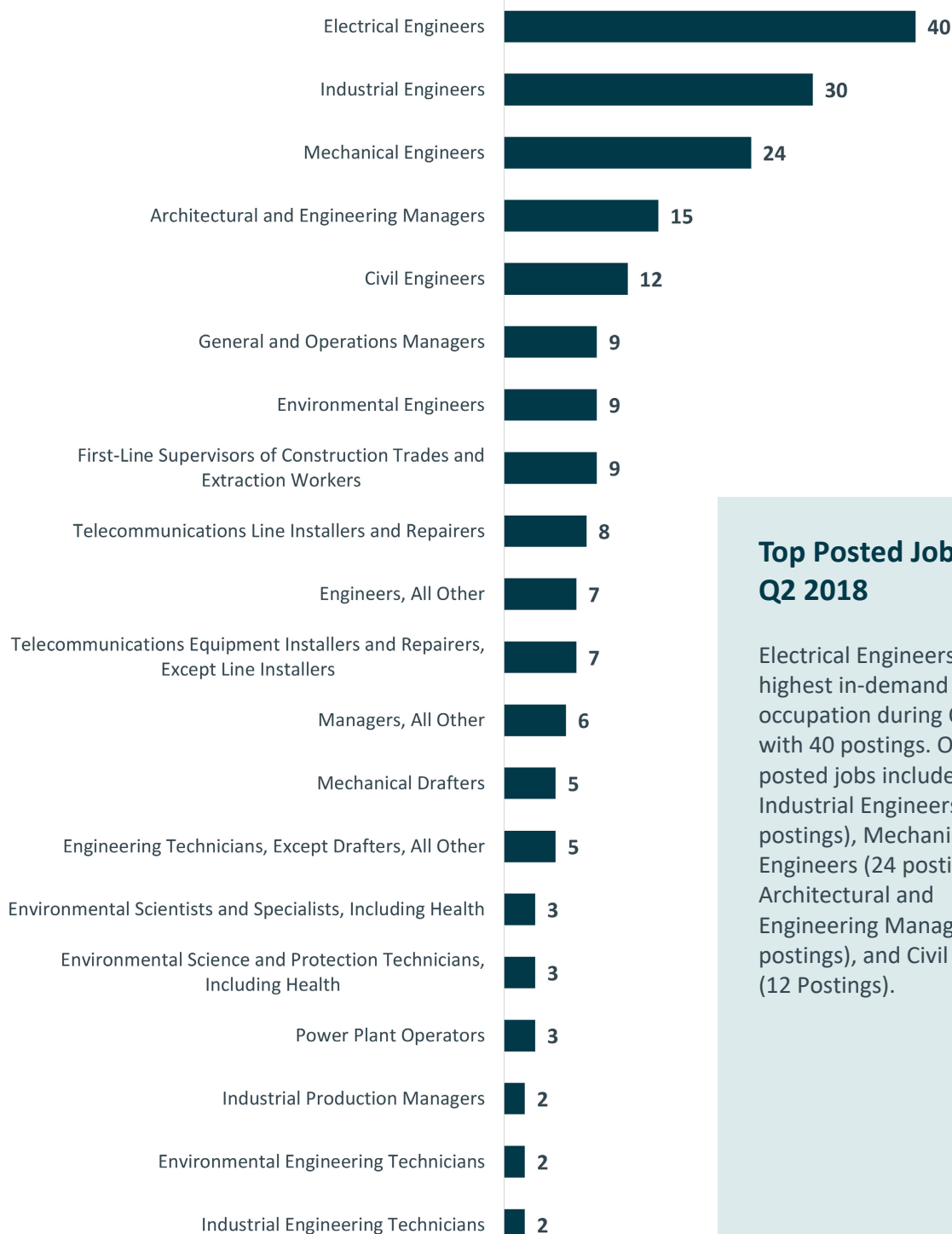


218 Energy Postings
8 More than Q1 2018



Bachelors Degree Required
for Most Energy Jobs

Energy Top Posted Jobs Q2 2018



Top Posted Jobs: Q2 2018

Electrical Engineers were the highest in-demand Energy occupation during Q2 2018, with 40 postings. Other top posted jobs include Industrial Engineers (30 postings), Mechanical Engineers (24 postings), Architectural and Engineering Managers (15 postings), and Civil Engineers (12 Postings).



High Earning Potential for Architectural and Engineering Managers



Licensed Professional Engineer: Most In-Demand Energy Certification

Energy Wage Overview

The high demand for engineers and managers in the energy field creates lucrative opportunities for job seekers willing to overcome the educational barriers related to these jobs. According to the Bureau of Labor Statistics (BLS), the top posted energy job, Electrical Engineers, offers a median hourly wage of \$42.56, or annual earnings of approximately \$89,000. Technician and construction-focused positions generally have shorter educational requirements than engineers and pay somewhat higher than similar occupations in other industries.

Wage Overview for Top Posted Energy Occupations Q2 2018

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|-----------------|--|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| 17-2071 | Electrical Engineers | \$28.62 | \$34.50 | \$42.56 | \$51.31 | \$62.13 |
| 17-2112 | Industrial Engineers | \$30.27 | \$36.02 | \$44.66 | \$54.05 | \$62.28 |
| 17-2141 | Mechanical Engineers | \$29.54 | \$35.73 | \$44.61 | \$54.97 | \$63.55 |
| 11-9041 | Architectural and Engineering Managers | \$43.41 | \$52.55 | \$63.20 | \$75.72 | \$89.21 |
| 17-2051 | Civil Engineers | \$25.75 | \$29.94 | \$36.65 | \$45.68 | \$55.50 |
| 11-1021 | General and Operations Managers | \$24.76 | \$36.23 | \$53.59 | \$81.09 | \$114.60 |
| 17-2081 | Environmental Engineers | \$29.54 | \$35.72 | \$45.95 | \$57.70 | \$67.78 |
| 47-1011 | First-Line Supervisors of Construction Trades and Extraction Workers | \$20.98 | \$25.82 | \$31.68 | \$41.45 | \$51.23 |
| 49-9052 | Telecommunications Line Installers and Repairers | \$12.16 | \$14.41 | \$24.28 | \$35.34 | \$41.75 |
| 17-2199 | Engineers, All Other | \$24.34 | \$36.44 | \$46.42 | \$57.56 | \$67.97 |

In-Demand Technical Skills

- Electrical Engineering
- Engineering Design Process
- Mechanical Engineering
- Systems Design
- Microsoft Access

In-Demand Foundational Skills

- Operations
- Management
- Communications
- Leadership
- Research

In-Demand Education Level

- High School Diploma: 21.1%
- Associate Degree: 11.0%
- Bachelor's Degree: 61.0%
- Master's Degree: 11.9%

In-Demand Certifications

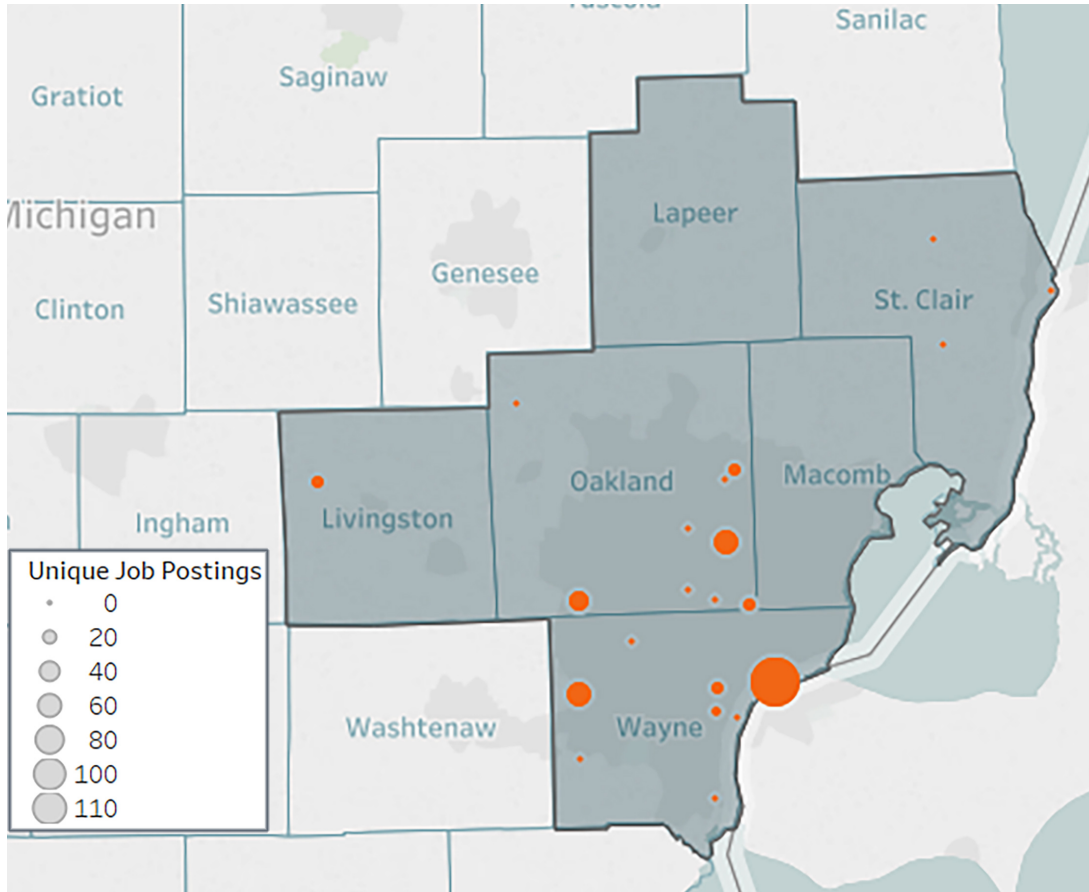
- Licensed Professional Engineer
- PMI Certified
- Professional Engineer



Electrical Engineers: In-Demand Entry-Level Job



Engineering Design Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top Posting Employers*

- DTE Energy Company
- Lg Electronics
- Itc Holdings Corp.
- Communications Construction Group, LLC
- Henkels & McCoy, Inc.
- Aero Communications, Inc.
- Total
- Acuren Inspection, Inc.
- Semco Energy, Inc.
- Cavo Broadband Communications, LLC

*Employer names are listed as they appear in online job postings.

Job Postings by City

1. Detroit, MI: 110 Postings
2. Troy, MI: 26 Postings
3. Canton, MI: 25 Postings
4. Novi, MI: 17 Postings
5. Hazel Park, MI: 6 Postings



HEALTH CARE OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q2 2018

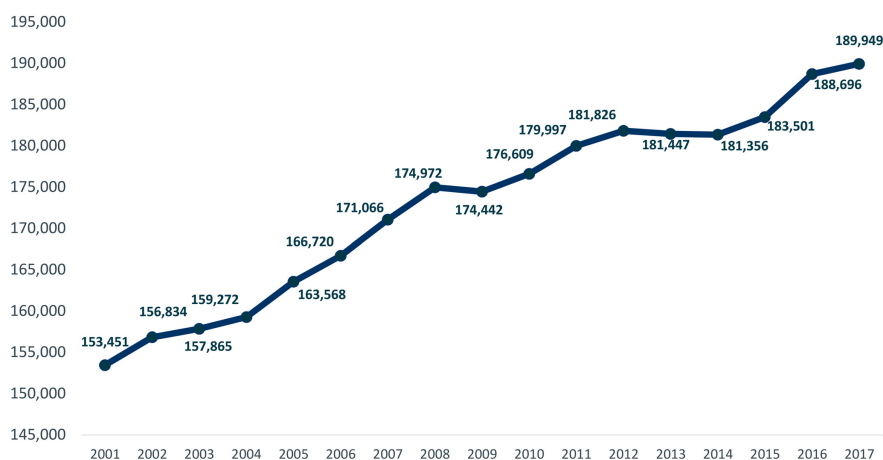
Introduction

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, with more health care workers needed to care for Michigan's aging population and in response to regulatory and other changes. Registered nurses are routinely the most in-demand job in this group.

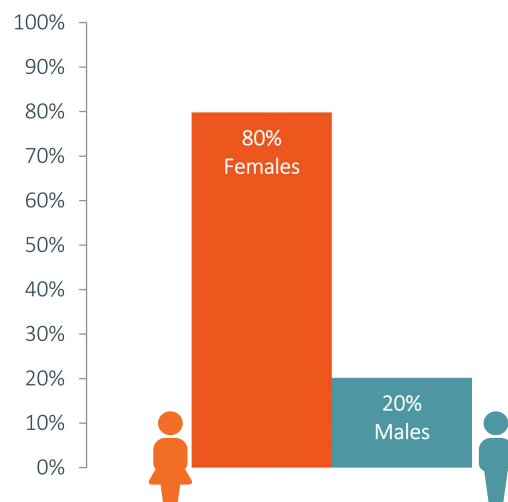


189,949
Health Care Workers
0.1% Increase from 2016

Employment Over Time
2001–2017



Population Gender Demographics



Health Care Worker Demographics

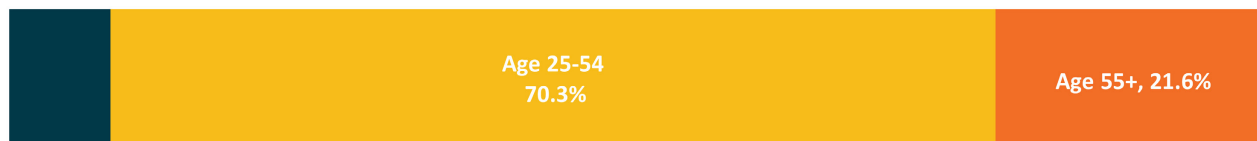
According to the most recent Emsi data set available (2017), the Health Care occupation group employs around 189,949 workers, who are primarily female (80 percent) and between the ages of 25 and 54 (70 percent), although 22 percent of workers are over 55. The group has a similar proportion of racial minorities as the workforce as a whole, with 68 percent of workers identifying as white, 21 percent identifying as black or African American, and ten percent identifying otherwise.

Race and Ethnicity Demographics

68.4% White | 21.4% Black or African American | 6.1% Asian

Population Age Demographics

Age 14-24,
8.0%





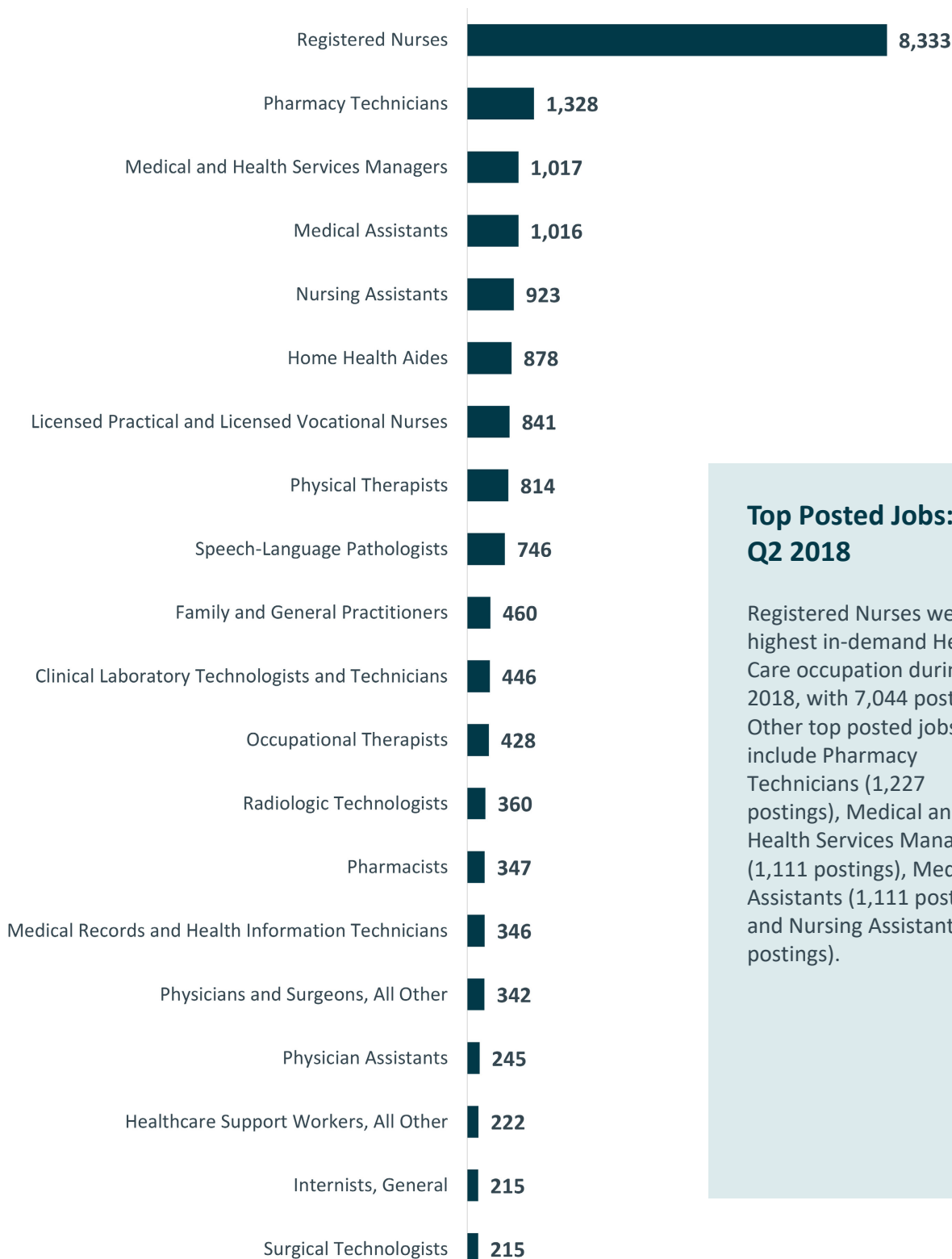
21,681 Health Care Postings:
1,583 fewer than Q1 2018



Bachelor's Degree Required for
High Earning Health Care Jobs

Health Care Top Posted Jobs

Q2 2018



Top Posted Jobs: Q2 2018

Registered Nurses were the highest in-demand Health Care occupation during Q2 2018, with 7,044 postings. Other top posted jobs include Pharmacy Technicians (1,227 postings), Medical and Health Services Managers (1,111 postings), Medical Assistants (1,111 postings), and Nursing Assistants (944 postings).



High Earning Potential for Medical and Health Services Managers



Licensed Practical Nurse: Most In-Demand Health Care Certification

Health Care Wage Overview

Wages in the high-demand health care field scale with education and experience, though the group does boast a relatively broad array of entry requirements and high volume of jobs open to those with less than a bachelor's that pay more than the region's median wage of \$17.81 per hour. Registered Nurses, the top posted health care job in Q2 2018, offers a median annual salary of nearly \$71,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Health Care Jobs in Q2 2018

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|-----------------|---|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| 29-1141 | Registered Nurses | \$25.77 | \$29.47 | \$34.13 | \$38.47 | \$44.80 |
| 29-2052 | Pharmacy Technicians | \$10.24 | \$12.16 | \$15.25 | \$18.35 | \$21.57 |
| 11-9111 | Medical and Health Services Managers | \$28.43 | \$36.11 | \$47.81 | \$64.52 | \$93.15 |
| 31-9092 | Medical Assistants | \$11.77 | \$12.96 | \$14.63 | \$17.03 | \$19.09 |
| 31-1014 | Nursing Assistants | \$10.56 | \$12.30 | \$13.95 | \$15.89 | \$18.11 |
| 31-1011 | Home Health Aides | \$9.10 | \$9.52 | \$10.65 | \$12.34 | \$14.48 |
| 29-1127 | Speech-Language Pathologists | \$26.04 | \$30.82 | \$37.86 | \$45.55 | \$53.88 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | \$20.21 | \$22.22 | \$25.38 | \$28.45 | \$30.46 |
| 29-1123 | Physical Therapists | \$30.26 | \$36.38 | \$43.07 | \$49.14 | \$61.47 |
| 29-1062 | Family and General Practitioners | \$38.00 | \$53.72 | \$81.00 | \$102.74 | \$152.41 |

Data: EMSI, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Intensive Care Unit
- Acute Care
- Rehabilitations

In-Demand Foundational Skills

- Management
- Communications
- Leadership
- Operations
- Cardiopulmonary Resuscitation

In-Demand Education Level*

- High School Diploma: 20.0%
- Associate Degree: 16.6%
- Bachelor's Degree: 21.3%
- Master's Degree: 9.0%

*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications

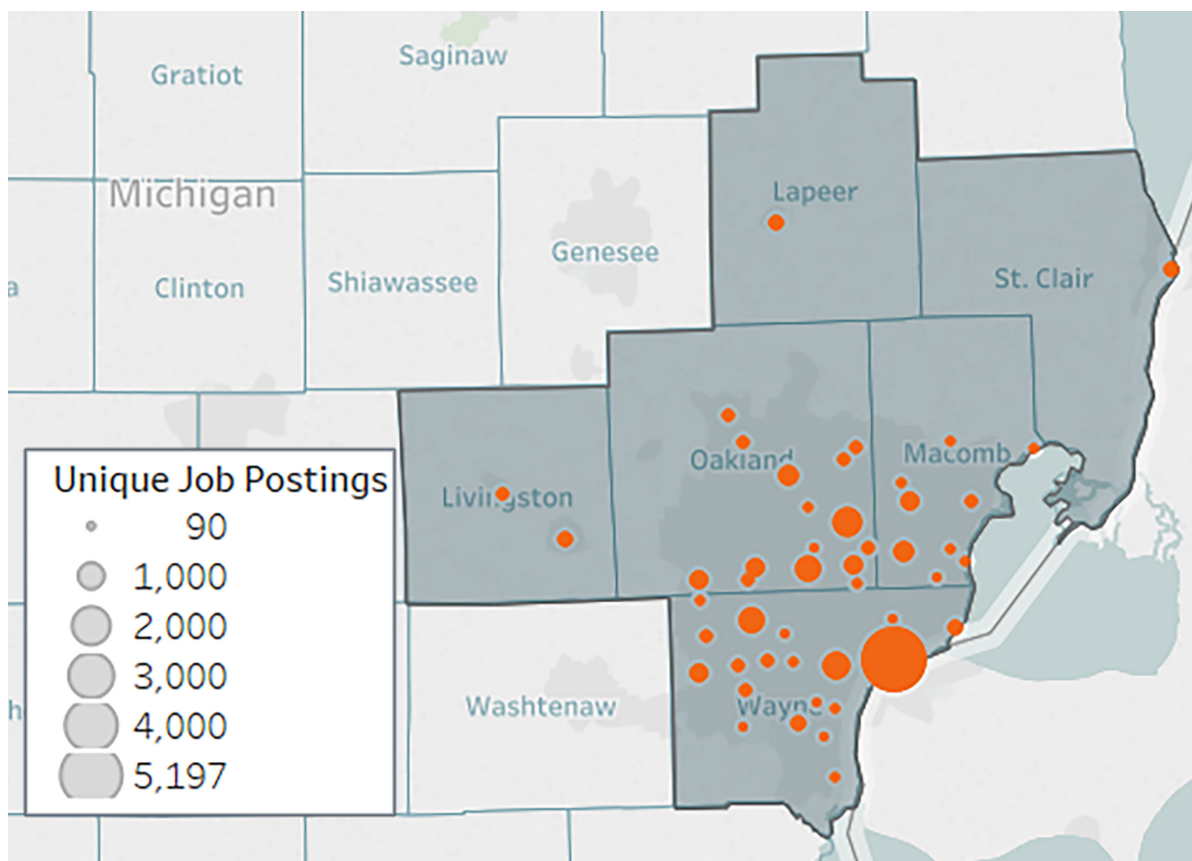
- Licensed Practical Nurse
- Certified Nursing Assistant
- Associate of Science In Nursing
- Critical Care Registered Nurse (CCRN)
- CNOR Certification



Registered Nurses: In-Demand Entry Level Occupation



Nursing and Management Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top Posting Employers*

- William Beaumont Hospital
- Henry Ford Health System
- HealthCare Employment Network
- CVS Health Corporation
- Cross Country Healthcare, Inc.
- Tenet Healthcare Corporation
- Manor Care, Inc.
- Sunbelt Staffing, LLC
- Soliant Health, Inc
- Trinity Health Corporation

*Employer names are listed as they appear in online job postings.

Job Postings by City

1. Detroit, MI: 5,197 Postings
2. Troy, MI: 1,060 Postings
3. Dearborn, MI: 922 Postings
4. Livonia, MI: 846 Postings
5. Southfield, MI: 813 Postings



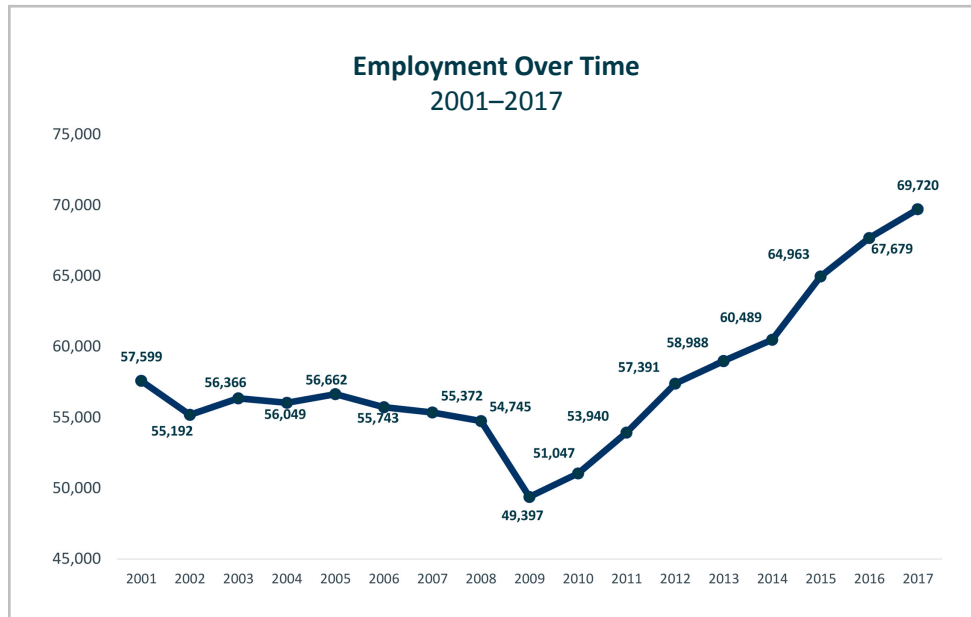
INFORMATION TECHNOLOGY (IT) OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q2 2018

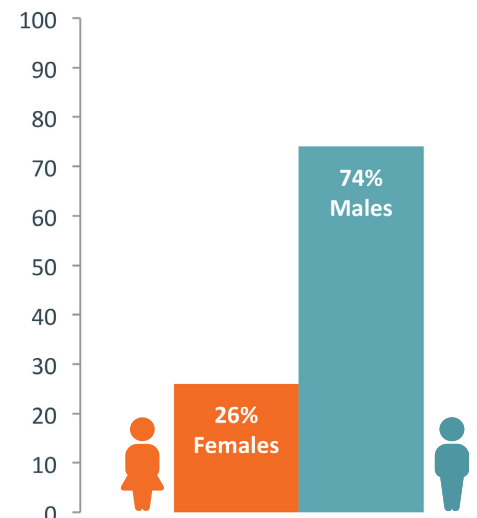
Introduction

Information technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the information technology group does not currently employ as many individuals as the other groups here, it is quickly growing.

69,720
IT Workers
0.3% Increase from 2016



Population Gender Demographics



IT Worker Demographics

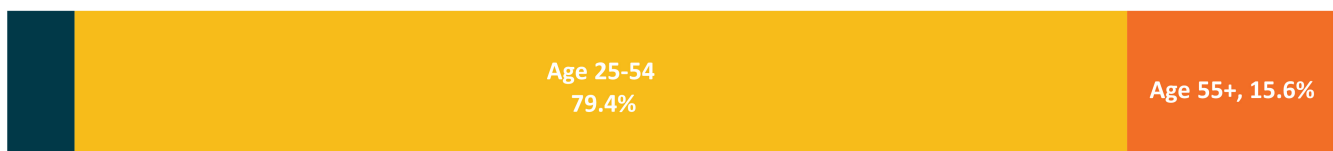
According to the most recent Emsi data set available (2017), despite having nearly 70,000 workers, the IT occupation group is not very diverse. A large majority of workers are white males between the ages of 25 and 54. Currently, 74 percent of workers identify as male, and 67 percent identify as white. There are a broad range of organizations providing specialized training resources for female and minority IT workers in the City of Detroit as well as throughout southeast Michigan. With the push to diversify the IT field, more opportunities are opening for women and minorities.

Race and Ethnicity Demographics

66.9% White | 11.0% Black or African American | 18.3% Asian

Age 14-24,
5.1%

Population Age Demographics



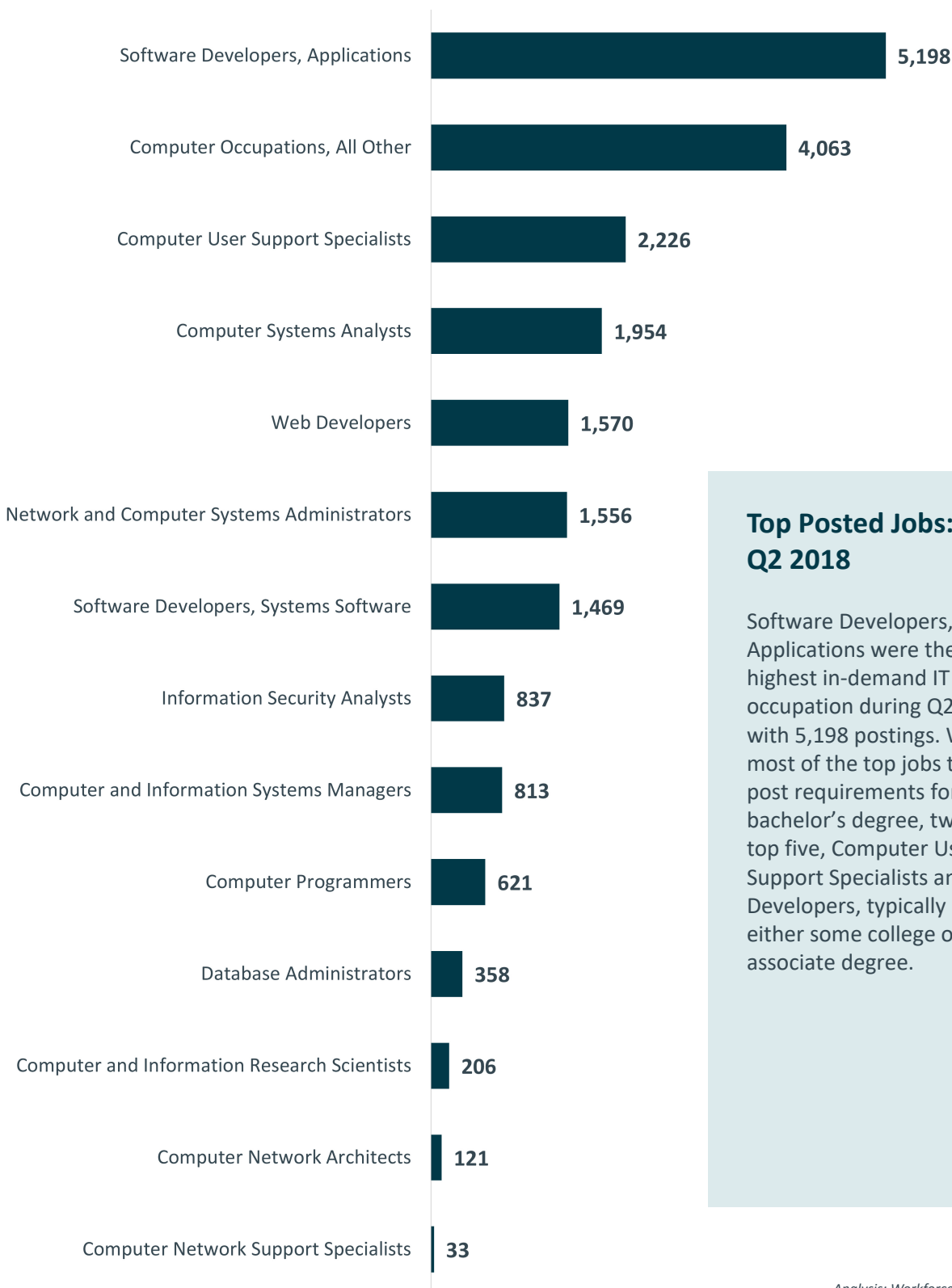


21,025 IT Postings: 889
More than Q1 2018



Bachelors Degree
Required for Most IT Jobs

Information Technology Top Posted Jobs Q2 2018



Top Posted Jobs: Q2 2018

Software Developers, Applications were the highest in-demand IT occupation during Q2 2018, with 5,198 postings. While most of the top jobs typically post requirements for a bachelor's degree, two of the top five, Computer User Support Specialists and Web Developers, typically require either some college or an associate degree.



High Earning Potential for Computer and Information System Managers



CISSP: Most In-Demand IT Certification

IT Wage Overview

Most IT related jobs offer high wages, making for a lucrative opportunity for job seekers willing to overcome the educational barriers related to these jobs. Software Developers, Applications, the top posted IT job in Q2 2018, offers a median annual salary of nearly \$92,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted IT Jobs in Q2 2018

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|-----------------|---|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| 15-1132 | Software Developers, Applications | \$27.94 | \$35.06 | \$44.21 | \$54.78 | \$63.90 |
| 15-1199 | Computer Occupations, All Other | \$20.61 | \$26.42 | \$37.59 | \$49.52 | \$59.47 |
| 15-1151 | Computer User Support Specialists | \$14.25 | \$17.71 | \$23.58 | \$30.30 | \$39.34 |
| 15-1121 | Computer Systems Analysts | \$25.03 | \$31.36 | \$40.83 | \$50.17 | \$61.08 |
| 15-1134 | Web Developers | \$19.81 | \$25.64 | \$32.35 | \$41.80 | \$48.63 |
| 15-1142 | Network and Computer Systems Administrators | \$25.44 | \$31.28 | \$39.25 | \$48.38 | \$57.29 |
| 15-1133 | Software Developers, Systems Software | \$23.81 | \$32.45 | \$42.39 | \$51.72 | \$62.01 |
| 15-1122 | Information Security Analysts | \$28.71 | \$34.23 | \$45.35 | \$56.89 | \$66.45 |
| 11-3021 | Computer and Information Systems Managers | \$41.21 | \$51.48 | \$62.99 | \$77.13 | \$96.03 |
| 15-1131 | Computer Programmers | \$22.18 | \$28.03 | \$34.57 | \$41.89 | \$48.90 |

Data: EMSI, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Software Development
- SQL (Programming Language)
- Java (Programming Language)
- Software Engineering
- Agile Software Development

In-Demand Foundational Skills

- Management
- Communications
- Operations
- Integration
- Leadership

In-Demand Education Level

- High School Diploma: 3.7%
- Associate Degree: 4.8%
- Bachelor's Degree: 55.1%
- Master's Degree: 12.1%

**Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent*

In-Demand Certifications

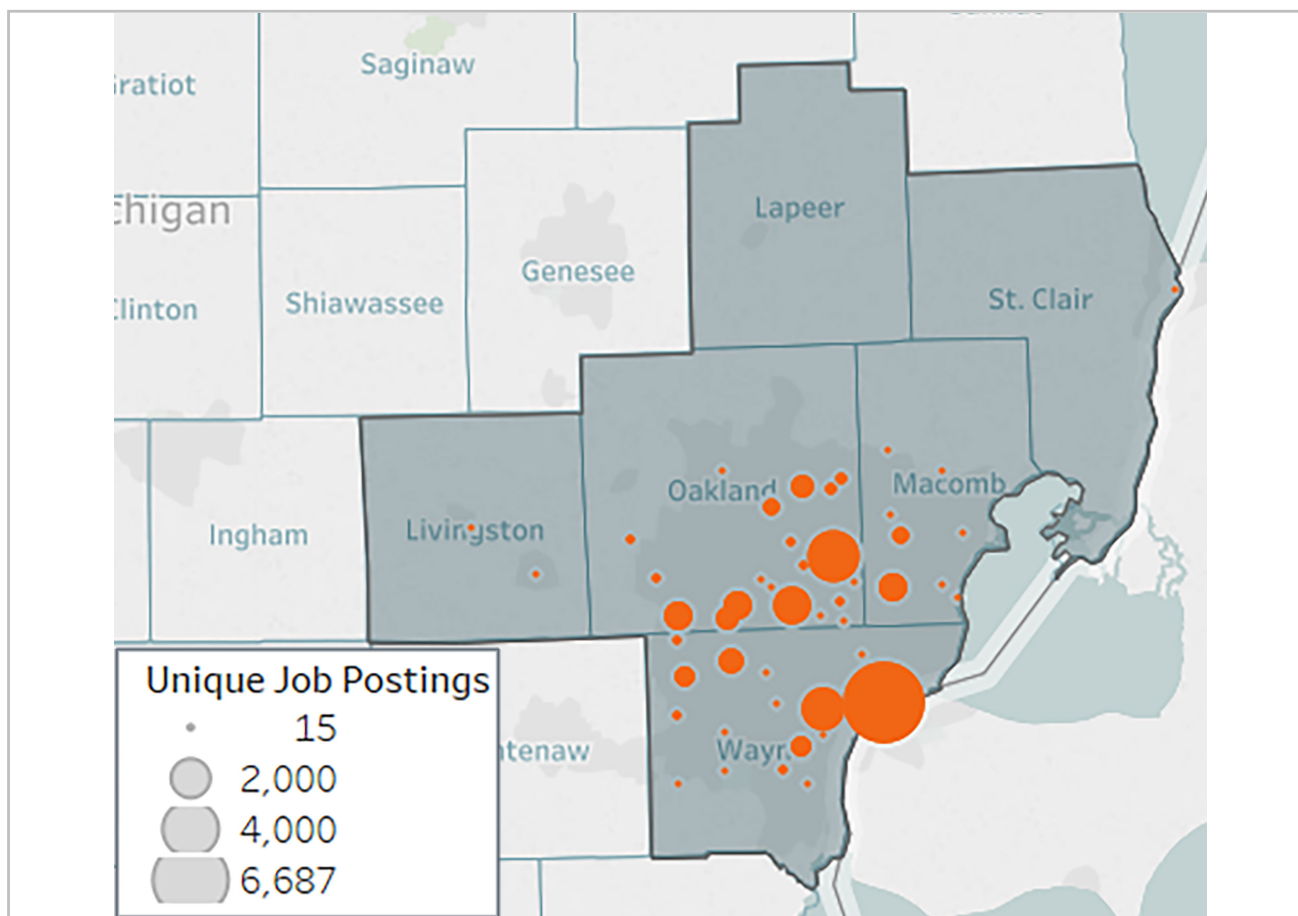
- Certified Information Systems Security Professional
- Certified Information Security Manager
- Cisco Certified Network Associate
- Certified Ethical Hacker
- Microsoft Certified Systems Engineer



Automotive and Tech Companies are Top Employers of IT Workers



Programming Language Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top Posting Employers*

- Oracle Corporation
- ACCENTURE, INC.
- General Motors Company
- Teksystems, Inc.
- Ford Motor Company
- Msx International, Inc.
- Quicken Loans Inc.
- Deloitte LLP
- Anthem, Inc.
- Fast Switch, Ltd.

*Employer names are listed as they appear in online job postings.

Job Postings by City

1. Detroit, MI: 6,687 Postings
2. Troy, MI: 2,710 Postings
3. Dearborn, MI: 1,864 Postings
4. Southfield, MI: 1,420 Postings
5. Auburn Heights, MI: 1,087 Postings



SKILLED TRADES OCCUPATION GROUP (MANUFACTURING FOCUSED)

Detroit-Warren-Dearborn MI MSA | Q2 2018

Introduction

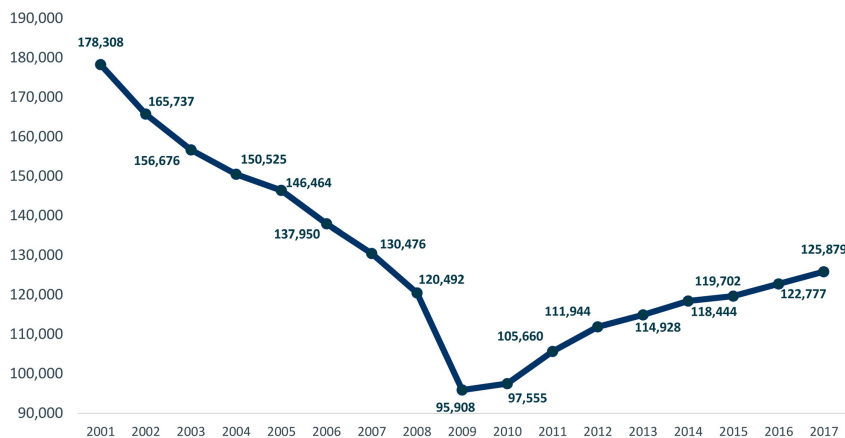
WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country. NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.



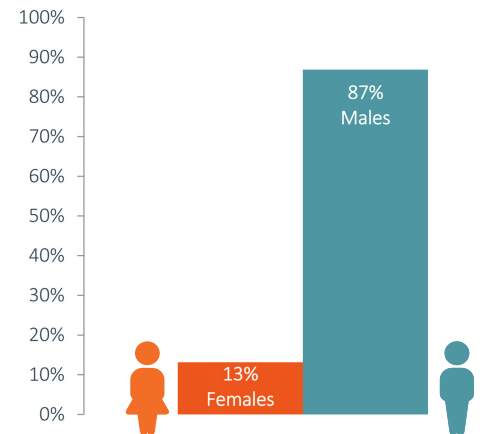
125,879
Skilled Trades
Workers

0.3% Increase
from 2016

Employment Over Time
2001–2017



Population
Gender Demographics



Skilled Trades Worker Demographics

According to the most recent Emsi data set available (2017), the Skilled Trades occupation group employs about 126,000 workers in southeast Michigan. A majority of workers are white males between the ages of 25 and 54. Additional outreach may be necessary in the near future, as at 25.5 percent, the group has a somewhat higher proportion than average of workers over age 55.

Race and Ethnicity Demographics

77.5% White | **14.0% Black or African American** | **3.0% Asian**

Age 14-24,
6.7%

Population Age Demographics





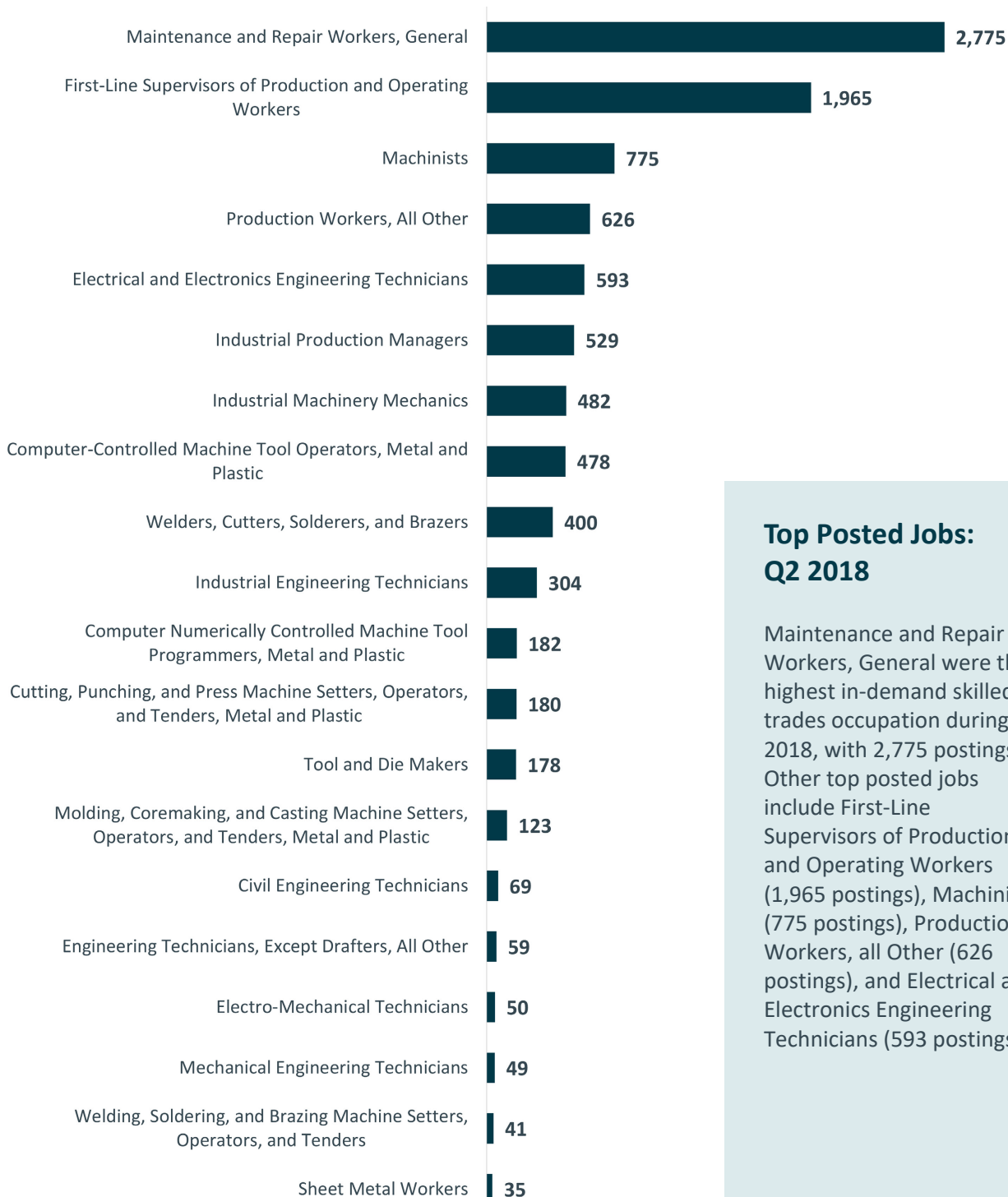
10,247 Skilled Trades Postings:
736 More Than Q1 2018



Vocational Training Required for
Most Skilled Trades Jobs

Skilled Trades Top Posted Jobs

Q2 2018



Top Posted Jobs: Q2 2018

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during Q2 2018, with 2,775 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (1,965 postings), Machinists (775 postings), Production Workers, all Other (626 postings), and Electrical and Electronics Engineering Technicians (593 postings).



High Earning Potential for Industrial Production Managers



Certified Quality Engineer: In-Demand Skilled Trades Certification

Skilled Trades Wage Overview

Half of the top ten in-demand skilled trades occupation have median wages above \$20 per hour according to the Bureau of Labor Statistics (BLS). Maintenance and Repair Workers, General, the top posted skilled trades job in Q2 2018, offers a median hourly wage of \$17.28, which translates to an annual salary of nearly \$36,000.

Wage Overview for Top Posted Skilled Trades Occupations Q2 2018

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|-----------------|---|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| 49-9071 | Maintenance and Repair Workers, General | \$10.83 | \$13.35 | \$17.28 | \$23.08 | \$29.06 |
| 51-1011 | First-Line Supervisors of Production and Operating Workers | \$18.60 | \$24.01 | \$32.22 | \$42.14 | \$52.13 |
| 51-4041 | Machinists | \$12.23 | \$15.50 | \$20.31 | \$25.56 | \$30.06 |
| 51-9199 | Production Workers, All Other | \$10.46 | \$14.98 | \$18.03 | \$21.72 | \$26.59 |
| 17-3023 | Electrical and Electronics Engineering Technicians | \$16.88 | \$21.83 | \$29.29 | \$35.01 | \$40.61 |
| 11-3051 | Industrial Production Managers | \$35.03 | \$44.25 | \$56.09 | \$70.45 | \$86.99 |
| 49-9041 | Industrial Machinery Mechanics | \$16.38 | \$20.81 | \$26.59 | \$33.10 | \$38.29 |
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal and Plastic | \$12.28 | \$14.39 | \$19.07 | \$24.07 | \$28.88 |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | \$13.29 | \$15.81 | \$19.15 | \$23.68 | \$29.07 |
| 17-3026 | Industrial Engineering Technicians | \$16.79 | \$20.14 | \$25.87 | \$33.11 | \$39.67 |

In-Demand Technical Skills

- Machining
- Lathe Experience
- Tooling
- HVAC
- Mill Experience

In-Demand Foundational Skills

- Management
- Operations
- Communications
- Troubleshooting (Problem Solving)
- Leadership

In-Demand Education Level

- High School Diploma: 40.1%
- Associate Degree: 11.7%
- Bachelor's Degree: 14.2%
- Master's Degree: 1.4%

In-Demand Certifications

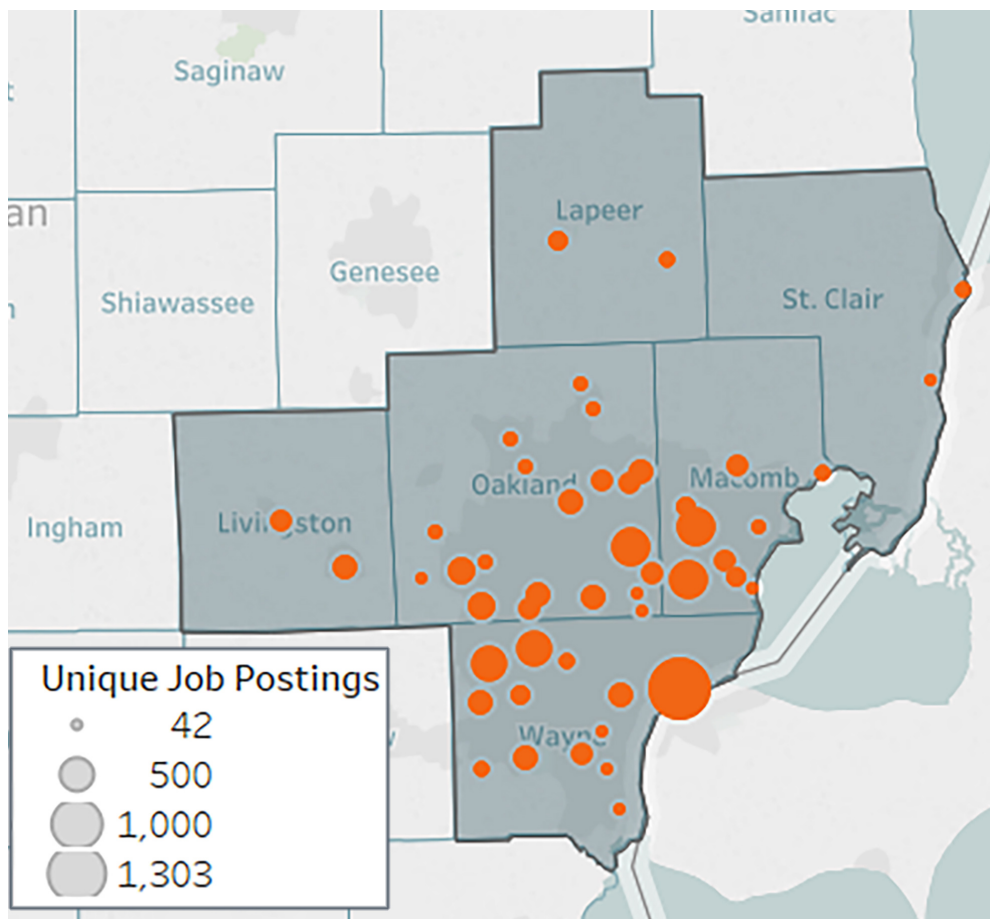
- Certified Broadcast Radio Engineer
- Certified Quality Engineer
- (American Society for Quality) ASQ Certified
- Certified Welder
- Certified First Responder



Maintenance and Repair Workers: In-Demand Entry-Level Occupation



Machining Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated). Size shows sum of Unique Postings (Jan 2017–Dec 2017). Details are shown for City.

Top Posting Employers*

- McDonald's Corporation
- Aerotek, Inc.
- Kelly Services, Inc.
- The Home Depot Inc
- Michigan Works Service Center, Alpena C
- Sentech Services
- Express Services Inc
- Start
- Trillium Staffing
- Nesco Resource

Job Postings by City

1. Detroit, MI: 1,303 Postings
2. Sterling Heights, MI: 521 Postings
3. Warren, MI: 496 Postings
4. Troy, MI: 483 Postings
5. Livonia, MI: 461 Postings

*Employer names are listed as they appear in online job postings.

Website

www.WINintelligence.org

Email

info@WINintelligence.org

Phone

313.744.2946

Address

25363 Eureka Rd.
Taylor, MI 48180

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[@workforceintelligencenetwork](https://www.facebook.com/workforceintelligencenetwork)

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