WORKFORCE INTELLIGENCE NETWORK

Research. Engagement. Solutions.

LABOR MARKET REPORT WINDERSON

Q4 2022 October - December

INTRODUCTION

WIN Region

Q4 2022



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 the WIN Region, 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 third quarter 2022 labor market information from the WIN Region for all eleven 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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ANNUAL STATE OF THE LABOR MARKET

WIN Region

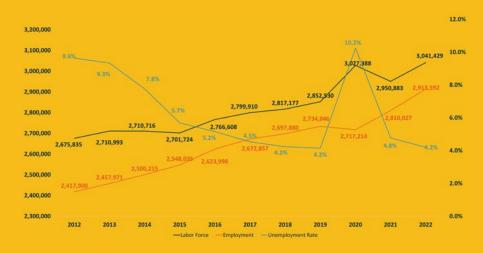
During the fourth quarter of 2022, the labor force and employment figures both declined slightly, while unemployment decreased considerably from Q3 2022 in Southeast Michigan. The number of unemployed workers decreased by 10.3 percent, with the size of the labor force also decreasing by 0.4 percent and the number of employed individuals decreasing by a very slim 0.04 percent. These trends demonstrate decreased hiring rates as the economic recovery levels off from the COVID-19 pandemic.

Overall employer demand for the occupation groups analyzed by WIN has decreased during Q4 2022. Only Education and Skilled Trades experienced marginal growth while all other occupation groups saw moderate decline.

Annual Labor Market Information

labor The force in Southeast Michigan continues to rise in 2022, adding 90,546 individuals from 2021, or 3.1 percent. Employment tracked proportionately to the labor force, reporting an increase of 3.7 percent, or 103,565 more workers, in the 2022. quarter of The unemployment rate declined slightly during the same period for a rate of 4.2 percent.

Annual Labor Force, Employment, Unemployment Rate 2012–2022

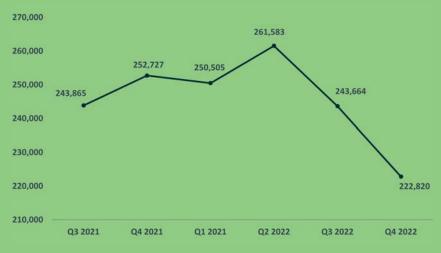


Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data from the fourth quarter of 2022, including posting information from October, November and December, showed a decrease in demand levels in Southeast Michigan, down by 20,844 postings or 8.6 percent since Q3 2022. Over the past year, postings have decreased by 29,907 compared with Q4 2021, down 9.9 percent. This was further supported by diminishing employer demand within the quarter, as observed by the steady decline month over month.

Average Quarterly Posting Analysis WIN Region Q3 2021 - Q4 2022



Data: Lightcast | Analysis: Workforce Intelligence Network

QUARTERLY WORKFORCE INDICATORS

Key Findings

9%

Decrease in employer demand, a loss of 35,969 job postings from Q3 2022

Bachelor's Degree

Most in-demand minimum education level during Q4 2022

In Q4 2022, employment totaled

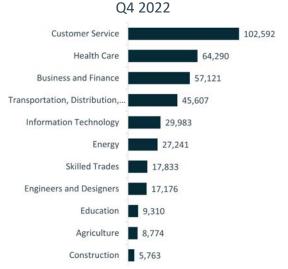
2,913,592

an decrease of 18,259 workers since Q3 2022

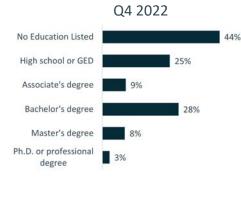
During Q4 2022, there were 373,722 unique job postings, or 35,969 (9.6 percent) fewer than the 409,691 postings made during Q3 2022 in the 19-county WIN region. Most occupation groups this quarter saw a decrease in postings, indicative of slowing demand in the region. The Customer Service Occupation group had the greatest demand with 102,592 unique postings. The top posted job titles include Registered Nurses, Retail Salespersons, Software Developers, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, and First-Line Supervisors of Retail Sales Workers. For more information about in-demand job postings, see page 7.

Of the 373,722 unique postings in the WIN Region during Q4 2022, over 94,000 (25.2 percent) required a high school diploma or equivalent, while 106,341 postings (28.5 percent) required a Bachelor's degree. An additional 41,405 postings (11.1 percent) required an advanced degree.





In-Demand Education Levels



Through the fourth quarter of 2022, the labor force in Southeast Michigan experienced a marginal contraction. This continued the back-and-forth cycle of growth and decline observed over the past four quarters. In Q4, the labor force is up by 37,519 individuals (1.3 percent) since 2021, while employment in the 19-county area increased by 62,890 workers (2.2 percent). Although the labor force and employment both experienced decline from Q3, unemployment still decreased by 11,889 individuals. The unemployment rate also decreased, for a Q4 2022 unemployment rate of 3.4 percent.

Quarterly Labor Market Data

| | 4th Quarter 2021 | 1st Quarter 2022 | 2nd Quarter 2022 | 3rd Quarter 2022 | 4th Quarter 2022 | Change from 3rd Quarter 2022 | Percent Change from 3rd Quarter 2022 | Change from 4th Quarter 2021 | Percent Change from 4th Quarter 2021 |
|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------------|---|------------------------------------|---|
| Labor Force | 2,997,528 | 3,050,856 | 3,031,567 | 3,048,245 | 3,035,047 | -13,198 | -0.4% | 37,519 | 1.3% |
| Employment | 2,868,100 | 2,898,752 | 2,892,325 | 2,932,299 | 2,930,990 | -1,309 | 0.0% | 62,890 | 2.2% |
| Unemployment | 129,428 | 152,105 | 139,241 | 115,946 | 104,057 | -11,889 | -10.3% | -25,371 | -19.6% |
| Unemployment Rate | 4.3% | 5.0% | 4.6% | 3.8% | 3.4% | -0.4% | na | -0.9% | na |

Note: Monthly data averaged by quarter Data: Bureau of Labor Statistics Data: Lightcast | Analysis: Workforce Intelligence Network

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Through the fourth quarter of 2022, the labor force in Southeast Michigan has seen steady growth as individuals return to the job market. The labor force is up by 90,546 individuals (3.1 percent) since 2021, while employment in the 19-county area increased by 103,565 workers (3.7 percent). With both the labor force and employment increasing, unemployment decreased by 13,019 individuals. The unemployment rate also decreased, for a Q4 2022 unemployment rate of 4.2 percent.

Annual Labor Market Data 2011-2022

| | 2012 Annual | 2013 Annual | 2014 Annual | 2015 Annual | 2016 Annual | 2017 Annual | 2018 Annual | 2019 Annual | 2020 Annual | 2021 Annual | 2022 Annual | Change from 2021 to 2022 | Percent Change from 2021 to 2022 |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------|---|
| Labor Force | 2,675,835 | 2,710,993 | 2,710,716 | 2,701,724 | 2,766,608 | 2,799,910 | 2,817,177 | 2,852,530 | 3,027,388 | 2,950,883 | 3,041,429 | 90,546 | 3.1% |
| Employment | 2,417,900 | 2,457,971 | 2,500,215 | 2,548,035 | 2,623,998 | 2,672,857 | 2,697,880 | 2,734,046 | 2,717,214 | 2,810,027 | 2,913,592 | 103,565 | 3.7% |
| Unemployment | 257,935 | 253,021 | 210,500 | 153,690 | 142,610 | 127,053 | 119,297 | 118,484 | 310,174 | 140,856 | 127,837 | -13,019 | -9.2% |
| Unemployment Rate | 9.6% | 9.3% | 7.8% | 5.7% | 5.2% | 4.5% | 4.2% | 4.2% | 10.2% | 4.8% | 4.2% | -0.6% | na |

Data: Bureau of Labor Statistics

CENSUS 2021 LABOR FORCE DEMOGRAPHICS

During 2021, the most recent census year, there were about 3,154,713 people in the labor force, either working or looking for work in the 19county WIN Region. The highest unemployment rates in 2021 were seen in those aged 24 years old or accounting younger, for unemployment rate of 31.9 percent for males and 26.3 percent for females. Overall, males in the county have a higher unemployment rate than females, with 6.8 percent and 6.3 percent respectively, for 2021. Black or African American job seekers have a difficult time finding employment, facing unemployment rate of 13.2 percent. Native Hawaiian/Pacific Islander job seekers also have a more difficult time finding employment and have an unemployment rate of 8.7 percent. Asian job seekers have the lowest unemployment rate of 4.1 percent.

| 3 | Civilian Labor Fo | rce by Demogra | aphic Group | |
|-----------------------|-------------------|----------------|--------------|--------------|
| | Civilian Labor | | Total | Unemployment |
| Demographic Group | Force | Employment | Unemployment | Rate |
| Total Population 16 + | 3,154,713 | 2,947,521 | 207,192 | 6.6% |
| Sex | | | | |
| Male 16+ | 1,652,218 | 1,539,868 | 112,350 | 6.8% |
| 16-19 | 67,816 | 54,478 | 13,338 | 19.7% |
| 20-24 | 161,371 | 141,636 | 19,735 | 12.2% |
| 25-54 | 1,038,291 | 977,277 | 61,014 | 5.9% |
| 55-64 | 291,821 | 277,959 | 13,862 | 4.8% |
| 65 Plus | 92,919 | 88,518 | 4,401 | 4.7% |
| Female 16+ | 1,502,495 | 1,407,653 | 94,842 | 6.3% |
| 16-19 | 72,131 | 60,912 | 11,219 | 15.6% |
| 20-24 | 159,803 | 142,604 | 17,199 | 10.8% |
| 25-54 | 930,175 | 878,280 | 51,895 | 5.6% |
| 55-64 | 261,873 | 250,962 | 10,911 | 4.2% |
| 65 Plus | 78,513 | 74,895 | 3,618 | 4.6% |
| Race | 100000 | | | |
| White | 2,320,089 | 2,200,237 | 119,852 | 5.2% |
| Black / African | | | | |
| American | 530,206 | 460,196 | 70,010 | 13.2% |
| Native American | 7,881 | 7,297 | 585 | 7.4% |
| Asian | 142,133 | 136,339 | 5,793 | 4.1% |
| Native Hawaiian / | | | | |
| Pacific Islander | 761 | 695 | 66 | 8.7% |
| Some Other Race | 37,336 | 33,778 | 3,557 | 9.5% |
| Two or More Races | 118,824 | 107,948 | 10,876 | 9.2% |
| Ethnicity | | | 101000 | |
| Hispanic | 144,934 | 133,015 | 11,919 | 9.0% |

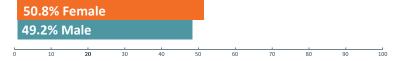
ata: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Networ

POPULATION DEMOGRAPHICS

2021 Census Population

According to data from the most recent Census Bureau 2021 ACS Five-Year estimates, there were 6,288,901 people were living in the 19-county WIN Region. The sex of the populace was split almost evenly, with 50.8 percent of the population identifying as female, and the other 49.2 percent identifying as male. A majority of the population identified as white (68.3 percent) with the second largest number of individuals identifying as Black or African American (17.3 percent). The region is facing an aging populace; with 26.3 percent of the population over the age of 54, compared to 34.6 percent under the age of 25.

Population Gender Demographics



Population Race Demographics



Population Age Demographics



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

2022 Current Workforce

While the Census Bureau data lags by about two years, Lightcast uses predictive modeling to estimate workforce information. In Q4 2022, there were a total of 2,646,900 individuals working in Southeast Michigan. A slight majority were male (51.2 percent or 1,350,857 workers), (1,288,251 while 48.8 percent workers) workforce was female. Most of those working in the region were white, accounting for 73.6 percent of the workforce, while African American or black workers accounted for 15.2 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 4.6 percent. Only 13.3 percent of workers were under the age of 25 compared to 23.6 percent over the age of 55, indicating an aging workforce in Southeast Michigan.

Workforce Gender Demographics



Workforce Race and Ethnicity Demographics



Workforce Age Demographics

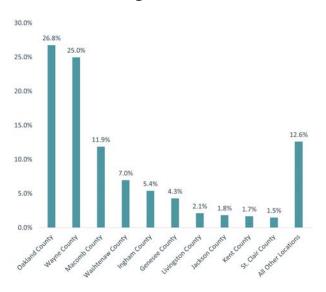


Data: Lightcast | Analysis: Workforce Intelligence Network

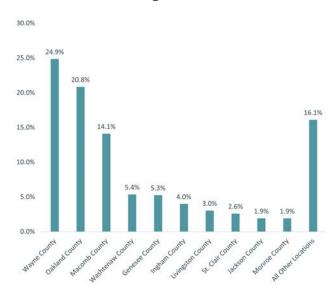
REGIONAL COMMUTING PATTERNS

According to the most recent OnTheMap data set available from the Census Bureau, during 2020, the region's workforce consisted of 2,37,409 residents. There were 2,195,582 (92.5 percent) residents living and working within the 19-county region, while the remaining 178,827 residents (7.5 percent) traveled outside of the region for work. There were 2,386,183 workers employed in the region during 2020. Of those, 190,601 workers (8.0 percent) lived outside of the region's borders and commuted in. From this information, we can see that the Southeast Michigan area is a net importer of jobs, with more workers leaving the area for employment than inwardly commuting.

Where Michigan Residents Work



Where Michigan Workers Live



Source: U.S. Census OnTheMap, 2020
Analysis: Workforce Intelligence Network

Source: U.S. Census OnTheMap, 2020
Analysis: Workforce Intelligence Network

Job Postings by City

1. Detroit: 53,288 Postings

2. Lansing: 28,571 Postings

3. Ann Arbor: 23,285 Postings

4. Troy: 16,267 Postings

5. Southfield: 11,010 Postings

6. Warren: 10,516 Postings

7. Livonia: 10,113 Postings

8. Auburn Hills: 10,005 Postings

9. Dearborn: 9,858 Postings

10. Novi: 9,141 Postings



TOP POSTED JOBS

Top Posted Jobs: Q4 2022

Registered Nurses was the highest in-demand occupation in the fourth quarter of 2022, with 20,293 online job postings, this corresponds to the high demand for healthcare workers in general. Of the top ten overall in-demand occupations, only four require a bachelor's degree for entry. Retail Salesperson (11,905 postings) and Software Developers (9,775 postings) are also highly demanded in Q4. Rounding out the remaining top five posted jobs are Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (7,870 postings) and First-Line Supervisors of Retail Sales Workers (7,819 postings).

Registered Nurses 20,293 11,905 Retail Salespersons Software Developers Sales Representatives, Wholesale and Manufacturing, **Except Technical and Scientific Products** First-Line Supervisors of Retail Sales Workers Fast Food and Counter Workers 7.499 Customer Service Representatives 6.363 Managers, All Other Computer Occupations, All Other 5.892 Home Health and Personal Care Aides Janitors and Cleaners, Except Maids and 5,302 Housekeeping Cleaners Maintenance and Repair Workers, General 5.175 Heavy and Tractor-Trailer Truck Drivers 5.095 Laborers and Freight, Stock, and Material Movers 5.039 Food Service Managers Medical and Health Services Managers Nursing Assistants 3,690 General and Operations Managers 3,689 Secretaries and Administrative Assistants, Except 3,682 Legal, Medical, and Executive

Typical Entry Education No formal educational credential High school diploma or equivalent

Stockers and Order Fillers

High school diploma or equivalent
Postsecondary nondegree award
Bachelor's degree

Top Posted Entry-Level Jobs: Q4 2022

There were 101,177 online job ads open to individuals with zero to two years of previous work experience. Entry-level jobs such as Registered Nurses (10,350 postings) and First-Line Supervisors of Retail Sales Workers (2,980 postings) represent the top posted occupations for this experience level, and many reflect the overall top jobs. Over half of the top 20 occupations require candidates to have no formal education or a high school diploma, coupled with short to moderate-term on-the-job training. Many applicants for these entry level occupations, regardless of the education requirement, could benefit from taking some coursework to develop the skills requested in job postings.



Typical Entry Education

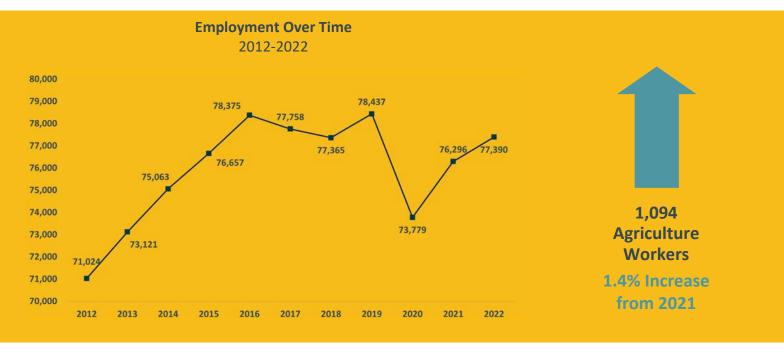
Bachelor's degree

No formal educational credential
High school diploma or equivalent

Postsecondary nondegree award

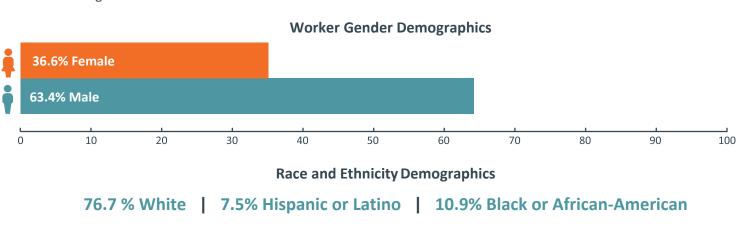
AGRICULTURE OCCUPATION GROUP

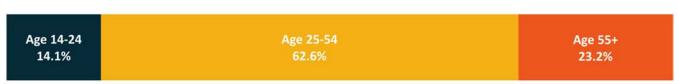
WIN's agriculture occupation group brings together occupations that require knowledge of farming, livestock, the environment, and natural sciences. Occupations range from Farm Workers, Environmental Engineers, Meat Butchers, or Recreation Workers. There are approximately 10,700 openings for these positions each year in Southeast Michigan.



Agriculture Worker Demographics

According to 2022 Lightcast data, the 77,390 workers in agriculture occupations are not very diverse. A majority of workers are male (63.4 percent) between the ages of 25 and 54 (62.6 percent). Only 36.6 percent of agriculture workers identify as female, while 14.1 percent of workers were under the age of 25, compared to 23.2 percent of workers are age 55 or older.

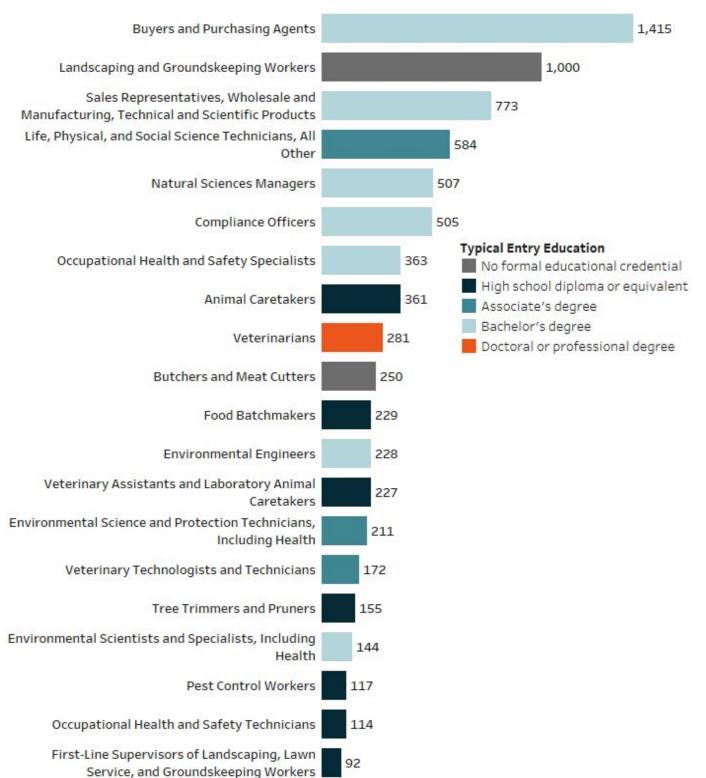




AGRICULTURE OCCUPATION GROUP

Top Posted Jobs

Agriculture postings totaled 8,774 ads during Q4 2022, a decrease of 1,843 postings or 17.4 percent since Q3 2022. With 1,415 online job postings, Buyers and Purchasing Agents are the top demanded occupation this quarter. Landscaping and Grounds keeping Workers (1,000 postings) and Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (773 postings) were also in high demand during Q4. Other top posted occupations include Life, Physical, and Social Science Technicians, All Other (555 postings) and Natural Sciences Managers (507 postings).



AGRICULTURE OCCUPATION GROUP

Wage Overview

Of the top posted agriculture-related jobs, exactly half of the top ten occupations in Q4 offer median wages of more than \$21 per hour. The top posted job, Buyers and Purchasing Agents, offers median hourly earnings of \$32.56, which translates to annual earnings of approximately \$67,724. With such a broad array of skill sets represented, Agriculture wages tend to scale with education and experience.

Wage Overview for Top Posted Agriculture Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 13-1028 | Buyers and Purchasing Agents | \$22.36 | \$24.34 | \$32.56 | \$45.08 | \$51.51 |
| 37-3011 | Landscaping and Groundskeeping Workers | \$11.82 | \$14.12 | \$14.92 | \$18.36 | \$22.59 |
| 41-4011 | Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | \$23.86 | \$35.33 | \$48.43 | \$66.43 | \$80.38 |
| 19-4099 | Life, Physical, and Social Science Technicians, All Other | \$13.67 | \$15.36 | \$20.62 | \$27.13 | \$33.66 |
| 11-9121 | Natural Sciences Managers | \$41.35 | \$48.18 | \$57.93 | \$77.32 | \$103.64 |
| 13-1041 | Compliance Officers | \$19.76 | \$25.15 | \$33.98 | \$46.94 | \$49.42 |
| 19-5011 | Occupational Health and Safety Specialists | \$24.06 | \$30.23 | \$37.99 | \$47.10 | \$50.94 |
| 39-2021 | Animal Caretakers | \$11.06 | \$11.52 | \$12.89 | \$14.86 | \$18.23 |
| 29-1131 | Veterinarians | \$29.36 | \$38.33 | \$48.34 | \$60.07 | \$77.34 |
| 51-3021 | Butchers and Meat Cutters | \$11.15 | \$12.92 | \$15.08 | \$18.35 | \$22.76 |

In-Demand Technical Skills

- **Purchasing**
- Auditing
- Procurement
- Landscaping
- **Selling Techniques**

In-Demand Foundational Skills

- Communications
- Management
- **Customer Service**
- Valid Driver's License
- Sales

In-Demand Certifications

- Commercial Driver's License (CDL)
- Master Of Business Administration (MBA)
- Pesticide Applicator License
- **Certified Safety Professional**
- Certified Veterinary Technician

In-Demand Education Level*

High School Diploma: 21.7% Associate Degree: 7.4% Bachelor's Degree: 38.5% Master's Degree: 7.5%

*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

- University Of Michigan
- State Of Michigan
- Icon Medical Imaging
- **Carrols Restaurant Group**
- **Banfield Pet Hospital**
- Edward Rose & Sons
- TruGreen
- The Davey Tree Expert Company
- **General Dynamics**
- **Aston Carter**

Job Postings by City

1. Detroit: 1,203 Postings 2. Lansing: 820 Postings

3. Ann Arbor: 712 Postings

4. Troy: 345 Postings

5. Auburn Hills: 289 Postings

6. Southfield: 235 Postings

7. Warren: 235 Postings

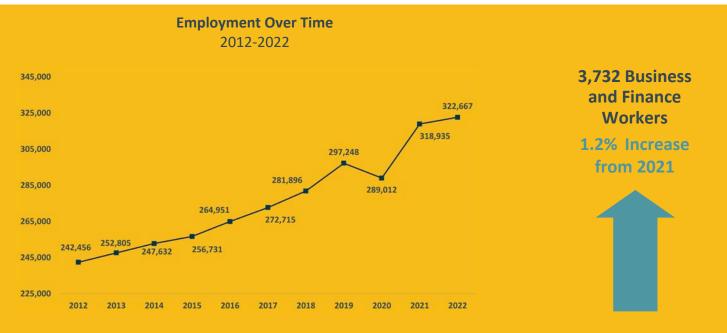
8. Livonia: 231 Postings

9. Farmington: 201 Postings

10. Novi: 183 Postings

BUSINESS AND FINANCE OCCUPATION GROUP

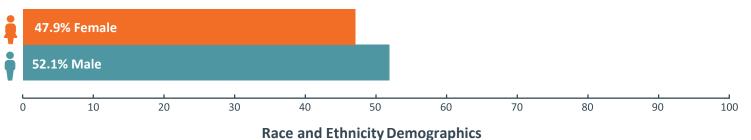
Jobs in the business and finance occupation group can be found in nearly every type of establishment/firm throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in Southeast Michigan, with about 34,800 job openings annually.



Business and Finance Worker Demographics

The business and finance occupation group is somewhat diverse in respect to its 322,667workers. Almost half the working population identify as female (47.9 percent), however 80.6 percent of workers identified as white, indicating much less diversity with respect to race than gender. Only 4.5 percent of the working population in business and finance is under the age of 25, compared to 25.0 percent age 55 and older. In some ways, this indicates an aging business and finance workforce.





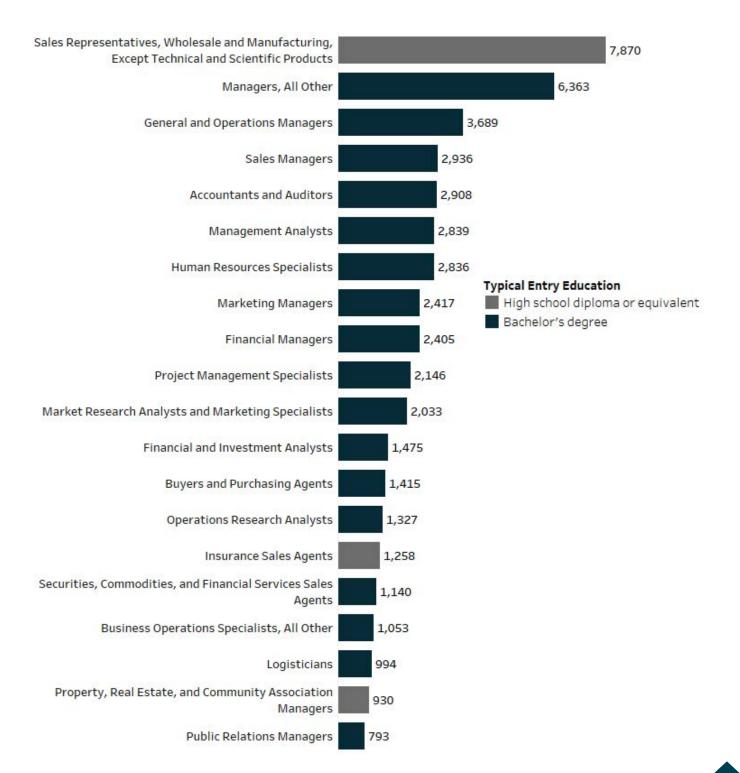
80.6% White | 10.3% Black or African-American | 4.1% Asian



BUSINESS AND FINANCE OCCUPATION GROUP

Top Posted Jobs

There were 57,121 business and finance postings during Q4 2022, a decrease of 4,009 postings or 6.6 percent since Q3 2022. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products is the top indemand occupation, with 7,870 postings. Managers, All Other (6,363 postings) is the second highest demanded occupation, while General and Operations Managers (3,689 postings), Sales Managers (2,936 postings), and Accountants and Auditors (2,908) 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, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, offers median hourly wages of \$30.89, translating to annual earnings of approximately \$64,251. All the top business occupations offer median wages over \$23 per hour, and most prefer a bachelor's degree for entry.

Wage Overview for Top Posted Business and Finance Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | \$15.50 | \$22.49 | \$30.89 | \$45.52 | \$61.63 |
| 11-9199 | Managers, All Other | \$25.48 | \$37.29 | \$52.38 | \$64.40 | \$80.13 |
| 11-1021 | General and Operations Managers | \$22.48 | \$30.30 | \$48.14 | \$74.43 | \$103.22 |
| 11-2022 | Sales Managers | \$31.14 | \$45.76 | \$61.30 | \$80.61 | \$112.24 |
| 13-2011 | Accountants and Auditors | \$23.17 | \$28.74 | \$36.17 | \$46.36 | \$57.99 |
| 13-1111 | Management Analysts | \$24.61 | \$30.77 | \$39.26 | \$50.23 | \$63.93 |
| 13-1071 | Human Resources Specialists | \$19.04 | \$23.45 | \$29.77 | \$37.97 | \$46.81 |
| 11-2021 | Marketing Managers | \$31.52 | \$46.14 | \$60.86 | \$78.62 | \$106.03 |
| 11-3031 | Financial Managers | \$37.33 | \$47.10 | \$60.14 | \$78.07 | \$110.79 |
| 13-1082 | Project Management Specialists | \$25.09 | \$31.06 | \$44.40 | \$58.71 | \$63.83 |

In-Demand Technical Skills

- Marketing
- Finance
- Accounting
- Auditing
- Sales Prospecting

In-Demand Foundational Skills

- Communications
- Management
- Sales
- Leadership
- Customer Service

In-Demand Certifications

- Master Of Business Administration (MBA)
- Certified Public Accountant
- Project Management Professional Certification
- Security Clearance
- Certified Internal Auditor

In-Demand Education Level*

High School Diploma: 16.3%
Associate Degree: 8.0%
Bachelor's Degree: 59.9%
Master's Degree: 13.0%

*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
- Deloitte
- State Of Michigan
- KPMG
- Robert Half
- Comerica
- General Dynamics
- PricewaterhouseCoopers
- Kelly Services
- State Farm

Job Postings by City

Detroit: 12,507 Postings
 Lansing: 7,070 Postings
 Ann Arbor: 4,012 Postings

4. Troy: 3,387 Postings

5. Southfield: 2,366 Postings

6. Auburn Hills: 1,738 Postings7. Farmington: 1,595 Postings

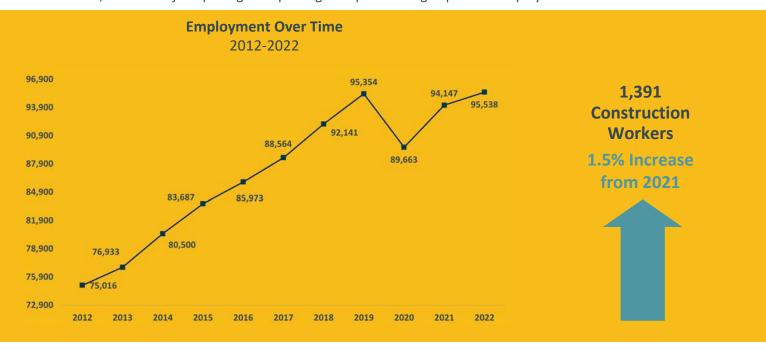
8. Livonia: 1,583 Postings

9. Warren: 1,530 Postings

10. Novi: 1,448 Postings

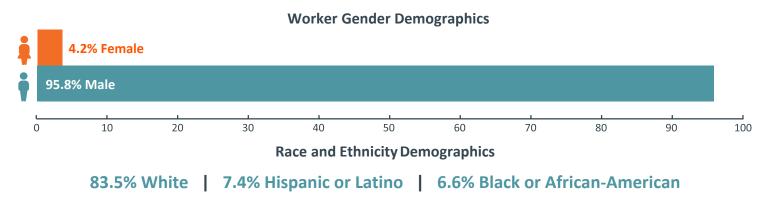
CONSTRUCTION OCCUPATION GROUP

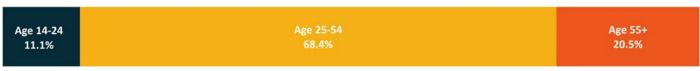
Jobs in the WIN construction occupation group are associated with skilled trades, engineering, management, and planning. Many construction employers are slowly adopting online job search methods, so online job ads may not provide a complete picture of demand for these workers. Even so, it is an important and in-demand occupation group for Southeast Michigan, with about 12,200 annual job openings and posting data provides a glimpse into employer needs.



Construction Worker Demographics

According to 2022 Lightcast data, the construction occupation group is not very diverse, despite having over 95,000 workers. A large majority of workers are male (95.8 percent) between the ages of 25 and 54 (68.4 percent). Only 4.2 percent of agriculture workers identify as women, while 11.1 percent of workers were under the age of 25, compared to 20.5 percent of workers who are age 55 or older.

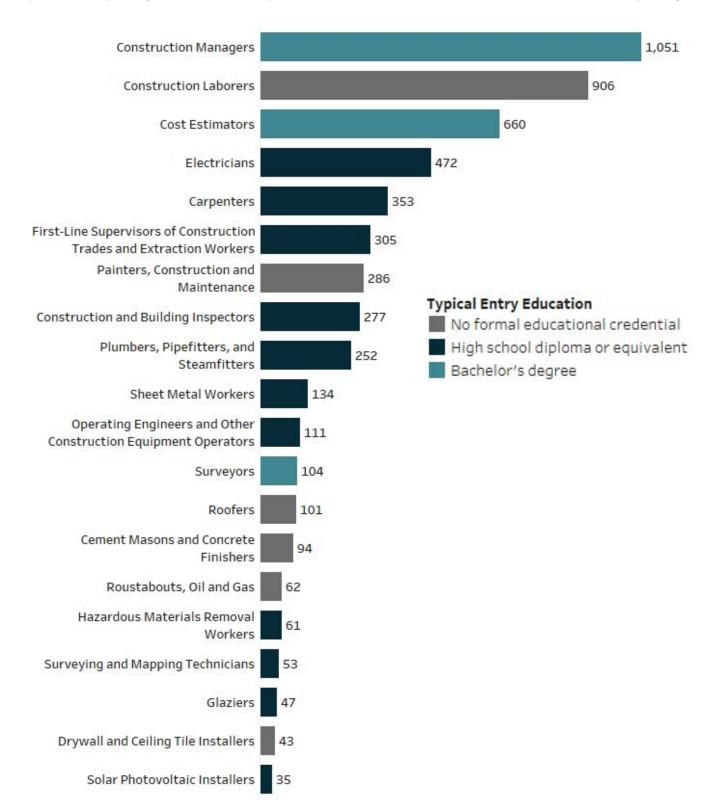




CONSTRUCTION OCCUPATION GROUP

Top Posted Jobs

The construction occupation group had 5,763 postings in Q4 2022, a decrease of 1,464 postings or 20.3 percent since Q 2022. Construction Managers is the top-posted occupation during the quarter, with 1,051 postings. Other top posted jobs include Construction Laborers (906 postings), Cost Estimators (660 postings), Electricians (472 postings), Carpenters (353 postings), and First-Line Supervisors of Construction Trades and Extraction Workers (305 postings).



CONSTRUCTION OCCUPATION GROUP

Wage Overview

The top posted construction job, Construction Managers, offers a median wage of \$48.71 per hour or \$101,316 per year. Seven of the top ten occupations offer median wages of more than \$25.00 per hour. Those working in apprentice-able occupations can also anticipate high wage potential, such as Plumbers, Pipefitters, and Steamfitters, which report a median wage of \$35.46 per hour or \$73,757 annually.

Wage Overview for Top Posted Construction Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|--|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 11-9021 | Construction Managers | \$29.93 | \$37.82 | \$48.71 | \$61.43 | \$77.59 |
| 47-2061 | Construction Laborers | \$14.47 | \$17.44 | \$21.67 | \$23.81 | \$28.58 |
| 13-1051 | Cost Estimators | \$18.59 | \$23.87 | \$32.88 | \$44.57 | \$58.03 |
| 47-2111 | Electricians | \$18.09 | \$23.56 | \$35.32 | \$38.92 | \$44.23 |
| 47-2031 | Carpenters | \$17.50 | \$19.21 | \$23.91 | \$29.78 | \$36.11 |
| 47-1011 | First-Line Supervisors of Construction Trades and Extraction Workers | \$23.45 | \$28.96 | \$35.98 | \$45.08 | \$49.37 |
| 47-2141 | Painters, Construction and Maintenance | \$14.56 | \$17.47 | \$22.22 | \$24.21 | \$28.82 |
| 47-4011 | Construction and Building Inspectors | \$15.44 | \$20.06 | \$28.62 | \$31.50 | \$38.11 |
| 47-2152 | Plumbers, Pipefitters, and Steamfitters | \$17.71 | \$23.27 | \$35.46 | \$38.96 | \$45.59 |
| 47-2211 | Sheet Metal Workers | \$15.79 | \$19.11 | \$25.09 | \$36.40 | \$39.26 |

In-Demand Technical Skills

- Construction
- Subcontracting
- Construction Management
- Carpentry
- Painting

In-Demand Education Level*

High School Diploma: 20.5%
Associate Degree: 5.0%
Bachelor's Degree: 17.8%
Master's Degree: 1.4%

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

In-Demand Foundational Skills

- Communications
- Valid Driver's License
- Management
- Customer Service
- Operations

Top Posting Employers

- Michael Page
- Aerotek
- GPAC
- Tradesmen International
- CBRE
- Sawyer Services
- Walbridge
- Actalent
- State Of Michigan
- Black & Veatch

In-Demand Certifications

- Commercial Driver's License (CDL)
- Project Management Professional Certification
- LEED Accredited Professional (AP)
- 30-Hour OSHA General Industry Card
- 10-Hour OSHA General Industry Card

Job Postings by City

1. Detroit: 1,130 Postings

2. Lansing: 396 Postings

3. Ann Arbor: 252 Postings

4. Livonia: 223 Postings

5. Novi: 197 Postings

6. Warren: 180 Postings

7. Sterling Heights: 153 Postings

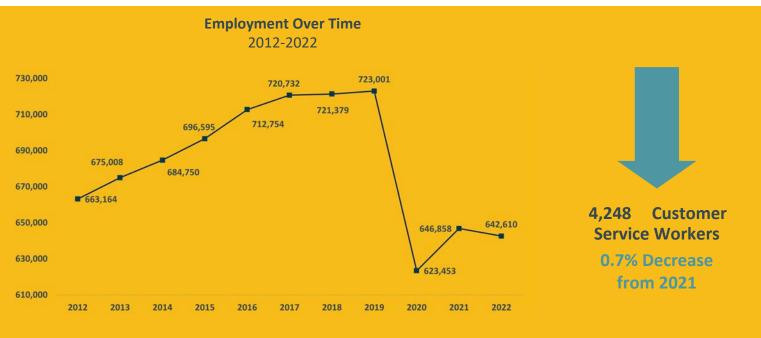
8. Troy: 148 Postings

9. Farmington: 147 Postings

10. Flint: 127 Postings

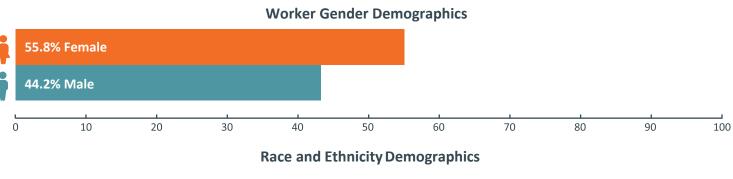
CUSTOMER SERVICE OCCUPATION GROUP

The customer service group is the largest occupation group that WIN analyzes, both in terms of employment and online job postings. This group is very important to the region because it is often a leading indicator, being the first to grow when the economy expands and the first to contract in a downturn. As defined by WIN, this group encompasses all customer service occupations, with skills transferrable across the retail sector, the hotel industry, food and beverage service industry, call centers, and other areas.



Customer Service Worker Demographics

In Q4 2022, there were 642,610 workers in the customer service occupation group, with a more diverse workforce than other groups analyzed. During the quarter, 55.8 percent of workers identified as female, while 26.8 percent of workers in customer service identified as a racial minority. Almost a quarter of the customer service workers (25.4 percent) were under the age of 24, as compared to the 55 and older age group which was 20.9 percent.



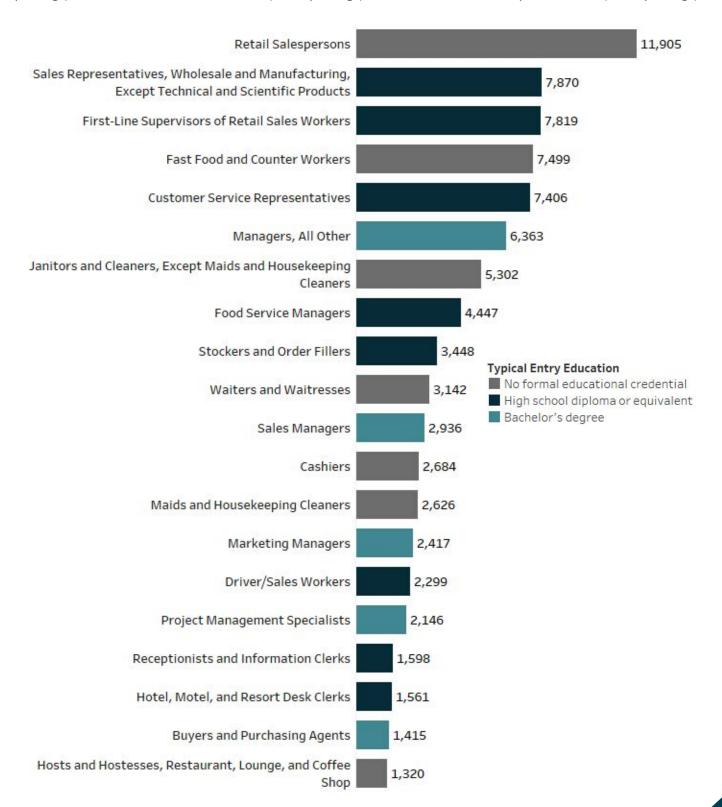
73.2% White | 15.6% Black or African-American | 5.1% Hispanic or Latino



CUSTOMER SERVICE OCCUPATION GROUP

Top Posted Jobs

Demand for customer service occupations reached 102,592postings in Q4 2022, a decrease of 8,000 postings or 7.3 percent since Q3 2022. Retail Salespersons retained the highest in-demand customer service occupation during the quarter, with 11,905 postings. Other top posted jobs include Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (7,870 postings), First-Line Supervisors of Retail Sales Workers (7,819 postings), Fast Food and Counter Workers (7,499 postings), and Customer Service Representatives (7,406 postings).



CUSTOMER SEVICE OCCUPATION GROUP

Wage Overview

Despite being in high demand, most customer service-related occupations offer relatively low wages. However, three of the top ten posted occupations report median wages over the state's median wage of \$21.73 per hour, many of which are management roles requiring both education and experience. The top posted occupation this quarter, Retail Salespersons earn a median hourly wage of \$13.88. With interest in gaining additional experience and training, workers can transition to managerial positions such as First-Line Supervisors of Retail Sales Workers, which has a median wage of \$18.86 per hour or \$39,228 annually.

Wage Overview for Top Posted Customer Service Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 41-2031 | Retail Salespersons | \$11.04 | \$11.69 | \$13.88 | \$17.31 | \$22.75 |
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | \$15.50 | \$22.49 | \$30.89 | \$45.52 | \$61.63 |
| 41-1011 | First-Line Supervisors of Retail Sales Workers | \$14.08 | \$15.21 | \$18.86 | \$25.22 | \$36.35 |
| 35-3023 | Fast Food and Counter Workers | \$10.96 | \$11.31 | \$11.65 | \$12.78 | \$14.20 |
| 43-4051 | Customer Service Representatives | \$11.79 | \$14.24 | \$17.82 | \$22.63 | \$28.19 |
| 11-9199 | Managers, All Other | \$25.48 | \$37.29 | \$52.38 | \$64.40 | \$80.13 |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | \$11.32 | \$12.03 | \$14.45 | \$17.66 | \$18.77 |
| 11-9051 | Food Service Managers | \$21.86 | \$24.18 | \$29.17 | \$36.19 | \$45.59 |
| 53-7065 | Stockers and Order Fillers | \$11.27 | \$13.07 | \$14.92 | \$17.80 | \$23.01 |
| 35-3031 | Waiters and Waitresses | \$10.82 | \$11.73 | \$13.91 | \$19.17 | \$23.49 |

In-Demand Technical Skills

- Merchandising
- Selling Techniques
- Restaurant Operation
- Marketing
- Cash Register

In-Demand Foundational Skills

- Customer Service
- Communications
- Sales
- Management
- Leadership

In-Demand Certifications

- Master Of Business Administration (MBA)
- Project Management Professional Certification
- ServSafe Certification
- Barber License
- Food Handler's Card

In-Demand Education Level*

High School Diploma: 28.4%Associate Degree: 4.3%Bachelor's Degree: 20.4%

Master's Degree: 3.9%

*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

- Meijer
- Walmart
- Marriott International
- TJX
- Panera Bread
- Taco Bell
- Walgreens Boots Alliance
- Lowe's
- Domino's Pizza
- University Of Michigan

Job Postings by City

1. Detroit: 11,778 Postings

2. Lansing: 6,433 Postings

3. Ann Arbor: 5,703 Postings

3. AIIII AI DOI: 3,703 FOSTI

4. Troy: 5,009 Postings5. Novi: 3,440 Postings

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6. Livonia: 3,063 Postings

7. Warren: 2,472 Postings

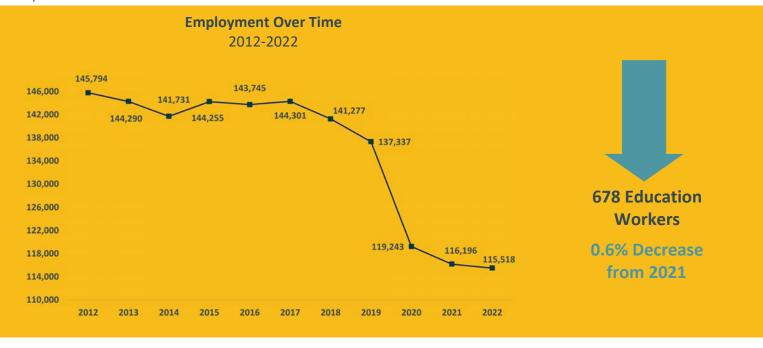
8. Southfield: 2,461 Postings

9. Auburn Hills: 2,377 Postings

10. Farmington: 2,285 Postings

EDUCATION OCCUPATION GROUP

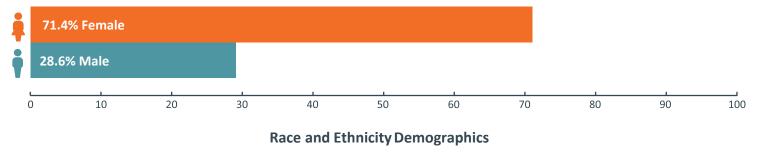
Education-related jobs can be found both in the private and public sectors. Teachers and other education related workers are employed in public schools, private schools, and training institutions, and there are about 15,400 openings for these positions annually. Jobs in the education occupation group require a variety of skills and credentials dependent on the target age group and topic area for the educator.



Education Worker Demographics

According to 2022 Lightcast data, employment decreased by 679 or 0.6 percent since 2021, for a total of 115,518 workers in 2022. This occupation group is composed primarily of females (71.4 percent) between the ages of 25 and 54 (65.6 percent). Only 28.6 percent of workers are males, and only 18.9 percent of workers identify as a racial minority.

Worker Gender Demographics



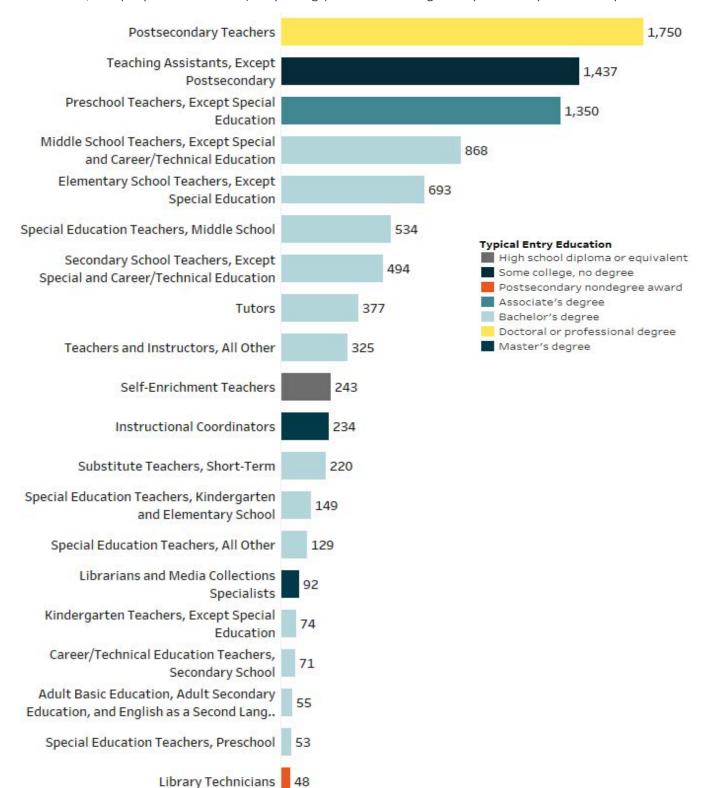
81.1% White | 8.7% Black or African-American | 3.7% Asian



EDUCATION OCCUPATION GROUP

Top Posted Jobs

Online job ads decreased by 2,258 postings or 19.5 percent since Q3 2022, bringing Q4 2022 demand to 9,310 postings. Postsecondary Teachers remained the highest in-demand education occupation throughout the quarter, with 1,750 postings. Teaching Assistants, Except Postsecondary (1,437 postings), Preschool Teachers, Except Special Education (1,350 postings), Middle School Teachers, Except Special and Career/Technical Education (868 postings) and Elementary School Teachers, Except Special Education (693 postings) were also among the top five occupations this quarter.



EDUCATION OCCUPATION GROUP

Wage Overview

Many education-related jobs, particularly permanent positions that require teaching older students, offer competitive median wages with growth potential. These positions provide an excellent opportunity for job seekers willing to attain the necessary credentials and experience. Six of the top ten posted education jobs offer median wages of over \$29 per hour. The top posted job, Postsecondary Teachers, offers a median wage of \$42.32 hourly, translating to annual earnings of about \$88,026.

Wage Overview for Top Posted Education Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 25-1099 | Postsecondary Teachers | \$23.81 | \$31.51 | \$42.32 | \$56.07 | \$73.62 |
| 25-9045 | Teaching Assistants, Except Postsecondary | \$10.89 | \$11.68 | \$13.95 | \$17.15 | \$18.52 |
| 25-2011 | Preschool Teachers, Except Special Education | \$11.96 | \$13.86 | \$14.88 | \$18.79 | \$25.85 |
| 25-2022 | Middle School Teachers, Except Special and Career/Technical Education | \$18.56 | \$23.25 | \$29.29 | \$37.03 | \$43.56 |
| 25-2021 | Elementary School Teachers, Except Special Education | \$18.89 | \$23.82 | \$30.73 | \$37.75 | \$46.52 |
| 25-2057 | Special Education Teachers, Middle School | \$23.00 | \$24.40 | \$30.38 | \$37.52 | \$40.87 |
| 25-2031 | Secondary School Teachers, Except Special and Career/Technical Education | \$19.11 | \$23.10 | \$29.44 | \$36.99 | \$43.44 |
| 25-3041 | Tutors | \$11.44 | \$11.70 | \$14.49 | \$17.62 | \$28.03 |
| 25-3099 | Teachers and Instructors, All Other | \$17.16 | \$22.76 | \$30.70 | \$36.67 | \$42.14 |
| 25-3021 | Self-Enrichment Teachers | \$11.01 | \$13.62 | \$18.12 | \$23.85 | \$30.44 |

In-Demand Foundational Skills

In-Demand Technical Skills

- **Lesson Planning**
- Special Education
- Child Development
- Cardiopulmonary Resuscitation (CPR)
- Classroom Management

Top Posting Employers

Communications

High School Diploma: 20.3%

In-Demand Education Level*

- Associate Degree: 11.0% ■ Bachelor's Degree: 32.6%
- Master's Degree: 14.6%
- *Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to

100 percent

- University Of Michigan
- KinderCare

Teaching

Leadership

Planning

Writing

- **Stanford University**
- Michigan State University
- Chippewa Valley Schools
- **Learning Care**
- **ATX Learning**
- Wayne State University
- Eastern Michigan University
- **University Prep Schools**

In-Demand Certifications

- Board Certified/Board Eligible
- No Child Left Behind Act (NCLB) Standards
- Basic Life Support (BLS) Certification
- **Alternative Teacher Certification**
- Medical License

Job Postings by City

1. Detroit: 1,432 Postings

2. Ann Arbor: 821 Postings

3. East Lansing: 329 Postings

4. Flint: 319 Postings

5. Lansing: 290 Postings

6. Macomb: 262 Postings

7. Southfield: 252 Postings

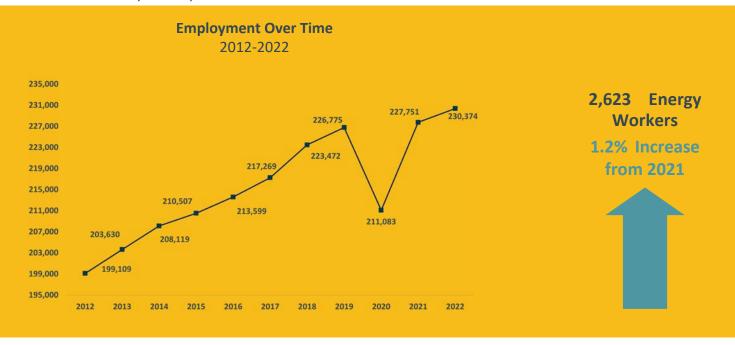
8. Dearborn: 225 Postings

9. Troy: 214 Postings

10. Rochester: 202 Postings

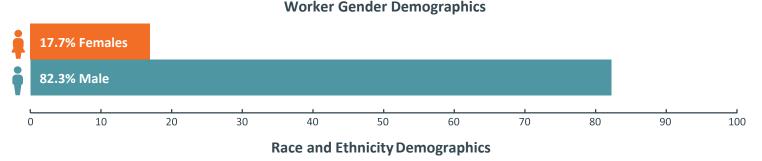
ENERGY OCCUPATION GROUP

Energy-related occupations encompass jobs in engineering, science, mining, and extraction. Workers in this field have a range of skills all related to keeping businesses and homes powered. Energy companies employ workers in a variety of occupations, many of which are also included in other WIN occupation groups. Posting data referenced in this section pertains only to job postings from energy-related businesses, while employment and wage data apply for these workers in every industry.



Energy Worker Demographics

For Q4 2022, there were 230,374 workers in the energy occupation group. This group is primarily made up of males (82.3 percent) between the ages of 25 and 54 (70.0 percent), with 17.7 percent of workers identifying as female and 21.5 percent identifying as a racial minority. In this quarter, 5.2 percent of the workers in the occupation group are under the age of 25 compared to the 24.8 percent 55 years of age or older.



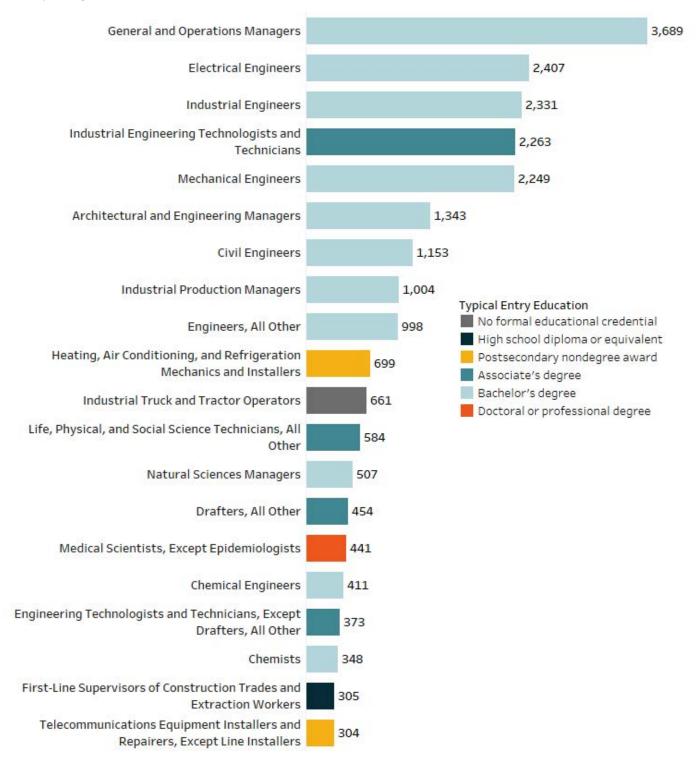
78.5% White | 10.1% Black or African-American | 6.0% Asian
Worker Age Demographics



ENERGY OCCUPATION GROUP

Top Posted Jobs

This quarter saw 27,241 unique postings for energy workers, a decrease of 53 postings or 1.9 percent from Q3 2022. General and Operations Managers is the most sought-after occupation with 3,689 postings by energy industry employers. Electrical Engineers is in the second position with 2,407 postings. Other top posted jobs include Industrial Engineers (2,331 postings), Industrial Engineering Technologists and Technicians (2,263), and Mechanical Engineers (2,249 postings).



ENERGY OCCUPATION GROUP

Wage Overview

The demand for engineers and highly specialized trades in the energy field create lucrative opportunities for job seekers willing to obtain the education or training requirements related to these jobs. Eight of the top ten energy occupations have median wages over \$36 per hour. The top posted energy job, General and Operations Managers, offers a median hourly wage of \$48.14, or annual earnings of approximately \$100,131. Technician and construction-focused positions related to energy generally have shorter term educational requirements than engineers and pay somewhat higher than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 11-1021 | General and Operations Managers | \$22.48 | \$30.30 | \$48.14 | \$74.43 | \$103.22 |
| 17-2071 | Electrical Engineers | \$30.44 | \$37.96 | \$47.59 | \$58.42 | \$63.43 |
| 17-2112 | Industrial Engineers | \$29.67 | \$36.98 | \$41.13 | \$48.73 | \$61.32 |
| 17-3026 | Industrial Engineering Technologists and Technicians | \$18.31 | \$23.52 | \$28.79 | \$31.66 | \$37.08 |
| 17-2141 | Mechanical Engineers | \$29.46 | \$37.08 | \$46.67 | \$50.20 | \$61.37 |
| 11-9041 | Architectural and Engineering Managers | \$47.52 | \$59.11 | \$63.46 | \$77.58 | \$97.79 |
| 17-2051 | Civil Engineers | \$27.75 | \$29.84 | \$36.44 | \$47.52 | \$58.24 |
| 11-3051 | Industrial Production Managers | \$31.37 | \$42.64 | \$51.88 | \$63.24 | \$79.96 |
| 17-2199 | Engineers, All Other | \$29.20 | \$37.00 | \$47.47 | \$60.73 | \$63.58 |
| 49-9021 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers | \$18.03 | \$22.14 | \$24.56 | \$30.76 | \$37.72 |

In-Demand Technical Skills

- Mechanical Engineering
- Electrical Engineering
- Auditing
- New Product Development
- Automation

In-Demand Education Level*

High School Diploma: 17.9%
Associate Degree: 9.3%
Bachelor's Degree: 51.5%
Master's Degree: 14.3%

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

In-Demand Foundational Skills

- Communications
- Management
- Operations
- Leadership
- Problem Solving

Top Posting Employers

- Actalent
- University Of Michigan
- General Motors
- Aerotek
- DTE Energy
- Advantage Resourcing
- GPAC
- State Of Michigan
- Black & Veatch
- Ford

In-Demand Certifications

- Professional Engineer
- Commercial Driver's License (CDL)
- Licensed Professional Engineer
- Master Of Business Administration (MBA)
- Security Clearance

Job Postings by City

Detroit: 4,108 Postings
 Lansing: 2,545 Postings
 Auburn Hills: 2,036 Postings
 Ann Arbor: 1,939 Postings

5. Troy: 1,051 Postings

6. Warren: 974 Postings

7. Sterling Heights: 765 Postings

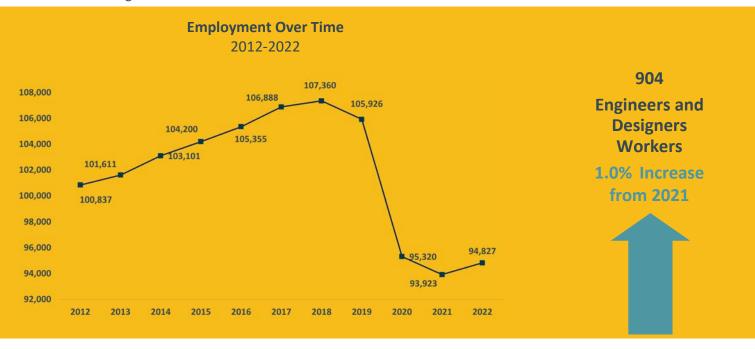
8. Livonia: 743 Postings

9. Farmington: 728 Postings

10. Southfield: 727 Postings

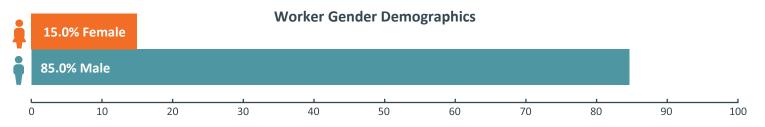
ENGINEERS AND DESIGNERS OCCUPATION GROUP

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 10,100 openings annually for engineers in Southeast Michigan.



Engineers and Designers Worker Demographics

According to Q4 2022 Lightcast data, the 94,827 workers in the engineering and design group are not particularly diverse. Just 5.2 percent of the related workforce is under 25, likely due to the consistently high educational requirements. Female workers account for 15.0 percent of the current workforce and only 23.2 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.



Race and Ethnicity Demographics

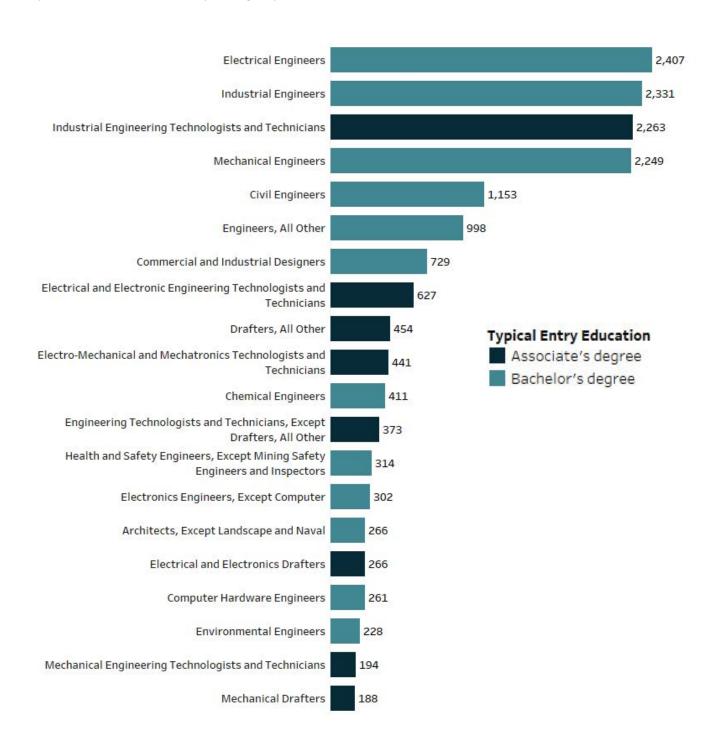
76.8% White | 10.5% Asian | 7.9% Black or African-American



ENGINEERS AND DESIGNERS OCCUPATION GROUP

Top Posted Jobs

Online job ads for engineers and designers equaled 17,176 postings in Q4 2022, an increase of 1.9 percent (326 postings). Electrical Engineers are the highest in-demand engineering and design occupation this quarter, having 2,407 postings. Industrial Engineers garnered 2,331 postings, ranking second place within the occupation group. Seven 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 required for these jobs. Eight of the top ten in-demand occupations have median wages above \$28 per hour, and the top posted engineering and design job, Electrical Engineers, offers a median hourly wage of \$47.59, equating to an annual salary of approximately \$98,987.

Wage Overview for Top Posted Engineers and Designers Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 17-2071 | Electrical Engineers | \$30.44 | \$37.96 | \$47.59 | \$58.42 | \$63.43 |
| 17-2112 | Industrial Engineers | \$29.67 | \$36.98 | \$41.13 | \$48.73 | \$61.32 |
| 17-3026 | Industrial Engineering Technologists and Technicians | \$18.31 | \$23.52 | \$28.79 | \$31.66 | \$37.08 |
| 17-2141 | Mechanical Engineers | \$29.46 | \$37.08 | \$46.67 | \$50.20 | \$61.37 |
| 17-2051 | Civil Engineers | \$27.75 | \$29.84 | \$36.44 | \$47.52 | \$58.24 |
| 17-2199 | Engineers, All Other | \$29.20 | \$37.00 | \$47.47 | \$60.73 | \$63.58 |
| 27-1021 | Commercial and Industrial Designers | \$24.26 | \$30.18 | \$46.44 | \$47.88 | \$49.75 |
| 17-3023 | Electrical and Electronic Engineering Technologists and Technicians | \$19.67 | \$24.04 | \$30.53 | \$38.96 | \$47.57 |
| 17-3019 | Drafters, All Other | \$14.71 | \$17.97 | \$19.49 | \$36.07 | \$38.01 |
| 17-3024 | Electro-Mechanical and Mechatronics Technologists and Technicians | \$18.68 | \$22.83 | \$24.32 | \$36.41 | \$38.73 |

In-Demand Technical Skills

- **Electrical Engineering**
- Mechanical Engineering
- New Product Development
- Computer-Aided Design
- Automation

In-Demand Education Level*

■ High School Diploma: 12.5% Associate Degree: 10.0% ■ Bachelor's Degree: 57.5% 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

In-Demand Foundational Skills

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

Top Posting Employers

- Actalent
- **General Motors**
- Advantage
 - Resourcing
- Aerotek
- Iconma, L.L.C.
- Intel
- **DTE Energy**
- Ford
- Talascend
- Black & Veatch

In-Demand Certifications

- **Professional Engineer**
- **Licensed Professional Engineer**
- Security Clearance
- **Engineer in Training**
- Secret Clearance

Job Postings by City

1. Detroit: 2,048 Postings

2. Auburn Hills: 2,044 Postings

3. Lansing: 1,326 Postings

4. Ann Arbor: 1,172 Postings

5. Troy: 740 Postings

6. Warren: 675 Postings

7. Farmington: 617Postings

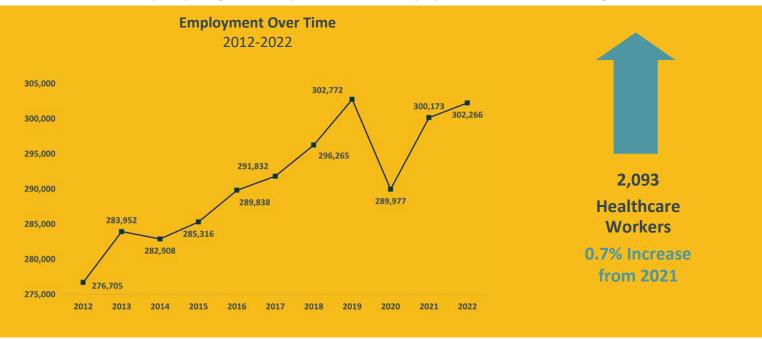
8. Sterling Heights: 579 Postings

9. Novi: 569 Postings

10. Plymouth: 567 Postings

HEALTHCARE OCCUPATION GROUP

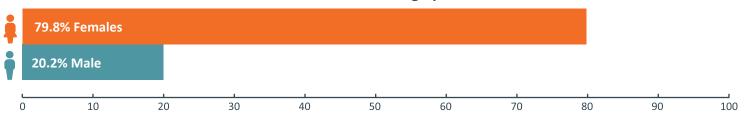
WIN's healthcare occupation group includes jobs related to healthcare support and practitioners. Employment in this group has been consistently growing, more healthcare workers needed to care for Michigan's aging population and in response to regulatory and other changes. Registered nurses are routinely the most in-demand job in this group. Annually, there are about 31,700 job openings for these positions, and this is projected to continue increasing.



Healthcare Worker Demographics

The healthcare occupation group employs around 302,266 workers, who are overwhelmingly female (79.8 percent) and between the ages of 25 and 54 (68.4 percent), although 22.7 percent of workers are 55 years of age or older. The racial composition of this group is somewhat more diverse than others, with 67.9 percent of workers identifying as white, 20.7 percent identifying as Black or African American, and 11.4 percent identifying otherwise.

Worker Gender Demographics



Race and Ethnicity Demographics

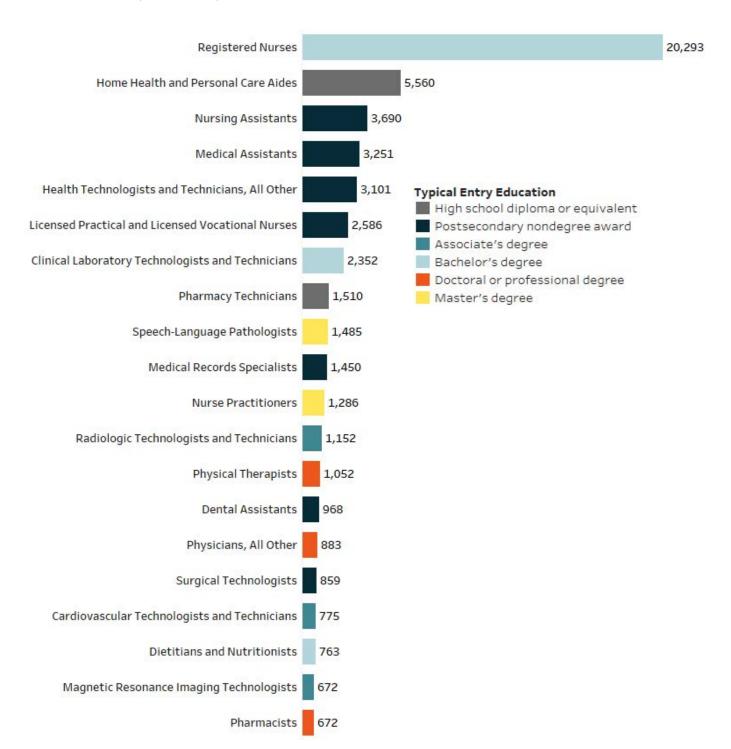
67.9% White | 20.7% Black or African-American | 5.7% Hispanic or Latino



HEALTHCARE OCCUPATION GROUP

Top Posted Jobs

Healthcare postings totaled 64,290 ads, an increase of 525 postings or 0.8 percent from Q3 2022. Registered Nurses, the perennial top in-demand health care occupation, had 20,293 postings this quarter. Home Health and Personal Care Aides, the second most demanded occupation, had 5,560 postings. Nursing Assistants (3,690 postings), Medical Assistants (3,251 postings), and Health Technologists and Technicians, All Other (3,101 postings) round out the top five demanded occupations this quarter.



HEALTHCARE 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-level requirements and includes a high volume of jobs 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 \$21.73 per hour. Licensed Practical and Licensed Vocational Nurses, which require a Postsecondary nondegree award for entry, earn a median hourly wage of \$27.90 per hour or annual salary of about \$58,032.

Wage Overview for Top Posted Healthcare Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 29-1141 | Registered Nurses | \$29.67 | \$31.06 | \$37.70 | \$39.99 | \$48.78 |
| 31-1128 | Home Health and Personal Care Aides | \$11.00 | \$11.69 | \$13.37 | \$14.49 | \$15.34 |
| 31-1131 | Nursing Assistants | \$14.23 | \$14.69 | \$17.35 | \$18.34 | \$18.66 |
| 31-9092 | Medical Assistants | \$14.15 | \$14.84 | \$17.82 | \$18.71 | \$21.06 |
| 29-2099 | Health Technologists and Technicians, All Other | \$14.39 | \$17.97 | \$22.46 | \$28.39 | \$33.56 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | \$22.64 | \$23.91 | \$27.90 | \$29.54 | \$30.08 |
| 29-2018 | Clinical Laboratory Technologists and Technicians | \$14.52 | \$18.24 | \$28.07 | \$35.78 | \$38.19 |
| 29-2052 | Pharmacy Technicians | \$13.58 | \$14.50 | \$17.19 | \$21.88 | \$23.19 |
| 29-1127 | Speech-Language Pathologists | \$25.05 | \$30.76 | \$37.68 | \$46.77 | \$49.28 |
| 29-2072 | Medical Records Specialists | \$15.01 | \$17.65 | \$20.12 | \$25.38 | \$30.58 |

In-Demand Technical Skills

- Nursing
- **Nursing Care**
- Medical Records
- Cardiopulmonary Resuscitation (CPR)
- Home Health Care

In-Demand Education Level*

High School Diploma: 25.8% Associate Degree: 18.9% Bachelor's Degree: 19.0% Master's Degree: 9.7%

*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

- Communications
- Leadership
- **Customer Service**
- Management
- Teaching

Top Posting Employers

- **Beaumont Health**
- Trinity Health
- Henry Ford Health System
- Ascension
- **ProMedica**
- Tenet Healthcare
- University Of Michigan
- McLaren Health Care
- **Healthcare Employment** Network
- CareInHomes

In-Demand Certifications

- Basic Life Support (BLS) Certification
- Advanced Cardiovascular Life Support (ACLS) Certification
- Licensed Practical Nurse (LPN)
- **Certified Nursing Assistant**
- **Diploma In Nursing**

Job Postings by City

1. Detroit: 9,140 Postings

2. Ann Arbor: 4,372 Postings

3. Lansing: 2,829 Postings

4. Dearborn: 1,999 Postings

5. Southfield: 1,982 Postings

6. Troy: 1,972 Postings

7. Pontiac: 1,761 Postings

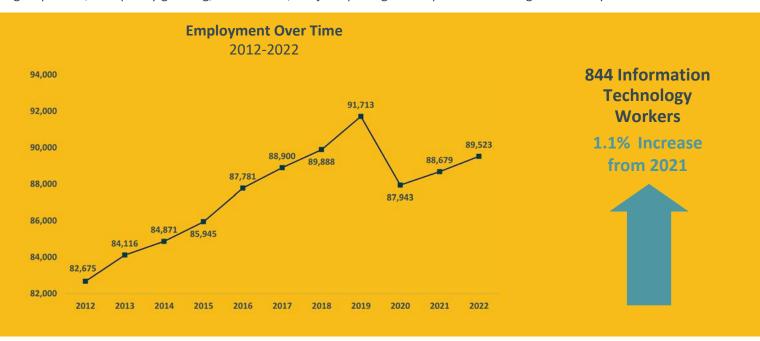
8. Warren: 1,603 Postings

9. Flint: 1,551 Postings

10. Farmington: 1,510 Postings

INFORMATION TECHNOLOGY OCCUPATION GROUP

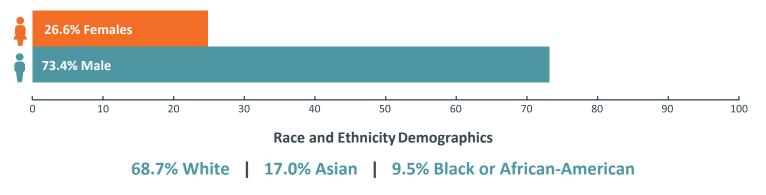
Information technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the information technology group does not currently employ as many individuals as the other groups here, it is quickly growing, and about 8,800 job openings are reported in the region annually.



Information Technology Worker Demographics

In Q4 2022, the IT occupation group had 89,523 workers who are primarily male (73.4 percent). Roughly 77.6 percent of the workforce are between the ages of 25 and 54. Workers aged 55 years and older account for 16.9 percent, while only 5.5 percent are 24 years old or younger. Around 68.7 percent of the workforce identify as white, with workers who identify as Black or African American making up 9.5 percent of the workforce.

Worker Gender Demographics

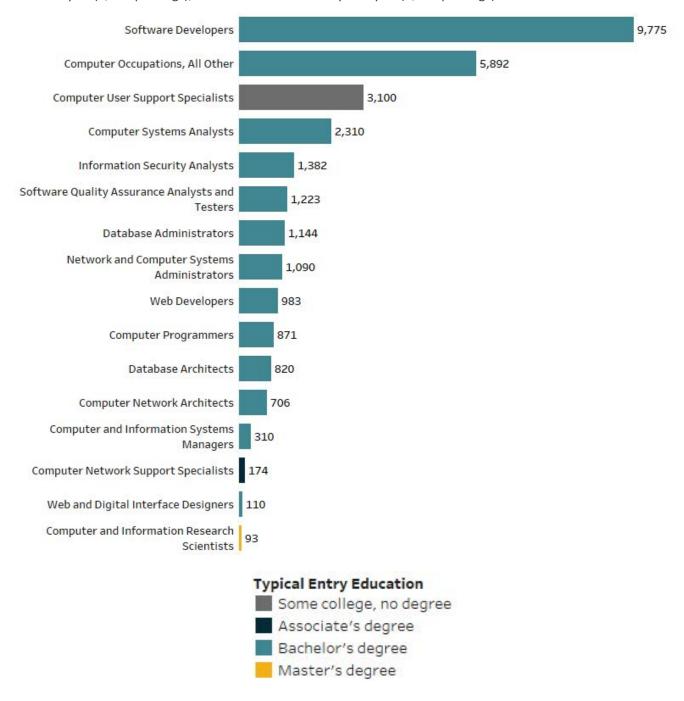




INFORMATION TECHNOLOGY OCCUPATION GROUP

Top Posted Jobs

There were 29,983 postings for IT workers in Q4 2022, a decrease of 1,902 postings or 6.0 percent since Q3 2022. Software Developers is the top demanded occupation this quarter, with 9,775 postings. Other top posted jobs include Computer Occupations, All Other (5,892 postings), Computer User Support Specialists (3,100 postings), Computer Systems Analysts (2,310 postings), and Information Security Analysts (1,382 postings).



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, the most in-demand occupation of the group, earn a median wage of \$47.13 per hour or nearly \$98,030 per year. Computer Occupations, All Other, the second highest in-demand occupation, offers a median hourly wage of 41.53 per hour or \$86,382 per year. Other occupations that have fewer qualifications, such as Computer User Support Specialists, make over \$23.26 per hour.

Wage Overview for Top Posted Information Technology Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|---|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 15-1252 | Software Developers | \$30.05 | \$36.91 | \$47.13 | \$60.69 | \$64.18 |
| 15-1299 | Computer Occupations, All Other | \$22.21 | \$28.87 | \$41.53 | \$49.41 | \$61.41 |
| 15-1232 | Computer User Support Specialists | \$14.90 | \$18.23 | \$23.26 | \$29.59 | \$37.00 |
| 15-1211 | Computer Systems Analysts | \$31.17 | \$37.77 | \$46.77 | \$59.48 | \$75.33 |
| 15-1212 | Information Security Analysts | \$22.71 | \$30.13 | \$44.58 | \$58.72 | \$64.38 |
| 15-1253 | Software Quality Assurance Analysts and Testers | \$20.98 | \$29.76 | \$38.33 | \$48.13 | \$50.61 |
| 15-1242 | Database Administrators | \$23.75 | \$30.02 | \$39.73 | \$50.64 | \$61.57 |
| 15-1244 | Network and Computer Systems Administrators | \$28.78 | \$30.65 | \$38.10 | \$47.78 | \$57.16 |
| 15-1254 | Web Developers | \$21.06 | \$30.89 | \$39.04 | \$47.97 | \$58.90 |
| 15-1251 | Computer Programmers | \$22.38 | \$29.43 | \$38.13 | \$48.99 | \$62.36 |

In-Demand Technical Skills

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

In-Demand Education Level*

High School Diploma: 7.0%
Associate Degree: 6.1%
Bachelor's Degree: 60.9%
Master's Degree: 15.8%

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

In-Demand Foundational Skills

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

Top Posting Employers

- General Dynamics
- Deloitte
- TEKsystems
- University Of Michigan
- Ford
- General Motors
- Humana
- Accenture
- State Of Michigan
- Actalent

In-Demand Certifications

- Certified Information Systems Security Professional
- Security Clearance
- Secret Clearance
- Project Management Professional Certification
- CompTIA A+

Job Postings by City

1. Detroit: 6,102 Postings

2. Lansing: 5,879 Postings

3. Ann Arbor: 2,151 Postings

4. Auburn Hills: 1,817 Postings

4. Aubum nins. 1,617 Pos

5. Troy: 1,777 Postings

6. Dearborn: 1,456 Postings

7. Warren: 1,164 Postings

8. Southfield: 1,069 Postings

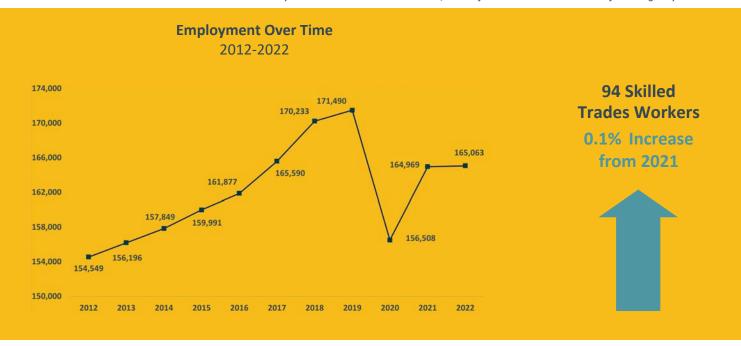
9. Farmington: 1,028 Postings

10. Novi: 762 Postings

SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

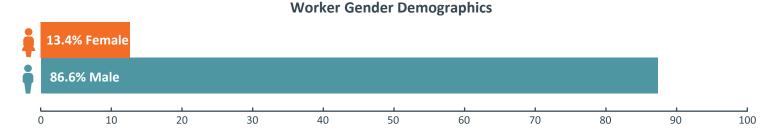
WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country. There are about 22,000 openings for these workers annually.

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



Skilled Trades Worker Demographics

The skilled trades occupation group employed 165,063 workers in Southeast Michigan in Q4 2022. A majority of skilled trades workers are males (86.6 percent) between the ages of 25 and 54 (65.2 percent). The 55 and older age group, which accounts for 28.9 percent of the workforce, shows a slightly higher than normal retiring population for this industry.



Race and Ethnicity Demographics

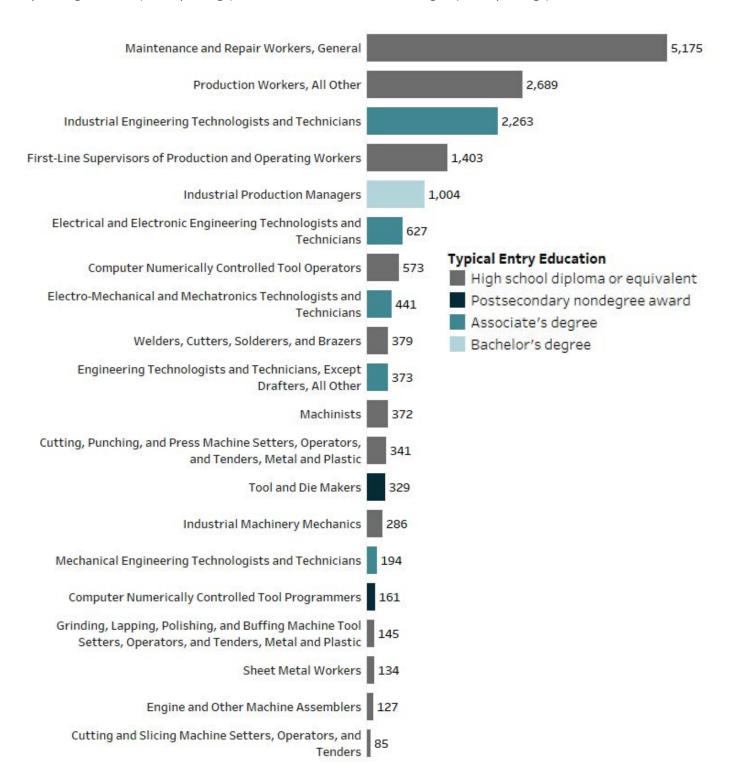
77.5% White | 13.0% Black or African-American | 4.6% Hispanic or Latino



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Top Posted Jobs

Demand for Skilled Trades occupations totaled 17,833 postings in Q4 2022, a 12.8% decrease (2,609 postings) from Q3 2022. Maintenance and Repair Workers, General remained the highest in-demand skilled trades occupation during the first quarter, with 5,175postings. Other top posted jobs include Production Workers, All Other (2,689 postings), Industrial Engineering Technologists and Technicians (2,263 postings), First-Line Supervisors of Production and Operating Workers (1,403 postings), and Industrial Production Managers (1,004 postings).



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Wage Overview

Seven of the top ten in-demand skilled trades occupations have wages above the state median of \$21.73 per hour. Management and technician roles requiring additional education and training earn even more. Maintenance and Repair Workers, General, the top posted skilled trades job this quarter, offers a median hourly wage of \$18.19, or an annual salary of about \$37,835.

Wage Overview for Top Posted Skilled Trades Jobs in Q4 2022

| 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 | \$13.91 | \$14.72 | \$18.19 | \$23.53 | \$29.45 |
| 51-9199 | Production Workers, All Other | \$10.99 | \$13.20 | \$14.51 | \$17.28 | \$21.90 |
| 17-3026 | Industrial Engineering Technologists and Technicians | \$18.31 | \$23.52 | \$28.79 | \$31.66 | \$37.08 |
| 51-1011 | First-Line Supervisors of Production and Operating Workers | \$18.55 | \$23.42 | \$30.26 | \$38.29 | \$48.82 |
| 11-3051 | Industrial Production Managers | \$31.37 | \$42.64 | \$51.88 | \$63.24 | \$79.96 |
| 17-3023 | Electrical and Electronic Engineering Technologists and Technicians | \$19.67 | \$24.04 | \$30.53 | \$38.96 | \$47.57 |
| 51-9161 | Computer Numerically Controlled Tool Operators | \$14.30 | \$17. <mark>5</mark> 3 | \$20.47 | \$24.51 | \$29.50 |
| 17-3024 | Electro-Mechanical and Mechatronics Technologists and Technicians | \$18.68 | \$22.83 | \$24.32 | \$36.41 | \$38.73 |
| 51-4121 | Welders, Cutters, Solderers, and Brazers | \$14.68 | \$17.54 | \$19.56 | \$23.48 | \$29.30 |
| 17-3029 | Engineering Technologists and Technicians, Except Drafters, All Other | \$17.96 | \$21.87 | \$32.81 | \$45.97 | \$55.02 |

In-Demand Technical Skills

- Plumbing
- Machinery
- Hand Tools
- HVAC
- Machining

In-Demand Foundational Skills

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

In-Demand Certifications

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

In-Demand Education Level*

■ High School Diploma: 40.7%

Associate Degree: 9.4%

■ Bachelor's Degree: 10.3%

Master's Degree: 1.6%

*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

- Aerotek
- Kelly Services
- McDonald's
- Sentech Services
- Orchid Orthopedic Solutions
- Randstad
- The Home Depot
- Adecco
- State Of Michigan
- Branex

Job Postings by City

1. Detroit: 1,844 Postings

2. Lansing: 929 Postings

3. Warren: 771 Postings

4. Sterling Heights: 650 Postings

5. Auburn Hills: 582 Postings

6. Troy: 579 Postings

7. Livonia: 557 Postings

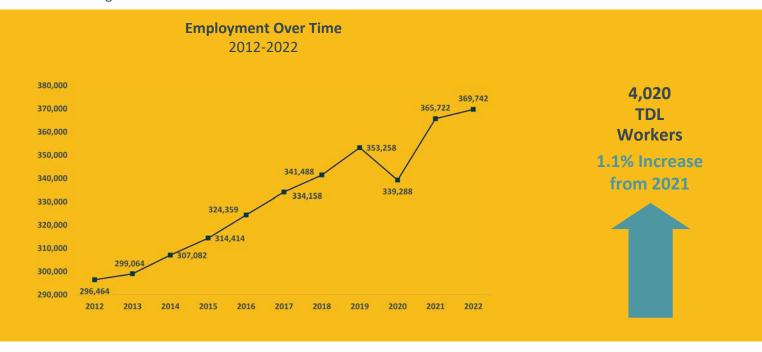
8. Ann Arbor: 547 Postings

9. Plymouth: 489 Postings

10. Pontiac: 362 Postings

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

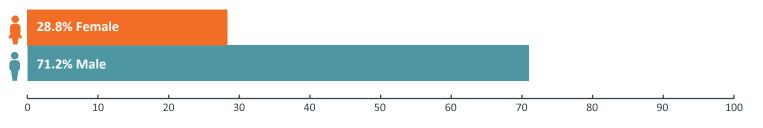
Transportation, distribution, and logistics (TDL) workers help move materials in an efficient manner, whether it is from one company to another or directly to consumers. Logistics workers range from materials movers to logistics analysts, coordinating and analyzing material and goods movement. For all TDL workers, there are over 50,500 job openings in Southeast Michigan.



TDL Worker Demographics

The TDL occupation group has a large workforce, employing 369,742 individuals in the fourth quarter of 2022. These workers are 71.2 percent male and 70.7 percent white, with a majority (63.3 percent) of the workforce between the ages of 25 and 54.

Worker Gender Demographics



Race and Ethnicity Demographics

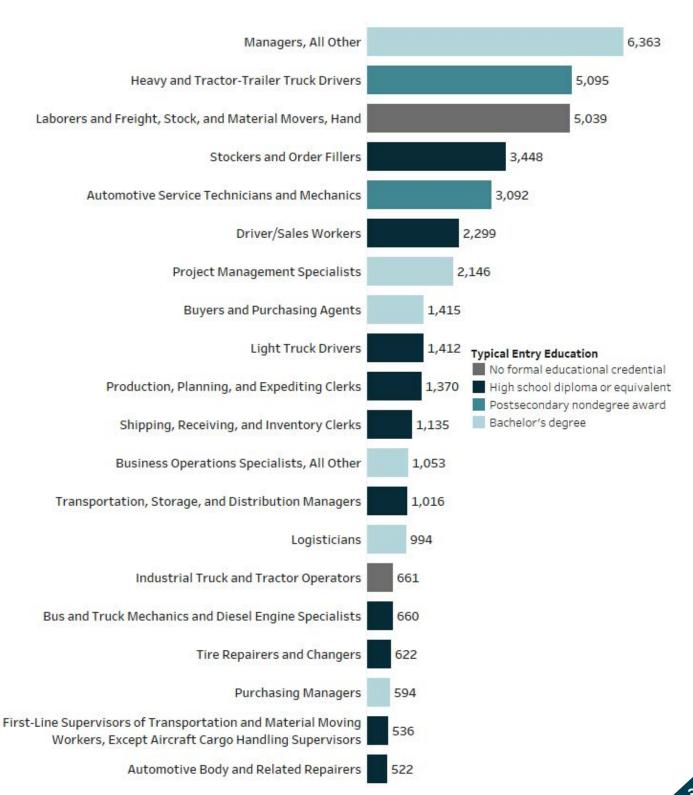
70.7% White | 19.1% Black or African-American | 5.0% Hispanic or Latino



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Top Posted Jobs

Demand for TDL occupations totaled 45,607 postings in Q4 2022, down 6.3 percent (3,051 postings) from Q3. Managers, All Other was the highest in-demand TDL occupation during the first quarter, with 6,363 postings. Other top posted jobs include Heavy and Tractor-Trailer Truck Drivers (5,095 postings), Laborers and Freight, Stock, and Material Movers, Hand (5,039 postings), Stockers and Order Fillers (3,448 postings), and Automotive Service Technicians and Mechanics (3,092 postings).



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Wage Overview

Six of the top ten in-demand TDL occupations offer wages above the state median wage of \$21.73 per hour. Managers, All Other, the top posted TDL job this quarter, earn a median hourly wage of \$52.38, or an annual salary of nearly \$108,950. Logistics roles that require additional education, such as Project Management Specialists and Business Operations Specialists, All Other, also offer higher wages.

Wage Overview for Top Posted TDL Jobs in Q4 2022

| Occupation Code | Occupation Name | 10th Percentile Wages | 25th Percentile Wages | Median Wages | 75th Percentile Wages | 90th Percentile Wages |
|--------------------|--|-----------------------------|-----------------------------|-----------------|-----------------------------|-----------------------------|
| 11-9199 | Managers, All Other | \$25.48 | \$37.29 | \$52.38 | \$64.40 | \$80.13 |
| 53-3032 | Heavy and Tractor-Trailer Truck Drivers | \$14.78 | \$18.86 | \$23.60 | \$29.78 | \$30.97 |
| 53-7062 | Laborers and Freight, Stock, and Material Movers, Hand | \$11.98 | \$13.77 | \$15.18 | \$18.13 | \$22.96 |
| 53-7065 | Stockers and Order Fillers | \$11.27 | \$13.07 | \$14.92 | \$17.80 | \$23.01 |
| 49-3023 | Automotive Service Technicians and Mechanics | \$13.93 | \$14.84 | \$22.50 | \$29.03 | \$35.75 |
| 53-3031 | Driver/Sales Workers | \$10.86 | \$11.36 | \$11.94 | \$17.62 | \$23.00 |
| 13-1082 | Project Management Specialists | \$25.09 | \$31.06 | \$44.40 | \$58.71 | \$63.83 |
| 13-1028 | Buyers and Purchasing Agents | \$22.36 | \$24.34 | \$32.56 | \$45.08 | \$51.51 |
| 53-3033 | Light Truck Drivers | \$12.06 | \$14.48 | \$18.90 | \$23.80 | \$36.45 |
| 43-5061 | Production, Planning, and Expediting Clerks | \$17.54 | \$19.18 | \$26.34 | \$30.66 | \$36.70 |

In-Demand Technical Skills

- Warehousing
- Merchandising
- Forklift Truck
- Purchasing
- Supply Chain

Customer Service

In-Demand Foundational Skills

- Management
- Valid Driver's License

Communications

Operations

Top Posting Employers

- High School Diploma: 27.7%
- Associate Degree: 5.0%

In-Demand Education Level*

- Bachelor's Degree: 23.4%
- Master's Degree: 5.6%
- *Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent
- Meijer
- Walmart
- Aerotek
- Roehl Transport
- Amazon
- University Of Michigan
- The Home Depot
- UPS
- Discount Tire
- Kelly Services

In-Demand Certifications

- Commercial Driver's License (CDL)
- CDL Class A License
- Project Management Professional Certification
- Automotive Service Excellence (ASE)
 Certification
- Master Of Business Administration (MBA)

Job Postings by City

- 1. Detroit: 5,849 Postings
- 2. Lansing: 3,20 Postings
- 3. Ann Arbor: 2,189 Postings
- 4. Troy: 1,785 Postings
- 5. Warren: 1,636 Postings
- 6. Livonia: 1,590 Postings
- 7. Auburn Hills: 1,256 Postings
- 8. Sterling Heights: 1,181 Postings
- 9. Dearborn:1,062 Postings
- 10. Romulus: 1,056 Postings

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