

Annual 2019
January–December

MACOMB COUNTY

WIN Labor Market Report





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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 Macomb County. 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. WIN produces a 16-county region report quarterly using data from all eleven occupation groups. A report focused on the city of Detroit is also produced quarterly, focusing on five occupation groups related to Detroit's labor market. County reports are produced annually and focus on five occupation groups chosen to reflect the labor market specific to the county.

This report analyzes data from the full year of 2019 in Macomb County and includes summative data for each month of 2019. The business and finance, engineers and designers, health care, information technology, and skilled trades occupation groups are analyzed for Macomb County.

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. For more information about jobseeker resources and our partners, please visit www.micareertraining.org.



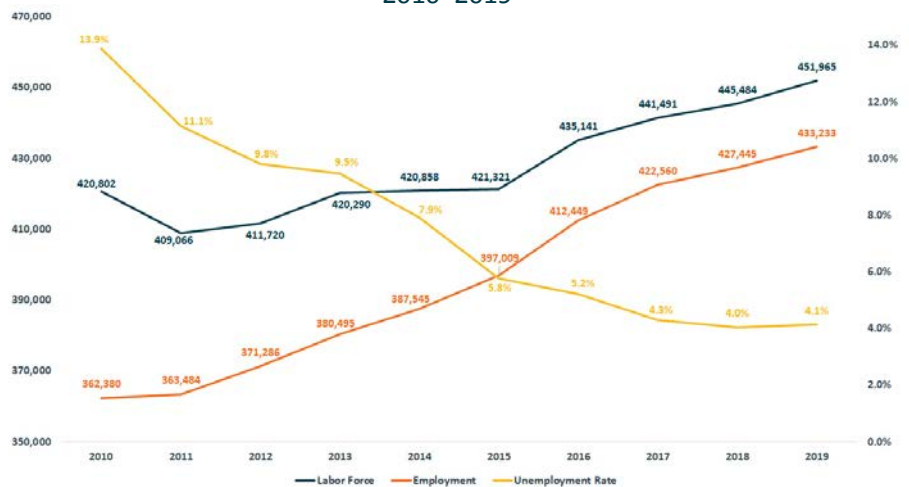
State of the Labor Market in Macomb County

Labor force and employment figures in Macomb county finished 2019 stronger than they began. Year-over-year, the labor force grew by 1.1 percent (4,732 individuals) between Q4 2018 and Q4 2019. A slightly greater change in employment than in labor force caused the number of unemployed individuals to decrease in the region, bringing the quarterly unemployment rate down to 3.5 percent in Q4 2019 compared to 3.9 percent in Q4 2018. In Macomb county and across southeast Michigan, employer demand grew to unprecedented high levels through August 2019, then declined through the end of the year.

Annual Labor Market Information

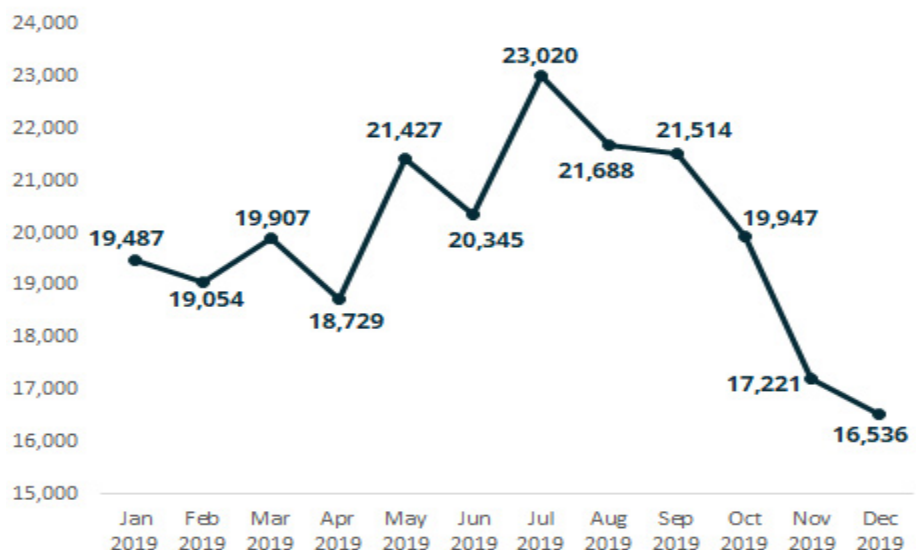
The labor force in Macomb county continues to grow, increasing by 6,481 individuals between 2018 and 2019 annual figures. Employment increased by 5,788 workers between 2018 and 2019 as well. As the increase in employment accounted for most, but not all, of the sustained increase in labor force, the unemployment rate rose slightly. From an annual unemployment rate of 4.0 percent in 2018, the annual rate rose by 0.1 percentage points to the 2019 rate of 4.1 percent in 2019.

Annual Labor Force, Employment, Unemployment Rate
2010–2019



Data: BLS | Analysis: Workforce Intelligence Network

Monthly Posting Analysis, Macomb County
2019



Data: Emsi | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

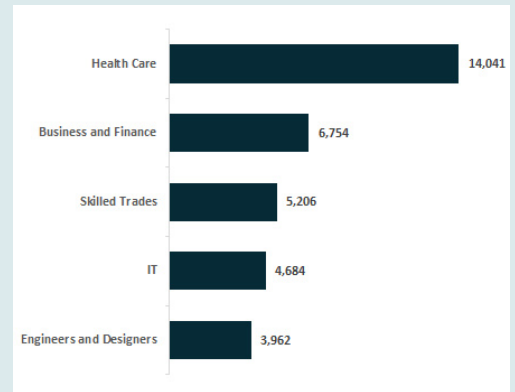
About 60,000 job postings were made each quarter of 2019 in Macomb county. Q3 2019, with 66,222 postings, represented the year's peak demand. Online job postings declined somewhat into Q4 2019, with employers posting 53,704 job advertisements. This pattern was consistent across southeast Michigan during 2019 and was also observed among top-posted occupations Heavy and Tractor-Trailer Truck Drivers and Registered Nurses.



During 2019, employers posted 103,841 online job ads in Macomb county, comprising 9.7 percent of postings across the full WIN region.

There were 103,841 job postings during 2019 in the county, growing 13.3 percent between the first quarter of the year and the record high demand in the third quarter. Health Care occupations accounted for 14,041 of those, or about 13.5 percent of all postings. High demand occupations in Health Care span a variety of roles and education levels. For more information about quarterly job postings, see page 9.

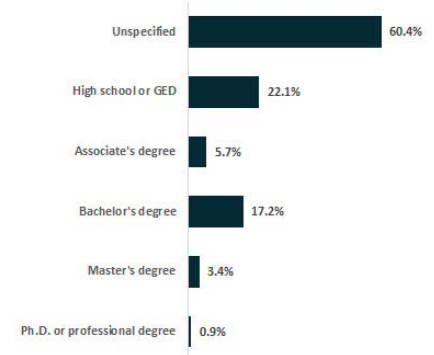
Postings by Occupation Group
2019



Job postings made by employers in Macomb county indicate a high school diploma or equivalent as the most in-demand minimum education level during 2019.

While only 39.6 percent of job postings identified a minimum education level, the greatest portion (44.6 percent) of the 51,257 postings in Macomb county requiring specific education indicated the need for candidates with a high school diploma or equivalent. Another 34.9 percent of these postings were seeking applicants with a bachelor's degree. For more information about in-demand minimum education levels, see each occupation group.

Education Levels In-Demand
2019



Annual Labor Market Data

Data: Bureau of Labor Statistics

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	Change from 2018	Percent Change from 2018
Labor Force	420,802	409,066	411,720	420,290	420,858	421,321	435,141	441,491	445,484	451,965	6,481	1.5%
Employment	362,380	363,484	371,286	380,495	387,545	397,009	412,449	422,560	427,445	433,233	5,788	1.4%
Unemployment	58,423	45,581	40,433	39,795	33,313	24,313	22,692	18,931	18,038	18,731	693	3.8%
Unemployment Rate	13.9%	11.1%	9.8%	9.5%	7.9%	5.8%	5.2%	4.3%	4.0%	4.1%	0.1%	na

Throughout 2019, the labor force in Macomb county grew by 6,481 workers.

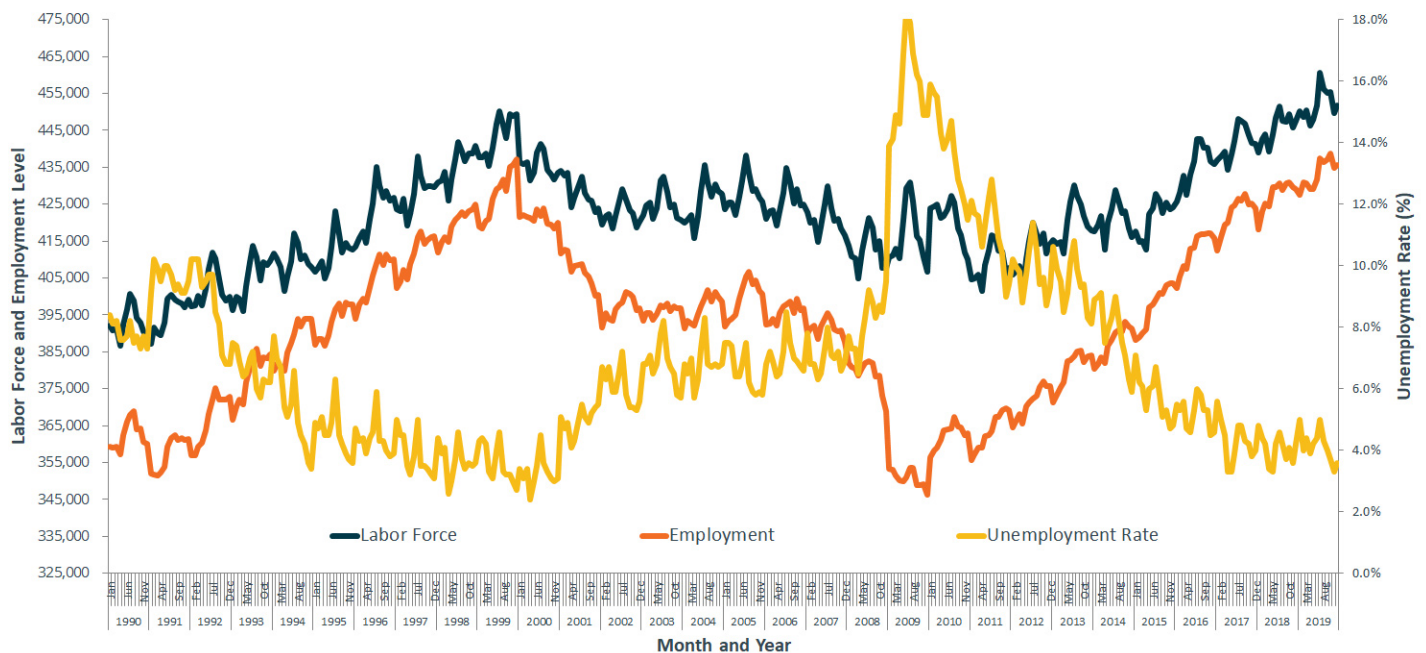
Following sustained labor force growth since 2011, the number of people either working or looking for work in Macomb county continued to expand through 2019. Q3 2019 levels represented a historic high, with 457,273 individuals in the labor force and 436,960 workers employed. Both figures declined slightly into Q4 2019. A larger drop in labor force than employment caused the unemployment rate to fall from 4.4 percent in Q3 2019 to 3.5 percent in Q4 2019. For more information about this year's unemployment rate and other labor market indicators, see page 4.



Labor Force, Employment, and Unemployment

The labor market in Macomb County has experienced relative stability since 2010, with some decline between 2010 and 2013 and sustained growth since then. The labor force fell by 5,010 individuals (1.1 percent) between Q3 2019 and Q4 2019. Employment in the county also decreased from Q3 2019 to Q4 2019, by 611 workers. Despite the drop, this represents an increase of 6,456 workers (1.5 percent) over Q4 2018. With employment falling by a smaller amount than the labor force, the unemployment rate decreased this quarter: the quarterly unemployment rate decreased by 0.9 percentage points between Q3 2019 and Q4 2019 to 3.5 percent.

Labor Force, Employment, Unemployment Rate
1990-2019



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data
Q4 2018 - Q4 2019

	4th Quarter 2018	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	Change from 3rd Quarter 2019	Percent Change from 3rd Quarter 2019	Change from 4th Quarter 2018	Percent Change from 4th Quarter 2018
Labor Force	447,530	449,706	448,617	457,273	452,263	-5,010	-1.1%	4,732	1.1%
Employment	429,893	429,677	429,947	436,960	436,349	-611	-0.1%	6,456	1.5%
Unemployment	17,638	20,029	18,669	20,313	15,914	-4,399	-21.7%	-1,724	-9.8%
Unemployment Rate	3.9%	4.5%	4.2%	4.4%	3.5%	-0.9%	na	-0.4%	na

Note: Monthly data averaged by quarter | Data: BLS



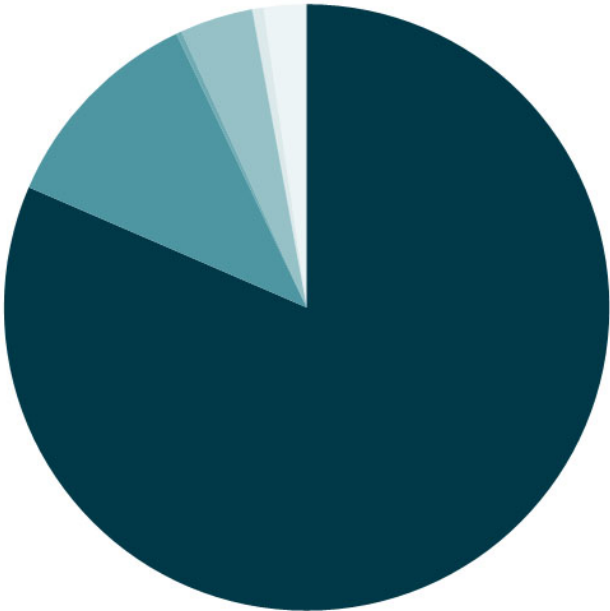
Population Demographics

According to data from the most recent Census Bureau 2018 ACS Five Year estimates, the population in Macomb county increased by 0.5 percent between 2017 and 2018. During 2018, 868,704 people were living in the county. The sex of the populace was split almost evenly, with about 51.3 percent of the population identifying as female, and the other 48.7 percent identifying as male. The majority of the population identified as white (81.5 percent) with the second largest number of individuals identifying as black or African American (11.4 percent). Macomb county, like the region as a whole, is facing an aging population; 30.3 percent of population was over the age of 55, compared to 17.5 percent under the age of 24.

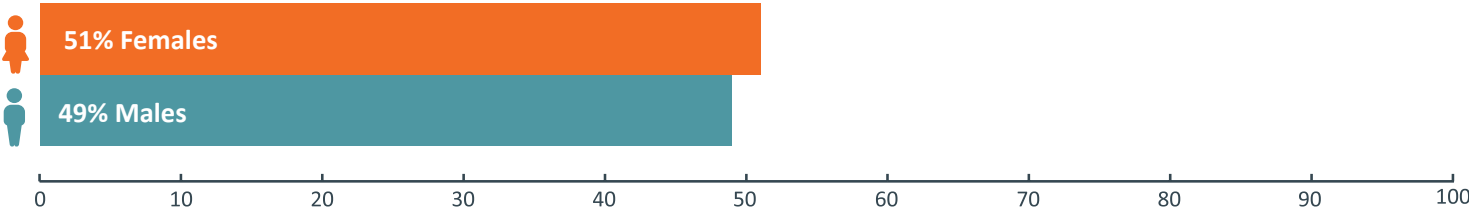


Population Race
Demographics

- White, 81.5%
- Black or African American, 11.4%
- American Indian or Alaska Native, 0.3%
- Asian, 3.9%
- Native Hawaiian or Other Pacific Islander, 0.0%
- Other Race, 0.6%
- Two or More Races, 2.3%



Population Gender Demographics



Population Age Demographics



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



Labor Market Demographics

During 2018, the most recent census year, there were about 450,000 people in the labor force, meaning they were either working or looking for work, in Macomb county. Slightly less than half of the total population, or 422,419 individuals (48.6 percent), living in the county were actively working. 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 18.7 percent, while for females under the age of 19 the unemployment rate is 15.4 percent.

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	448,126	422,419	25,707	5.7%
Sex				
Male 16+	235,414	221,497	13,917	5.9%
16-19	9,702	7,883	1,819	18.7%
20-24	22,930	20,607	2,323	10.1%
25-54	152,269	144,628	7,641	5.0%
55-64	40,351	38,625	1,726	4.3%
65 Plus	10,162	9,754	408	4.0%
Female 16+	212,712	200,922	11,790	5.5%
16-19	9,043	7,652	1,391	15.4%
20-24	21,724	20,042	1,682	7.7%
25-54	136,140	129,077	7,063	5.2%
55-64	36,591	35,166	1,425	3.9%
65 Plus	9,214	8,985	229	2.5%
Race				
White	368,365	349,565	18,787	5.1%
Black / African	51,177	46,052	5,067	9.9%
Native American	1,153	1,080	75	6.5%
Asian	17,234	16,423	793	4.6%
Native Hawaiian /	171	171	0	0.0%
Some Other Race	2,337	2,214	110	4.7%
Two or More Races	7,903	7,188	719	9.1%
Ethnicity				
Hispanic	11,106	10,246	800	7.2%

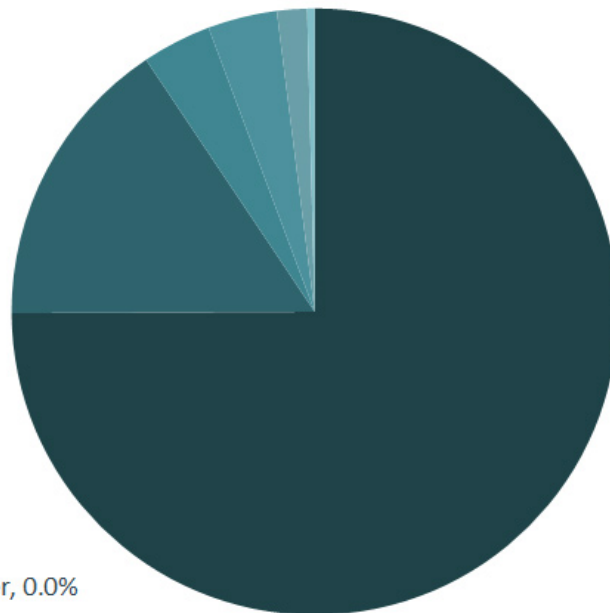


Current Workforce Demographics

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. In 2019, there were a total of 335,882 individuals working in Macomb county. A slight majority (54.9 percent or 184,534 workers) were male, while 45.1 percent (151,348 workers) of the workforce was female. Most of those working in the county were white, accounting for 75.0 percent of the workforce, while African American or black workers accounted for 15.7 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 3.7 percent. Only 13.7 percent of workers were under the age of 25 compared to 23.5 percent over the age of 55, indicating an aging workforce in Macomb county.

Workforce Race and Ethnicity Demographics

- White, 75.0%
- Black or African American, 15.7%
- Hispanic or Latino, 3.7%
- Asian, 3.7%
- Two or More Races, 1.6%
- American Indian or Alaska Native, 0.4%
- Native Hawaiian or Other Pacific Islander, 0.0%



Workforce Gender Demographics



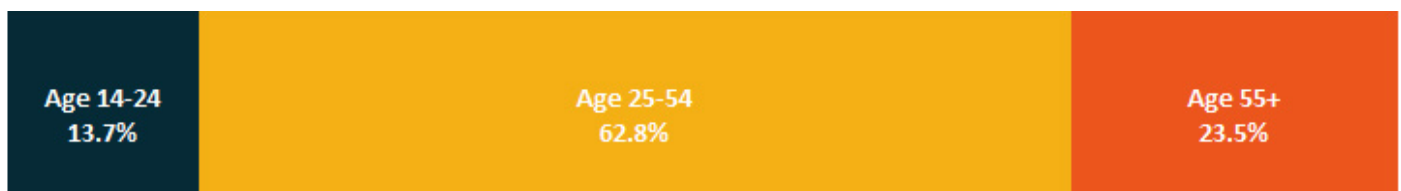
52% Males



48% Females



Workforce Age Demographics

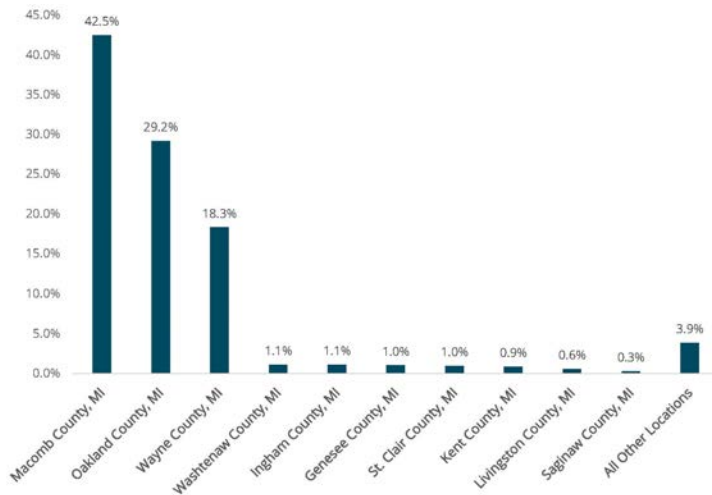




Regional Commuting Patterns

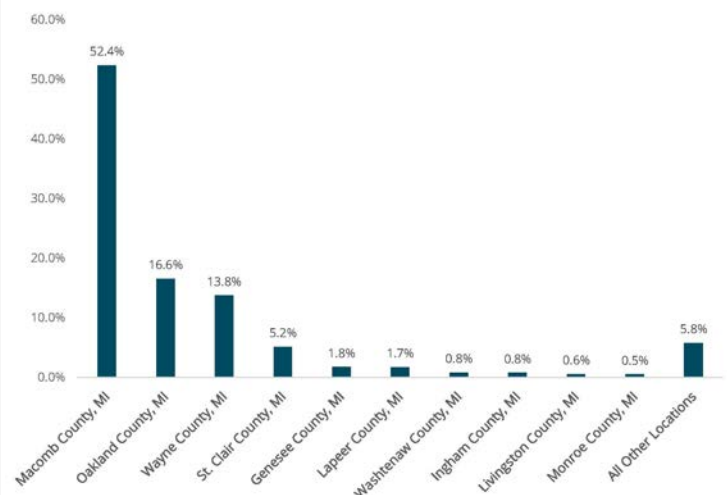
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the county's workforce consisted of 370,365 residents. 157,432 (42.5 percent) of the residents lived and worked within Macomb county, while the remaining 212,933 residents (57.5 percent) traveled outside of the county for work. There were 300,333 workers employed in the county during 2015. Of those, 142,901 workers (47.6 percent) lived outside of the county and commuted in. From this information, we can see that Macomb is a net exporter of jobs, with more workers leaving the area for employment than inwardly commuting, but it also has a high rate of both inbound and outbound commuting with nearby counties.

Where Macomb County Residents Work

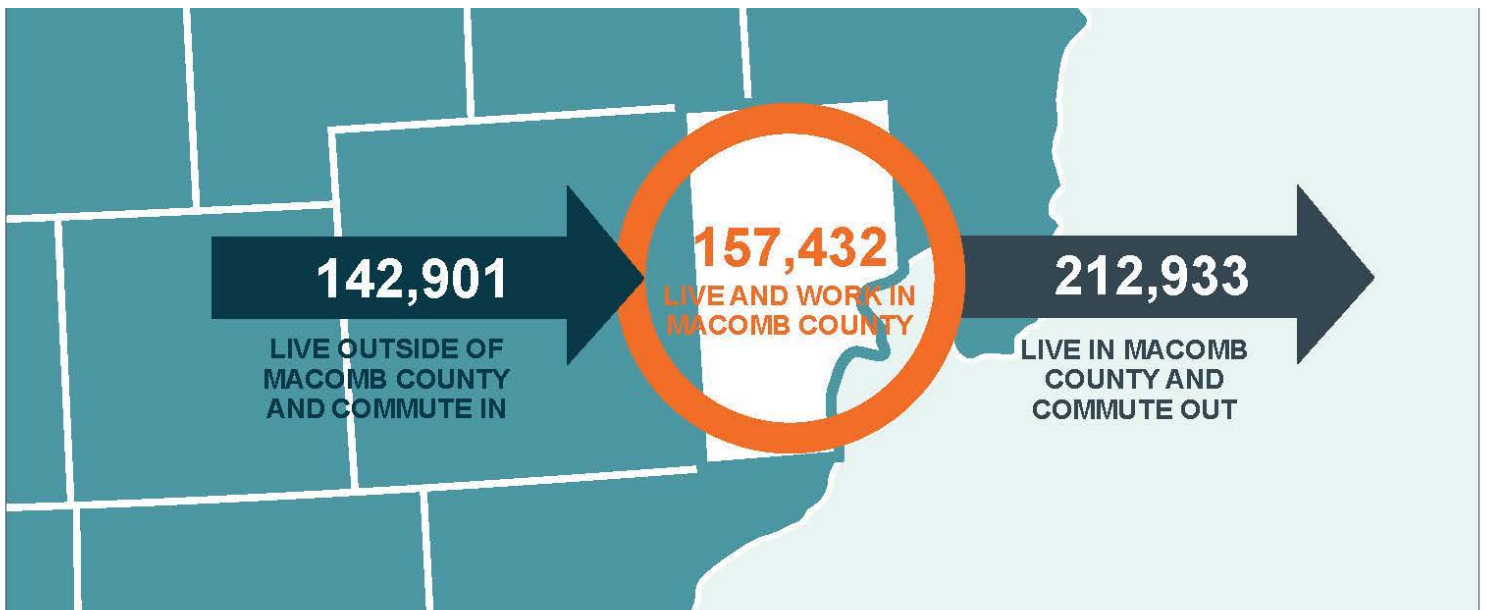


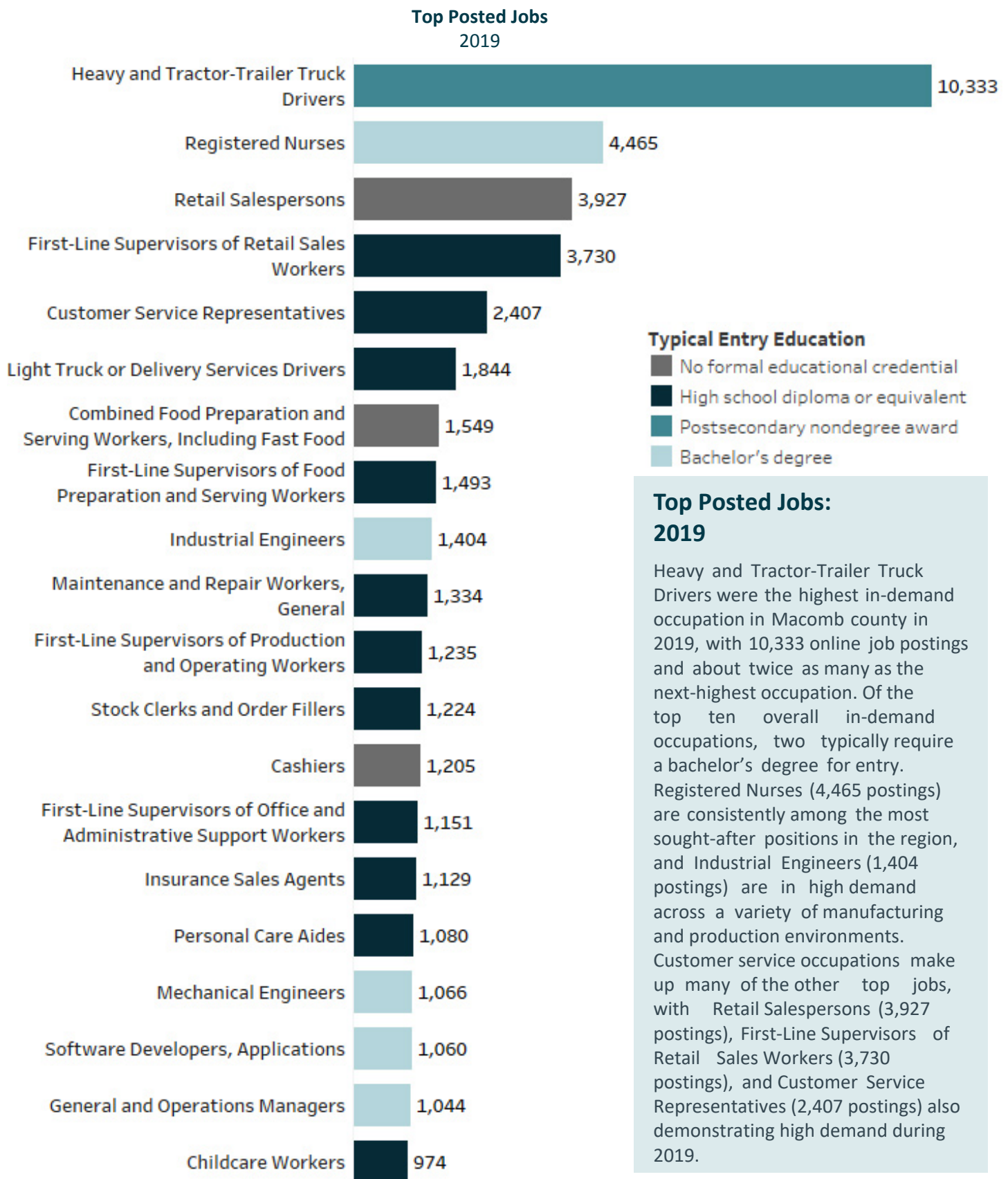
Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

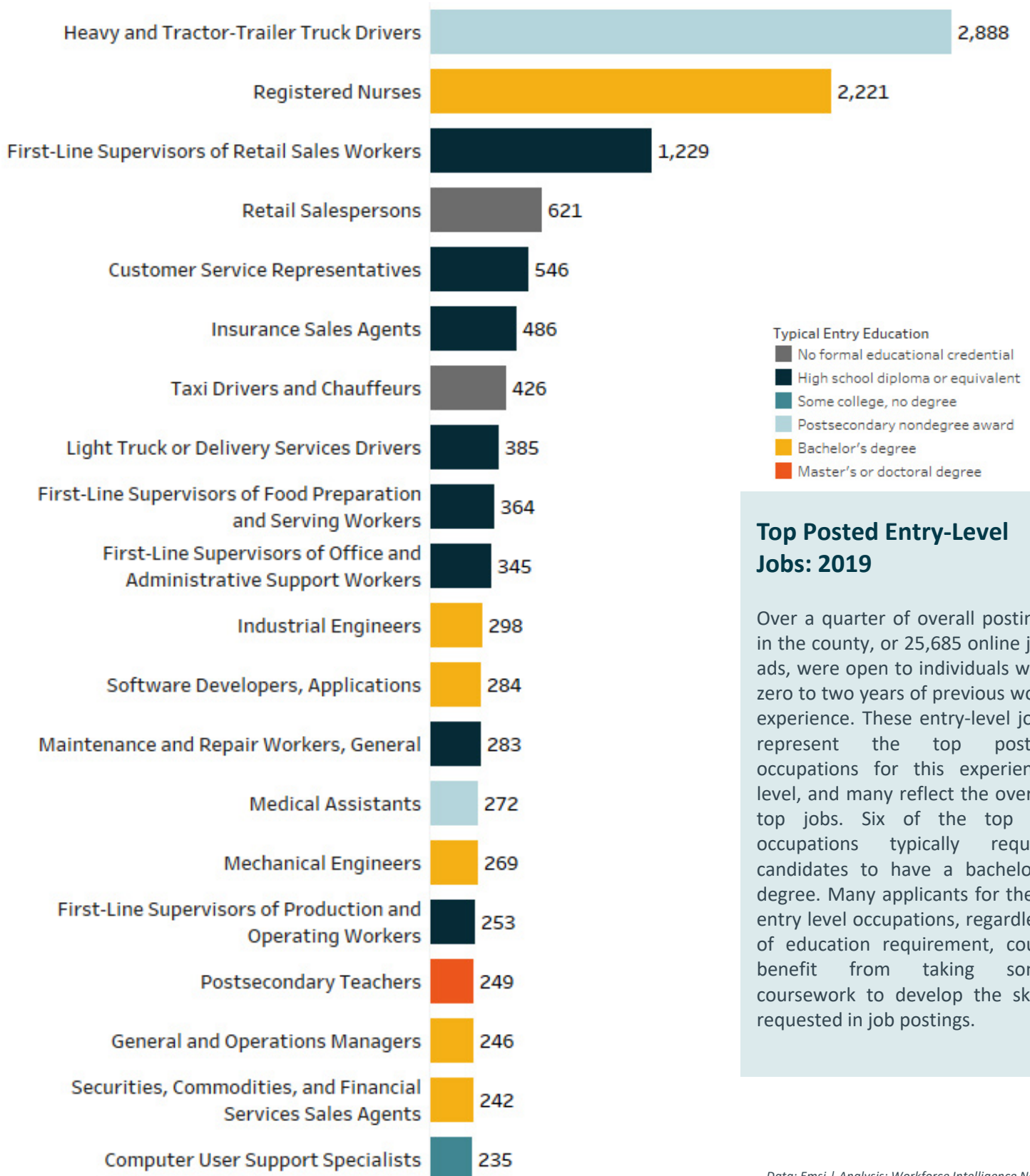
Where Macomb County Workers Live



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



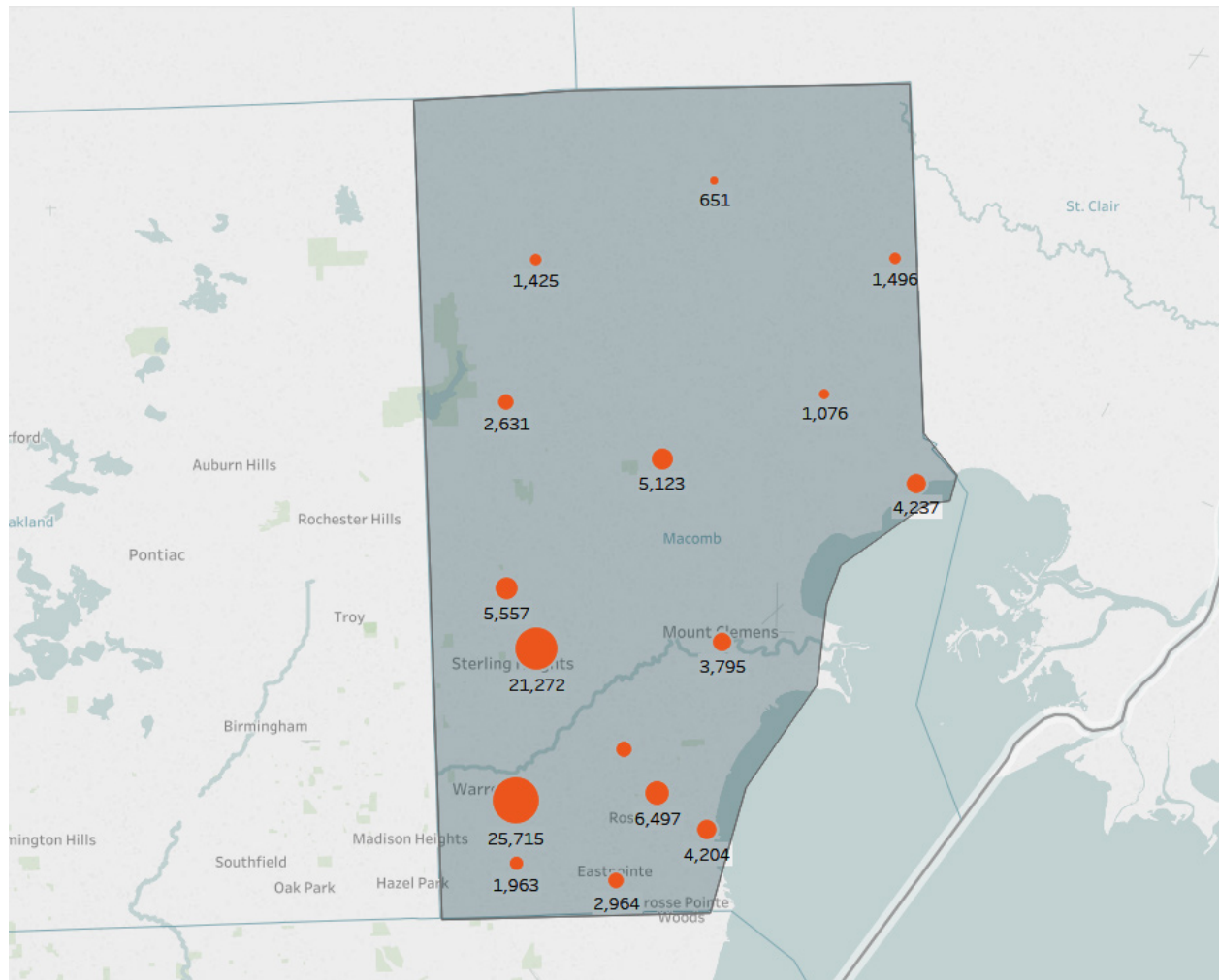


Top Posted Entry-Level Jobs
2019Top Posted Entry-Level
Jobs: 2019

Over a quarter of overall postings in the county, or 25,685 online job ads, were open to individuals with zero to two years of previous work experience. These entry-level jobs represent the top posted occupations for this experience level, and many reflect the overall top jobs. Six of the top 20 occupations typically require candidates to have a bachelor's degree. Many applicants for these entry level occupations, regardless of education requirement, could benefit from taking some coursework to develop the skills requested in job postings.



Employer Demand by City



Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Certified Nursing Assistant
- Licensed Practical Nurse
- Nurse Practitioner
- Critical Care Registered Nurse (CCRN)
- Automotive Service Excellence (ASE) Certification
- ServSafe Certification
- Transportation Worker Identification Credential (TWIC) Card
- Patient Care Technician

Top In-Demand Skills

- Merchandising
- Restaurant Operation
- Selling Techniques
- Nursing
- Customer Experience
- Auditing
- Basic Life Support
- Accounting
- Cash Register
- Customer Satisfaction

Top Posting Employers*

- Ascension Health
- Shipt LLC
- General Motors Company
- Henry Ford Health System
- HealthCare Employment Network
- McDonald's Corporation
- CRST International, Inc.
- General Dynamics Corporation
- Care.com, Inc.
- The Home Depot

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

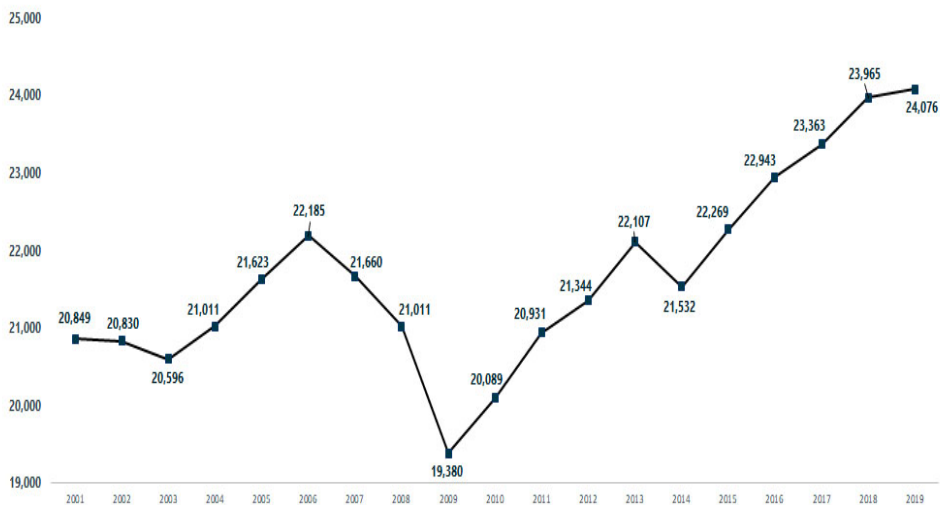


Introduction

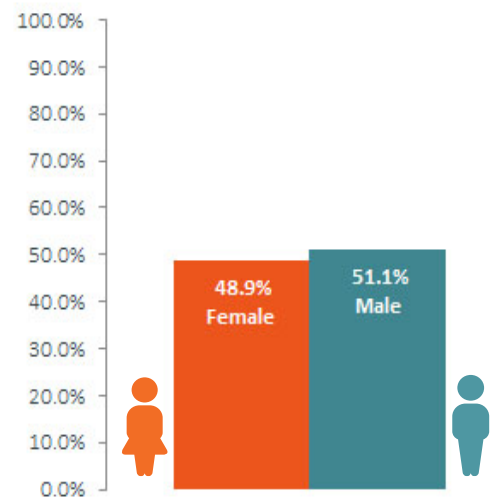
Jobs in the business and finance occupation group can be found in nearly every type of establishment/firm throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast Michigan, with about 21,000 job openings annually.

24,076
Business and Finance Workers
0.5% Increase from 2018

Employment Over Time
2001–2019



Worker Gender Demographics



Business and Finance Worker Demographics

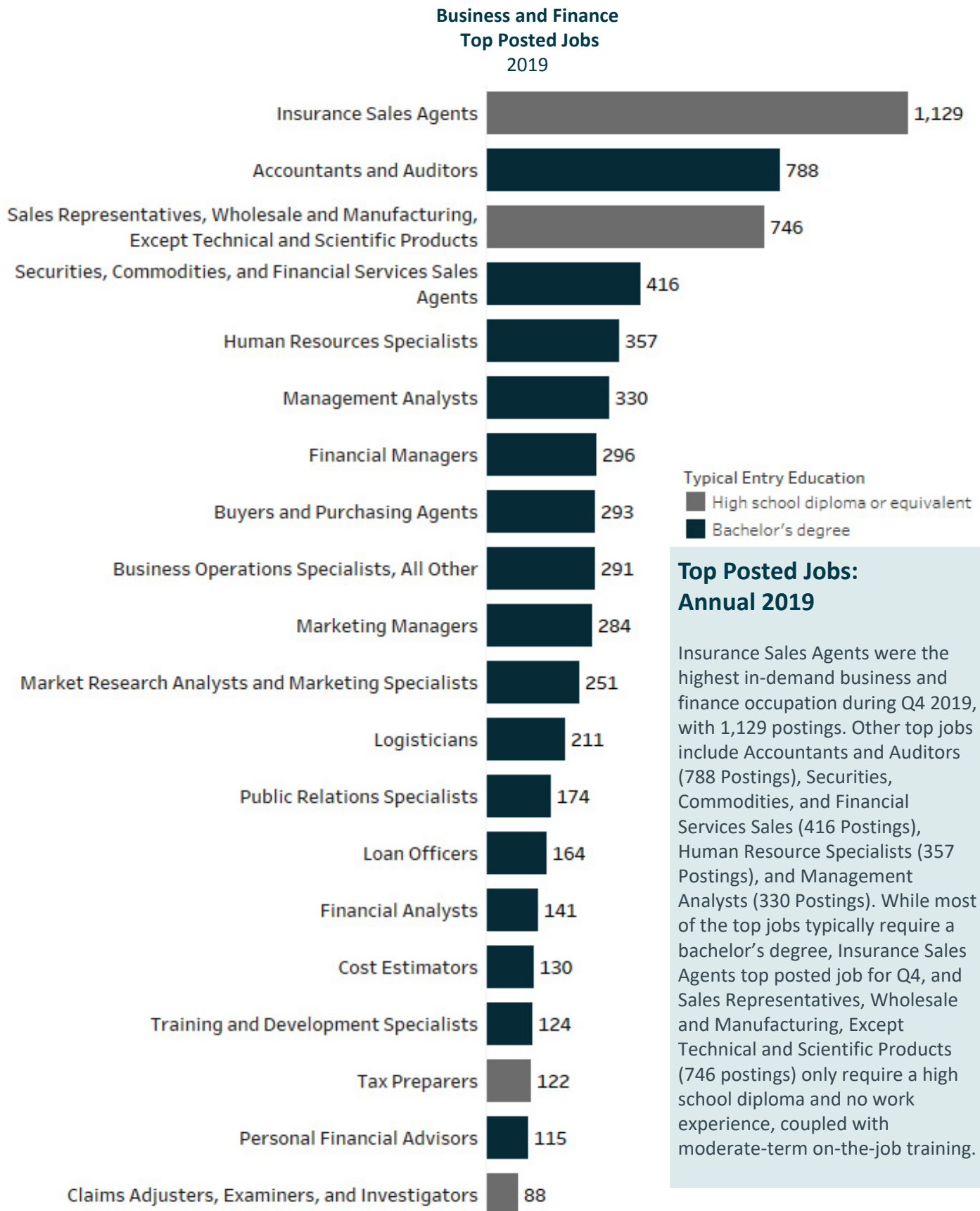
According to the most recent Emsi data set available (2019), the business and finance occupation group has increased by 111 workers since 2018, resulting in 24,076 workers in 2019. Half or 51.1 percent of the working population identify as male, while 82.1 percent of workers identified as white, indicating very little diversity regarding race. Only 4.7 percent of the working population in business and finance is under the age of 25, compared to the 25-54 age group, which accounts for 66.4 percent of the workforce.

Race and Ethnicity Demographics

82.1% White | **10.4% Black or African American** | **2.6% Hispanic or Latino**

Worker Age Demographics







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. The top posted business and finance job, Insurance Sales Agents, offers median hourly wages of \$22.74, translating to annual earnings of approximately \$45,480. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to median wages around \$54.56 hourly, or about \$109,120 annually. Entry level occupations also see high median wages of \$30.62, earning about \$61,240 annually.

Wage Overview for Top Posted Business and Finance Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-3021	Insurance Sales Agents	\$12.11	\$16.63	\$22.74	\$36.96	\$58.55
13-2011	Accountants and Auditors	\$19.16	\$23.50	\$30.20	\$40.16	\$56.05
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.33	\$20.16	\$30.62	\$44.79	\$58.14
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$12.24	\$15.02	\$21.39	\$35.69	\$79.75
13-1071	Human Resources Specialists	\$16.30	\$20.72	\$27.42	\$36.19	\$47.09
13-1111	Management Analysts	\$21.31	\$27.31	\$37.60	\$53.36	\$79.28
11-3031	Financial Managers	\$33.21	\$41.38	\$54.56	\$70.18	\$105.14
13-1028	Buyers and Purchasing Agents	\$19.21	\$24.80	\$32.93	\$43.06	\$54.52
13-1199	Business Operations Specialists, All Other	\$17.06	\$23.05	\$31.77	\$44.57	\$56.59
11-2021	Marketing Managers	\$33.94	\$42.79	\$57.36	\$72.91	\$113.05

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Selling Techniques
- Auditing
- Purchasing
- Insurance Sales

In-Demand Foundational Skills

- Sales
- Management
- Customer Service
- Communications
- Leadership

In-Demand Education Level*

- High School Diploma: 19.5%
- Associate Degree: 5.8%
- Bachelor's Degree: 37.4%
- Master's Degree: 6.7%

*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

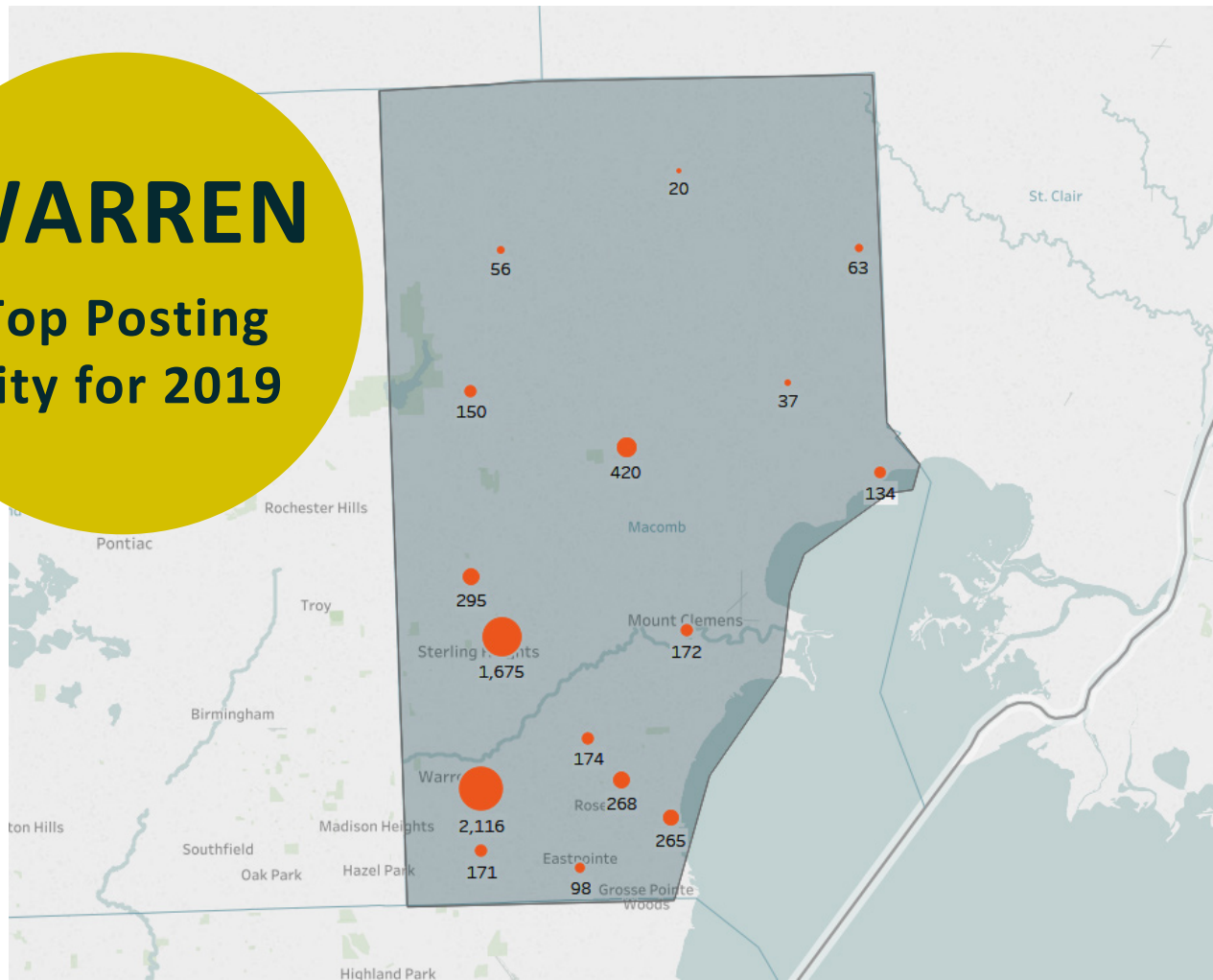
- Certified Public Accountant
- Series 6 Investment Company and Variable Contracts License (Mutual Funds/Variable Annuities)
- Series 7 General Securities Representative License (Stockbroker)
- Series 63 Uniform Securities Agent State Law License
- Series 66 Uniform Investment Adviser: Combined State Laws License (Combined 63 And 65)



Employer Demand by City

WARREN

**Top Posting
City for 2019**



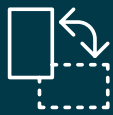
Top Posting Employers*

- Assurance
- H&R Block, Inc.
- National Agents Alliance
- General Dynamics Corporation
- Robert Half International Inc.
- General Motors Company
- Ascension Health
- Citizens Financial Group, Inc.
- BAE SYSTEMS PLC
- Bank of America Corporation

Job Postings by City

1. Warren: 2,116 Postings
2. Sterling Heights: 1,675 Postings
3. Clinton Township: 420 Postings
4. Macomb: 420 Postings
5. Utica: 295 Postings
6. Roseville: 268 Postings
7. Saint Clair Shores: 265 Postings
8. Fraser: 174 Postings
9. Mount Clemens: 172 Postings
10. Center Line: 171 Postings

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



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. There are about 8,500 openings annually for engineers in southeast Michigan.

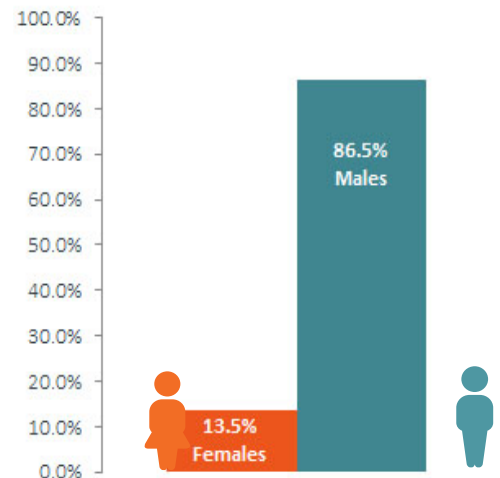


19,554
Engineering Workers
1.0% Increase
from 2018

Employment Over Time
2001–2019



Worker Gender Demographics



Engineering and Design Worker Demographics

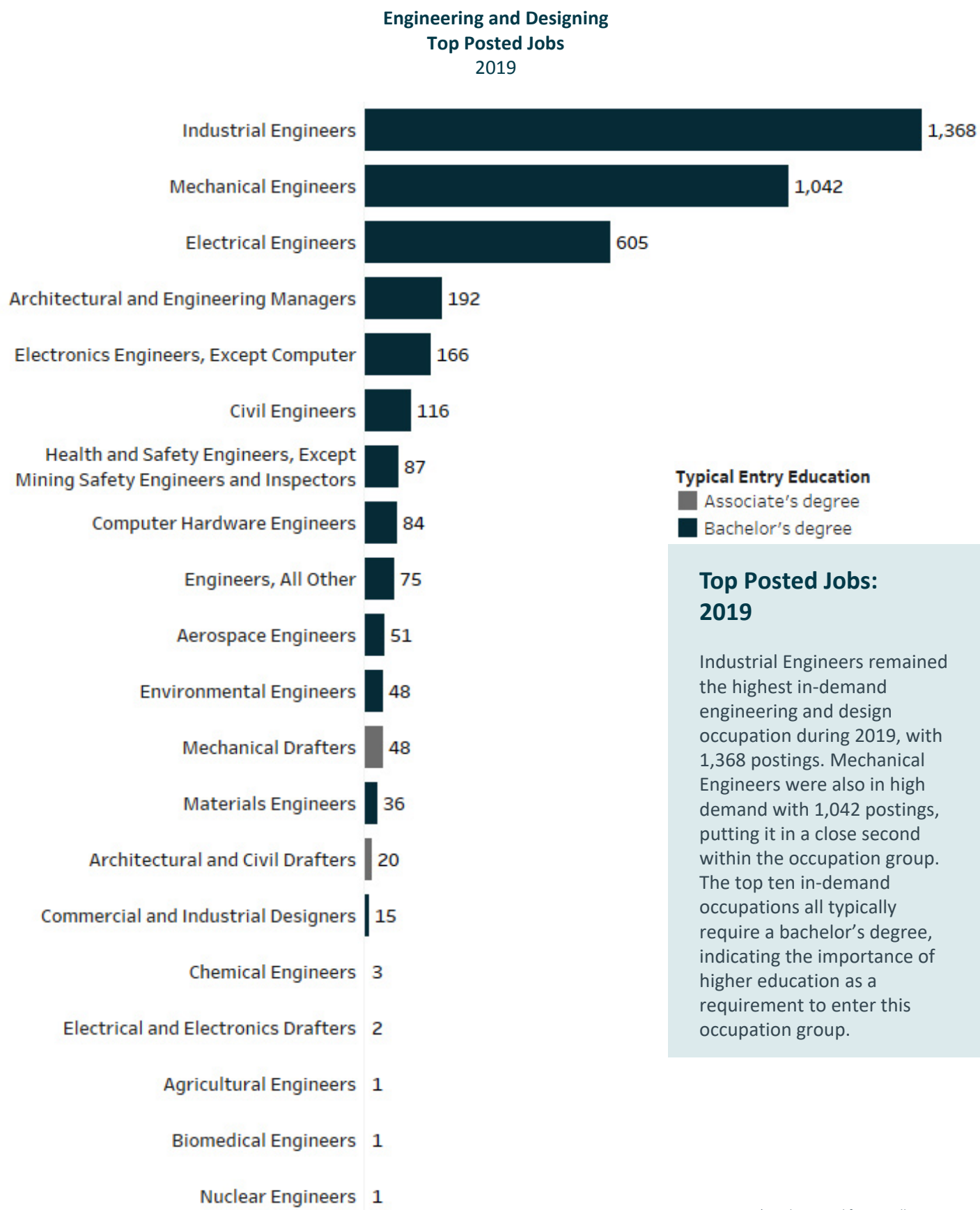
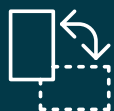
According to the most recent Emsi data set available (2019), the nearly 20,000 workers in the engineering and design group are not particularly diverse. Less than five percent of the related workforce is under 25, likely due to the consistently high educational requirements. 13.5 percent of current workers are female, and only 20 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

79.8% White | 8.5% Asian | 7.7% Black or African-American

Worker Age Demographics







Engineering and Design 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. Median wages are near \$37 per hour across the group, and the top posted engineering and design job, Industrial Engineers, offers a median hourly wage of \$44.43. This reflects an annual salary of approximately \$92,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Engineering and Design Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	\$30.68	\$36.29	\$44.43	\$53.47	\$60.74
17-2141	Mechanical Engineers	\$31.20	\$36.87	\$45.80	\$56.59	\$65.46
17-2071	Electrical Engineers	\$31.98	\$38.33	\$47.34	\$57.73	\$66.55
11-9041	Architectural and Engineering Managers	\$48.39	\$57.11	\$67.45	\$80.09	\$95.69
17-2072	Electronics Engineers, Except Computer	\$33.01	\$39.11	\$46.43	\$56.20	\$65.74
17-2051	Civil Engineers	\$28.71	\$33.63	\$40.62	\$50.74	\$63.99
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$28.04	\$31.76	\$41.83	\$55.09	\$65.40
17-2061	Computer Hardware Engineers	\$20.52	\$28.66	\$43.99	\$57.13	\$65.57
17-2199	Engineers, All Other	\$24.17	\$34.37	\$44.68	\$56.64	\$64.83
17-2011	Aerospace Engineers	\$18.63	\$27.28	\$31.77	\$48.23	\$65.63

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Electrical Engineering
- Mechanical Engineering
- Tooling
- Computer-Aided Design
- New Product Development

In-Demand Foundational Skills

- Management
- Problem Solving
- Communications
- Leadership
- Integration

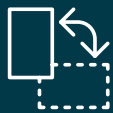
In-Demand Education Level*

- High School Diploma: 3.6%
- Associate Degree: 4.9%
- Bachelor's Degree: 62.1%
- Master's Degree: 14.9%

*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

- Six Sigma Green Belt Certification
- Professional Engineer
- Six Sigma Black Belt Certification
- Project Management Professional Certification
- (American Society For Quality) ASQ Certified



Employer Demand by City

Top in-demand positions all pay median wages over \$40 per hour



Top Posting Employers*

- General Motors Company
- General Dynamics Corporation
- BAE SYSTEMS PLC
- Moseley Technical Services, Inc
- FCA US LLC
- Flex-N-Gate Corporation
- Advantage Resourcing
- ALTAIR ENGINEERING, INC.
- Walton Corporation
- Pla CDM Smith Inc

Job Postings by City

1. Warren: 1,567 Postings
2. Sterling Heights: 1,467 Postings
3. Washington: 140 Postings
4. Roseville: 98 Postings
5. Macomb: 97 Postings
6. Fraser: 91 Postings
7. Clinton Township: 77 Postings
8. Utica: 73 Postings
9. Mount Clemens: 67 Postings
10. Center Line: 61 Postings

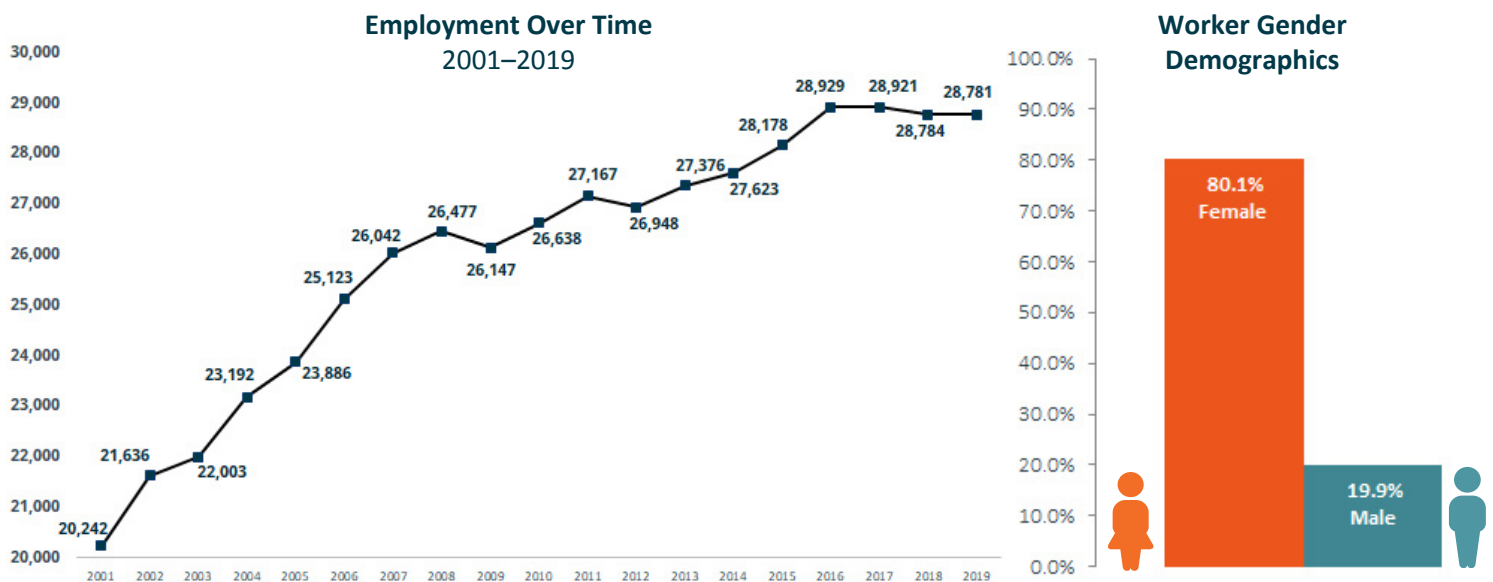
**Employer names are listed as they appear in online job postings.*



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. Annually, there are about 23,600 job openings for these positions, and this is projected to continue increasing.

28,781
Health Care Workers
3-Worker Decrease
from 2018



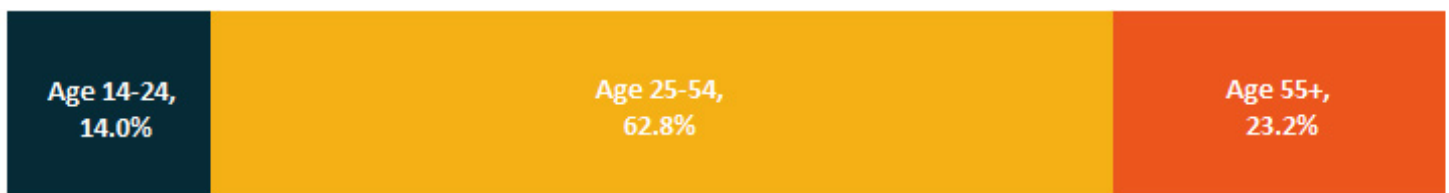
Health Care Worker Demographics

According to the most recent Emsi data set available (2019), the health care occupation group employs around 29,000 workers in Macomb county, who are overwhelmingly female (80.1 percent) and between the ages of 25 and 54 (69.3 percent), although 22.0 percent of workers are over 55. For registered nurses in particular, 27.9 percent of workers are over 55, so recruiting young workers for this high demand occupation is even more important.

Race and Ethnicity Demographics

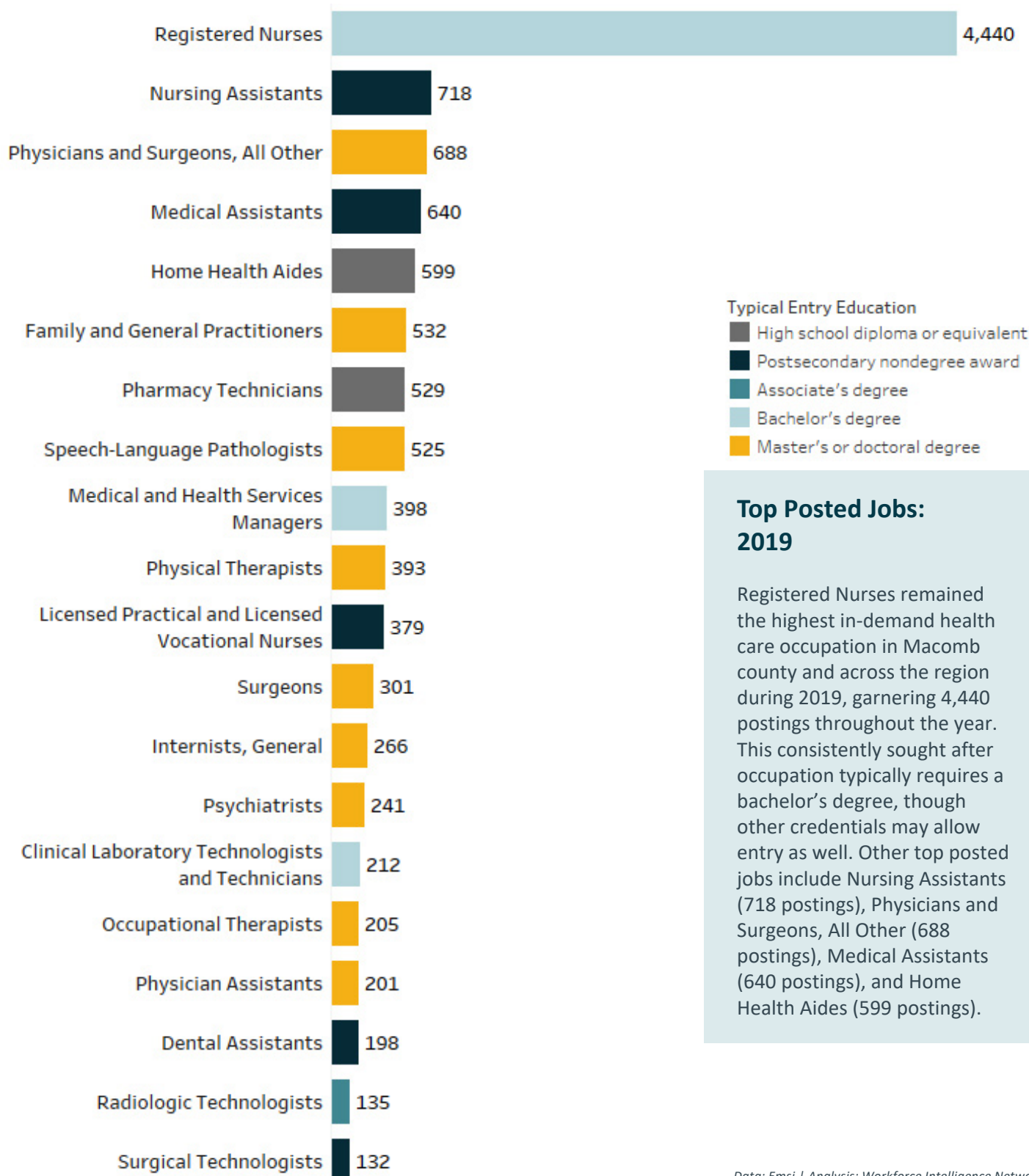
71.8% White | 18.6% Black or African American | 5.8% Asian

Worker Age Demographics





Health Care Top Posted Jobs 2019



Top Posted Jobs: 2019

Registered Nurses remained the highest in-demand health care occupation in Macomb county and across the region during 2019, garnering 4,440 postings throughout the year. This consistently sought after occupation typically requires a bachelor's degree, though other credentials may allow entry as well. Other top posted jobs include Nursing Assistants (718 postings), Physicians and Surgeons, All Other (688 postings), Medical Assistants (640 postings), and Home Health Aides (599 postings).



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. However, most of the top-posted jobs that require less than a bachelor's degree pay under than the state's median wage of \$18.08 per hour. Registered Nurses, the top posted health care job, offers a median hourly wage of \$32.55 per hour or annual salary of about \$67,700 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Health Care Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$24.59	\$28.30	\$32.55	\$36.63	\$43.04
31-1014	Nursing Assistants	\$11.03	\$12.49	\$13.96	\$15.92	\$17.91
29-1069	Physicians and Surgeons, All Other	\$20.88	\$24.95	\$58.42	\$93.95	\$121.51
31-9092	Medical Assistants	\$11.38	\$12.84	\$14.53	\$17.08	\$19.11
31-1011	Home Health Aides	\$9.25	\$9.59	\$10.87	\$12.65	\$14.35
29-1062	Family and General Practitioners	\$40.00	\$53.65	\$83.02	\$94.22	\$150.48
29-2052	Pharmacy Technicians	\$10.32	\$12.37	\$15.44	\$18.68	\$23.04
29-1127	Speech-Language Pathologists	\$25.20	\$29.86	\$34.91	\$43.23	\$62.07
11-9111	Medical and Health Services Managers	\$25.75	\$32.76	\$43.35	\$59.09	\$93.57
29-1123	Physical Therapists	\$28.47	\$33.70	\$39.89	\$45.07	\$60.43

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Cardiopulmonary Resuscitation (CPR)
- Nursing Care
- Advanced Cardiovascular Life Support (ACLS)

In-Demand Foundational Skills

- Customer Service
- Leadership
- Management
- Communications
- Operations

In-Demand Education Level*

- High School Diploma: 17.7%
- Associate Degree: 14.4%
- Bachelor's Degree: 15.5%
- Master's Degree: 5.5%

*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

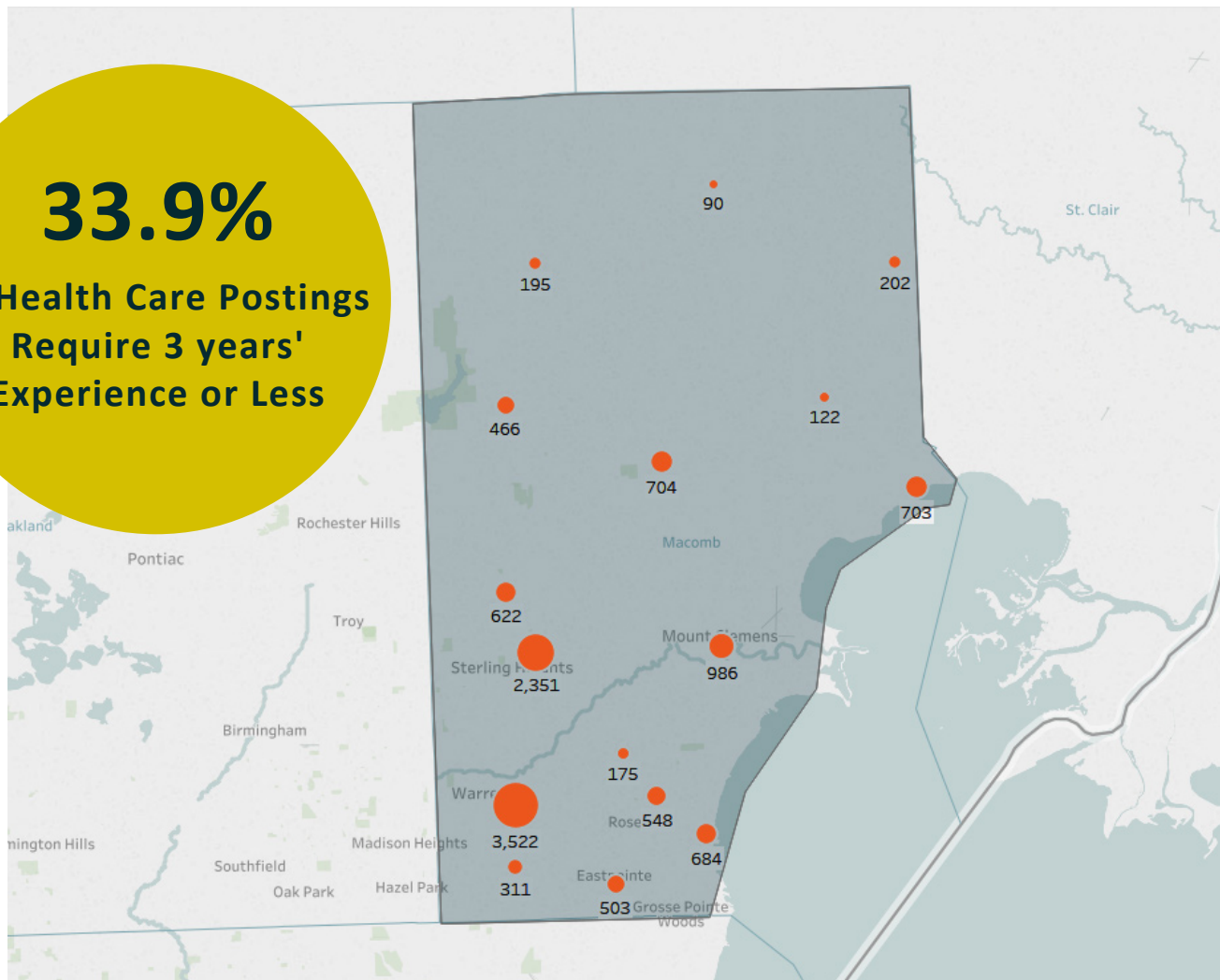
- Certified Nursing Assistant
- Licensed Practical Nurse
- Critical Care Registered Nurse (CCRN)
- Nurse Practitioner
- Patient Care Technician



Employer Demand by City

33.9%

**of Health Care Postings
Require 3 years'
Experience or Less**



Top Posting Employers*

- Ascension Health
- HealthCare Employment Network
- Henry Ford Health System
- McLaren, Inc.
- CVS Health Corporation
- Allstar Recruiting
- Accountable Healthcare Staffing, Inc.
- Locumtenens.com, LLC
- Sunbelt Staffing, LLC
- Barton & Associates, Inc.

Job Postings by City

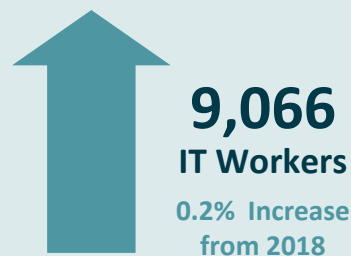
1. Warren: 3,522 Postings
2. Sterling Heights: 2,351 Postings
3. Clinton Township: 1,550 Postings
4. Mount Clemens: 986 Postings
5. Macomb: 704 Postings
6. New Baltimore: 703 Postings
7. Saint Clair Shores: 684 Postings
8. Utica: 622 Postings
9. Roseville: 548 Postings
10. Eastpointe: 503 Postings

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

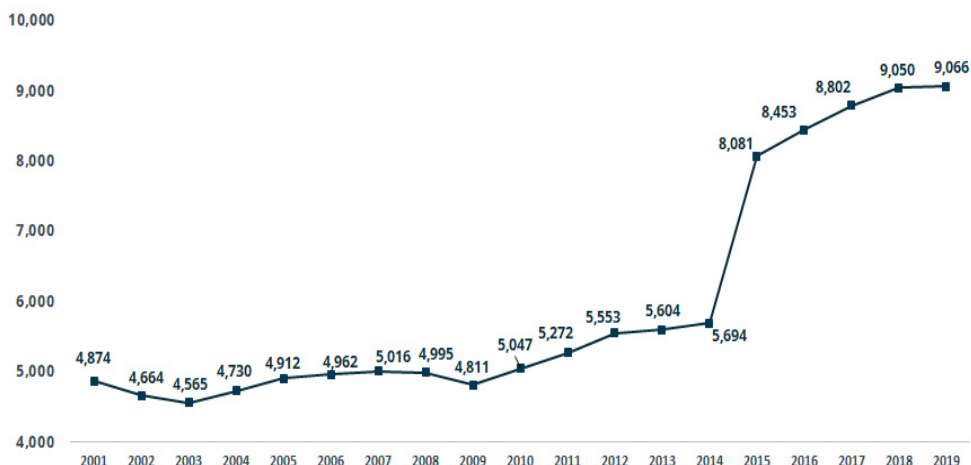


Introduction

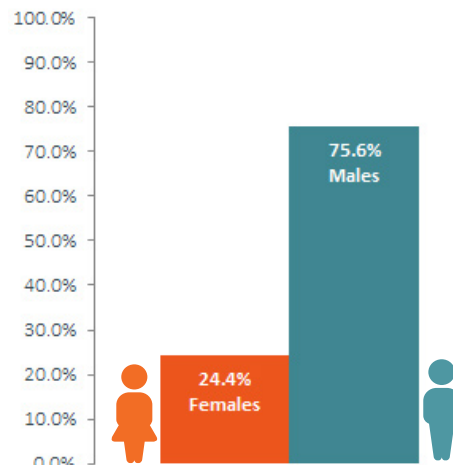
Information technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the information technology group does not currently employ as many individuals as the other groups here, it is quickly growing, and about 7,000 job openings are reported in the region annually.



Employment Over Time
2001–2019



Worker Gender Demographics



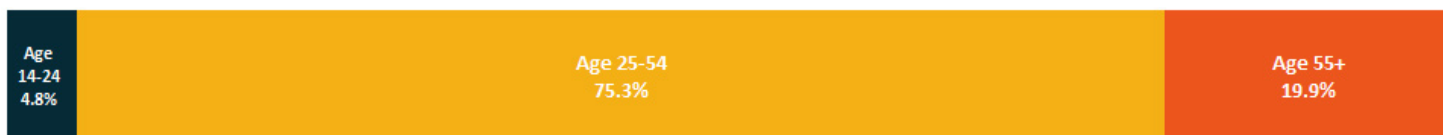
IT Worker Demographics

Although Macomb county has over 9,066 workers according to the most recent Emsi data set available (2019), the IT occupation group still struggles with diversity. Many workers are white males between the ages of 25 and 54. Currently, 74 percent of the workers in IT in Oakland County identify as male, and 67 percent identify as white. More than 75 percent of workers are between the ages of 25 and 54. Nearly 20 percent are above the age of 55 and roughly 4.5 percent are under 24 years old in IT occupations.

Race and Ethnicity Demographics

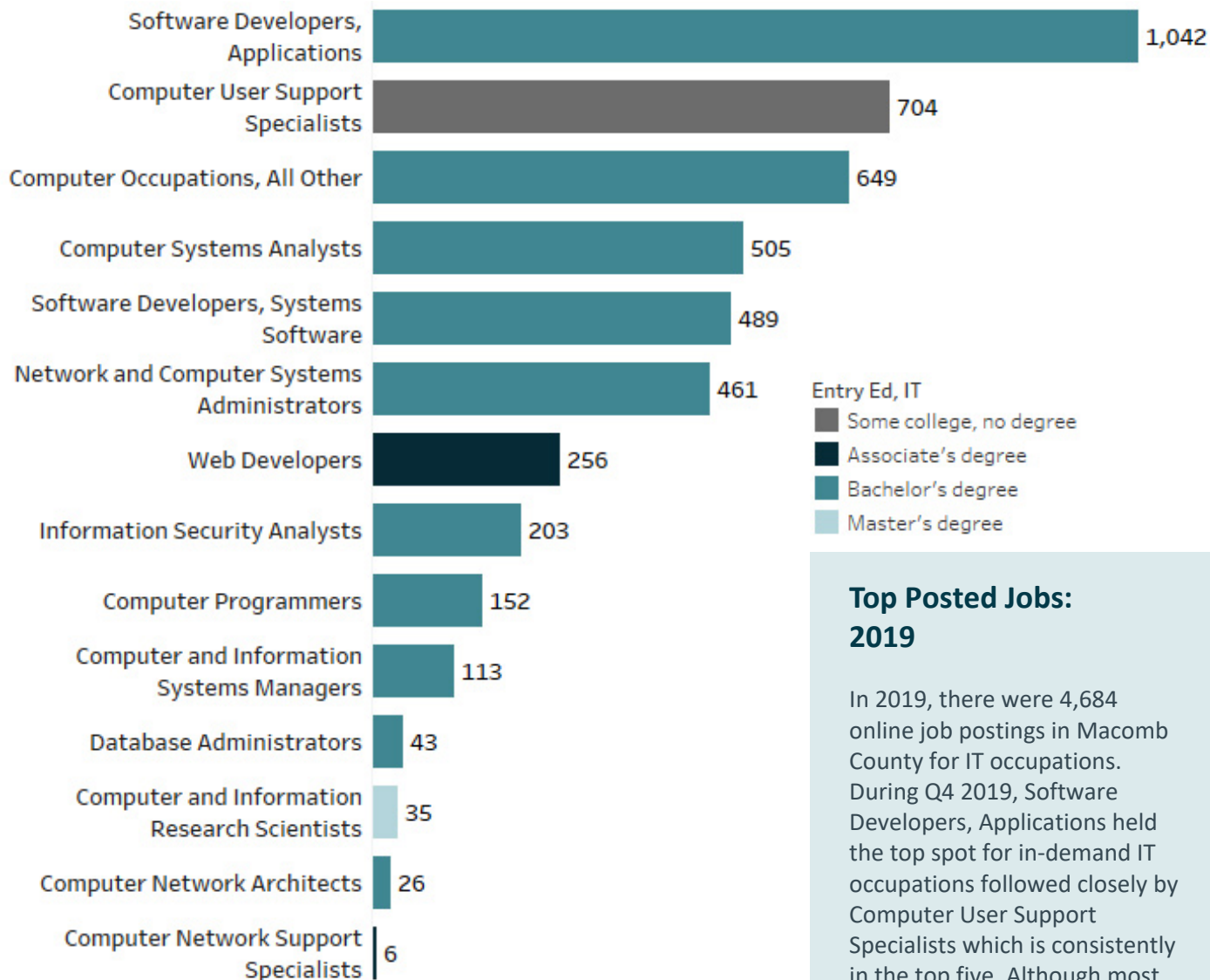
73.1% White | **10.3% Black or African American** | **2.6% Hispanic or Latino**

Worker Age Demographics





IT Top Posted Jobs 2019



Top Posted Jobs: 2019

In 2019, there were 4,684 online job postings in Macomb County for IT occupations. During Q4 2019, Software Developers, Applications held the top spot for in-demand IT occupations followed closely by Computer User Support Specialists which is consistently in the top five. Although most of the top IT jobs typically posted the requirement for a bachelor's degree, Computer User Support Specialists, typically require only an associate degree. Computer Systems Analysts, and Software Developers, Systems Software were also in the top five job postings for Macomb County.



IT Wage Overview

IT occupations across the board offer high wages even to individuals that are at the entry-level, although most require a bachelor's degree. Software Developers, Applications, the top posted IT job in Q4 2019, offers a median hourly wage of \$44.02 per hour or roughly \$91,000 per year according to the Bureau of Labor Statistics (BLS). Computer and Information Systems Managers earn the highest median wage among the top ten posted IT occupations at \$61.82 per hour or approximately of \$130,000 annually. Several occupations that have fewer qualifications, such as Computer User Support Specialists, which is consistently in the top five, and Web Developers, make over \$22 per hour at the median.

Wage Overview for Top Posted IT Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	\$28.67	\$35.05	\$44.02	\$54.72	\$63.09
15-1151	Computer User Support Specialists	\$13.40	\$16.76	\$22.39	\$29.08	\$37.32
15-1199	Computer Occupations, All Other	\$19.84	\$27.22	\$37.18	\$48.22	\$58.96
15-1121	Computer Systems Analysts	\$25.37	\$31.46	\$38.99	\$48.92	\$60.09
15-1133	Software Developers, Systems Software	\$24.04	\$34.87	\$45.09	\$54.67	\$64.49
15-1142	Network and Computer Systems Administrators	\$24.65	\$30.84	\$37.91	\$47.67	\$57.25
15-1134	Web Developers	\$19.06	\$25.77	\$33.29	\$42.32	\$48.52
15-1122	Information Security Analysts	\$28.86	\$33.88	\$43.16	\$55.11	\$63.45
15-1131	Computer Programmers	\$23.88	\$31.31	\$37.92	\$45.74	\$52.65
11-3021	Computer and Information Systems Managers	\$39.61	\$50.06	\$61.82	\$75.73	\$94.59

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Software Engineering
- Java
- C++
- SQL
- Software Development

In-Demand Foundational Skills

- Management
- Troubleshooting
- Problem Solving
- Communication
- Integration

In-Demand Education Level*

- High School Diploma: 8.2%
- Associate Degree: 4.8%
- Bachelor's Degree: 54.6%
- Master's Degree: 13.3%

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

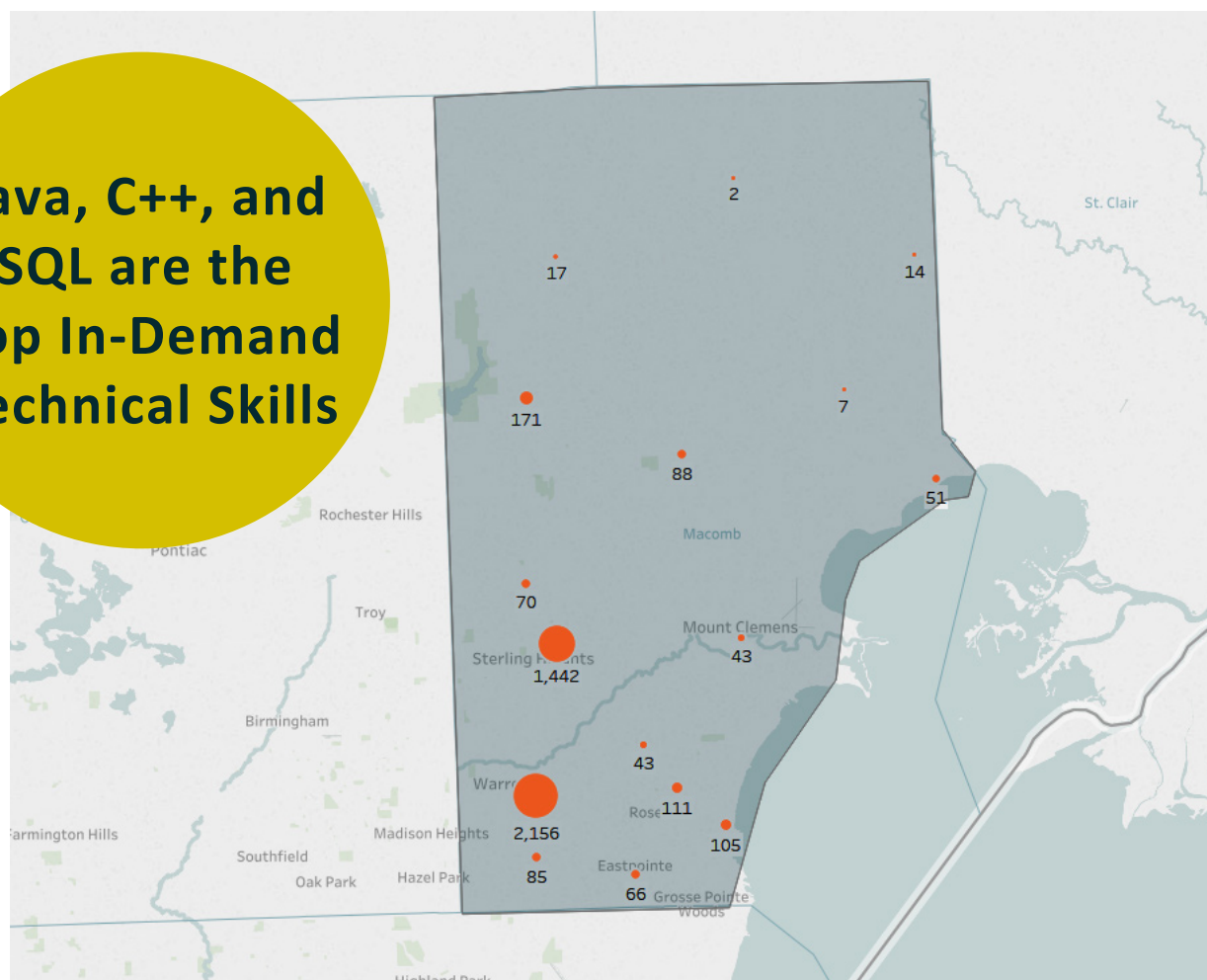
In-Demand Certifications

- Certified Information Systems Security Professional (CISSP)
- CompTIA Security+
- Project Management Professional (PMP)
- Microsoft Certified Systems Administrator (MCSA)
- Cisco Certified Network Associate (CCNA)



Employer Demand by City

Java, C++, and SQL are the Top In-Demand Technical Skills



Top Posting Employers*

- General Motors Company
- Computer Task Group, Incorporated
- General Dynamics Corporation
- Revature
- DCS Corporation
- BAE Systems S PLC
- Ascension Health
- Teksystems, Inc.
- Moseley Technical Services, Inc
- Kelly Services, Inc.

Job Postings by City

1. Warren: 2,156 Postings
2. Sterling Heights: 1,442 Postings
3. Washington: 171 Postings
4. Clinton Township: 139 Postings
5. Roseville: 111 Postings
6. Saint Clair Shores: 105 Postings
7. Macomb: 88 Postings
8. Center Line: 85 Postings
9. Chesterfield: 73 Postings
10. Utica: 70 Postings

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



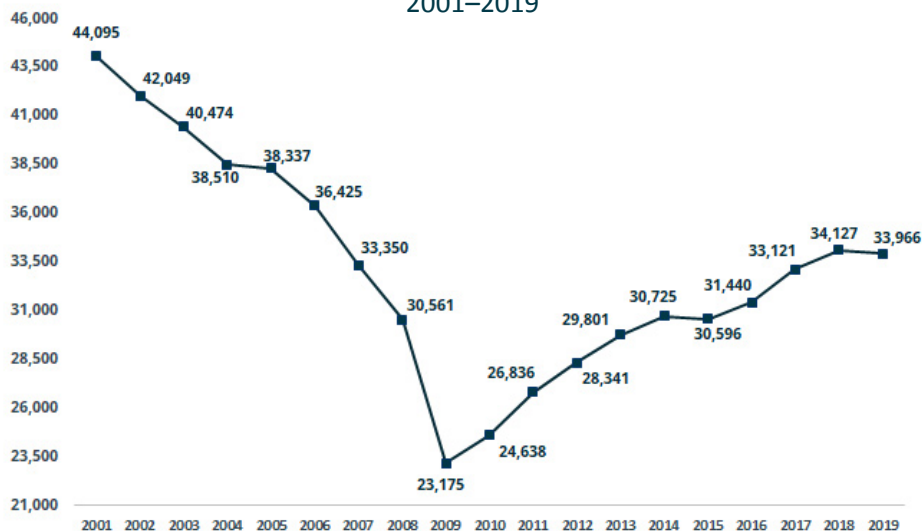
Introduction

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. There are about 21,000 openings for these workers annually.

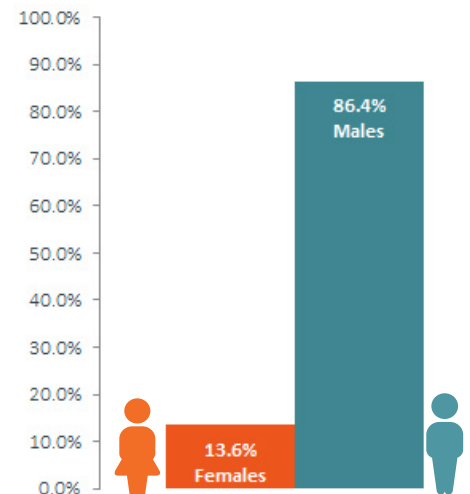
NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.



Employment Over Time
2001–2019



Worker Gender Demographics



Skilled Trades Worker Demographics

According to the most recent Emsi data set available (2019), the skilled trades occupation group employs about 34,000 workers in Macomb County. A majority of skilled trades workers are white males between the ages of 25 and 54. Additional outreach may be necessary in the near future, as at 27.9 percent, the group has a somewhat higher proportion than average of workers over age 55.

Race and Ethnicity Demographics

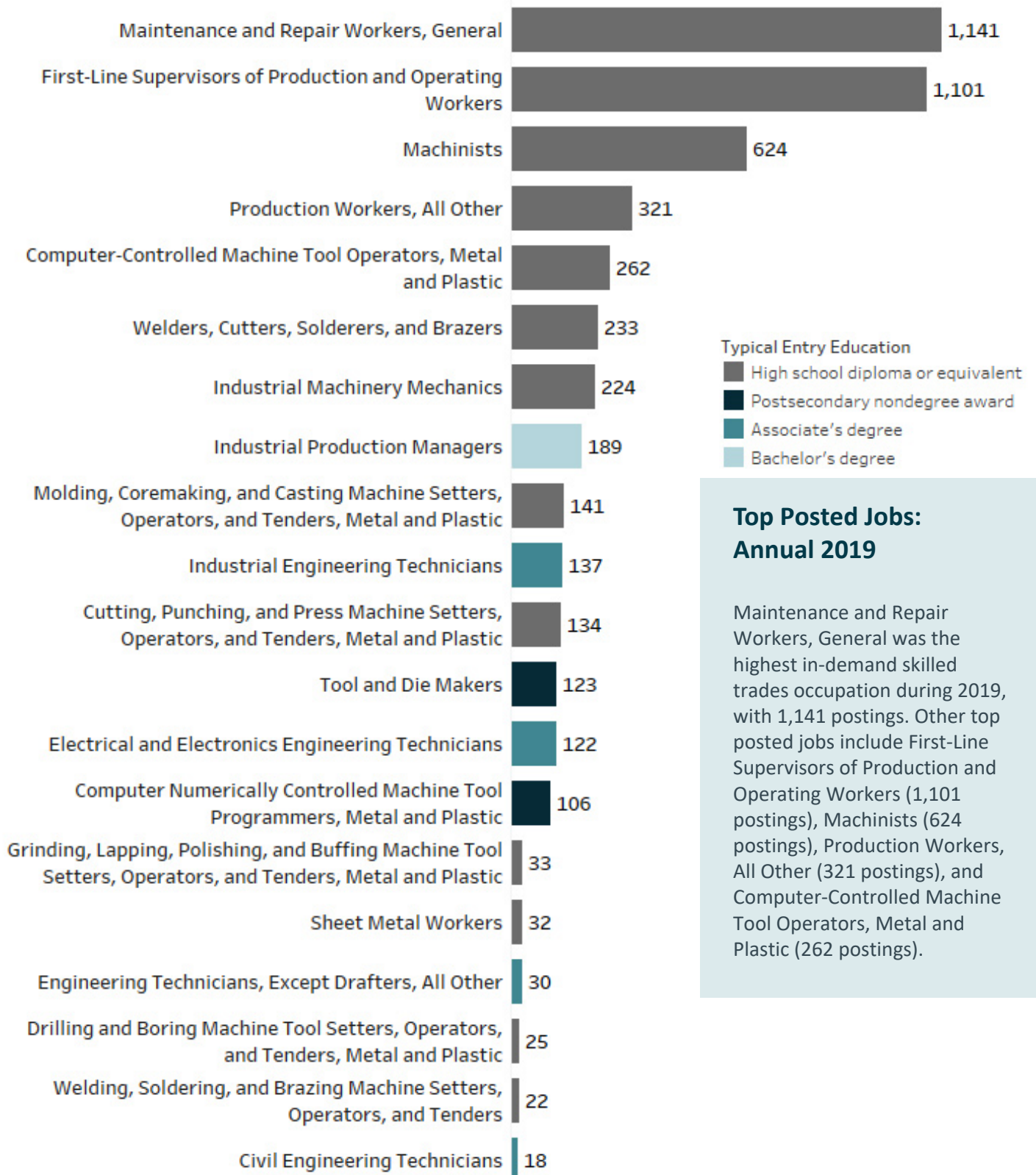
77.9% White | **14.3% Black or African American** | **3.2% Hispanic or Latino**

Worker Age Demographics





Skilled Trades Top Posted Jobs 2019





Skilled Trades Wage Overview

Four of the top ten in-demand skilled trades occupations have median wages above \$20 per hour according to the Bureau of Labor Statistics (BLS), and three more above the state's median wage of \$18.08. Maintenance and Repair Workers, General, the top posted skilled trades job in 2019, offers a median hourly wage of \$16.23. This translates to an annual salary of about \$35,800.

Wage Overview for Top Posted Skilled Trades Jobs in 2019

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	\$10.31	\$12.66	\$16.23	\$21.58	\$27.05
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.74	\$24.20	\$31.99	\$41.01	\$50.63
51-4041	Machinists	\$11.33	\$15.30	\$19.99	\$25.96	\$30.14
51-9199	Production Workers, All Other	\$9.25	\$10.44	\$14.71	\$20.60	\$31.84
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$12.24	\$14.57	\$19.31	\$23.77	\$29.48
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.21	\$15.77	\$18.79	\$23.36	\$28.89
49-9041	Industrial Machinery Mechanics	\$15.11	\$19.31	\$24.67	\$30.67	\$36.48
11-3051	Industrial Production Managers	\$34.81	\$43.78	\$54.94	\$68.55	\$84.88
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	\$10.02	\$11.22	\$13.83	\$17.26	\$23.98
17-3026	Industrial Engineering Technicians	\$16.90	\$21.05	\$26.62	\$33.65	\$39.25

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Tooling
- Machining
- Lathes
- Blueprinting
- Grinding

In-Demand Foundational Skills

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

In-Demand Education Level*

- High School Diploma: 34.7%
- Associate Degree: 5.3%
- Bachelor's Degree: 13.1%
- Master's Degree: 1.2%

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

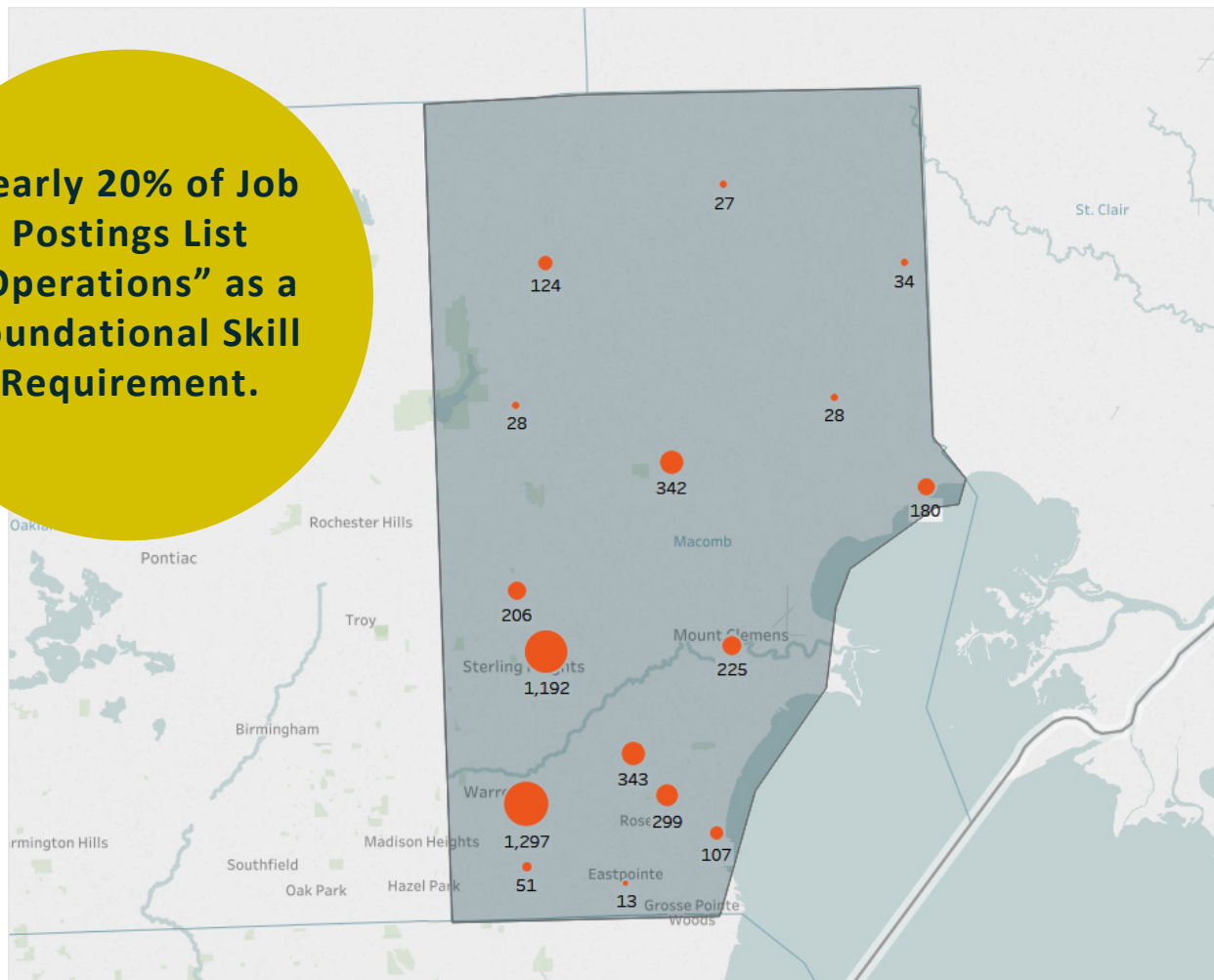
In-Demand Certifications

- HVAC Certification
- EPA 608 Technician Certification
- Commercial Driver's License (CDL)
- Six Sigma Green Belt Certification
- Certified Forklift Operator



Employer Demand by City

Nearly 20% of Job Postings List “Operations” as a Foundational Skill Requirement.



Top Posting Employers*

- Nesco Resource
- The Adecco Group
- Aerotek, Inc.
- FCA US LLC
- Sentech Services
- American Axle & Manufacturing, Inc.
- Express Employment Professionals
- Spark Inc
- Start
- Sodecia USA Automotive Corp.

Job Postings by City

1. Warren: 1,297 Postings
2. Sterling Heights: 1,192 Postings
3. Clinton Township: 366 Postings
4. Fraser: 343 Postings
5. Macomb: 342 Postings
6. Chesterfield: 333 Postings
7. Roseville: 299 Postings
8. Mount Clemens: 225 Postings
9. Utica: 206 Postings
10. New Baltimore: 180 Postings

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

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