

Q3 2018
July - September

DETROIT MSA

WIN Labor Market Report





INTRODUCTION

Detroit-Warren-Dearborn MI MSA | Q3 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 third quarter of 2018 in the Detroit MSA and includes summative data for July, August, and September 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

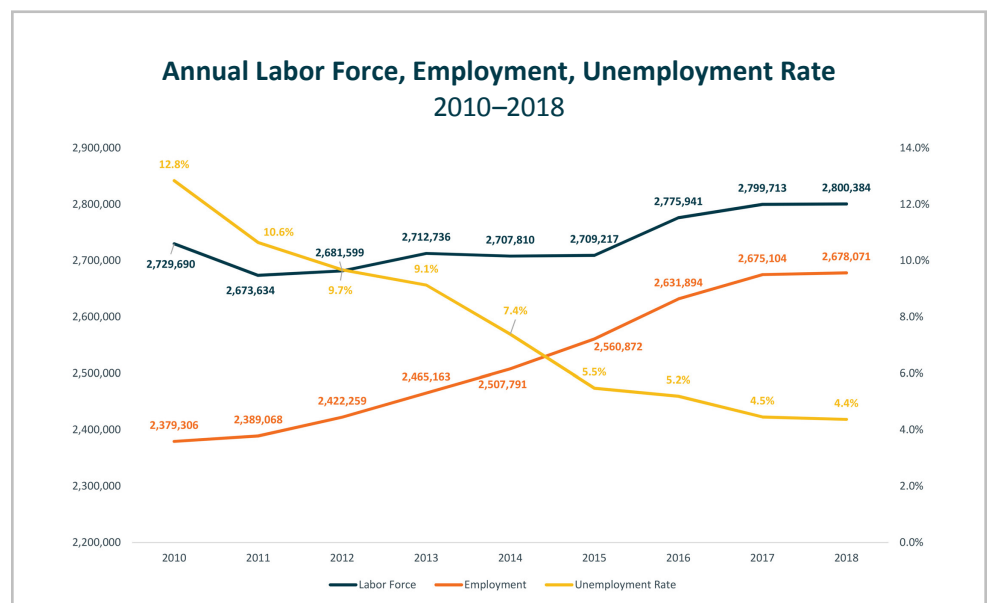
Detroit-Warren-Dearborn MI MSA | Q3 2018

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

Thus far in 2018, the labor force and employment figures in greater Detroit have risen slightly, following dramatic employment growth during the second quarter. Employment has risen much more slowly than the labor force, meaning a greater proportion of the labor force is looking for work. This has caused the year to date and quarterly unemployment rates to rise to 4.3 percent compared to the quarterly rate of 3.9 percent in Q2 2018. This is still lower than the annual rate of 4.4 percent during 2017, and significantly lower than the 4.9 percent quarterly unemployment rate during Q3 2017. 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 25,314 job postings during Q3 2018. Other occupation groups also offer great job opportunities for active job seekers: IT postings experienced the greatest growth, gaining 1,010 postings between Q2 2018 and Q3 2018. Skilled Trades jobs offer opportunities for those with a high school diploma and a willingness to undertake training, and 24 percent of postings for these workers were open to entry-level applicants.

Annual Labor Market Information

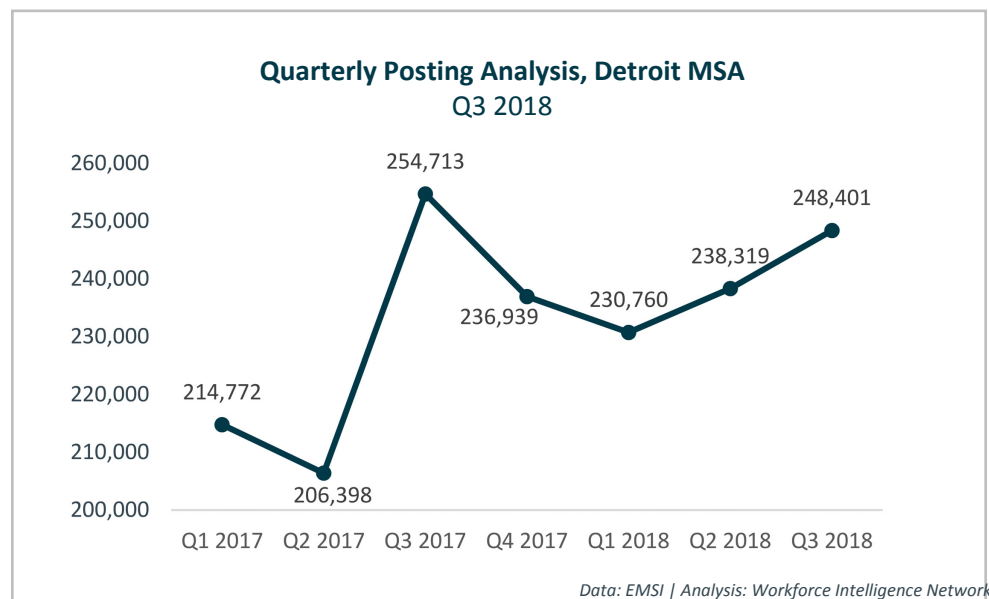
Continuing a ten-year high, the labor force in the Detroit MSA increased slightly by 556 individuals between 2017 and 2018. Employment also grew by 3,444 workers between recent years. With employment increasing at a faster rate than the labor force, the unemployment rate fell by 0.6 percentage points from an annual rate of 4.9 percent in 2017 to a 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 third quarter of 2018, including posting information from July, August, and September, indicated strong employer demand throughout the Detroit MSA. There were 248,401 postings in the area during Q3 2018. Demand has been rising through the year, growing by 10,082 postings between Q2 2018 and Q3 2018 and up by nearly 18,000 postings since Q1 2018. Q3 levels were 6,312 postings lower than the recent peak demand in Q3 2017.



Data: EMSI | Analysis: Workforce Intelligence Network



QUARTERLY WORKFORCE INDICATORS

Detroit-Warren-Dearborn MI MSA | Key Findings for Q3 2018

Information Technology Postings

Software Developers, Applications

\$44.21 Per Hour – Median Wage

22,035 Q3 2018 Postings

1,010 Posting Growth | Bachelor's Degree Preferred

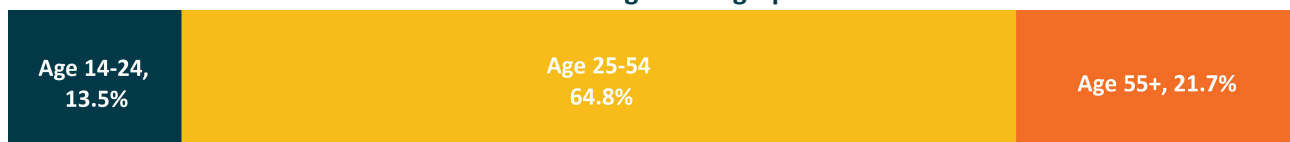
The information technology occupation group has experienced strong growth through the first three quarters of 2018.

Employers seeking IT workers have shown sustained demand growth during 2018, resulting in a Q3 2018 total of 22,035 ads. This is similar to levels experienced by other major occupation groups business and finance and health care. Most of the occupation groups analyzed by WIN experienced a decline in online job postings during at least one quarter of 2018, but employers added approximately 1,000 postings for IT workers each quarter. While top posting employers have varied between tech companies, automakers, and financial firms, Software Developers, Applications have remained by far the most in-demand job. Many in-demand IT occupations prefer a bachelor's degree, but several top-ten occupations, such as Computer User Support Specialists, require an associate degree or some college. For more information about the IT occupation group, see page 24.

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 4.3 percent, down 0.6 percentage points from Q3 2017.

While the unemployment rate increased between Q2 2018 and Q3 2018, the labor market remains somewhat stronger overall than during 2017. There were 13,000 fewer people unemployed in Q3 2018 than in Q3 2017, and the quarterly unemployment rate has remained lower than in Q3 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	3rd Quarter 2017	4th Quarter 2017	1st Quarter 2018	2nd Quarter 2018	3rd Quarter 2018	Change from 2nd Quarter 2018	Percent Change from 2nd Quarter 2018	Change from 3rd Quarter 2017	Percent Change from 3rd Quarter 2017
Labor Force	2,830,051	2,807,660	2,785,285	2,808,226	2,810,969	2,743	0.1%	-19,082	-0.7%
Employment	2,687,586	2,691,292	2,653,392	2,697,006	2,690,755	-6,251	-0.2%	3,169	0.1%
Unemployment	142,465	116,368	131,893	111,220	120,214	8,994	8.1%	-22,251	-15.6%
Unemployment Rate	5.0%	4.1%	4.7%	4.0%	4.3%	0.3%	na	-0.8%	na

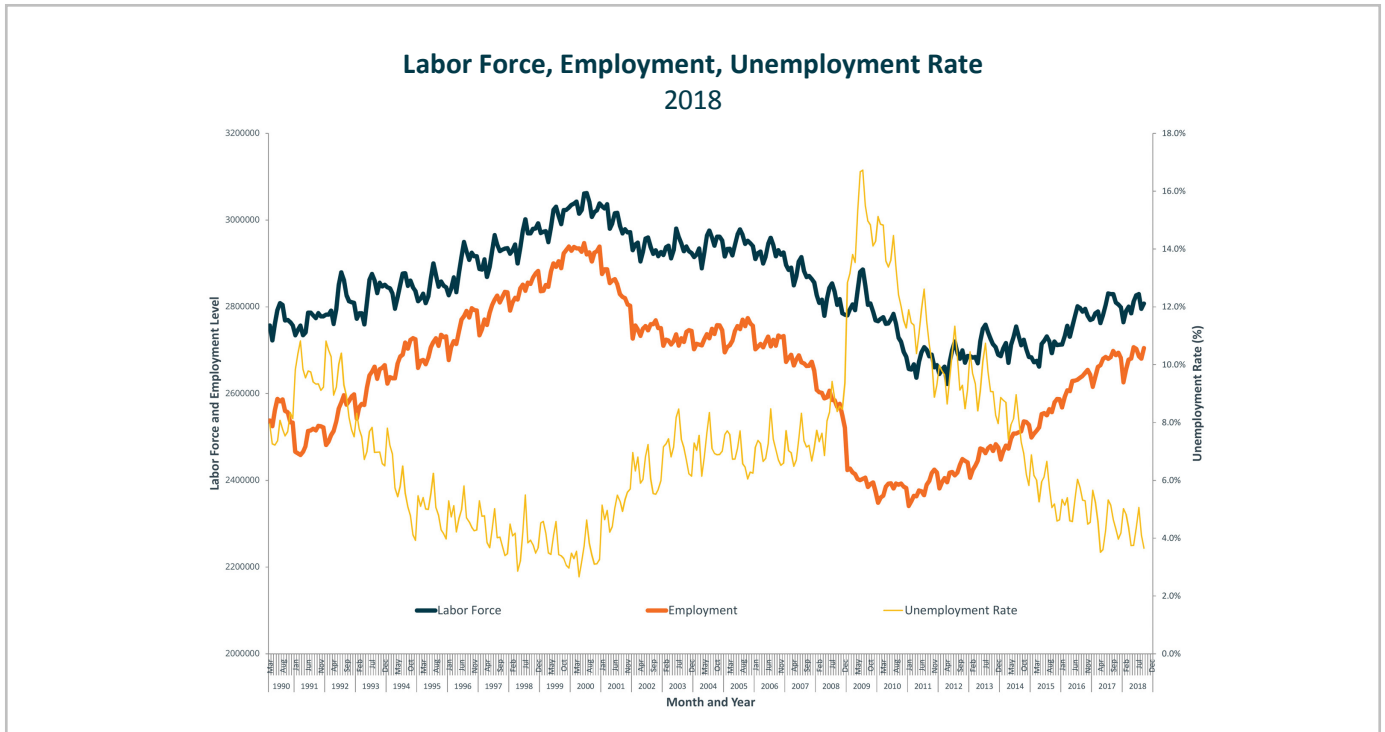
*Note: Monthly data averaged by quarter
Data: Bureau of Labor Statistics

Note: Monthly data average by quarter | Data: BLS



WORKFORCE OVERVIEW

Detroit-Warren-Dearborn MI MSA | Labor Market Information Q3 2018



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data

Quarterly Labor Market Data

	3rd Quarter 2017	4th Quarter 2017	1st Quarter 2018	2nd Quarter 2018	3rd Quarter 2018	Change from 2nd Quarter 2018	Percent Change from 2nd Quarter 2018	Change from 3rd Quarter 2017	Percent Change from 3rd 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 12,667 workers (+0.6 percent) between Q2 2018 and Q3 2018. Employment in the metropolitan area has also increased from Q2 2018, by 2,667 workers (+0.1 percent). With employment rising more slowly than the labor force, the unemployment rate rose this quarter: the quarterly unemployment rate rose by 0.4 percentage points between Q2 2018 and Q3 2018 to 4.3 percent.



WORKFORCE OVERVIEW

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

Population Demographics

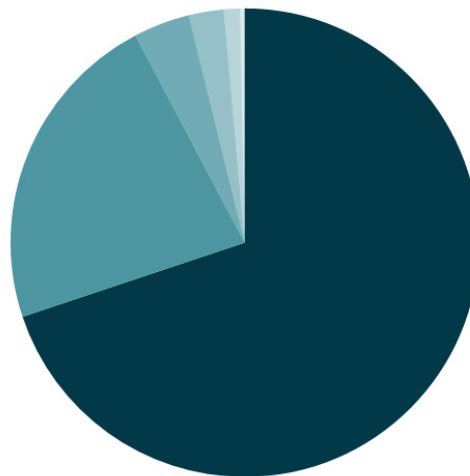
According to the data from the most recent Census Bureau 2016 ACS Five Year estimates, during 2016, 4,296,731 people were living in the Detroit MSA, just 315 more than in 2015. The sex of the populace was split almost evenly, with about 51.4 percent of the population identifying as female, and the other 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



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 |

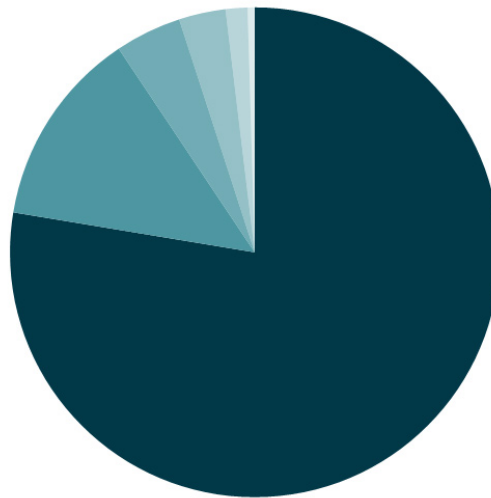
2017 Annual Working Population Demographics

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

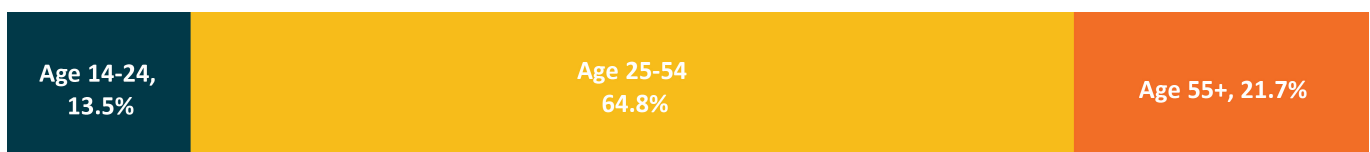


52% Males

48% Females



Workforce Age Demographics



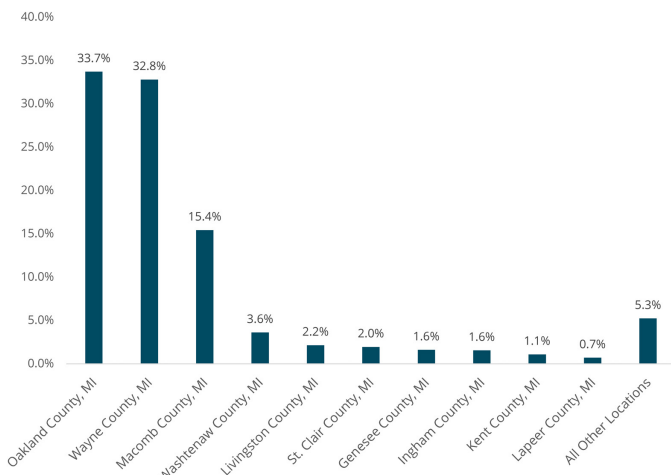
WORKFORCE OVERVIEW

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

Regional Commuting Patterns

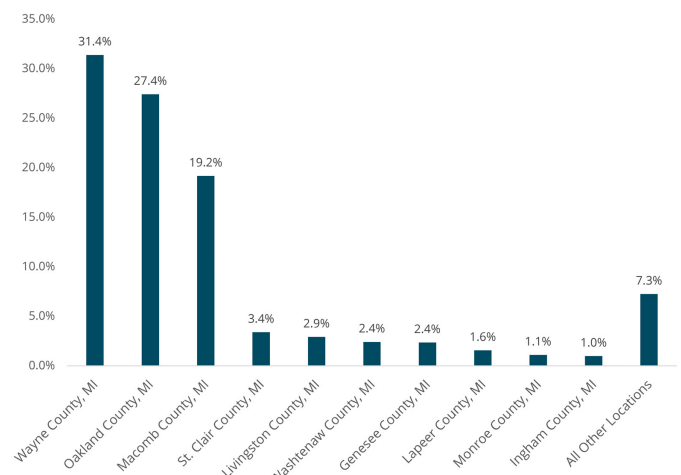
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the region's workforce consisted of 1,754,307 residents. 1,523,259 (86.8 percent) of the residents lived and worked within the MSA, while the remaining 231,048 residents (13.2 percent) traveled outside of the 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

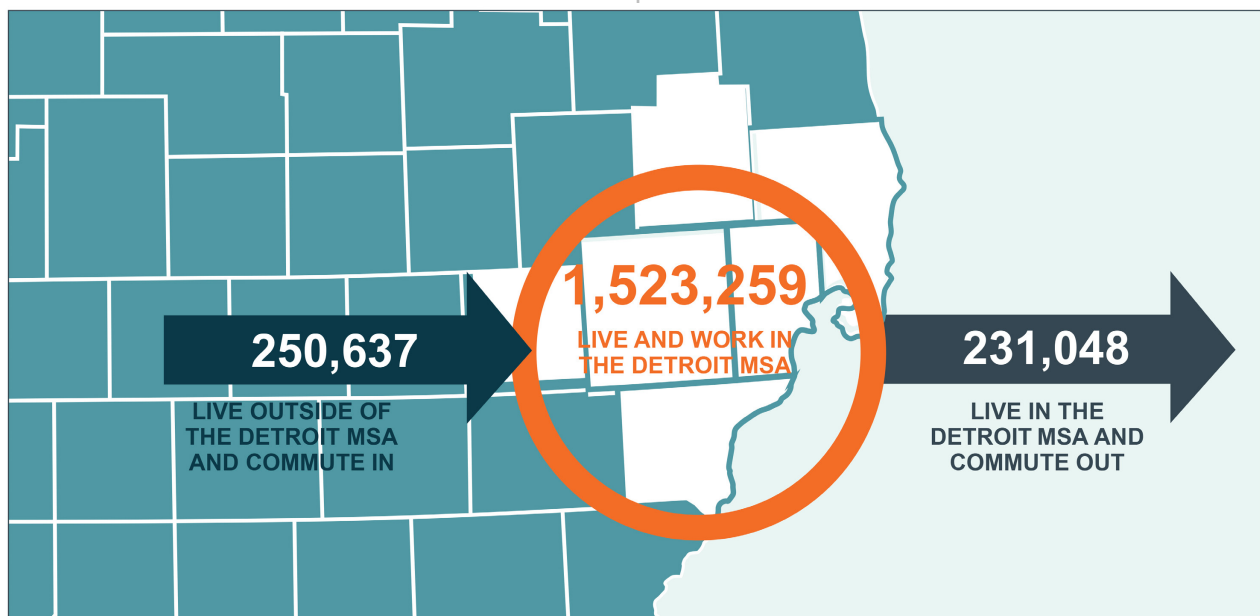


Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

Where Detroit MSA Workers Live



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

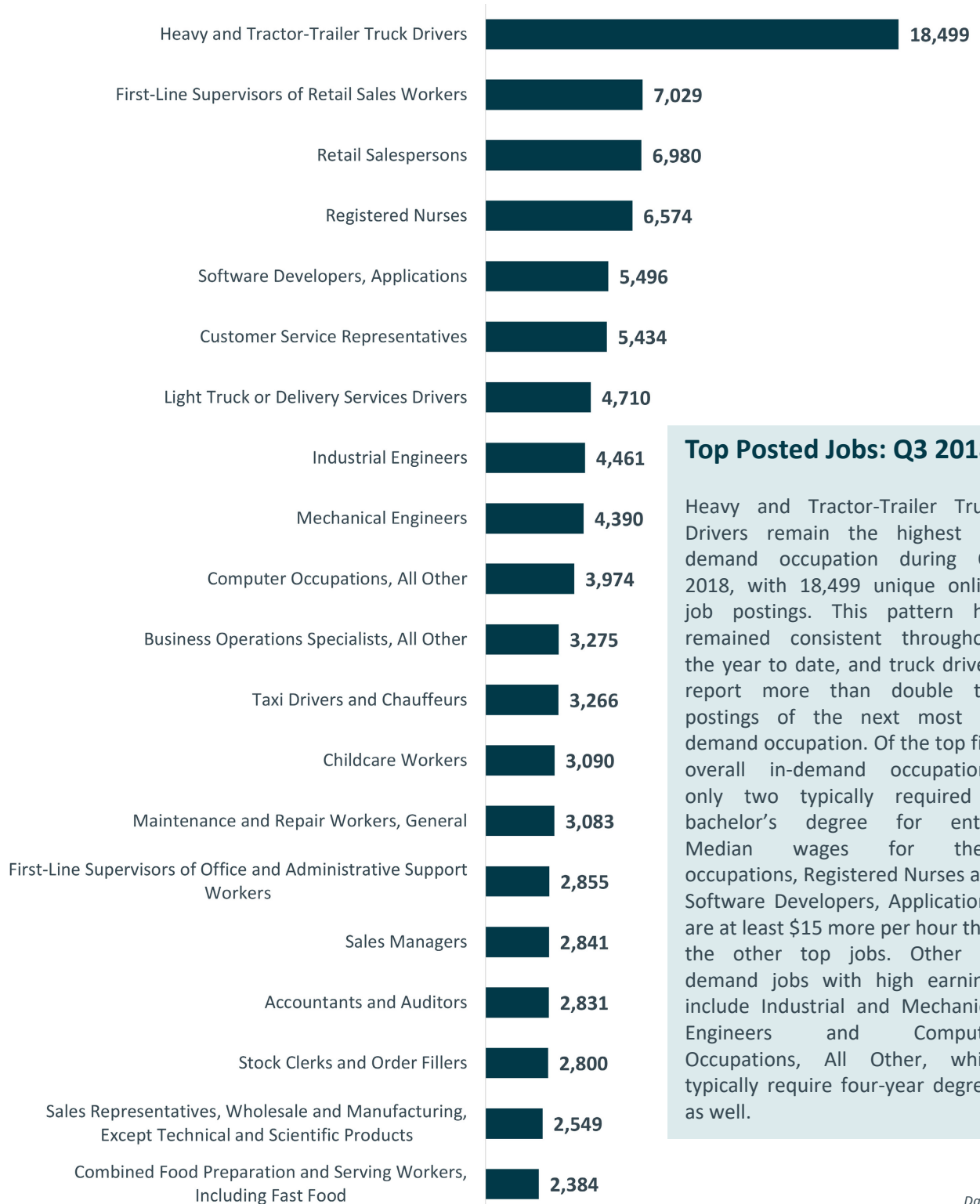




REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Top Posted Jobs | Q3 2018

Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

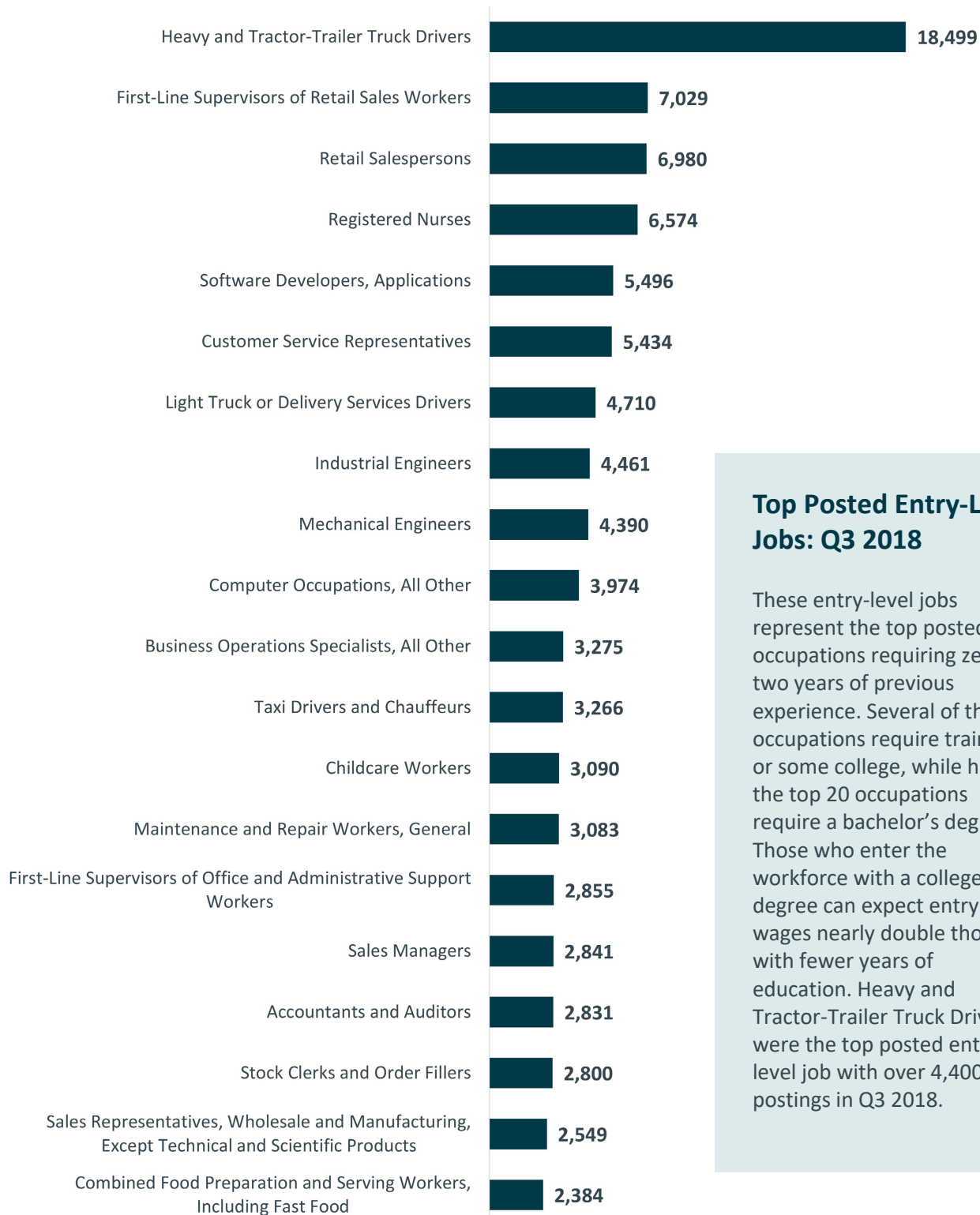
Heavy and Tractor-Trailer Truck Drivers remain the highest in-demand occupation during Q3 2018, with 18,499 unique online job postings. This pattern has remained consistent throughout the year to date, and truck drivers report more than double the postings of the next most in-demand occupation. Of the 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 Computer Occupations, All Other, which typically require four-year degrees as well.



REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Top Posted Entry-Level Jobs | Q3 2018

Top Posted Entry-Level Jobs Q3 2018



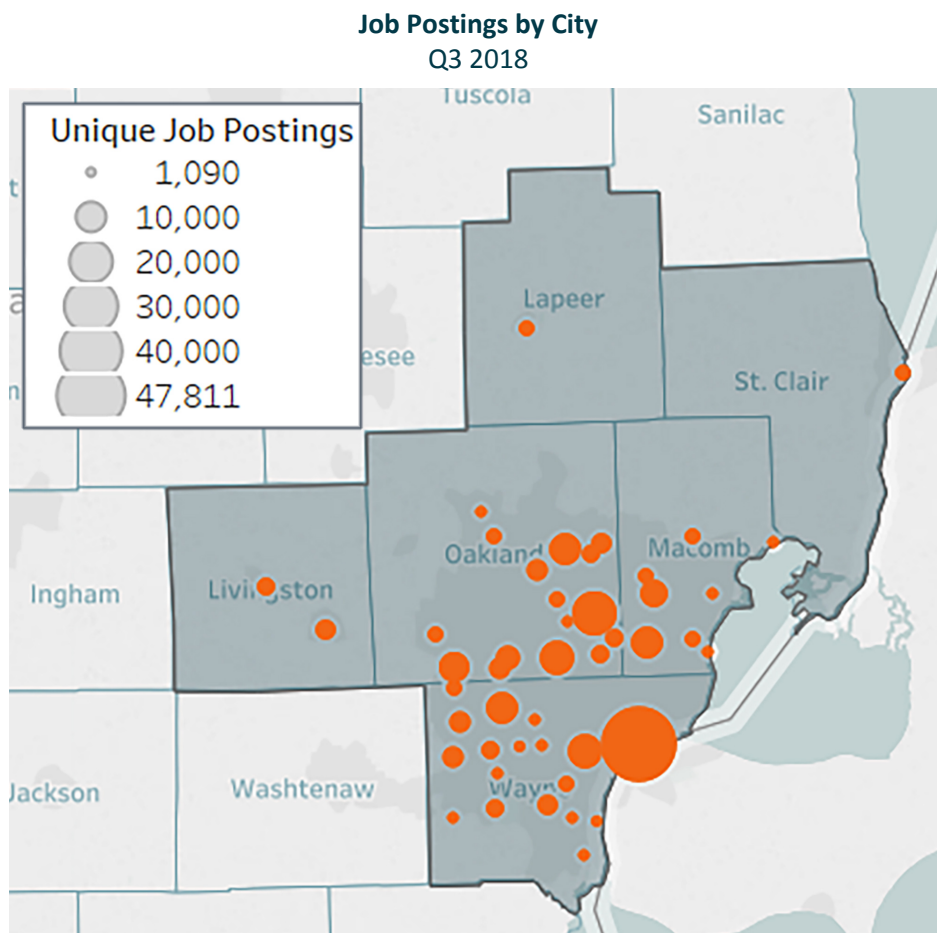
Top Posted Entry-Level Jobs: Q3 2018

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 half 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 4,400 postings in Q3 2018.



REAL-TIME DEMAND OVERVIEW

Detroit-Warren-Dearborn MI MSA | Job Postings by City | Q3 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
- Certified Public Accountant
- Associate of Science in Nursing
- Nurse Practitioner
- Transportation Worker Identification Credential (TWIC) Card
- Patient Care Technician
- Certified Information Systems Security Professional
- Certified Medical Assistant

Top In-Demand Skills

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

Top Posting Employers*

- William Beaumont Hospital
- CRST International, Inc.
- Lyft, Inc.
- Shipt LLC
- Virtual Vocations
- Henry Ford Health System
- The Home Depot Inc
- General Motors Company
- CVS Health Corporation
- McDonald's Corporation
- Oracle Corporation
- Kelly Services, Inc.
- Robert Half International Inc.
- C.R. England, Inc.
- Anthem, Inc.

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



BUSINESS FINANCE OCCUPATION GROUP

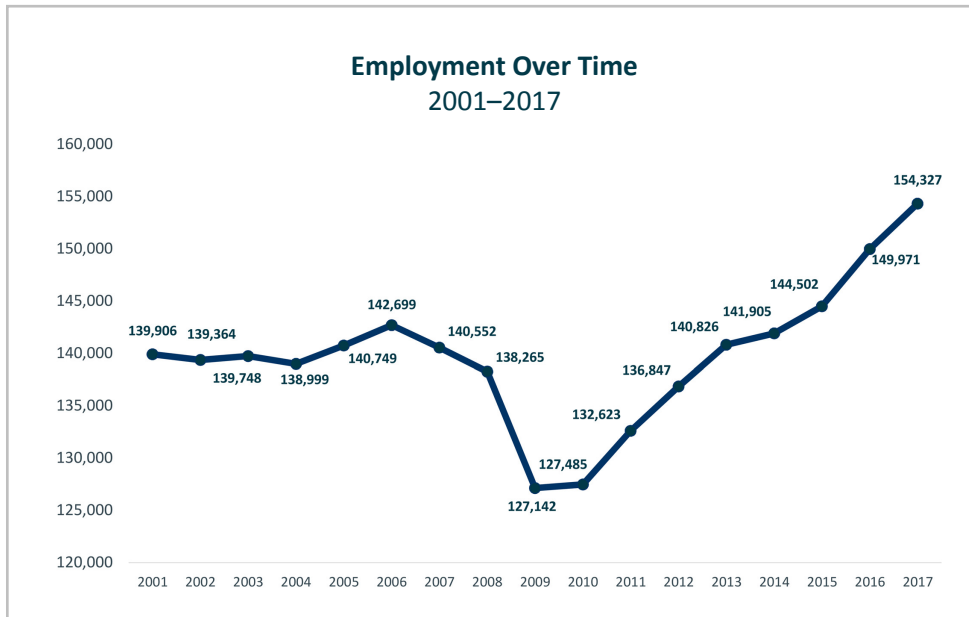
Detroit-Warren-Dearborn MI MSA | Q3 2018

Introduction

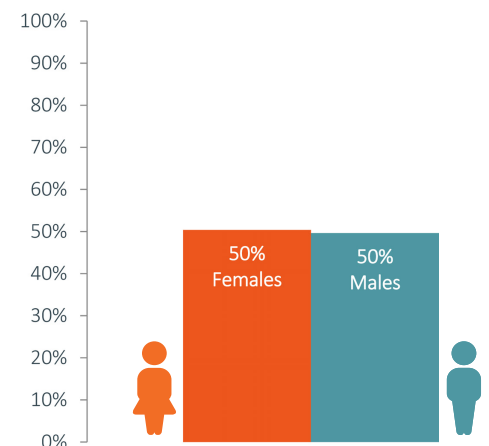
Jobs in the business and finance occupation group can be found in nearly every type of establishment/firm throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast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



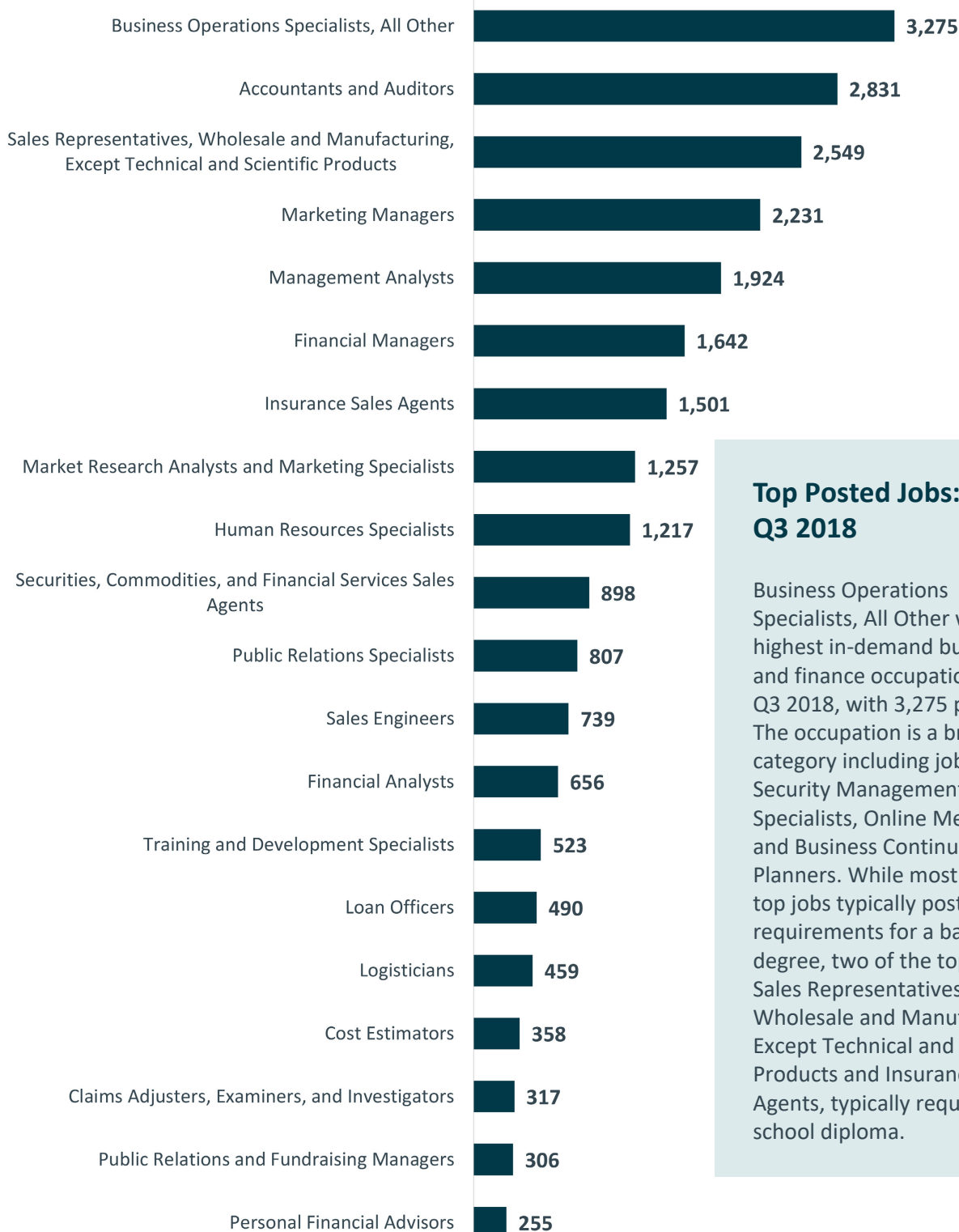


25,314 Business Postings:
579 More than Q2 2018



Bachelors Degree Required for
Most Business and Finance Jobs

Business and Finance Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

Business Operations Specialists, All Other were the highest in-demand business and finance occupation during Q3 2018, with 3,275 postings. The occupation is a broad category including jobs such as Security Management Specialists, Online Merchants, and Business Continuity Planners. 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 Q3 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
41-3021	Insurance Sales Agents	\$15.04	\$19.88	\$28.57	\$48.53	\$71.72
13-1161	Market Research Analysts and Marketing Specialists	\$16.03	\$22.58	\$32.03	\$44.84	\$59.20
13-1071	Human Resources Specialists	\$17.60	\$22.19	\$29.07	\$38.35	\$50.19
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$15.63	\$18.25	\$24.94	\$38.89	\$77.25

In-Demand Technical Skills

- Accounting
- Auditing
- Selling Techniques
- Business Development
- Financial Statements

In-Demand Foundational Skills

- Management
- Sales
- Communications
- Operations
- Leadership

In-Demand Education Level

- High School Diploma: 11.7%
- Associate Degree: 5.6%
- Bachelor's Degree: 47.5%
- Master's Degree: 12.1%

In-Demand Certifications

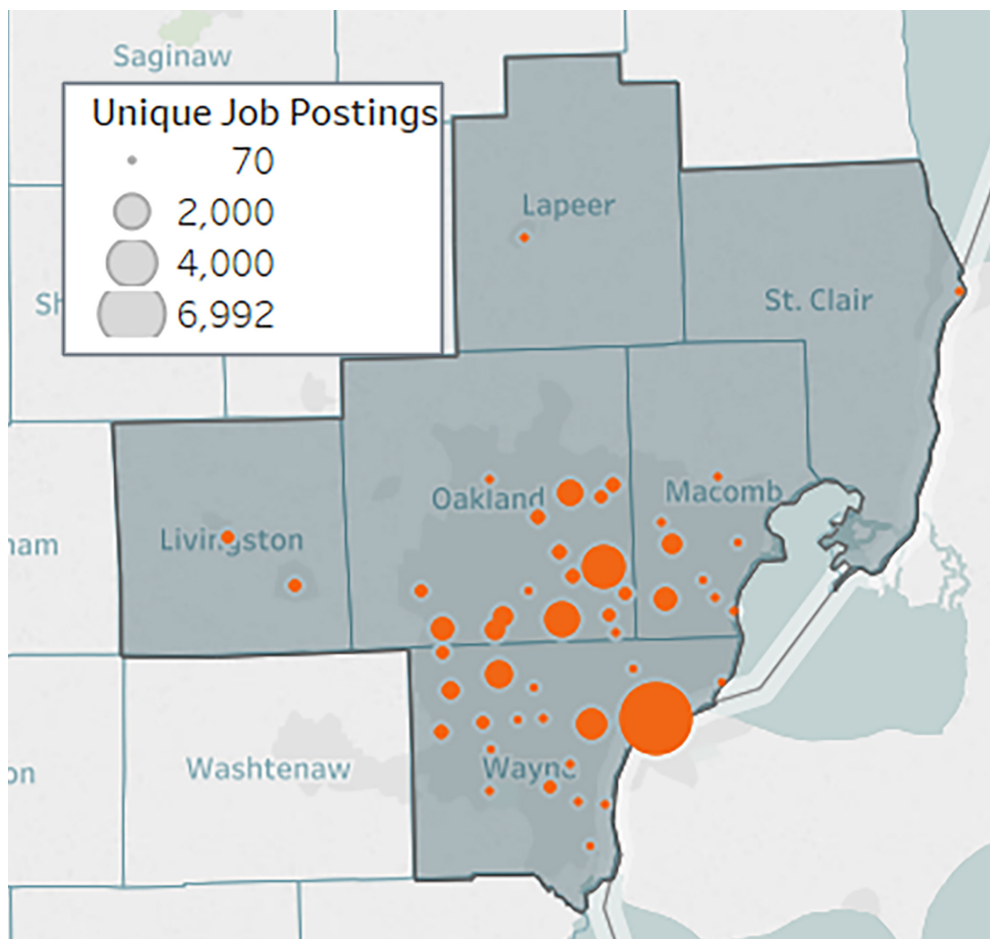
- Certified Public Accountant
- Series 7 General Securities Representative License (Stockbroker)
- Series 6 Investment Company and Variable Contracts License (Mutual Funds/Variable Annuities)
- Certified Internal Auditor
- Certified Financial Planner



Workplace Consulting and Technology 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.
- Virtual Vocations
- Deloitte LLP
- Sentex Corp
- Huntington Bancshares Incorporated
- Comerica Incorporated
- B & B Trucking, Inc.
- H&R Block, Inc.

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

Job Postings by City

1. Detroit, MI: 6,992 Postings
2. Troy, MI: 2,458 Postings
3. Southfield, MI: 1,623 Postings
4. Dearborn, MI: 1,213 Postings
5. Livonia, MI: 992



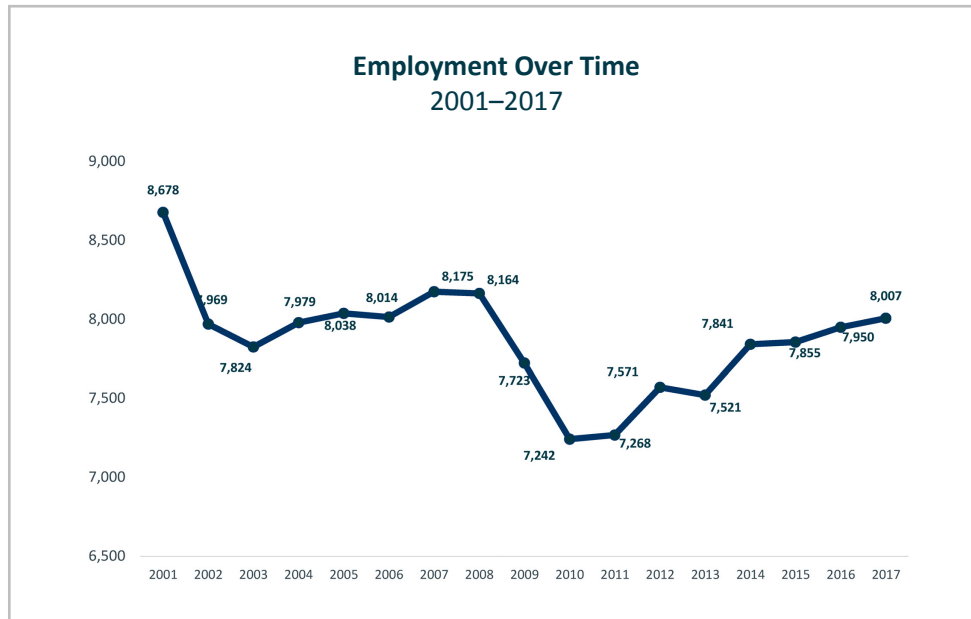
ENERGY OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q3 2018

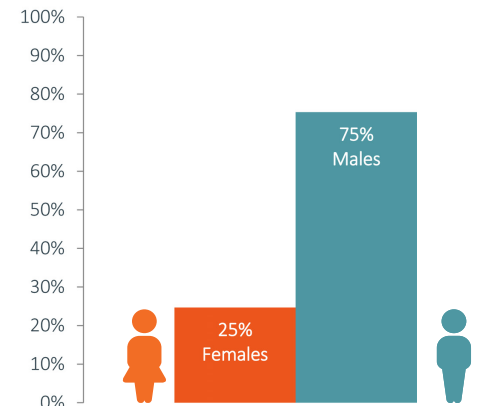
Introduction

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



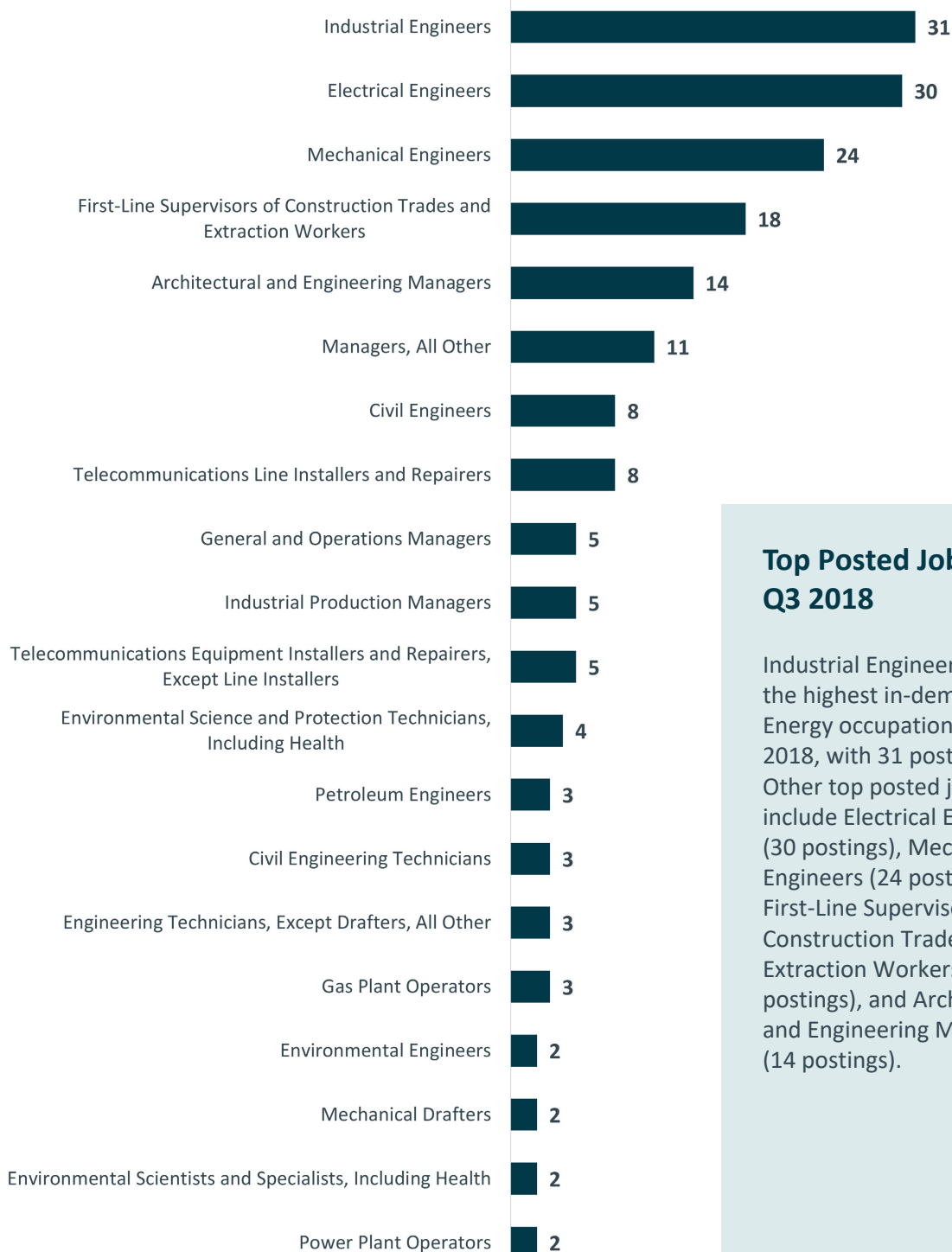


197 Energy Postings
21 Fewer Than Q2 2018



Bachelors Degree Required
for Most Energy Jobs

Energy Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

Industrial Engineers were the highest in-demand Energy occupation during Q3 2018, with 31 postings. Other top posted jobs include Electrical Engineers (30 postings), Mechanical Engineers (24 postings), First-Line Supervisors of Construction Trades and Extraction Workers (18 postings), and Architectural and Engineering Managers (14 postings).



High Earning Potential for Architectural and Engineering Managers



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, Industrial Engineers, offers a median hourly wage of \$44.66, or annual earnings of approximately \$93,000. 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 Q3 2018

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	\$30.27	\$36.02	\$44.66	\$54.05	\$62.28
17-2071	Electrical Engineers	\$28.62	\$34.50	\$42.56	\$51.31	\$62.13
17-2141	Mechanical Engineers	\$29.54	\$35.73	\$44.61	\$54.97	\$63.55
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.98	\$25.82	\$31.68	\$41.45	\$51.23
11-9041	Architectural and Engineering Managers	\$43.41	\$52.55	\$63.20	\$75.72	\$89.21
11-9199	Managers, All Other	\$31.81	\$40.25	\$50.22	\$62.61	\$77.61
17-2051	Civil Engineers	\$25.75	\$29.94	\$36.65	\$45.68	\$55.50
49-9052	Telecommunications Line Installers and Repairers	\$12.16	\$14.41	\$24.28	\$35.34	\$41.75
11-1021	General and Operations Managers	\$24.76	\$36.23	\$53.59	\$81.09	\$114.60
11-3051	Industrial Production Managers	\$35.03	\$44.25	\$56.09	\$70.45	\$86.99

In-Demand Technical Skills

- Electrical Engineering
- Adjudication Process
- Federal Laws
- Probation
- Employee Assistance Programs

In-Demand Foundational Skills

- Operations
- Management
- Communications
- Leadership
- Problem Solving

In-Demand Education Level

- High School Diploma: 22.8%
- Associate Degree: 11.7%
- Bachelor's Degree: 63.5%
- Master's Degree: 12.2%

In-Demand Certifications

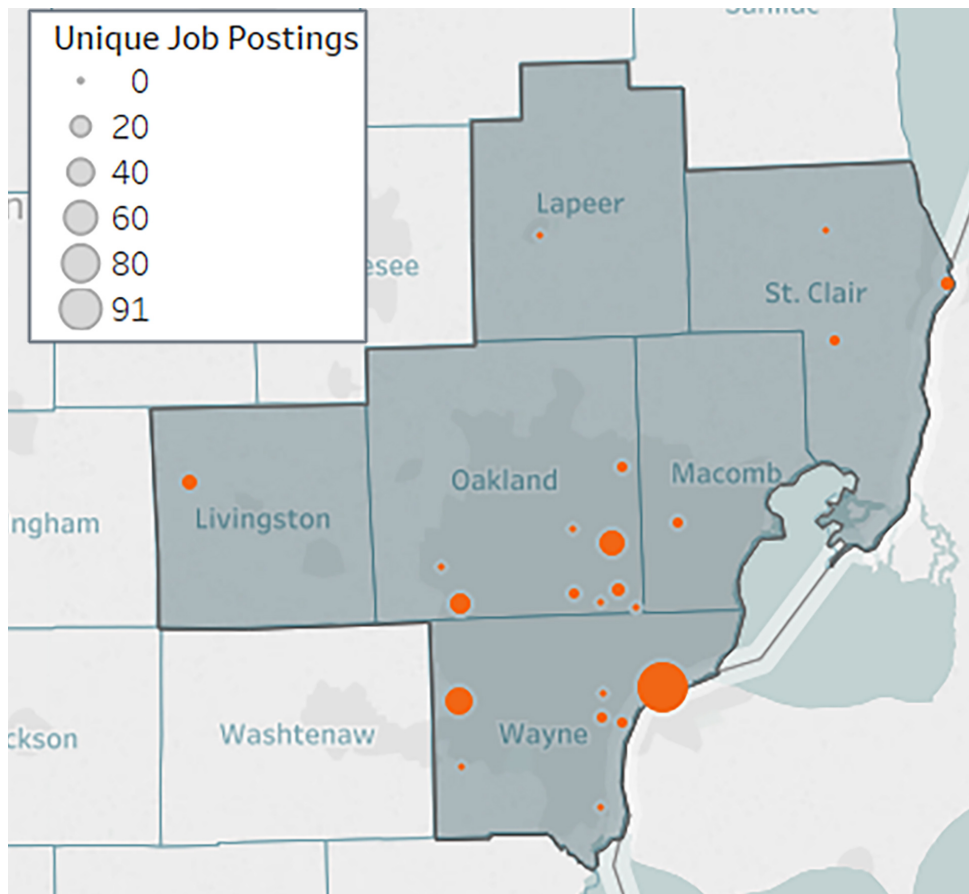
- Associates in Rural Development
- Commercial Driver's License (CDL)
- Licensed Professional Engineer
- Master of Business Administration (MBA)
- Professional Engineer



Industrial Engineers: In-Demand Entry-Level Job



Electrical 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
- Communications Construction Group, LLC
- Itc Holdings Corp.
- CMS Energy Corporation
- Total
- Semco Energy, Inc.
- Henkels & McCoy, Inc.
- Autonomous Surface Vehicles, LLC
- Acuren Inspection, Inc.

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

Job Postings by City

1. Detroit, MI: 91 Postings
2. Troy, MI: 26 Postings
3. Canton, MI: 22 Postings
4. Novi, MI: 14 Postings
5. Fowlerville, MI: 7 Postings



HEALTH CARE OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q3 2018

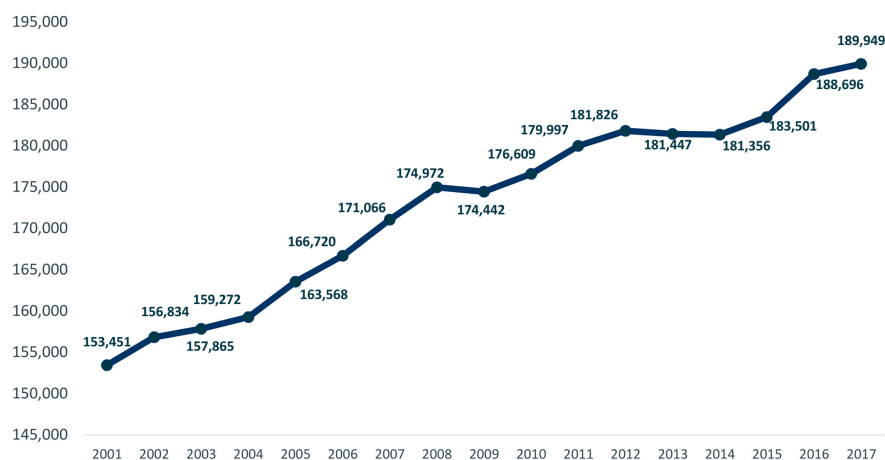
Introduction

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.

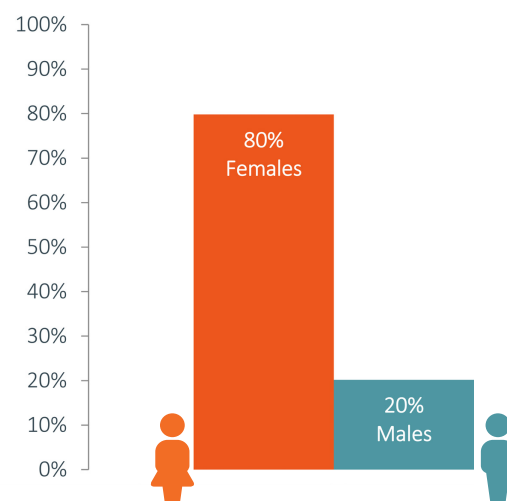


189,949
Health Care Workers
0.1% Increase from 2016

Employment Over Time
2001–2017



Population
Gender Demographics



Health Care Worker Demographics

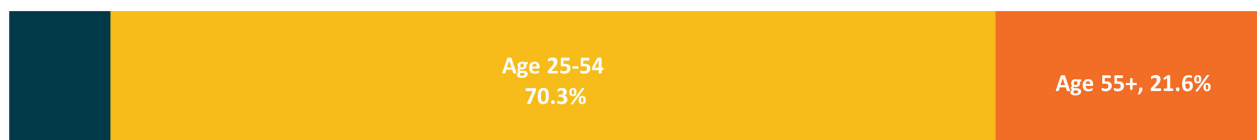
According to the most recent Emsi data set available (2017), the Health Care occupation group employs around 189,949 workers, who are primarily female (80 percent) and between the ages of 25 and 54 (70 percent), although 22 percent of workers are over 55. The group has a similar proportion of racial 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%



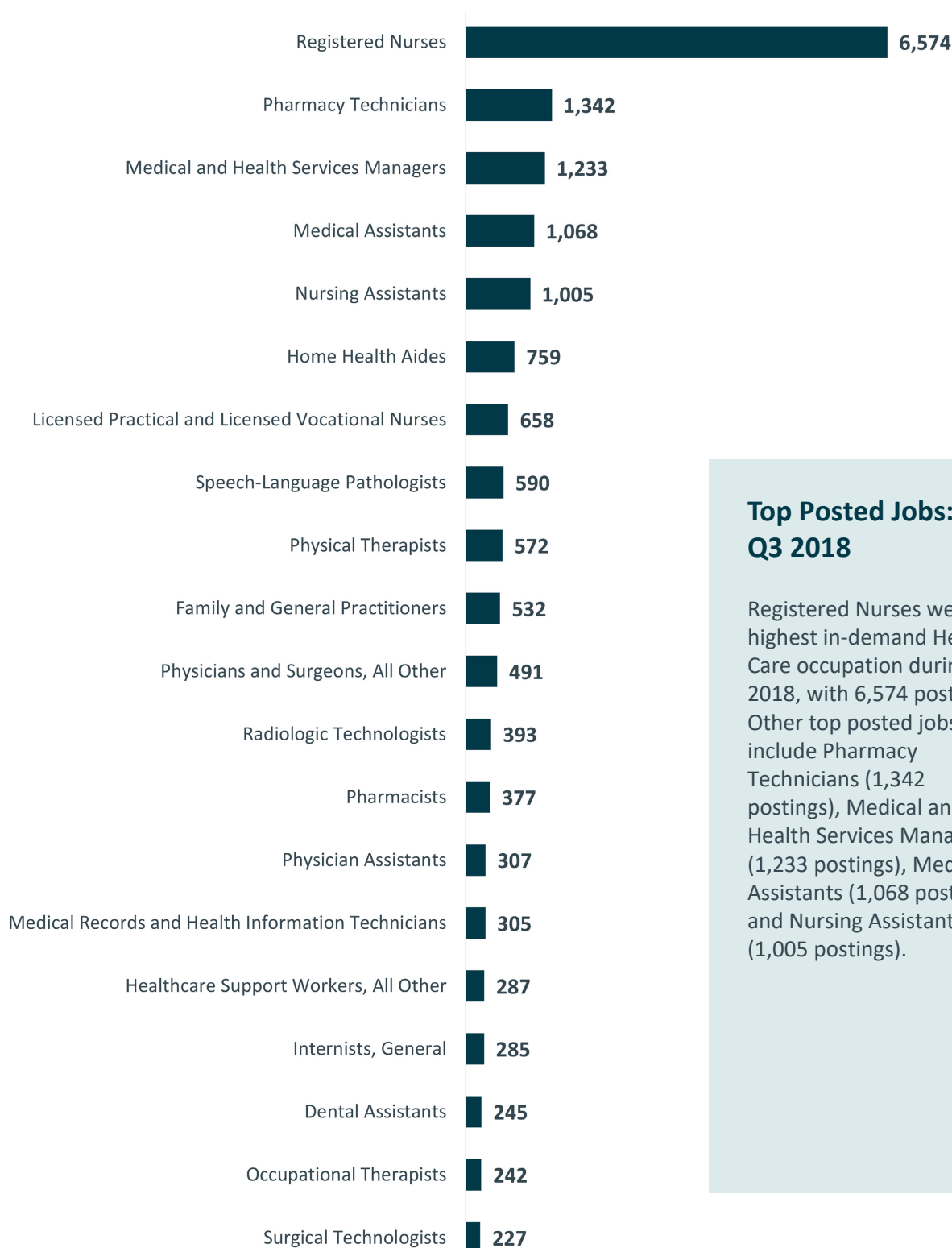


21,423 Health Care Postings:
258 fewer than Q2 2018



Bachelor's Degree Required for
High Earning Health Care Jobs

Health Care Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

Registered Nurses were the highest in-demand Health Care occupation during Q3 2018, with 6,574 postings. Other top posted jobs include Pharmacy Technicians (1,342 postings), Medical and Health Services Managers (1,233 postings), Medical Assistants (1,068 postings), and Nursing Assistants (1,005 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 Q3 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 Q3 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
29-2061	Licensed Practical and Licensed Vocational Nurses	\$20.21	\$22.22	\$25.38	\$28.45	\$30.46
29-1127	Speech-Language Pathologists	\$26.04	\$30.82	\$37.86	\$45.55	\$53.88
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
- Clinical Works
- Rehabilitations
- Intensive Care Unit

In-Demand Foundational Skills

- Management
- Communications
- Leadership
- Operations
- Cardiopulmonary Resuscitation

In-Demand Education Level*

- High School Diploma: 20.5%
- Associate Degree: 15.8%
- Bachelor's Degree: 22.0%
- Master's Degree: 10.8%

*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

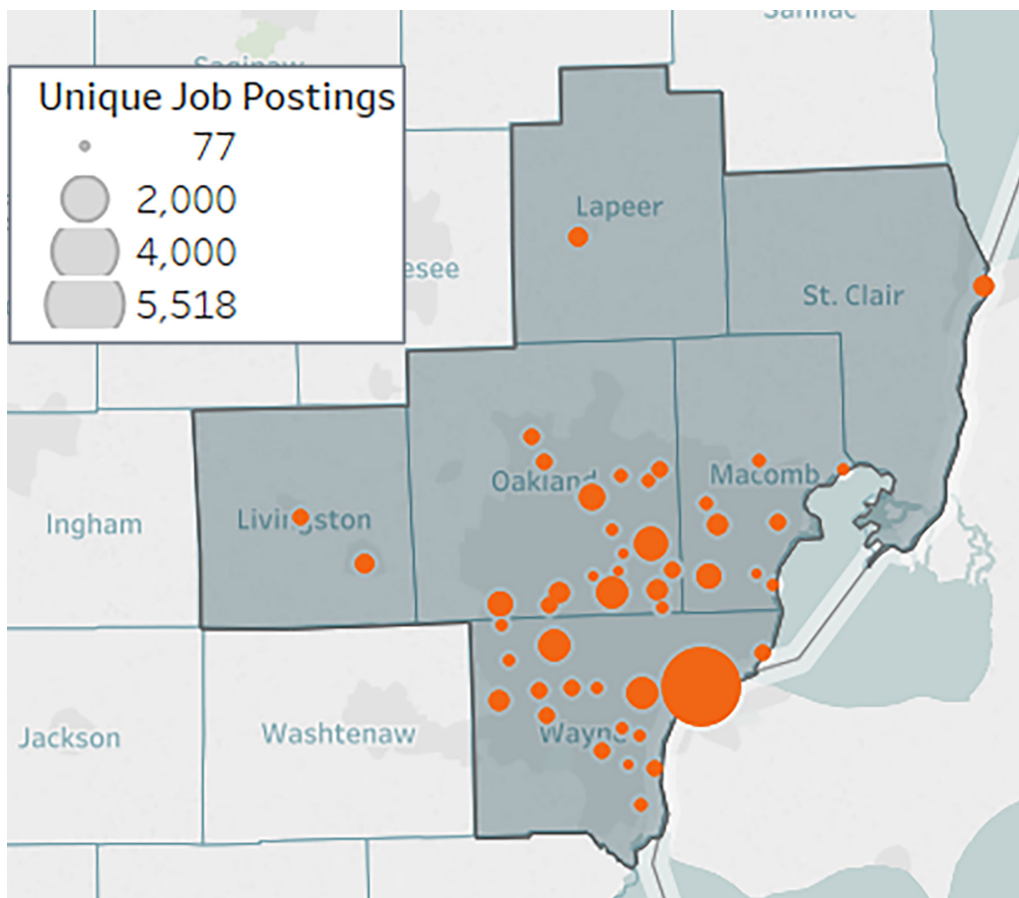
- Licensed Practical Nurse
- Certified Nursing Assistant
- Associate of Science in Nursing
- Nurse Practitioner
- Patient Care Technician



29 Percent of Health Care Jobs are
Open to Entry Level Applicants



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 Job Posting Employers*

- William Beaumont Hospital
- Henry Ford Health System
- Tenet Healthcare Corporation
- CVS Health Corporation
- Cross Country Healthcare, Inc.
- United States Department of the Air Force
- Ascension Health
- Manor Care, Inc.
- Trinity Health Corporation
- Walgreens Boots Alliance, Inc.

Job Postings by City

1. Detroit, MI: 5,518 Postings
2. Troy, MI: 982 Postings
3. Dearborn, MI: 918 Postings
4. Southfield, MI: 871 Postings
5. Livonia, MI: 805 Postings

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



INFORMATION TECHNOLOGY (IT) OCCUPATION GROUP

Detroit-Warren-Dearborn MI MSA | Q3 2018

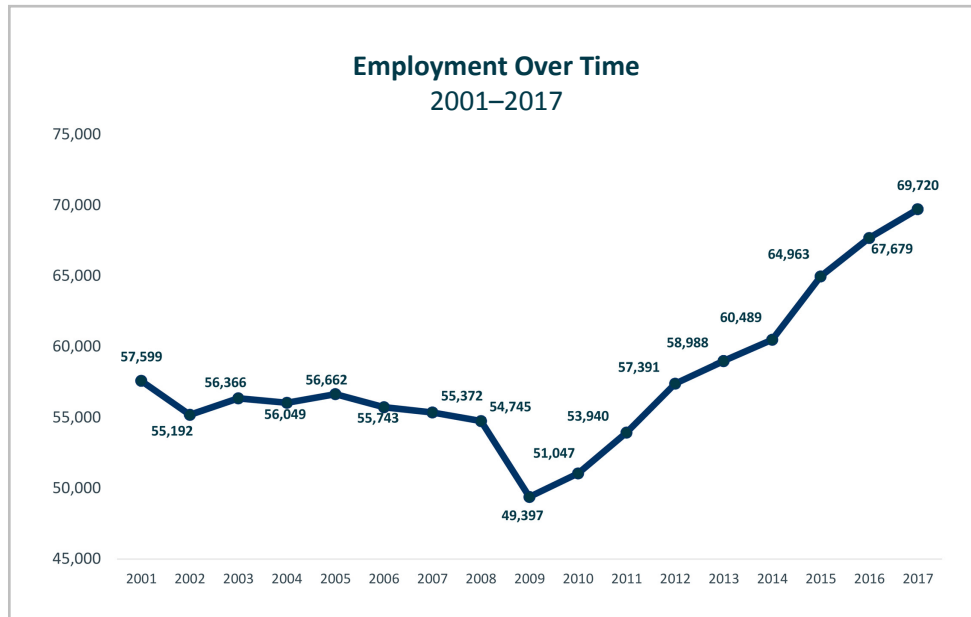
Introduction

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.

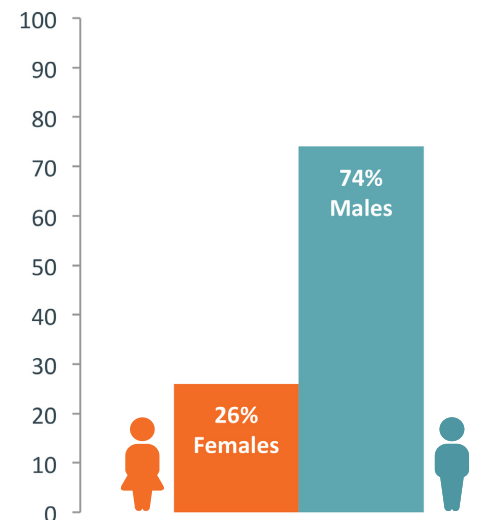


69,720
IT Workers

0.3% Increase from
2016



Population Gender Demographics



IT Worker Demographics

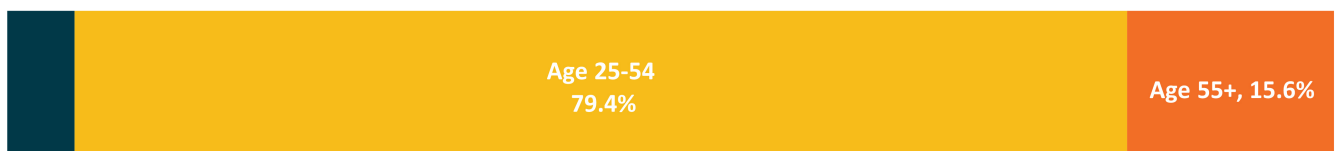
According to the most recent Emsi data set available (2017), despite having nearly 70,000 workers, the IT occupation group is not very diverse. A large majority of workers are white males between the ages of 25 and 54. Currently, 74 percent of workers identify as male, and 67 percent identify as white. 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



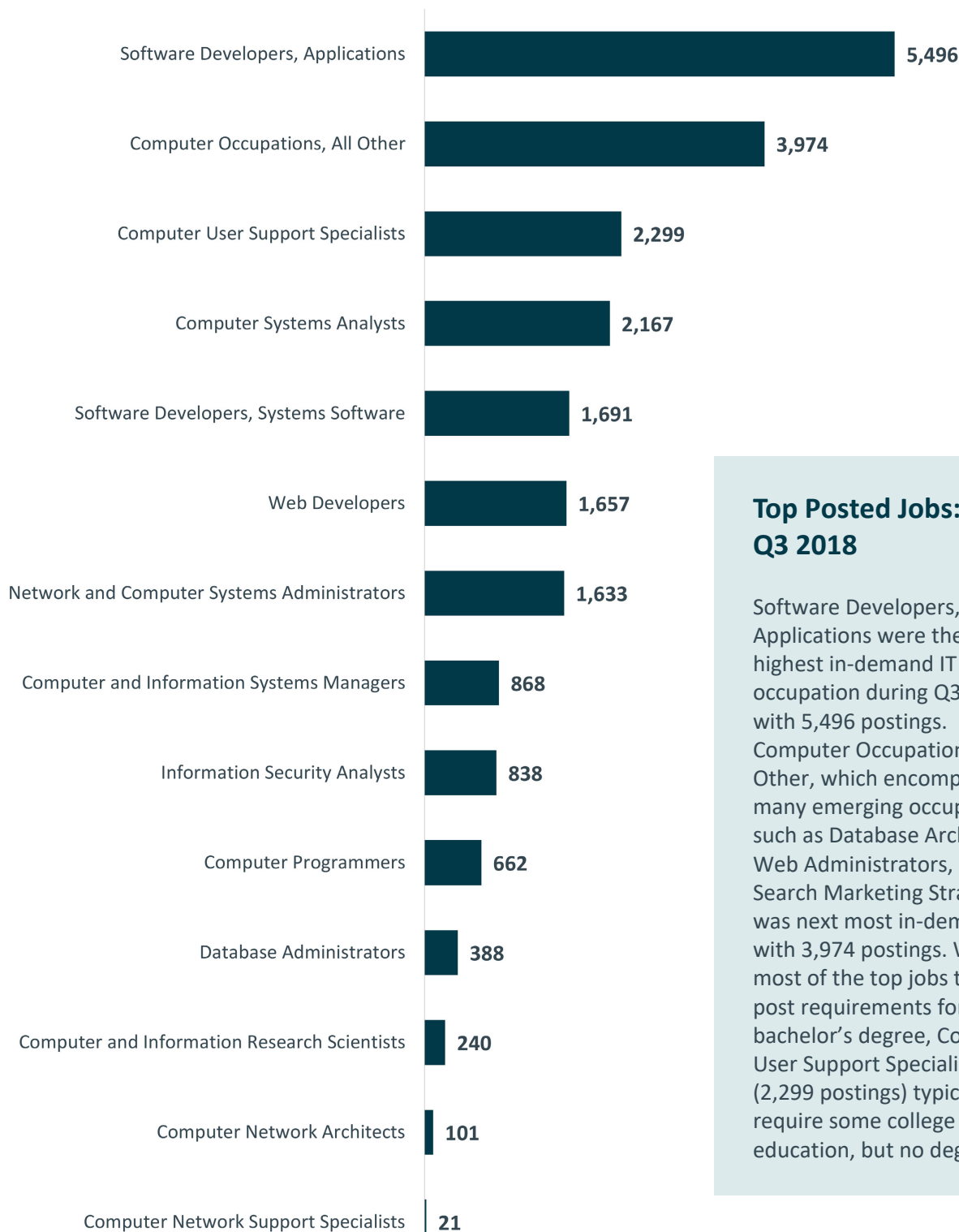


22,035 IT Postings: 1,010
More than Q2 2018



Bachelors Degree
Required for Most IT Jobs

Information Technology Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

Software Developers, Applications were the highest in-demand IT occupation during Q3 2018, with 5,496 postings. Computer Occupations, All Other, which encompasses many emerging occupations such as Database Architects, Web Administrators, and Search Marketing Strategists, was next most in-demand with 3,974 postings. While most of the top jobs typically post requirements for a bachelor's degree, Computer User Support Specialists (2,299 postings) typically require some college education, but no 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 Q3 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 Q3 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
15-1133	Software Developers, Systems Software	\$23.81	\$32.45	\$42.39	\$51.72	\$62.01
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
11-3021	Computer and Information Systems Managers	\$41.21	\$51.48	\$62.99	\$77.13	\$96.03
15-1122	Information Security Analysts	\$28.71	\$34.23	\$45.35	\$56.89	\$66.45
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

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

In-Demand Foundational Skills

- Management
- Communications
- Operations
- Integration
- Information Technology

In-Demand Education Level

- High School Diploma: 3.7%
- Associate Degree: 4.6%
- Bachelor's Degree: 55.2%
- Master's Degree: 12.5%

*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

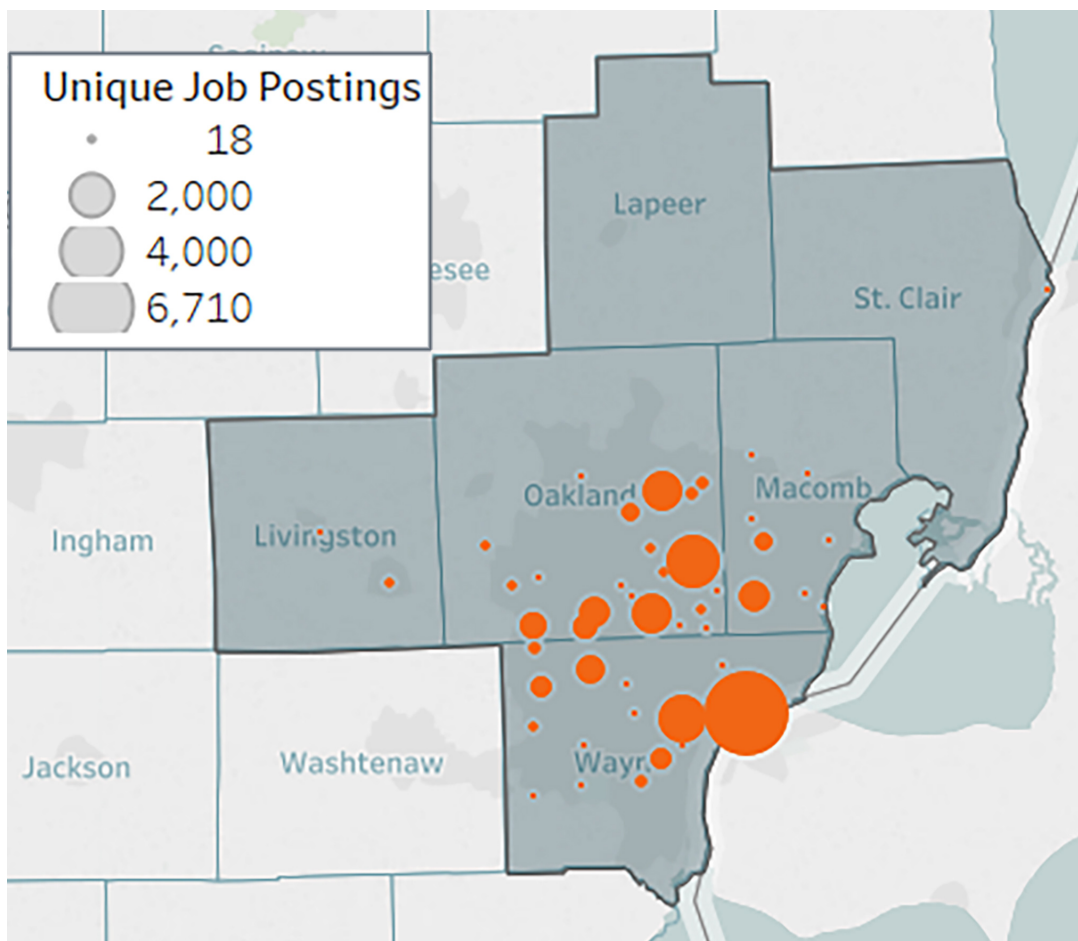
- Certified Information Systems Security Professional
- Certified Information Security Manager
- Cisco Certified Network Associate
- Microsoft Certified Systems Engineer
- Certified Ethical Hacker



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 Job Posting Employers*

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

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

Job Postings by City

1. Detroit, MI: 6,710 Postings
2. Troy, MI: 2,652 Postings
3. Dearborn, MI: 2,129 Postings
4. Southfield, MI: 1,451 Postings
5. Auburn Heights, MI: 1,451 Postings



SKILLED TRADES OCCUPATION GROUP (MANUFACTURING FOCUSED)

Detroit-Warren-Dearborn MI MSA | Q3 2018

Introduction

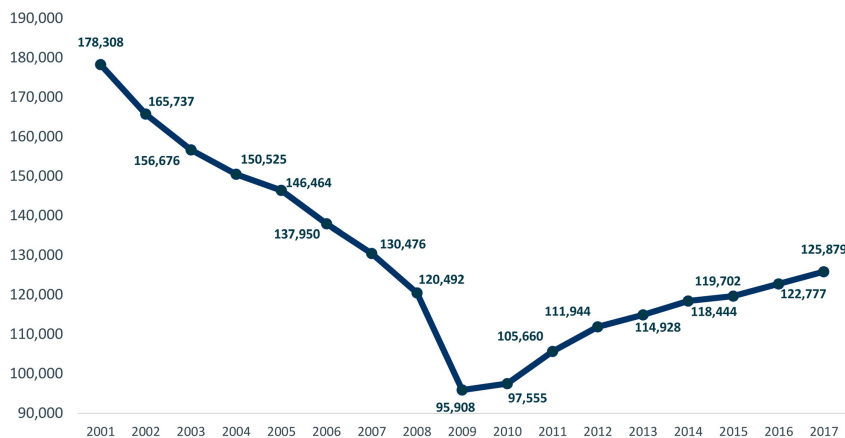
WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country. NOTE: Skilled trades related to construction and assembly are not included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



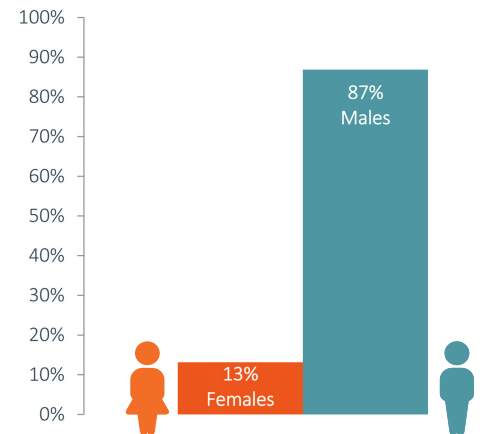
125,879
Skilled Trades
Workers

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



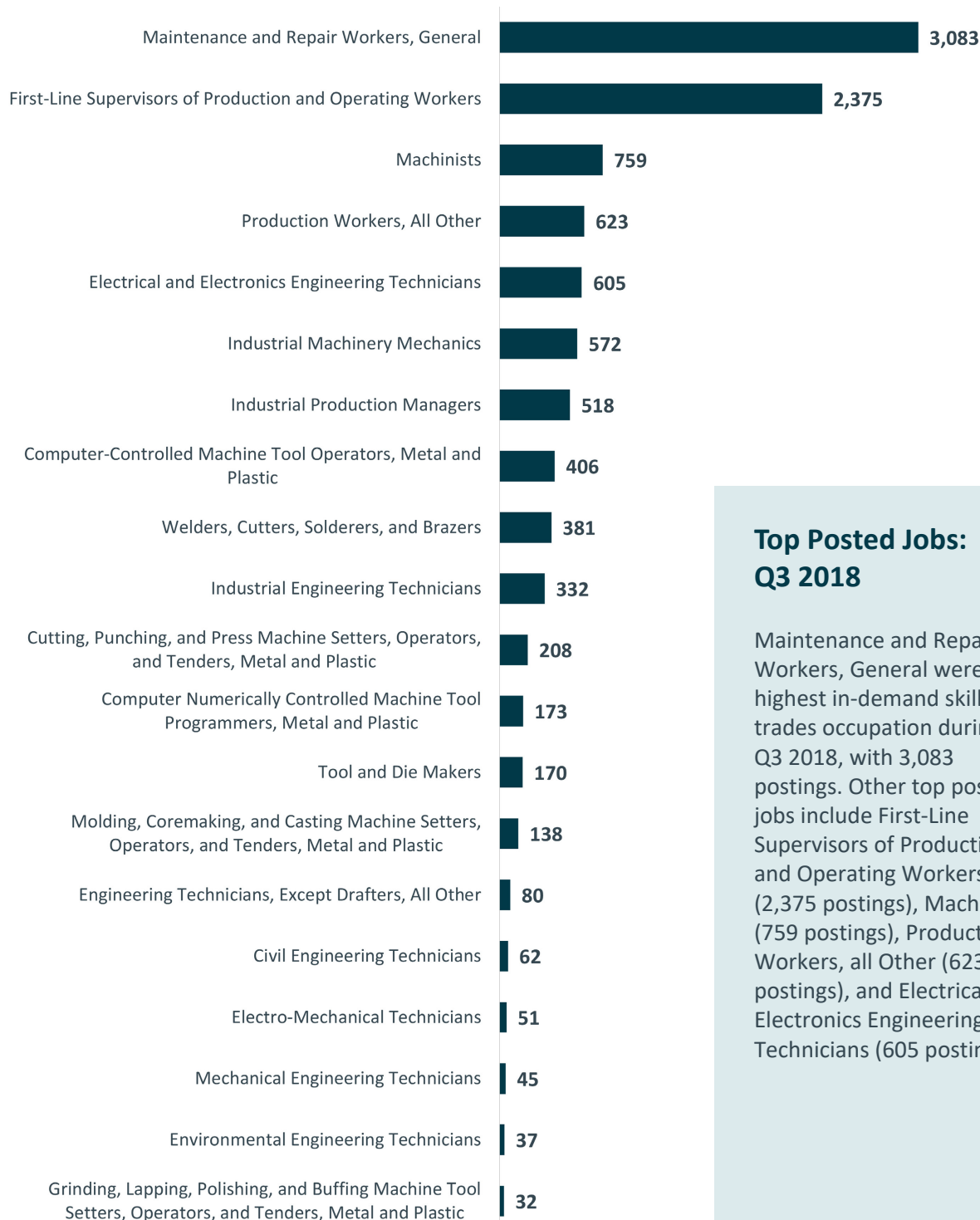


10,979 Skilled Trades Postings:
732 More Than Q2 2018



Vocational Training Required for
Most Skilled Trades Jobs

Skilled Trades Top Posted Jobs Q3 2018



Top Posted Jobs: Q3 2018

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during Q3 2018, with 3,083 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (2,375 postings), Machinists (759 postings), Production Workers, all Other (623 postings), and Electrical and Electronics Engineering Technicians (605 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 Q3 2018, offers a median hourly wage of \$17.28, which translates to an annual salary of nearly \$36,000. Top five occupation Electrical and Electronics Engineering Technicians must have an associate degree and earn \$29.29 hourly or roughly \$61,000 annually.

Wage Overview for Top Posted Skilled Trades Occupations Q3 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
49-9041	Industrial Machinery Mechanics	\$16.38	\$20.81	\$26.59	\$33.10	\$38.29
11-3051	Industrial Production Managers	\$35.03	\$44.25	\$56.09	\$70.45	\$86.99
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
- HVAC
- Lathe Experience
- Plumbing
- Tooling

In-Demand Foundational Skills

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

In-Demand Education Level

- High School Diploma: 38.5%
- Associate Degree: 10.5%
- Bachelor's Degree: 13.7%
- Master's Degree: 1.6%

In-Demand Certifications

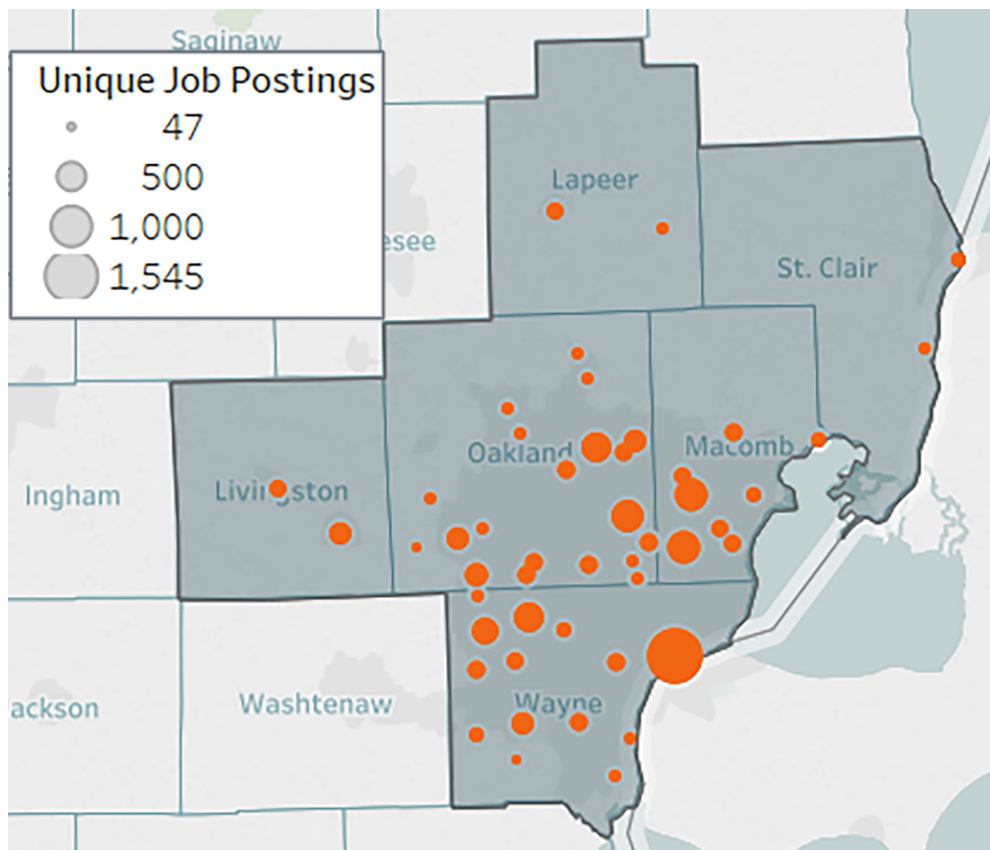
- Commercial Driver's License (CDL)
- Certified Quality Engineer
- (American Society for Quality) ASQ Certified
- Certified Quality Manager
- Certified Broadcast Radio Engineer



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 Job Posting Employers*

- McDonald's Corporation
- Kelly Services, Inc.
- Shipt LLC
- Aerotek, Inc.
- Express Services Inc
- Trillium Staffing
- The Home Depot Inc
- Sentech Services
- Start
- James Burg Trucking Company

Job Postings by City

1. Detroit, MI: 1,545 Postings
2. Sterling Heights, MI: 553 Postings
3. Warren, MI: 535 Postings
4. Troy, MI: 509 Postings
5. Livonia, MI: 440 Postings

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

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