

WIN

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LABOR MARKET REPORT WASHTENAW COUNTY

January - December 2021

INTRODUCTION

Washtenaw County
2021



About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of Michigan Works! Agencies (MWAs) and community colleges across a 19-county region in Michigan. The counties in the WIN partnership include Clinton, Eaton, Genesee, Hillsdale, Huron, Ingham, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

The WIN 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, entry-level requirements, and earning potential.

WIN produces a quarterly 19-county region report 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 the Detroit 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 highlights labor market information and real-time job posting data for Washtenaw County, including a workforce overview that identifies key components of the area's labor market such as 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 labor market's health. This data is used to provide real-time demand and job posting information for both employers and job seekers. This report analyzes the 2021 labor market information from Washtenaw County for the Business and Finance, Engineers and Designers, Health Care, Information Technology (IT), and Skilled Trades occupation groups.

For more information about the southeast Michigan labor market, custom occupation groups, and 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.

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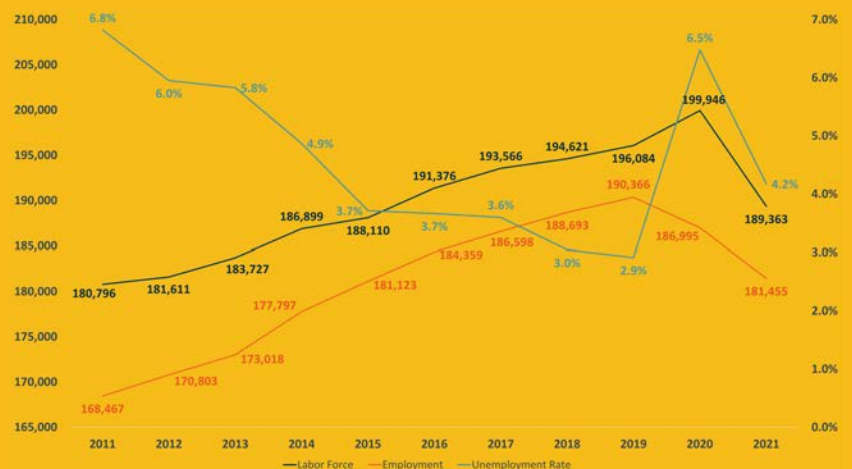
State of the Labor Market in Washtenaw County

The COVID-19 crisis continued to cause major shifts in the labor market this year. In 2021, both the labor force and employment decreased by 10,583 individuals (5.3 percent) and 5,539 workers (3.0 percent) respectively, while unemployment went down by 5,043 workers. The unemployment rate recovered in 2021 and decreased 2.3 percentage points from 6.5 percent in 2020 to 4.2 percent in 2021. Monthly postings data shows shifts in hiring and skills demanded as the region continues its recovery. Registered Nurses top the list as the most demanded occupation in 2021, accounting for 3,386 job postings. The health care occupation group continues to be heavily demanded in Washtenaw County.

Annual Labor Market Information

The labor force in Washtenaw County dropped in 2021, decreasing by 10,583 individuals (5.3 percent) from the prior year. Employment decreased by 5,539 workers (3.0 percent) over the same period, while unemployment decreased by 5,043 workers (38.9 percent) for a total of 7,908 unemployed workers in 2021. The unemployment rate decreased in 2021 to 4.2 percent, a fall of 2.3 percentage points since the 6.5 percent spike in 2020. During the height of the pandemic and shutdown measures in March 2020, the highest monthly unemployment rate occurred in April 2020, with an unemployment rate of 14.8 percent in Washtenaw County.

Annual Labor Force, Employment, Unemployment Rate 2011–2021



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

The fourth quarter of 2021 shows that employer demand has increased since the end of Q3 2021. In Q4 2021, there were 62,295 unique postings in Washtenaw County, an increase of 6,311 postings from the 55,984 postings recorded in Q3. November had the highest recorded postings in 2021 with 21,128 postings, an increase of 8,723 postings (70.3 percent) since January 2021. The steady increase in the number of online ads is a good indication that employer demand continues to be strong throughout the year.

Monthly Posting Analysis Washtenaw County 2021



Key Findings

10%

Employer demand increased by 10.9 percent, a gain of 7,474 job postings since 2020.

High School Diploma

Most in-demand minimum education level during 2020.

In Q4 2021, employment totaled

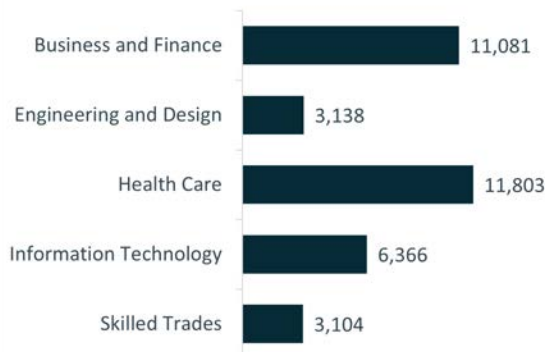
183,248

an increase of 7,449 workers (3.9 percent) since Q4 2020

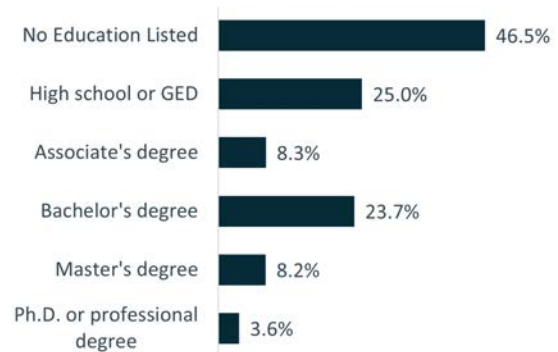
During 2021, there were 75,758 job postings, 7,474 more than the 68,284 postings made during 2020 in Washtenaw County. November 2021 saw the highest demand for the year with 21,128 postings, a 70.3 percent increase since January 2021. The top posted job titles in 2021 include Maintenance Technicians, Administrative Assistants, Delivery Drivers, Software Engineers, and Registered Nurses. For more information about in-demand job postings, see page 7.

Of the 75,758 unique postings in Washtenaw County during 2021, 18,976 (25.0 percent) required a high school diploma or equivalent, while 24,215 postings (32.0 percent) required a college degree. An additional 8,971 postings (11.8 percent) required an advanced degree. The high demand for health care jobs within the county drives this high demand for workers with various skill sets.

Top 5 Posting Occupation Groups
2021



Education Levels In-Demand
2021



The quarterly labor market shifts that were seen in 2020, following the outbreak of COVID-19, have remained fairly flat in 2021. The first three quarters of 2021 saw the labor force and employment dip to an annual low of 188,739 individuals and 180,485 workers respectively. Unemployment and unemployment rate remained steady during the same period with the unemployment rate hovering at 4.4 percent for most of the year. The labor force and employment numbers rebounded in Q4 with a high of 189,839 individuals and 183,248 workers respectively. The market continued to realign toward pre-pandemic levels during Q4, showing a decrease in unemployment to 6,591 workers resulting in a 0.9 percent fall in the unemployment rate. The unemployment rate at the end of Q4 2021 was 3.5 percent. For more information about this year's unemployment rate and other labor market indicators, see page 4.

Quarterly Labor Market Data

	4th Quarter 2020	1st Quarter 2021	2nd Quarter 2021	3rd Quarter 2021	4th Quarter 2021	Change from 3rd Quarter 2021	Percent Change from 3rd Quarter 2021	Change from 4th Quarter 2020	Percent Change from 4th Quarter 2020
Labor Force	197,929	189,922	188,953	188,739	189,839	1,100	0.6%	-8,090	-4.1%
Employment	190,696	181,542	180,547	180,485	183,248	2,763	1.5%	-7,449	-3.9%
Unemployment	7,233	8,379	8,406	8,254	6,591	-1,663	-20.1%	-642	-8.9%
Unemployment Rate	3.7%	4.4%	4.4%	4.4%	3.5%	-0.9%	na	-0.2%	na

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

Data: Emsi | Analysis: Workforce Intelligence Network

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Following labor force fluctuations throughout 2021, labor force participation totaled 189,363 individuals, a decrease of 10,583 individuals since 2020. Employment fell to 181,455 workers in 2021, a decrease of 5,539 workers. Both unemployment and the unemployment rate decreased, corresponding with the economic recovery. Unemployment decreased to 7,908 workers, down by 5,043 workers since the high of 12,951 workers recorded in 2020. Similarly, the unemployment rate declined by 2.3 percentage points for a 2021 unemployment rate of 4.2 percent.

Annual Labor Market Data 2011-2021

	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 Annual	2021 Annual	Change from 2020 to 2021	Percent Change from 2020 to 2021
Labor Force	180,796	181,611	183,727	186,899	188,110	191,376	193,566	194,621	196,084	199,946	189,363	-10,583	-5.3%
Employment	168,467	170,803	173,018	177,797	181,123	184,359	186,598	188,693	190,366	186,995	181,455	-5,539	-3.0%
Unemployment	12,330	10,808	10,709	9,102	6,988	7,017	6,968	5,928	5,718	12,951	7,908	-5,043	-38.9%
Unemployment Rate	6.8%	6.0%	5.8%	4.9%	3.7%	3.7%	3.6%	3.0%	2.9%	6.5%	4.2%	-2.3%	na

Data: Bureau of Labor Statistics

CENSUS 2020 LABOR FORCE DEMOGRAPHICS

During 2020, the most recent census year, there were about 197,699 people in the labor force, individuals that were either working or looking for work in Washtenaw County. Slightly over half of the population, 188,718 individuals (51.2 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 25 face an unemployment rate of 24.7 percent, while females under the age of 25 report an unemployment rate of 16.3 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 9.3 percent.

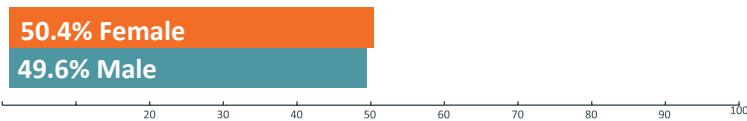
Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	197,699	188,718	8,981	4.5%
Sex				
Male 16+	102,976	97,969	5,007	4.9%
16-19	4,848	4,022	826	17.0%
20-24	15,171	14,007	1,164	7.7%
25-54	61,187	58,863	2,324	3.8%
55-64	15,630	15,083	547	3.5%
65 Plus	6,140	5,994	146	2.4%
Female 16+	94,723	90,749	3,974	4.2%
16-19	6,247	5,606	641	10.3%
20-24	15,662	14,711	951	6.1%
25-54	53,344	51,502	1,842	3.5%
55-64	14,234	13,911	323	2.3%
65 Plus	5,236	5,019	217	4.1%
Race				
White	146,353	140,645	5,708	3.9%
Black / African American	23,938	21,712	2,226	9.3%
Native American	620	597	23	3.7%
Asian	17,354	16,886	469	2.7%
Native Hawaiian / Pacific Islander	101	94	7	6.9%
Some Other Race	1,928	1,802	125	6.5%
Two or More Races	7,376	6,978	398	5.4%
Ethnicity				
Hispanic	9,017	8,620	397	4.4%

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

2020 Census Population

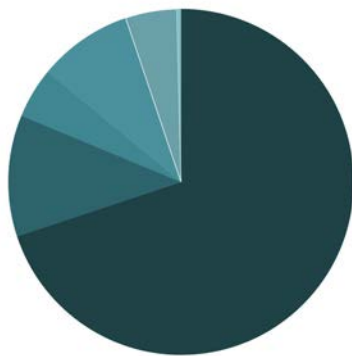
According to data from the most recent Census Bureau 2020 ACS Five Year estimates, the population in Washtenaw County increased by nearly 0.4 percent between 2019 and 2020. During 2020, 368,385 people were living in Washtenaw County. The sex of the populace was split almost evenly, with about 50.4 percent of the population identifying as female, and the other 49.6 percent identifying as male. Majority of the population identified as white (72.7 percent) with the second largest number of individuals identifying as Black or African American (11.8 percent). The county has a relatively young and middle-aged population; 37.2 percent of population was 24 years of age or young, compared to 37.4 percent aged of 25-54, while individuals 55 years of age and older total 25.4 percent.

Population Gender Demographics



Population Race Demographics

- White, 72.7%
- Black or African American, 11.8%
- Hispanic or Latino, 4.9%
- Asian, 9.2%
- Two or More Races, 5.0%
- American Indian or Alaska Native, 0.4%
- Native Hawaiian or Other Pacific Islander, 0.00%



Population Age Demographics

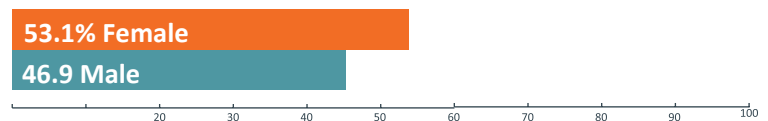


Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

2021 Current Workforce

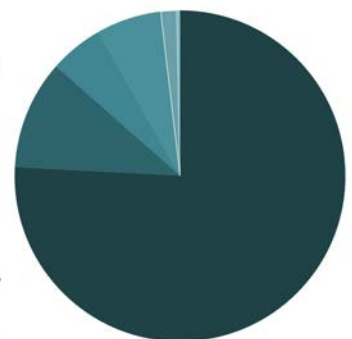
In 2021, the workforce had a total of 223,631 individuals working in Washtenaw County. A slight majority, 53.1 percent (118,151 workers) were female, while 46.9 percent (104,485 workers) of the workforce was male. Most workers in the county identified as white, accounting for 75.8 percent of the workforce, while Black or African American workers totaled 10.8 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 5.2 percent. Much of the workforce in Washtenaw County are between the ages of 25 through 54 (63.0 percent), while 21.0 percent of workers are 55 and older.

Workforce Gender Demographics



Workforce Race and Ethnicity Demographics

- White, 75.8%
- Black or African American, 10.7%
- Hispanic or Latino, 5.2%
- Asian, 6.4%
- Two or More Races, 1.5%
- American Indian or Alaska Native, 0.3%
- Native Hawaiian or Other Pacific Islander, 0.02%



Workforce Age Demographics

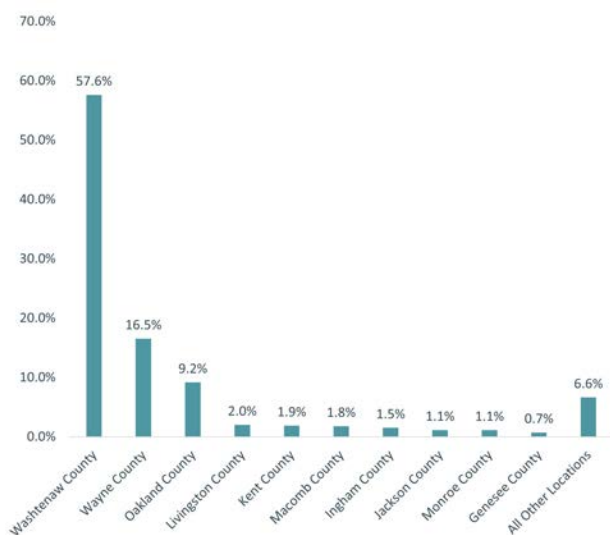


Data: Emsi | Analysis: Workforce Intelligence Network

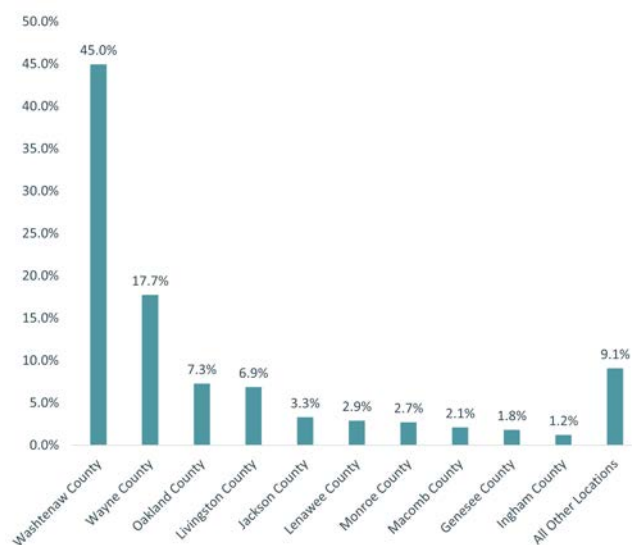
REGIONAL COMMUTING PATTERNS

According to the most recent OnTheMap data set available from the Census Bureau, during 2019, Washtenaw County's workforce consisted of 153,151 residents. There were 88,229 (57.6 percent) residents living and working in Washtenaw County, while the remaining 64,922 residents (42.2 percent) traveled outside of the county for work. There were 196,205 workers employed in the county during 2019. Of those, 107,976 workers (55.0 percent) lived outside of the county's borders and commuted in. From this information, we can see that the Washtenaw 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

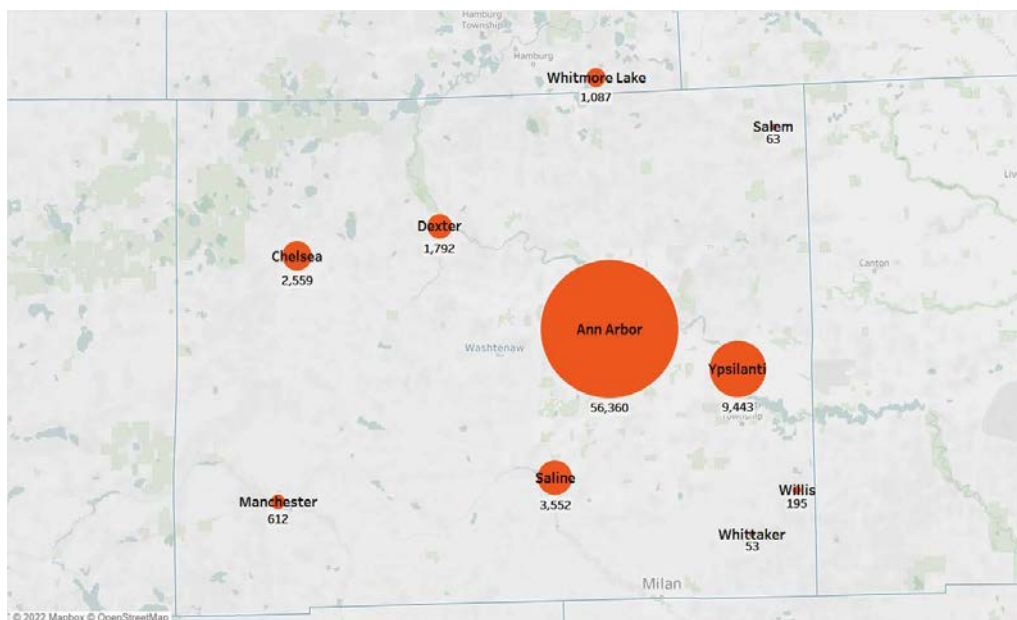


Source: U.S. Census OnTheMap, 2019
Analysis: Workforce Intelligence Network

Source: U.S. Census OnTheMap, 2019
Analysis: Workforce Intelligence Network

Job Postings by City

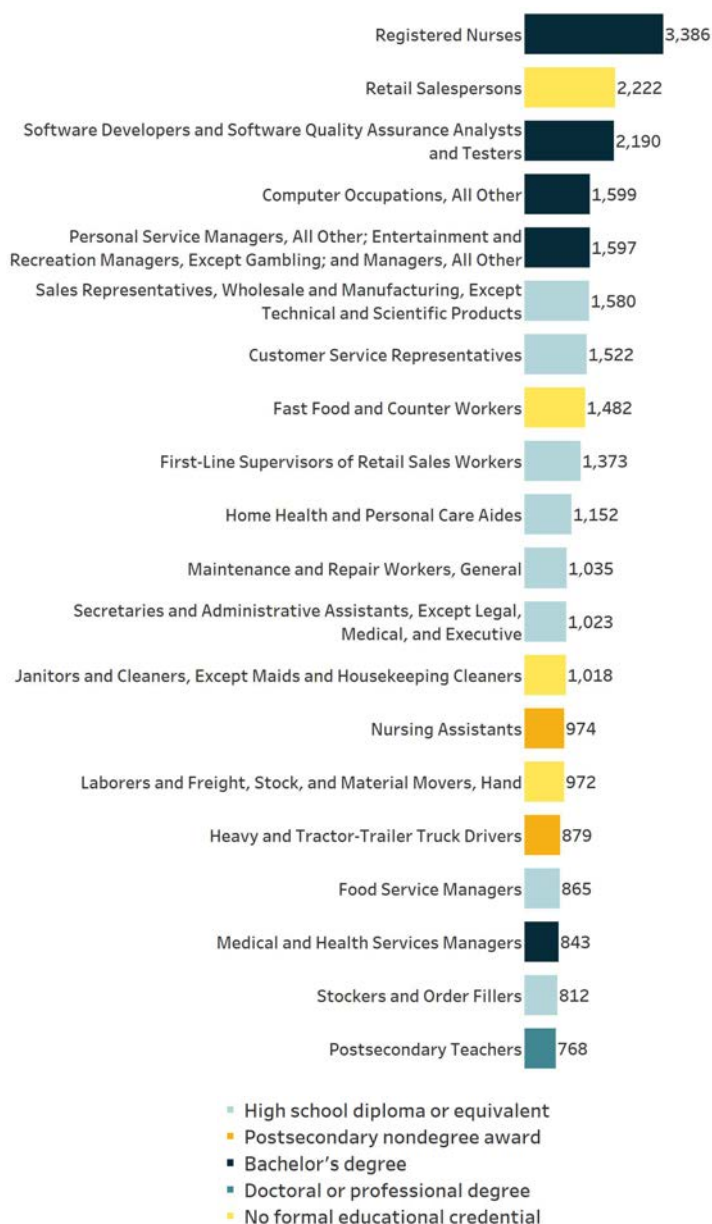
1. Ann Arbor: 56,360 Postings
2. Ypsilanti: 9,443 Postings
3. Saline: 3,552 Postings
4. Chelsea: 2,559 Postings
5. Dexter: 1,792 Postings
6. Whitmore Lake: 1,087 Postings
7. Manchester: 612 Postings
8. Willis: 195 Postings
9. Salem: 63 Postings
10. Whittaker: 53 Postings



TOP POSTED JOBS

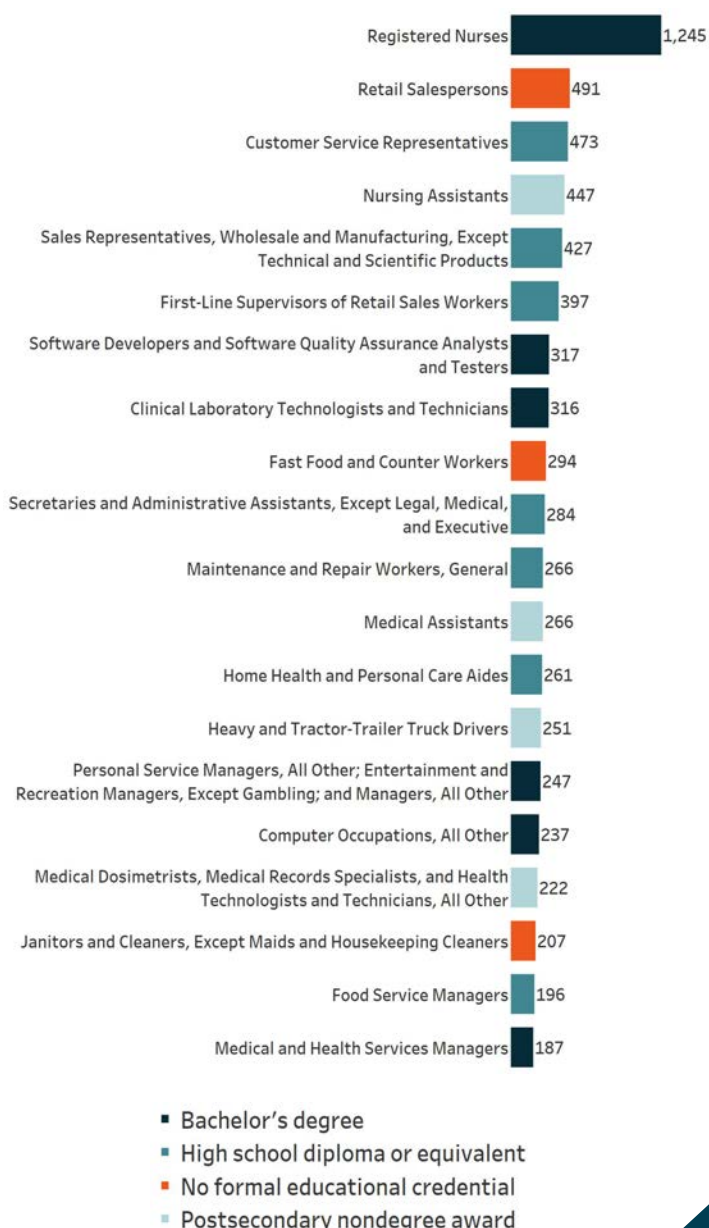
Top Posted Jobs: 2021

Registered Nurses is the top posted occupation for 2021, with 3,386 unique online job postings and requires a bachelor's degree for entry. Retail Salespersons (2,222 postings) and Software Developers and Software Quality Assurance Analysts and Testers (2,190 postings) round out the top three demanded occupations, requiring a high school diploma or equivalent and a bachelor's degree respectively, for entry. Other in-demand jobs that also require no formal education or a high school diploma or equivalent coupled with short-term on-the-job training include Home Health and Personal Care Aides and Fast Food and Counter Workers.



Top Posted Entry-Level Jobs: 2021

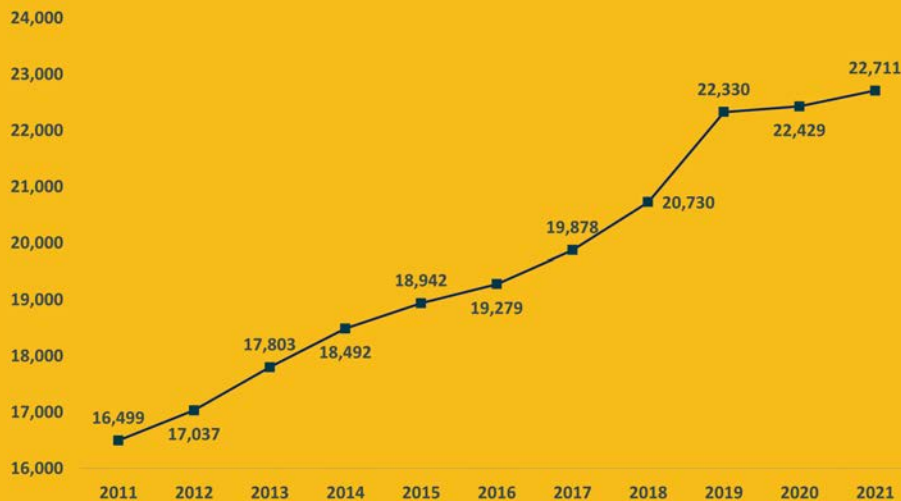
Entry-level jobs, which usually require zero to two years of previous experience, account for 23.4 percent of postings in Washtenaw County. Just over half of the top ten entry-level occupations require no formal education or a high school diploma or equivalent. Those who enter the workforce with a high school diploma or equivalent are heavily demanded among entry-level occupations, accounting for 36.5 percent of entry-level postings. Registered Nurses was the top posted entry-level occupation with 1,245 postings followed by Retail Salespersons with 491 postings.



BUSINESS AND FINANCE OCCUPATION GROUP

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
2011-2021



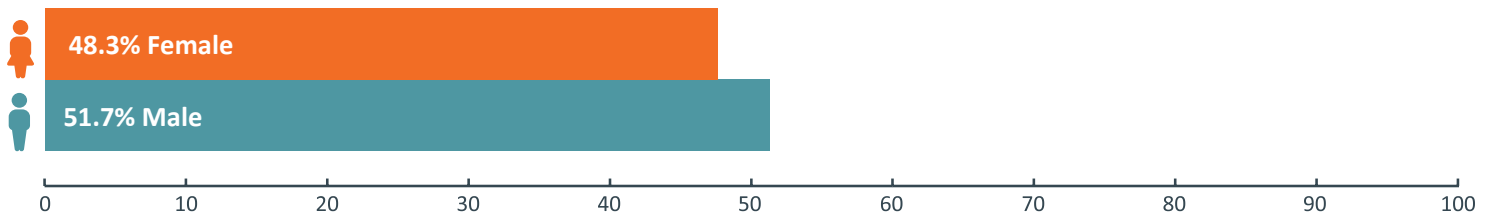
22,711 Business and Finance Workers
1.3% Increase from 2020



Business and Finance Worker Demographics

The business and finance occupation group is somewhat diverse in respect to its 22,711 workers. Slightly more than half the working population identify as male (51.7 percent), however, 82.1 percent of workers identified as white, indicating much less diversity with respect to race than gender. Only 5.9 percent of the working population in business and finance is under the age of 25, compared to 22.8 percent who are age 55 and older. In some ways, this indicates an aging business and finance workforce, though it also reflects the consistent need for a bachelor's degree in these occupations.

Worker Gender Demographics



Race and Ethnicity Demographics

82.1% White | 7.5% Black or African-American | 5.4% Asian

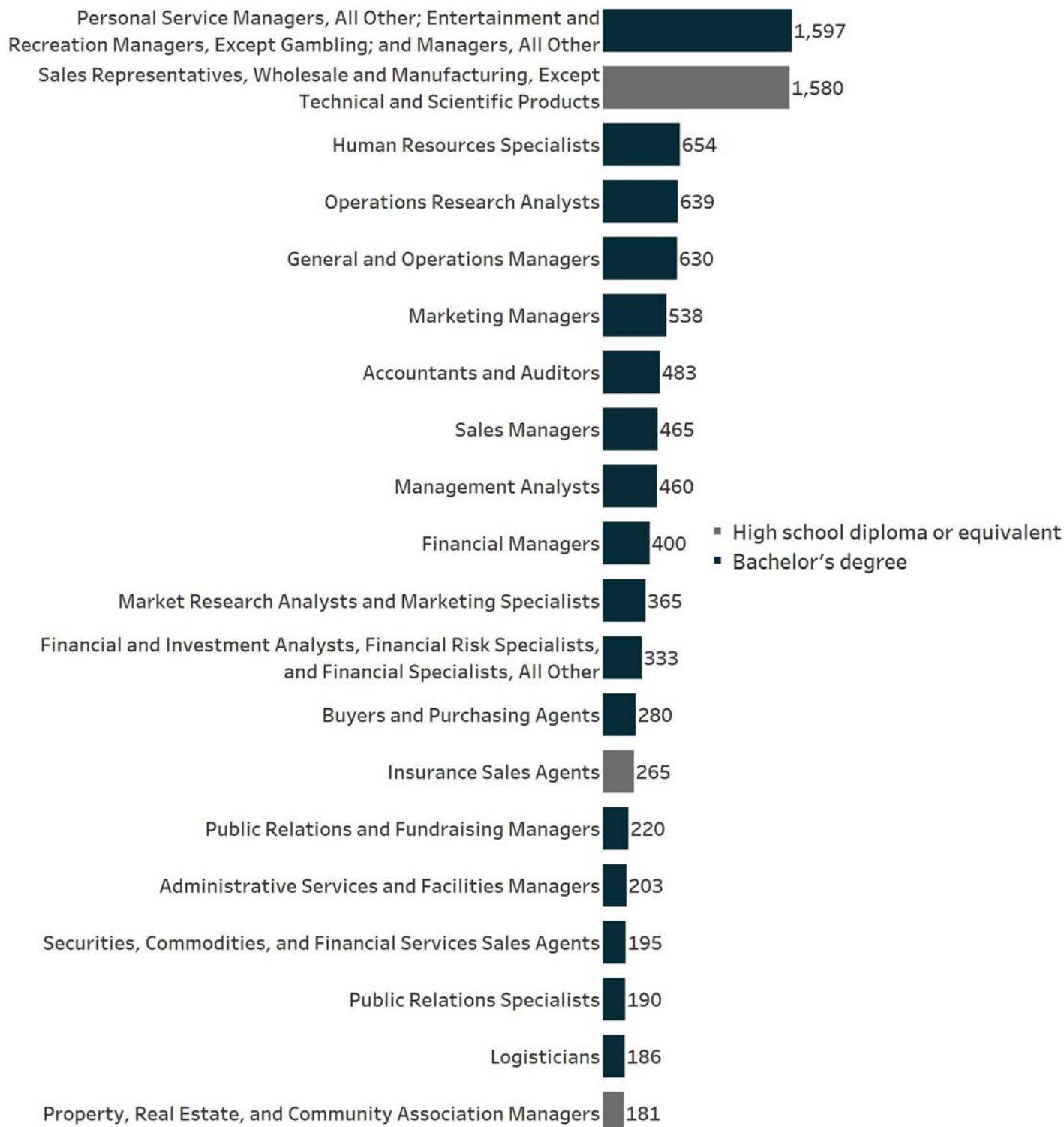
Worker Age Demographics



BUSINESS AND FINANCE OCCUPATION GROUP

Top Posted Jobs

There were 11,081 business and finance postings during 2021. Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other is the top in-demand occupation with 1,597 postings. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (1,580 postings) is the second highest demanded, while Human Resources Specialists (654 postings), Operations Research Analysts (639 postings), and General and Operations Managers (630 postings) round out the top demanded occupations.



BUSINESS AND FINANCE OCCUPATION GROUP

Wage Overview

Most business and finance related jobs offer high wages, providing a lucrative opportunity for job seekers willing to attain the necessary education. The top posted business and finance job Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other, offers a median hourly wage of \$53.19, translating to annual earnings of approximately \$110,635. All the top business occupations offer median wages over \$35.00 per hour, and most prefer a bachelor's degree for entry.

Wage Overview for Top Posted Business and Finance Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$31.63	\$42.02	\$53.19	\$66.24	\$79.57
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$16.72	\$20.04	\$29.03	\$38.55	\$55.73
13-1071	Human Resources Specialists	\$21.60	\$27.21	\$33.61	\$41.49	\$52.21
15-2031	Operations Research Analysts	\$26.70	\$33.71	\$41.23	\$47.27	\$51.33
11-1021	General and Operations Managers	\$23.78	\$35.07	\$57.90	\$89.32	\$122.14
11-2021	Marketing Managers	\$37.43	\$49.62	\$58.88	\$70.41	\$87.34
13-2011	Accountants and Auditors	\$23.45	\$28.08	\$35.08	\$44.09	\$52.46
11-2022	Sales Managers	\$30.34	\$44.37	\$59.74	\$80.32	\$113.08
13-1111	Management Analysts	\$24.93	\$33.34	\$42.42	\$52.98	\$77.50
11-3031	Financial Managers	\$36.21	\$45.13	\$57.70	\$78.35	\$114.24

In-Demand Technical Skills

- Accounting
- Finance
- Auditing
- Forecasting
- Customer Relationship Management

In-Demand Foundational Skills

- Communications
- Management
- Sales
- Leadership
- Customer Service

In-Demand Certifications

- Certified Public Accountant
- Security Clearance
- Project Management Professional (PMP)
- Professional in Human Resources
- Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)

In-Demand Education Level*

- High School Diploma: 13.0%
- Associate Degree: 4.9%
- Bachelor's Degree: 47.8%
- Master's Degree: 13.9%

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

Top Posting Employers

- University of Michigan
- KLA
- Thomson Reuters
- XPO Logistics
- Amcor
- NSF International
- Trinity Health
- Robert Half
- Deloitte
- Domino's Pizza

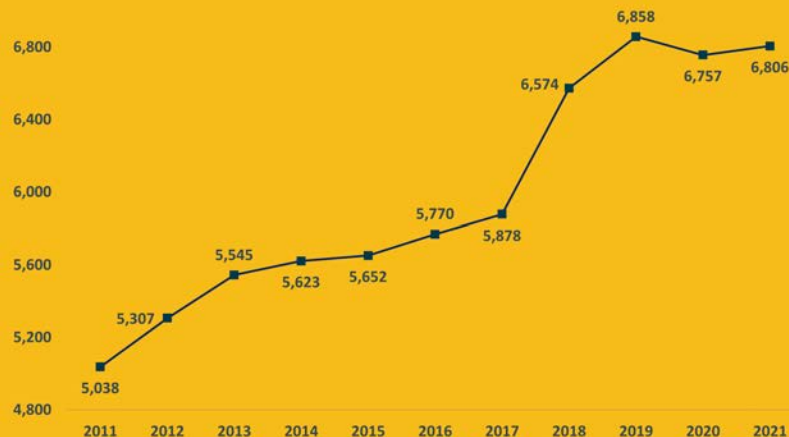
Job Postings by City

- Ann Arbor: 9,523 Postings
- Ypsilanti: 763 Postings
- Saline: 274 Postings
- Chelsea: 161 Postings
- Manchester: 137 Postings
- Dexter: 131 Postings
- Whitmore Lake: 72 Postings
- Willis: 12 Postings
- Bridgewater: 3 Postings

ENGINEERS AND DESIGNERS OCCUPATION GROUP

Jobs in the manufacturing industry can range from assembly and production, 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.

Employment Over Time
2011-2021



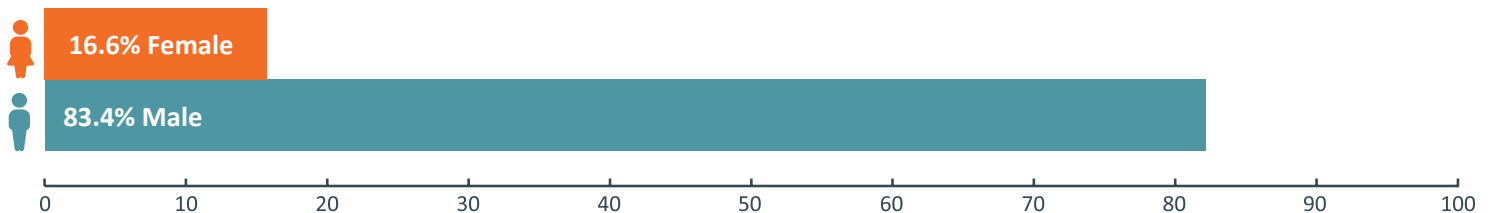
**6,806 Engineers and
Designers Workers**
**0.7% Increase from
2020**



Engineers and Designers Worker Demographics

According to 2021 Emsi data, the 6,806 workers in the engineering and design group are not particularly diverse. Just 6.8 percent of the related workforce is under 25, likely due to the consistently high educational requirements. Female workers account for 16.6 percent of the current workforce and only 20.1 percent identify as a race other than white; as the labor force overall continues to change, this field would benefit from seeking a more diverse talent pool.

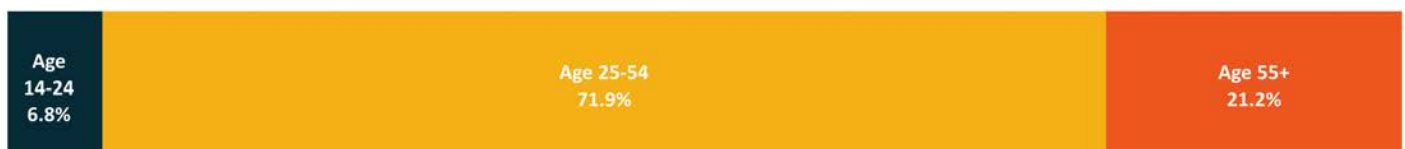
Worker Gender Demographics



Race and Ethnicity Demographics

79.9% White | 10.4% Asian | 5.1% Black or African-American

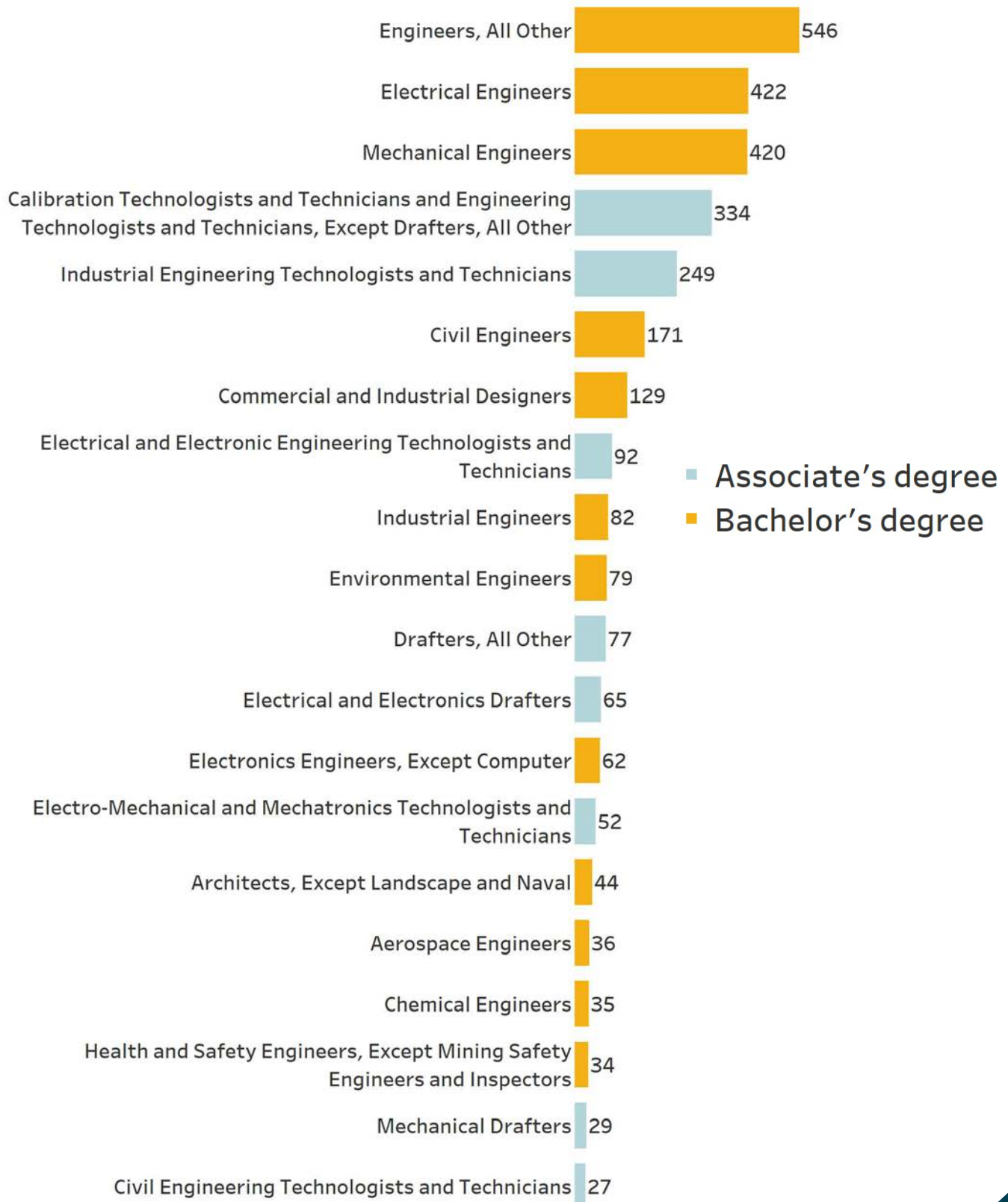
Worker Age Demographics



ENGINEERS AND DESIGNERS OCCUPATION GROUP

Top Posted Jobs

Engineers, All Other was the highest in-demand engineering and design occupation during 2021, with 546 postings. Electrical Engineers were also in high demand with 422 postings, putting it the second highest demanded within the occupation group. Over half of the top ten in-demand occupations typically require a bachelor's degree, indicating the importance of higher education as a requirement to enter this occupation group.



ENGINEERS AND DESIGNERS OCCUPATION GROUP

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, Engineers, All Other, offers a median hourly wage of \$50.91. This reflects an annual salary of approximately \$105,892.

Wage Overview for Top Posted Engineers and Designers Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Engineers, All Other	\$25.40	\$41.28	\$50.91	\$60.30	\$68.29
17-2071	Electrical Engineers	\$27.15	\$32.94	\$40.92	\$49.80	\$60.89
17-2141	Mechanical Engineers	\$28.81	\$35.49	\$46.90	\$59.16	\$68.95
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$15.52	\$18.31	\$27.16	\$35.71	\$43.13
17-3026	Industrial Engineering Technologists and Technicians	\$15.97	\$19.64	\$25.89	\$35.27	\$44.86
17-2051	Civil Engineers	\$27.23	\$34.20	\$43.29	\$53.70	\$63.01
27-1021	Commercial and Industrial Designers	\$27.52	\$34.59	\$44.59	\$51.13	\$62.10
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$16.03	\$19.38	\$23.62	\$32.09	\$39.03
17-2112	Industrial Engineers	\$28.96	\$35.16	\$43.72	\$52.88	\$61.36
17-2081	Environmental Engineers	\$33.77	\$38.41	\$48.57	\$57.97	\$62.92

In-Demand Technical Skills

- Electrical Engineering
- Computer-Aided Design
- Mechanical Engineering
- MATLAB
- Python (Programming Language)

In-Demand Foundational Skills

- Communications
- Problem Solving
- Management
- Troubleshooting
- Written Communication

In-Demand Certifications

- Licensed Professional Engineer
- Security Clearance
- Engineer in Training
- Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)
- Commercial Driver's License (CDL)

In-Demand Education Level*

- High School Diploma: 10.1%
- Associate Degree: 10.1%
- Bachelor's Degree: 43.5%
- Master's Degree: 16.5%

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

Top Posting Employers

- KLA
- Belcan
- PDS Tech
- University of Michigan
- Barr Engineering
- Aerotek
- GPAC
- Hyundai Kia America Technical Center
- V2Soft
- HDR

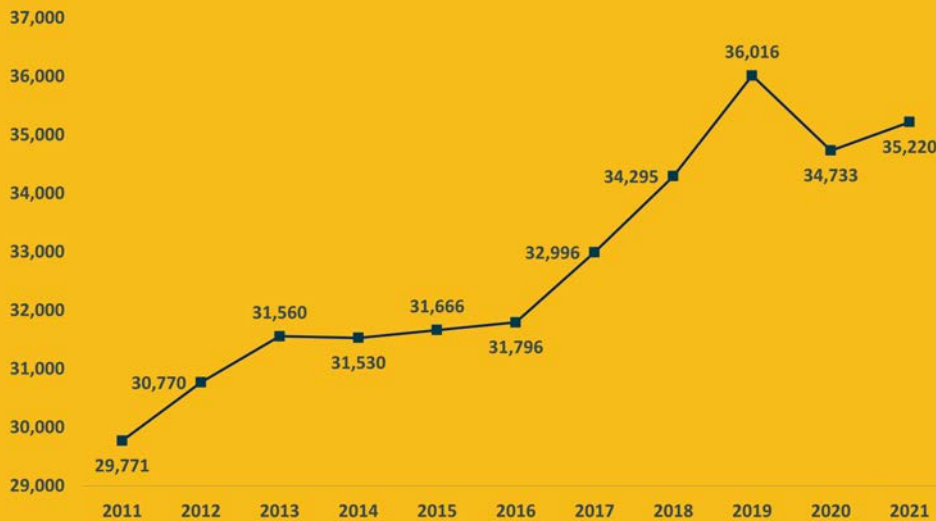
Job Postings by City

1. Ann Arbor: 2,250 Postings
2. Saline: 447 Postings
3. Ypsilanti: 169 Postings
4. Chelsea: 154 Postings
5. Dexter: 57 Postings
6. Whitmore Lake: 39 Postings
7. Manchester: 20 Postings
8. Willis: 2 Postings

HEALTH CARE OCCUPATION GROUP

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, with more health care workers needed to care for Michigan's aging population. 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.

Employment Over Time
2011-2021



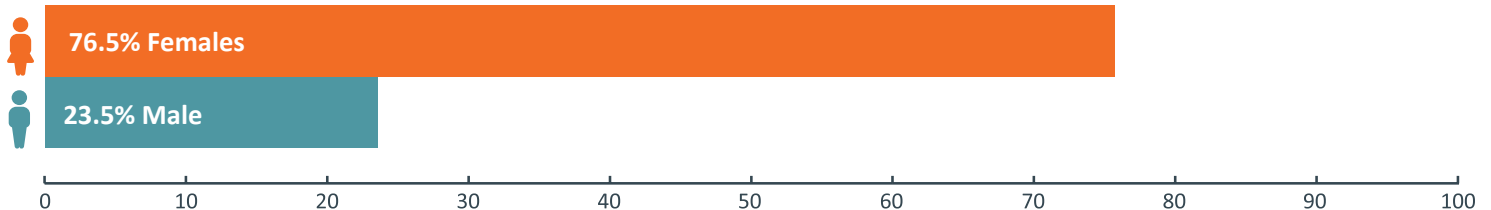
**35,220 Health
Care Workers**
1.4% Increase
from 2020



Health Care Worker Demographics

According to 2021 Emsi data, the health care occupation group employed 35,220 workers in Washtenaw County, who are overwhelmingly female (76.5 percent) and between the ages of 25 and 54 (70.8 percent), although 21.0 percent of workers are over 54. The healthcare occupation group is primarily white in Washtenaw County, with 77.5 percent of workers identifying as white, 10.7 percent identifying as Black or African American, and 11.9 percent identifying otherwise.

Worker Gender Demographics



Race and Ethnicity Demographics

77.5% White | **10.7% Black or African-American** | **7.1% Asian**

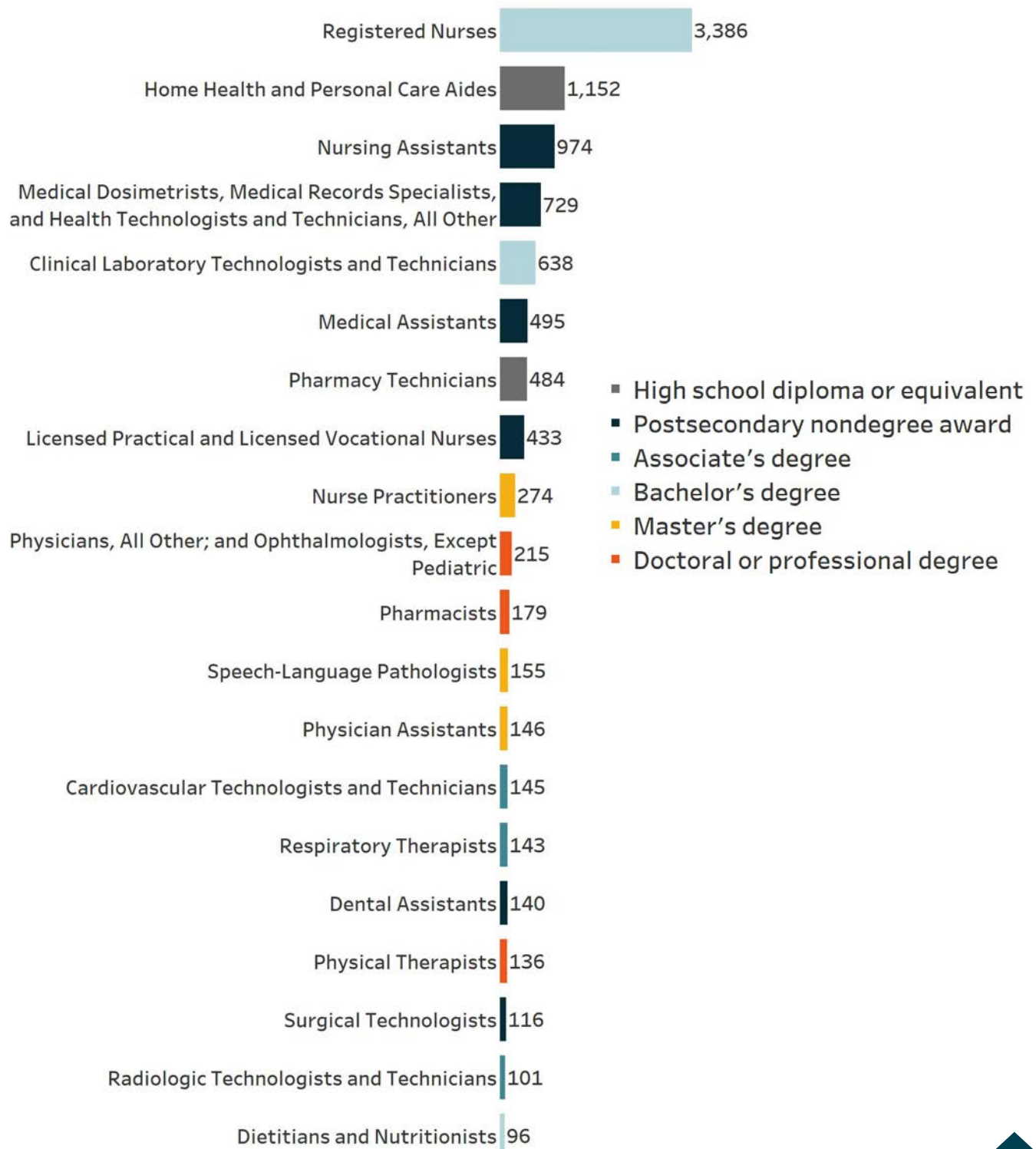
Worker Age Demographics



HEALTH CARE OCCUPATION GROUP

Top Posted Jobs

Registered Nurses was the highest in-demand health care occupation throughout 2021, with 3,386 postings. Other top posted jobs include Home Health and Personal Care Aides (1,152 postings), Nursing Assistants (974 postings), Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other (729 postings), and Clinical Laboratory Technologists and Technicians (638 postings). Top occupations in health care are available at many education levels, and employment for some roles, such as Home Health and Personal Care Aides and Pharmacy Technicians (484 postings), only require a high school diploma or equivalent, coupled with short to moderate-term on-the-job training.



HEALTH CARE OCCUPATION GROUP

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. Most of the top-posted jobs pay over \$15.00 per hour. Registered Nurses, the top posted health care job, offers a median hourly wage of \$38.10 per hour or an annual salary of about \$79,248.

Wage Overview for Top Posted Health Care Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$28.97	\$33.10	\$38.10	\$45.02	\$51.73
31-1128	Home Health and Personal Care Aides	\$10.23	\$10.78	\$11.70	\$13.22	\$15.41
31-1131	Nursing Assistants	\$13.56	\$15.07	\$17.30	\$19.69	\$23.03
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	\$15.59	\$20.00	\$24.42	\$30.34	\$36.56
29-2018	Clinical Laboratory Technologists and Technicians	\$15.51	\$19.43	\$28.01	\$34.27	\$38.56
31-9092	Medical Assistants	\$13.74	\$15.77	\$17.51	\$19.23	\$21.15
29-2052	Pharmacy Technicians	\$11.85	\$15.13	\$19.41	\$22.73	\$24.54
29-2061	Licensed Practical and Licensed Vocational Nurses	\$21.02	\$23.26	\$26.09	\$28.51	\$30.53
29-1171	Nurse Practitioners	\$43.81	\$48.59	\$54.13	\$60.25	\$64.04
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	\$31.45	\$37.56	\$96.85	\$106.96	\$140.12

In-Demand Technical Skills

- Nursing
- Nursing Care
- Cardiopulmonary Resuscitation (CPR)
- Basic Life Support
- Clinical Practices

In-Demand Foundational Skills

- Communications
- Innovation
- Management
- Customer Service
- Interpersonal Communications

In-Demand Certifications

- Certified Nursing Assistant
- Licensed Practical Nurse
- Patient Care Technician
- Nurse Practitioner
- Certified Pharmacy Technician

In-Demand Education Level*

- High School Diploma: 26.1%
- Associate Degree: 19.3%
- Bachelor's Degree: 12.5%
- Master's Degree: 6.2%

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

Top Posting Employers

- University of Michigan
- Trinity Health
- US Department of Veterans Affairs
- HCR ManorCare
- IHA
- RPh on the Go
- St. Jude Children's Research Hospital
- Mercy Medical Center Clinton
- Kennedy Care
- Dignity Health

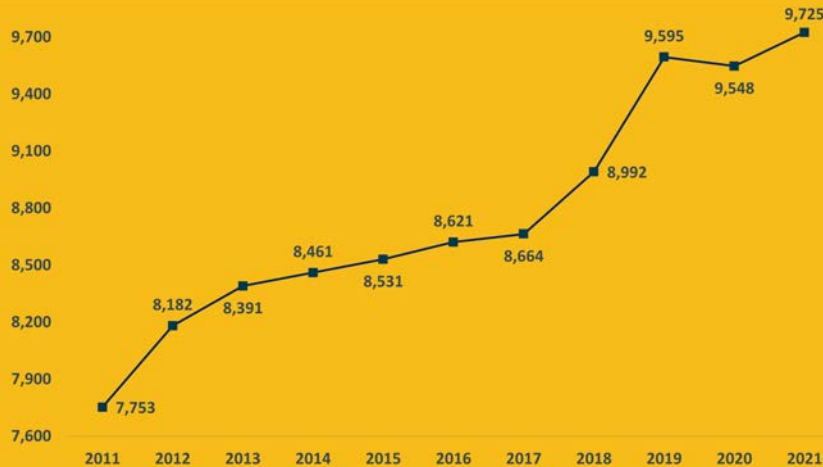
Job Postings by City

1. Ann Arbor: 8,698 Postings
2. Ypsilanti: 1,545 Postings
3. Chelsea: 813 Postings
4. Saline: 321 Postings
5. Whitmore Lake: 201 Postings
6. Dexter: 137 Postings
7. Willis: 34 Postings
8. Manchester: 28 Postings
9. Bridgewater: 11 Postings
10. Salem: 8 Postings

INFORMATION TECHNOLOGY OCCUPATION GROUP

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 annually.

Employment Over Time
2011-2021



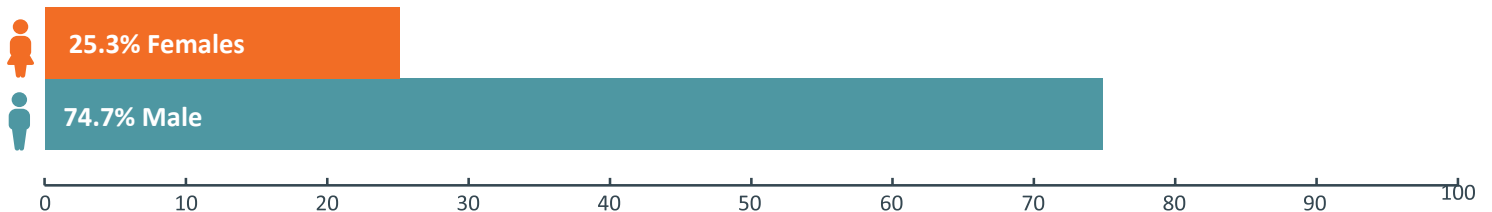
**9,725 Information
Technology Workers**
1.9% Increase from
2020



Information Technology Worker Demographics

According to 2021 Emsi data, Washtenaw County has 9,725 IT workers. The workforce is not overly diverse, with most workers identifying as male (74.7 percent) between the ages of 25 and 54 (77.1 percent). Workers aged 55 years and older account for 13.8 percent, while only 9.1 percent are 24 years old or younger. Around 73.8 percent of the workforce identify as white, with workers who identify as Black or African American making up 5.9 percent of the workforce.

Worker Gender Demographics



Race and Ethnicity Demographics

73.8% White | 15.3% Asian | 5.9% Black or African-American

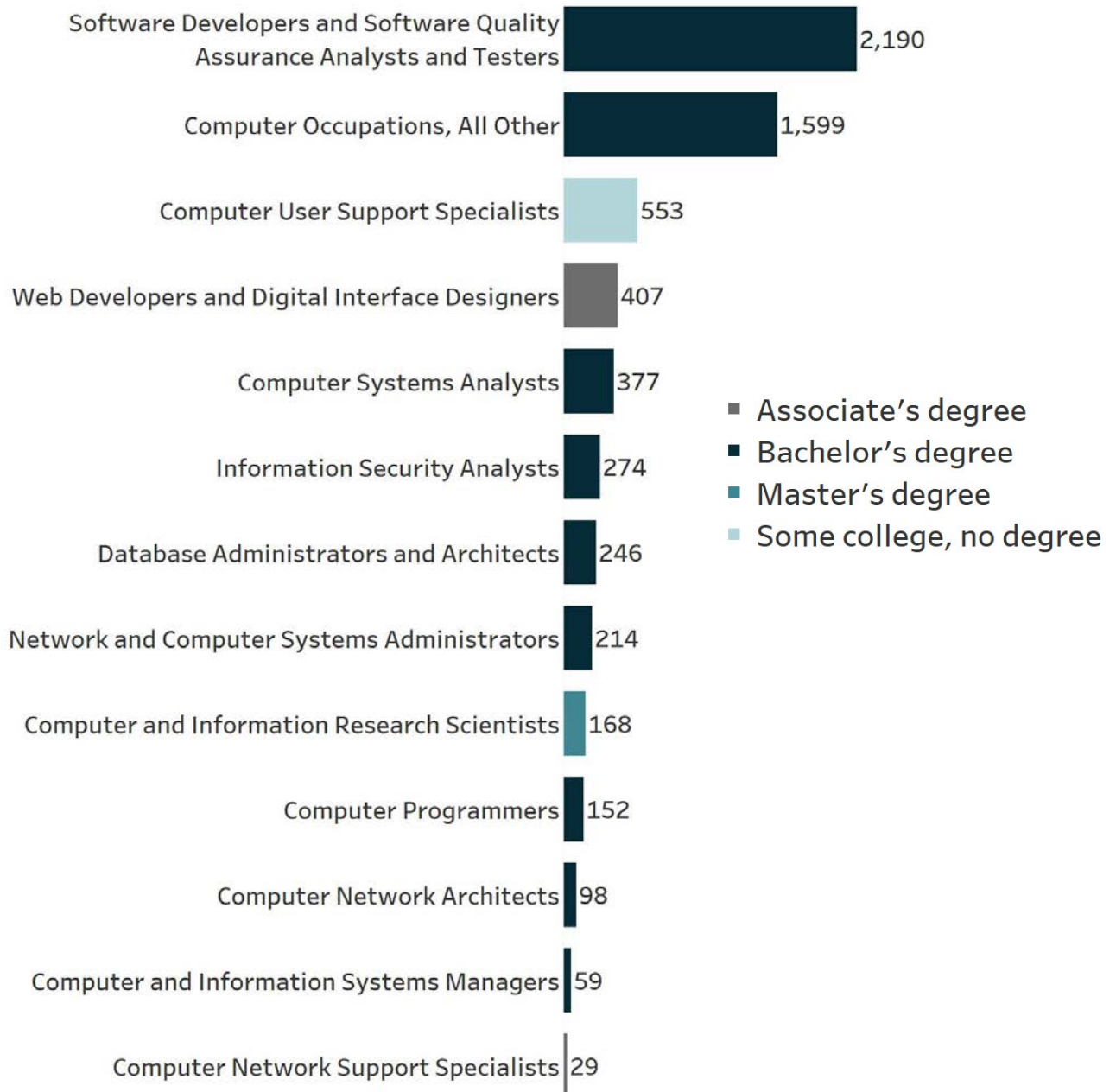
Worker Age Demographics



INFORMATION TECHNOLOGY OCCUPATION GROUP

Top Posted Jobs

In 2021, there were 6,366 postings for IT workers in Washtenaw County. Software Developers and Software Quality Assurance Analysts and Testers was the most in-demand occupation for 2021, with 2,190 postings, closely followed by Computer Occupations, All Other, with 1,599 postings. Computer User Support Specialists (553 postings) and Web Developers and Digital Interface Designers (407 postings) were also high in-demand occupations. Although the top IT jobs generally require a bachelor's degree, Computer User Support Specialists, typically require some college, no degree.



INFORMATION TECHNOLOGY OCCUPATION GROUP

Wage Overview

In-demand IT occupations provide high wages, even for those at entry-level and with fewer credentials. Software Developers and Software Quality Assurance Analysts and Testers, the most in-demand occupation, offers a median hourly wage of \$44.40 per hour or almost \$92,352 per year. Computer and Information Systems Managers earn the highest median wage at \$62.03 per hour or nearly \$129,022 per year. Other occupations that have fewer qualifications, such as Computer User Support Specialists and Web Developers and Digital Interface Designers, make over \$22.00 per hour.

Wage Overview for Top Posted Information Technology Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	\$28.48	\$35.53	\$44.40	\$54.94	\$64.37
15-1299	Computer Occupations, All Other	\$20.91	\$24.02	\$32.48	\$47.00	\$59.40
15-1232	Computer User Support Specialists	\$12.51	\$17.09	\$22.59	\$29.43	\$36.68
15-1257	Web Developers and Digital Interface Designers	\$14.75	\$25.75	\$34.33	\$42.27	\$51.67
15-1211	Computer Systems Analysts	\$27.16	\$33.13	\$40.52	\$48.41	\$54.23
15-1212	Information Security Analysts	\$30.53	\$36.58	\$45.23	\$55.01	\$66.91
15-1245	Database Administrators and Architects	\$29.84	\$35.52	\$45.06	\$55.33	\$62.32
15-1244	Network and Computer Systems Administrators	\$27.58	\$31.80	\$37.90	\$45.57	\$53.23
15-1221	Computer and Information Research Scientists	\$30.38	\$38.25	\$48.94	\$61.86	\$72.85
15-1251	Computer Programmers	\$17.37	\$25.25	\$39.81	\$49.52	\$58.79

In-Demand Technical Skills

- Python (Programming Language)
- SQL (Programming Language)
- Agile Methodology
- Computer Science
- Software Development

In-Demand Foundational Skills

- Communications
- Management
- Problem Solving
- Troubleshooting
- Research

In-Demand Certifications

- Security Clearance
- Certified Information Systems Security Professional
- Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)
- Project Management Professional (PMP)
- Cisco Certified Network Associate

In-Demand Education Level*

- High School Diploma: 3.6%
- Associate Degree: 3.8%
- Bachelor's Degree: 49.6%
- Master's Degree: 15.9%

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

Top Posting Employers

- University of Michigan
- KLA
- Cisco
- Evolutz Corp
- Domino's Pizza
- Deloitte
- Stout Systems Development
- ProQuest
- Nexient
- Robert Half

Job Postings by City

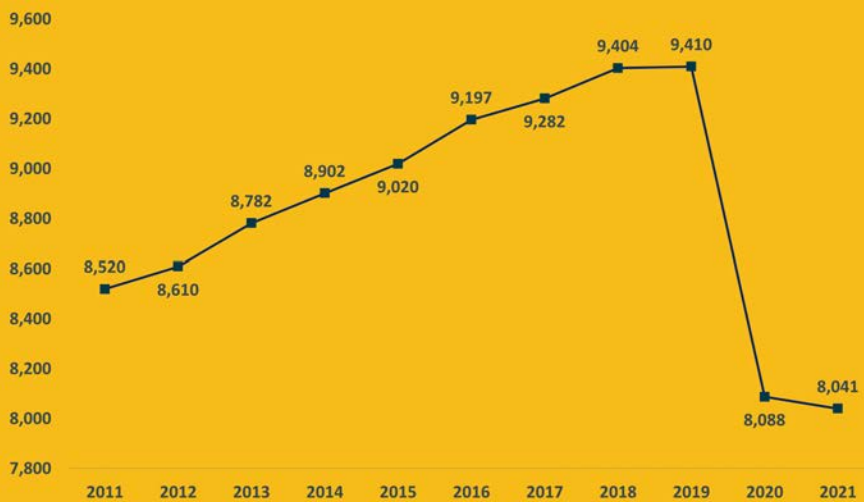
- Ann Arbor: 5,836 Postings
- Saline: 185 Postings
- Ypsilanti: 179 Postings
- Chelsea: 90 Postings
- Dexter: 31 Postings
- Manchester: 21 Postings
- Whitmore Lake: 13 Postings
- Willis: 6 Postings
- Bridgewater: 2 Postings
- Whittaker: 2 Postings

SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

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
2011-2021

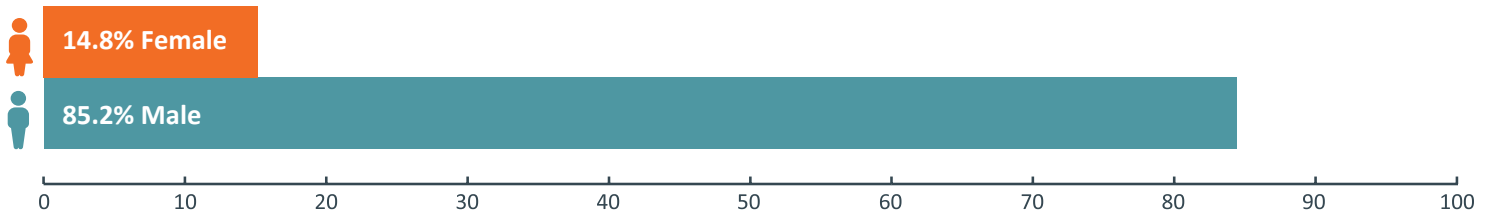


**8,041 Skilled
Trades Workers**
**0.6% Decrease
from 2020**

Skilled Trades Worker Demographics

According to 2021 Emsi data, the skilled trades occupation group employed about 8,041 workers in Washtenaw County. The majority of skilled trades workers are male (85.2 percent) between the ages of 25 and 54 (66.5 percent). Due to the aging workforce, additional outreach will be necessary as 25.7 percent are 55 years of age or older.

Worker Gender Demographics



Race and Ethnicity Demographics

77.3% White | **12.4% Black or African-American** | **5.4% Hispanic or Latino**

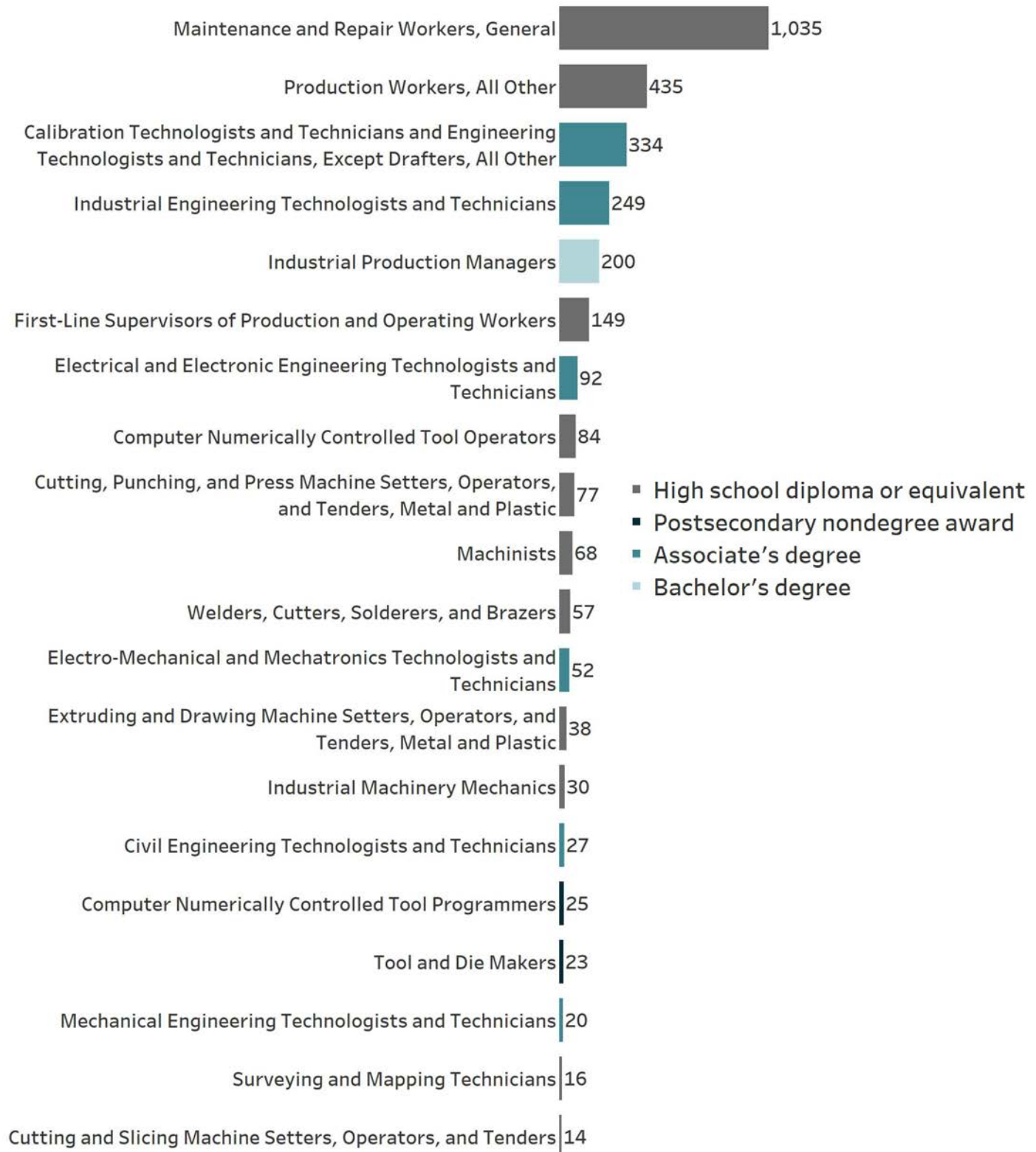
Worker Age Demographics



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Top Posted Jobs

Maintenance and Repair Workers, General was the highest in-demand skilled trades occupation during 2021, with 1,035 postings. Other top posted jobs include Production Workers, All Other (435 postings), Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (334 postings), Industrial Engineering Technologists and Technicians (249 postings), and Industrial Production Managers (200 postings).



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Wage Overview

Well over half of the top ten in-demand skilled trades occupations have median wages above \$20.00 per hour, while the remaining top occupations have wages above \$13.00 per hour. Maintenance and Repair Workers, General, the top posted skilled trades job in 2021, offers a median hourly wage of \$21.02, which translates to an annual salary of about \$43,721.

Wage Overview for Top Posted Skilled Trades Jobs in 2021

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	\$12.80	\$15.36	\$21.02	\$28.38	\$32.90
51-9199	Production Workers, All Other	\$10.48	\$11.52	\$13.65	\$16.72	\$19.07
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$15.52	\$18.31	\$27.16	\$35.71	\$43.13
17-3026	Industrial Engineering Technologists and Technicians	\$15.97	\$19.64	\$25.89	\$35.27	\$44.86
11-3051	Industrial Production Managers	\$36.40	\$47.32	\$60.39	\$74.13	\$86.45
51-1011	First-Line Supervisors of Production and Operating Workers	\$20.94	\$26.20	\$34.11	\$45.05	\$54.19
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$16.03	\$19.38	\$23.62	\$32.09	\$39.03
51-9161	Computer Numerically Controlled Tool Operators	\$13.68	\$18.02	\$23.18	\$28.49	\$33.16
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$12.53	\$13.85	\$16.31	\$19.99	\$32.13
51-4041	Machinists	\$15.52	\$17.97	\$22.71	\$27.84	\$30.79

In-Demand Technical Skills

- Plumbing
- HVAC
- Painting
- Machinery
- Carpentry

In-Demand Foundational Skills

- Communications
- Valid Driver's License
- Management
- Troubleshooting
- Operations

In-Demand Certifications

- Commercial Driver's License (CDL)
- HVAC Certification
- EPA Universal Certification
- Automotive Service Excellence (ASE) Certification
- Security Clearance

In-Demand Education Level*

- High School Diploma: 40.1%
- Associate Degree: 15.3%
- Bachelor's Degree: 11.5%
- Master's Degree: 1.8%

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

Top Posting Employers

- ManpowerGroup
- University of Michigan
- Adecco
- Stanley Black & Decker
- Orchid Orthopedic Solutions
- QIAGEN GmbH
- Aerotek
- MMI Engineered Solutions
- Diverse Staffing
- Sheridan Group

Job Postings by City

1. Ann Arbor: 1,752 Postings
2. Saline: 370 Postings
3. Ypsilanti: 369 Postings
4. Chelsea: 224 Postings
5. Dexter: 219 Postings
6. Whitmore Lake: 86 Postings
7. Manchester: 80 Postings
8. Willis: 4 Postings

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