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A light gray map of the state of Michigan is centered on the page. The map shows the outlines of all 83 Michigan counties. In the background, a faded image of the Michigan State Capitol building is visible.

LABOR MARKET REPORT STATE OF MICHIGAN

January - December 2022

INTRODUCTION

State of Michigan
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 state of Michigan, 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 2022 labor market information from the state of Michigan 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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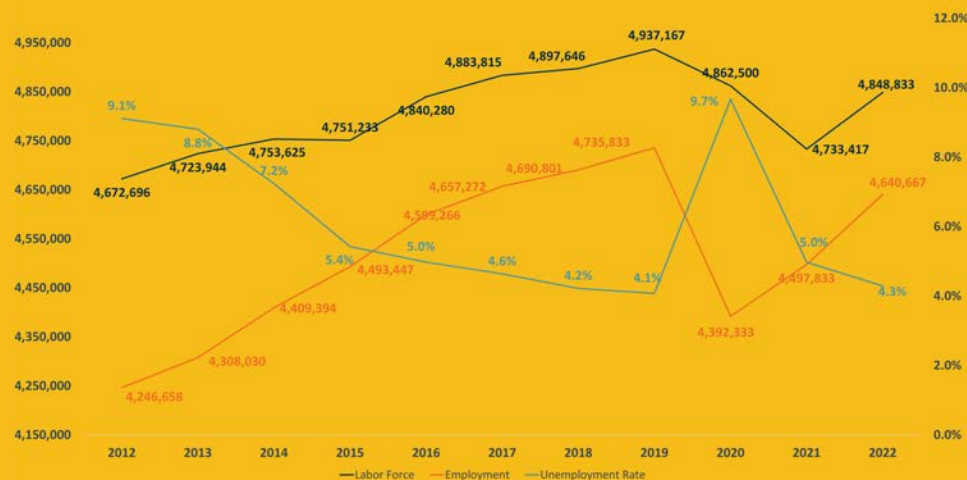
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intelligence
network (win)

State of the Labor Market in Michigan

The characteristic uncertainty that the COVID-19 crisis once brought to labor markets continued to settle this year. In 2022, the labor force increased by 115,417 individuals (2.4 percent) while employment increased by 142,833 individuals (3.2 percent) from 2021. Unemployment declined by 27,417 workers and the unemployment rate recovered significantly, decreasing 0.7 percentage points from 5.0 percent in 2021 to 4.3 percent in 2022. Quarterly postings data highlights a shift in hiring demand as the region continues its recovery. Registered Nurses tops the list as the most demanded occupation in 2022, accounting for 79,258 job postings followed by Retail Salespersons with 51,449 postings. The healthcare and information technology occupation groups continue to be heavily demanded in the state of Michigan.

Annual Labor Market Information

The labor force in the state climbed in 2022, increasing by 115,417 individuals (2.4 percent) from the prior year. Employment increased by 142,833 workers (3.2 percent) over the same period, while unemployment decreased by 27,417 workers (11.6 percent) for a total of 208,167 unemployed workers in 2022. The unemployment rate decreased in 2022 to 4.3 percent, a fall of 5.4 percentage points since the 9.7 percent peak in 2020. During the height of the pandemic and shutdown measures early in 2020, the highest monthly unemployment rate occurred in April, with an unemployment rate of 23.6 percent across the state.

Annual Labor Force, Employment, Unemployment Rate
2012–2022

Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

The fourth quarter of 2022 shows that employer demand has decreased since the end of Q3 2022. During the fourth quarter, there were a monthly average of 351,692 unique postings in the state of Michigan, a decrease of 1,515 postings from the monthly average of 353,207 postings recorded in Q3. Average monthly Postings seemed to peak for the year during Q2 with 359,785 postings, an increase of 3,433 (0.9 percent) postings per month since Q1 of 2022. The early peak in Q2 and subsequent decline may suggest that hiring demands peaked with the summer season.

Quarterly Posting Analysis State of Michigan
2022

Key Findings

15%

Employer demand increased by 15.1 percent, a gain of 214,104 job postings since 2021

High School Diploma

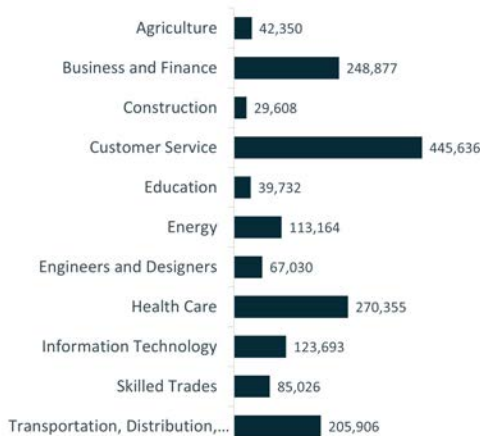
Most in-demand minimum education level during 2022

In Q4 2022, employment totaled
4,664,000
an increase of 108,667 workers (2.4 percent) since Q4 2021

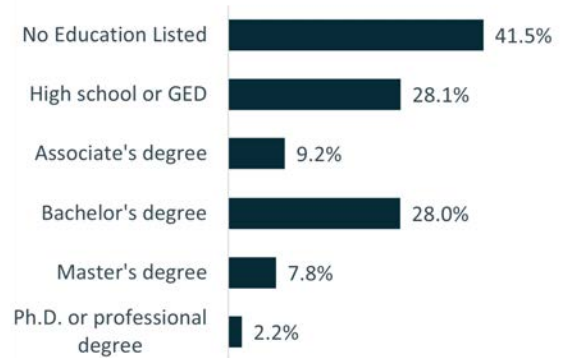
During 2022, there were 1,629,688 job postings, or 214,104 more than the 1,414,584 postings made during 2021 in the state. The second quarter in 2022 saw the highest demand for the year with the monthly average of 359,785 postings, a 5.2 percent increase since Q3 2021. The top posted job occupations in 2022 include Registered Nurses, Maintenance Technicians, Assistant Managers, Customer Service Representatives, CDL-A Truck Drivers, Cashiers, and Licensed Practical Nurses. For more information about in-demand job postings, see page 7.

Of the 1,629,688 unique postings in the state of Michigan during 2022, 457,305 (28.1 percent) required a high school diploma or equivalent, while 605,644 postings (37.2 percent) required a college degree. An additional 161,940 postings (9.9 percent) required an advanced degree. The high demand for transportation jobs within the state drives this demand for workers with various skill sets.

Top 5 Posting Occupation Groups 2022



Education Levels In-Demand 2022



Following the pandemic-driven labor market volatility that was observed throughout 2020 and parts of 2021, CY2022 was relatively stable across each quarter. Through the first three quarters of 2022, there were marginal improvements in labor force, employment, unemployment, and the unemployment rate. Unemployment rate was the lone metric to improve across all four quarters, falling 0.3 percentage points from Q3 to an annual low of 3.7 percent. Labor force and employment numbers peaked in Q3 with a high of 4,883,000 individuals and 4,688,000 workers respectively, while unemployment fell all the way to 177,667 workers in Q4. The market continued to realign toward pre-pandemic levels, showing a decrease in unemployment and the unemployment rate through Q4 2022. The unemployment rate at the end of 2022 was 3.7 percent. For more information about this year's unemployment rate and other labor market indicators, see page 4.

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	4,765,333	4,821,000	4,849,667	4,883,000	4,841,667	-41,333	-0.8%	76,333	1.6%
Employment	4,555,333	4,582,000	4,628,667	4,688,000	4,664,000	-24,000	-0.5%	108,667	2.4%
Unemployment	210,000	239,000	221,000	195,000	177,667	-17,333	-8.9%	-32,333	-15.4%
Unemployment Rate	4.4%	5.0%	4.6%	4.0%	3.7%	-0.3%	na	-0.7%	na

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

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

On the tail of stronger employment numbers throughout 2022, labor force participation totaled 4,848,833 individuals, an increase of 115,417 individuals since 2021. Employment is up to 4,640,667 workers in 2022, an increase of 142,833 workers. Both unemployment and the unemployment rate decreased, corresponding with the economic recovery. Unemployment decreased to 208,167 workers, down more than half by 262,000 workers since the high of 470,167 workers recorded in 2020. Similarly, the unemployment rate declined by 0.7 percentage points for a 2022 unemployment rate of 4.3 percent.

Annual Labor Market Data 2012-2022

	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 YTD	2021 Annual	2022 Annual	Change from 2021 to 2022	Percent Change from 2021 to 2022
Labor Force	4,672,696	4,723,944	4,753,625	4,751,233	4,840,280	4,883,815	4,897,646	4,937,167	4,862,500	4,733,417	4,848,833	115,417	2.4%
Employment	4,246,658	4,308,030	4,409,394	4,493,447	4,599,266	4,657,272	4,690,801	4,735,833	4,392,333	4,497,833	4,640,667	142,833	3.2%
Unemployment	426,037	415,915	344,232	257,787	241,015	226,543	206,845	201,333	470,167	235,583	208,167	-27,417	-11.6%
Unemployment Rate	9.1%	8.8%	7.2%	5.4%	5.0%	4.6%	4.2%	4.1%	9.7%	5.0%	4.3%	-0.7%	na

Data: Bureau of Labor Statistics

CENSUS 2021 LABOR FORCE DEMOGRAPHICS

During 2021, the most recent census year, there were about 5,002,960 individuals in the labor force, meaning they were either working or looking for work, in Michigan. Slightly less than half of the population, or about 4,692,409 individuals (46.6 percent) living in the state 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 29.4 percent, while females under the age of 25 report an unemployment rate of 24.4 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 13.1 percent.

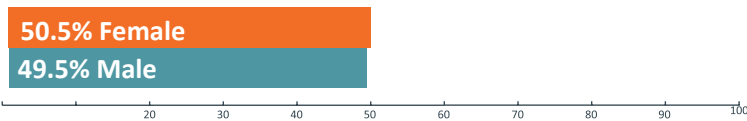
Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	5,002,960	4,692,409	310,551	6.2%
Sex				
Male 16+	2,627,519	2,457,622	169,897	6.5%
16-19	113,034	92,480	20,554	18.2%
20-24	264,605	235,054	29,551	11.2%
25-54	1,633,014	1,541,135	91,879	5.6%
55-64	465,293	444,117	21,176	4.6%
65 Plus	151,573	144,836	6,737	4.4%
Female 16+	2,375,441	2,234,787	140,654	5.9%
16-19	121,033	103,134	17,899	14.8%
20-24	260,481	235,504	24,977	9.6%
25-54	1,451,760	1,375,335	76,425	5.3%
55-64	418,242	402,415	15,827	3.8%
65 Plus	123,925	118,399	5,526	4.5%
Race				
White	3,919,815	3,723,824	195,991	5.0%
Black / African American	628,709	546,348	82,361	13.1%
Native American	21,610	19,838	1,772	8.2%
Asian	174,609	167,101	7,508	4.3%
Native Hawaiian / Pacific Islander	1,535	1,424	110	7.2%
Some Other Race	66,868	61,585	5,283	7.9%
Two or More Races	195,737	178,121	17,616	9.0%
Ethnicity				
Hispanic	256,176	236,963	19,213	7.5%

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

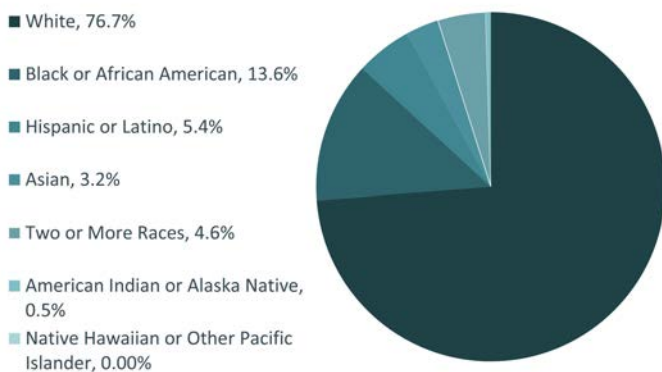
2021 Census Population

According to data from the most recent Census Bureau 2021 ACS Five-Year estimates, the population in Michigan increased by about 0.9 percent between 2020 and 2021. During 2021, there were 10,062,512 people were living in the State. The sex of the populace was split almost evenly, with about 50.5 percent of the population identifying as female and the other 49.5 percent identifying as male. A majority of the population identified as White (76.7 percent) with the second largest number of individuals identifying as Black or African American (13.6 percent). The region is facing an aging populace; with 31.3 percent of the population over the age of 54, compared to 31.2 percent under the age of 25.

Population Gender Demographics



Population Race Demographics



Population Age Demographics

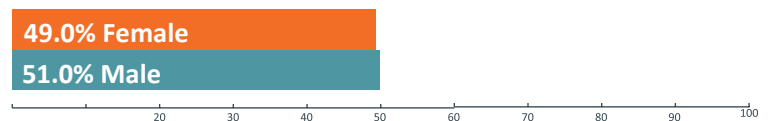


Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

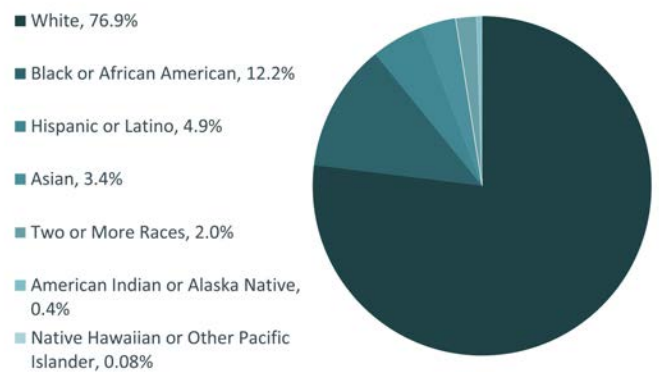
2022 Current Workforce

In 2022, the workforce had a total of 4,334,016 individuals working in State of Michigan. A slight majority, 51.0 percent (2,196,039 workers) were male, while 49.0 percent (2,106,583 workers) of the workforce was female. Most workers in the county identified as White, accounting for 76.9 percent of the workforce, while Black or African American workers totaled 12.2 percent of the workforce. Those identifying as Hispanic or Latino ethnicity accounted for 4.9 percent. Much of the workforce in State of Michigan are between the ages of 25 through 54 (62.6 percent), while 23.6 percent of workers are 55 and older.

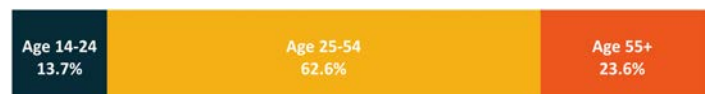
Workforce Gender Demographics



Workforce Race and Ethnicity Demographics



Workforce Age Demographics

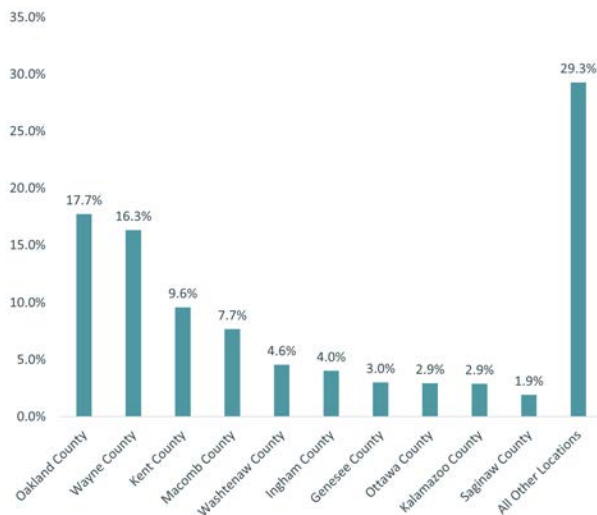


Data: Lightcast | Analysis: Workforce Intelligence Network

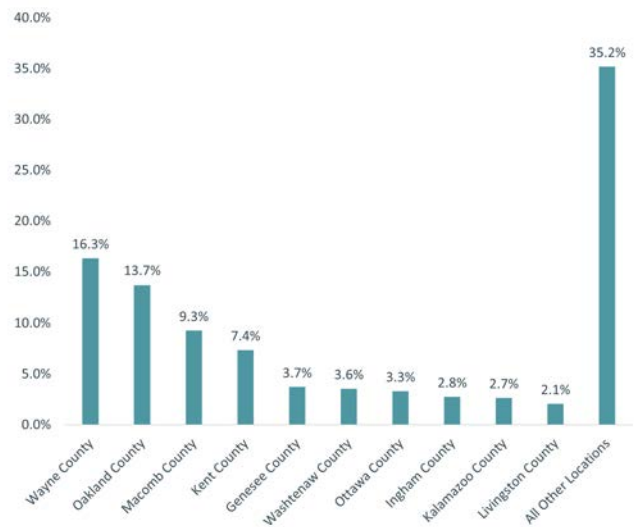
REGIONAL COMMUTING PATTERNS

According to the most recent OnTheMap data set available from the Census Bureau, during 2020, the state's workforce consisted of 3,800,502 residents. There were 3,680,016 (96.8 percent) residents living and working within the state, while the remaining 120,486 residents (3.2 percent) traveled outside of the state for work. There were 3,743,819 workers employed in the state during 2020. Of those, 63,803 workers (1.7 percent) lived outside of the state's borders and commuted in. From this information, we can see that Michigan is a net exporter of jobs, with more workers leaving the area for employment than inwardly commuting.

Where Michigan Residents Work



Where Michigan Workers Live

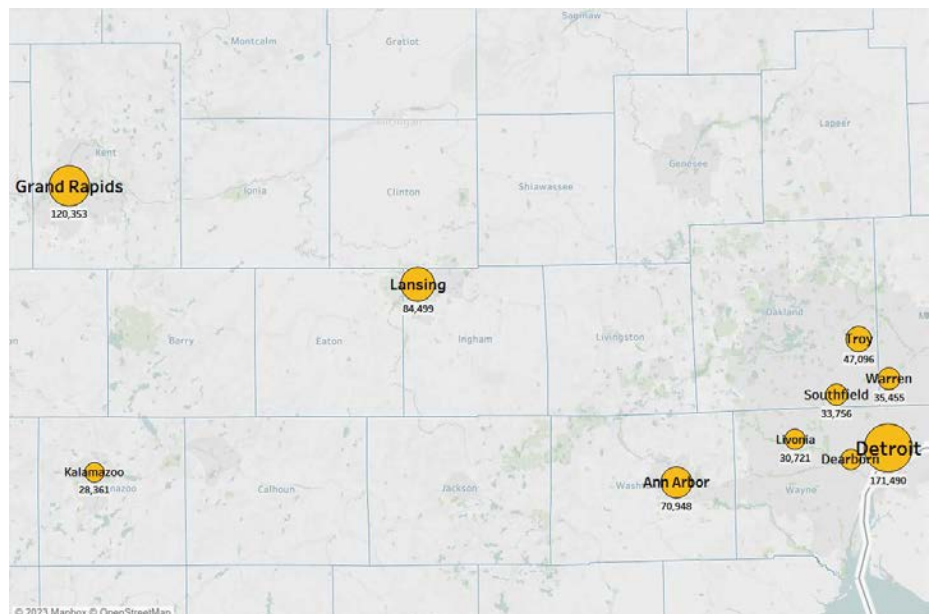


Source: U.S. Census OnTheMap, 2020
Analysis: Workforce Intelligence Network

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Analysis: Workforce Intelligence Network

Job Postings by City

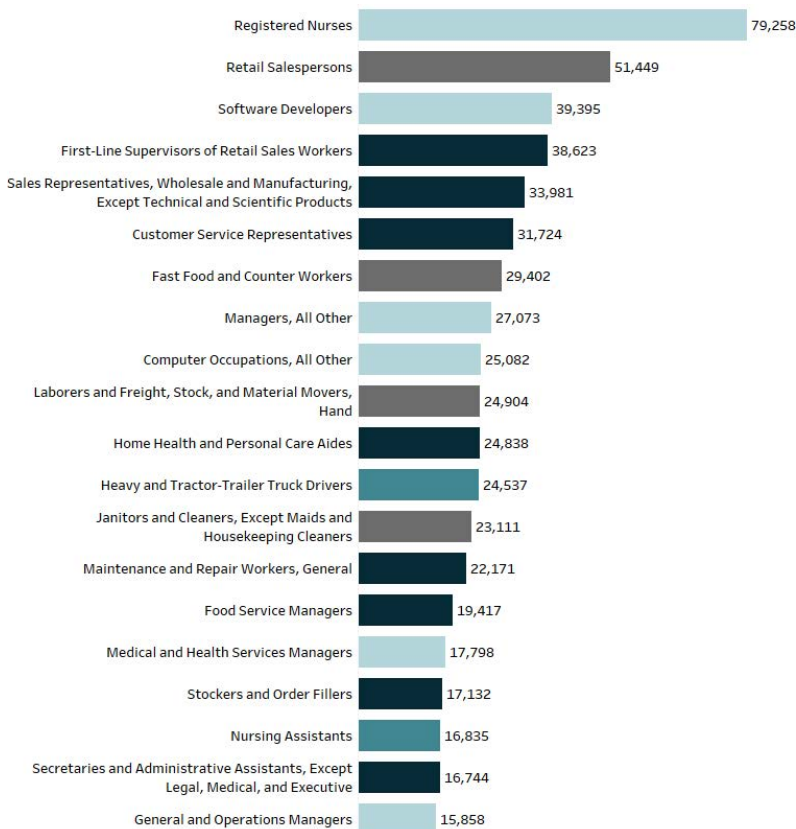
1. Detroit: 171,490 Postings
2. Grand Rapids: 120,353 Postings
3. Lansing: 84,499 Postings
4. Ann Arbor: 70,948 Postings
5. Troy: 47,096 Postings
6. Warren: 35,455 Postings
7. Southfield: 33,756 Postings
8. Dearborn: 31,778 Postings
9. Livonia: 30,721 Postings
10. Kalamazoo: 28,361 Postings



TOP POSTED JOBS

Top Posted Jobs: 2022

Registered Nurses is the top posted occupation for 2022 with 79,258 unique online job postings, and requires a bachelor's degree for entry. Retail Salespersons (51,449 postings) and Software Developers (39,395 postings) round out the top three demanded occupations, requiring a no formal educational credential, coupled with short-term on-the-job training and Bachelor's degree, respectively. Over half of the other in-demand jobs require no formal education or a high school diploma or equivalent, coupled with short-term on-the-job training.

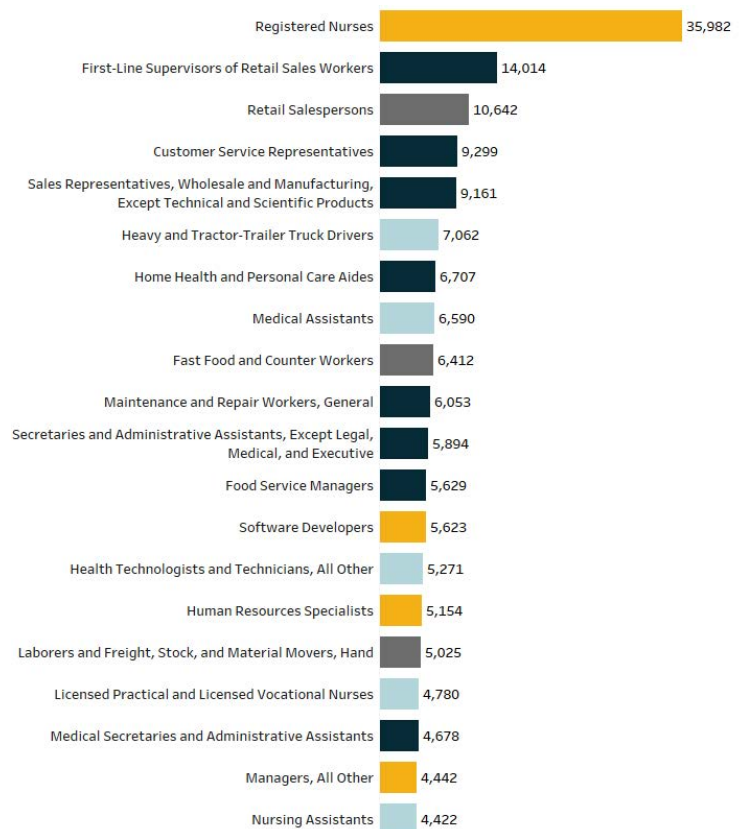


Typical Entry Education

- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree

Top Posted Entry-Level Jobs: 2022

Entry-level jobs, which usually require zero to two years of previous experience, account for 25.7 percent of the 2022 postings in the state of Michigan. 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 38.8 percent of entry-level postings. Registered Nurses was the top posted entry-level occupation with 35,982 postings requiring a bachelor's degree, followed by First-Line Supervisors of Retail Sales Workers, requiring a high school diploma or equivalent, with 14,014 postings.



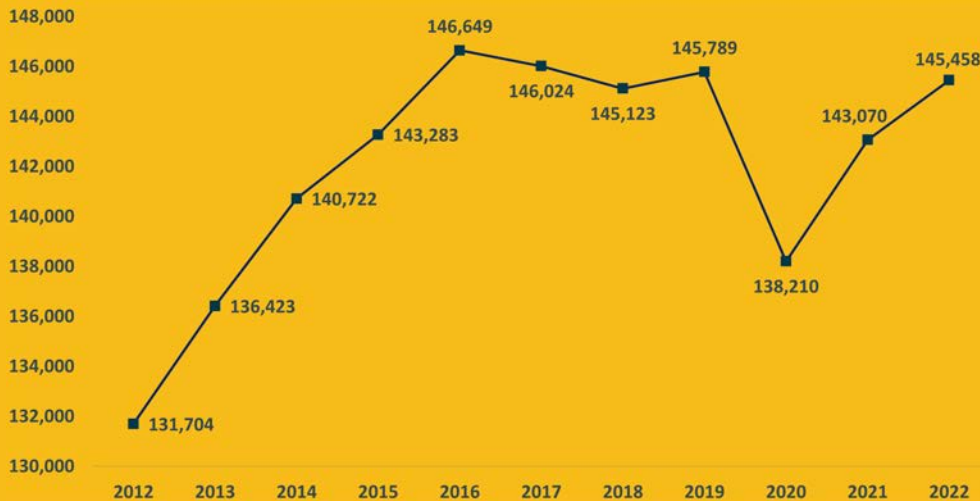
Typical Entry Education

- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree

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.

Employment Over Time
2012-2022

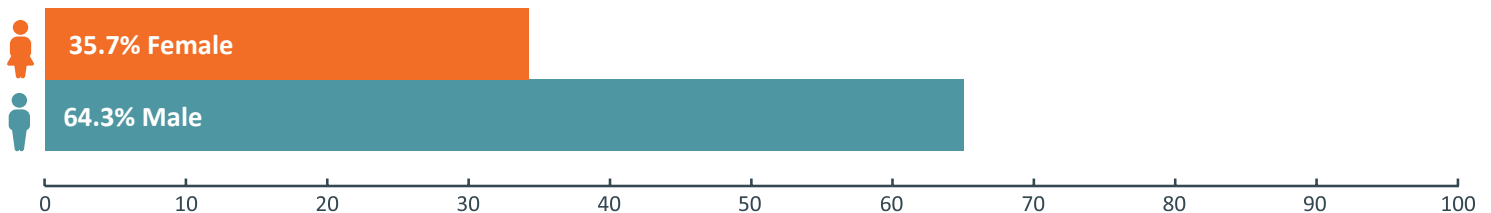


145,458
Agriculture Workers
1.7%
Increase
from 2021

Agriculture Worker Demographics

According to 2022 Lightcast data, the 145,458 workers in agriculture occupations are not very diverse. A large majority of workers are male (64.3 percent) between the ages of 25 and 54 (61.9 percent). Only 35.7 percent of agriculture workers identify as women, while 14.6 percent of workers were under the age of 25, compared to 23.5 percent of workers who are age 55 or older.

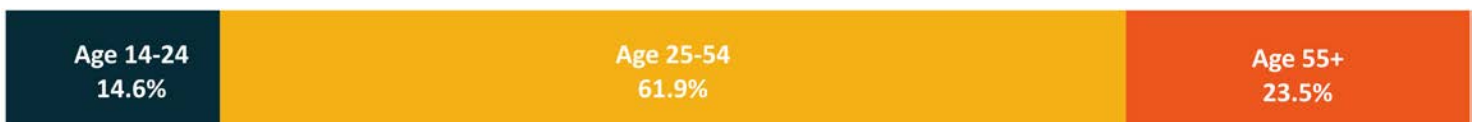
Worker Gender Demographics



Race and Ethnicity Demographics

77.5% White | **9.6% Hispanic or Latino** | **8.3% Black or African-American**

Worker Age Demographics

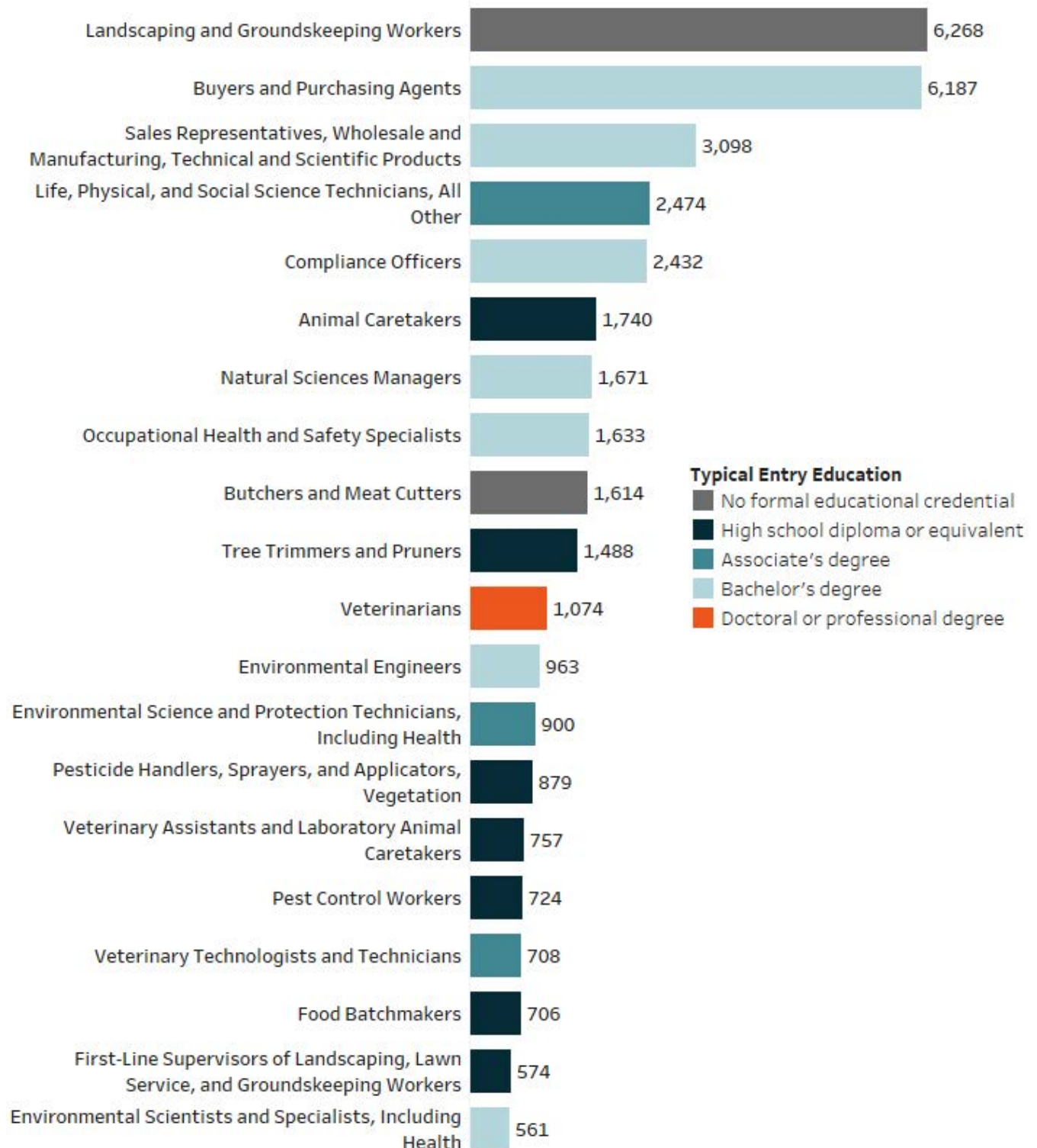


Data: Lightcast | Analysis: Workforce Intelligence Network

AGRICULTURE OCCUPATION GROUP

Top Posted Jobs

The agriculture occupation group posted 42,350 ads during 2022. Landscaping and Groundskeeping Workers is the top demanded occupation with 6,268 online job postings. Buyers and Purchasing Agents (6,187 postings) and Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (3,098 postings) were also in high demand. Other top posted occupations include Life, Physical, and Social Science Technicians, All Other (2,474 postings), and Compliance Officers (2,432 postings).



AGRICULTURE OCCUPATION GROUP

Wage Overview

Of the top posted agriculture-related jobs, over half of the top ten occupations in 2022 offer median wages of more than \$23.00 per hour. Landscaping and Groundskeeping Workers, the top posted Agriculture job, offers a median hourly wage of \$14.62 per hour or an annual salary of about \$30,410. With such a broad array of skillsets represented, Agriculture wages tend to scale with education and experience.

Wage Overview for Top Posted Agriculture Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
37-3011	Landscaping and Groundskeeping Workers	\$11.54	\$14.03	\$14.62	\$18.27	\$22.46
13-1028	Buyers and Purchasing Agents	\$18.99	\$23.43	\$30.08	\$38.71	\$49.12
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$22.90	\$31.99	\$47.95	\$62.89	\$79.85
19-4099	Life, Physical, and Social Science Technicians, All Other	\$13.57	\$14.83	\$19.03	\$29.11	\$38.85
13-1041	Compliance Officers	\$18.88	\$23.86	\$31.53	\$43.63	\$49.08
39-2021	Animal Caretakers	\$10.93	\$11.32	\$13.42	\$14.48	\$18.55
11-9121	Natural Sciences Managers	\$38.49	\$48.71	\$61.31	\$80.67	\$104.87
19-5011	Occupational Health and Safety Specialists	\$22.91	\$29.83	\$37.25	\$46.63	\$50.40
51-3021	Butchers and Meat Cutters	\$11.17	\$13.52	\$14.74	\$18.15	\$22.81
37-3013	Tree Trimmers and Pruners	\$13.85	\$17.66	\$23.19	\$24.20	\$30.69

In-Demand Technical Skills

- Purchasing
- Landscaping
- Auditing
- Selling Techniques
- Irrigation (Landscaping And Agriculture)

In-Demand Foundational Skills

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

In-Demand Certifications

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

In-Demand Education Level*

- High school or GED: 25.6%
- Associate degree: 6.7%
- Bachelor's degree: 32.9%
- Master's degree: 6.3%

**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

- TruGreen
- University Of Michigan
- Asplundh Tree Experts
- SpartanNash
- State Of Michigan
- Meijer
- PetCo
- General Dynamics
- Edward Rose & Sons
- Banfield Pet Hospital

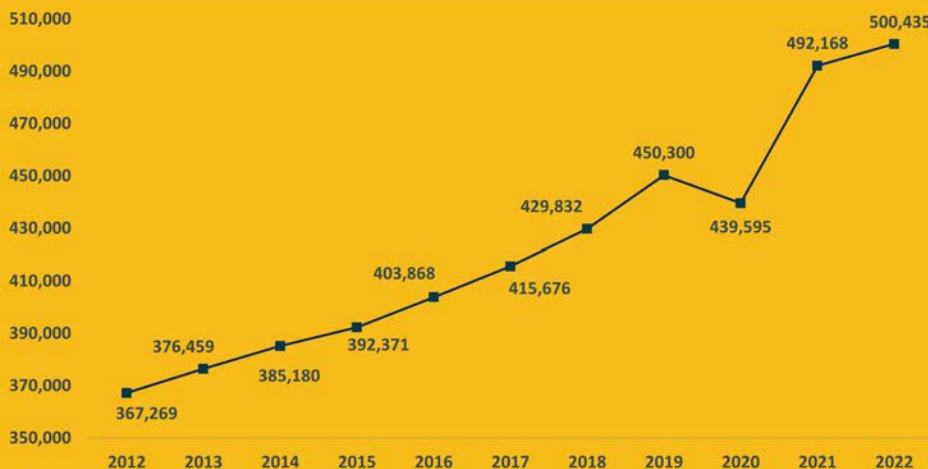
Job Postings by City

1. Detroit: 3,976 Postings
2. Grand Rapids: 2,920 Postings
3. Lansing: 2,336 Postings
4. Ann Arbor: 2,233 Postings
5. Troy: 1,111 Postings
6. Kalamazoo: 1,007 Postings
7. Auburn Hills: 896 Postings
8. Warren: 817 Postings
9. Southfield: 815 Postings
10. Livonia: 793 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
2012-2022



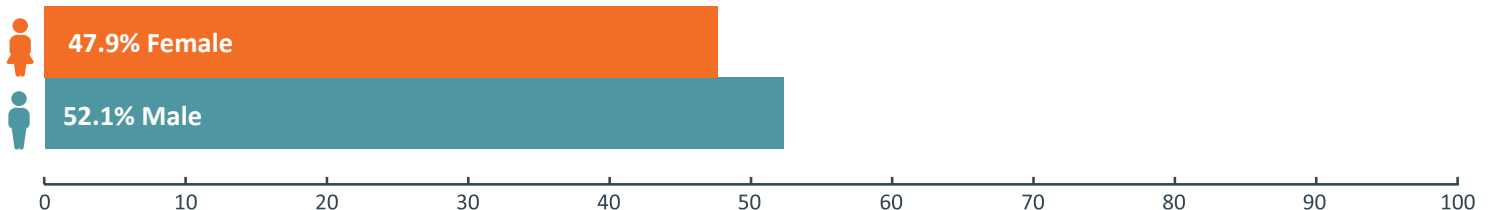
500,435
Business and
Finance
Workers
1.7% Increase
from 2021



Business and Finance Worker Demographics

The business and finance occupation group is somewhat diverse in respect to its 500,435 workers. More than half the working population identify as male (52.1 percent), however, 83.3 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 25.3 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

83.3% White | **8.3% Black or African-American** | **3.4% Asian**

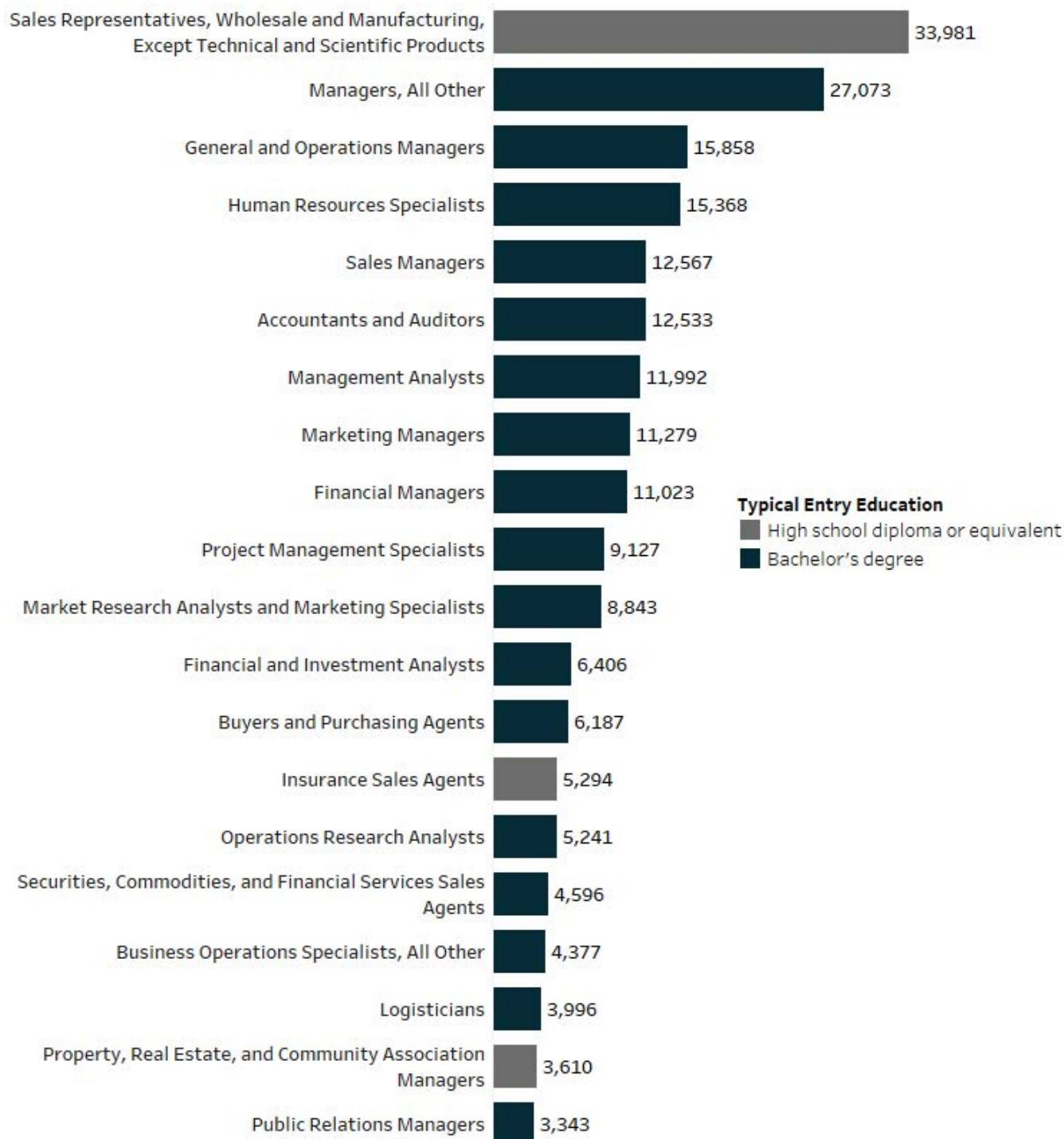
Worker Age Demographics



BUSINESS AND FINANCE OCCUPATION GROUP

Top Posted Jobs

There were 248,877 business and finance postings during 2022. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products is the top in-demand occupation with 33,981 postings. Managers, All Other (27,073 postings) is the second highest in demand, General and Operations Managers (15,858 postings), Human Resources Specialists (15,368 postings), and Sales Managers (12,567 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 Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, offers median hourly wages of \$29.86, translating to annual earnings of approximately \$62,109. All the top business occupations offer median wages over \$29.00 per hour, and most prefer a bachelor's degree for entry.

Wage Overview for Top Posted Business and Finance Jobs in 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	\$14.71	\$22.10	\$29.86	\$45.65	\$60.22
11-9199	Managers, All Other	\$23.06	\$36.10	\$48.62	\$63.32	\$78.88
11-1021	General and Operations Managers	\$21.29	\$29.15	\$47.08	\$71.78	\$100.00
13-1071	Human Resources Specialists	\$18.11	\$22.87	\$29.20	\$37.22	\$47.13
11-2022	Sales Managers	\$29.95	\$40.37	\$60.69	\$78.90	\$110.86
13-2011	Accountants and Auditors	\$22.90	\$28.82	\$34.66	\$44.43	\$58.51
13-1111	Management Analysts	\$22.87	\$29.89	\$38.54	\$49.55	\$63.64
11-2021	Marketing Managers	\$29.50	\$44.43	\$60.06	\$78.28	\$106.09
11-3031	Financial Managers	\$36.96	\$47.26	\$60.47	\$77.79	\$110.68
13-1082	Project Management Specialists	\$23.89	\$30.30	\$39.17	\$50.05	\$62.91

In-Demand Technical Skills

- Marketing
- Finance
- Accounting
- Auditing
- Sales Prospecting

In-Demand Foundational Skills

- Communications
- Management
- Sales
- Customer Service
- Leadership

In-Demand Certifications

- Master Of Business Administration (MBA)
- Certified Public Accountant
- Project Management Professional Certification
- Security Clearance
- Professional in Human Resources

In-Demand Education Level*

- High school or GED: 17.4%
- Associate degree: 7.6%
- Bachelor's degree: 60.3%
- 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

- Deloitte
- University Of Michigan
- Robert Half
- CBRE
- General Dynamics
- State Of Michigan
- PricewaterhouseCoopers
- KPMG
- Meta
- Kelly Services

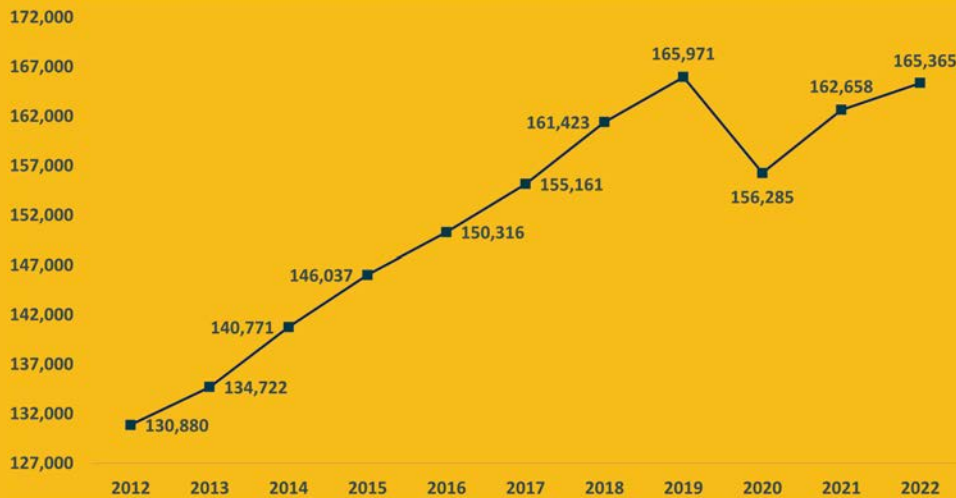
Job Postings by City

1. Detroit: 41,672 Postings
2. Lansing: 22,781 Postings
3. Grand Rapids: 21,416 Postings
4. Ann Arbor: 13,260 Postings
5. Troy: 10,674 Postings
6. Southfield: 7,683 Postings
7. Auburn Hills: 5,324 Postings
8. Warren: 4,953 Postings
9. Livonia: 4,783 Postings
10. Farmington: 4,676 Postings

CONSTRUCTION OCCUPATION GROUP

Jobs in the WIN construction occupation group are associated with skilled trades, engineering, management, and planning. Many construction employers are slow to adopt 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 Michigan, with about 14,000 annual job openings, and posting data provides a glimpse into employer needs.

Employment Over Time
2012-2022

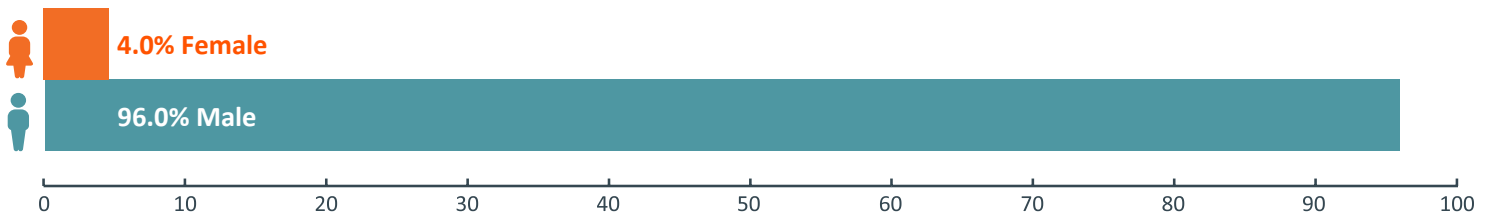


165,365
Construction
Workers
1.7%
Increase
from 2021

Construction Worker Demographics

The construction occupation group is not very diverse, despite having 165,365 workers. A large majority of workers are male (96.0 percent) between the ages of 25 and 54 (67.7 percent). Only 4.0 percent of workers identified as female, while 14.2 percent identified as a race other than white. Workers under the age of 25 represent 12.0 percent of the workforce, while workers aged 55 and older account for 20.3 percent.

Worker Gender Demographics



Race and Ethnicity Demographics

85.8% White | **6.7% Hispanic or Latino** | **5.0% Black or African-American**

Worker Age Demographics

Age 14-24
12.0%

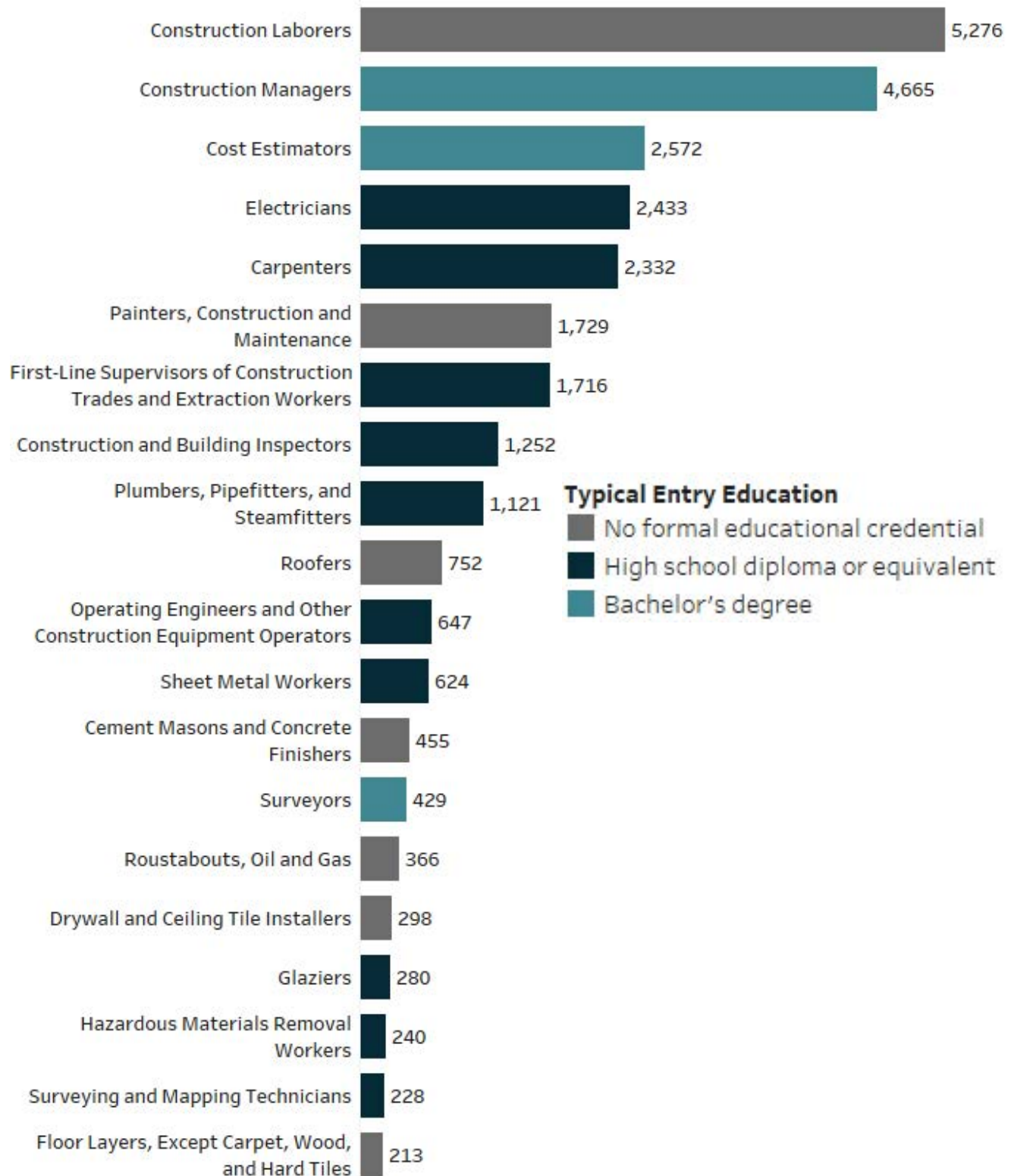
Age 25-54
67.7%

Age 55+
20.3%

CONSTRUCTION OCCUPATION GROUP

Top Posted Jobs

The construction occupation group had 29,608 postings in 2022. Construction Laborers was the top-posted occupation with 5,276 postings. Other top posted jobs include Construction Managers (4,665 postings), Cost Estimators (2,572 postings), Electricians (2,433 postings), and Carpenters (2,332 postings).



CONSTRUCTION OCCUPATION GROUP

Wage Overview

The top posted construction job, Construction Laborers offers a median wage of \$18.62 per hour or \$38,730 per year. Those working in apprentice-able occupations can also anticipate high wage potential, such as Plumbers, Pipefitters, and Steamfitters (1,121 postings), which report a median wage of \$30.66 per hour or \$63,773 annually.

Wage Overview for Top Posted Construction Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
47-2061	Construction Laborers	\$14.12	\$17.40	\$18.62	\$22.85	\$28.62
11-9021	Construction Managers	\$28.86	\$37.20	\$47.67	\$60.76	\$77.78
13-1051	Cost Estimators	\$18.25	\$23.43	\$30.50	\$38.80	\$49.29
47-2111	Electricians	\$17.51	\$22.56	\$29.77	\$37.57	\$44.79
47-2031	Carpenters	\$16.67	\$18.30	\$23.09	\$29.09	\$36.15
47-2141	Painters, Construction and Maintenance	\$14.09	\$17.61	\$18.36	\$23.07	\$28.77
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$23.00	\$28.72	\$31.31	\$38.78	\$48.55
47-4011	Construction and Building Inspectors	\$16.81	\$22.01	\$28.59	\$30.05	\$37.11
47-2152	Plumbers, Pipefitters, and Steamfitters	\$17.60	\$22.44	\$30.66	\$37.79	\$40.56
47-2181	Roofers	\$15.05	\$18.14	\$22.59	\$29.15	\$36.45

In-Demand Technical Skills

- Construction
- Carpentry
- Subcontracting
- Construction Management
- Painting

In-Demand Foundational Skills

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

In-Demand Certifications

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

In-Demand Education Level*

- High school or GED: 25.7%
- Associate degree: 5.5%
- Bachelor's degree: 16.5%
- 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

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

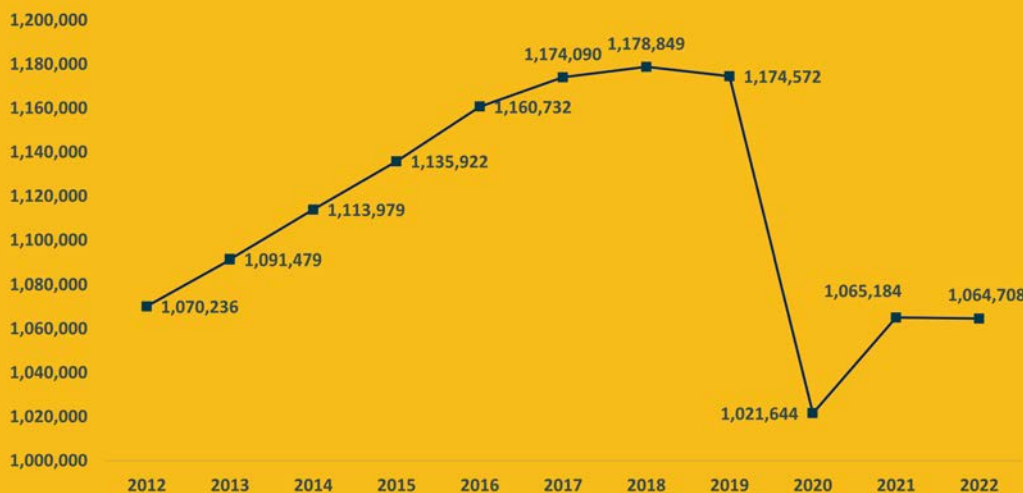
Job Postings by City

- Detroit: 3,544 Postings
- Grand Rapids: 2,709 Postings
- Lansing: 1,272 Postings
- Ann Arbor: 898 Postings
- Kalamazoo: 781 Postings
- Livonia: 704 Postings
- Warren: 651 Postings
- Novi: 575 Postings
- Troy: 524 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.

Employment Over Time
2012-2022

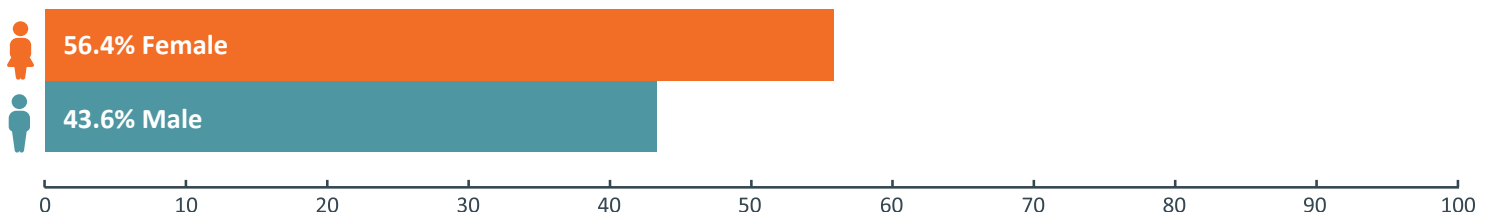


1,064,708
Customer
Service Workers
Slight Decrease
from 2021

Customer Service Worker Demographics

In 2022, there were 1,064,708 workers in the customer service occupation group, with a more diverse workforce than other groups analyzed. Just over half, 56.4 percent, of the workers identify as female, while 23.4 percent of workers in customer service identified as a racial minority. About 25.8 percent of customer service workers were under the age of 25, as compared to the 55 and older age group which was 21.0 percent.

Worker Gender Demographics



Race and Ethnicity Demographics

76.6% White | **12.4% Black or African-American** | **5.3% Hispanic or Latino**

Worker Age Demographics

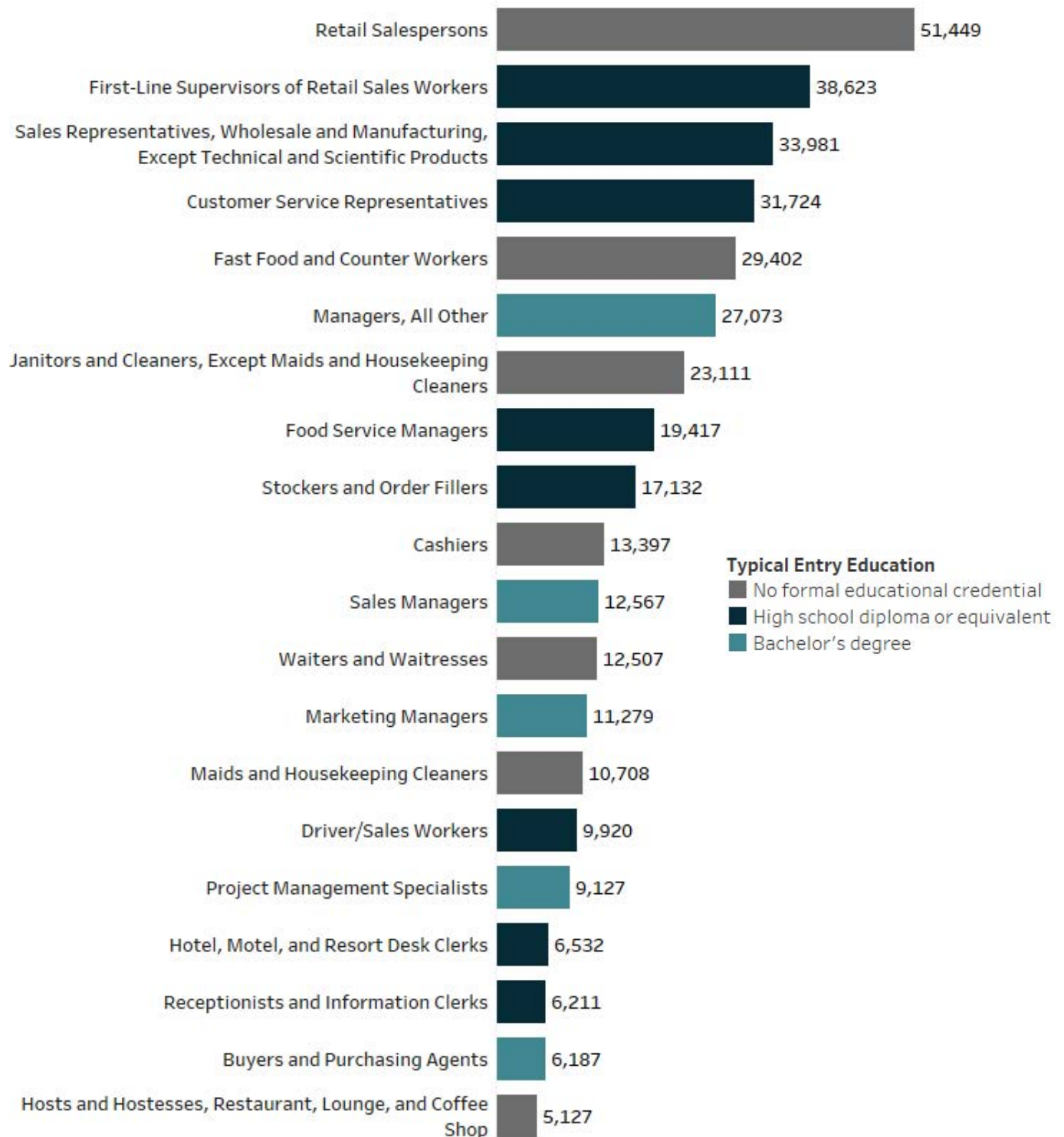


Data: Lightcast | Analysis: Workforce Intelligence Network

CUSTOMER SERVICE OCCUPATION GROUP

Top Posted Jobs

Demand for customer service occupations reached 445,636 postings in 2022. Retail Salespersons is the highest in-demand customer service occupation, with 51,449 postings. Other top posted jobs include First-Line Supervisors of Retail Sales Workers (38,623 postings), Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (33,981 postings), Customer Service Representatives (31,724 postings), and Fast Food and Counter Workers (29,402 postings).



CUSTOMER SERVICE OCCUPATION GROUP

Wage Overview

Despite being in high demand, most customer service-related occupations offer relatively low wages. However, half of the top ten posted occupations report median wages over \$17.00 per hour, many of which are management roles requiring both experience and training. The top posted occupation, Retail Salespersons, earns a median hourly wage of \$13.81. 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 \$18.57 per hour or \$38,626 annually.

Wage Overview for Top Posted Customer Service Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-2031	Retail Salespersons	\$10.98	\$11.36	\$13.81	\$16.76	\$22.47
41-1011	First-Line Supervisors of Retail Sales Workers	\$13.80	\$14.71	\$18.57	\$24.32	\$35.84
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.71	\$22.10	\$29.86	\$45.65	\$60.22
43-4051	Customer Service Representatives	\$11.60	\$14.06	\$17.59	\$22.23	\$28.19
35-3023	Fast Food and Counter Workers	\$10.86	\$11.12	\$11.38	\$12.90	\$14.04
11-9199	Managers, All Other	\$23.06	\$36.10	\$48.62	\$63.32	\$78.88
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$11.17	\$11.78	\$14.16	\$17.23	\$18.45
11-9051	Food Service Managers	\$18.28	\$22.82	\$28.86	\$35.54	\$45.01
53-7065	Stockers and Order Fillers	\$11.18	\$11.97	\$14.39	\$18.00	\$22.57
41-2011	Cashiers	\$10.78	\$11.03	\$11.37	\$13.87	\$14.36

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)
- ServSafe Certification
- Project Management Professional Certification
- Automotive Service Excellence (ASE) Certification
- Food Handler's Card

In-Demand Education Level*

- High school or GED: 32.9%
- Associate degree: 4.4%
- Bachelor's degree: 20.4%
- Master's degree: 3.8%

**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

- Meijer
- Walmart
- SpartanNash
- Dollar General
- Lowe's
- McDonald's
- Marriott International
- Panera Bread
- Taco Bell
- Applebee's

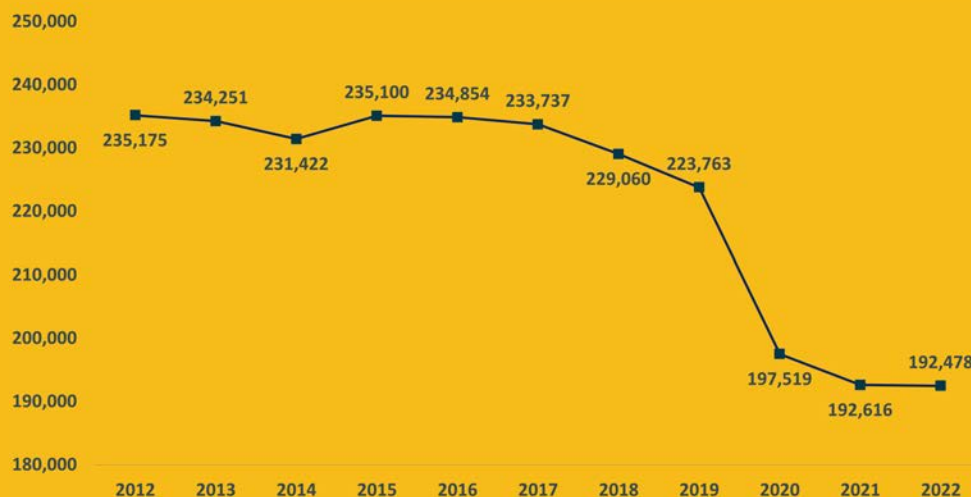
Job Postings by City

- Detroit: 38,279 Postings
- Grand Rapids: 30,588 Postings
- Lansing: 20,068 Postings
- Ann Arbor: 17,398 Postings
- Troy: 14,492 Postings
- Novi: 9,590 Postings
- Livonia: 9,065 Postings
- Southfield: 8,036 Postings
- Warren: 7,992 Postings
- Dearborn: 7,010 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 15,000 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. From elementary school teachers to college professors, educators are the backbone of training the future workforce.

Employment Over Time
2012-2022



192,478
Education
Workers
Slight Decrease
from 2021

Education Worker Demographics

Due to many schools shifting to distance learning and providing online classes, employment decreased by 19,384 or 9.1 percent since 2021, for a total of 192,478 workers in 2022. This occupation group is composed primarily of females (72.3 percent) between the ages of 25 and 54 (66.0 percent). Only 27.7 percent of workers are males, and only 17.7 percent of workers identify as a racial minority.

Worker Gender Demographics



Race and Ethnicity Demographics

82.3% White | 7.9% Black or African-American | 3.3% Asian

Worker Age Demographics

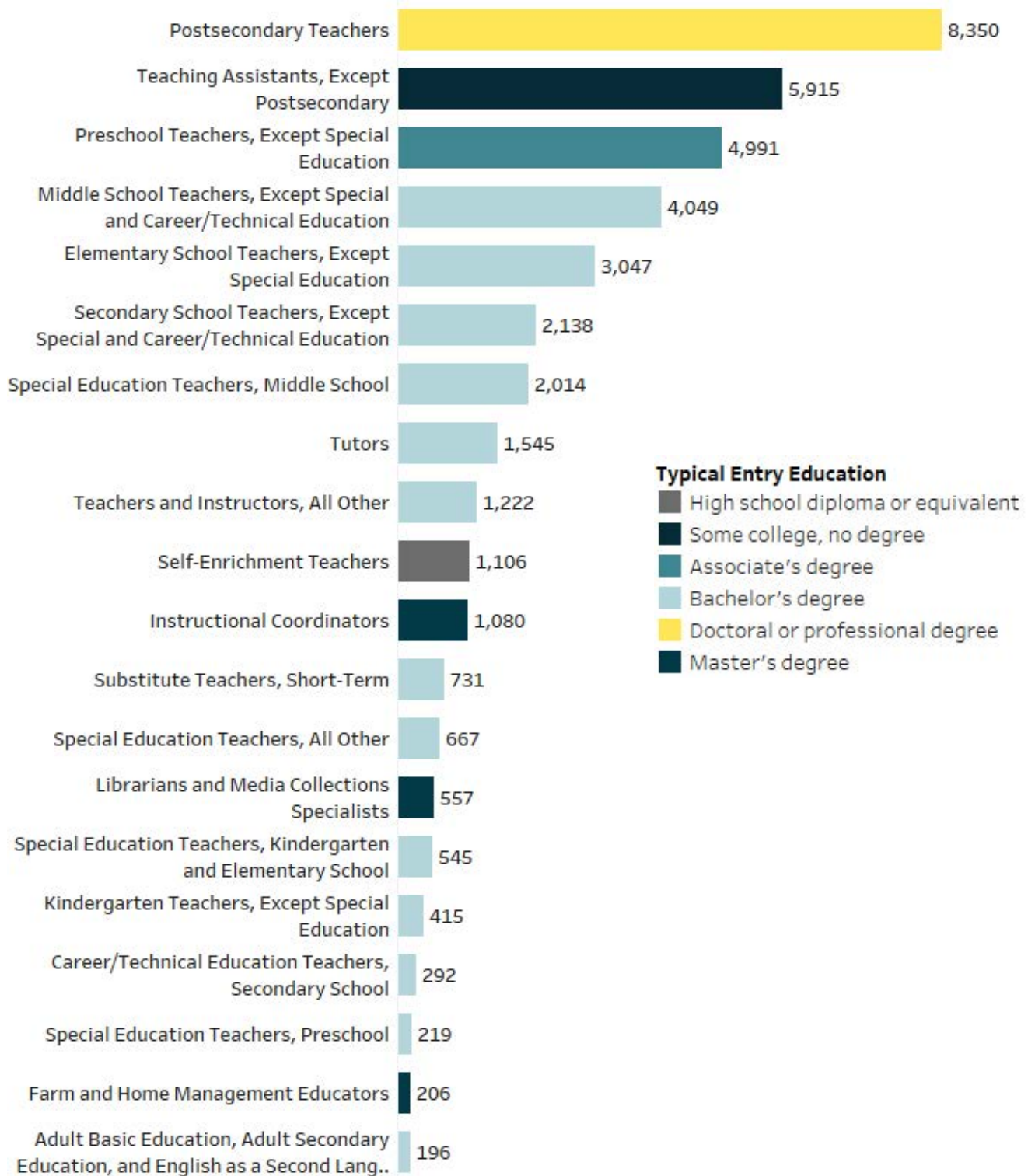


Data: Lightcast | Analysis: Workforce Intelligence Network

EDUCATION OCCUPATION GROUP

Top Posted Jobs

Online job ads totaled 39,732 postings in 2022. Postsecondary Teachers remained the highest in-demand education occupation with 8,350 postings. Teaching Assistants, Except Postsecondary (5,915 postings), Preschool Teachers, Except Special Education (4,991 postings), Middle School Teachers, Except Special and Career/Technical Education (4,049 postings), and Elementary School Teachers, Except Special Education (3,047 postings) were also among the top five occupations. The top job titles requested are Assistant Teachers, Teachers, Special Education Teachers, Paraprofessionals, and Substitute Teachers.



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. Half 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 \$38.44 hourly, translating to annual earnings of about \$79,955.

Wage Overview for Top Posted Education Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
25-1099	Postsecondary Teachers	\$20.08	\$27.95	\$38.44	\$51.58	\$63.99
25-9045	Teaching Assistants, Except Postsecondary	\$10.84	\$11.38	\$13.97	\$16.72	\$17.95
25-2011	Preschool Teachers, Except Special Education	\$11.51	\$13.73	\$14.37	\$17.94	\$27.25
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$18.29	\$23.06	\$29.28	\$37.09	\$45.58
25-2021	Elementary School Teachers, Except Special Education	\$18.81	\$23.29	\$29.63	\$37.28	\$46.10
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$18.52	\$23.06	\$29.32	\$37.09	\$39.16
25-2057	Special Education Teachers, Middle School	\$22.75	\$24.10	\$29.72	\$37.46	\$40.56
25-3041	Tutors	\$11.32	\$11.51	\$14.49	\$22.04	\$35.43
25-3099	Teachers and Instructors, All Other	\$14.73	\$17.93	\$22.55	\$28.74	\$37.26
25-3021	Self-Enrichment Teachers	\$11.32	\$14.00	\$18.32	\$23.53	\$30.03

In-Demand Technical Skills

- Lesson Planning
- Special Education
- Child Development
- Cardiopulmonary Resuscitation (CPR)
- Curriculum Development

In-Demand Foundational Skills

- Teaching
- Communications
- Leadership
- Planning
- Writing

In-Demand Certifications

- No Child Left Behind Act (NCLB) Standards
- Basic Life Support (BLS) Certification
- Board Certified/Board Eligible
- Alternative Teacher Certification
- Master Of Business Administration (MBA)

In-Demand Education Level*

- High school or GED: 19.4%
- Associate degree: 12.7%
- Bachelor's degree: 33.3%
- Master's degree: 17.9%

**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

- Stanford University
- University Of Michigan
- KinderCare
- Michigan State University
- Learning Care
- Chippewa Valley Schools
- ATX Learning
- Stride K12
- Kent Isd
- Sylvan Learning Center

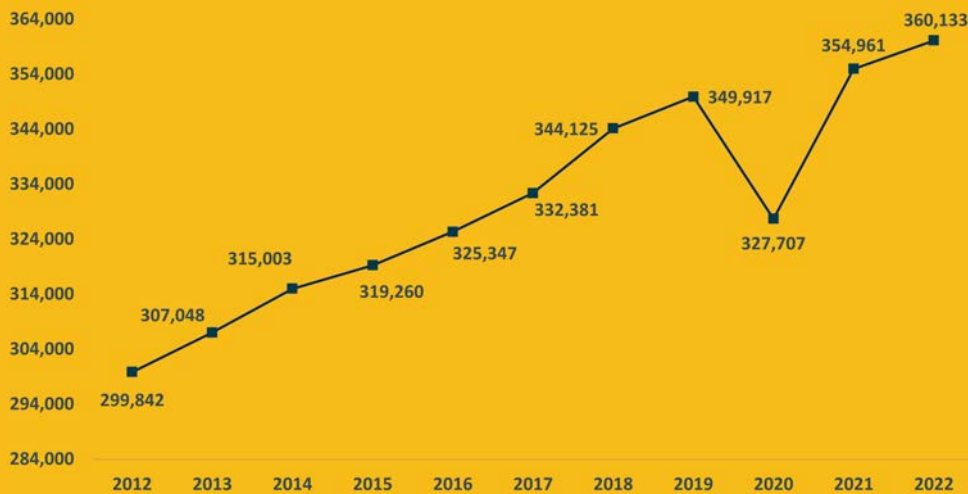
Job Postings by City

1. Detroit: 4,137 Postings
2. Grand Rapids: 3,265 Postings
3. Ann Arbor: 2,366 Postings
4. Lansing: 973 Postings
5. Flint: 957 Postings
6. East Lansing: 788 Postings
7. Dearborn: 730 Postings
8. Southfield: 693 Postings
9. Macomb: 677 Postings
10. Kalamazoo: 670 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 to these workers in every industry.

Employment Over Time
2012-2022

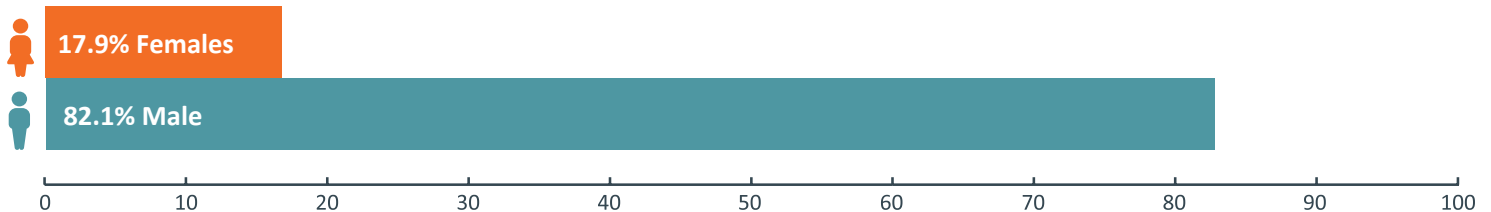


360,133
Education
Workers
1.5% Increase
from 2021

Energy Worker Demographics

In 2022, there were 360,133 workers in the energy occupation group. This group is primarily made up of males (82.1 percent) between the ages of 25 and 54 (69.9 percent). Only 17.9 percent of workers identified as female and just 18.2 percent identified as a racial minority. During the year, 5.4 percent of the workers in the occupation group are under the age of 25 compared to the 24.7 percent who are 55 years of age or older.

Worker Gender Demographics



Race and Ethnicity Demographics

81.8% White | 8.0% Black or African-American | 4.7% Asian

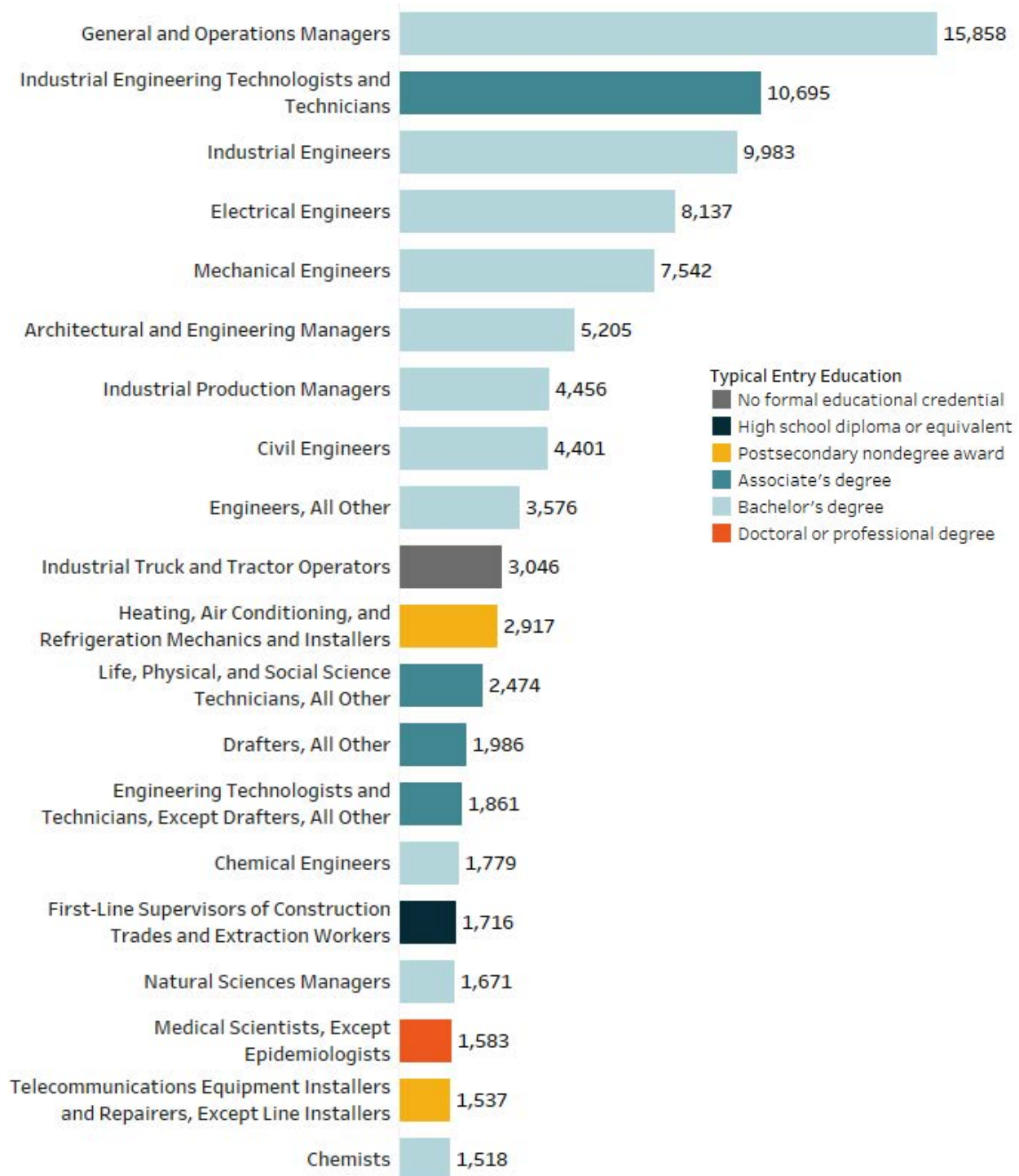
Worker Age Demographics



ENERGY OCCUPATION GROUP

Top Posted Jobs

In 2022, there were a total of 113,164 job postings for Energy workers, with General and Operations Managers as the most sought-after occupation by Energy industry employer with 15,858 postings. Industrial Engineering Technologists and Technicians was in the second position with 10,695 postings. Other top posted jobs include Industrial Engineers (9,983 postings), Electrical Engineers (8,137 postings), and Mechanical Engineers (7,542 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. Nine of the top ten energy occupations has median wages over \$29.00 per hour. The top posted energy job, General and Operations Managers, offers a median hourly wage of \$47.08, or annual earnings of approximately \$97,926. 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 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	\$21.29	\$29.15	\$47.08	\$71.78	\$100.00
17-3026	Industrial Engineering Technologists and Technicians	\$17.87	\$23.10	\$29.02	\$30.24	\$37.39
17-2112	Industrial Engineers	\$29.21	\$36.29	\$38.69	\$48.43	\$61.11
17-2071	Electrical Engineers	\$29.89	\$37.38	\$47.30	\$57.93	\$62.79
17-2141	Mechanical Engineers	\$29.23	\$36.73	\$44.47	\$48.73	\$61.36
11-9041	Architectural and Engineering Managers	\$46.91	\$57.64	\$61.98	\$78.48	\$94.16
11-3051	Industrial Production Managers	\$30.23	\$38.55	\$49.21	\$62.86	\$79.06
17-2051	Civil Engineers	\$28.76	\$29.64	\$37.24	\$47.44	\$58.96
17-2199	Engineers, All Other	\$28.10	\$37.38	\$47.76	\$53.49	\$62.64
53-7051	Industrial Truck and Tractor Operators	\$14.48	\$17.59	\$18.74	\$23.34	\$28.26

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Communications
- Management
- Operations
- Leadership
- Problem Solving

In-Demand Certifications

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

In-Demand Education Level*

- High school or GED: 20.9%
- Associate degree: 9.5%
- Bachelor's degree: 48.9%
- Master's degree: 13.1%

**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

- General Motors
- Actalent
- GPAC
- Aerotek
- University Of Michigan
- DTE Energy
- Black & Veatch
- State Of Michigan
- Randstad
- Kelly Services

Job Postings by City

1. Detroit: 12,540 Postings
2. Grand Rapids: 7,877 Postings
3. Lansing: 6,700 Postings
4. Ann Arbor: 5,518 Postings
5. Auburn Hills: 4,410 Postings
6. Warren: 3,920 Postings
7. Troy: 3,232 Postings
8. Kalamazoo: 2,733 Postings
9. Dearborn: 2,334 Postings
10. Livonia: 2,315 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
2012-2022



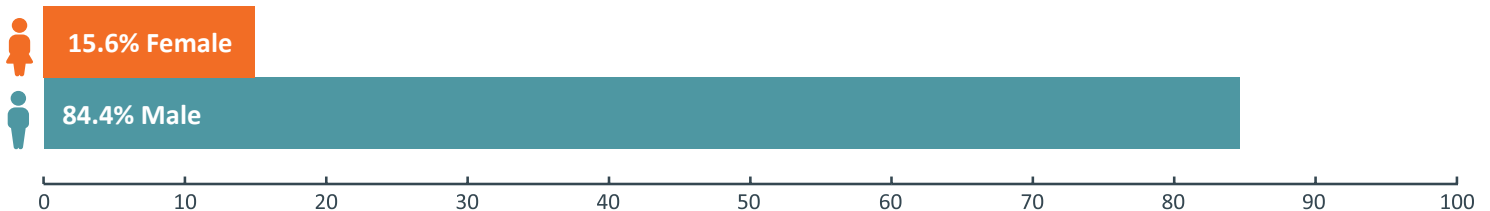
130,923
Engineers and
Designers
Workers
1.3% Increase
from 2021



Engineers and Designers Worker Demographics

According to 2022 Lightcast data, the 130,923 workers in the engineering and design group are not particularly diverse. Just 5.5 percent of the related workforce is under 25, likely due to the consistently high educational requirements. Female workers account for 15.6 percent of the current workforce and only 20.3 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

79.7% White | 8.9% Asian | 6.5% Black or African-American

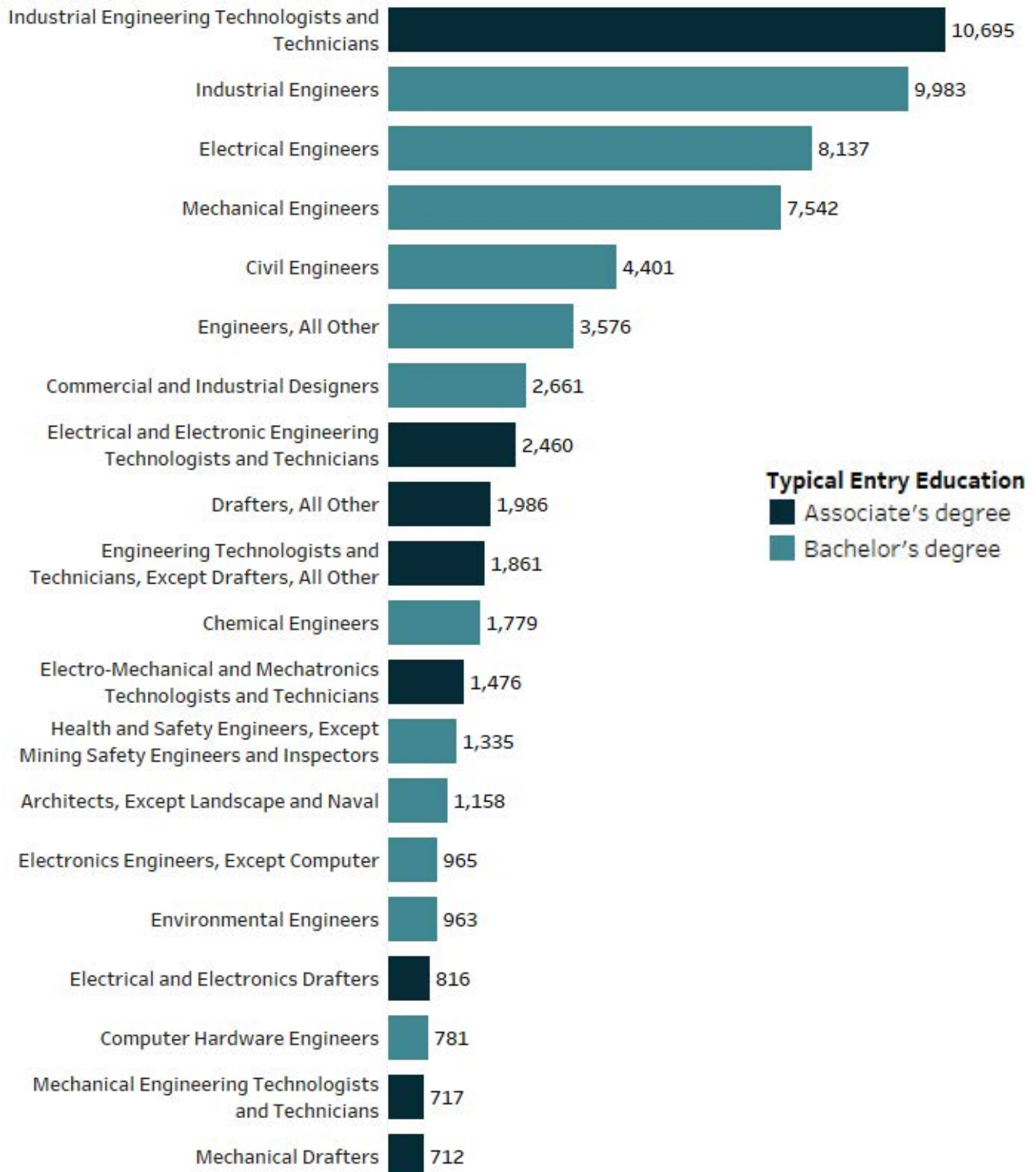
Worker Age Demographics



ENGINEERS AND DESIGNERS OCCUPATION GROUP

Top Posted Jobs

Industrial Engineering Technologists and Technicians was the highest in-demand engineering and design occupation during 2022, with 10,695 postings. Industrial Engineers were also in high demand with 9,983 postings, making 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, Industrial Engineering Technologists and Technicians, offers a median hourly wage of \$29.02, or an annual salary of approximately \$60,362.

Wage Overview for Top Posted Engineers and Designers Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-3026	Industrial Engineering Technologists and Technicians	\$17.87	\$23.10	\$29.02	\$30.24	\$37.39
17-2112	Industrial Engineers	\$29.21	\$36.29	\$38.69	\$48.43	\$61.11
17-2071	Electrical Engineers	\$29.89	\$37.38	\$47.30	\$57.93	\$62.79
17-2141	Mechanical Engineers	\$29.23	\$36.73	\$44.47	\$48.73	\$61.36
17-2051	Civil Engineers	\$28.76	\$29.64	\$37.24	\$47.44	\$58.96
17-2199	Engineers, All Other	\$28.10	\$37.38	\$47.76	\$53.49	\$62.64
27-1021	Commercial and Industrial Designers	\$23.75	\$30.04	\$38.67	\$47.44	\$49.44
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$21.78	\$23.30	\$29.82	\$37.84	\$48.13
17-3019	Drafters, All Other	\$16.81	\$18.20	\$23.21	\$34.93	\$36.98
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	\$17.80	\$22.52	\$29.32	\$45.15	\$55.20

In-Demand Technical Skills

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

In-Demand Foundational Skills

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

In-Demand Certifications

- Professional Engineer
- Licensed Professional Engineer
- Engineer in Training
- Security Clearance
- Six Sigma Green Belt

In-Demand Education Level*

- High School Diploma: 16.5%
- Associate Degree: 10.3%
- Bachelor's Degree: 41.2%
- Master's Degree: 11.8%

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

Top Posting Employers

- General Motors
- Actalent
- GPAC
- ZF
- Aerotek
- Ford
- Black & Veatch
- Advantage Resourcing
- Randstad
- DTE Energy

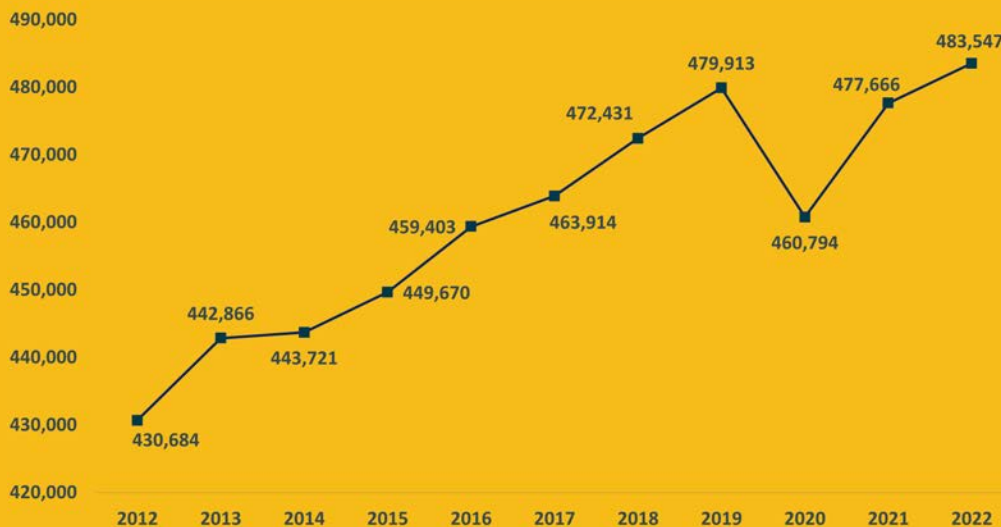
Job Postings by City

1. Detroit: 6,317 Postings
2. Grand Rapids: 4,166 Postings
3. Auburn Hills: 4,159 Postings
4. Ann Arbor: 3,246 Postings
5. Lansing: 3,140 Postings
6. Warren: 3,048 Postings
7. Troy: 2,322 Postings
8. Dearborn: 2,144 Postings
9. Plymouth: 1,832 Postings
10. Sterling Heights: 1,629 Postings

HEALTHCARE OCCUPATION GROUP

WIN's healthcare occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, with more healthcare 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
2012-2022

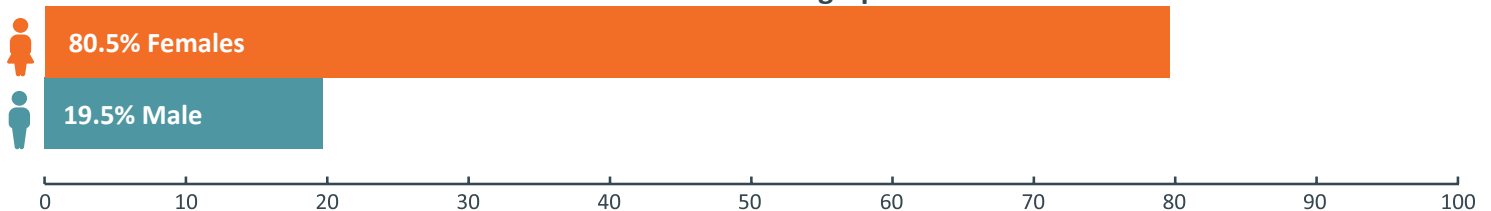


483,547
Healthcare
Workers
1.2% Increase
from 2021

Healthcare Worker Demographics

According to 2022 Lightcast data, the healthcare occupation group employed 483,547 workers in the state of Michigan, who are overwhelmingly female (80.5 percent) and between the ages of 25 and 54 (68.2 percent), although 22.4 percent of workers are over 54. The healthcare occupation group is primarily white in Michigan, with 73.0 percent of workers identifying as white, 16.5 percent identifying as Black or African American, and 9.5 percent identifying otherwise.

Worker Gender Demographics



Race and Ethnicity Demographics

73.0% White | **16.5% Black or African-American** | **4.5% Asian**

Worker Age Demographics

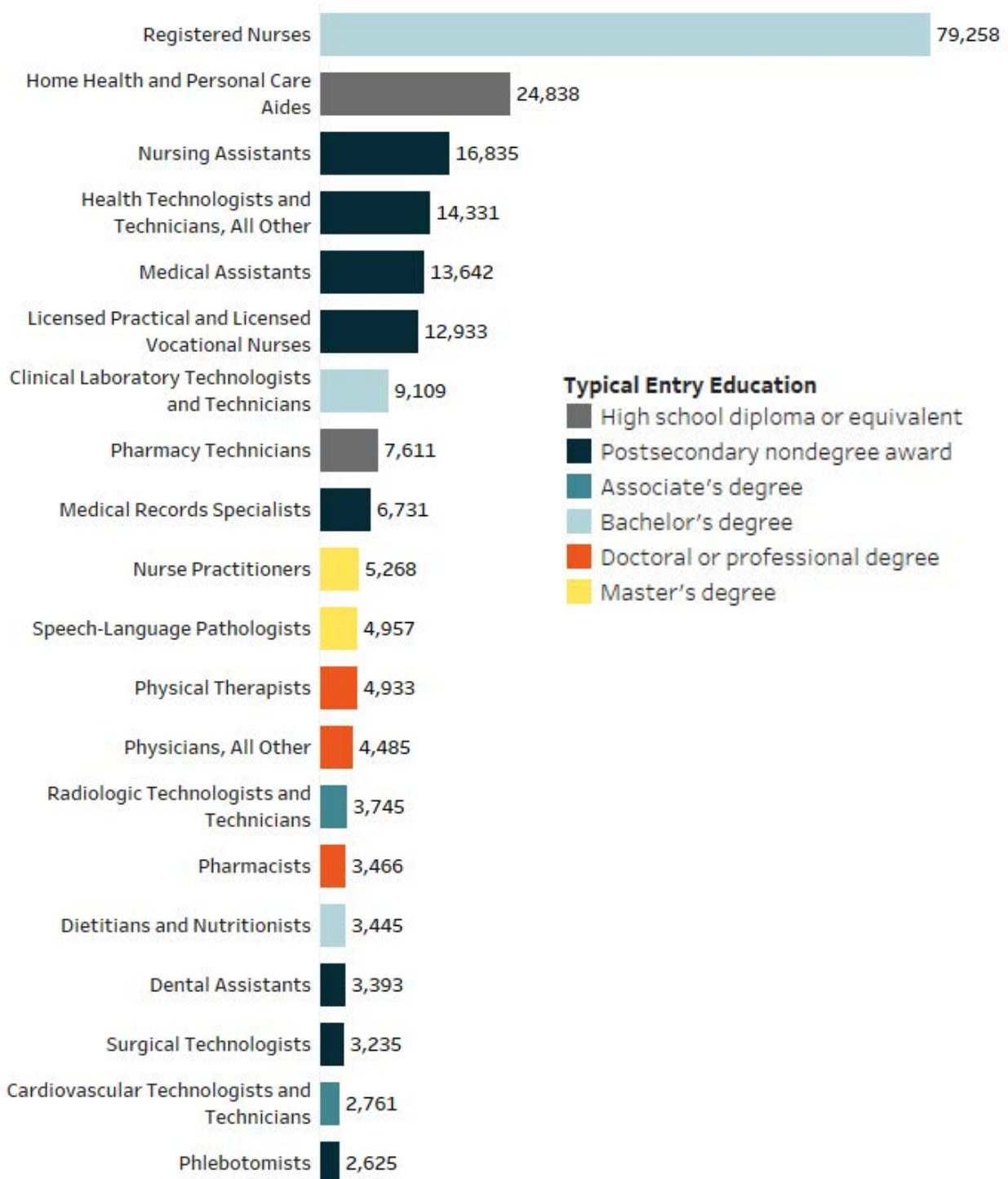


Data: Lightcast | Analysis: Workforce Intelligence Network

HEALTHCARE OCCUPATION GROUP

Top Posted Jobs

Registered Nurses were the highest in-demand health care occupation throughout 2022, with 79,258 postings. Other top posted jobs include Home Health and Personal Care Aides (24,838 postings), Nursing Assistants (16,835 postings), Health Technologists and Technicians, All Other (14,331 postings), and Medical Assistants (13,642 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 (7,611 postings), only require a high school diploma or equivalent, coupled with short to moderate-term on-the-job training.



HEALTHCARE OCCUPATION GROUP

Wage Overview

Wages in the high-demand health care field tend to scale with both education and experience. The healthcare 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. Nine of the top ten jobs pay over \$17.00 per hour. Registered Nurses, the top posted healthcare job, offers a median hourly wage of \$36.88 per hour or an annual salary of about \$76,710.

Wage Overview for Top Posted Healthcare Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$28.90	\$29.89	\$36.88	\$38.40	\$47.36
31-1128	Home Health and Personal Care Aides	\$10.92	\$11.26	\$13.53	\$14.20	\$16.84
31-1131	Nursing Assistants	\$13.89	\$14.28	\$17.11	\$18.01	\$18.31
29-2099	Health Technologists and Technicians, All Other	\$14.16	\$17.73	\$22.45	\$28.42	\$32.35
31-9092	Medical Assistants	\$14.01	\$14.47	\$17.85	\$18.37	\$21.06
29-2061	Licensed Practical and Licensed Vocational Nurses	\$22.20	\$22.60	\$27.07	\$28.78	\$29.45
29-2018	Clinical Laboratory Technologists and Technicians	\$14.26	\$17.83	\$24.13	\$31.12	\$37.31
29-2052	Pharmacy Technicians	\$13.54	\$14.07	\$17.59	\$18.15	\$22.53
29-2072	Medical Records Specialists	\$14.05	\$17.46	\$18.63	\$23.14	\$29.40
29-1171	Nurse Practitioners	\$45.40	\$48.02	\$49.07	\$60.16	\$62.80

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Communications
- Customer Service
- Leadership
- Management
- Teaching

In-Demand Certifications

- Basic Life Support (BLS) Certification
- Licensed Practical Nurse (LPN)
- Advanced Cardiovascular Life Support (ACLS) Certification
- Certified Nursing Assistant
- Nurse Practitioner (APRN-CNP)

In-Demand Education Level*

- High school or GED: 27.8%
- Associate degree: 21.0%
- Bachelor's degree: 18.2%
- Master's degree: 7.4%

**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

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

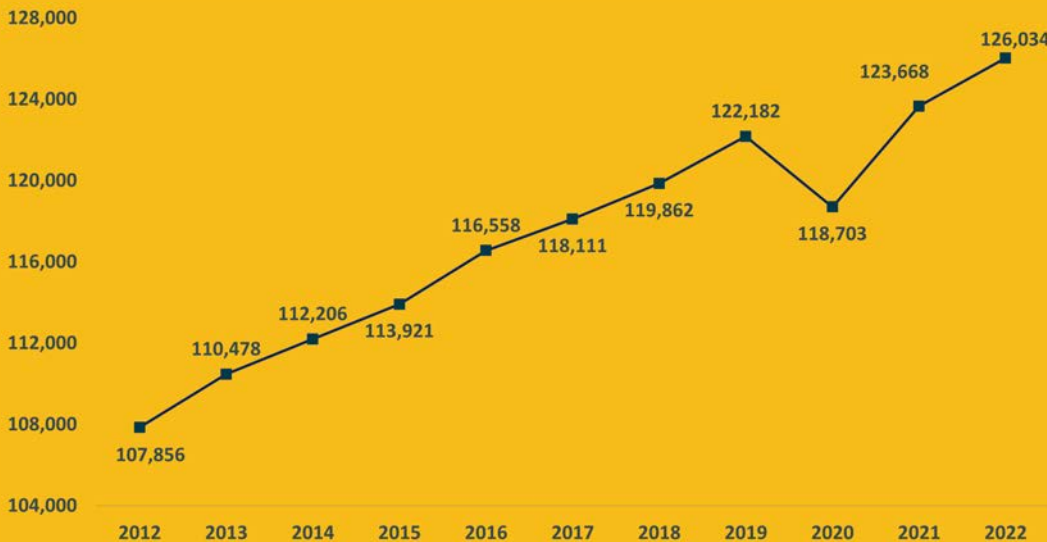
Job Postings by City

1. Detroit: 26,099 Postings
2. Grand Rapids: 18,475 Postings
3. Ann Arbor: 12,282 Postings
4. Lansing: 7,676 Postings
5. Kalamazoo: 5,736 Postings
6. Dearborn: 5,348 Postings
7. Southfield: 5,311 Postings
8. Troy: 4,837 Postings
9. Warren: 4,715 Postings
10. Pontiac: 4,528 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 in the region annually.

Employment Over Time
2012-2022

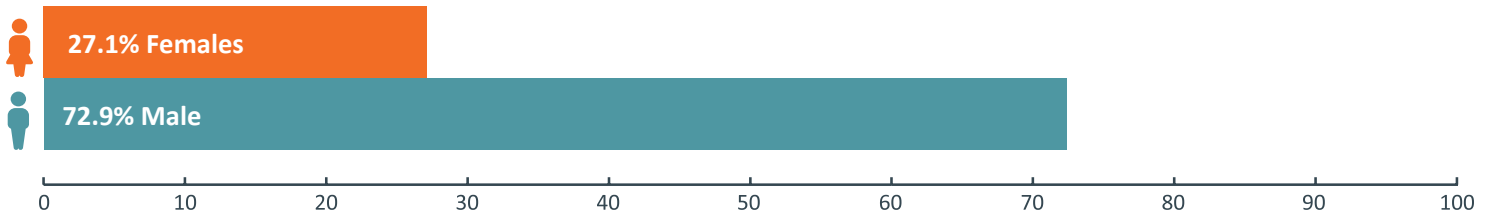


126,034
Information
Technology
Workers
1.9% Increase
from 2021

Information Technology Worker Demographics

According to 2022 Lightcast data, the state of Michigan has 126,034 IT workers. The workforce is not too diverse, with most workers identifying as male (72.9 percent) between the ages of 25 and 54 (77.4 percent). Workers aged 55 years and older account for 16.8 percent, while only 5.8 percent are 24 years old or younger. Around 71.8 percent of the workforce identify as white, with workers who identify as Asian, make up 14.9 percent of the workforce.

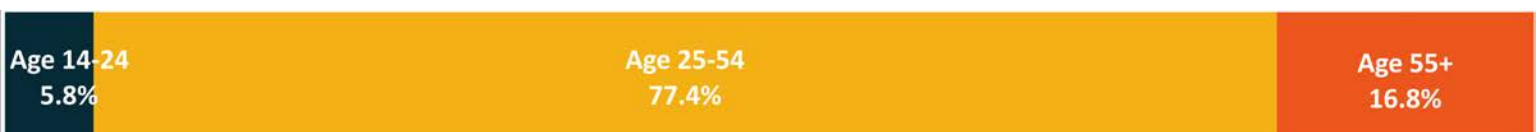
Worker Gender Demographics



Race and Ethnicity Demographics

71.8% White | 14.9% Asian | 8.4% Black or African-American

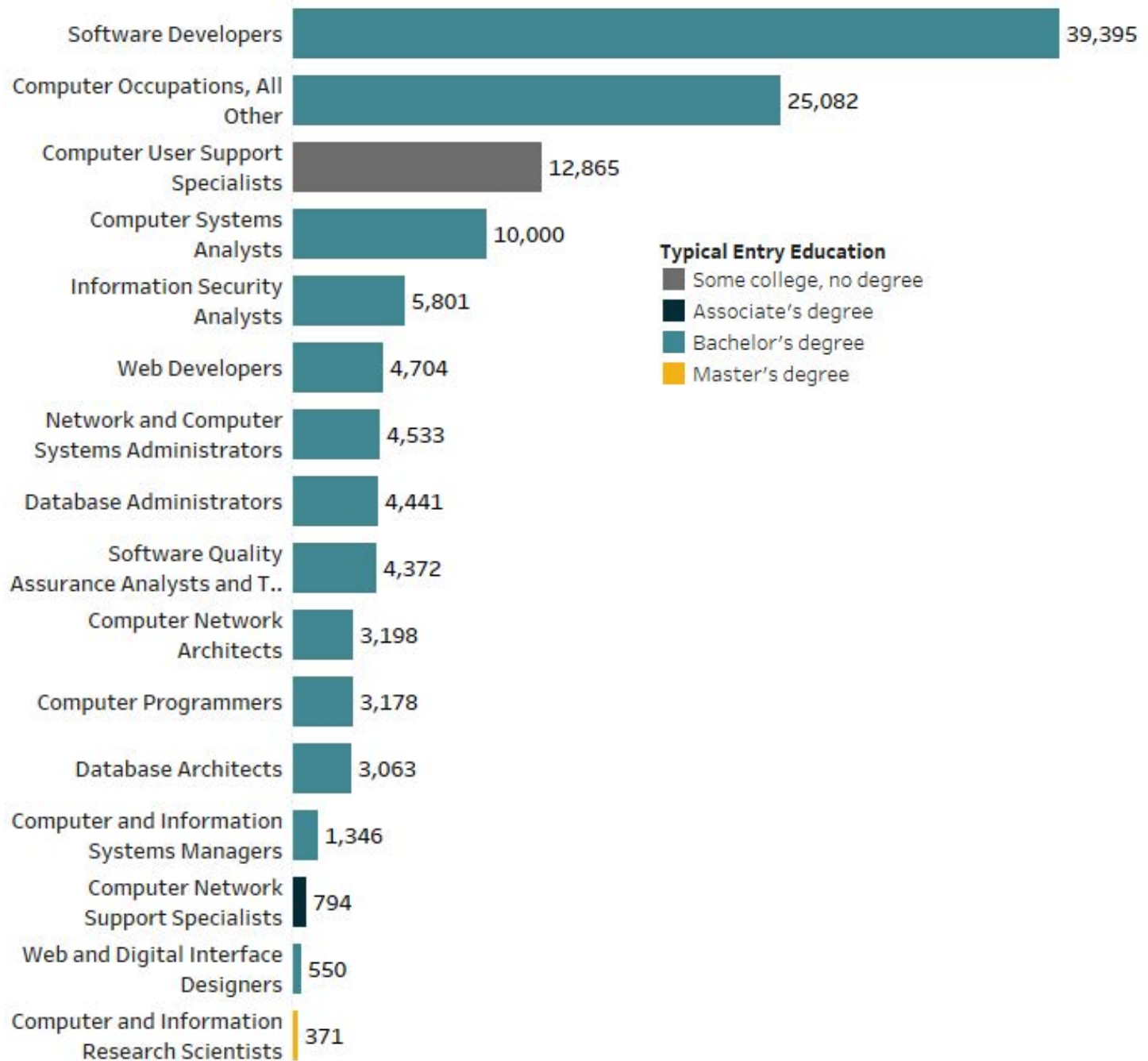
Worker Age Demographics



INFORMATION TECHNOLOGY OCCUPATION GROUP

Top Posted Jobs

In 2022, there were 123,693 postings for IT workers in Michigan. Software Developers was the most in-demand occupation with 39,395 postings, followed by Computer Occupations, All Other, with 25,082 postings. Computer User Support Specialists (12,865 postings) and Computer Systems Analysts (10,000 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, the most in-demand occupation, offers a median hourly wage of \$47.39 per hour or almost \$98,571 per year. Computer Network Architects earn the highest median wage at \$49.57 per hour or nearly \$103,106 per year. Other occupations that have fewer qualifications, such as Computer User Support Specialists, make over \$23.00 per hour.

Wage Overview for Top Posted Information Technology Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1252	Software Developers	\$29.48	\$37.25	\$47.39	\$58.03	\$63.29
15-1299	Computer Occupations, All Other	\$21.15	\$23.86	\$37.80	\$49.06	\$61.72
15-1232	Computer User Support Specialists	\$14.43	\$18.01	\$23.12	\$29.32	\$36.92
15-1211	Computer Systems Analysts	\$29.67	\$37.58	\$47.76	\$59.71	\$62.99
15-1212	Information Security Analysts	\$22.51	\$29.65	\$47.11	\$50.61	\$63.65
15-1254	Web Developers	\$17.93	\$29.60	\$37.24	\$47.13	\$50.63
15-1244	Network and Computer Systems Administrators	\$24.92	\$29.98	\$37.65	\$47.61	\$58.15
15-1242	Database Administrators	\$22.98	\$29.67	\$38.01	\$49.08	\$60.95
15-1253	Software Quality Assurance Analysts and Testers	\$23.10	\$29.67	\$37.89	\$48.75	\$97.58
15-1241	Computer Network Architects	\$28.93	\$38.09	\$49.57	\$63.31	\$79.55

In-Demand Technical Skills

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

In-Demand Foundational Skills

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

In-Demand Certifications

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

In-Demand Education Level*

- High school or GED: 7.5%
- Associate degree: 6.7%
- Bachelor's degree: 63.1%
- Master's degree: 15.5%

**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

- General Dynamics
- Deloitte
- General Motors
- TEKsystems
- University Of Michigan
- Randstad
- CTG
- Accenture
- State Of Michigan
- Ford

Job Postings by City

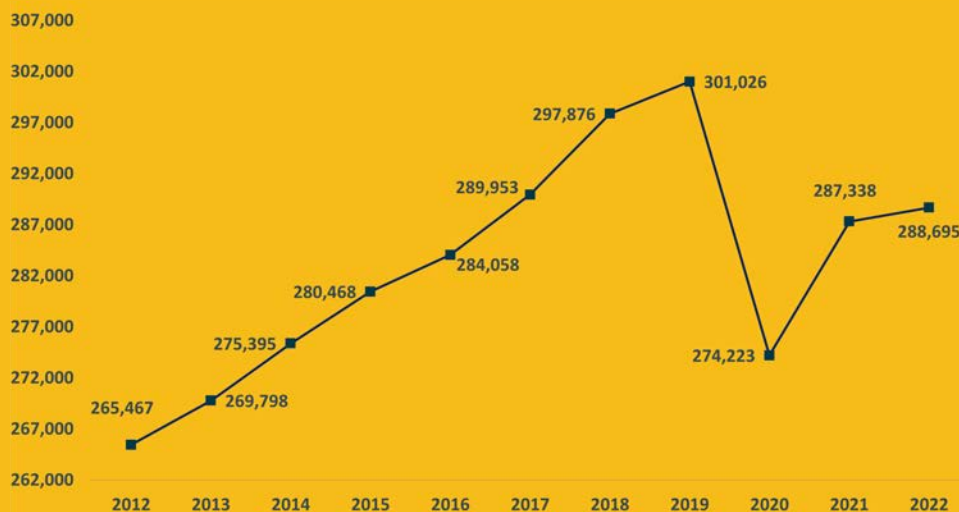
- Detroit: 23,182 Postings
- Lansing: 16,265 Postings
- Grand Rapids: 8,412 Postings
- Ann Arbor: 6,992 Postings
- Troy: 5,417 Postings
- Dearborn: 5,415 Postings
- Auburn Hills: 4,979 Postings
- Warren: 4,562 Postings
- Southfield: 3,733 Postings
- Farmington: 3,140 Postings

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
2012-2022



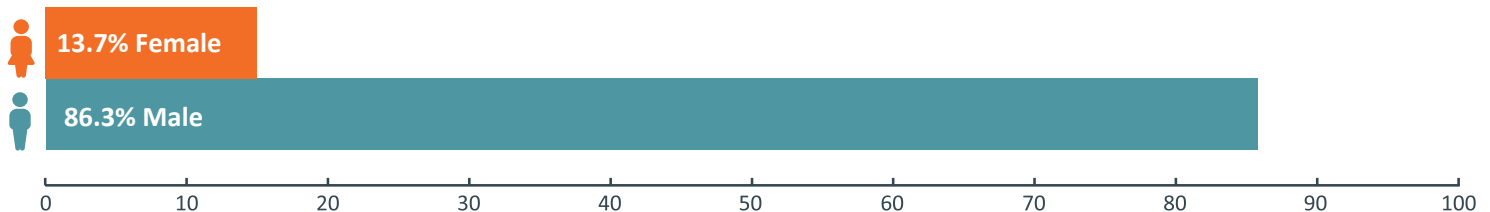
288,695
Skilled Trades
Workers
0.5% Increase
from 2021



Skilled Trades Worker Demographics

According to 2022 Lightcast data, the skilled trades occupation group employed about 288,695 workers in the state of Michigan. The majority of skilled trades workers are male (86.3 percent) between the ages of 25 and 54 (65.3 percent). Due to the aging workforce, additional outreach will be necessary as 28.3 percent are 55 years of age or older.

Worker Gender Demographics



Race and Ethnicity Demographics

80.7% White | **9.8% Black or African-American** | **5.2% Hispanic or Latino**

Worker Age Demographics

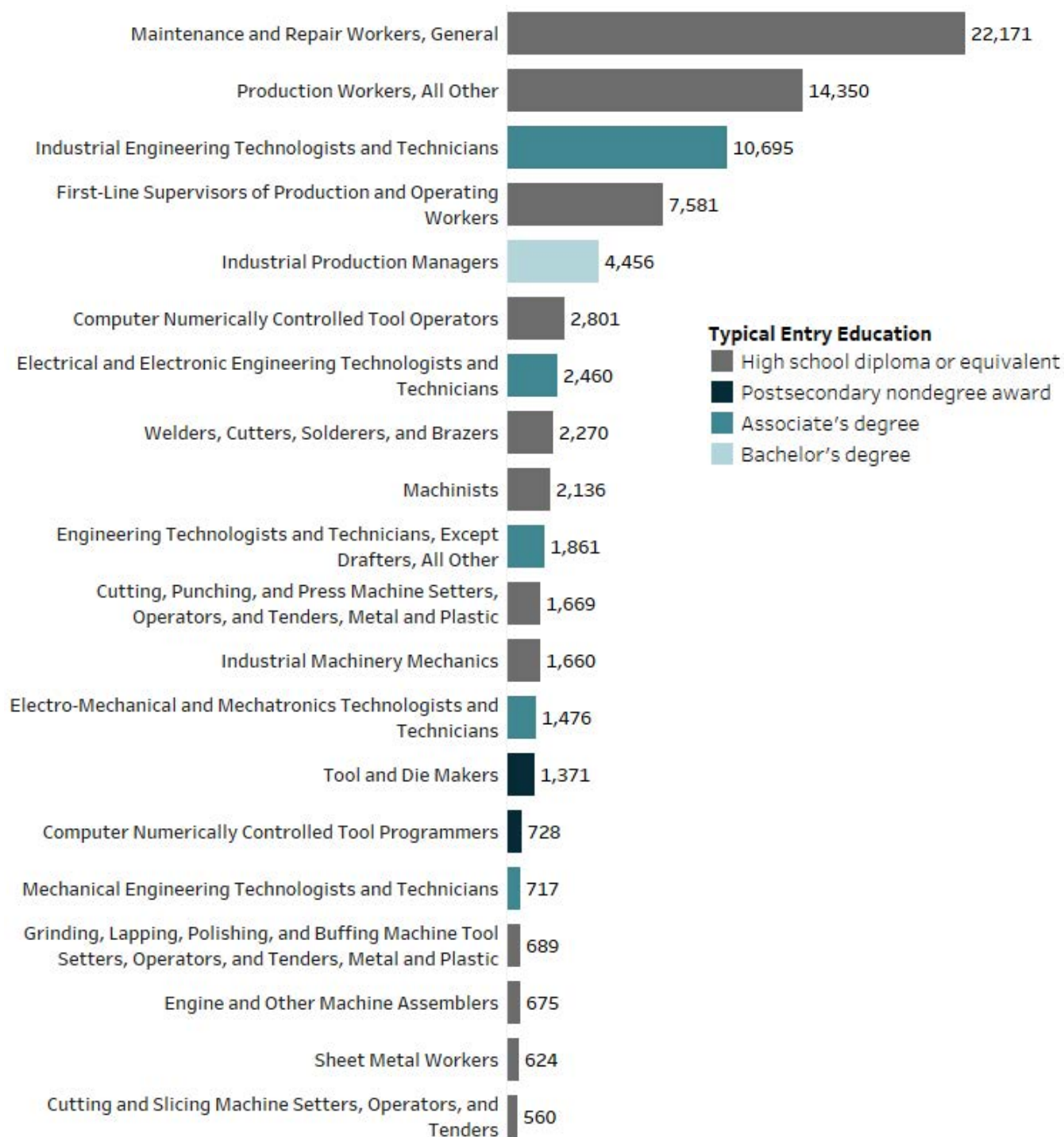


Data: Lightcast | Analysis: Workforce Intelligence Network

SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Top Posted Jobs

Maintenance and Repair Workers, General was the highest in-demand skilled trades occupation during 2022, with 22,171 postings. Other top posted jobs include Production Workers, All Other (14,350 postings), Industrial Engineering Technologists and Technicians (10,695 postings), First-Line Supervisors of Production and Operating Workers (7,581 postings), and Industrial Production Managers (4,456 postings).



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Wage Overview

Most of the top ten in-demand skilled trades occupations have median wages above \$19.00 per hour, while the remaining top occupations have median wages above \$14.00 per hour. Maintenance and Repair Workers, General, the top posted skilled trades job in 2022, offers a median hourly wage of \$18.23, which translates to an annual salary of about \$37,918.

Wage Overview for Top Posted Skilled Trades Jobs in 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	\$13.54	\$14.48	\$18.23	\$23.09	\$29.10
51-9199	Production Workers, All Other	\$11.22	\$13.72	\$14.14	\$17.74	\$22.04
17-3026	Industrial Engineering Technologists and Technicians	\$17.87	\$23.10	\$29.02	\$30.24	\$37.39
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.35	\$23.21	\$29.61	\$37.67	\$47.95
11-3051	Industrial Production Managers	\$30.23	\$38.55	\$49.21	\$62.86	\$79.06
51-9161	Computer Numerically Controlled Tool Operators	\$14.50	\$17.74	\$19.44	\$23.67	\$29.34
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$21.78	\$23.30	\$29.82	\$37.84	\$48.13
51-4121	Welders, Cutters, Solderers, and Brazers	\$14.43	\$17.67	\$18.69	\$23.24	\$29.12
51-4041	Machinists	\$14.51	\$17.96	\$22.53	\$27.57	\$30.10
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	\$17.80	\$22.52	\$29.32	\$45.15	\$55.20

In-Demand Technical Skills

- Machinery
- Plumbing
- Hand Tools
- Machine Operation
- HVAC

In-Demand Foundational Skills

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

In-Demand Certifications

- Commercial Driver's License (CDL)
- HVAC Certification
- Forklift Certification
- Automotive Service Excellence (ASE) Certification
- EPA 608 Technician Certification

In-Demand Education Level*

- High school or GED: 43.5%
- Associate degree: 8.8%
- Bachelor's degree: 10.7%
- Master's degree: 1.7%

**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
- Fetting
- Sentech Services
- Kelly Services
- ManpowerGroup
- McDonald's
- Orchid Orthopedic Solutions
- General Motors
- Trillium
- Randstad

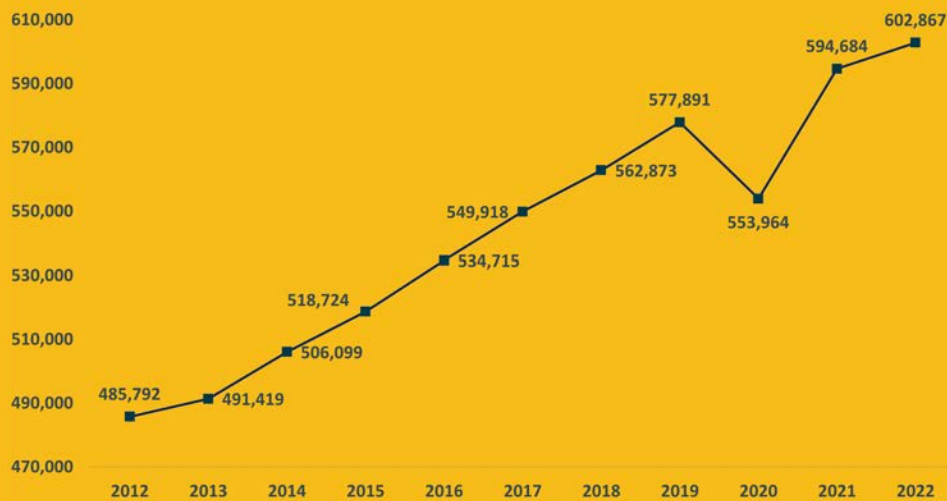
Job Postings by City

1. Grand Rapids: 7,412 Postings
2. Detroit: 5,520 Postings
3. Lansing: 2,742 Postings
4. Holland: 2,286 Postings
5. Warren: 2,272 Postings
6. Kalamazoo: 1,913 Postings
7. Ann Arbor: 1,874 Postings
8. Sterling Heights: 1,871 Postings
9. Livonia: 1,698 Postings
10. Auburn Hills: 1,648 Postings

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Transportation, distribution, and logistics (TDL) workers help efficiently move materials, 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 37,000 job openings annually in Southeast Michigan.

Employment Over Time
2012-2022

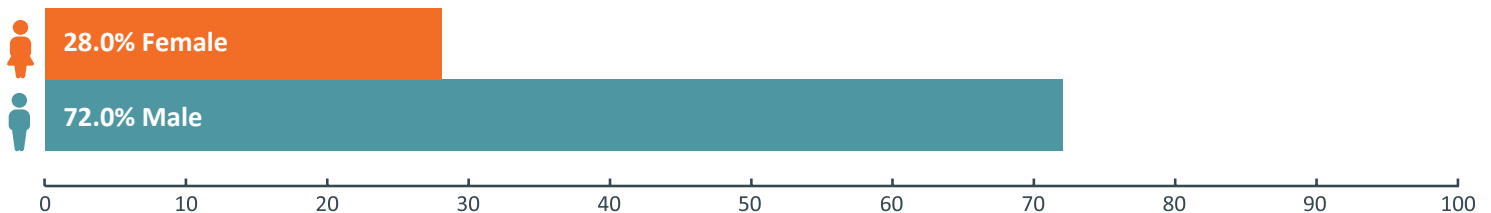


602,867
TDL Workers
1.4% Increase
from 2021

TDL Worker Demographics

The TDL occupation group has a large workforce, employing 602,867 individuals in 2022. The workers in this occupation group are 72.0 percent male and 74.4 percent white. The majority, or 62.7 percent of the workforce, is between the ages of 25 through 54.

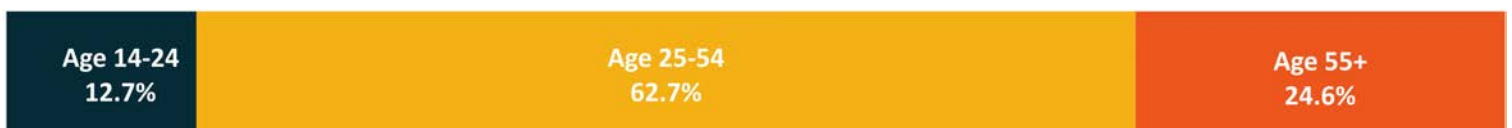
Worker Gender Demographics



Race and Ethnicity Demographics

74.4% White | **15.4% Black or African-American** | **5.5% Hispanic or Latino**

Worker Age Demographics

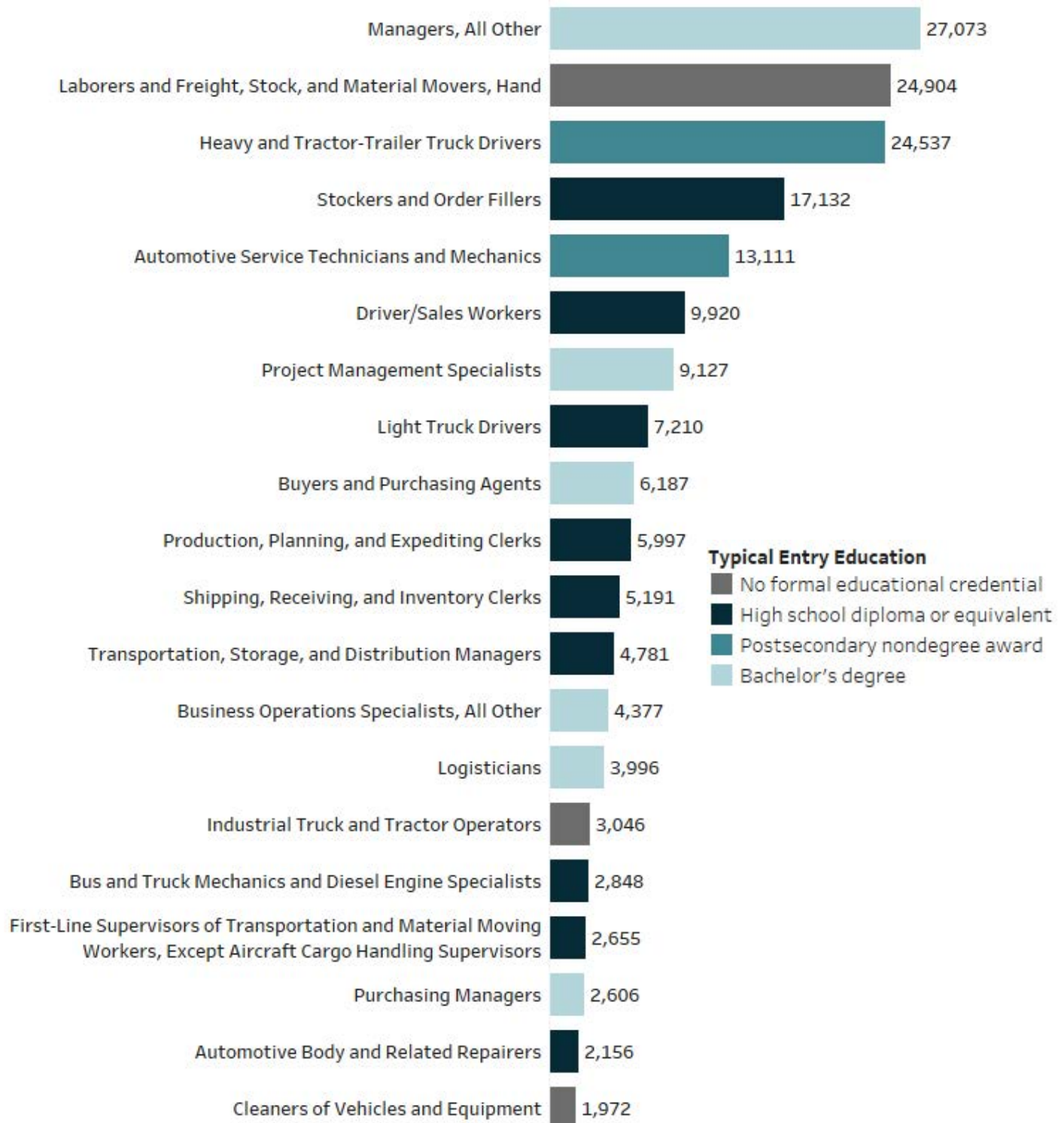


Data: Lightcast | Analysis: Workforce Intelligence Network

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Top Posted Jobs

Demand for TDL occupations totaled 205,906 postings in 2022. Managers, All Other took the top spot as the highest in-demand TDL occupation, with 27,073 postings. Other top posted jobs include Laborers and Freight, Stock, and Material Movers, Hand (24,904 postings), Heavy and Tractor-Trailer Truck Drivers (24,537 postings), Stockers and Order Fillers (17,132 postings), and Automotive Service Technicians and Mechanics (13,111 postings).



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Wage Overview

Over half of the top ten in-demand TDL occupations offer median wages above \$18.00 per hour. Managers, All Other, the top posted TDL job, earn a median hourly wage of \$48.62, or an annual salary of nearly \$101,130. Supervisory roles that require additional education, such as Personal Service Managers, All Other typically offer even higher wages.

Wage Overview for Top Posted TDL Jobs in 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
11-9199	Managers, All Other	\$23.06	\$36.10	\$48.62	\$63.32	\$78.88
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$11.34	\$13.86	\$14.58	\$18.20	\$22.87
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$14.72	\$18.67	\$23.30	\$28.73	\$30.45
53-7065	Stockers and Order Fillers	\$11.18	\$11.97	\$14.39	\$18.00	\$22.57
49-3023	Automotive Service Technicians and Mechanics	\$13.95	\$14.55	\$22.51	\$28.81	\$36.06
53-3031	Driver/Sales Workers	\$10.82	\$11.19	\$11.59	\$17.97	\$22.70
13-1082	Project Management Specialists	\$23.89	\$30.30	\$39.17	\$50.05	\$62.91
53-3033	Light Truck Drivers	\$11.57	\$14.37	\$18.35	\$23.46	\$36.08
13-1028	Buyers and Purchasing Agents	\$18.99	\$23.43	\$30.08	\$38.71	\$49.12
43-5061	Production, Planning, and Expediting Clerks	\$15.62	\$18.30	\$23.14	\$29.09	\$36.51

In-Demand Technical Skills

- Warehousing
- Merchandising
- Forklift Truck
- Palletizing
- Packaging And Labeling

In-Demand Foundational Skills

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

In-Demand Certifications

- Commercial Driver's License (CDL)
- CDL Class A License
- Project Management Professional Certification
- Forklift Certification
- Automotive Service Excellence (ASE) Certification

In-Demand Education Level*

- High school or GED: 29.6%
- Associate degree: 4.3%
- Bachelor's degree: 22.0%
- Master's degree: 5.1%

**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

- Walmart
- Meijer
- Amazon
- Roehl Transport
- UPS
- Aerotek
- Deloitte
- Ryder
- The Home Depot
- Kelly Services

Job Postings by City

1. Detroit: 19,083 Postings
2. Grand Rapids: 15,376 Postings
3. Lansing: 9,990 Postings
4. Ann Arbor: 6,799 Postings
5. Warren: 5,490 Postings
6. Troy: 5,166 Postings
7. Livonia: 4,660 Postings
8. Auburn Hills: 3,785 Postings
9. Sterling Heights: 3,778 Postings
10. Kalamazoo: 3,577 Postings

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