

**Q4 2018**  
October - December

# LENAWEE COUNTY & HILLSDALE COUNTY

WIN Labor Market Report



# INTRODUCTION

## Lenawee County and Hillsdale County | Q4 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 entire 16-county region of southeast Michigan. 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 Lenawee County and Hillsdale County 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](http://www.WINintelligence.org) or contact the data and research team directly at [research@WINintelligence.org](mailto:research@WINintelligence.org).





# ANNUAL STATE OF THE LABOR MARKET

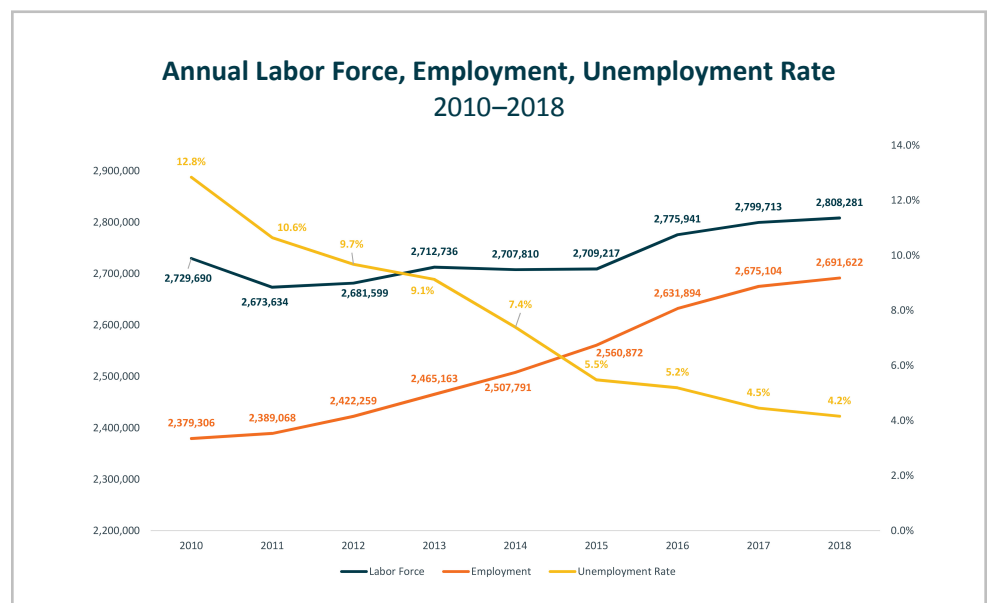
## Lenawee County and Hillsdale County | Q4 2018

### State of the Labor Market in the Lenawee County and Hillsdale County

Thus far in 2018, the labor force figures decreased in southeast Michigan while employment increased. With this simultaneous increase in both labor force and employment, the number of unemployed individuals decreased in the region. This has caused the unemployment rate to drop from the 4.5 percent annual rate in 2017 to the current year to date (YTD) rate of 4.2 percent in 2018. Employer demand for most occupation groups also increased during Q4 2018. The customer service occupation group reported the highest demand with over 72,000 job postings during the quarter. Other occupation groups also offer great job opportunities for active job seekers: agriculture postings grew by 23 percent from Q2 2018, and 24 percent of postings were open to entry-level applicants.

### Annual Labor Market Information

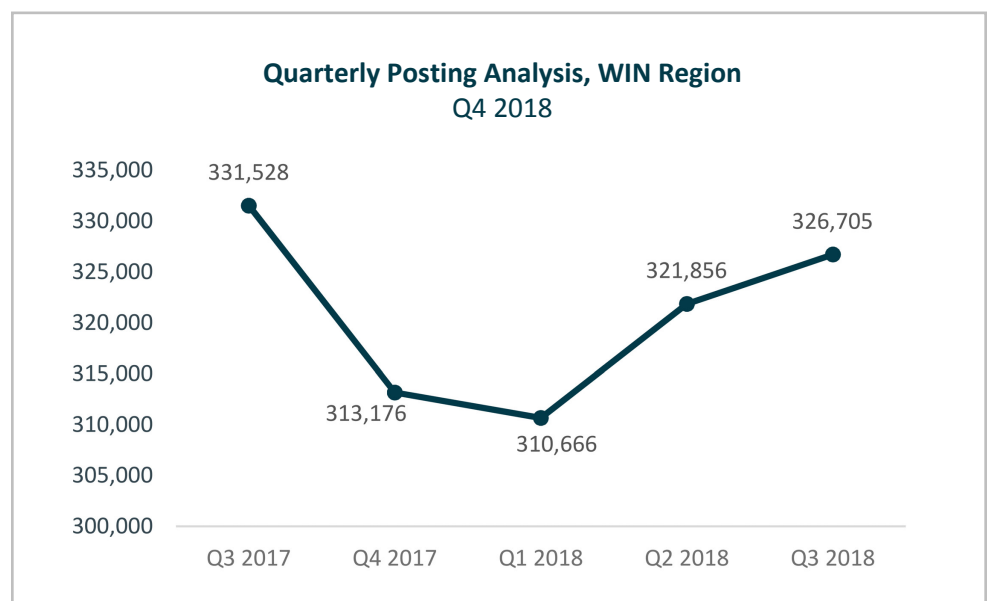
Moving into a ten-year high, the labor force in the southeast Michigan increased by 8,569 individuals between 2017 and 2018. Employment increased by 16,519 workers between recent years. With employment increasing greater than the labor force, the unemployment rate fell by 0.3 percentage points from the annual figures in 2017 to a current YTD rate of 4.2 percent in the 16-county WIN partnership region.



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 showed employer demand continue to grow throughout southeast Michigan. There were 4,823 less postings during Q4 2018 compared to the 331,528 postings made during Q3 2017 for a total of 326,705 postings. Typically, the first half of the year tends to report lower postings than the second half, and 2018 is so far no exception.



Data: Emsi | Analysis: Workforce Intelligence Network



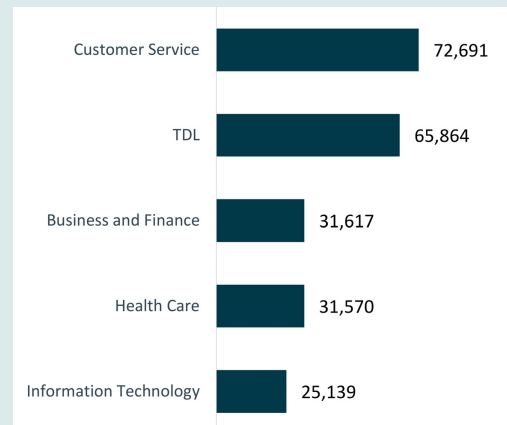
## QUARTERLY WORKFORCE INDICATORS

### Lenawee County and Hillsdale County | Key Findings for Q4 2018

#### Employer demand surges to 326,000 postings during Q4 2018, with most occupation groups analyzed by WIN experiencing increases in online job postings between Q1 and Q4 2018.

During Q4 2018, there were 326,705 jobs posted, 17,304 more than the 308,758 jobs posted during Q1 2018 in the Lenawee County and Hillsdale County. Most of the occupation groups analyzed by WIN experienced an increase during the third quarter of 2018. The agriculture, business and finance, and TDL groups each increased by over 1,000 postings. Online job postings made by employers in the agriculture occupation group were up by 23 percent from the previous quarter (Q2 2018). This level of online job postings is the highest since Q3 2017 when there were 331,528 postings made. For more information about quarterly job postings, see page 2.

#### Top 5 Posting Occupation Groups Q4 2018

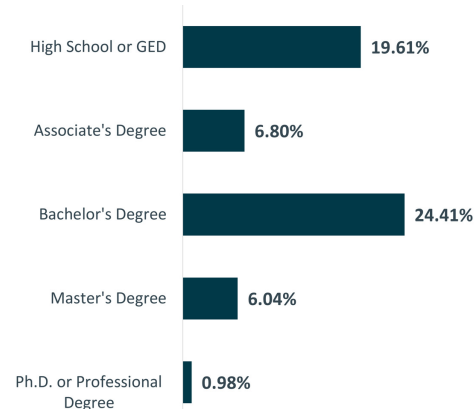


Data: Emsi | Analysis: Workforce Intelligence Network

#### Job postings made by employers in southeast Michigan indicate a bachelor's degree as the most in-demand minimum education level during Q4 2018.

While only 58 percent of job postings identified a minimum education level, nearly a quarter (24.41 percent) of the 331,528 jobs posted in southeast Michigan indicated the need for candidates with a bachelor's degree. Another 20 percent of these postings were looking for applicants with a high school diploma or equivalent. Higher education attainment tends to lead to more lucrative opportunities, but many entry level opportunities exist for each educational attainment level.

#### Education Levels In-Demand Q4 2018



Data: Emsi | Analysis: Workforce Intelligence Network

#### Southeast Michigan's unemployment rate is currently at 4.3 percent, up 0.3 percentage points from Q2 2018.

As of Q4 2018, employment has declined since Q2 2018, while the labor force has grown. The growth in labor force participants combined with the drop in workers caused the quarterly unemployment rate to rise from 4.0 percent in Q2 2018 to 4.3 percent in Q4 2018 as more people started to look for work. During July 2018, in particular, unemployment spiked, hitting a peak of 5.1 percent. For more information about this quarter's unemployment rate and other labor market indicators, see page XX.

#### Quarterly Labor Market Data

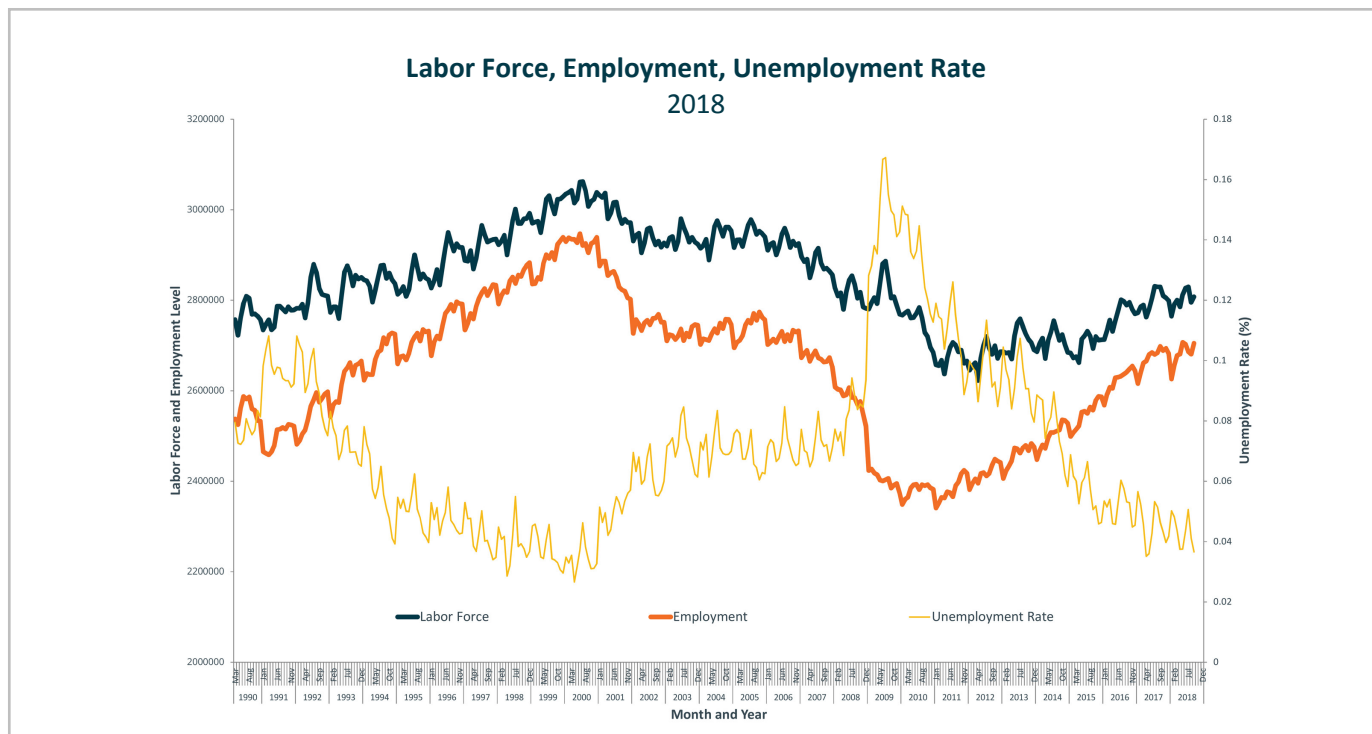
	2nd Quarter 2018	3rd Quarter 2018	Change from 2nd Quarter 2018	Percent Change from 2nd Quarter 2018
Labor Force	2,808,226	2,810,969	2,743	0.1%
Employment	2,697,006	2,690,755	-6,251	-0.2%
Unemployment	111,220	120,214	8,994	8.1%
Unemployment Rate	4.0%	4.3%	0.3%	na

Note: Monthly data average by quarter | Data: BLS



## WORKFORCE OVERVIEW

### Lenawee County and Hillsdale County | Labor Market Information Q4 2018



Data: BLS | Analysis: Workforce Intelligence Network

#### 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: BLS

### Labor Force, Employment, and Unemployment

The labor market in southeast Michigan has experienced relative stability since 2010. The labor force increased by 2,743 workers (0.1 percent) between Q2 2018 and Q4 2018. Employment in the 16-county area has decreased from Q2 2018, by 6,251 workers (-0.2 percent). With employment decreasing while the labor force increased, the unemployment rate increased this quarter: the quarterly unemployment rate increased by 0.3 percentage points between Q2 2018 and Q4 2018 to 4.3 percent.



## WORKFORCE OVERVIEW

### Lenawee County and Hillsdale County | 2017 Annual Population Demographics

#### Population Demographics

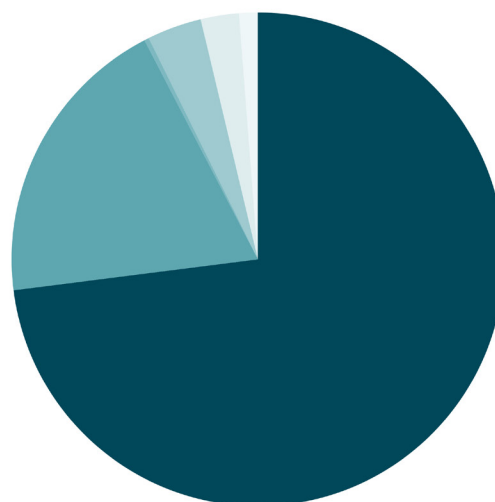
According to the data from the most recent Census Bureau 2016 ACS Five Year estimates, the population in southeast Michigan increased by nearly eight percent between 2015 and 2016. During 2016, 5,718,624 people were living in the region. The sex of the populace was split almost evenly, with about 51 percent of the population identifying as female, and the other 49 percent identifying as male. The majority of the population identified as white (73 percent) with the second largest number of individuals identifying as black or African American (19 percent). The region as a whole is facing an aging population; 28.5 percent of population was over the age of 55, compared to 19.6 percent under the age of 24.



**5,718,624**  
People in the Region  
7.8% Increase  
from 2016

#### Population Race Demographics

- White, 73.17%
- Black or African American, 19.43%
- American Indian and Alaska Native, 0.31%
- Asian, 3.58%
- Native Hawaiian and Other Pacific Islander, 0.02%
- Two or More Races, 2.50%
- Other Race, 1.23%



#### Population Gender Demographics



51% Females

49% Males



#### Population Age Demographics

Age 14 and under  
18.5%

Age 15-24  
13.7%

Age 25-54, 39.3%

Age 55+  
28.5%



## WORKFORCE OVERVIEW

### Lenawee County and Hillsdale County |

### 2017 Annual Labor Force Demographics

#### 2017 Labor Force, Employment, and Unemployment Demographics

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
<b>Total Population 16 +</b>	2,822,432	2,564,812	256,226	9.1%
<b>Sex</b>				
<b>Male 16+</b>	1,466,095	1,328,701	137,394	9.4%
16-19	62,698	45,222	17,476	27.9%
20-24	152,202	126,579	25,623	16.8%
25-54	948,482	872,646	75,836	8.0%
55-64	239,002	223,928	15,074	6.3%
65 Plus	63,711	60,326	3,385	5.3%
<b>Female 16+</b>	1,355,127	1,236,663	118,464	8.7%
16-19	64,404	49,213	15,191	23.6%
20-24	146,785	125,503	21,282	14.5%
25-54	864,129	796,223	67,906	7.9%
55-64	224,912	213,334	11,578	5.1%
65 Plus	54,897	52,390	2,507	4.6%
<b>Race</b>				
<b>White</b>	2,134,972	1,987,586	146,411	6.9%
<b>Black / African American</b>	500,327	407,215	93,156	18.6%
<b>Native American</b>	8,322	7,304	1,017	12.2%
<b>Asian</b>	102,813	97,439	5,413	5.3%
<b>Native Hawaiian / Pacific Islander</b>	762	676	060	7.9%
<b>Some Other Race</b>	25,794	23,080	2,690	10.4%
<b>Two or More Races</b>	49,861	43,027	6,739	13.5%
<b>Ethnicity</b>				
<b>Hispanic</b>	104,921	93,396	11,421	10.9%

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

### Labor Market Demographics

During 2016, the most recent census year, there were about 2.82 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 (49.4 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 27.9 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 18.4 percent.



# WORKFORCE OVERVIEW

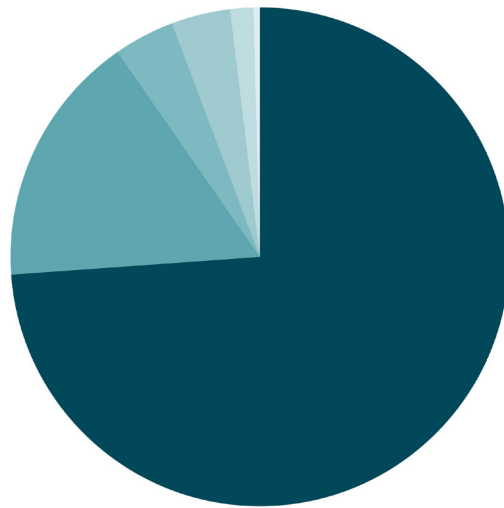
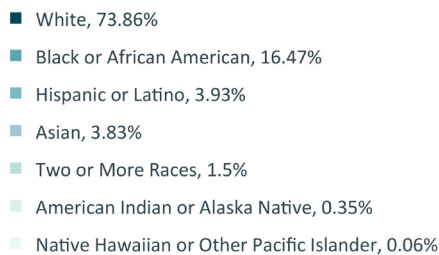
## Lenawee County and Hillsdale County |

### 2018 Annual Working Population Demographics

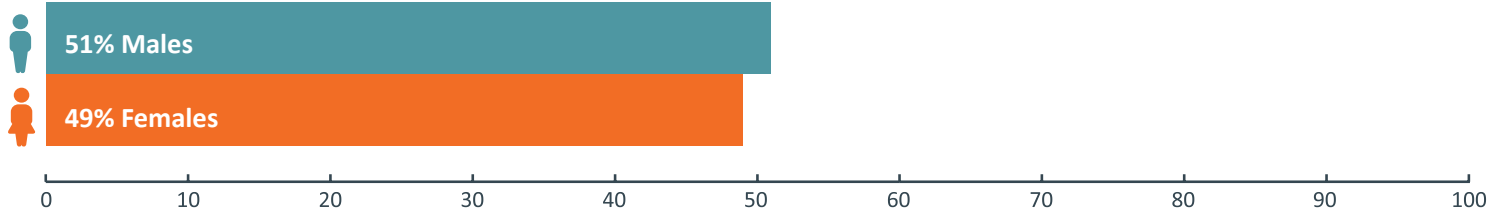
#### Current Workforce Demographics

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 2,497,500 individuals working in southeast Michigan. A slight majority (51 percent or 1,277,391 workers) were male, while 49 percent (1,220,110 workers) of the workforce was female. Most of those working in the region were white, accounting for 73.95 percent of the workforce, while African American or black workers accounted for 16.5 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 3.9 percent. Eighty-six percent of the workforce was 25 years or older. Only fourteen percent of those under the age of 25 were working, indicating an aging workforce in southeast Michigan.

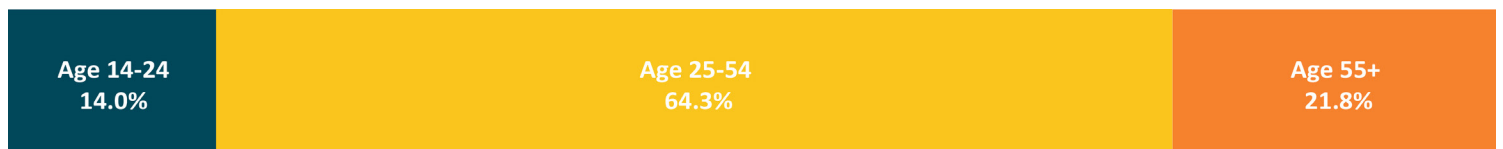
#### Workforce Race and Ethnicity Demographics



#### Workforce Gender Demographics



#### Workforce Age Demographics





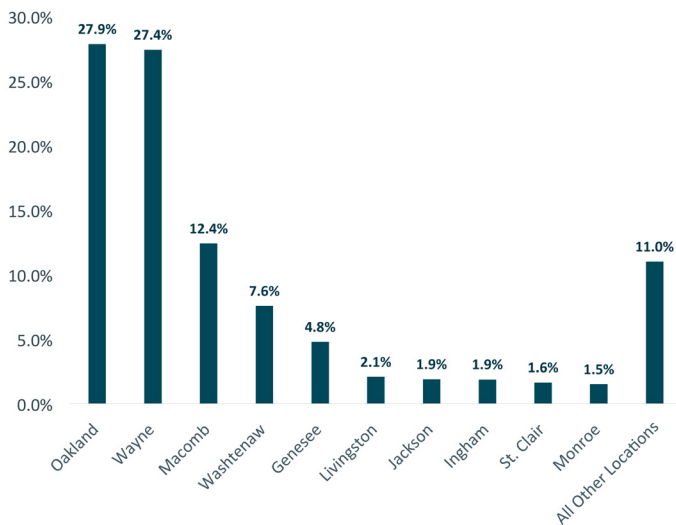
## WORKFORCE OVERVIEW

### Lenawee County and Hillsdale County | 2015 Regional Commuting Patterns

#### Regional Commuting Patterns

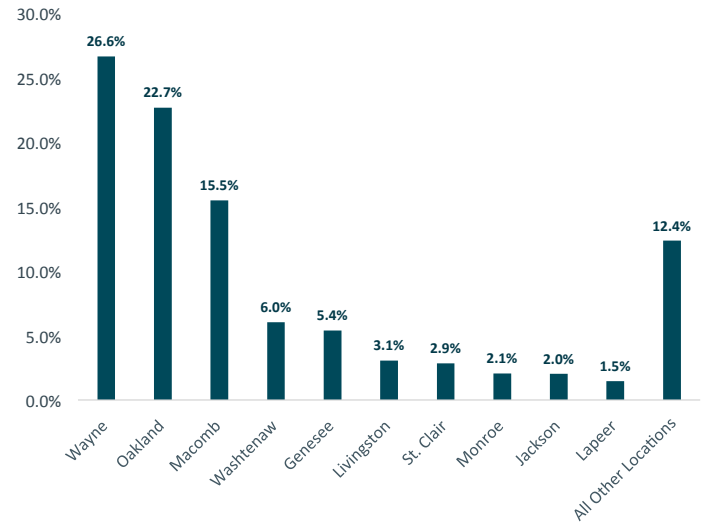
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the region's workforce consisted of 2,295,900 residents. 2,088,193 (91.0 percent) of the residents lived and worked within the 16-county region, while the remaining 207,707 residents (9.0 percent) traveled outside of the region for work. There were 2,269,629 workers employed in the region during 2015. Of those, 181,436 workers (8.0 percent) lived outside of the region's borders and commuted in. From this information, we can see that the southeast Michigan area is a net exporter of jobs, with more workers leaving the area for employment than inwardly commuting.

#### Where Lenawee County and Hillsdale County Residents Work



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

#### Where Lenawee County and Hillsdale County Workers Live



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



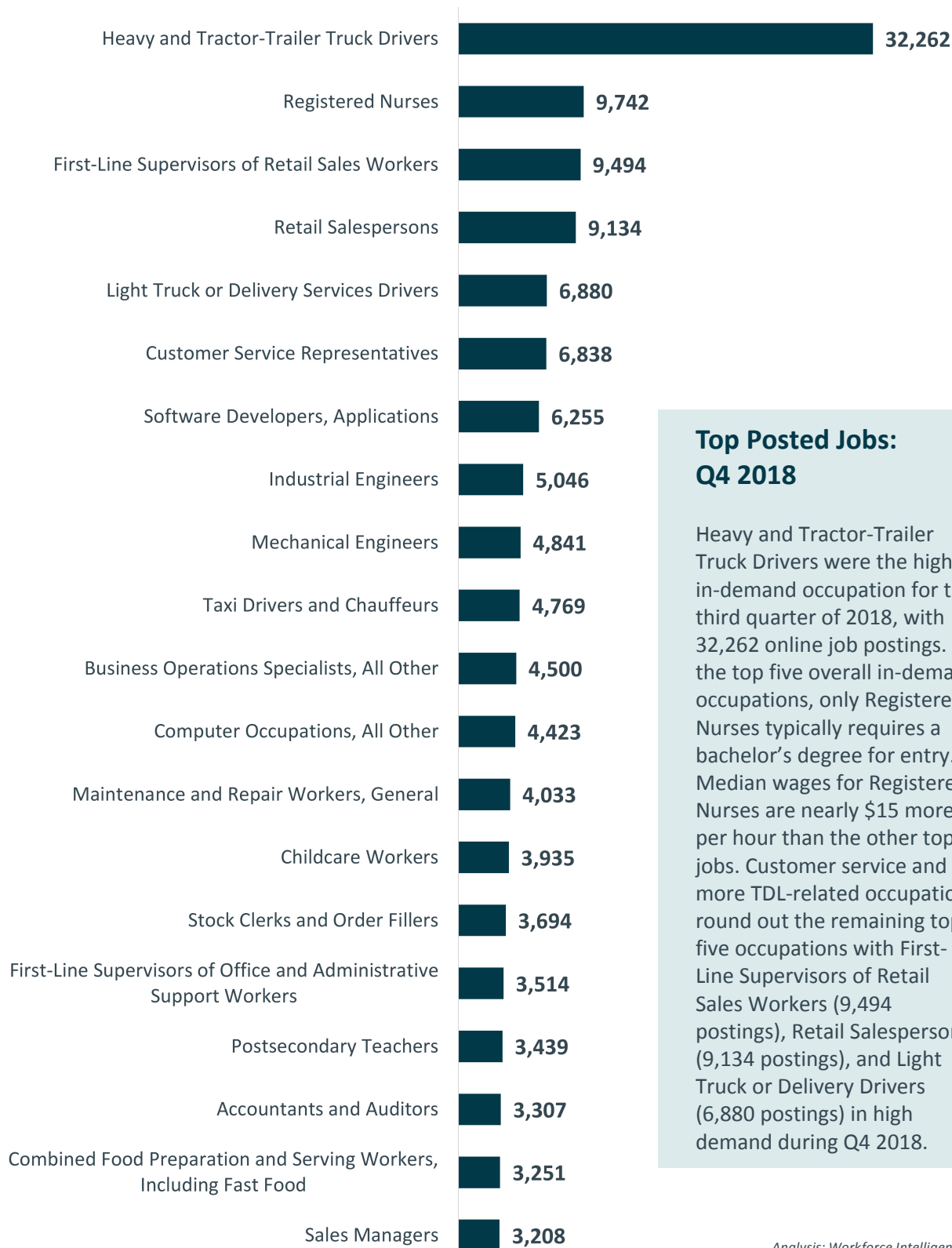




## REAL-TIME DEMAND OVERVIEW

### Lenawee County and Hillsdale County | Top Posted Jobs | Q4 2018

#### Top Posted Jobs Q4 2018



#### Top Posted Jobs: Q4 2018

Heavy and Tractor-Trailer Truck Drivers were the highest in-demand occupation for the third quarter of 2018, with 32,262 online job postings. Of the top five overall in-demand occupations, only Registered Nurses typically requires a bachelor's degree for entry. Median wages for Registered Nurses are nearly \$15 more per hour than the other top jobs. Customer service and more TDL-related occupations round out the remaining top five occupations with First-Line Supervisors of Retail Sales Workers (9,494 postings), Retail Salespersons (9,134 postings), and Light Truck or Delivery Drivers (6,880 postings) in high demand during Q4 2018.

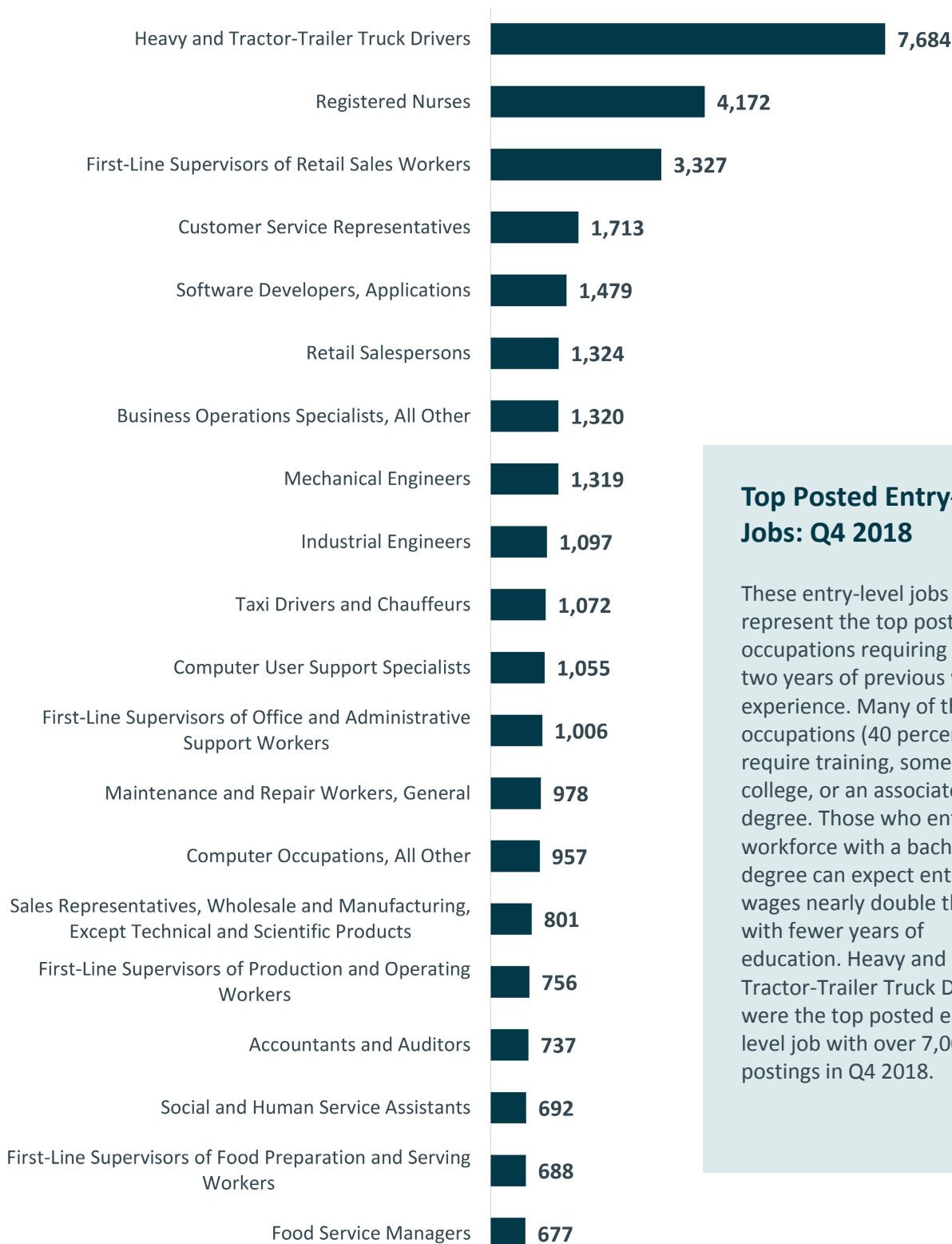




## REAL-TIME DEMAND OVERVIEW

### Lenawee County and Hillsdale County | Top Posted Entry-Level Jobs | Q4 2018

#### Top Posted Entry-Level Jobs Q4 2018



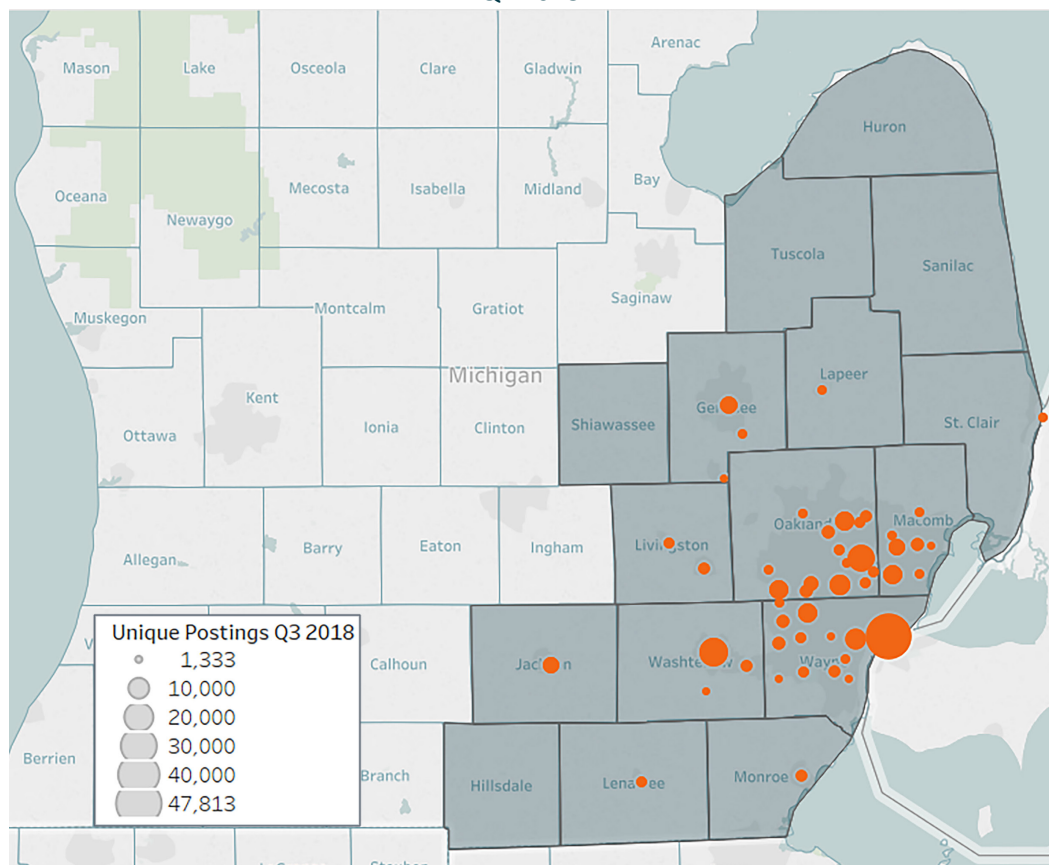
#### Top Posted Entry-Level Jobs: Q4 2018

These entry-level jobs represent the top posted occupations requiring zero to two years of previous work experience. Many of these occupations (40 percent) require training, some college, or an associate degree. Those who enter the workforce with a bachelor's 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 7,000 postings in Q4 2018.

# REAL-TIME DEMAND OVERVIEW

## Lenawee County and Hillsdale County | Job Postings by City | Q4 2018

**Job Postings by City**  
Q4 2018



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Postings/hiring intensity. Size shows sum of Unique Postings (Oct 2018–Dec 2018). Details are shown for City.

### Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Licensed Practical Nurse
- Certified Nursing Assistant
- Transportation Worker Identification Credential (TWIC) Card
- Critical Care Registered Nurse (CCRN)
- Nurse Practitioner
- CNOR Certification
- Patient Care Technician
- Certified Public Accountant
- Licensed Vocational Nurses

### Top In-Demand Skills

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

### Top Posting Employers\*

- CRST International, Inc.
- University of Michigan
- Henry Ford Health System
- The Home Depot Inc
- Lyft, Inc.
- C.R. England, Inc.
- Tutree, Inc.
- William Beaumont Hospital
- McDonald's Corporation
- Dollar General Corporation

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



# AGRICULTURE OCCUPATION GROUP

## Lenawee County and Hillsdale County | Q4 2018

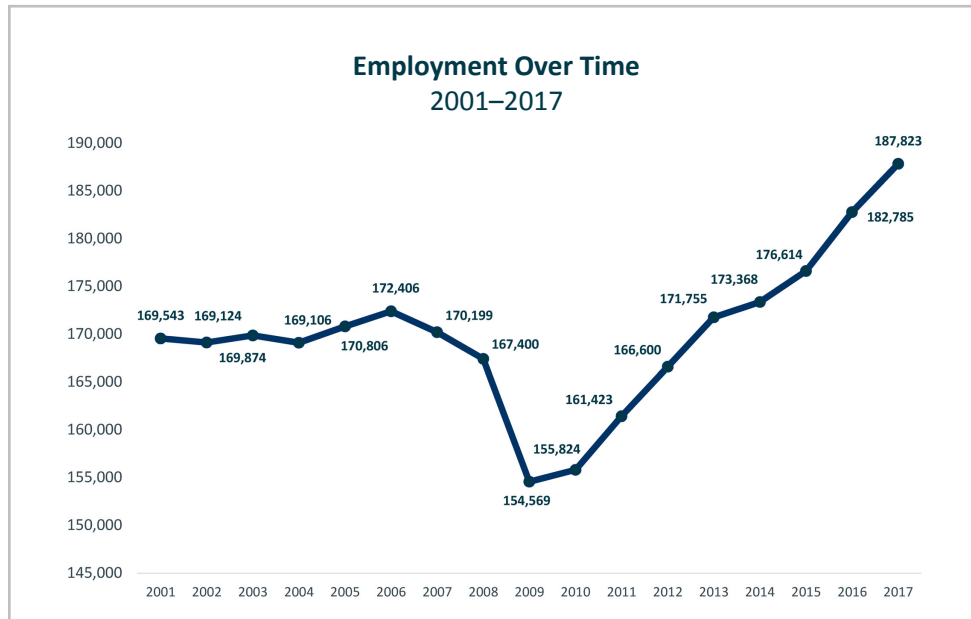
### Introduction

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.

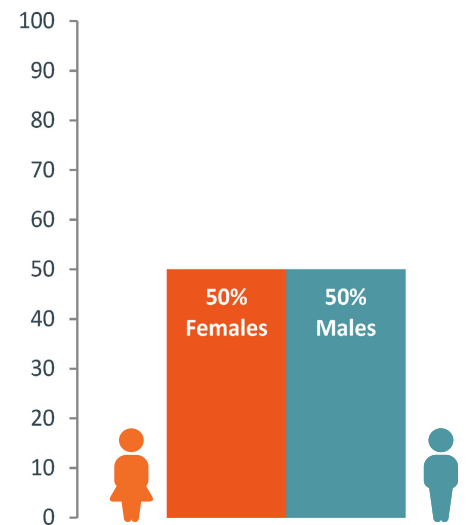


**188,664**  
Agriculture Workers

0.4% Increase  
from 2017



### Population Gender Demographics



### Agriculture 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 180,000 workers. Half the working population identify as female (50 percent). In addition, only, 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

**80.6% White** | **11.2% Black or African American** | **4.2% Asian**

#### Population Age Demographics

Age 14-24, 5.2%



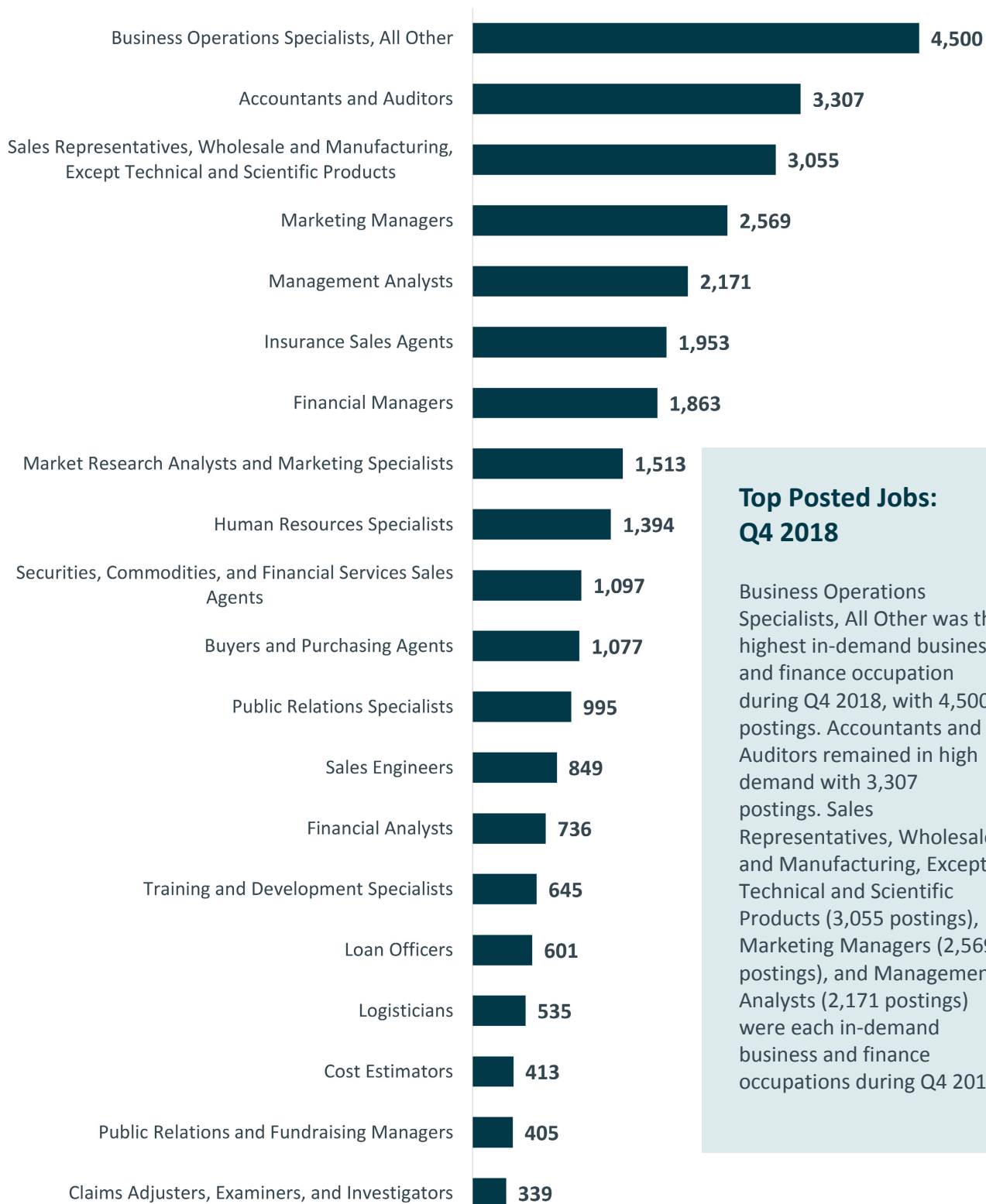


31,617 Business and Finance Postings:  
1,264 More than in Q2 2018



Bachelor's Degree Required for  
Most Business and Finance Jobs

### Agriculture Top Posted Jobs Q4 2018



### Top Posted Jobs: Q4 2018

Business Operations Specialists, All Other was the highest in-demand business and finance occupation during Q4 2018, with 4,500 postings. Accountants and Auditors remained in high demand with 3,307 postings. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (3,055 postings), Marketing Managers (2,569 postings), and Management Analysts (2,171 postings) were each in-demand business and finance occupations during Q4 2018.



## High Earning Potential for Marketing Managers



## Series 7 Stockbroker: In-Demand Business and Finance Certification

### Agriculture 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 \$32.82, translating to annual earnings of approximately \$68,000.

#### Wage Overview for Top Posted Agriculture Jobs in Q4 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	\$18.15	\$23.65	\$32.82	\$44.80	\$56.35
13-2011	Accountants and Auditors	\$20.85	\$25.73	\$33.62	\$44.98	\$58.85
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.19	\$20.63	\$30.26	\$45.55	\$61.33
11-2021	Marketing Managers	\$34.50	\$45.09	\$61.75	\$79.72	\$111.97
13-1111	Management Analysts	\$24.93	\$30.81	\$40.48	\$55.71	\$78.72
41-3021	Insurance Sales Agents	\$14.37	\$18.86	\$26.97	\$44.03	\$68.10
11-3031	Financial Managers	\$34.04	\$43.17	\$57.57	\$76.57	\$106.27
13-1161	Market Research Analysts and Marketing Specialists	\$16.53	\$22.79	\$31.49	\$43.45	\$57.66
13-1071	Human Resources Specialists	\$17.82	\$22.43	\$29.30	\$38.11	\$49.11
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$15.69	\$18.29	\$25.20	\$40.99	\$73.26

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

#### In-Demand Technical Skills

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

#### In-Demand Foundational Skills

- Management
- Sales
- Communications
- Operations
- Customer Service

#### In-Demand Education Level\*

- High School Diploma: 11.7%
- Associate Degree: 5.7%
- Bachelor's Degree: 45.6%
- Master's Degree: 11.1%

\*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

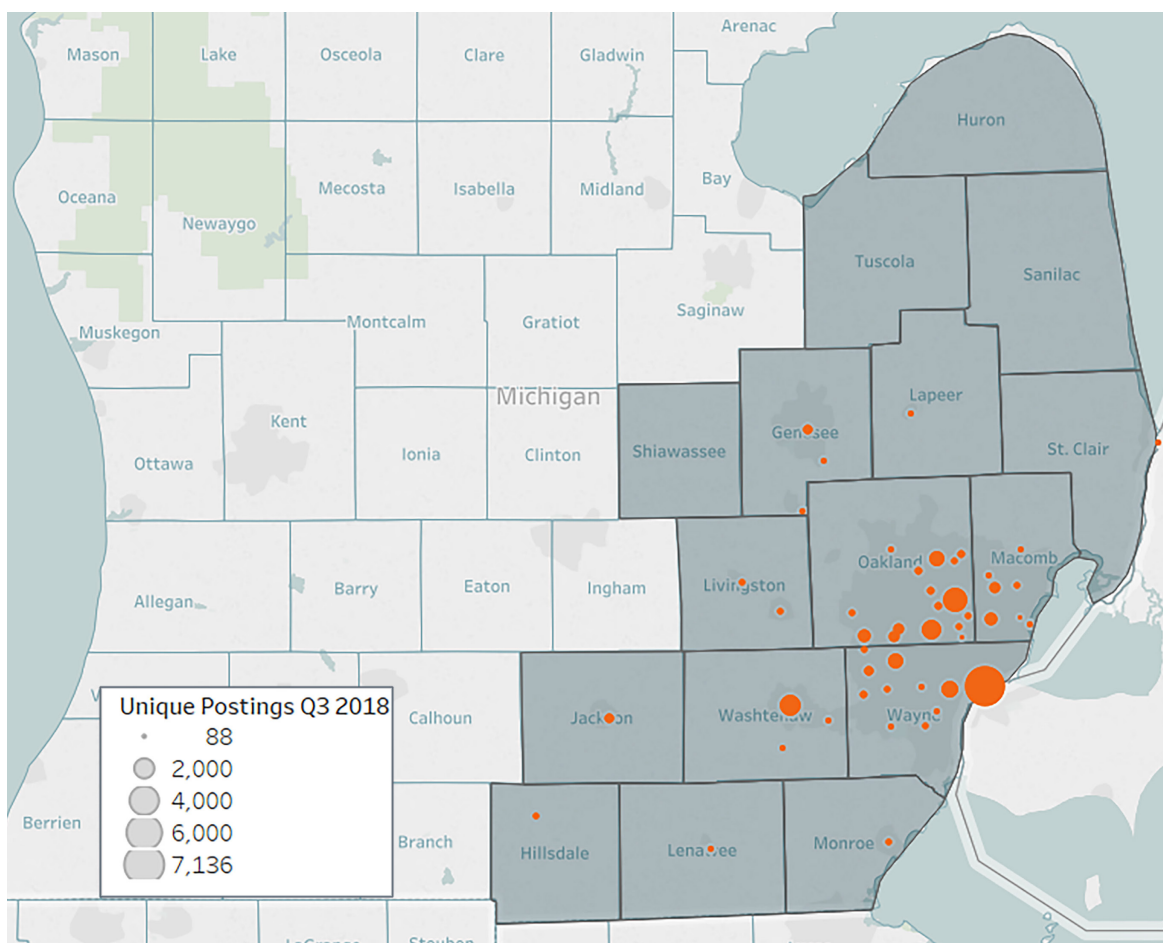
- Certified Public Accountant (CPA)
- Series 7 General Securities Representative License (Stockbroker)
- Series 6 Investment Company and Variable Contracts License (Mutual Funds/Variable Annuities)
- Certified Financial Planner
- Certified Internal Auditor



## Banks and Major Corporations Seeking Business and Finance Workers



## Accounting and Auditing Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated).  
Size shows sum of Unique Postings (Oct 2018–Dec 2018). Details are shown for City.

### Top Job Posting Employers\*

- Anthem, Inc.
- Robert Half International Inc.
- Oracle Corporation
- Virtual Vocations
- Deloitte LLP
- Huntington Bancshares Incorporated
- University of Michigan
- B & B Trucking, Inc.
- H&R Block, Inc.
- Sentex Corp

### Job Postings by City

1. Detroit, MI: 7,136 Postings
2. Troy, MI: 2,564 Postings
3. Ann Arbor, MI: 1,924 Postings
4. Southfield, MI: 1,667 Postings
5. Auburn Heights, MI: 1,024 Postings

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



## BUSINESS AND FINANCE OCCUPATION GROUP Lenawee County and Hillsdale County | Q4 2018

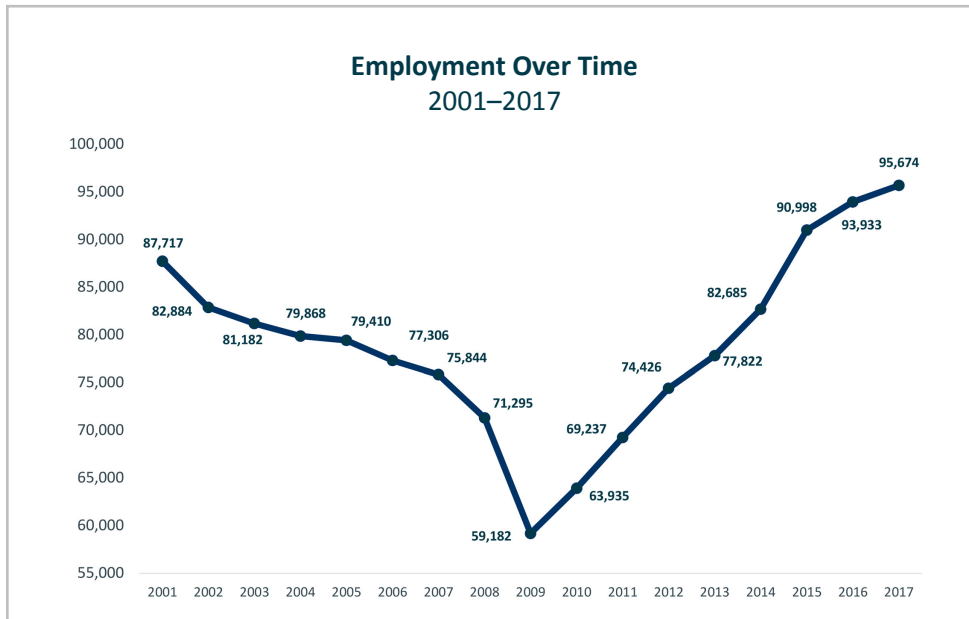
### Introduction

Jobs in the manufacturing industry can range from assembly and production, to skilled trades and technicians, designers and engineers, and even computer-related occupations such as software development. Demand for engineers in the region has been consistent, and employment has been growing quickly.

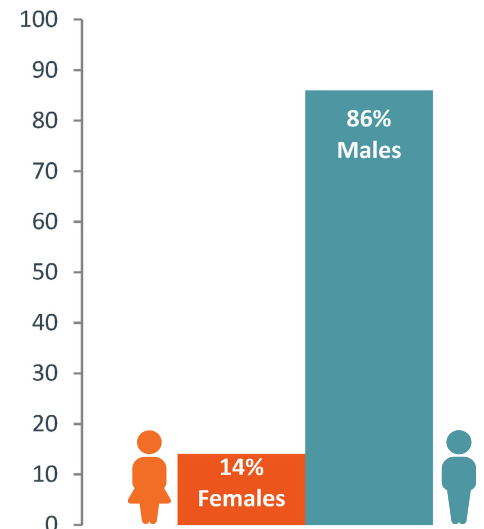


**96,749**  
**Business Workers**

1.1% Increase  
from 2017



### Population Gender Demographics



### Business and Finance Worker Demographics

According to the most recent Emsi data set available (2017), the nearly 92,602 workers in the Engineers and Designers group are not particularly diverse. Under six percent of the workforce is under 25, likely due to the consistently high educational requirements. Fourteen percent of current workers are female, and only 11 percent identify as a race other than white; as the labor force overall continues to change, this is one field that could benefit from seeking more diverse talent.

#### Race and Ethnicity Demographics

**79.4% White** | **7.7% Black or African American** | **9.1% Asian**

#### Population Age Demographics

Age 14-24, 5.5%







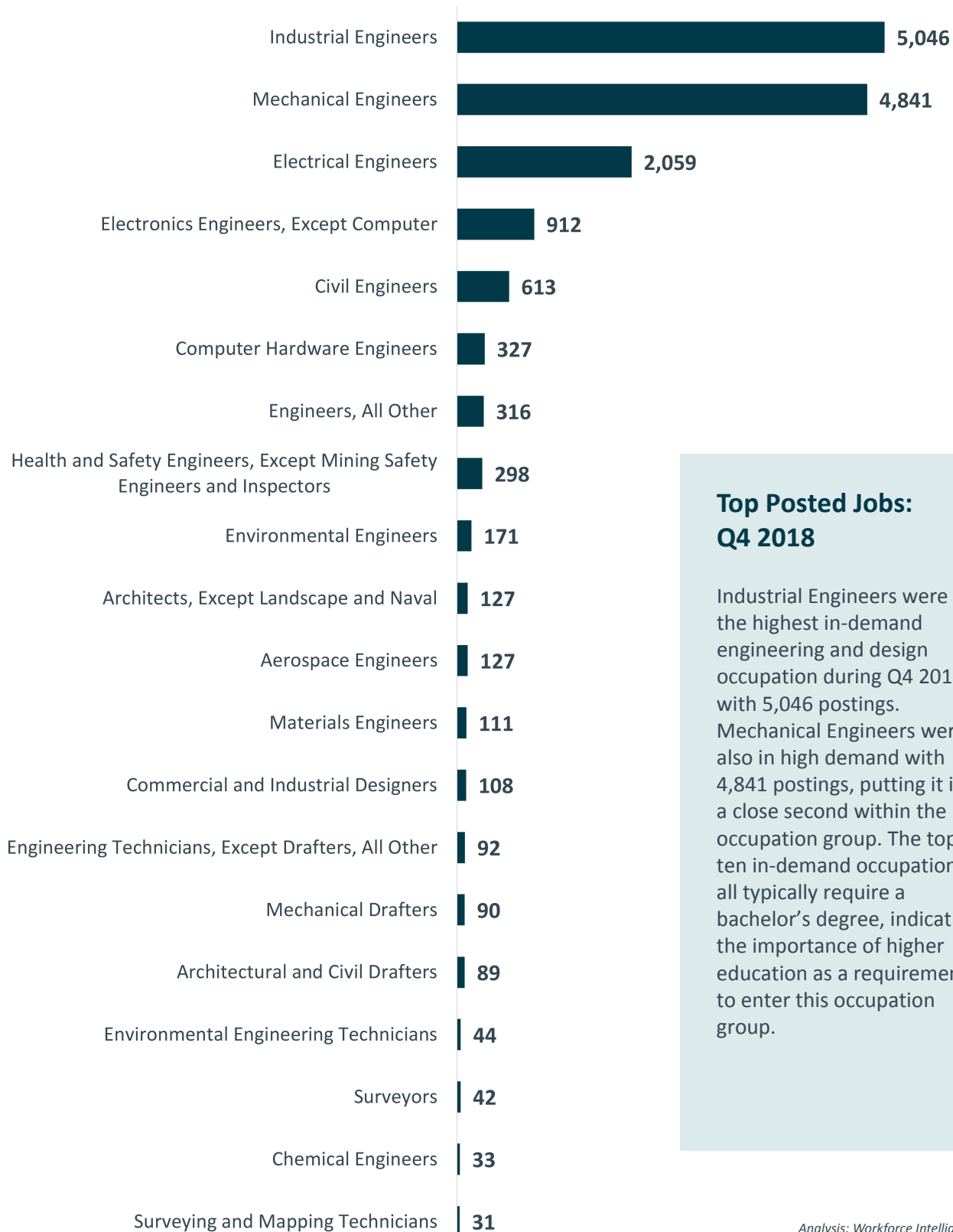
15,582 Engineering and Design Postings:  
821 More than in Q2 2018



Bachelor's Degree Required for Most  
Engineering and Design Jobs

### Business and Finance Top Posted Jobs

Q4 2018



### Top Posted Jobs: Q4 2018

Industrial Engineers were the highest in-demand engineering and design occupation during Q4 2018, with 5,046 postings. Mechanical Engineers were also in high demand with 4,841 postings, putting it in a close second within the occupation group. The top ten in-demand occupations all typically require a bachelor's degree, indicating the importance of higher education as a requirement to enter this occupation group.





## High Earning Potential for Engineers, All Other



## Professional Engineer: Most In-Demand Engineering and Design Certification

### Business and Finance Wage Overview

Most engineering and design related jobs offer high wages, providing a lucrative opportunity to job seekers willing to meet the minimum education requirements related to these jobs. The top posted engineering and design job, Industrial Engineers, offers a median hourly wage of \$44.19, or an annual salary of approximately \$92,000 according to the Bureau of Labor Statistics (BLS).

**Wage Overview for Top Posted Business and Finance Jobs in Q4 2018**

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	\$29.23	\$34.97	\$43.06	\$52.40	\$60.76
17-2141	Mechanical Engineers	\$27.63	\$34.45	\$43.14	\$52.66	\$61.85
17-2071	Electrical Engineers	\$28.15	\$34.25	\$42.71	\$51.15	\$61.80
17-2072	Electronics Engineers, Except Computer	\$28.49	\$34.47	\$42.26	\$49.72	\$59.18
17-2051	Civil Engineers	\$24.18	\$28.42	\$35.02	\$43.88	\$54.45
17-2061	Computer Hardware Engineers	\$17.50	\$26.27	\$38.83	\$52.79	\$64.88
17-2199	Engineers, All Other	\$24.65	\$34.85	\$44.63	\$55.27	\$65.44
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$27.37	\$32.62	\$43.69	\$55.35	\$64.31
17-2081	Environmental Engineers	\$27.93	\$35.03	\$44.56	\$54.75	\$63.11
17-1011	Architects, Except Landscape and Naval	\$21.50	\$26.52	\$33.98	\$42.91	\$52.15

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

#### In-Demand Technical Skills

- Mechanical Engineering
- Electrical Engineering
- Computer-Aided Design (CAD)
- Prototype (Manufacturing)
- Powertrain

#### In-Demand Foundational Skills

- Management
- Communications
- Operations
- Problem Solving
- Leadership

#### In-Demand Education Level\*

- High School Diploma: 3.8%
- Associate Degree: 6.9%
- Bachelor's Degree: 66.2%
- Master's Degree: 15.0%

\*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

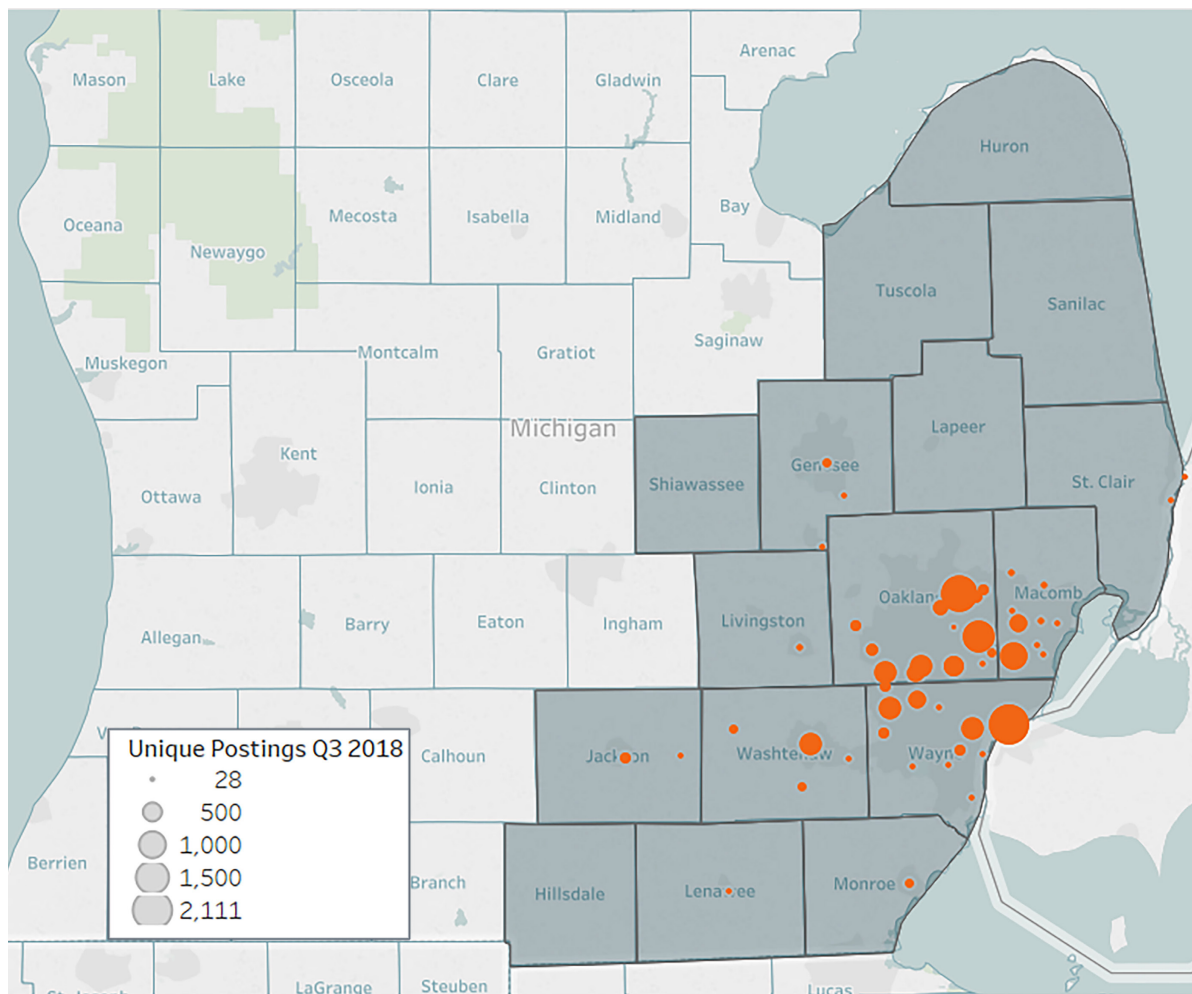
- Professional Engineer
- Certified Quality Engineer
- American Society for Quality (ASQ) Certified
- Certified Quality Auditor
- Licensed Professional Engineer



## Automakers and Manufactures are Top Engineering Employers



## Prototyping Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated).  
Size shows sum of Unique Postings (Oct 2018–Dec 2018). Details are shown for City.

### Top Posting Employers\*

- General Motors Company
- FCA US LLC
- Gtech Services, Inc
- Ford Motor Company
- ALTAIR ENGINEERING, INC.
- Endevis, L.L.c
- Cybercoders, Inc.
- Trillium Staffing
- Aerotek, Inc.
- Robert Bosch LLC

### Job Postings by City

1. Detroit, MI: 2,111 Postings
2. Auburn Hills, MI: 1,734 Postings
3. Troy, MI: 1,329 Postings
4. Warren, MI: 967 Postings
5. Dearborn, MI: 710 Postings

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



## HEALTH CARE OCCUPATION GROUP Lenawee County and Hillsdale County | Q4 2018

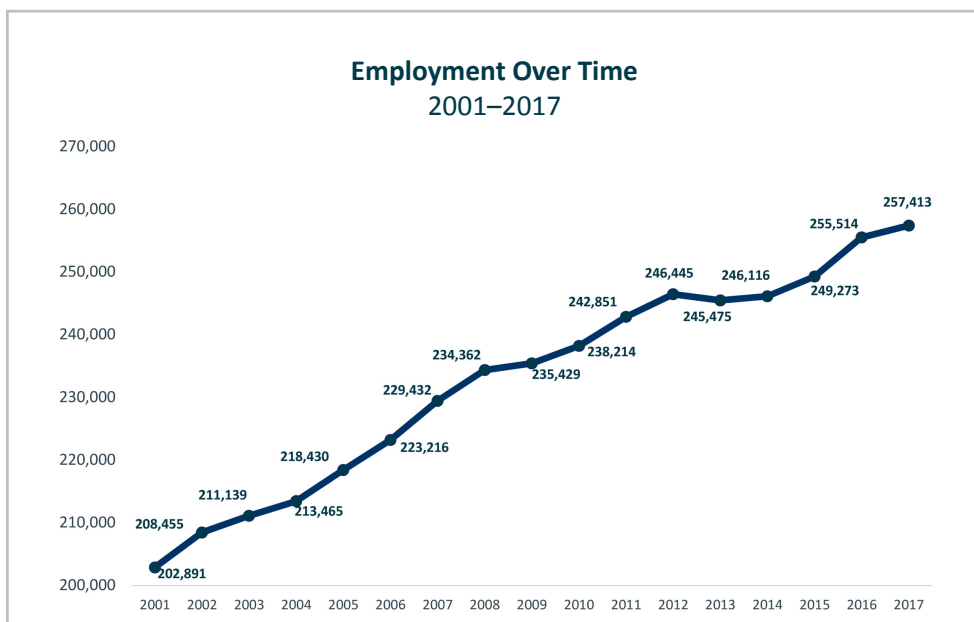
### Introduction

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, 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.

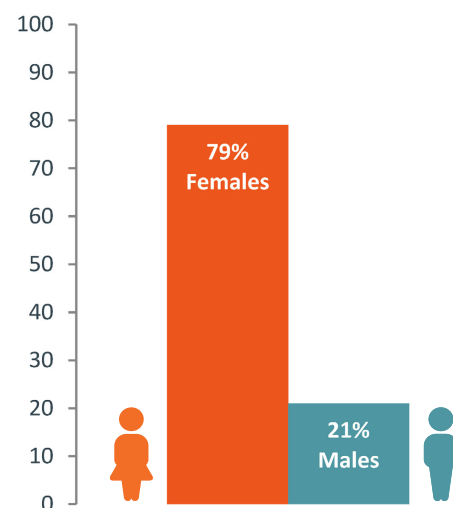


**258,550**  
Health Care Workers

0.4% Increase  
from 2017



### Population Gender Demographics



### Health Care Worker Demographics

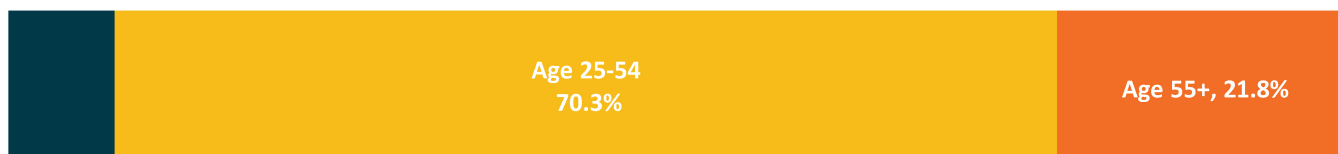
According to the most recent Emsi data set available (2017), the Health Care occupation group employs around 244,937 workers, who are primarily female (79 percent) and between the ages of 25 and 54 (70 percent), although 21 percent of workers are over 55. The group has a similar proportion of racial minorities as the workforce as a whole, with 70 percent of workers identifying as white, 20 percent identifying as black or African American, and ten percent identifying otherwise.

#### Race and Ethnicity Demographics

**70.1% White** | **20.0% Black or African American** | **5.4% Asian**

#### Population Age Demographics

Age 14-24, 7.9%





31,571 Health Care Postings:  
747 fewer than in Q2 2018



Bachelor's Degree Required for  
High Paying Health Care Jobs

### Health Care Top Posted Jobs Q4 2018

Registered Nurses	9,742
Pharmacy Technicians	1,742
Medical and Health Services Managers	1,739
Nursing Assistants	1,550
Medical Assistants	1,481
Licensed Practical and Licensed Vocational Nurses	1,122
Home Health Aides	1,085
Speech-Language Pathologists	979
Physical Therapists	965
Family and General Practitioners	722
Clinical Laboratory Technologists and Technicians	693
Physicians and Surgeons, All Other	602
Pharmacists	531
Radiologic Technologists	528
Physician Assistants	483
Medical Records and Health Information Technicians	427
Healthcare Support Workers, All Other	399
Surgical Technologists	348
Internists, General	346
Occupational Therapists	344

### Top Posted Jobs: Q4 2018

Registered Nurses was the highest in-demand health care occupation during Q4 2018, with 9,742 postings. Other top posted jobs include Pharmacy Technicians (1,742 postings), Medical and Health Services Managers (1,739 postings), Nursing Assistants (1,550 postings), and Medical Assistants (1,481 postings).



## High Earning Potential for Family and General Practitioners



## Licensed Practical Nurse: Most In-Demand Health Care Certification

### Health Care Wage Overview

Wages in the high-demand health care field tend to scale with both education and experience. The health care occupation group offers a relatively broad array of entry requirements and a high volume of jobs are open to candidates with less than a bachelor's degree. These jobs that require less than a bachelor's degree pay more than the region's median wage of \$17.81 per hour. Registered Nurses, the top posted health care job in Q4 2018, offers a median hourly wage of \$34.08 per hour or annual salary of nearly \$70,000 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	\$25.71	\$29.35	\$34.08	\$38.66	\$45.10
29-2052	Pharmacy Technicians	\$10.02	\$11.79	\$14.90	\$18.05	\$21.21
11-9111	Medical and Health Services Managers	\$27.71	\$35.10	\$46.91	\$62.71	\$90.58
31-1014	Nursing Assistants	\$10.66	\$12.32	\$14.03	\$16.01	\$18.26
31-9092	Medical Assistants	\$11.66	\$12.94	\$14.75	\$17.13	\$19.22
29-2061	Licensed Practical and Licensed Vocational Nurses	\$19.86	\$21.89	\$24.94	\$28.11	\$30.23
31-1011	Home Health Aides	\$9.11	\$9.52	\$10.61	\$12.22	\$14.30
29-1127	Speech-Language Pathologists	\$26.08	\$30.97	\$37.75	\$45.43	\$53.57
29-1123	Physical Therapists	\$29.60	\$35.50	\$42.51	\$48.77	\$60.28
29-1062	Family and General Practitioners	\$36.11	\$54.01	\$83.01	\$103.18	\$154.84

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

#### In-Demand Technical Skills

- Nursing
- Basic Life Support
- Rehabilitations
- Clinical Works
- Intensive Care Unit

#### In-Demand Foundational Skills

- Management
- Communications
- Leadership
- Research
- Operations

#### In-Demand Education Level\*

- High School Diploma: 20.3%
- Associate Degree: 16.3%
- Bachelor's Degree: 22.2%
- Master's Degree: 11.8%

\*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

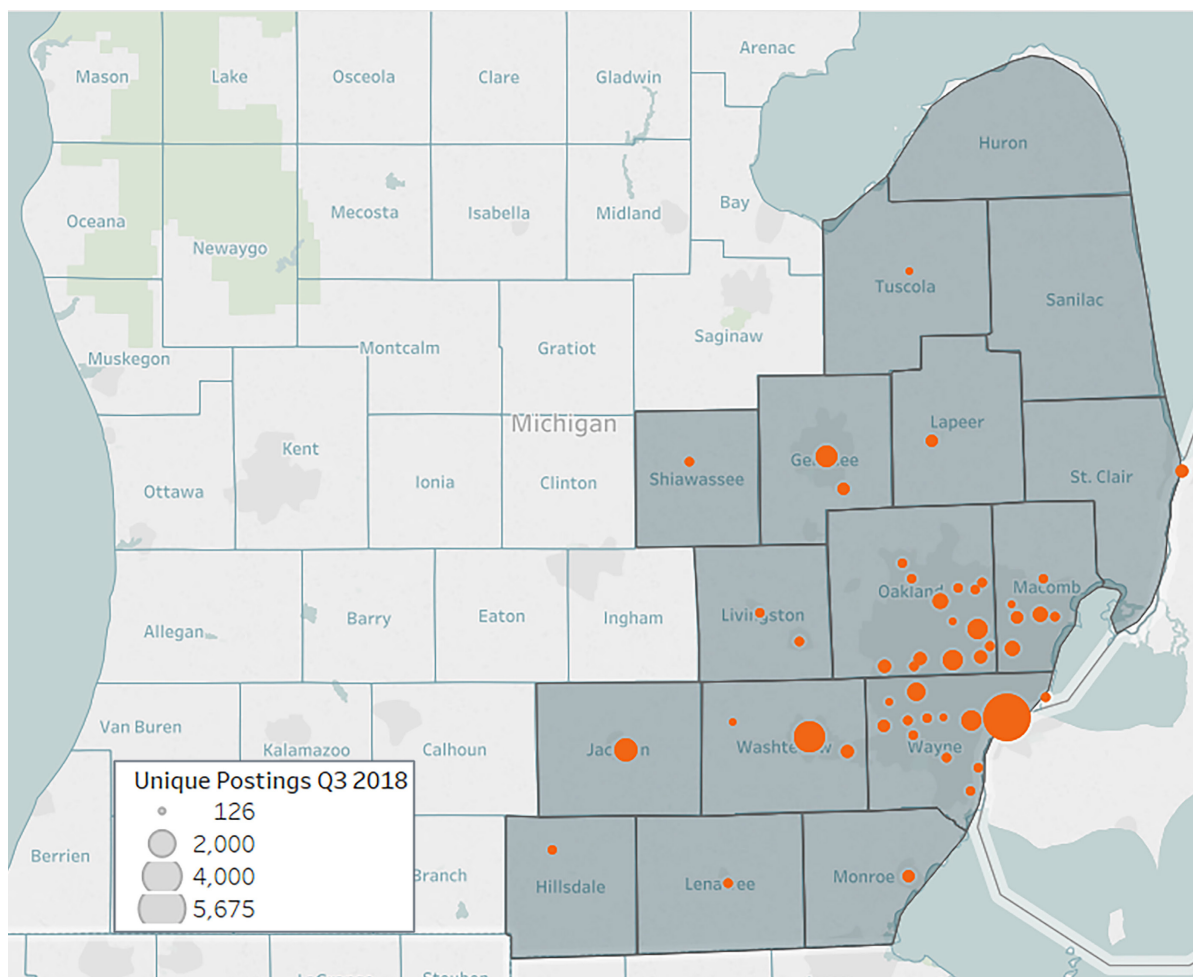
- Licensed Practical Nurse
- Certified Nursing Assistant
- Nurse Practitioner
- Patient Care Technician
- Licensed Vocational Nurses



## Hospitals and Pharmacies were Top Employers of Health Care Workers During Q4 2018



## Nursing and Management Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated).  
Size shows sum of Unique Postings (Oct 2018–Dec 2018). Details are shown for City.

### Top Posting Employers\*

- Henry Ford Health System
- William Beaumont Hospital
- Cross Country Healthcare, Inc.
- University of Michigan
- United States Department of the Air Force
- CVS Health Corporation
- Tenet Healthcare Corporation
- Trinity Health Corporation
- Sunbelt Staffing, LLC
- Ascension Health

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

### Job Postings by City

1. Detroit, MI: 5,675 Postings
2. Ann Arbor, MI: 2,426 Postings
3. Jackson, MI: 1,338 Postings
4. Flint, MI: 1,178 Postings
5. Troy, MI: 1,004 Postings



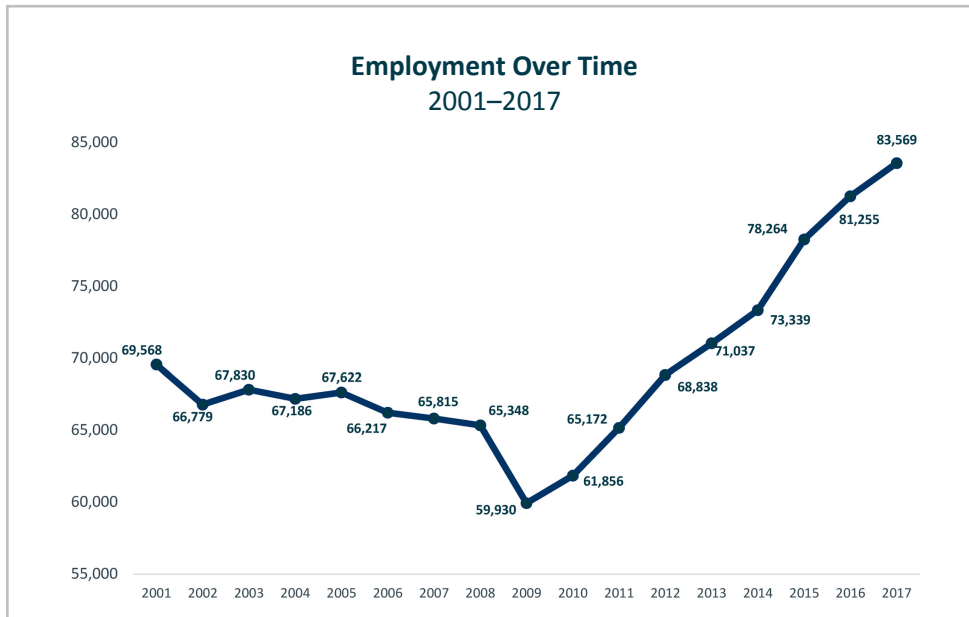
# INFORMATION TECHNOLOGY (IT) OCCUPATION GROUP

## Lenawee County and Hillsdale County | Q4 2018

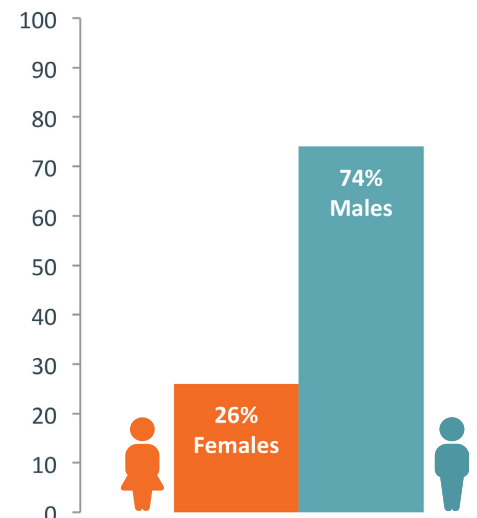
### Introduction

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.

**83,756**  
IT Workers  
0.2% Increase  
from 2017



### Population Gender Demographics



### IT Worker Demographics

According to the most recent Emsi data set available (2017), despite having over 80,000 workers, the IT occupation group is not very diverse. A large majority of workers are white males between the ages of twenty-five and fifty-four. Currently, 74 percent of workers identify as male, and 69 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

**68.6% White | 10.5% Black or African American | 17.1% Asian**

Age 14-24  
5.7%

### Population Age Demographics

Age 25-54  
79.0%

Age 55+  
15.4%



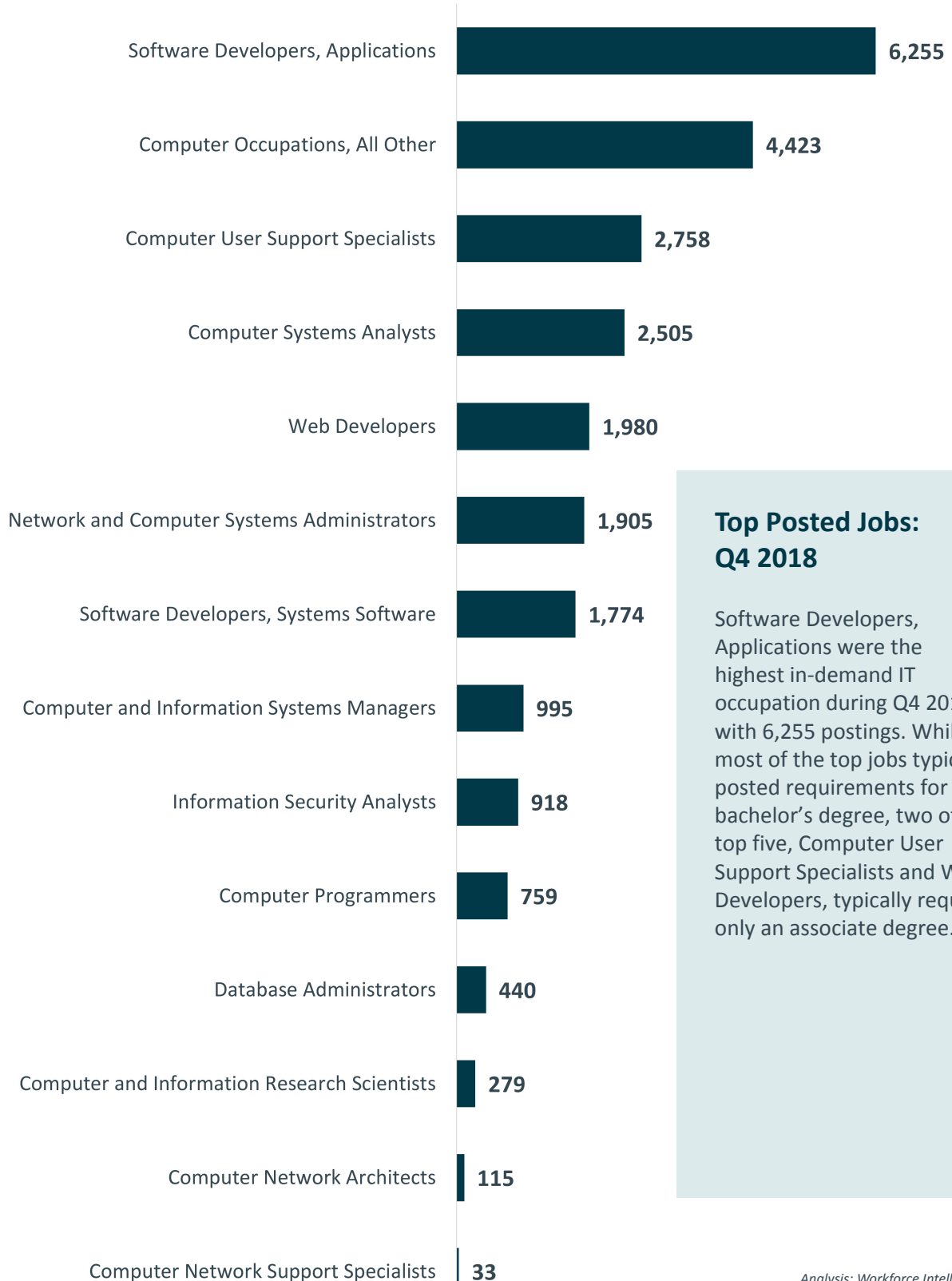


24,142 IT Postings:  
215 More than in Q2 2018



Bachelors Degree  
Required for Most IT Jobs

### Information Technology Top Posted Jobs Q4 2018



#### Top Posted Jobs: Q4 2018

Software Developers, Applications were the highest in-demand IT occupation during Q4 2018, with 6,255 postings. While most of the top jobs typically posted requirements for a bachelor's degree, two of the top five, Computer User Support Specialists and Web Developers, typically require only 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 providing a lucrative opportunity to job seekers willing to meet the minimum education requirements related to these jobs. Software Developers, Applications, the top posted IT job in Q4 2018, offers a median hourly wage of \$44.12 per hour or nearly \$92,000 per year according to the Bureau of Labor Statistics (BLS).

**Wage Overview for Top Posted IT Jobs in Q4 2018**

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	\$27.76	\$34.79	\$44.12	\$54.83	\$64.22
15-1199	Computer Occupations, All Other	\$20.42	\$26.19	\$37.17	\$49.26	\$59.86
15-1151	Computer User Support Specialists	\$13.66	\$17.20	\$23.20	\$29.92	\$38.36
15-1121	Computer Systems Analysts	\$25.08	\$31.51	\$40.83	\$49.89	\$60.33
15-1134	Web Developers	\$18.48	\$24.09	\$30.98	\$40.53	\$48.10
15-1142	Network and Computer Systems Administrators	\$24.97	\$30.58	\$38.29	\$47.36	\$56.16
15-1133	Software Developers, Systems Software	\$24.74	\$32.96	\$42.69	\$52.62	\$62.72
11-3021	Computer and Information Systems Managers	\$40.07	\$50.17	\$62.17	\$76.51	\$95.29
15-1122	Information Security Analysts	\$28.43	\$34.27	\$45.37	\$57.05	\$66.97
15-1131	Computer Programmers	\$21.29	\$27.52	\$34.76	\$42.51	\$49.79

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

#### In-Demand Technical Skills

- Software Development
- SQL
- Java
- Agile Software Development
- Software Engineering

#### In-Demand Foundational Skills

- Management
- Communications
- Operations
- Integration
- Information Technology

#### In-Demand Education Level\*

- High School Diploma: 3.9%
- Associate Degree: 5.0%
- Bachelor's Degree: 55.0%
- Master's Degree: 11.9%

\*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

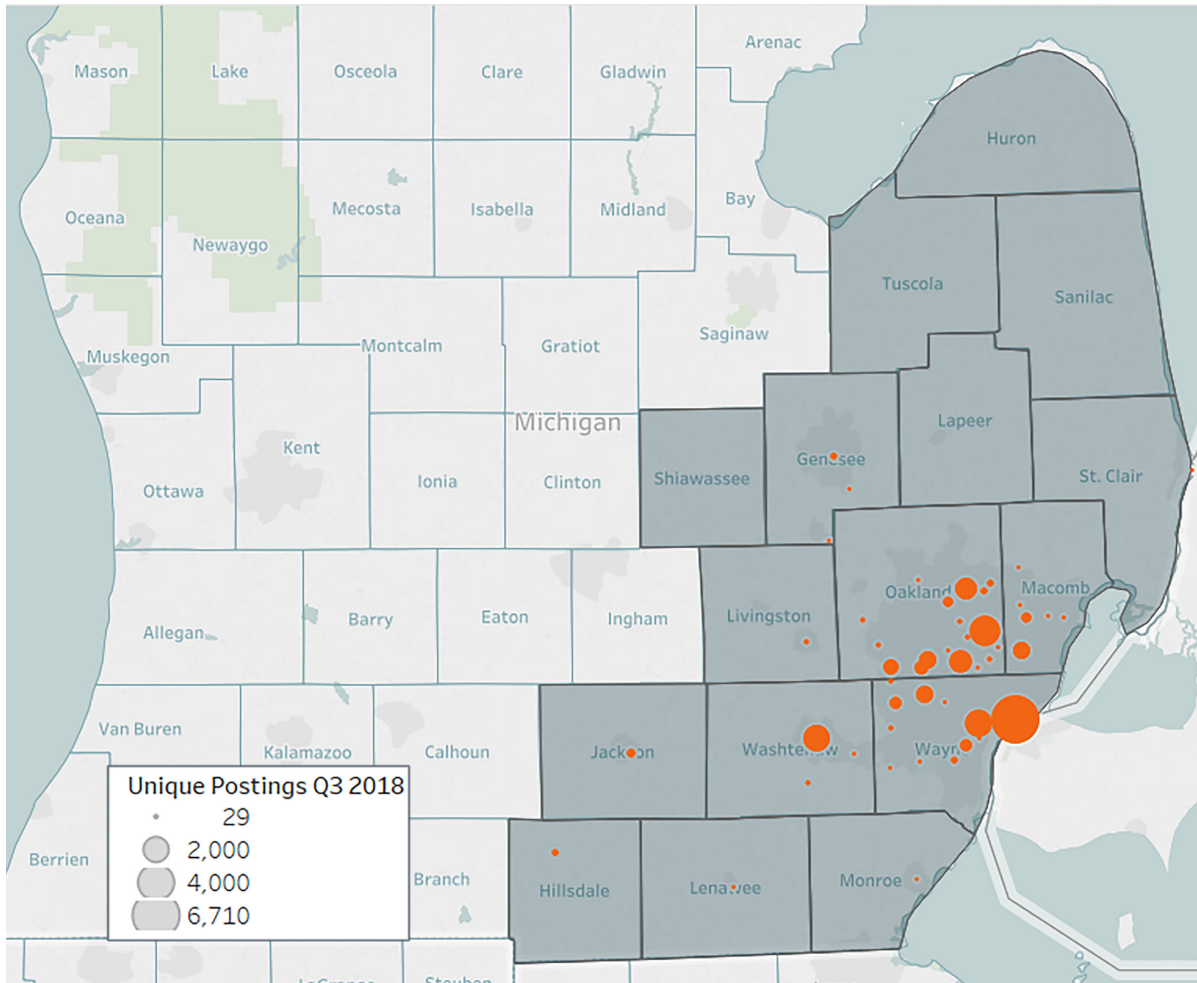
- Certified Information Systems Security Professional (CISSP)
- Certified Information Security Manager
- Cisco Certified Network Associate
- Microsoft Certified Systems Engineer
- Certified Ethical Hacker



## 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 Oct 2018–Dec 2018. Details are shown for City.

### Top Posting Employers\*

- Virtual Vocations
- Oracle Corporation
- General Motors Company
- Teksystems, Inc.
- Ford Motor Company
- Anthem, Inc.
- Msx International, Inc.
- ACCENTURE, INC.
- University of Michigan
- Quicken Loans Inc.

### Job Postings by City

1. Detroit, MI: 6,710 Postings
2. Troy, MI: 2,651 Postings
3. Dearborn, MI: 2,126 Postings
4. Ann Arbor, MI: 2,017 Postings
5. Southfield, MI: 1,451 Postings

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



# SKILLED TRADES AND TECHNICIANS (MANUFACTURING) OCCUPATION GROUP

Lenawee County and Hillsdale County | Q4 2018

## Introduction

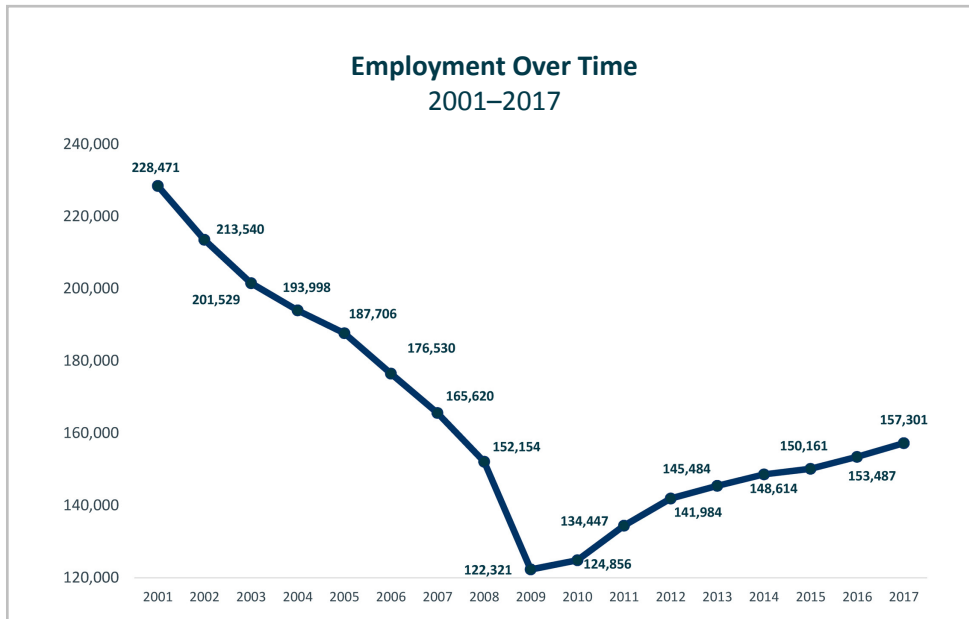
WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled-trades labor, such as CNC machinists and welders, than almost anywhere else in the country.

NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.

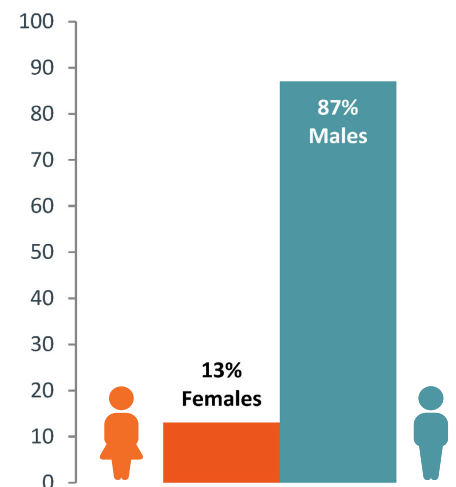


**158,144**  
Trade Workers

0.5% Increase  
from 2017



## Population Gender Demographics



## Skilled Trades and Technicians Worker Demographics

According to the most recent Emsi data set available (2017), the Skilled Trades occupation group employs about 158,000 workers in southeast Michigan. A majority of workers are white males between the ages of twenty-five and fifty-four. Additional outreach may be necessary in the near future, as at 25.6 percent, the group has a somewhat higher proportion than average of workers over age 55.

### Race and Ethnicity Demographics

**79.0% White** | **12.9% Black or African American** | **2.7% Asian**

### Population Age Demographics

Age 14-24, 6.8%



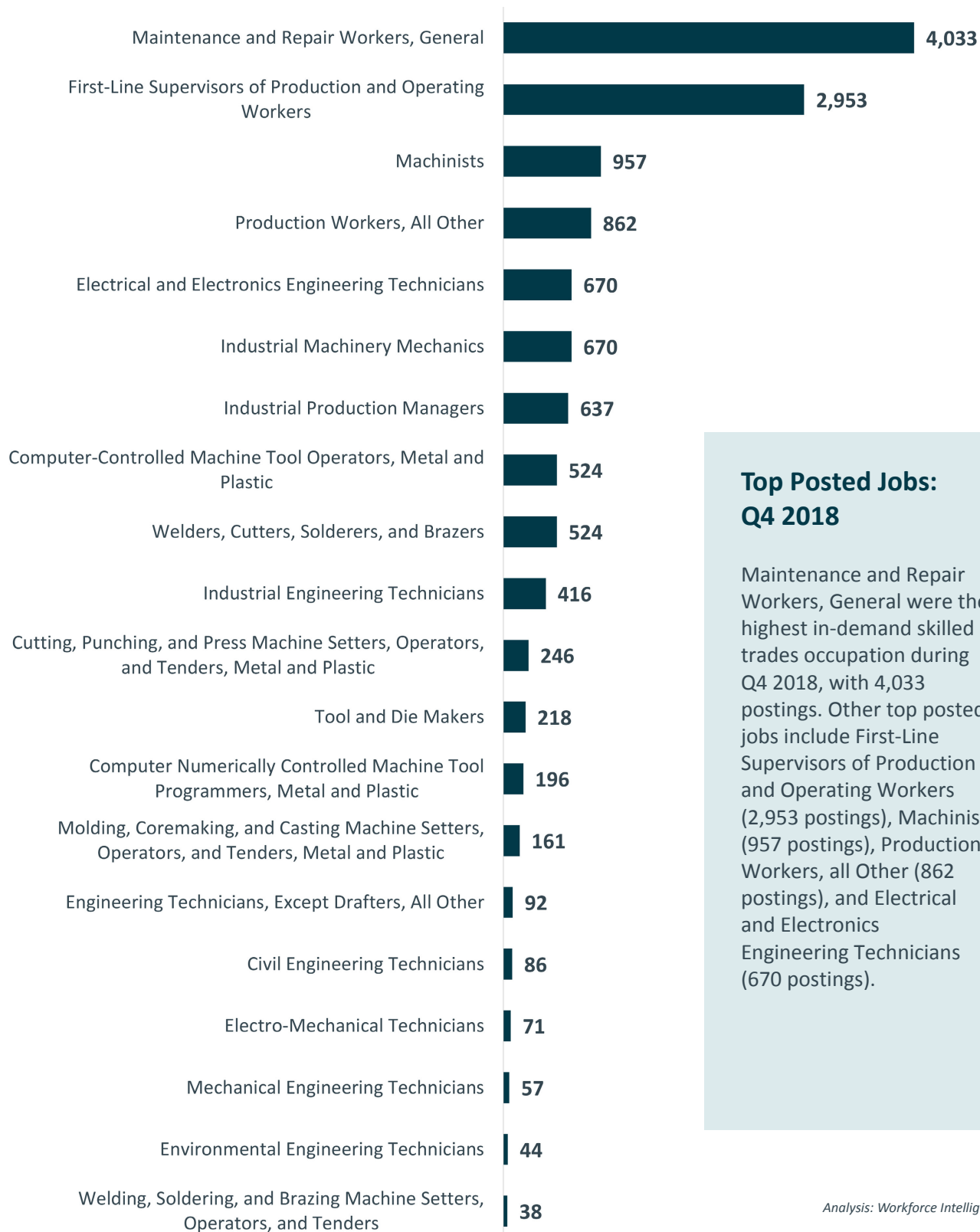


13,112 Skilled Trades Postings:  
165 More than in Q2 2018



Vocational Training Required  
for Most Skilled Trades Jobs

### Skilled Trades and Technicians Top Posted Jobs Q4 2018



#### Top Posted Jobs: Q4 2018

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during Q4 2018, with 4,033 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (2,953 postings), Machinist (957 postings), Production Workers, all Other (862 postings), and Electrical and Electronics Engineering Technicians (670 postings).



## High Earning Potential for Industrial Production Manager



## In-Demand Skilled Trades Certification: American Society for Quality (ASQ) Certified

### Skilled Trades and Technicians Wage Overview

Half of the top ten in-demand skilled trades occupations 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 Q4 2018, offers a median hourly wage of \$17.05, which translates to an annual salary of nearly \$35,000.

**Wage Overview for Top Posted Skilled Trades and Technicians Jobs in Q4 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	\$10.33	\$12.86	\$17.05	\$22.86	\$28.70
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.53	\$23.71	\$31.58	\$41.27	\$51.13
51-4041	Machinists	\$12.22	\$15.26	\$19.88	\$25.17	\$29.74
51-9199	Production Workers, All Other	\$10.31	\$14.39	\$17.81	\$21.60	\$26.84
17-3023	Electrical and Electronics Engineering Technicians	\$16.83	\$21.70	\$29.01	\$34.76	\$40.42
49-9041	Industrial Machinery Mechanics	\$16.30	\$20.57	\$26.22	\$32.12	\$37.55
11-3051	Industrial Production Managers	\$34.75	\$43.95	\$56.34	\$71.30	\$87.32
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$12.31	\$14.48	\$19.12	\$23.87	\$28.45
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.08	\$15.44	\$18.52	\$22.74	\$27.84
17-3026	Industrial Engineering Technicians	\$16.73	\$20.01	\$25.35	\$32.29	\$38.93

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

#### In-Demand Technical Skills

- Machining
- HVAC
- Lathe Experience
- Plumbing
- Tooling

#### In-Demand Foundational Skills

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

#### In-Demand Education Level\*

- High School Diploma: 40.1%
- Associate Degree: 11.4%
- Bachelor's Degree: 13.7%
- Master's Degree: 1.5%

\*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

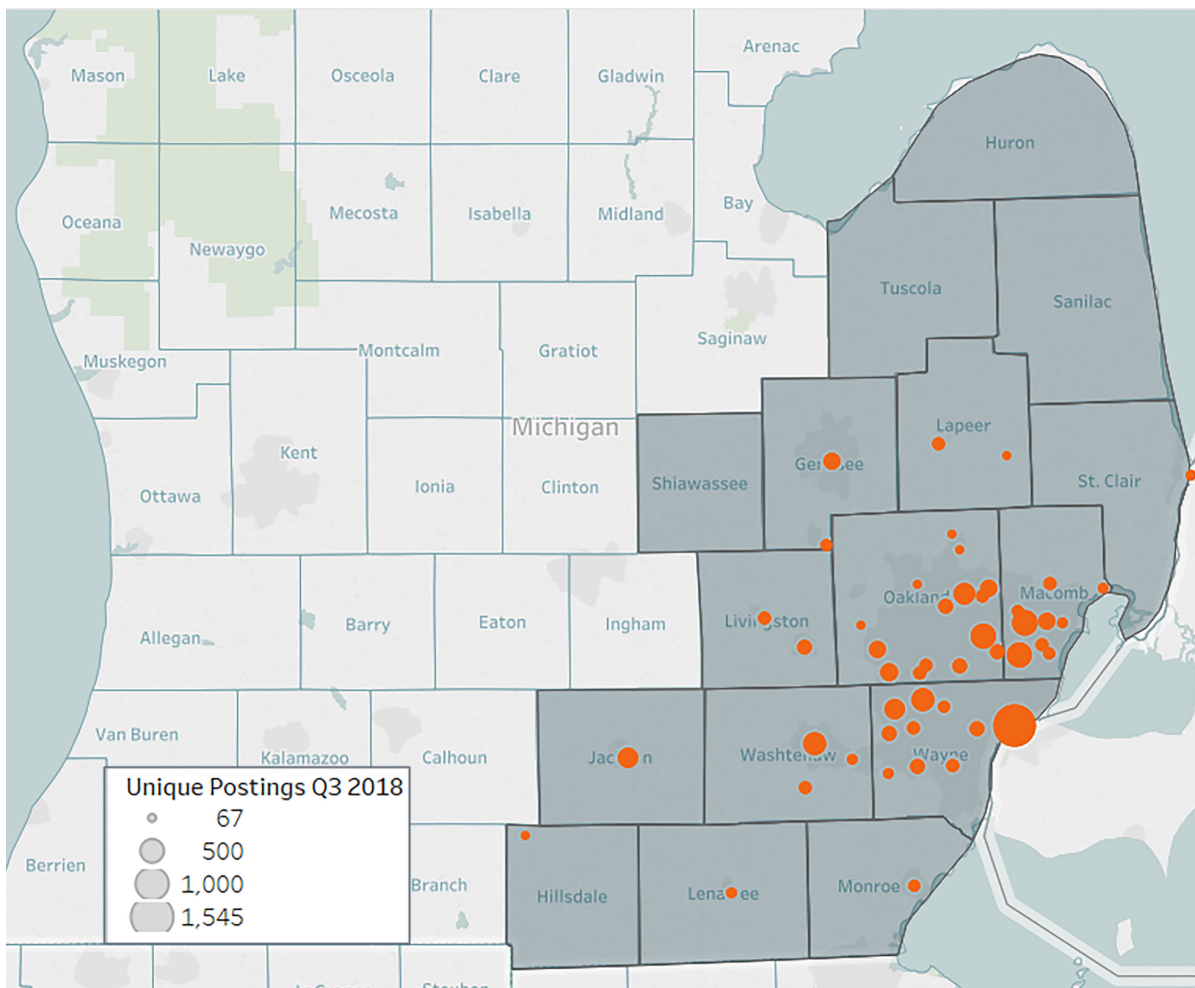
- Commercial Driver's License (CDL)
- Certified Quality Engineer
- American Society for Quality (ASQ) Certified
- Certified Welder
- Certified Quality Manager



## Staffing Agencies and Manufacturers: Top Employers of Skilled Trades Workers



## Machining and Management Skills are in High Demand



Map based on Longitude (generated) and Latitude (generated).  
Size shows sum of Unique Postings (Oct 2018–Dec 2018). Details are shown for City.

### Top Posting Employers\*

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

### 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. Ann Arbor, MI: 475 Postings

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

Website

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[@WIN-semich](https://twitter.com/WIN-semich)