

Annual 2019
January–December

WASHTENAW COUNTY

WIN Labor Market Report





Report Contents

- 2 - State of the Labor Market
- 3 - Key Findings
- 4 - Workforce Overview
- 5 - Real-Time Demand Overview

Occupation Groups

- 12 - Business and Finance
- 16 - Engineers and Designers
- 20 - Health Care
- 24 - Information Technology
- 28 - Skilled Trades

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 Washtenaw 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 Washtenaw county and includes summative data for January through December of 2019. The Business and Finance, Engineers and Designers, Health Care, Information Technology, and Skilled Trades occupation groups are analyzed for Washtenaw 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.



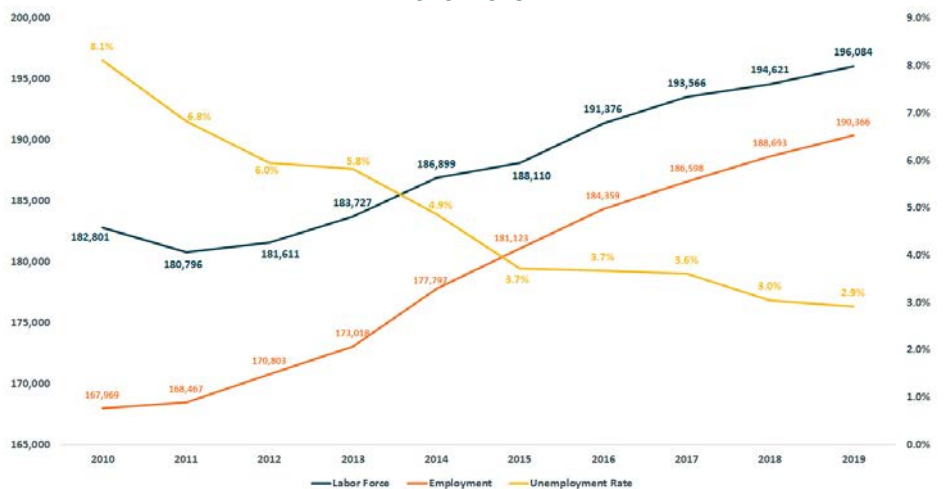
State of the Labor Market in Washtenaw County

In the fourth quarter of 2019, the labor force and employment figures increased in Washtenaw County. A smaller change in labor force than in employment caused the number of unemployed individuals to decrease in the region. The unemployment rate decreased from the 3.5 percent quarterly rate in Q3 2019 to the current rate of 2.3 percent in Q4 2019. Employer demand for nearly all occupation groups analyzed by WIN were strong during 2019, with more than 84,000 unique job postings.

Annual Labor Market Information

The labor force in Washtenaw County continues to grow, increasing by 1,463 individuals between 2018 and 2019 annual figures. Employment increased by 1,674 workers between 2018 and 2019. As the increase in employment accounted the sustained increase in labor force, the unemployment rate decreased slightly. From an annual unemployment rate of 3.0 percent in 2018, the annual rate has decreased by 0.1 percentage points to the current rate of 2.9 percent in 2019 for Washtenaw County.

Annual Labor Force, Employment, Unemployment Rate
2010–2019

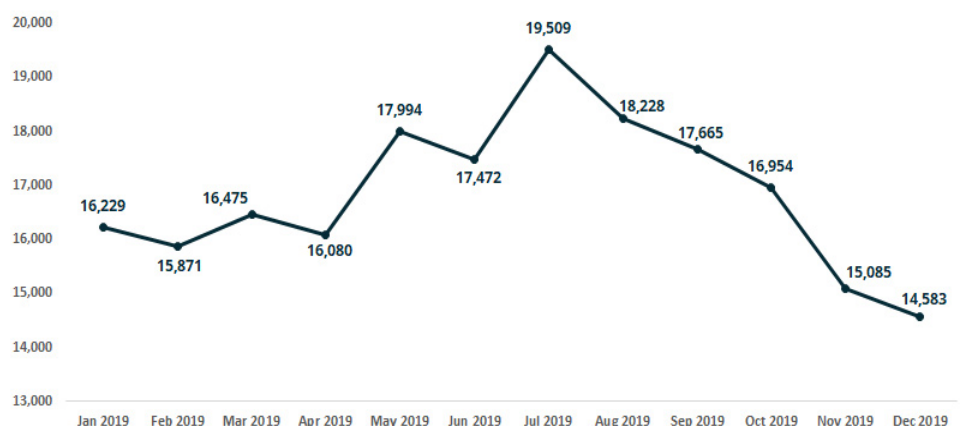


Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data from the fourth quarter of 2019, including posting information from October, November, and December, showed a slight decrease in employer demand levels in Washtenaw County. There were 7,770 fewer postings during Q4 2019 compared to the 55,947 postings made by employers during Q3 2019, but only 2,796 fewer postings than during Q4 2018.

Monthly Posting Analysis,
Washtenaw County 2019



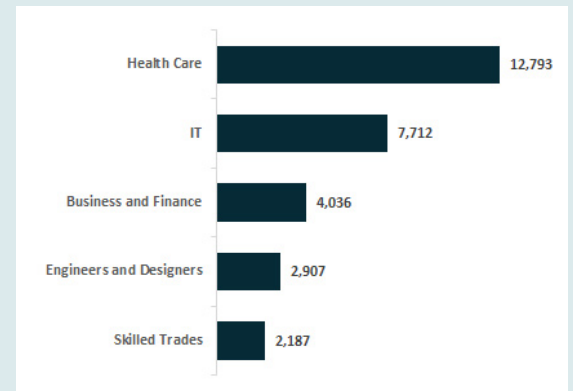
Data: Emsi | Analysis: Workforce Intelligence Network



During 2019, employers posted 84,991 online job ads in Washtenaw county, comprising 8.0 percent of postings across the full WIN region.

There were 84,991 job postings during 2019 in the county, growing 9.2 percent between the first quarter of the year and the record high demand in the third quarter. Health Care occupations accounted for 12,793 of those, or about 15.1 percent of all postings, meaning that this group has a high level of influence on posting trends overall. For more information about quarterly job postings, see page 9.

**Postings by Occupation Group
2019**



During the fourth quarter of 2019, the unemployment rate reached the lowest rate since December 2000 and unemployment dropped substantially since annual peak in Q3 2019.

As employment and labor force participation have grown in congruity, employer demand has expanded to meet labor supply and further decrease the unemployment rate. As employment increased 2.8 percentage since Q3 2019 to Q4 2019, the labor force has increased by 1.5 percent during the same period. As the unemployment rate has continued to stay low over the last year, the actual number of unemployed individuals has decreased substantially in Q4 since peaking for the year during Q3, from 6,829 to 4,574 individuals a 33 percent decrease, a difference of 2,255 individuals. However, since Q4 2019, unemployment has decreased only 13.5%, a difference of 716 individuals.

Annual Labor Market Data

	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	182,801	180,796	181,611	183,727	186,899	188,110	191,376	193,566	194,621	196,084	1463	0.8%
Employment	167,969	168,467	170,803	173,018	177,797	181,123	184,359	186,598	188,693	190,366	1674	0.9%
Unemployment	14,832	12,330	10,808	10,709	9,102	6,988	7,017	6,968	5,928	5,718	-211	-3.6%
Unemployment Rate	8.1%	6.8%	6.0%	5.8%	4.9%	3.7%	3.7%	3.6%	3.0%	2.9%	-0.1%	na

During the fourth quarter of 2019, employment in Washtenaw County grew by 2,320 workers.

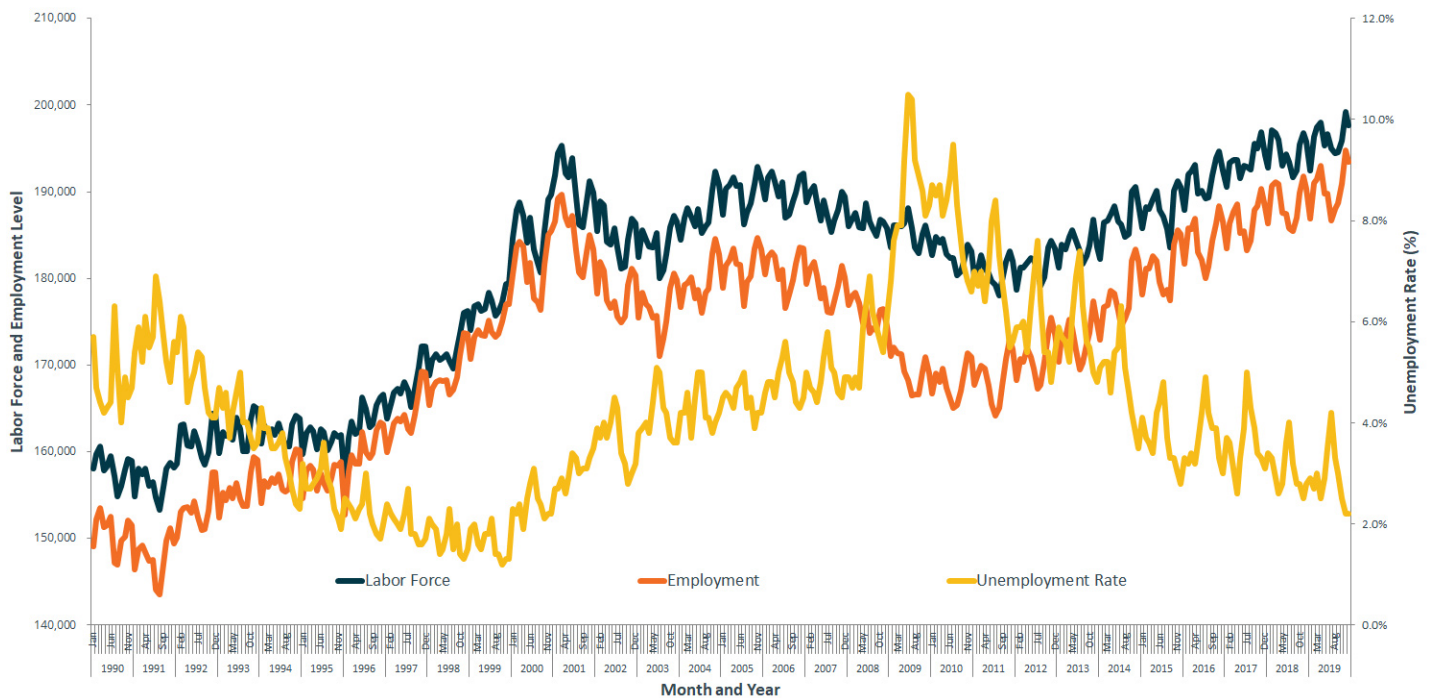
After mostly consistent growth in the labor force throughout 2019, during the fourth quarter participation rose even further. During Q4 2019, labor force figures were 1.5 percent greater (2,945 individuals) than in Q3 2019, and 0.8 percent greater (1,604 individuals) than in Q4 2018. The growth in labor force participants was joined by a further 5,209-worker growth in employment compared to Q3 2019. The faster growth in employment than labor force caused the unemployment rate to decrease from 3.5 percent in Q3 2019 to 2.3 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 Washtenaw County has experienced consistent employment growth since 2010. The labor force rose by 2,954 workers (1.5 percent) between Q3 2019 and Q4 2019. Employment in Washtenaw county area also increased from Q3 2019 to Q4 2019, by 5,209 workers. Year-over-year, this represents an increase of 2,320 workers (1.2 percent) over Q4 2018. With labor force increasing at a slower rate than employment, the unemployment rate decreased this quarter: the quarterly unemployment rate decreased by 1.2 percentage points between Q3 2019 and Q4 2019 to 2.3 percent.

Labor Force, Employment, Unemployment Rate
1990-2019



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data
Q4 2018 - Q4 2019

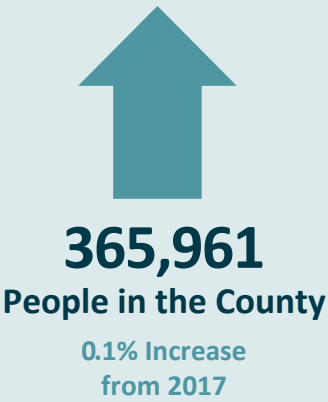
	4th Quarter 2018	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	Change from 3rd Quarter 2019	Percent Change from 3rd Quarter 2019	Change from 4th Quarter 2018	Percent Change from 4th Quarter 2018
Labor Force	195,986	195,405	196,704	194,636	197,590	2,954	1.5%	1,604	0.8%
Employment	190,696	189,780	190,861	187,808	193,016	5,209	2.8%	2,320	1.2%
Unemployment	5,290	5,625	5,843	6,829	4,574	-2,255	-33.0%	-717	-13.5%
Unemployment Rate	2.7%	2.9%	3.0%	3.5%	2.3%	-1.2%	na	-0.4%	na

Note: Monthly data averaged by quarter | Data: BLS



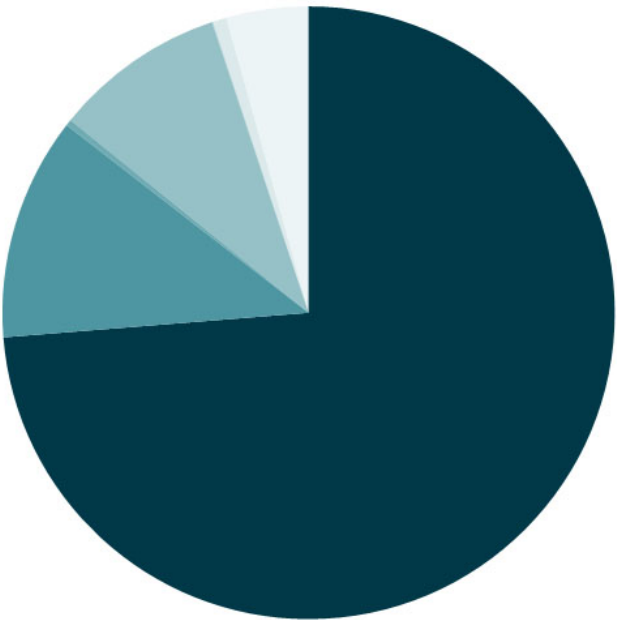
Population Demographics

According to data from the most recent Census Bureau 2018 ACS Five Year estimates, the population in Washtenaw county increased by nearly 0.1 percent between 2017 and 2018. During 2018, 365,961 people were living in Washtenaw county. 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 (74 percent) with the second largest number of individuals identifying as black or African American (12 percent). The county as a whole is facing an aging population; 24.4 percent of population was over the age of 55, compared to 22.3 percent under the age of 24.

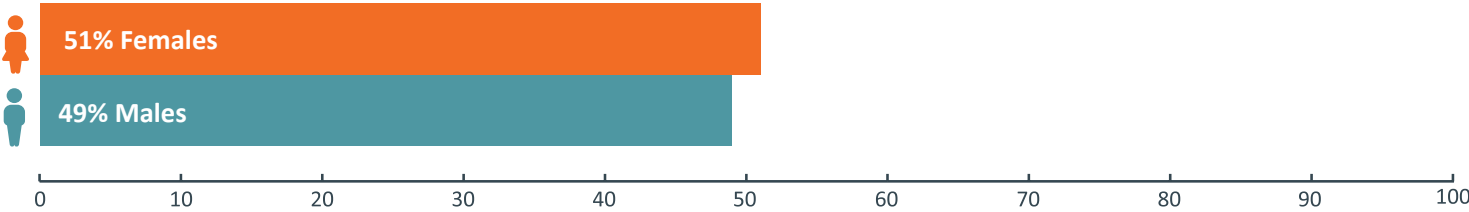


Population Race
Demographics

- White, 73.7%
- Black or African American, 11.8%
- American Indian or Alaska Native, 0.3%
- Asian, 9.1%
- Native Hawaiian or Other Pacific Islander, 0.1%
- Other Race, 0.7%
- Two or More Races, 4.3%



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 196,084 people in the labor force, individuals that were either working or looking for work, in Washtenaw county. Slightly less than half of the population of 365,961 individuals (47.3 percent) living in the region 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 16.6 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 8.6 percent.

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	196,929	187,609	9,320	4.7%
Sex				
Male 16+	103,367	98,329	5,038	4.9%
16-19	5,705	4,758	947	16.6%
20-24	16,381	15,213	1,168	7.1%
25-54	60,986	58,688	2,298	3.8%
55-64	14,602	14,138	464	3.2%
65 Plus	5,693	5,532	161	2.8%
Female 16+	93,562	89,280	4,282	4.6%
16-19	6,556	5,640	916	14.0%
20-24	16,261	15,273	988	6.1%
25-54	52,728	51,027	1,701	3.2%
55-64	13,748	13,234	514	3.7%
65 Plus	4,269	4,106	163	3.8%
Race				
White	148,795	142,624	6,101	4.1%
Black / African American	22,441	20,467	1,930	8.6%
Native American	614	572	42	6.8%
Asian	17,045	16,387	665	3.9%
Native Hawaiian / Pacific Islander	135	112	23	17.0%
Some Other Race	1,437	1,385	53	3.7%
Two or More Races	6,564	6,047	512	7.8%
Ethnicity				
Hispanic	8,784	8,379	404	4.6%

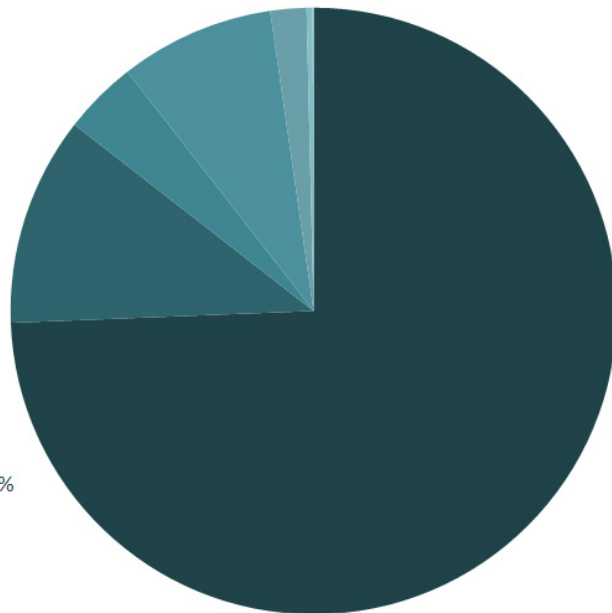


Current Workforce Demographics

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. So far in 2019, there are a total of 187,609 individuals working in Washtenaw county. A slight majority (52 percent or 98,329 workers) were male, while 48 percent (89,280 workers) of the workforce was female. Most of those working in the county were white, accounting for 74.4 percent of the workforce, while African American or black workers accounted for 11.2 percent of the workforce. 16.7 percent of workers were under the age of 25 compared to 21.9 percent over the age of 55, indicating that while Washtenaw county faces the same aging workforce as the region as a whole, it is not as pronounced.

Workforce Race and Ethnicity Demographics

- White, 74.4%
- Black or African American, 11.2%
- Hispanic or Latino, 3.9%
- Asian, 8.2%
- Two or More Races, 1.9%
- American Indian or Alaska Native, 0.3%
- Native Hawaiian or Other Pacific Islander, 0.1%



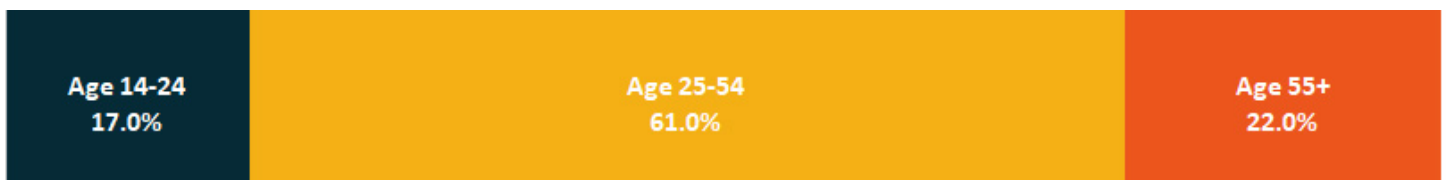
Workforce Gender Demographics



52% Males
48% Females



Workforce Age Demographics

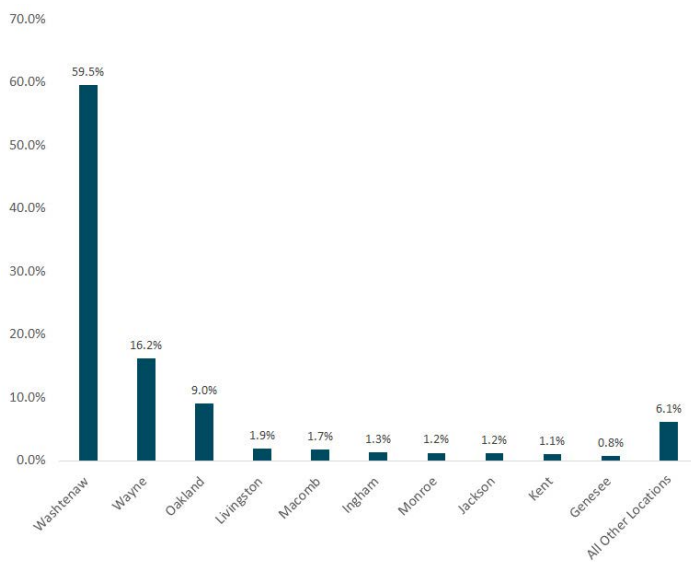




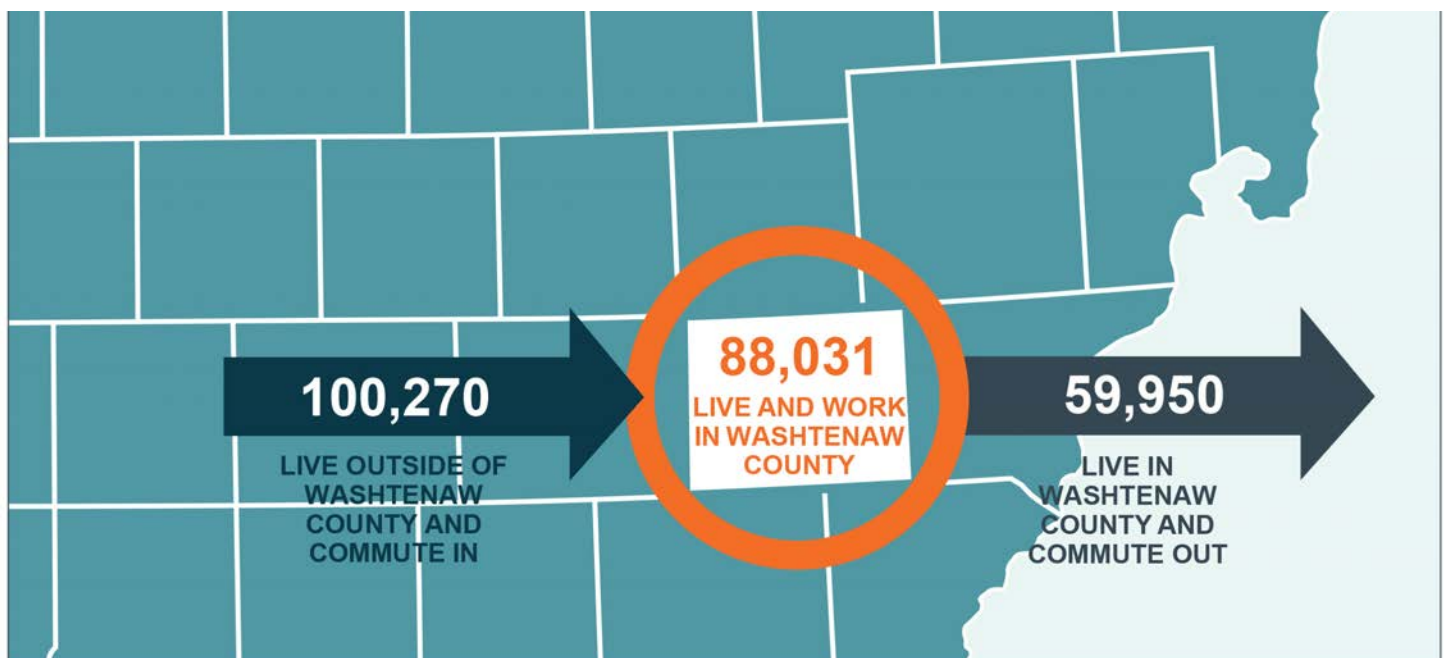
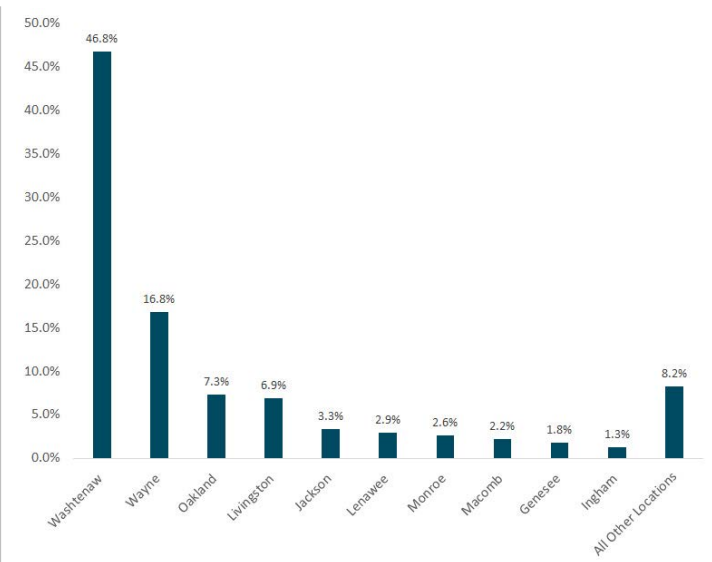
Regional Commuting Patterns

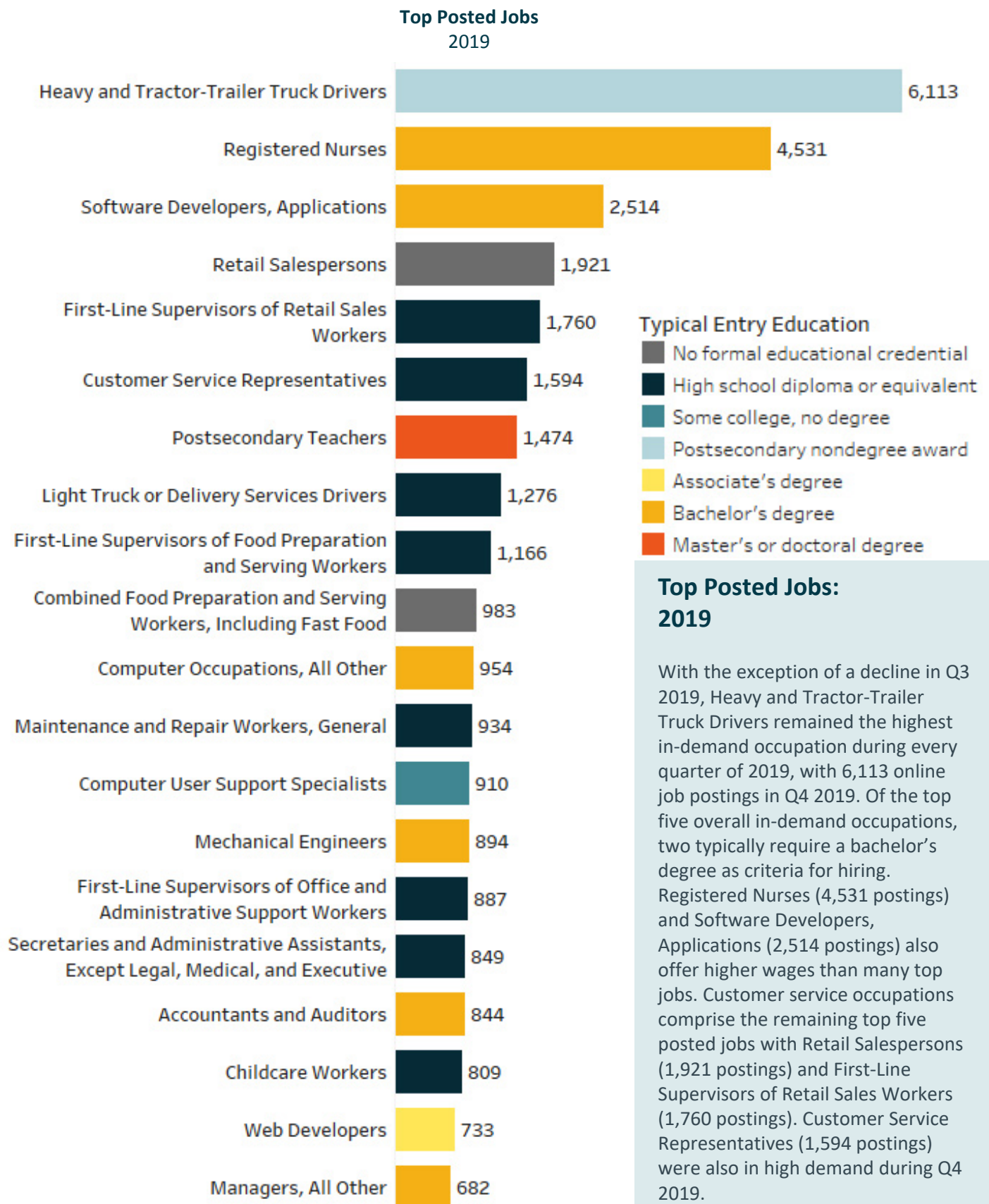
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, Washtenaw county's workforce consisted of 147,981 residents. 88,031 (59.5 percent) of the residents lived and worked in Washtenaw county, while the remaining 59,950 residents (40.5 percent) traveled outside of the region for work. There were 188,301 workers employed in the region during 2015. Of those, 100,270 workers (53.2 percent) lived outside of the region's borders and commuted in. From this information, we can see that the Washtenaw county is a net importer of jobs, with more workers coming to the area for employment than outwardly commuting.

Where Washtenaw County Residents Work



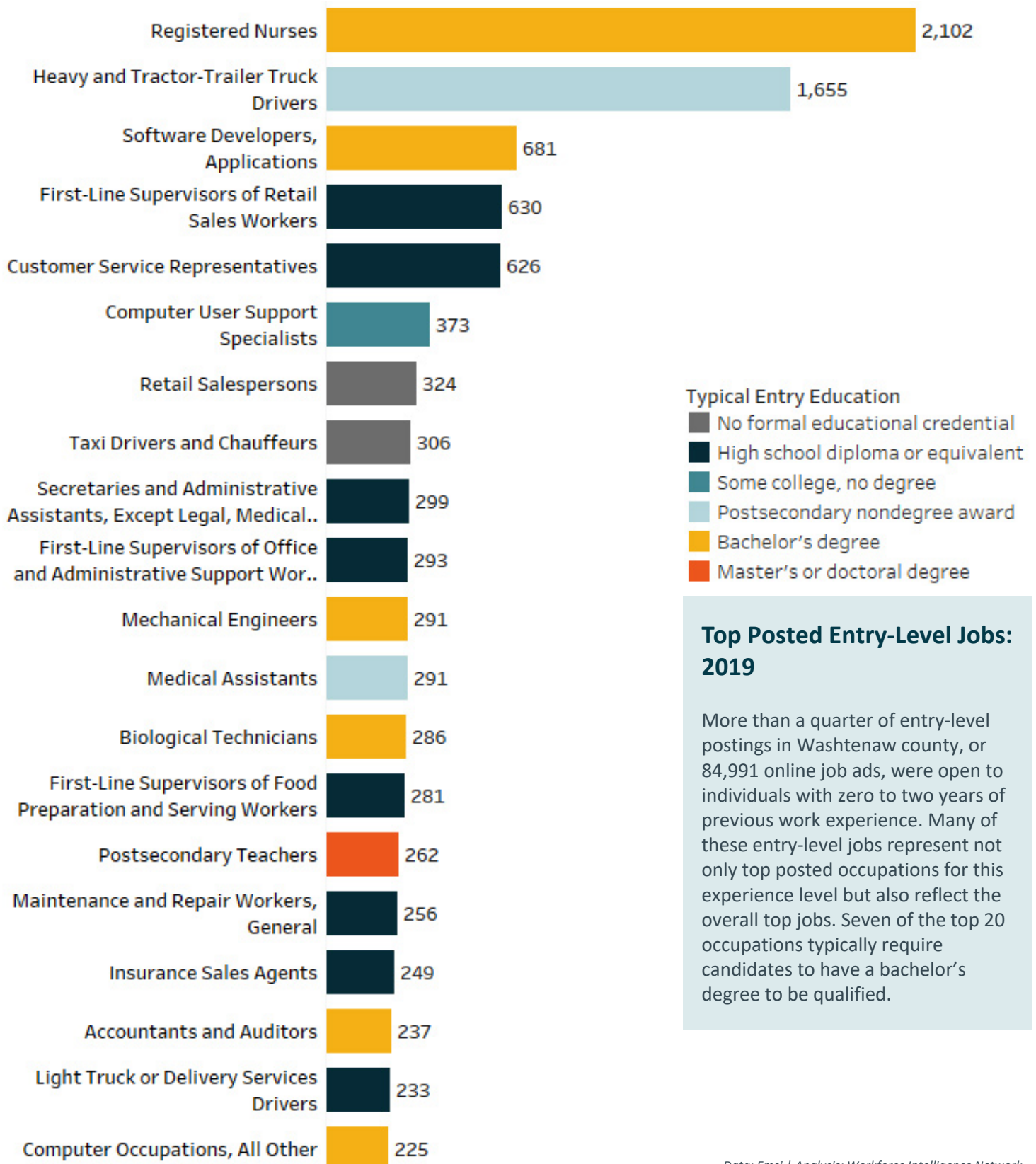
Where Washtenaw County Workers Live





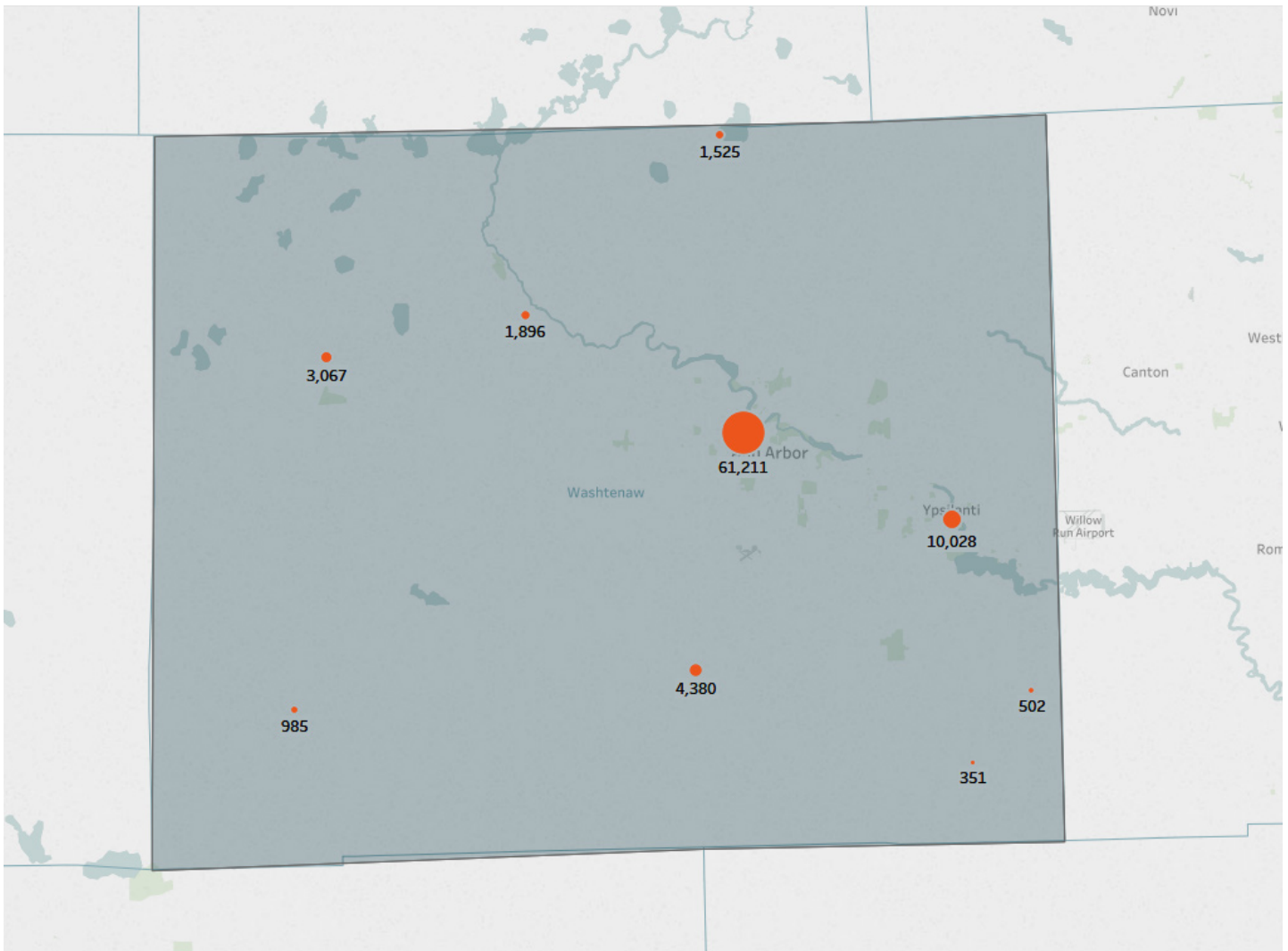


Top Posted Entry-Level Jobs 2019





Employer Demand by City



Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Certified Nursing Assistant
- Licensed Practical Nurse
- Nurse Practitioner
- ServSafe Certification
- Automotive Service Excellence (ASE) Certification
- Patient Care Technician
- Certified Public Accountant
- Critical Care Registered Nurse (CCRN)
- National Council Licensure Examination

Top In-Demand Skills

- Nursing
- Restaurant Operation
- Merchandising
- Selling Techniques
- Accounting
- Auditing
- Customer Experience
- Food Services
- Agile Software Development
- SQL

Top Posting Employers*

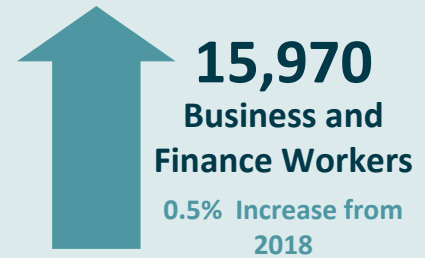
- University of Michigan
- Trinity Health Corporation
- ManpowerGroup Global
- Domino's Pizza
- Ann Inc.
- Eastern Michigan University
- Thomson Reuters Corporation
- McDonald's Corporation
- Regents of The University of Michigan
- CRST International, Inc.

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

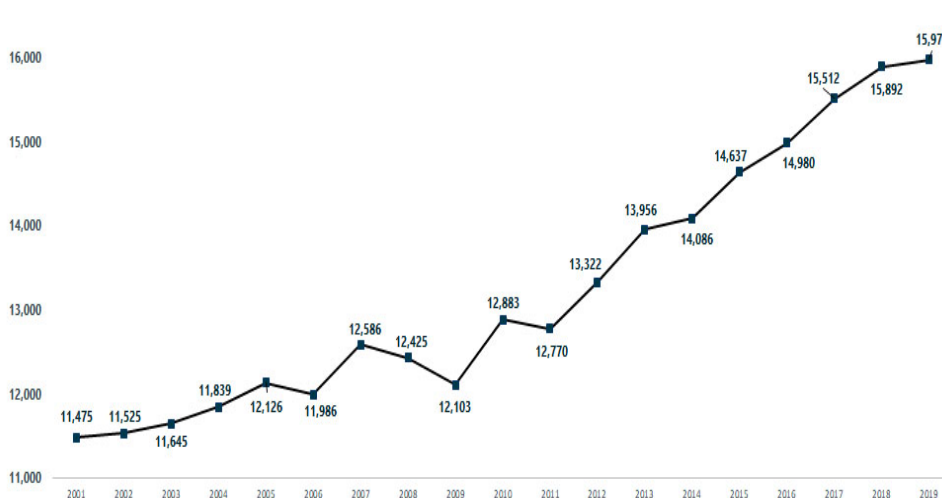


Introduction

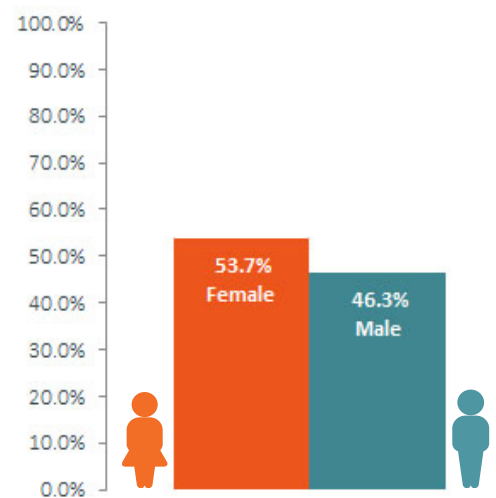
Jobs in the business and finance occupation group can be found in nearly every type of establishment/firm throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast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



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 78 workers since 2018, resulting in 15,970 workers in 2019. Half or 53.7 percent of the working population identify as female, while 81.2 percent of workers identified as white, indicating very little diversity regarding race. Only 6.6 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 68.9 percent of the workforce.

Race and Ethnicity Demographics

81.2% White | 7.8% Black or African American | 2.6% Hispanic or Latino

Worker Age Demographics





Business and Finance Top Posted Jobs 2019





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, Accountants and Auditors, offers median hourly wages of \$33.67, translating to annual earnings of approximately \$67,340. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to median wages around \$58.47 hourly, or about \$116,940 annually. Entry level occupations also see high median wages of \$29.06, earning about \$58,120 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
13-2011	Accountants and Auditors	\$20.28	\$26.13	\$33.67	\$44.52	\$56.53
11-2021	Marketing Managers	\$30.30	\$40.40	\$56.62	\$76.80	\$115.22
41-3021	Insurance Sales Agents	\$13.50	\$17.98	\$26.00	\$35.72	\$43.07
13-1161	Market Research Analysts and Marketing Specialists	\$18.19	\$23.53	\$31.47	\$42.17	\$56.76
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$15.13	\$19.87	\$29.06	\$46.97	\$67.20
13-1111	Management Analysts	\$21.59	\$26.51	\$34.37	\$48.51	\$70.11
27-3031	Public Relations Specialists	\$19.43	\$23.74	\$31.13	\$39.73	\$49.75
11-3031	Financial Managers	\$31.59	\$43.03	\$58.47	\$74.81	\$111.15
13-1071	Human Resources Specialists	\$21.79	\$26.67	\$33.79	\$40.97	\$50.17
13-1199	Business Operations Specialists, All Other	\$18.04	\$23.69	\$30.84	\$40.49	\$52.04

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Auditing
- Selling Techniques
- Financial Statements
- Forecasting

In-Demand Foundational Skills

- Sales
- Management
- Communications
- Research
- Leadership

In-Demand Education Level*

- High School Diploma: 9.4%
- Associate Degree: 4.8%
- Bachelor's Degree: 51.1%
- Master's Degree: 15.6%

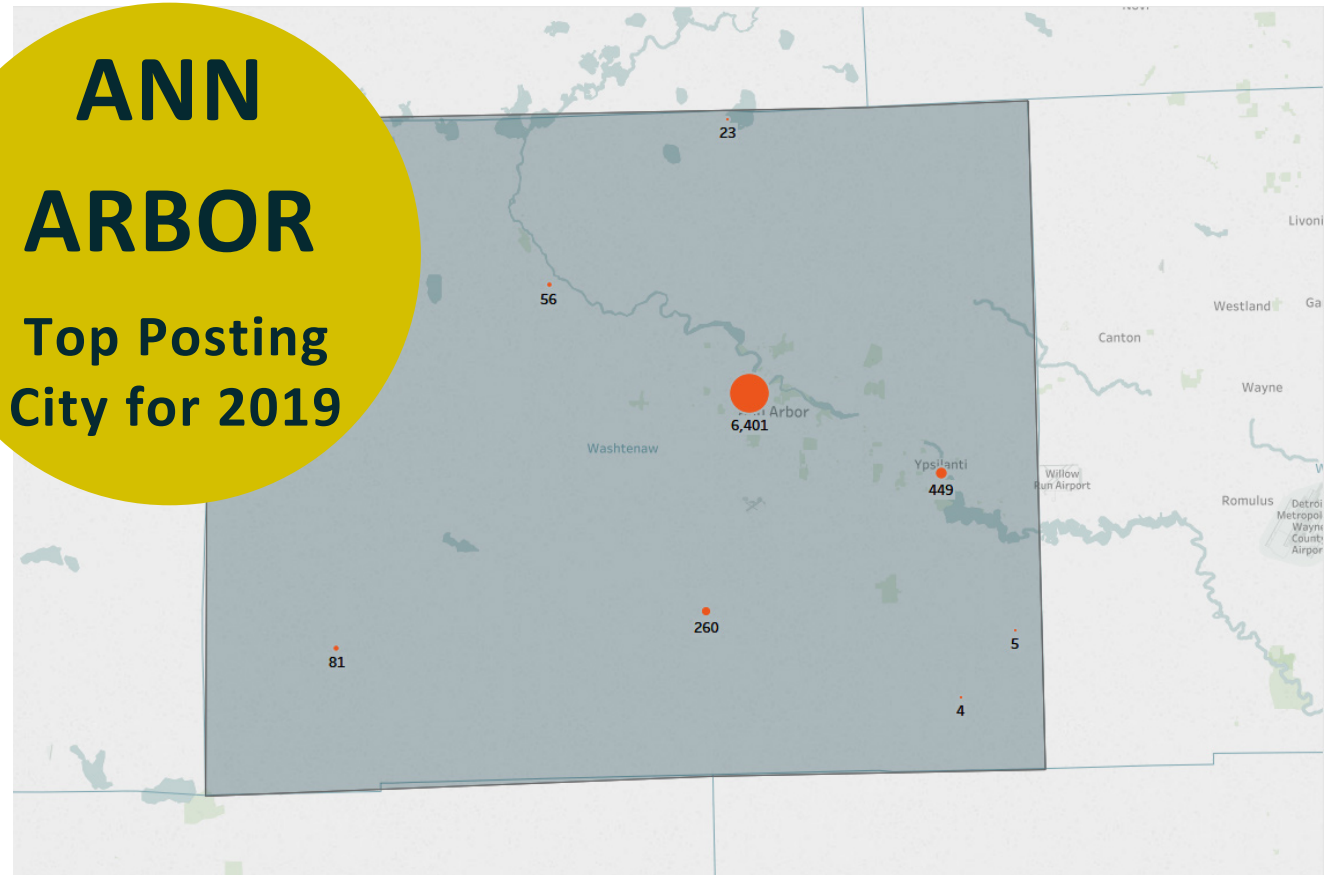
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications

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



Employer Demand by City



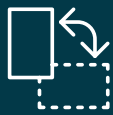
Top Posting Employers*

- University of Michigan
- Thomson Reuters Corporation
- Assurance
- Amcor Limited
- Domino's Pizza
- Nsf International
- Proquest
- H&R Block, Inc.
- KLA-Tencor Corporation
- Robert Half International Inc.

Job Postings by City

1. Ann Arbor: 6,401 Postings
2. Ypsilanti: 449 Postings
3. Saline: 260 Postings
4. Manchester: 81 Postings
5. Chelsea: 56 Postings
6. Dexter: 23 Postings
7. Whitmore Lake: 19 Postings
8. Superior: 7 Postings
9. Bridgewater: 7 Postings
10. Pittsfield: 7 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.

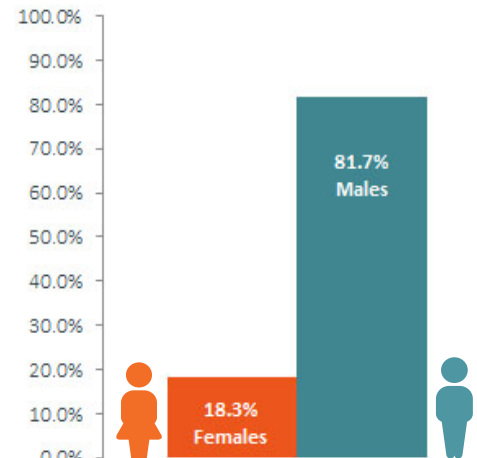


6,104
Engineering Workers
1.1% Increase
from 2018

Employment Over Time
2001–2019



Worker Gender Demographics



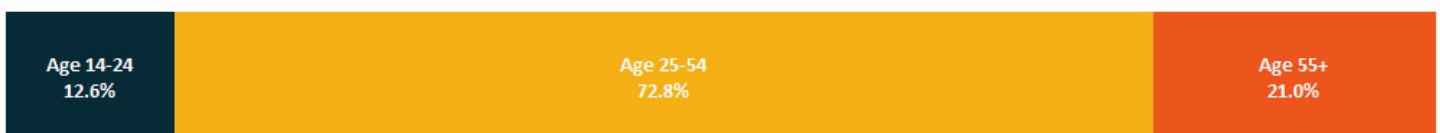
Engineering and Design Worker Demographics

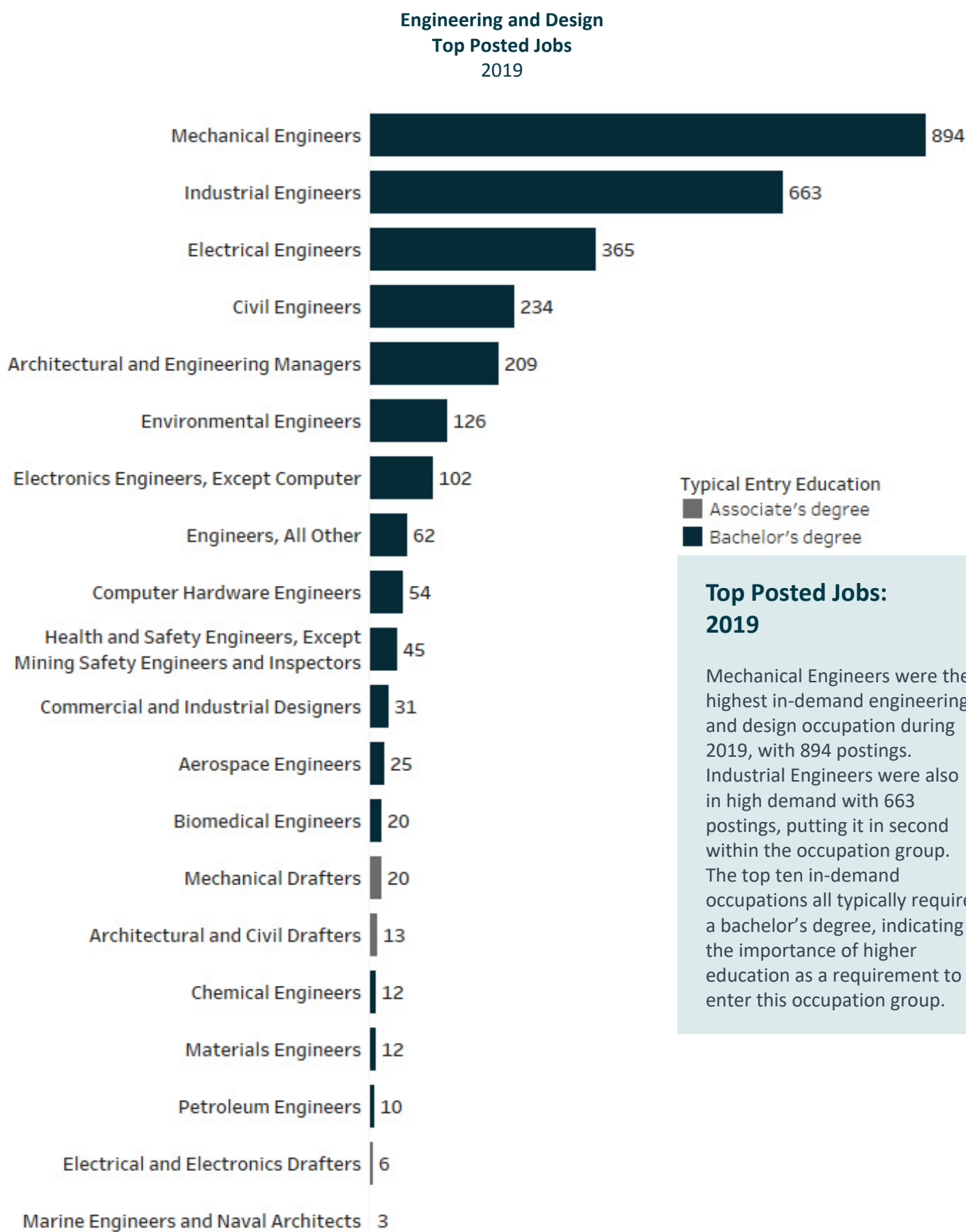
According to the most recent Emsi data set available (2019), the nearly 6,000 workers in the engineering and design group, while not particularly diverse, are more diverse than in surrounding counties in Southeast Michigan. Just 12.6 percent of the related workforce is under 25, likely due to the consistently high educational requirements (however, this is a higher percentage of engineers and designers under 25 than surrounding counties). 18.3 percent of current workers are female (which is also higher than other counties), and only 19 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

80.9% White | 10.5% Asian | 4.5% 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 \$36 per hour across the group, and the top posted engineering and design job, Mechanical Engineers, offers a median hourly wage of \$35.31. This reflects an annual salary of approximately \$73,000 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
17-2141	Mechanical Engineers	\$44.60	\$26.84	\$35.31	\$55.08	\$61.48
17-2112	Industrial Engineers	\$44.19	\$30.80	\$36.59	\$54.33	\$62.44
17-2071	Electrical Engineers	\$41.73	\$26.24	\$33.82	\$51.77	\$60.35
17-2051	Civil Engineers	\$43.48	\$21.60	\$34.14	\$55.98	\$63.20
11-9041	Architectural and Engineering Managers	\$65.38	\$42.45	\$54.57	\$78.69	\$96.83
17-2081	Environmental Engineers	\$40.97	\$28.32	\$34.18	\$52.19	\$59.67
17-2072	Electronics Engineers, Except Computer	\$45.46	\$31.36	\$39.07	\$57.25	\$70.38
17-2199	Engineers, All Other	\$42.49	\$18.70	\$34.57	\$53.56	\$61.84
17-2061	Computer Hardware Engineers	\$59.41	\$37.49	\$47.36	\$85.99	\$96.60
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$28.25	\$11.88	\$19.32	\$33.74	\$42.79

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Management
- Problem Solving
- Research
- Leadership
- Communications

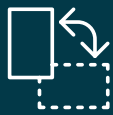
In-Demand Education Level*

- High School Diploma: 2.0%
- Associate Degree: 5.4%
- Bachelor's Degree: 65.5%
- Master's Degree: 14.4%

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

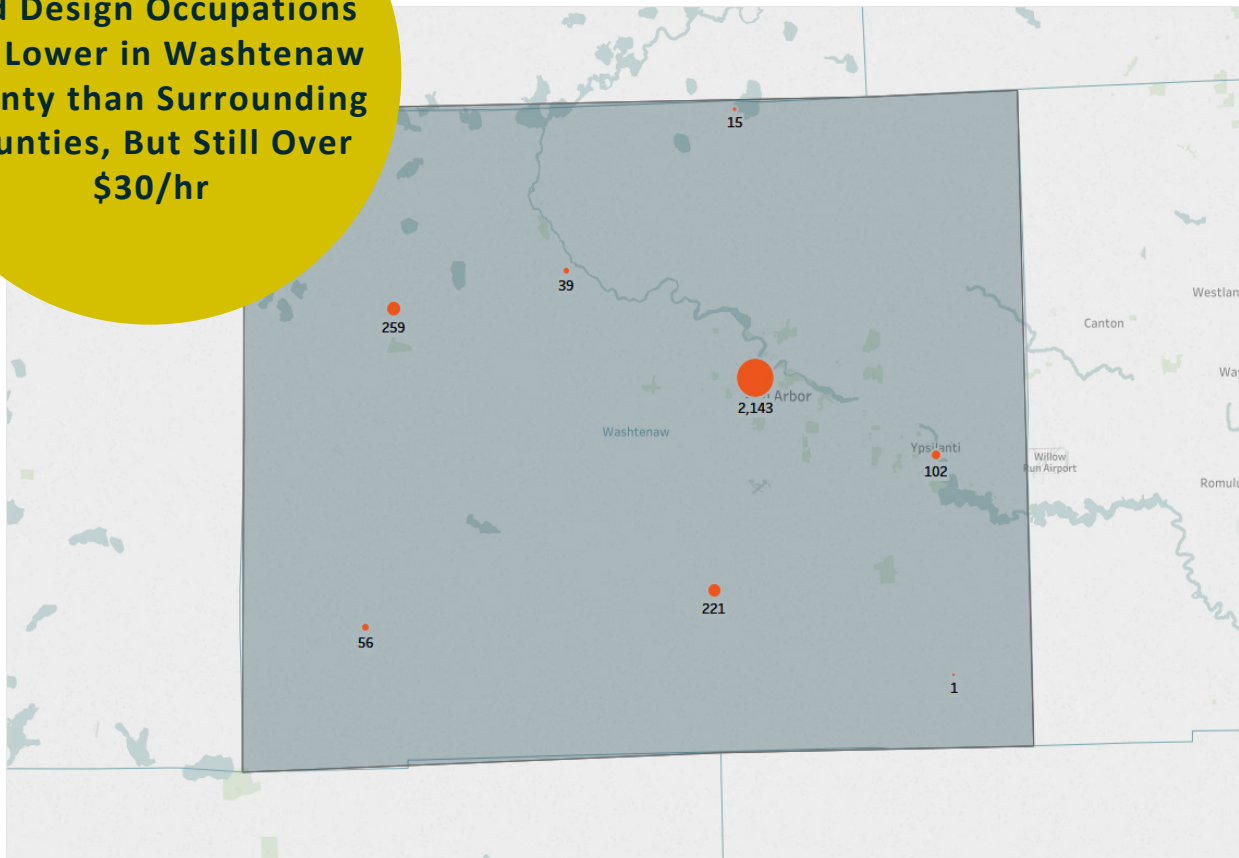
In-Demand Certifications

- Professional Engineer
- Licensed Professional Engineer
- Project Management Professional Certification
- Certified Quality Engineer
- Certified Quality Auditor



Employer Demand by City

Wages for Engineering and Design Occupations are Lower in Washtenaw County than Surrounding Counties, But Still Over \$30/hr



Top Posting Employers*

- HDR Engineering, Inc.
- University of Michigan
- Aerotek, Inc.
- KLA-Tencor Corporation
- FCA US LLC
- Barr Engineering Co.
- Hyundai Corporation (usa)
- Amcor Limited
- Black & Veatch Corporation
- Power Engineers, Incorporated

Job Postings by City

1. Ann Arbor: 2,143 Postings
2. Chelsea: 259 Postings
3. Saline: 221 Postings
4. Ypsilanti: 102 Postings
5. Superior: 60 Postings
6. Manchester: 56 Postings
7. Dexter: 39 Postings
8. Whitmore Lake: 15 Postings
9. Pittsfield: 7 Postings
10. Bridgewater: 3 Postings

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



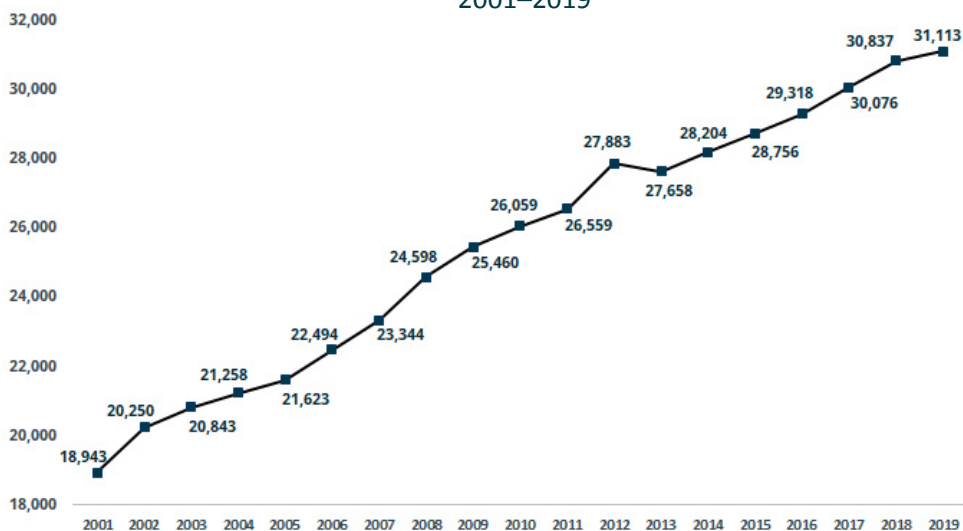
Introduction

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 across southeast Michigan, and this is projected to continue increasing.

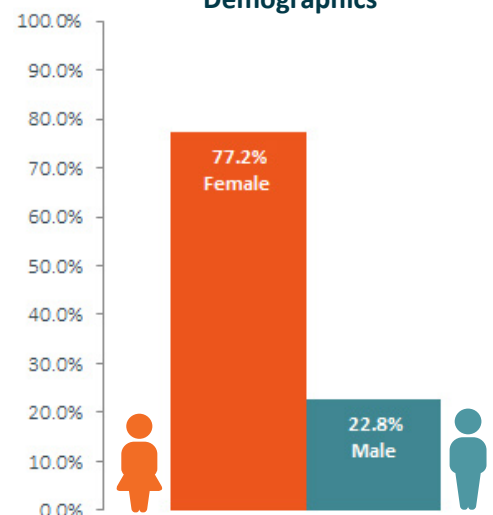


31,113
Health Care Workers
0.1% Increase
from 2018

Employment Over Time
2001–2019



Worker Gender Demographics



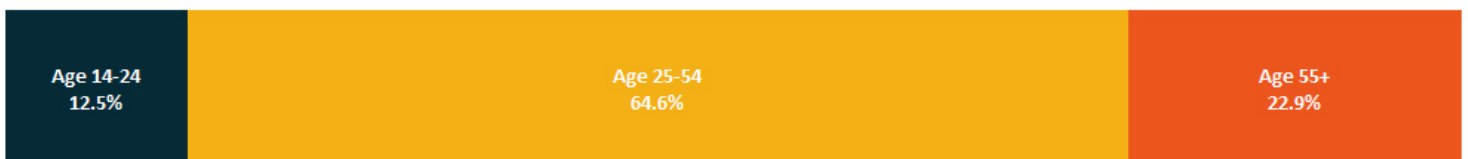
Health Care Worker Demographics

According to the most recent Emsi data set available (2019), the health care occupation group employs around 31,100 workers in Washtenaw County, who are overwhelmingly female (77.2 percent) and between the ages of 25 and 54 (64.6 percent), although 22.9 percent of workers are over 55. For registered nurses in particular, 31.3 percent of workers are over 55, so recruiting young workers for this high demand occupation is even more important.

Race and Ethnicity Demographics

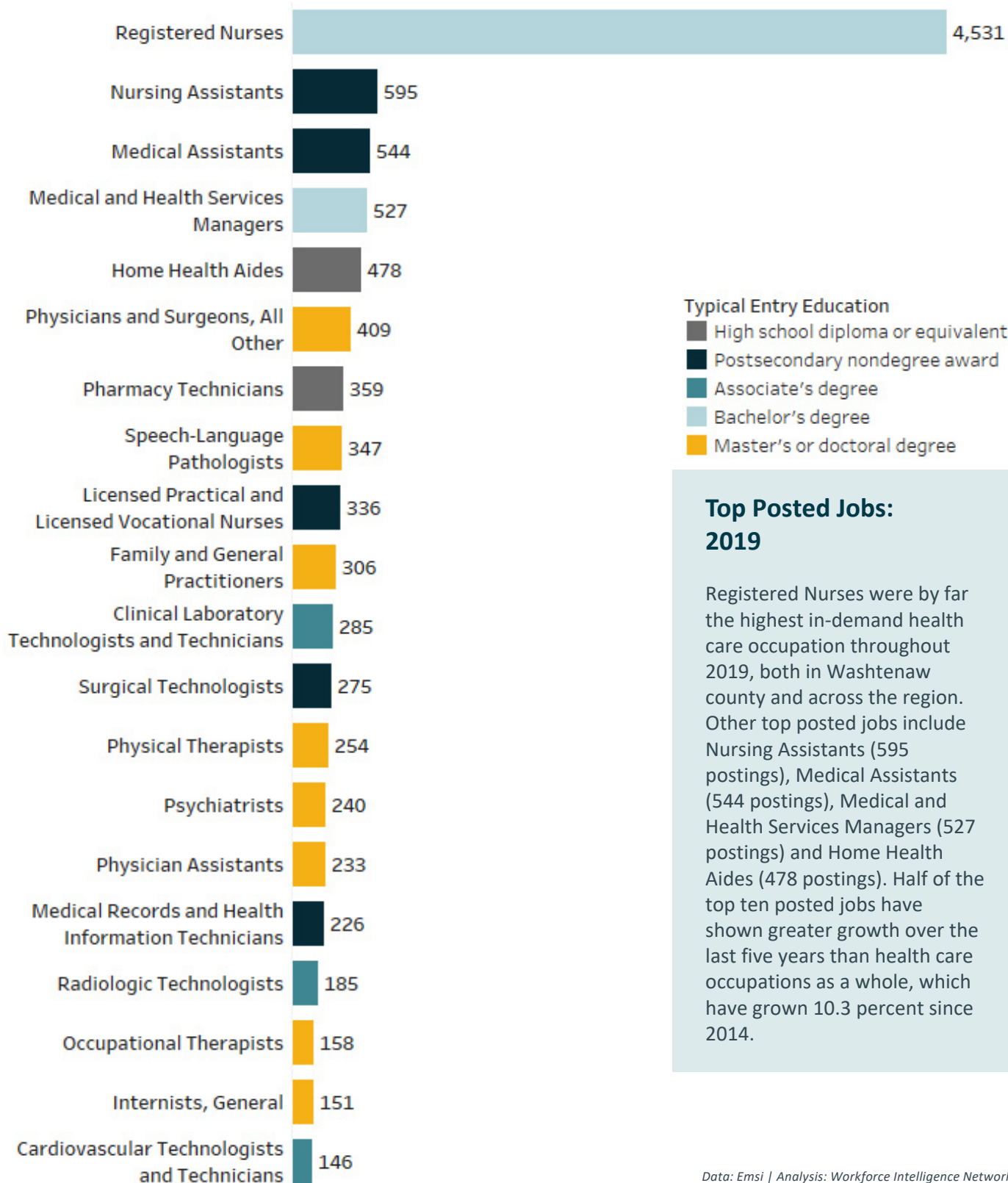
68.8% White | **10.0% Black or African American** | **17.4% Asian**

Worker Age Demographics





Health Care Top Posted Jobs 2019





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 \$34.53 per hour or annual salary of about \$71,800 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	\$26.05	\$28.97	\$34.53	\$41.28	\$47.82
31-1014	Nursing Assistants	\$12.47	\$13.49	\$15.05	\$18.05	\$20.02
31-9092	Medical Assistants	\$13.06	\$14.20	\$16.13	\$18.40	\$20.08
11-9111	Medical and Health Services Managers	\$27.69	\$31.76	\$46.21	\$61.43	\$86.00
31-1011	Home Health Aides	\$9.56	\$10.03	\$11.08	\$12.55	\$18.53
29-1069	Physicians and Surgeons, All Other	\$52.45	\$59.78	\$95.52	\$118.63	\$165.18
29-2052	Pharmacy Technicians	\$10.84	\$13.04	\$16.83	\$20.63	\$23.46
29-1127	Speech-Language Pathologists	\$24.84	\$30.66	\$36.63	\$43.82	\$49.47
29-2061	Licensed Practical and Licensed Vocational Nurses	\$19.18	\$22.01	\$25.45	\$28.06	\$29.93
29-1062	Family and General Practitioners	\$48.25	\$63.22	\$81.24	\$100.00	\$146.18

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Advanced Cardiovascular Life Support (ACLS)
- Pediatrics
- Nursing Care

In-Demand Foundational Skills

- Management
- Leadership
- Communications
- Research
- Customer Service

In-Demand Education Level*

- High School Diploma: 14.5%
- Associate Degree: 12.4%
- Bachelor's Degree: 18.2%
- Master's Degree: 9.0%

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

In-Demand Certifications

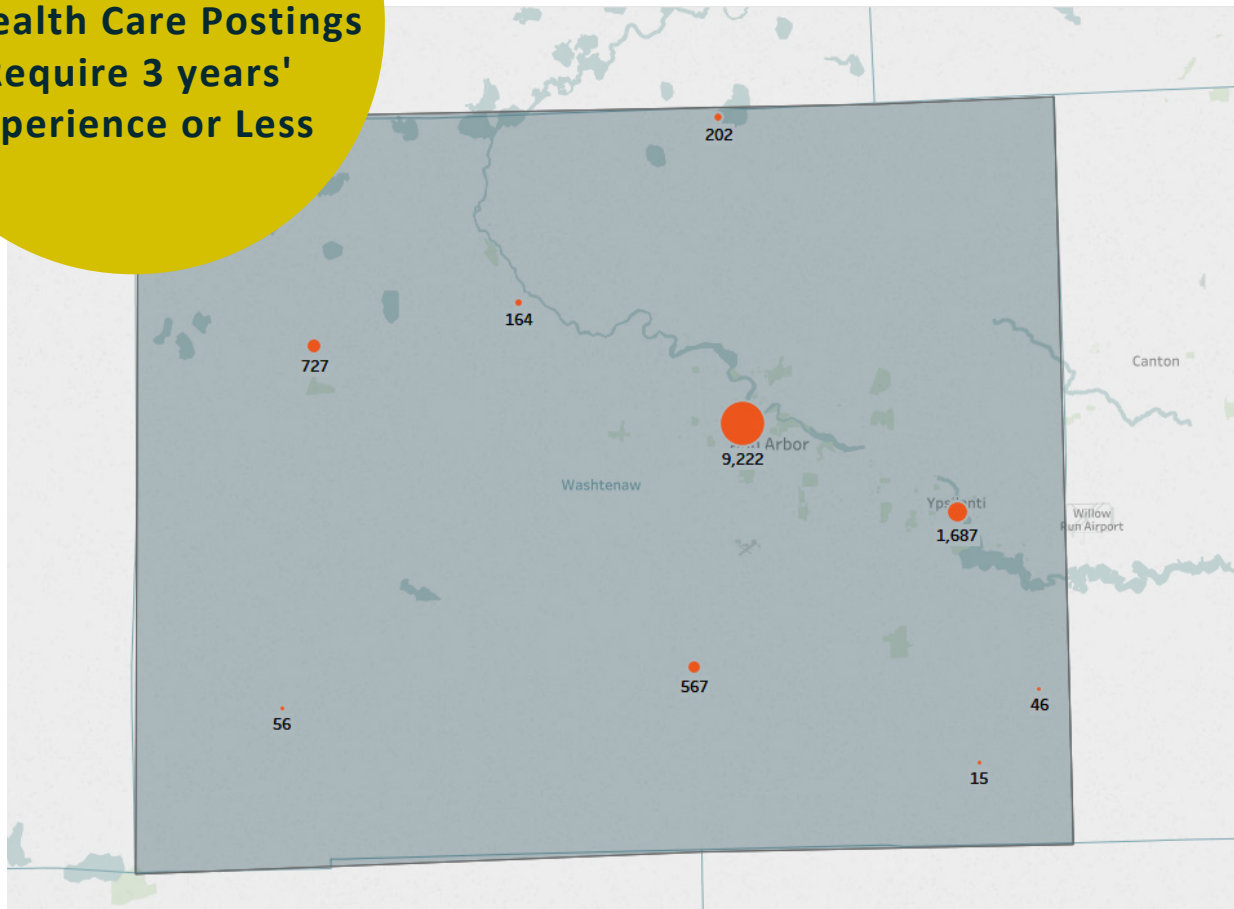
- Certified Nursing Assistant
- Licensed Practical Nurse
- Nurse Practitioner
- Patient Care Technician
- Critical Care Registered Nurse (CCRN)



Employer Demand by City

39.0%

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



Top Posting Employers*

- Trinity Health Corporation
- University of Michigan
- HealthCare Employment Network
- Veterans Health Administration
- Mercy Medical Center, Inc.
- NurseFly
- Soliant Health, Inc
- Ann Inc.
- Supplemental Healthcare
- Manor Care, Inc.

Job Postings by City

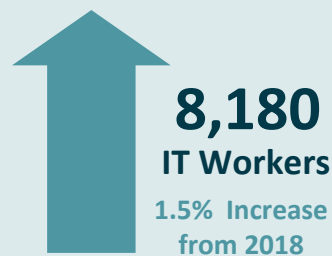
1. Ann Arbor: 9,222 Postings
2. Ypsilanti: 1,687 Postings
3. Chelsea: 727 Postings
4. Saline: 567 Postings
5. Whitmore Lake: 202 Postings
6. Dexter: 164 Postings
7. Manchester: 56 Postings
8. Superior: 51 Postings
9. Willis: 46 Postings
10. Salem: 25 Postings

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

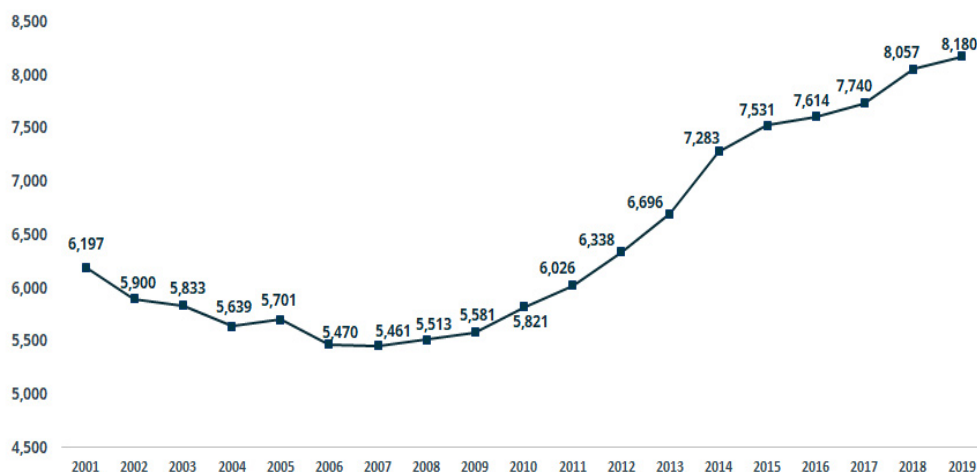


Introduction

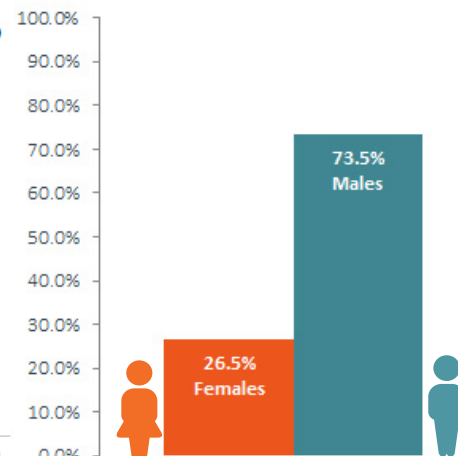
Information technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the information technology group does not 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



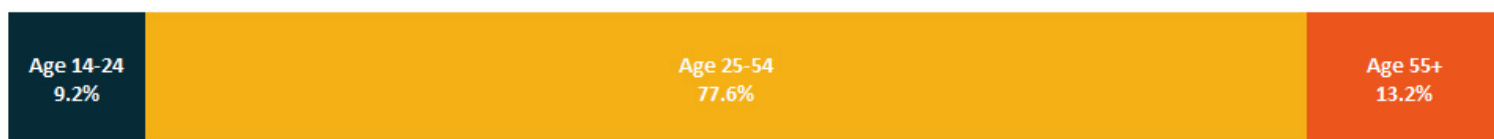
IT Worker Demographics

According to the most recent Emsi data set available (2019), despite having over 8,180 workers the IT occupation group in Washtenaw county continues to struggle with diversity. Most workers are white males between the ages of 25 and 54. Currently, 73 percent of the workers in IT in Washtenaw County identify as male, and 68 percent identify as white. More than 77 percent are between the ages of 25 and 54.

Race and Ethnicity Demographics

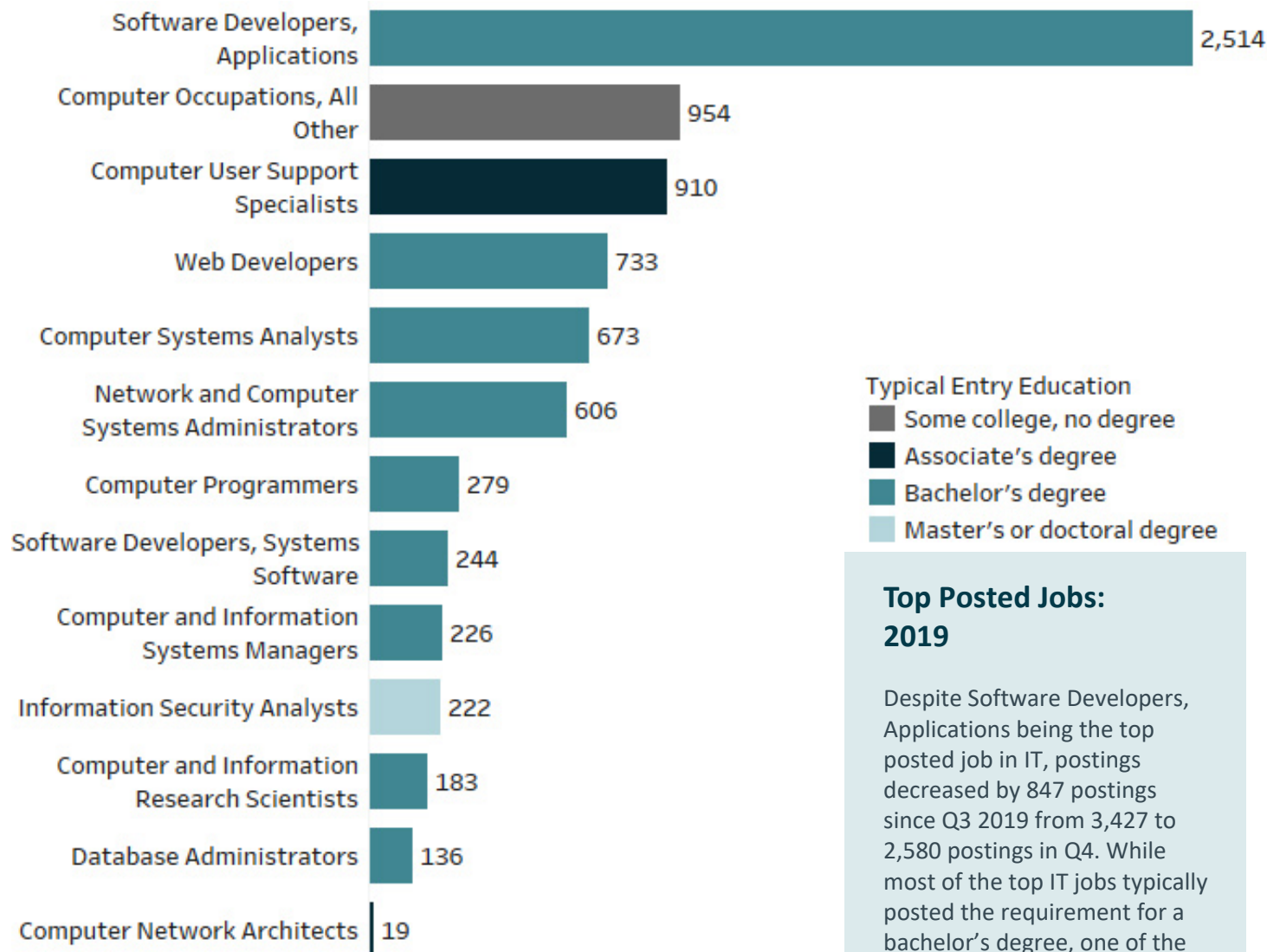
72.4 White | 5.7% Black or African American | 2.4% Hispanic or Latino

Worker Age Demographics





IT Top Posted Jobs 2019



Typical Entry Education

- Some college, no degree
- Associate's degree
- Bachelor's degree
- Master's or doctoral degree

Top Posted Jobs: 2019

Despite Software Developers, Applications being the top posted job in IT, postings decreased by 847 postings since Q3 2019 from 3,427 to 2,580 postings in Q4. While most of the top IT jobs typically posted the requirement for a bachelor's degree, one of the top five, Computer User Support Specialists, typically require only an associate degree. Computer Occupations, All Other, Computer Systems Analysts, and Web Developers were also in demand in the region.



IT Wage Overview

Lucrative opportunities are available to job seekers willing to meet the minimum education requirements in IT occupations. Software Developers, Applications, the top posted IT job in Q4 2019, offers a median hourly wage of \$45.28 per hour or roughly \$94,000 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 \$60.74 per hour or more than \$126,000 annually. Even occupations requiring shorter-term training and fewer qualifications, such as Computer User Support Specialists and Web Developers, make more than \$21 per hour.

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	\$22.94	\$33.90	\$45.28	\$57.79	\$68.73
15-1199	Computer Occupations, All Other	\$19.16	\$23.65	\$34.01	\$48.90	\$59.94
15-1151	Computer User Support Specialists	\$10.77	\$15.31	\$21.95	\$28.47	\$35.32
15-1134	Web Developers	\$13.58	\$20.87	\$27.96	\$36.79	\$46.10
15-1121	Computer Systems Analysts	\$24.40	\$32.70	\$39.11	\$46.13	\$50.44
15-1142	Network and Computer Systems Administrators	\$24.14	\$29.35	\$35.63	\$42.76	\$48.80
15-1131	Computer Programmers	\$16.11	\$27.96	\$39.06	\$47.07	\$54.44
15-1133	Software Developers, Systems Software	\$21.65	\$33.83	\$42.24	\$51.33	\$61.61
11-3021	Computer and Information Systems Managers	\$33.00	\$46.70	\$60.74	\$77.54	\$112.17
15-1122	Information Security Analysts	\$23.41	\$32.73	\$43.41	\$56.69	\$69.69

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Java
- SQL
- Agile Software Development
- Software Development
- JavaScript
-

In-Demand Education Level*

- High School Diploma: 3.2%
- Associate Degree: 5.1%
- Bachelor's Degree: 53.9%
- Master's Degree: 14.7%

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

In-Demand Foundational Skills

- Management
- Communications
- Troubleshooting
- Problem Solving
- Research

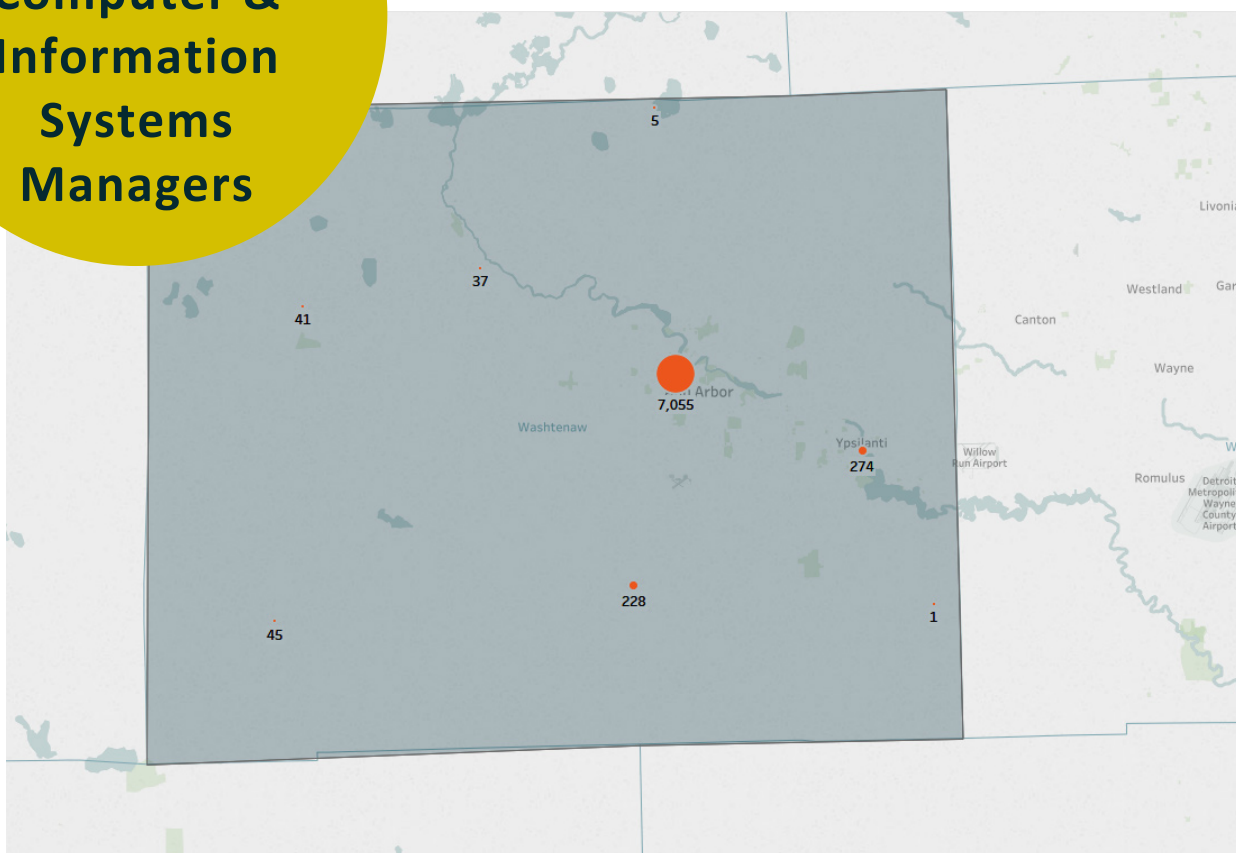
In-Demand Certifications

- Project Management Professional Certification (PMP)
- Certified Information Systems Security Professional (CISSP)
- Cisco Certified Network Associate (CCNA)
- Certified Information System Auditor (CISA)
- Microsoft Certified Professional (MCSE)



Employer Demand by City

**High Earning
Potential for
Computer &
Information
Systems
Managers**



Top Posting Employers*

- University of Michigan
- Domino's Pizza
- Thomson Reuters Corporation
- KLA-Tencor Corporation
- Stout Systems Development Inc
- CyberCoders, Inc.
- Evolutyz Corp.
- Cisco Systems, Inc.
- Nexient, LLC
- Teksystems, Inc.

Job Postings by City

1. Ann Arbor: 7,055 Postings
2. Ypsilanti: 274 Postings
3. Saline: 228 Postings
4. Manchester: 45 Postings
5. Chelsea: 41 Postings
6. Dexter: 37 Postings
7. Superior: 18 Postings
8. Pittsfield: 5 Postings
9. Whitmore Lake: 5 Postings
10. Bridgewater: 3 Postings

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



Introduction

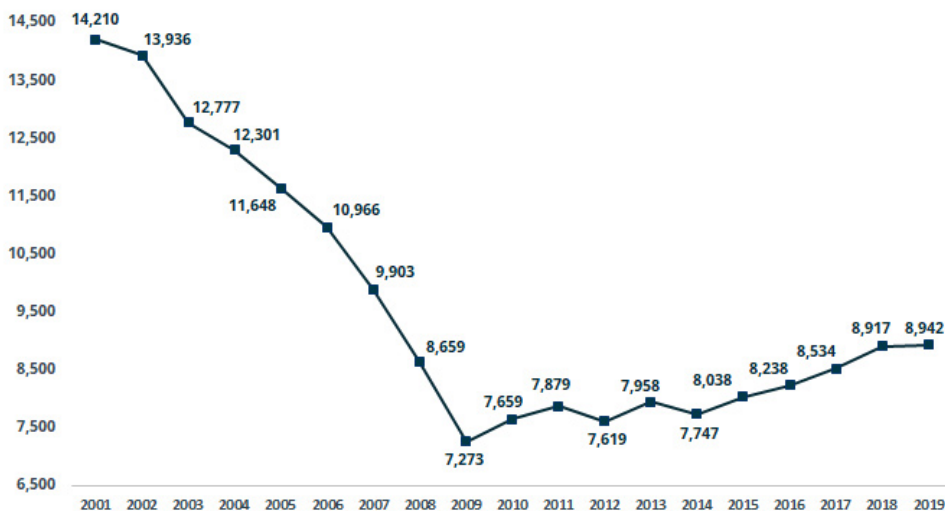
WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country. There are about 21,000 openings for these workers annually.

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

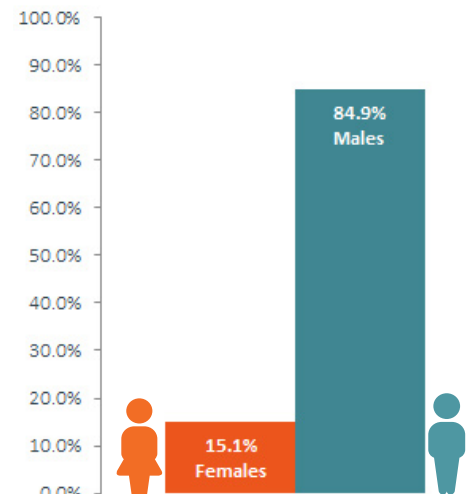


8,942
Skilled Trades Workers
0.3% Increase
from 2018

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 8,900 workers in Washtenaw 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 24.2 percent, the group has a somewhat higher proportion than average of workers over age 55.

Race and Ethnicity Demographics

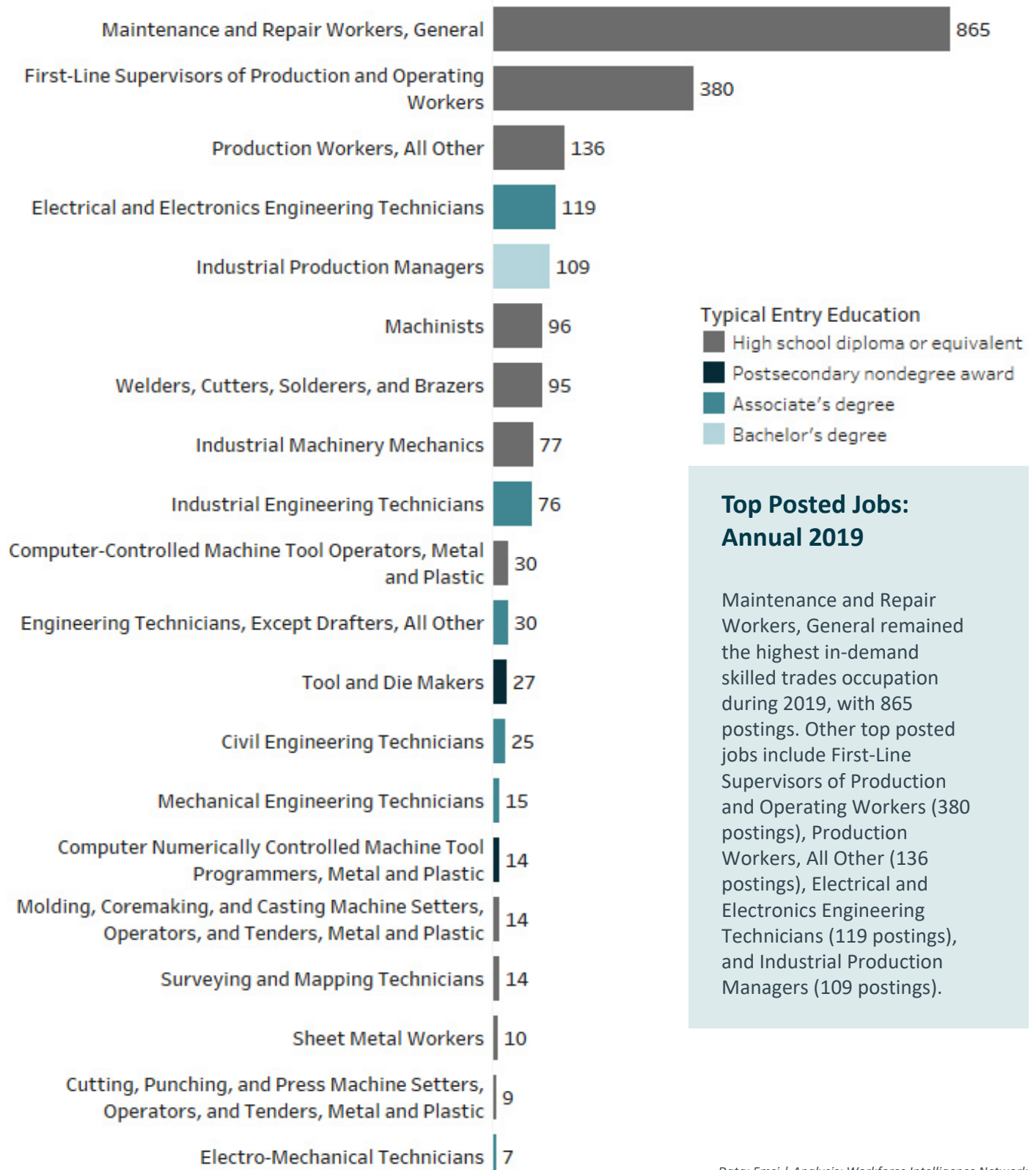
78.1% White | **12.5% Black or African American** | **4.4% Hispanic or Latino**

Worker Age Demographics





Skilled Trades
Top Posted Jobs
2019





Skilled Trades Wage Overview

Three 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 four 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 \$11.41. This translates to an annual salary of about \$23,700.

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	\$9.67	\$11.41	\$16.27	\$22.76	\$29.13
51-1011	First-Line Supervisors of Production and Operating Workers	\$17.06	\$23.98	\$30.96	\$38.99	\$46.73
51-9199	Production Workers, All Other	\$9.59	\$10.97	\$14.70	\$22.28	\$35.16
17-3023	Electrical and Electronics Engineering Technicians	\$13.26	\$19.12	\$26.56	\$33.14	\$40.37
11-3051	Industrial Production Managers	\$37.46	\$53.05	\$68.19	\$80.95	\$95.25
51-4041	Machinists	\$15.35	\$18.51	\$22.23	\$27.45	\$30.81
51-4121	Welders, Cutters, Solderers, and Brazers	\$14.35	\$16.69	\$18.40	\$20.00	\$23.44
49-9041	Industrial Machinery Mechanics	\$14.32	\$18.52	\$23.19	\$27.75	\$30.30
17-3026	Industrial Engineering Technicians	\$14.87	\$19.31	\$26.96	\$32.85	\$41.79
17-3029	Engineering Technicians, Except Drafters, All Other	\$14.85	\$24.08	\$30.99	\$38.86	\$45.80

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Plumbing
- HVAC
- Carpentry
- Painting
- Machining

In-Demand Foundational Skills

- Troubleshooting (Problem Solving)
- Operations
- Management
- Valid Driver's License
- Communications

In-Demand Education Level*

- High School Diploma: 33.8%
- Associate Degree: 11.7%
- Bachelor's Degree: 14.4%
- Master's Degree: 2.3%

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

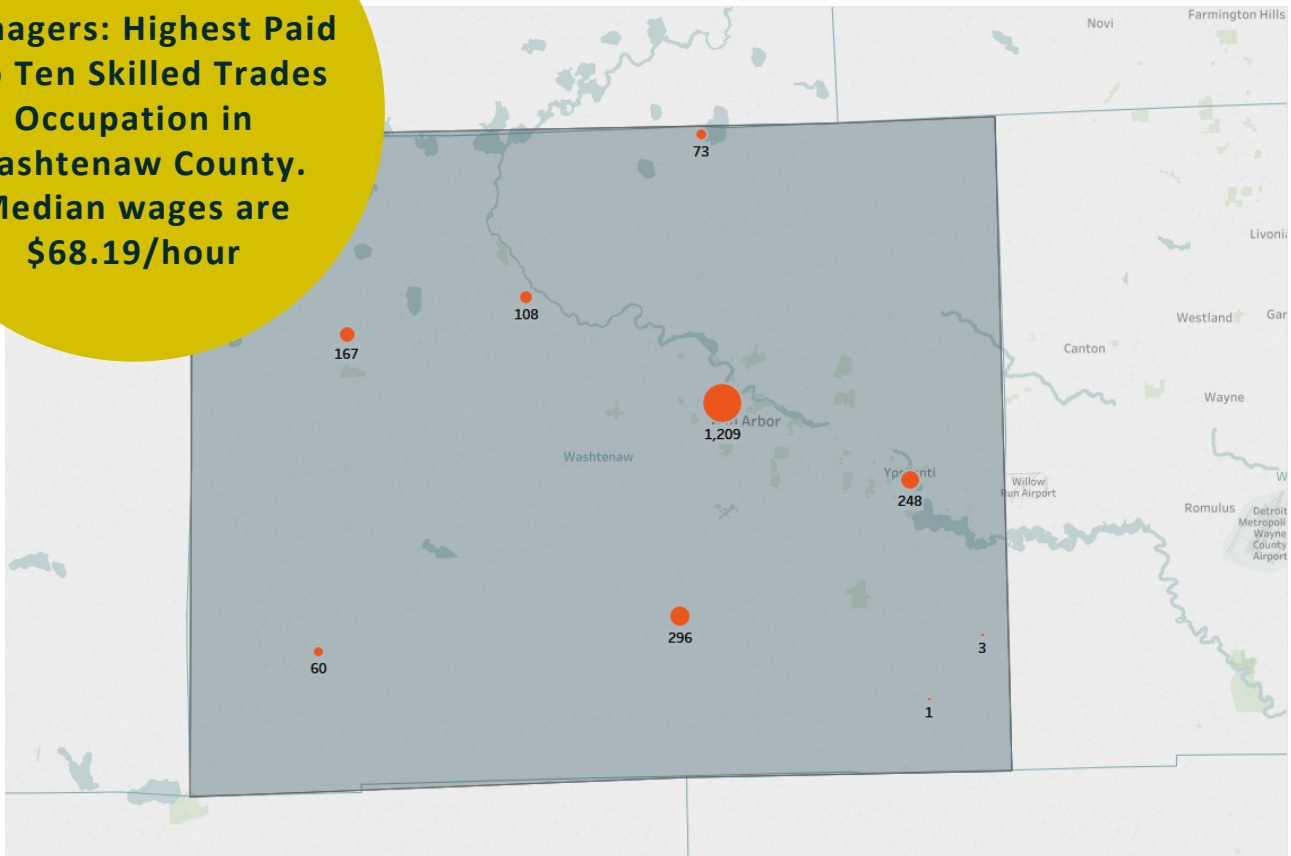
In-Demand Certifications

- HVAC Certification
- Commercial Driver's License (CDL)
- CFC Refrigeration Certification
- (American Society For Quality) ASQ Certified
- EPA Universal Certification



Employer Demand by City

Industrial Production Managers: Highest Paid Top Ten Skilled Trades Occupation in Washtenaw County. Median wages are \$68.19/hour



Top Posting Employers*

- ManpowerGroup Global
- Express Employment Professionals
- University of Michigan
- Kelly Services, Inc.
- Aerotek, Inc.
- Phoenix Services, LLC
- Orchid Orthopedic Solutions, LLC
- HomeAdvisor, Inc.
- City of Ann Arbor
- Windsor Mold USA Inc.

Job Postings by City

1. Ann Arbor: 1,209 Postings
2. Saline: 296 Postings
3. Ypsilanti: 249 Postings
4. Chelsea: 167 Postings
5. Dexter: 108 Postings
6. Whitmore Lake: 73 Postings
7. Manchester: 60 Postings
8. Pittsfield: 7 Postings
9. Superior: 6 Postings
10. Bridgewater: 5 Postings

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

Website

www.WINintelligence.org

Email

info@WINintelligence.org

Phone

313.744.2946

Address

25363 Eureka Rd.
Taylor, MI 48180

Facebook

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

Twitter

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