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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 counties. In the background, a faded image of the Michigan State Capitol building is visible.

LABOR MARKET REPORT STATE OF MICHIGAN

January - December 2021

INTRODUCTION

State of Michigan
2021



About This Report

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

The WIN data and research team analyzes job posting data at the occupation level within eleven customized occupation groups built using specific Standard Occupational Classification (SOC) codes to provide more contextualized information. Occupation groups combine data for jobs with similar skillsets, educational attainment, and experience requirements, which provides a more in-depth snapshot of the current labor market when compared to traditional industry data based upon North American Industry Classification System (NAICS) codes. Occupation outlook sections utilize these metrics to identify and display the top in-demand jobs, entry-level requirements, and earning potential.

WIN produces a quarterly 19-county region report using data from all eleven occupation groups. A report focused on the city of Detroit is also produced quarterly, focusing on five occupation groups related to the Detroit labor market. County reports are produced annually and focus on five occupation groups chosen to reflect the labor market specific to the county.

This report highlights labor market information and real-time job posting data for 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 2021 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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winintelligence.org

EMAIL

info@winintelligence.org

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State of the Labor Market in Michigan

The COVID-19 crisis continued to cause major shifts in the labor market this year. In 2021, the labor force declined by 129,083 individuals (2.7 percent) while employment increased by 105,500 individuals (2.4 percent) from 2020. Unemployment went down by 234,583 workers and the unemployment rate recovered significantly, decreasing 4.7 percentage points from 9.7 percent in 2020 to 5.0 percent in 2021. Monthly postings data shows shifts in hiring and skills demanded as the region continues its recovery. Registered Nurse tops the list as the most demanded occupation in 2021, accounting for 57,633 job postings followed by Retail Salespersons with 47,299 postings. The health care 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 dropped in 2021, decreasing by 129,083 individuals (2.7 percent) from the prior year. Employment increased by 105,500 workers (2.4 percent) over the same period, while unemployment decreased by 234,583 workers (49.9 percent) for a total of 235,583 unemployed workers in 2021. The unemployment rate decreased in 2021 to 5.0 percent, a fall of 4.7 percentage points since the 9.7 percent spike in 2020. During the height of the pandemic and shutdown measures in March 2020, the highest monthly unemployment rate occurred in April 2020, with an unemployment rate of 23.6 percent across the state.

Annual Labor Force, Employment, Unemployment Rate 2011–2021



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

The fourth quarter of 2021 shows that employer demand has increased since the end of Q3 2021. In Q4 2021, there were 1,096,300 unique postings in the state of Michigan, an increase of 50,847 postings from the 1,045,453 postings recorded in Q3. November had the highest recorded postings in 2021 with 370,336 postings, an increase of 129,347 postings (53.7 percent) since January 2021. The steady increase in the number of online ads is a good indication that employer demand continues to be strong throughout the year.

Monthly Posting Analysis State of Michigan 2021



Key Findings

8%

Employer demand decreased by 8.8 percent, a loss of 136,218 job postings since 2020.

High School Diploma

Most in-demand minimum education level during 2020.

In Q4 2021, employment totaled

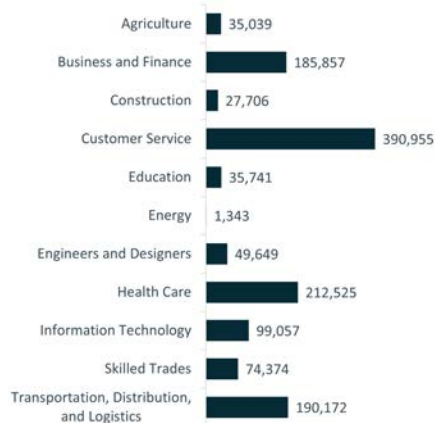
4,555,333

a decrease of 4,667 workers (2.7 percent) since Q4 2020

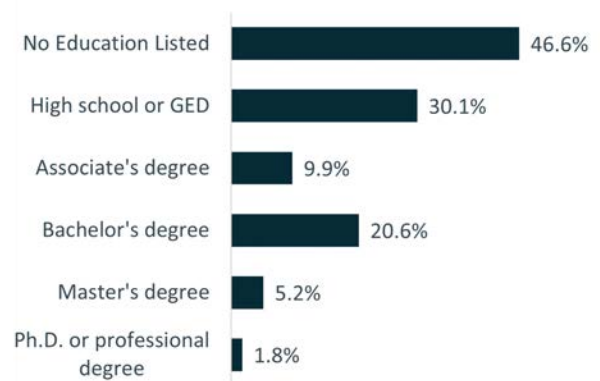
During 2021, there were 1,415,584 job postings, 136,218 less than the 1,551,802 postings made during 2020 in the state. November 2021 saw the highest demand for the year with 370,336 postings, a 53.7 percent increase since January 2021. The top posted job titles in 2021 include Maintenance Technicians, Customer Service Representatives, CDL-A Truck Drivers, Registered Nurses, and Delivery Drivers. For more information about in-demand job postings, see page 7.

Of the 1,415,584 unique postings in the state of Michigan during 2021, 425,856 (30.1 percent) required a high school diploma or equivalent, while 431,168 postings (30.5 percent) required a college degree. An additional 99,260 postings (7.0 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 2021



Education Levels In-Demand 2021



The quarterly labor market shifts that were seen in 2020, following the outbreak of COVID-19, have remained fairly flat in 2021. The first quarter of 2021 saw an initial decrease in the labor force, employment, unemployment, and the unemployment rate fell 0.9 percentage points to an annual high of 5.5 percent. The labor force and employment numbers peaked in Q4 with a high of 4,765,333 individuals and 4,555,333 workers respectively, and unemployment decreased to 210,000 workers. The market continued to realign toward pre-pandemic levels, showing a decrease in unemployment and the unemployment rate through Q4 2021. The unemployment rate at the end of Q4 2021 was 4.4 percent. For more information about this year's unemployment rate and other labor market indicators, see page 4.

Quarterly Labor Market Data

	4th Quarter 2020	1st Quarter 2021	2nd Quarter 2021	3rd Quarter 2021	4th Quarter 2021	Change from 3rd Quarter 2021	Percent Change from 3rd Quarter 2021	Change from 4th Quarter 2020	Percent Change from 4th Quarter 2020
Labor Force	4,873,000	4,681,333	4,708,667	4,778,333	4,765,333	-13,000	-0.3%	-107,667	-2.2%
Employment	4,560,000	4,424,667	4,471,333	4,540,000	4,555,333	15,333	0.3%	-4,667	-0.1%
Unemployment	313,000	256,667	237,333	238,333	210,000	-28,333	-11.9%	-103,000	-32.9%
Unemployment Rate	6.4%	5.5%	5.0%	5.0%	4.4%	-0.6%	na	-2.0%	na

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

Data: Emsi | Analysis: Workforce Intelligence Network

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Following labor force fluctuations throughout 2021, labor force participation totaled 4,733,417 individuals, a decrease of 129,083 individuals since 2020. Employment is up to 4,497,833 workers in 2021, an increase of 105,500 workers. Both unemployment and the unemployment rate decreased, corresponding with the economic recovery. Unemployment decreased to 235,583 workers, down almost half by 234,583 workers since the high of 470,167 workers recorded in 2020. Similarly, the unemployment rate declined by 4.7 percentage points for a 2021 unemployment rate of 5.0 percent.

Annual Labor Market Data
2011-2021

	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 YTD	2021 Annual	Change from 2020 to 2021	Percent Change from 2020 to 2021
Labor Force	4,685,164	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	-129,083	-2.7%
Employment	4,198,349	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	105,500	2.4%
Unemployment	486,815	426,037	415,915	344,232	257,787	241,015	226,543	206,845	201,333	470,167	235,583	-234,583	-49.9%
Unemployment Rate	10.4%	9.1%	8.8%	7.2%	5.4%	5.0%	4.6%	4.2%	4.1%	9.7%	5.0%	-4.7%	na

Data: Bureau of Labor Statistics

CENSUS 2020 LABOR FORCE DEMOGRAPHICS

During 2020, the most recent census year, there were about 4,956,499 individuals in the labor force, meaning they were either working or looking for work, in Michigan. Slightly more than half of the population, or about 5,306,283 individuals (53.2 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 30.6 percent, while females under the age of 25 report an unemployment rate of 25.7 percent. Black or African American job seekers also have a difficult time finding employment, facing an unemployment rate of 12.9 percent.

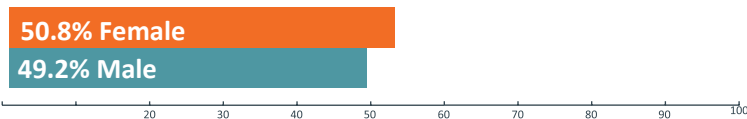
Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	4,956,499	5,306,283	298,142	6.0%
Sex				
Male 16+	2,590,822	2,426,751	164,071	6.3%
16-19	112,503	90,309	22,194	19.7%
20-24	270,476	240,983	29,493	10.9%
25-54	1,611,068	1,524,773	86,295	5.4%
55-64	451,666	431,522	20,144	4.5%
65 Plus	145,109	139,164	5,945	4.1%
Female 16+	2,365,677	2,879,532	134,071	5.7%
16-19	118,698	99,481	19,217	16.2%
20-24	262,054	427,623	24,881	9.5%
25-54	1,446,575	1,359,605	71,547	4.9%
55-64	416,978	393,009	13,785	3.3%
65 Plus	121,372	599,814	4,641	3.8%
Race				
White	3,926,202	3,737,744	188,458	4.8%
Black / African American	626,067	545,305	80,763	12.9%
Native American	22,718	20,901	1,817	8.0%
Asian	168,107	160,878	7,229	4.3%
Native Hawaiian / Pacific Islander	1,690	1,634	56	3.3%
Some Other Race	60,339	55,934	4,405	7.3%
Two or More Races	154,417	140,210	14,206	9.2%
Ethnicity				
Hispanic	245,436	227,765	17,671	7.2%

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

2020 Census Population

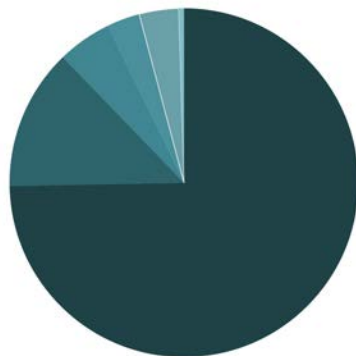
According to data from the most recent Census Bureau 2020 ACS Five Year estimates, the population in Michigan increased by nearly 0.1 percent between 2019 and 2020. During 2020, 9,973,907 people were living in the state. The sex of the populace was split almost evenly, with about 50.8 percent of the population identifying as female, and the other 49.2 percent identifying as male. Majority of the population identified as white (77.6 percent) with the second largest number of individuals identifying as Black or African American (13.6 percent). The state has a strong middle-aged population; 29.8 percent of population was under the age of 25, compared to 37.3 percent aged 25-54.

Population Gender Demographics



Population Race Demographics

- White, 77.6%
- Black or African American, 13.6%
- Hispanic or Latino, 5.2%
- Asian, 3.2%
- Two or More Races, 3.8%
- American Indian or Alaska Native, 0.5%
- Native Hawaiian or Other Pacific Islander, 0.00%



Population Age Demographics

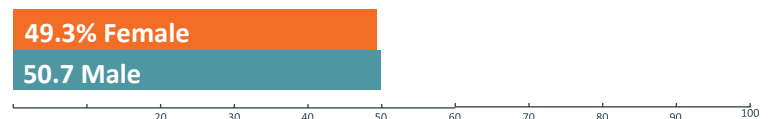


Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

2021 Current Workforce

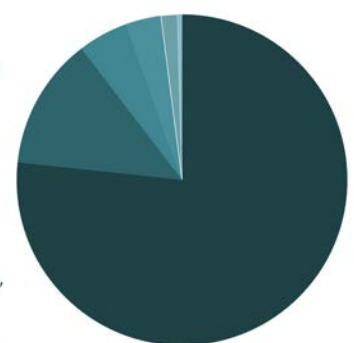
In 2021, the workforce had a total of 4,133,655 individuals working in the state of Michigan. A slight majority, 50.7 percent (2,098,411 workers) were male, while 49.3 percent (2,041,777 workers) of the workforce was female. Most workers in the state identified as white, accounting for 76.7 percent of the workforce, while Black or African American workers totaled 12.9 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 4.9 percent. Much of the workforce in Michigan is between the ages of 25 through 54 (63.2 percent), while 23.2 percent of workers are 55 and older.

Workforce Gender Demographics



Workforce Race and Ethnicity Demographics

- White, 76.7%
- Black or African American, 12.9%
- Hispanic or Latino, 4.9%
- Asian, 3.5%
- Two or More Races, 1.6%
- American Indian or Alaska Native, 0.4%
- Native Hawaiian or Other Pacific Islander, 0.03%



Workforce Age Demographics

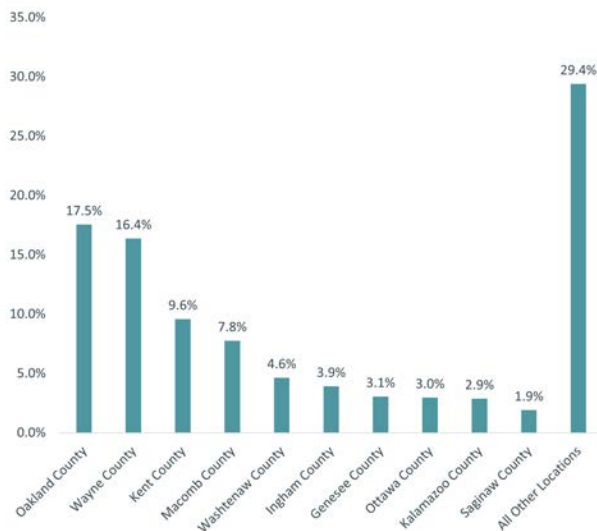


Data: Emsi | Analysis: Workforce Intelligence Network

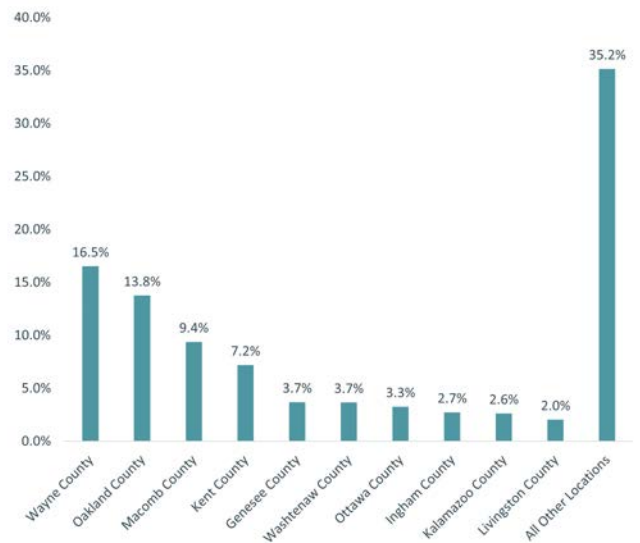
REGIONAL COMMUTING PATTERNS

According to the most recent OnTheMap data set available from the Census Bureau, during 2019, the state's workforce consisted of 4,125,994 residents. There were 3,997,665 (96.9 percent) residents living and working within the state, while the remaining 128,329 residents (3.1 percent) traveled outside of the state for work. There were 4,066,748 workers employed in the state during 2019. Of those, 69,083 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

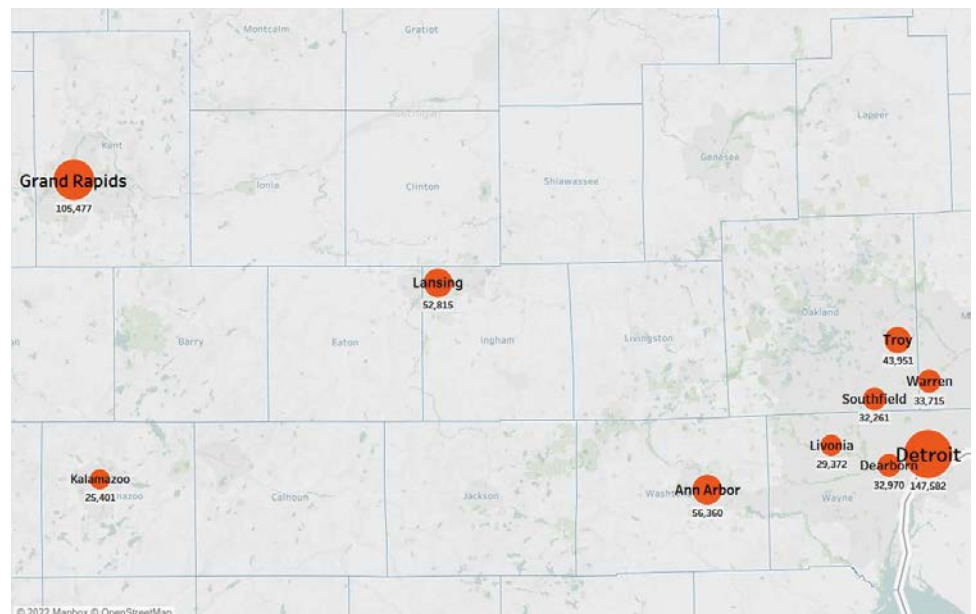


Source: U.S. Census OnTheMap, 2019
Analysis: Workforce Intelligence Network

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

Job Postings by City

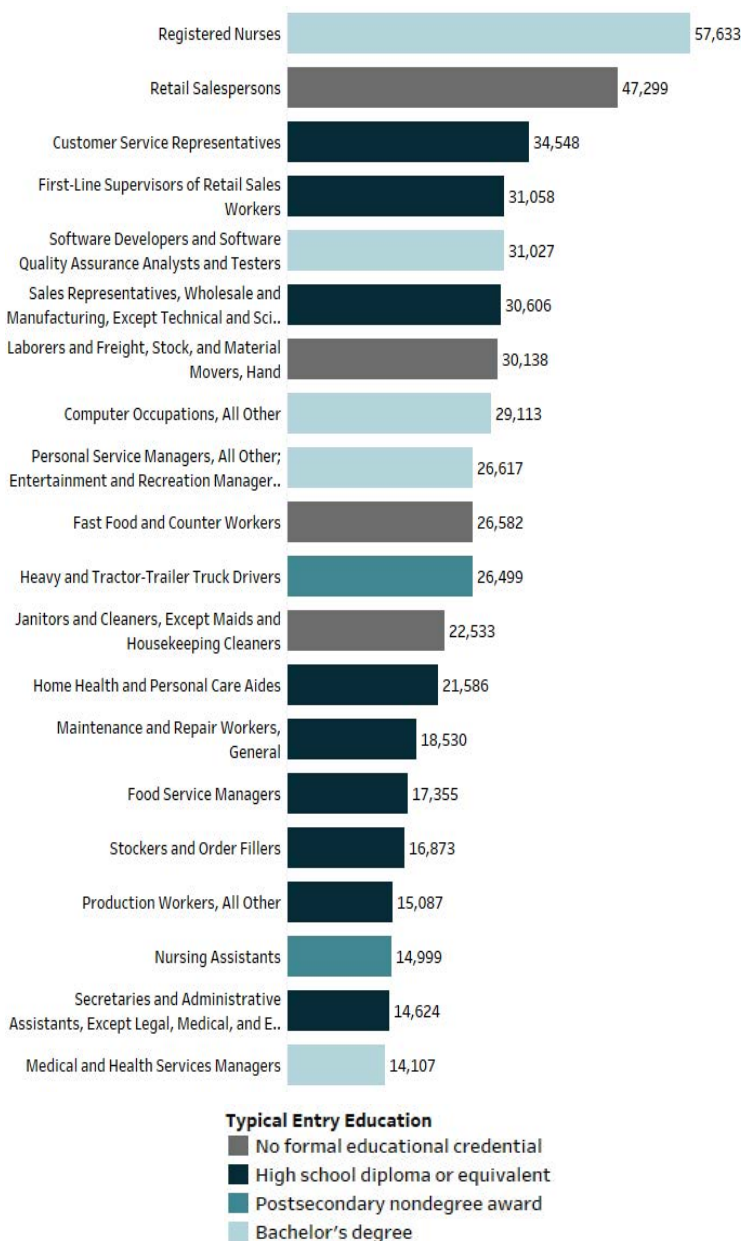
1. Detroit: 147,582 Postings
2. Grand Rapids: 105,477 Postings
3. Ann Arbor: 56,360 Postings
4. Lansing: 52,815 Postings
5. Troy: 43,951 Postings
6. Warren: 33,715 Postings
7. Dearborn: 32,970 Postings
8. Southfield: 32,261 Postings
9. Livonia: 29,372 Postings
10. Kalamazoo: 25,401 Postings



TOP POSTED JOBS

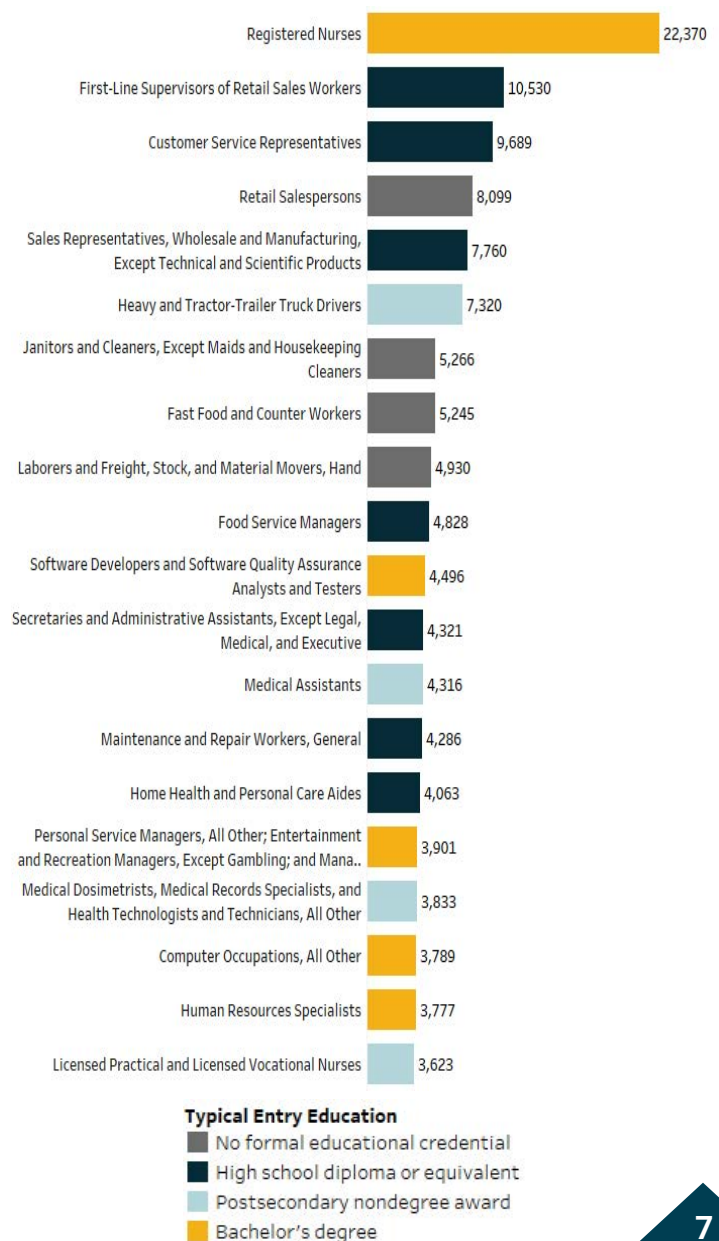
Top Posted Jobs: 2021

Registered Nurses is the top posted occupation for 2021, with 57,633 unique online job postings, and requires a bachelor's degree. Retail Salespersons and Customer Service Representatives round out the top three demanded occupations, with 47,299 postings and 34,548 postings respectively, requiring a no formal education, coupled with short-term on-the-job training and a high school or equivalent, coupled with short-term on-the-job training. 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.



Top Posted Entry-Level Jobs: 2021

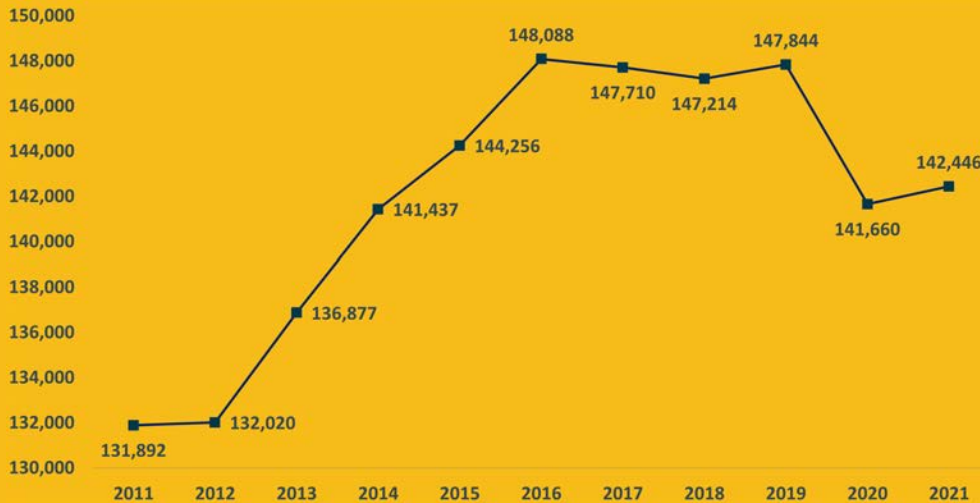
Entry-level jobs, which usually require zero to two years of previous experience, account for 22.3 percent of the 2021 postings in the state of Michigan. Over half of the top ten entry-level occupations require no formal education or a high school diploma or equivalent. Those who enter the workforce with a high school diploma or equivalent are heavily demanded among entry-level occupations, accounting for 40.8 percent of entry-level postings. Registered Nurses was the top posted entry-level occupation with 22,370 postings requiring a bachelor's degree, followed by First-Line Supervisors of Retail Sales Workers, requiring a high school diploma or equivalent, with 10,530 postings.



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
2011-2021

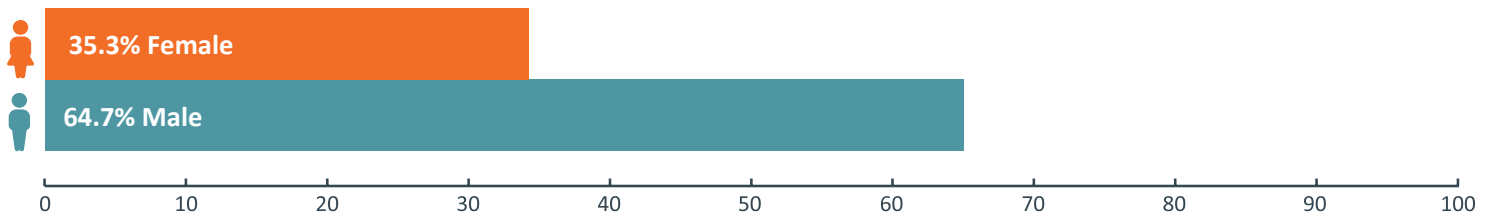


142,446
Agriculture
Workers
0.6% Increase
from 2020

Agriculture Worker Demographics

According to 2021 Emsi data, the 142,446 workers in agriculture occupations are not very diverse. A large majority of workers are male (64.7 percent) between the ages of 25 and 54 (62.7 percent). Only 35.3 percent of agriculture workers identify as women, while 14.0 percent of workers were under the age of 25, compared to 23.3 percent of workers who are age 55 or older.

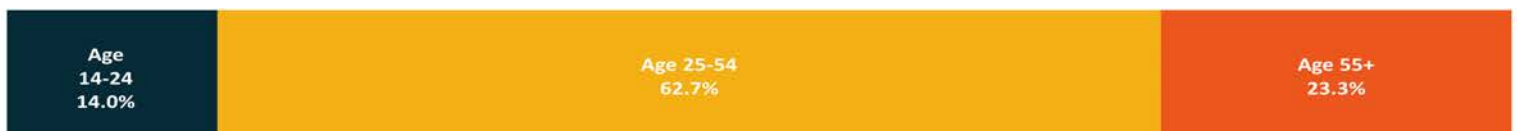
Worker Gender Demographics



Race and Ethnicity Demographics

76.8% White | **9.7% Hispanic or Latino** | **8.8% Black or African-American**

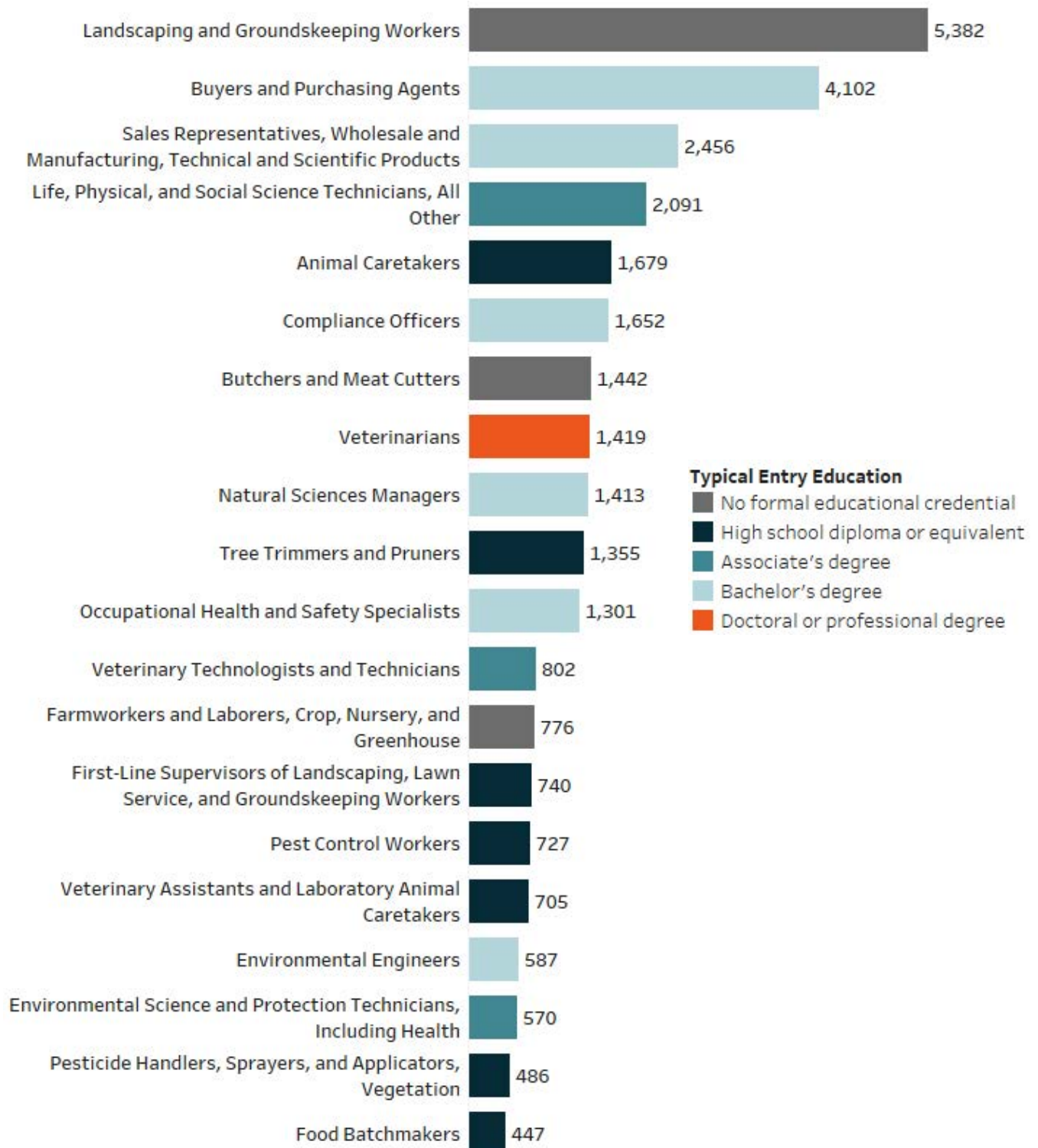
Worker Age Demographics



AGRICULTURE OCCUPATION GROUP

Top Posted Jobs

The agriculture occupation group posted 35,039 ads during 2021. Landscaping and Groundskeeping Workers is the top demanded occupation with 5,382 online job postings. Buyers and Purchasing Agents (4,102 postings) and Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (2,456 postings) were also in high demand. Other top posted occupations include Life, Physical, and Social Science Technicians, All Other (2,091 postings), and Animal Caretakers (1,679 postings).



AGRICULTURE OCCUPATION GROUP

Wage Overview

Of the top posted agriculture-related jobs, over half of the top ten occupations in 2021 offer median wages of more than \$18.00 per hour. The top posted job, Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products, offers median hourly earnings of \$49.98, which translates to annual earnings of approximately \$103,958. 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 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
37-3011	Landscaping and Groundskeeping Workers	\$10.82	\$12.44	\$14.86	\$18.22	\$22.02
13-1028	Buyers and Purchasing Agents	\$19.42	\$24.01	\$31.11	\$40.50	\$51.55
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$24.99	\$34.21	\$49.98	\$68.50	\$84.11
19-4099	Life, Physical, and Social Science Technicians, All Other	\$14.23	\$16.75	\$19.59	\$25.37	\$30.73
39-2021	Animal Caretakers	\$10.15	\$10.76	\$11.81	\$13.94	\$17.07
13-1041	Compliance Officers	\$19.67	\$26.30	\$33.79	\$45.15	\$49.26
51-3021	Butchers and Meat Cutters	\$10.59	\$11.84	\$15.07	\$18.28	\$21.29
29-1131	Veterinarians	\$32.32	\$37.13	\$46.53	\$58.96	\$75.32
11-9121	Natural Sciences Managers	\$35.75	\$44.99	\$54.72	\$71.37	\$94.33
37-3013	Tree Trimmers and Pruners	\$16.05	\$18.09	\$21.28	\$24.76	\$28.71

In-Demand Technical Skills

- Landscaping
- Purchasing
- Auditing
- Mowing
- Trimming

In-Demand Foundational Skills

- Communications
- Management
- Valid Driver's License
- Customer Service
- Detail Oriented

In-Demand Certifications

- Commercial Driver's License (CDL)
- Pesticide Applicator License
- Certified Veterinary Technician
- Security Clearance
- Certified Safety Professional

In-Demand Education Level*

- High School Diploma: 25.9%
- Associate Degree: 6.9%
- Bachelor's Degree: 24.9%
- Master's Degree: 4.7%

**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

- PetCo
- Asplundh Tree Expert Co
- University of Michigan
- Banfield Pet Hospital
- The Davey Tree Expert Company
- Meijer
- VCA Animal Hospitals
- PetSmart
- SpartanNash
- Kroger

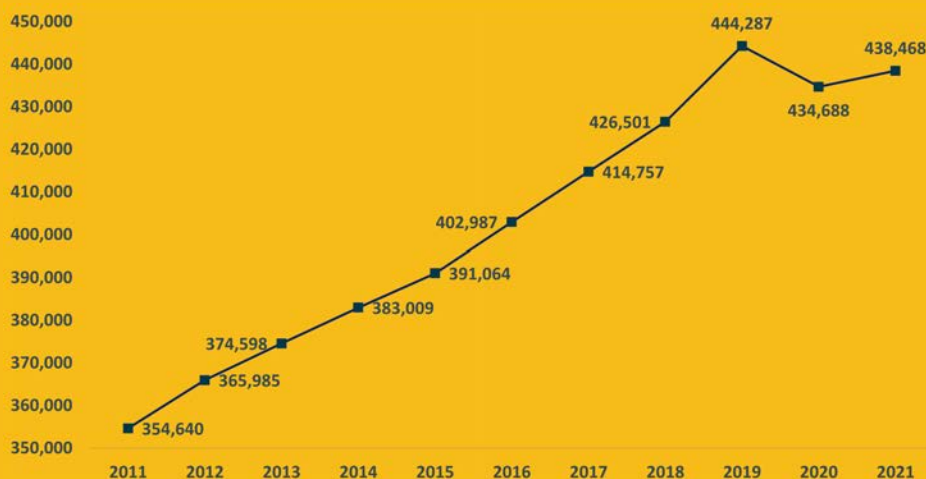
Job Postings by City

1. Detroit: 3,241 Postings
2. Grand Rapids: 2,531 Postings
3. Ann Arbor: 1,744 Postings
4. Lansing: 1,438 Postings
5. Troy: 890 Postings
6. Kalamazoo: 875 Postings
7. Southfield: 754 Postings
8. Livonia: 731 Postings
9. Warren: 725 Postings
10. Auburn Hills: 710 Postings

BUSINESS AND FINANCE OCCUPATION GROUP

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

Employment Over Time
2011-2021



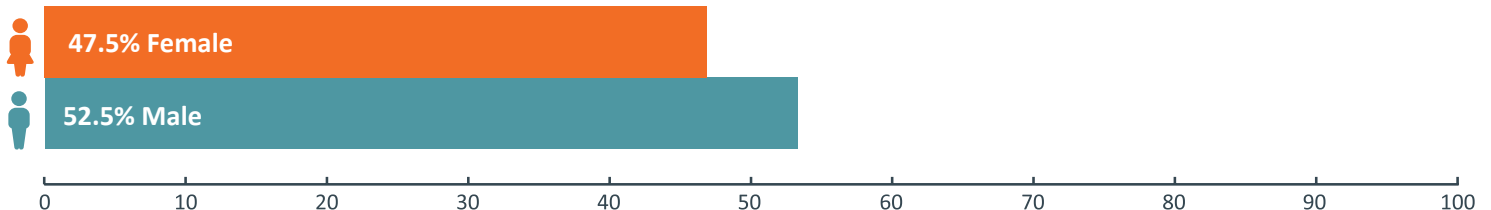
438,468
Business and
Finance
Workers
0.9% Increase
from 2020



Business and Finance Worker Demographics

The business and finance occupation group is somewhat diverse in respect to its 438,468 workers. More than half the working population identify as male (52.5 percent), however, 83.2 percent of workers identified as white, indicating much less diversity with respect to race than gender. Only 4.6 percent of the working population in business and finance is under the age of 25, compared to 25.2 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

83.2% White | **8.7% Black or African-American** | **3.5% Asian**

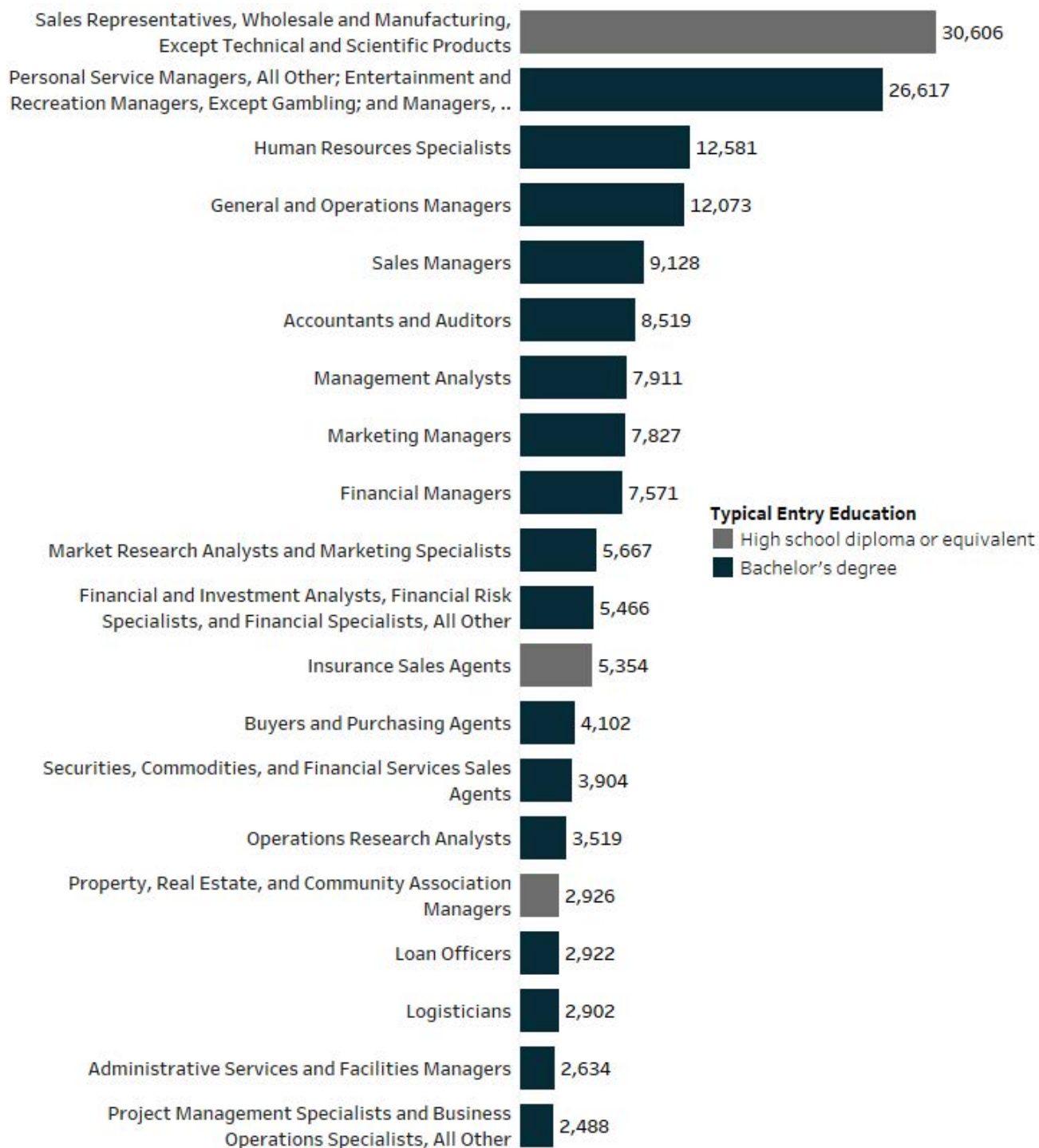
Worker Age Demographics



BUSINESS AND FINANCE OCCUPATION GROUP

Top Posted Jobs

There were 185,857 business and finance postings during 2021. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products is the top in-demand occupation with 30,606 postings. Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other (26,617 postings) is the second highest in demand, while Human Resources Specialists (12,581 postings), General and Operations Managers (12,073 postings), and Sales Managers (9,128 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 \$30.32, translating to annual earnings of approximately \$63,065. All the top business occupations offer median wages over \$28.00 per hour, and most prefer a bachelor's degree for entry.

Wage Overview for Top Posted Business and Finance Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.70	\$20.42	\$30.32	\$44.81	\$62.67
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$24.98	\$36.73	\$52.03	\$66.27	\$83.45
13-1071	Human Resources Specialists	\$17.38	\$22.12	\$28.67	\$36.88	\$46.80
11-1021	General and Operations Managers	\$19.88	\$30.06	\$48.09	\$73.92	\$100.00
11-2022	Sales Managers	\$33.67	\$48.73	\$65.91	\$83.29	\$117.69
13-2011	Accountants and Auditors	\$21.44	\$26.46	\$33.16	\$42.62	\$55.36
13-1111	Management Analysts	\$25.36	\$32.29	\$40.51	\$52.19	\$69.00
11-2021	Marketing Managers	\$34.57	\$46.58	\$62.31	\$79.45	\$98.96
11-3031	Financial Managers	\$34.88	\$44.78	\$58.99	\$77.19	\$109.16
13-1161	Market Research Analysts and Marketing Specialists	\$16.90	\$22.11	\$30.03	\$42.83	\$56.55

In-Demand Technical Skills

- Accounting
- Finance
- Auditing
- Selling Techniques
- Forecasting

In-Demand Foundational Skills

- Communications
- Sales
- Management
- Customer Service
- Leadership

In-Demand Certifications

- CCertified Public Accountant
- Project Management Professional Certification
- Security Clearance
- Professional in Human Resources
- Series 7 General Securities Representative License (Stockbroker)

In-Demand Education Level*

- High School Diploma: 17.7%
- Associate Degree: 6.2%
- Bachelor's Degree: 47.4%
- Master's Degree: 9.1%

**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

- Robert Half
- Deloitte
- State Farm
- University of Michigan
- General Motors
- GPAC
- Kelly Services
- Intuit
- Comerica
- Ernst & Young

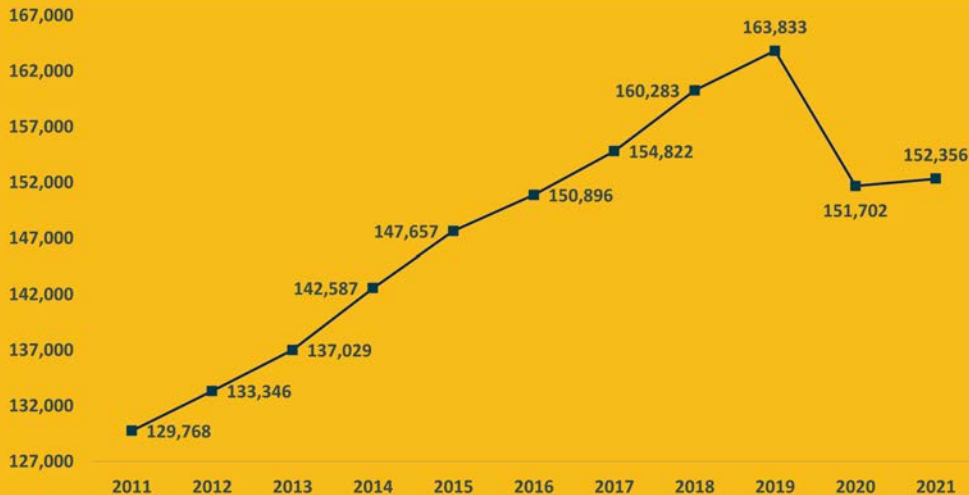
Job Postings by City

- Detroit: 32,002 Postings
- Grand Rapids: 15,912 Postings
- Lansing: 11,615 Postings
- Ann Arbor: 9,523 Postings
- Troy: 9,258 Postings
- Southfield: 6,488 Postings
- Dearborn: 4,904 Postings
- Livonia: 4,285 Postings
- Auburn Hills: 3,985 Postings
- Warren: 3,941 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
2011-2021

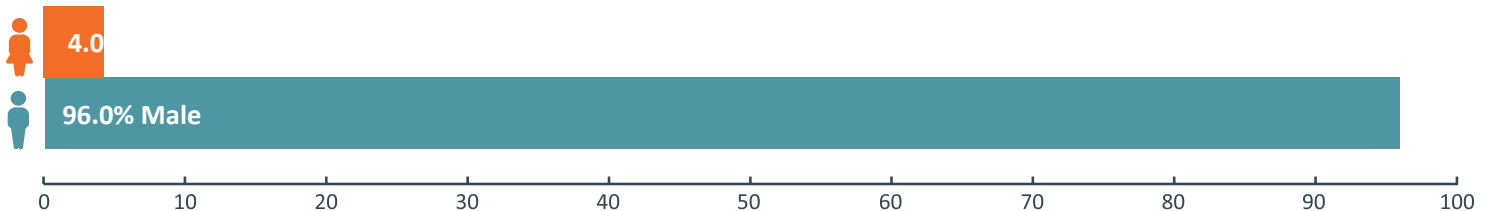


152,356
Construction Workers
0.4%
Increase
from 2020

Construction Worker Demographics

The construction occupation group is not very diverse, despite having 152,356 workers. A large majority of workers are male (96.0 percent) between the ages of 25 and 54 (68.5 percent). Only 4.0 percent of workers identified as female, while 14.1 percent identified as a race other than white. Workers under the age of 25 represent 11.6 percent of the workforce, while workers aged 55 and older account for 19.9 percent.

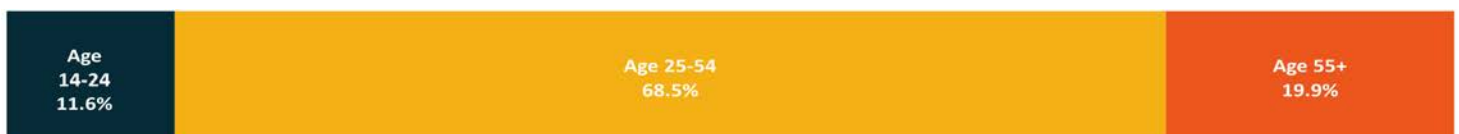
Worker Gender Demographics



Race and Ethnicity Demographics

85.9% White | **6.4% Hispanic or Latino** | **5.3% Black or African-American**

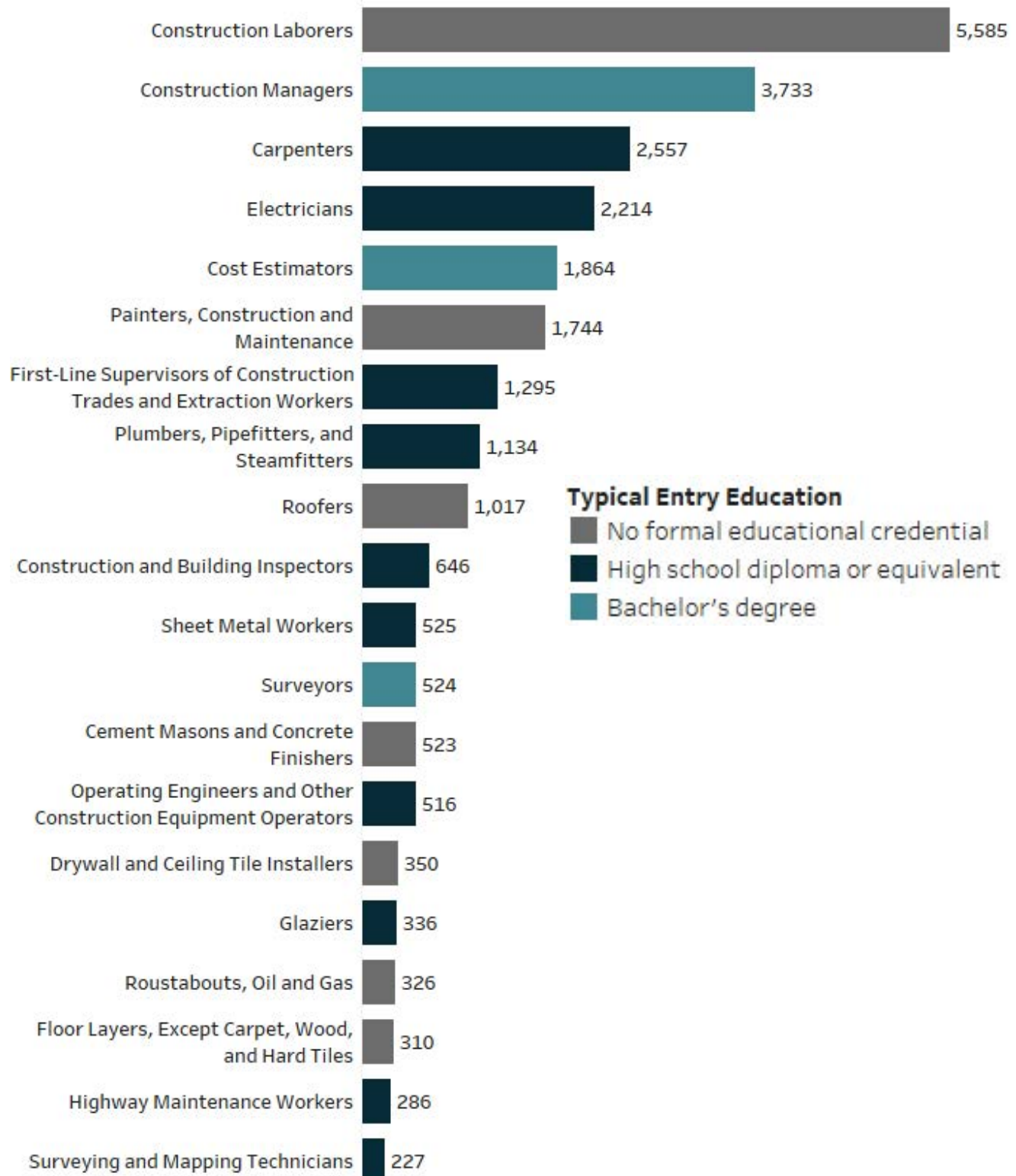
Worker Age Demographics



CONSTRUCTION OCCUPATION GROUP

Top Posted Jobs

The construction occupation group had 27,706 postings in 2021. Construction Laborers was the top-posted occupation with 5,585 postings. Other top posted jobs include Construction Managers (3,733 postings), Carpenters (2,557 postings), Electricians (2,214 postings), and Cost Estimators (1,864 postings).



CONSTRUCTION OCCUPATION GROUP

Wage Overview

The top posted construction job, Construction Laborers offers a median wage of \$18.98 per hour or \$39,478 per year. Those working in apprentice-able occupations can also anticipate high wage potential, such as Plumbers, Pipefitters, and Steamfitters (1,134 postings), which report a median wage of \$32.62 per hour or \$67,849 annually.

Wage Overview for Top Posted Construction Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
47-2061	Construction Laborers	\$12.97	\$15.47	\$18.98	\$23.71	\$28.69
11-9021	Construction Managers	\$29.14	\$36.41	\$48.59	\$62.04	\$81.38
47-2031	Carpenters	\$14.53	\$17.53	\$22.70	\$29.46	\$35.60
47-2111	Electricians	\$16.39	\$21.39	\$29.64	\$37.13	\$43.36
13-1051	Cost Estimators	\$18.04	\$23.00	\$30.07	\$38.56	\$50.37
47-2141	Painters, Construction and Maintenance	\$13.46	\$16.22	\$19.51	\$26.56	\$30.61
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.59	\$25.57	\$33.07	\$42.30	\$50.78
47-2152	Plumbers, Pipefitters, and Steamfitters	\$15.78	\$21.38	\$32.62	\$38.88	\$45.15
47-2181	Roofers	\$14.90	\$17.33	\$21.30	\$28.42	\$36.32
47-4011	Construction and Building Inspectors	\$14.47	\$20.41	\$28.56	\$35.34	\$39.43

In-Demand Technical Skills

- Construction
- Carpentry
- Painting
- Subcontracting
- Construction Management

In-Demand Foundational Skills

- Valid Driver's License
- Communications
- Customer Service
- Management
- Detail Oriented

In-Demand Certifications

- Commercial Driver's License (CDL)
- American Traffic Safety Services Association (ATSSA) Certificate
- Journeyman Electrician
- Project Management Professional Certification
- Journeyman Lineman

In-Demand Education Level*

- High School Diploma: 24.8%
- Associate Degree: 5.2%
- Bachelor's Degree: 11.5%
- Master's Degree: 0.9%

**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

- GPAC
- Tradesmen International
- Michael Page
- Aerotek
- Area Wide Protective
- Consumers Energy
- PeopleReady
- Rieth-Riley Construction Company
- The Skilled Trades Company
- Walbridge Aldinger

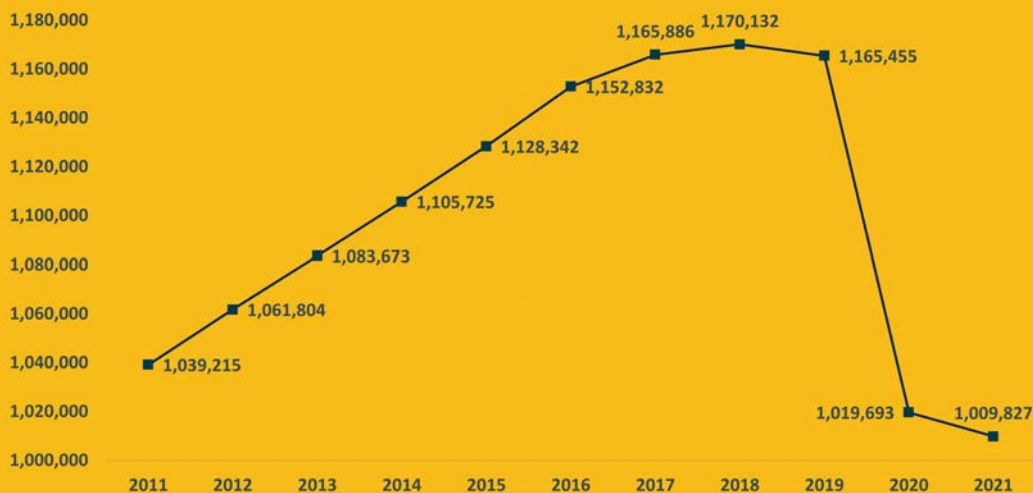
Job Postings by City

- Detroit: 3,376 Postings
- Grand Rapids: 2,404 Postings
- Lansing: 932 Postings
- Livonia: 820 Postings
- Ann Arbor: 804 Postings
- Warren: 701 Postings
- Kalamazoo: 653 Postings
- Troy: 523 Postings
- Novi: 504 Postings
- Sterling Heights: 478 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
2011-2021

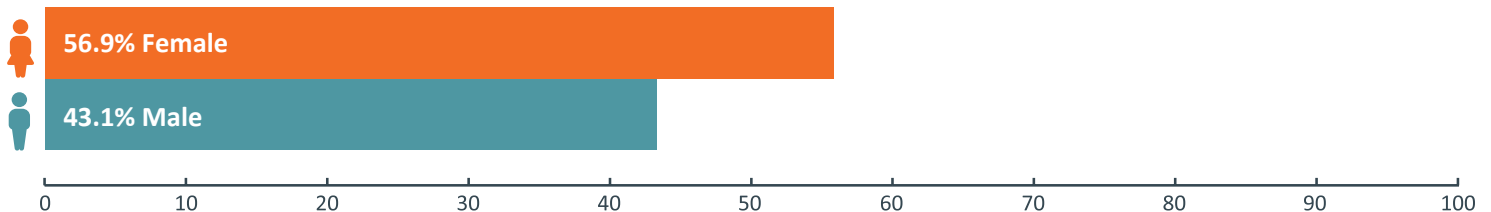


1,009,827
Customer
Service Workers
1.0% Decrease
from 2020

Customer Service Worker Demographics

In 2021, there were 1,009,827 workers in the customer service occupation group, with a more diverse workforce than other groups analyzed. Just over half, 56.9 percent, of the workers identify as female, while 24.0 percent of workers in customer service identified as a racial minority. About 24.5 percent of customer service workers were under the age of 25, as compared to the 55 and older age group which was 20.9 percent.

Worker Gender Demographics



Race and Ethnicity Demographics

76.0% White | **13.5% Black or African-American** | **5.2% Hispanic or Latino**

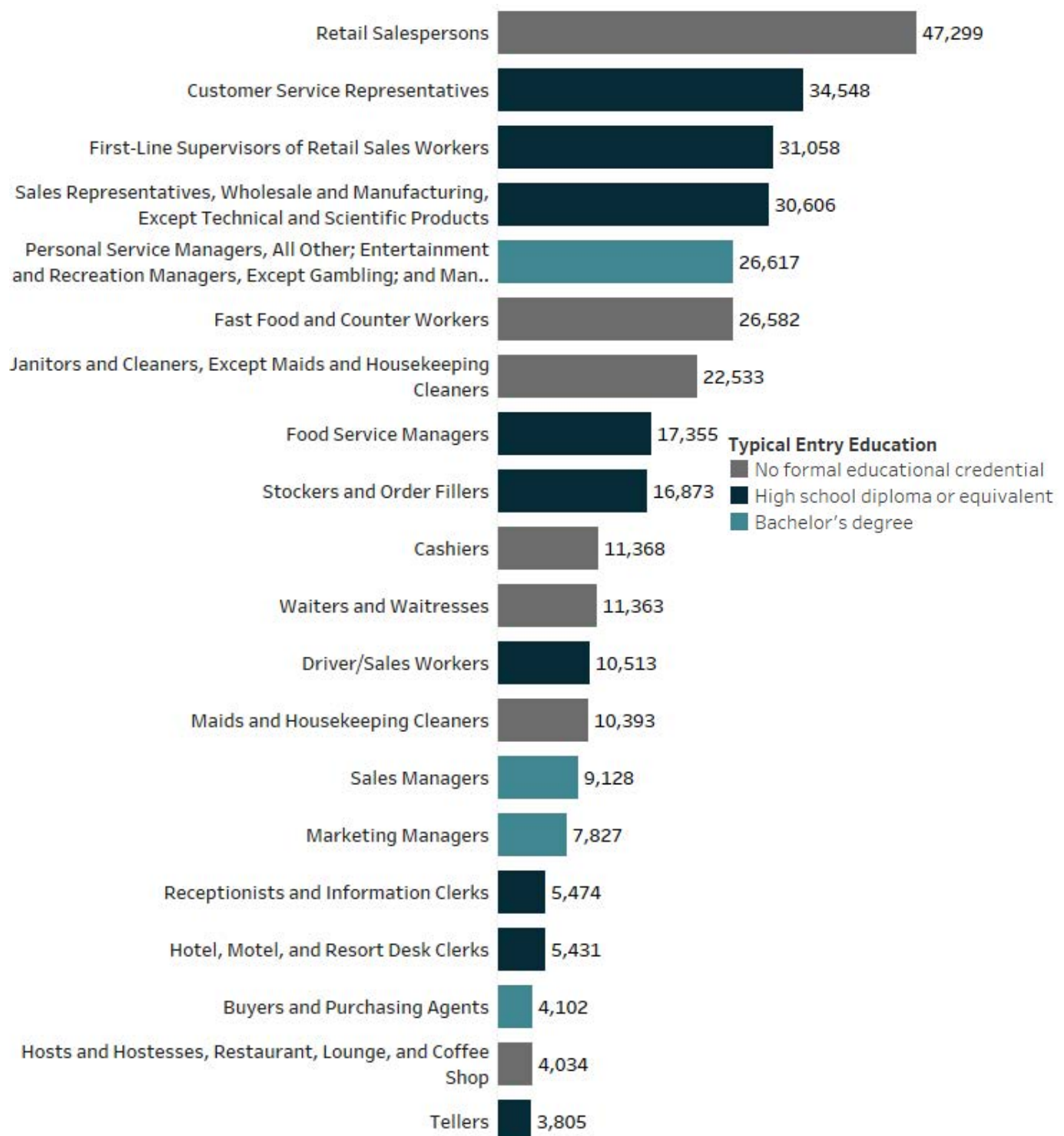
Worker Age Demographics



CUSTOMER SERVICE OCCUPATION GROUP

Top Posted Jobs

Demand for customer service occupations reached 390,955 postings in 2021. Retail Salespersons is the highest in-demand customer service occupation, with 47,299 postings. Other top posted jobs include Customer Service Representatives (34,548 postings), First-Line Supervisors of Retail Sales Workers (31,058 postings), Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (30,606 postings), and Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other (26,617 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 \$18.98. 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 \$22.70 per hour or \$47,216 annually.

Wage Overview for Top Posted Customer Service Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-2031	Retail Salespersons	\$12.97	\$15.47	\$18.98	\$23.71	\$28.69
43-4051	Customer Service Representatives	\$29.14	\$36.41	\$48.59	\$62.04	\$81.38
41-1011	First-Line Supervisors of Retail Sales Workers	\$14.53	\$17.53	\$22.70	\$29.46	\$35.60
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$16.39	\$21.39	\$29.64	\$37.13	\$43.36
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$18.04	\$23.00	\$30.07	\$38.56	\$50.37
35-3023	Fast Food and Counter Workers	\$13.46	\$16.22	\$19.51	\$26.56	\$30.61
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$20.59	\$25.57	\$33.07	\$42.30	\$50.78
11-9051	Food Service Managers	\$15.78	\$21.38	\$32.62	\$38.88	\$45.15
53-7065	Stockers and Order Fillers	\$14.90	\$17.33	\$21.30	\$28.42	\$36.32
41-2011	Cashiers	\$14.47	\$20.41	\$28.56	\$35.34	\$39.43

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Customer Service
- Sales
- Communications
- Management
- Leadership

In-Demand Certifications

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

In-Demand Education Level*

- High School Diploma: 34.7%
- Associate Degree: 5.2%
- Bachelor's Degree: 15.6%
- Master's Degree: 2.4%

**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

- Meijer
- Lowe's
- Dollar General
- McDonald's
- Walmart
- The Home Depot
- Kroger
- Panera Bread
- Amazon
- Advance Auto Parts

Job Postings by City

- Detroit: 33,053 Postings
- Grand Rapids: 27,499 Postings
- Ann Arbor: 14,750 Postings
- Troy: 12,974 Postings
- Lansing: 12,137 Postings
- Livonia: 8,550 Postings
- Novi: 8,515 Postings
- Southfield: 7,881 Postings
- Warren: 7,093 Postings
- Dearborn: 6,887 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
2011-2021

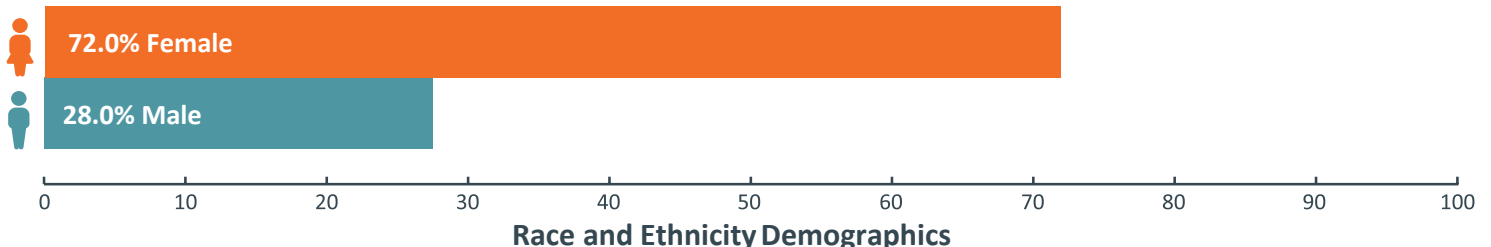


211,862
Education Workers
0.6%
Decrease
from 2020

Education Worker Demographics

Due to many schools shifting to distance learning and providing online classes, employment decreased by 1,362 or 0.6 percent since 2020, for a total of 211,862 workers in 2021. This occupation group is composed primarily of females (72.0 percent) between the ages of 25 and 54 (66.5 percent). Only 28.0 percent of workers are males, and only 18.6 percent of workers identify as a racial minority.

Worker Gender Demographics



Race and Ethnicity Demographics

81.4% White | **8.5% Black or African-American** | **4.5% Asian**

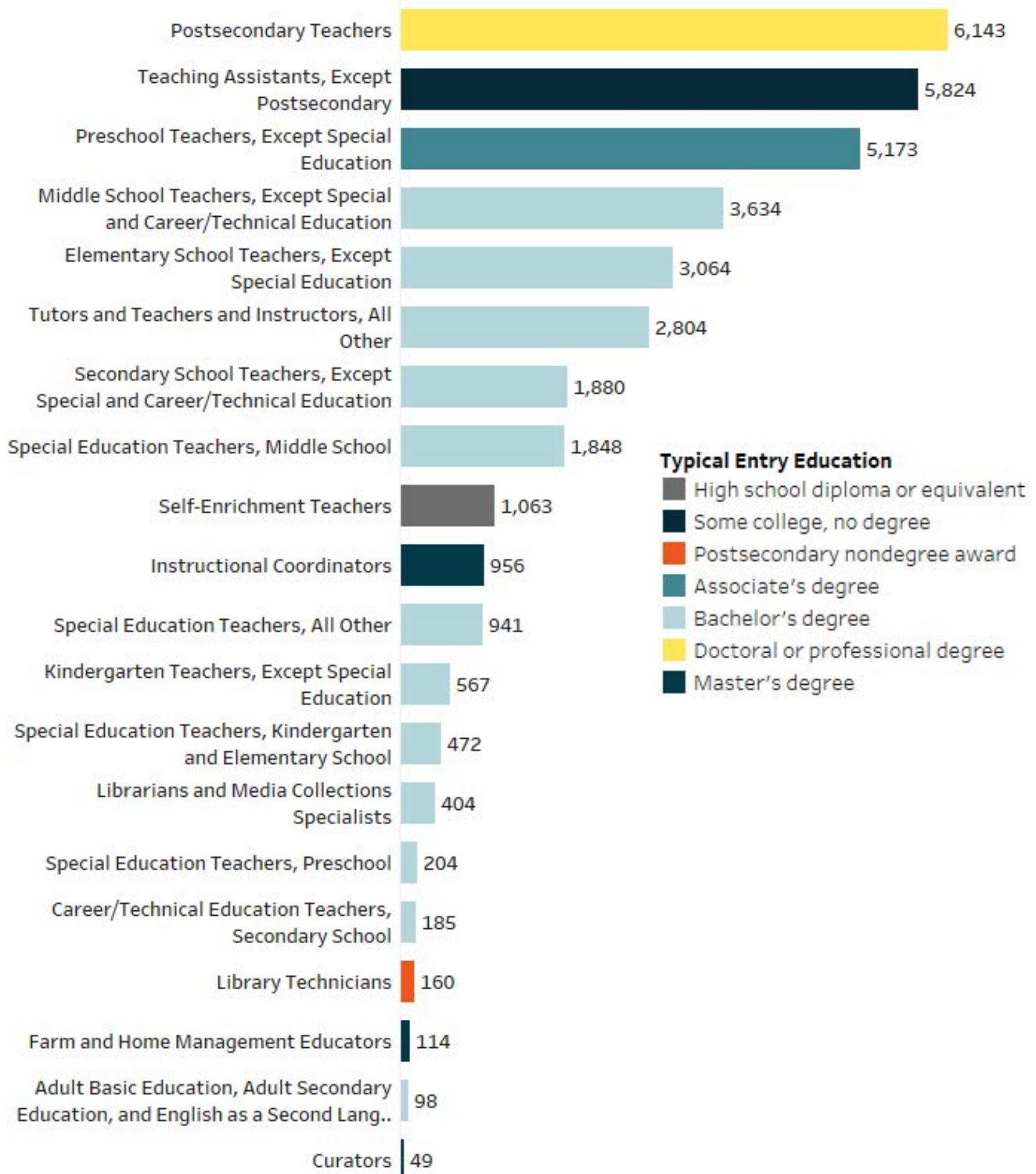
Worker Age Demographics



EDUCATION OCCUPATION GROUP

Top Posted Jobs

Online job ads totaled 35,741 postings in 2021. Postsecondary Teachers remained the highest in-demand education occupation with 6,143 postings. Teaching Assistants, Except Postsecondary (5,824 postings), Preschool Teachers, Except Special Education (5,173 postings), Middle School Teachers, Except Special and Career/Technical Education (3,634 postings), and Elementary School Teachers, Except Special Education (3,064 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. 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 \$39.72 hourly, translating to annual earnings of about \$82,616.

Wage Overview for Top Posted Education Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
25-1099	Postsecondary Teachers	\$20.22	\$28.49	\$39.72	\$53.54	\$69.07
25-9045	Teaching Assistants, Except Postsecondary	\$10.18	\$11.54	\$13.51	\$15.39	\$18.49
25-2011	Preschool Teachers, Except Special Education	\$10.24	\$11.44	\$14.63	\$19.30	\$25.58
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$18.13	\$22.79	\$30.75	\$37.54	\$43.56
25-2021	Elementary School Teachers, Except Special Education	\$19.34	\$23.61	\$31.86	\$40.26	\$48.43
25-3097	Tutors and Teachers and Instructors, All Other	\$10.86	\$13.10	\$17.97	\$27.33	\$39.38
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$19.39	\$23.31	\$29.91	\$37.17	\$42.50
25-2057	Special Education Teachers, Middle School	\$20.03	\$23.83	\$29.38	\$37.76	\$45.00
25-3021	Self-Enrichment Teachers	\$10.16	\$12.39	\$18.01	\$23.86	\$31.65
25-9031	Instructional Coordinators	\$20.99	\$27.12	\$34.63	\$42.05	\$49.82

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Teaching
- Communications
- Leadership
- Basic Math
- Planning

In-Demand Certifications

- NHA Certified
- No Child Left Behind Act (NCLB) Standards
- Alternative Teacher Certification
- Security Clearance
- Math Endorsement

In-Demand Education Level*

- High School Diploma: 20.1%
- Associate Degree: 10.6%
- Bachelor's Degree: 23.7%
- Master's Degree: 10.2%

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

Top Posting Employers

- KinderCare
- University Of Michigan
- K12
- Michigan State University
- Learning Care Group
- Kellogg
- Soliant Health
- Chippewa Valley Schools
- Kent ISD
- Sunbelt Staffing

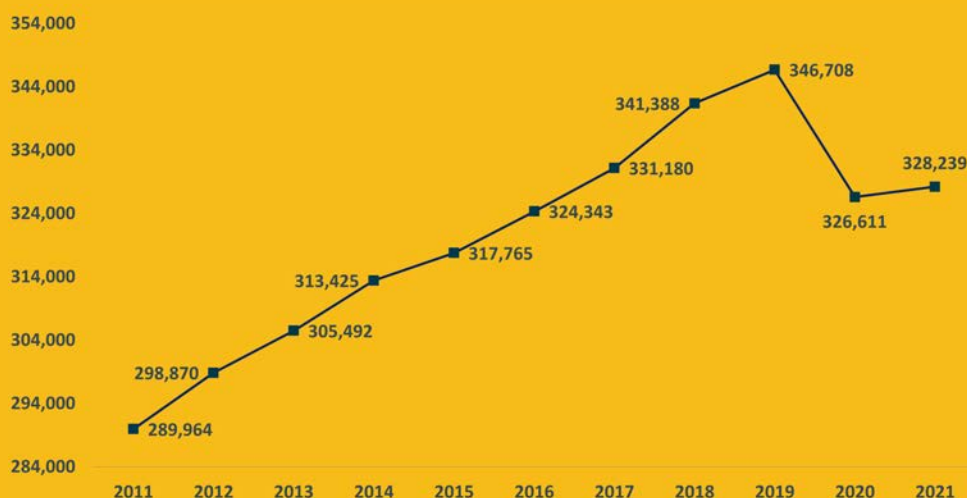
Job Postings by City

- Detroit: 3,923 Postings
- Grand Rapids: 2,614 Postings
- Ann Arbor: 1,656 Postings
- East Lansing: 1,033 Postings
- Lansing: 796 Postings
- Rochester: 780 Postings
- Southfield: 749 Postings
- Flint: 747 Postings
- Warren: 694 Postings
- Kalamazoo: 692 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
2011-2021

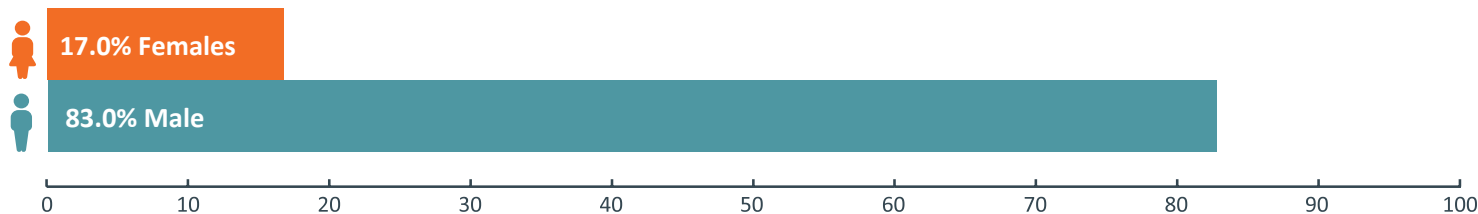


328,239
Energy
Workers
0.5% Increase
from 2020

Energy Worker Demographics

In 2021, there were 328,239 workers in the energy occupation group. This group is primarily made up of males (83.0 percent) between the ages of 25 and 54 (69.9 percent). Only 17.0 percent of workers identified as female and just 17.7 percent identified as a racial minority. During the year, 5.6 percent of the workers in the occupation group are under the age of 25 compared to the 24.5 percent who are 55 years of age or older.

Worker Gender Demographics



Race and Ethnicity Demographics

82.3% White | 8.0% Black or African-American | 4.7% Asian

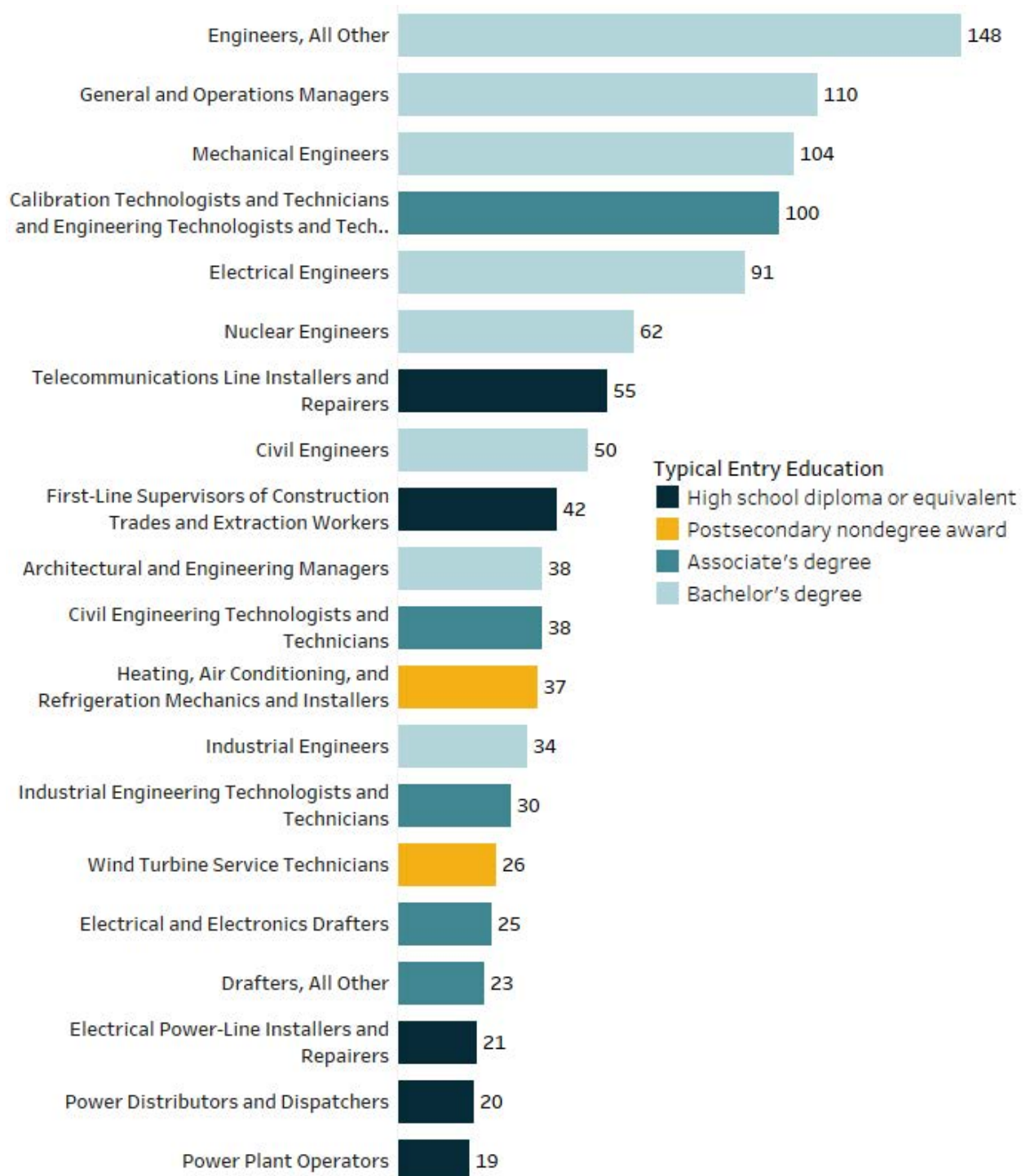
Worker Age Demographics



ENERGY OCCUPATION GROUP

Top Posted Jobs

This year totaled 1,343 postings for energy workers, with Engineers, All Other as the most sought-after occupation by energy industry employers during 2021, with 148 postings. General and Operations Managers were in the second position with 110 postings. Other top posted jobs include Mechanical Engineers (104 postings), Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (100 postings), and Electrical Engineers (91 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. Each of the top ten energy occupations has median wages over \$25.00 per hour. The top posted energy job, Engineers, All Other, offers a median hourly wage of \$41.99, or annual earnings of approximately \$87,339. 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 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Engineers, All Other	\$24.47	\$33.62	\$41.99	\$55.75	\$66.03
11-1021	General and Operations Managers	\$19.88	\$30.06	\$48.09	\$73.92	\$100.00
17-2141	Mechanical Engineers	\$29.06	\$35.33	\$43.38	\$54.08	\$63.95
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$16.75	\$21.81	\$31.34	\$41.24	\$49.83
17-2071	Electrical Engineers	\$29.08	\$35.91	\$44.57	\$53.60	\$63.52
17-2161	Nuclear Engineers	\$44.24	\$51.00	\$58.09	\$68.02	\$77.38
49-9052	Telecommunications Line Installers and Repairers	\$15.59	\$17.54	\$20.84	\$25.03	\$29.66
17-2051	Civil Engineers	\$26.33	\$30.66	\$37.37	\$46.06	\$54.37
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.59	\$25.57	\$33.07	\$42.30	\$50.78
11-9041	Architectural and Engineering Managers	\$44.92	\$54.21	\$64.63	\$78.06	\$90.63

In-Demand Technical Skills

- Construction
- Natural Gas
- Engineering Design Process
- Corrective And Preventive Action (CAPA)
- Electric Power Distribution

In-Demand Foundational Skills

- Management
- Operations
- Communications
- Planning
- Problem Solving

In-Demand Certifications

- Commercial Driver's License (CDL)
- Licensed Professional Engineer
- Security Clearance
- Project Management Professional Certification
- Engineer in Training

In-Demand Education Level*

- High School Diploma: 25.9%
- Associate Degree: 19.1%
- Bachelor's Degree: 46.5%
- Master's Degree: 13.3%

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

Top Posting Employers

- Consumers Energy
- DTE Energy
- Williams
- Henkels & McCoy
- American Electric Power
- Verita Telecommunications Corp
- Crossfire
- Occidental Petroleum
- Appalachian Power Company
- SEMCO Energy

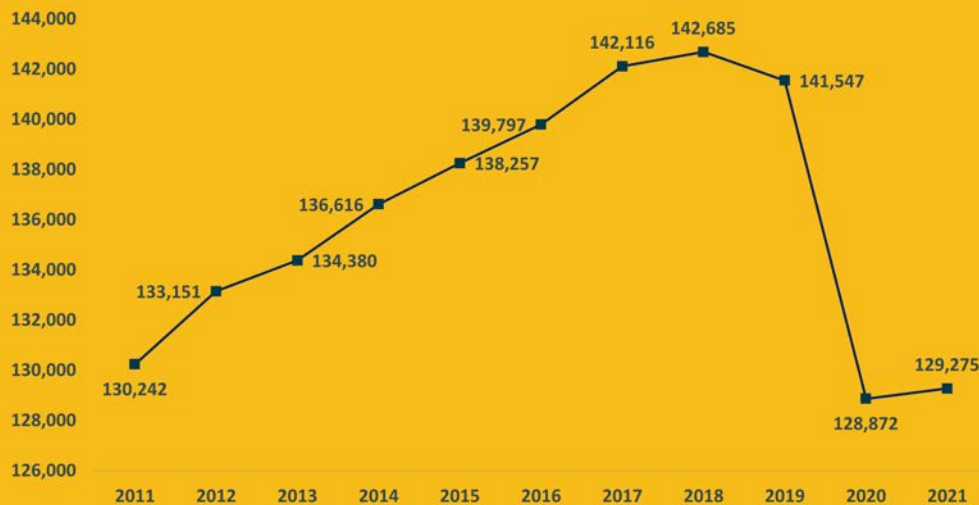
Job Postings by City

- Jackson: 239 Postings
- Detroit: 199 Postings
- Grand Rapids: 91 Postings
- Newport: 80 Postings
- Pontiac: 53 Postings
- Adrian: 36 Postings
- Flint: 32 Postings
- Bridgeman: 29 Postings
- Lansing: 28 Postings
- Ludington: 28 Postings

ENGINEERS AND DESIGNERS OCCUPATION GROUP

Jobs in the manufacturing industry can range from assembly and production, skilled trades and technicians, designers and engineers, and even computer-related occupations such as software development. Demand for engineers in the region has been consistent, and employment has been growing quickly. There are about 8,500 openings annually for engineers in southeast Michigan.

Employment Over Time
2011-2021

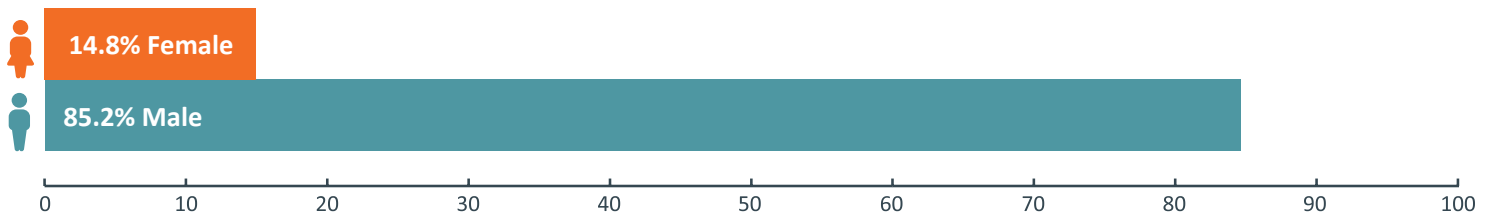


129,275
Engineers and
Designers
Workers
0.3% Increase
from 2020

Engineers and Designers Worker Demographics

According to 2021 Emsi data, the 129,275 workers in the engineering and design group are not particularly diverse. Just 5.9 percent of the related workforce is under 25, likely due to the consistently high educational requirements. Female workers account for 14.8 percent of the current workforce and only 20.1 percent identify as a race other than white; as the labor force overall continues to change, this field would benefit from seeking a more diverse talent pool.

Worker Gender Demographics



Race and Ethnicity Demographics

79.9% White | 8.6% Asian | 7.0% Black or African-American

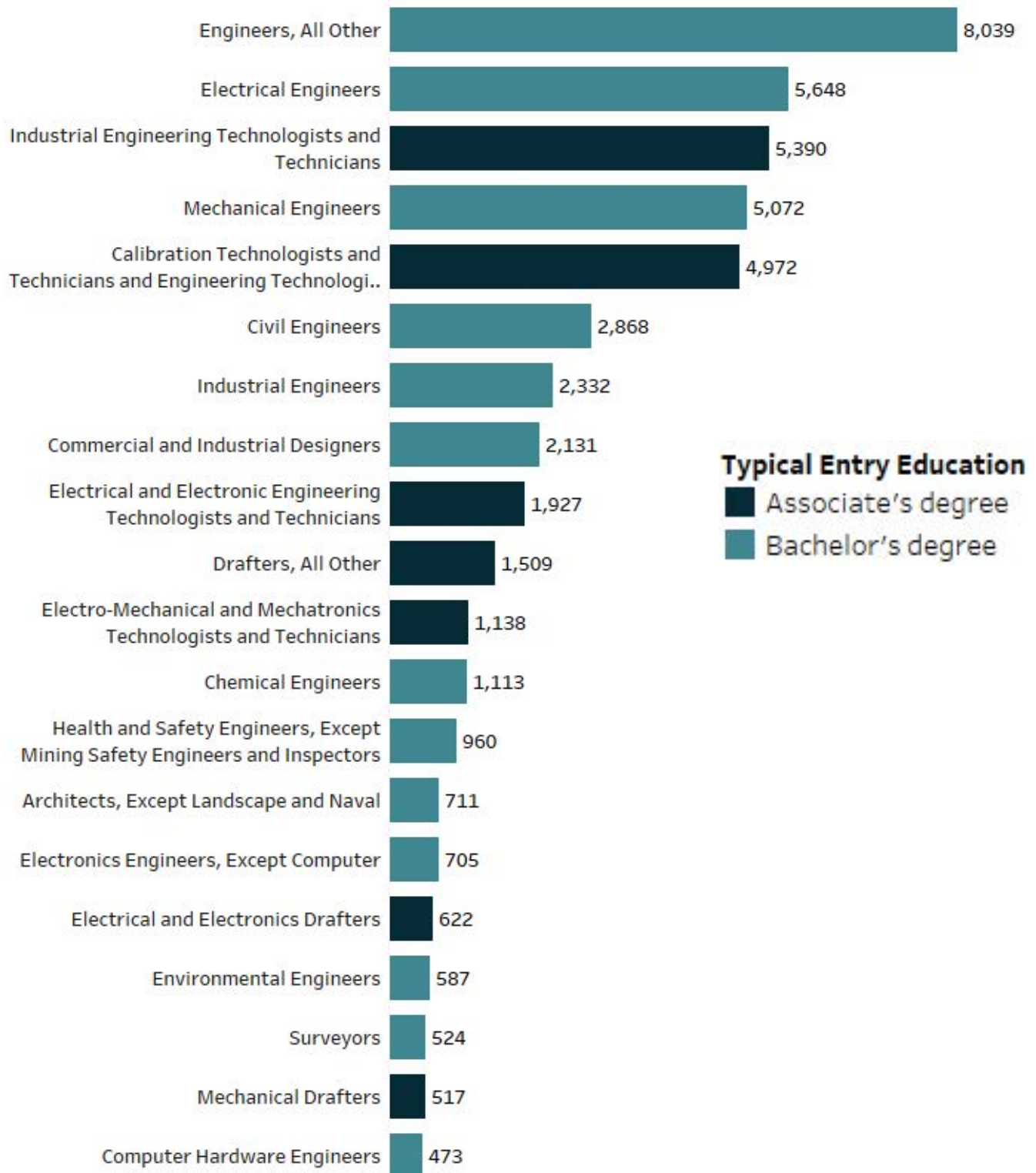
Worker Age Demographics



ENGINEERS AND DESIGNERS OCCUPATION GROUP

Top Posted Jobs

Engineers, All Other was the highest in-demand engineering and design occupation during 2021, with 8,039 postings. Electrical Engineers were also in high demand with 5,648 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, Engineers, All Other, offers a median hourly wage of \$41.99. This reflects an annual salary of approximately \$87,339.

Wage Overview for Top Posted Engineers and Designers Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Engineers, All Other	\$24.47	\$33.62	\$41.99	\$55.75	\$66.03
17-2071	Electrical Engineers	\$29.08	\$35.91	\$44.57	\$53.60	\$63.52
17-3026	Industrial Engineering Technologists and Technicians	\$17.82	\$22.13	\$27.53	\$34.14	\$41.38
17-2141	Mechanical Engineers	\$29.06	\$35.33	\$43.38	\$54.08	\$63.95
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$16.75	\$21.81	\$31.34	\$41.24	\$49.83
17-2051	Civil Engineers	\$26.33	\$30.66	\$37.37	\$46.06	\$54.37
17-2112	Industrial Engineers	\$29.26	\$35.79	\$44.33	\$53.79	\$62.71
27-1021	Commercial and Industrial Designers	\$22.78	\$28.25	\$37.10	\$46.52	\$53.49
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$17.91	\$22.78	\$29.81	\$35.20	\$40.11
17-3019	Drafters, All Other	\$17.39	\$21.11	\$26.96	\$32.14	\$37.42

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Communications
- Problem Solving
- Management
- Troubleshooting
- Operations

In-Demand Certifications

- Professional Engineer
- Licensed Professional Engineer
- Six Sigma Green Belt Certification
- Security Clearance
- Six Sigma Black Belt Certification

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
- GPAC
- Aerotek
- Ford
- Advantage Resourcing
- Epitec
- Actalent
- ManpowerGroup
- Eaton Corporation
- G-TECH Services

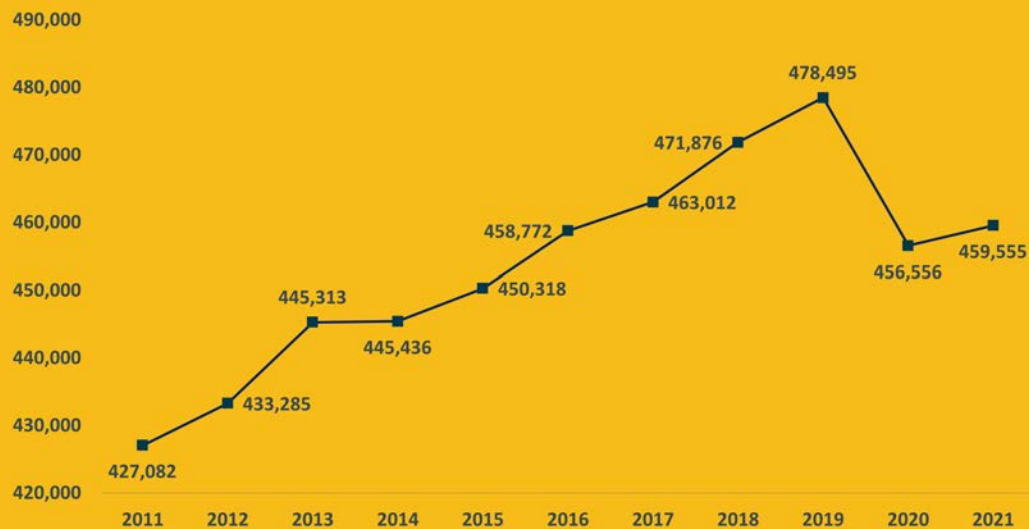
Job Postings by City

1. Detroit: 4,643 Postings
2. Warren: 3,377 Postings
3. Grand Rapids: 2,915 Postings
4. Auburn Hills: 2,829 Postings
5. Dearborn: 2,470 Postings
6. Ann Arbor: 2,250 Postings
7. Troy: 1,948 Postings
8. Plymouth: 1,551 Postings
9. Lansing: 1,469 Postings
10. Novi: 1,186 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
2011-2021

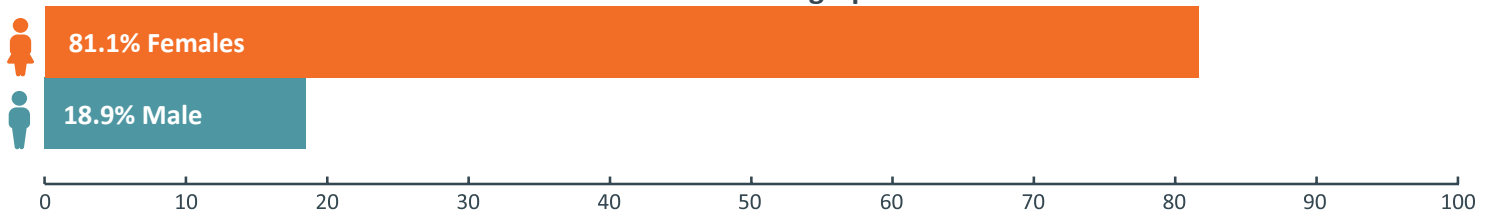


459,555
Healthcare Workers
0.7% Increase from 2020

Healthcare Worker Demographics

According to 2021 Emsi data, the healthcare occupation group employed 459,555 workers in the state of Michigan, who are overwhelmingly female (81.1 percent) and between the ages of 25 and 54 (68.6 percent), although 22.4 percent of workers are over 54. The healthcare occupation group is primarily white in Michigan, with 73.3 percent of workers identifying as white, 17.0 percent identifying as Black or African American, and 9.7 percent identifying otherwise.

Worker Gender Demographics



Race and Ethnicity Demographics

73.3% White | **17.0% Black or African-American** | **4.3% Asian**

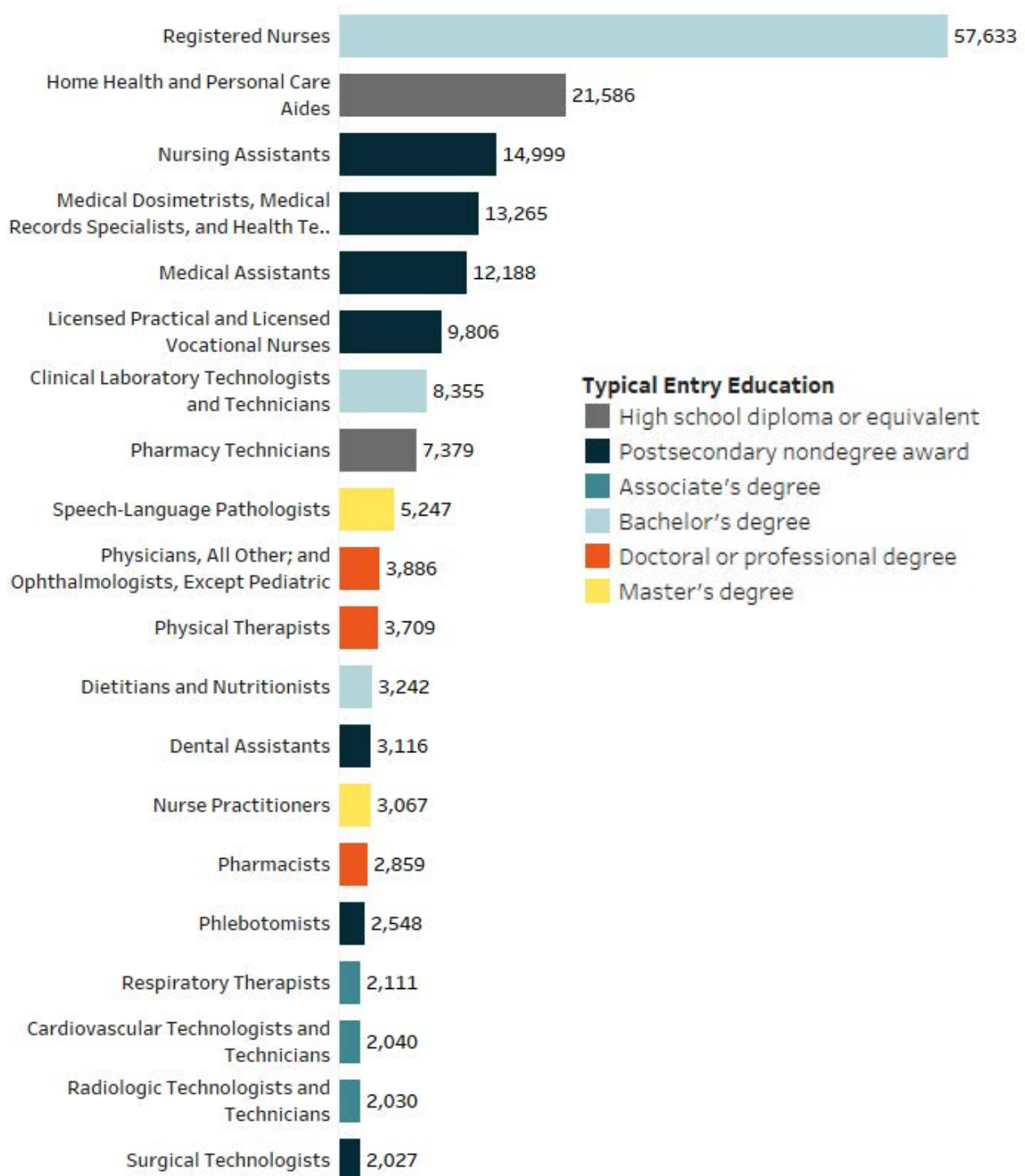
Worker Age Demographics



HEALTHCARE OCCUPATION GROUP

Top Posted Jobs

Registered Nurses were the highest in-demand healthcare occupation throughout 2021, with 57,633 postings. Other top posted jobs include Home Health and Personal Care Aides (21,586 postings), Nursing Assistants (14,999 postings), Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other (13,265 postings), and Medical Assistants (12,188 postings). Top occupations in healthcare are available at many education levels, and employment for some roles, such as Home Health and Personal Care Aides and Pharmacy Technicians (7,379 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 healthcare 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. Most of the top-posted jobs pay over \$15.00 per hour. Registered Nurses, the top posted healthcare job, offers a median hourly wage of \$35.11 per hour or an annual salary of about \$73,028.

Wage Overview for Top Posted Healthcare Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$26.58	\$29.96	\$35.11	\$40.39	\$47.15
31-1128	Home Health and Personal Care Aides	\$10.20	\$10.81	\$11.85	\$13.76	\$15.66
31-1131	Nursing Assistants	\$12.34	\$13.48	\$15.18	\$17.57	\$19.25
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	\$13.91	\$16.59	\$20.63	\$27.11	\$33.22
31-9092	Medical Assistants	\$13.08	\$14.62	\$16.84	\$18.82	\$20.42
29-2061	Licensed Practical and Licensed Vocational Nurses	\$19.79	\$21.90	\$25.12	\$28.54	\$30.74
29-2018	Clinical Laboratory Technologists and Technicians	\$14.24	\$17.52	\$25.54	\$32.59	\$37.80
29-2052	Pharmacy Technicians	\$11.23	\$13.30	\$16.13	\$19.06	\$22.69
29-1127	Speech-Language Pathologists	\$24.75	\$31.66	\$37.04	\$44.28	\$52.65
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	\$26.19	\$29.08	\$80.46	\$100.00	\$137.76

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Cardiopulmonary Resuscitation (CPR)
- Nursing Care
- Medical Records

In-Demand Foundational Skills

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

In-Demand Certifications

- Licensed Practical Nurse
- Certified Nursing Assistant
- Associate Degree In Nursing
- Certified Medical Assistant
- Patient Care Technician

In-Demand Education Level*

- High School Diploma: 29.4%
- Associate Degree: 26.5%
- Bachelor's Degree: 12.5%
- Master's Degree: 6.0%

**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

- Ascension
- Trinity Health
- Henry Ford Health System
- Spectrum Health
- Beaumont Health
- University Of Michigan
- McLaren Health Care
- Prestige Healthcare
- Mercy Medical Center Clinton
- Tenet Healthcare

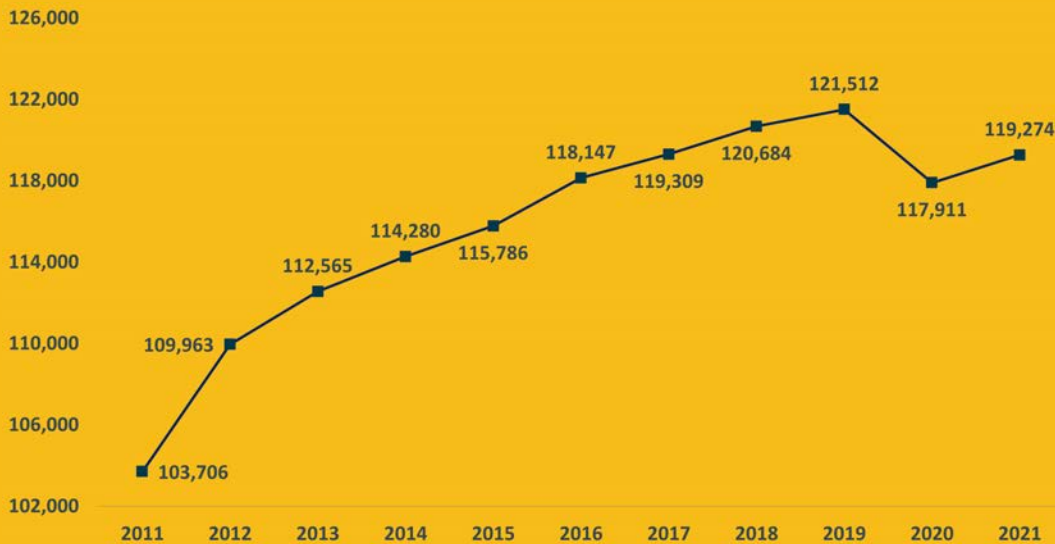
Job Postings by City

1. Detroit: 20,629 Postings
2. Grand Rapids: 15,332 Postings
3. Ann Arbor: 8,698 Postings
4. Kalamazoo: 5,020 Postings
5. Lansing: 4,997 Postings
6. Southfield: 4,820 Postings
7. Saginaw: 4,199 Postings
8. Livonia: 4,112 Postings
9. Dearborn: 4,022 Postings
10. Warren: 3,939 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
2011-2021



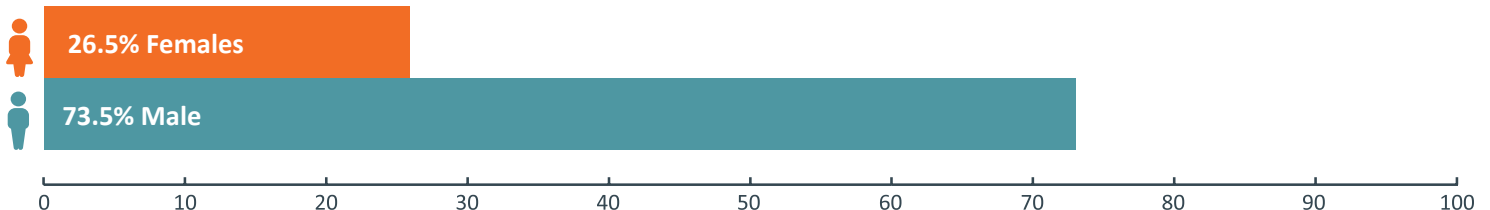
119,274
Information
Technology
Workers
1.2% Increase
from 2020



Information Technology Worker Demographics

According to 2021 Emsi data, the state of Michigan has 119,274 IT workers. The workforce is not too diverse, with most workers identifying as male (73.5 percent) between the ages of 25 and 54 (77.6 percent). Workers aged 55 years and older account for 16.5 percent, while only 5.9 percent are 24 years old or younger. Around 71.3 percent of the workforce identify as white, with workers who identify as Asian, make up 15.6 percent of the workforce.

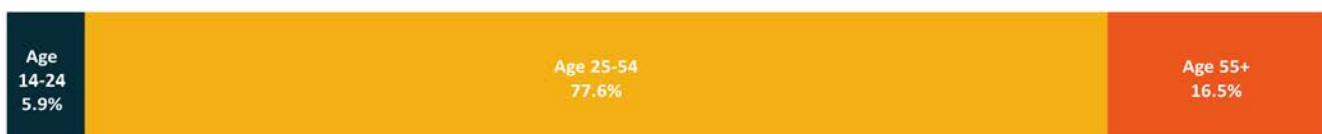
Worker Gender Demographics



Race and Ethnicity Demographics

71.3% White | 15.6% Asian | 8.7% Black or African-American

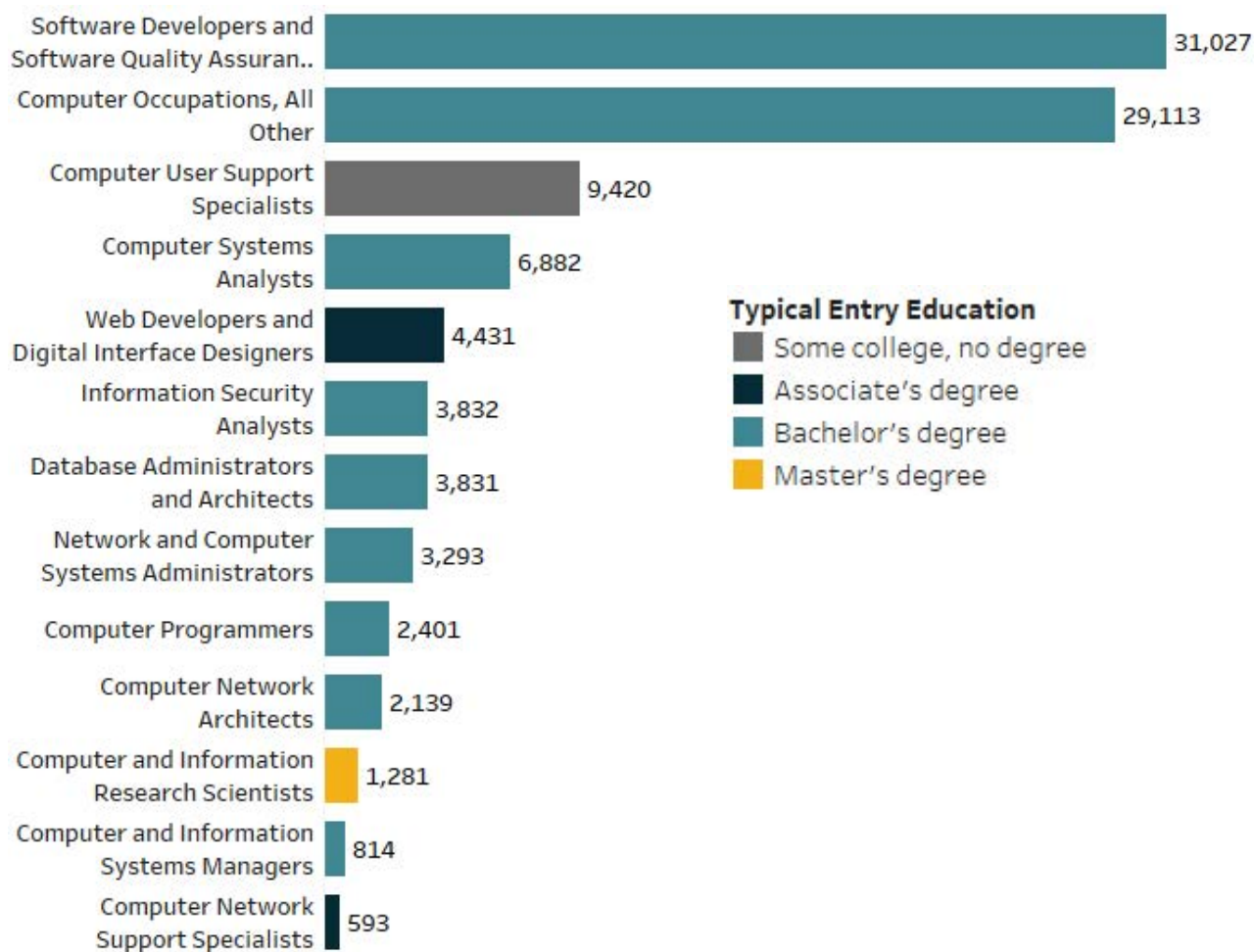
Worker Age Demographics



INFORMATION TECHNOLOGY OCCUPATION GROUP

Top Posted Jobs

In 2021, there were 99,057 postings for IT workers in Michigan. Software Developers and Software Quality Assurance Analysts and Testers was the most in-demand occupation with 31,027 postings, closely followed by Computer Occupations, All Other, with 29,113 postings. Computer User Support Specialists (9,420 postings) and Computer Systems Analysts (6,882 postings) were also high in-demand occupations. Although the top IT jobs generally require a bachelor's degree, Computer User Support Specialists, typically require some college, no degree.



INFORMATION TECHNOLOGY OCCUPATION GROUP

Wage Overview

In-demand IT occupations provide high wages, even for those at entry-level and with fewer credentials. Software Developers and Software Quality Assurance Analysts and Testers, the most in-demand occupation, offers a median hourly wage of \$43.26 per hour or almost \$89,980 per year. Computer and Information Systems Managers earn the highest median wage at \$62.00 per hour or nearly \$128,960 per year. Other occupations that have fewer qualifications, such as Computer User Support Specialists and Web Developers and Digital Interface Designers, make over \$22.00 per hour.

Wage Overview for Top Posted Information Technology Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	\$26.60	\$34.32	\$43.26	\$53.83	\$63.98
15-1299	Computer Occupations, All Other	\$20.18	\$26.96	\$37.28	\$48.99	\$59.41
15-1232	Computer User Support Specialists	\$14.38	\$17.36	\$22.10	\$28.71	\$35.72
15-1211	Computer Systems Analysts	\$28.09	\$34.97	\$43.79	\$54.48	\$66.92
15-1257	Web Developers and Digital Interface Designers	\$16.18	\$23.16	\$32.43	\$40.75	\$51.98
15-1212	Information Security Analysts	\$28.29	\$35.77	\$45.44	\$55.94	\$65.79
15-1245	Database Administrators and Architects	\$25.53	\$30.61	\$40.91	\$54.35	\$63.41
15-1244	Network and Computer Systems Administrators	\$24.08	\$30.11	\$37.43	\$46.18	\$54.36
15-1251	Computer Programmers	\$20.11	\$25.03	\$35.21	\$45.88	\$56.68
15-1241	Computer Network Architects	\$27.51	\$39.18	\$52.07	\$63.86	\$76.45

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Communications
- Management
- Problem Solving
- Leadership
- Troubleshooting

In-Demand Certifications

- Certified Information Systems Security Professional
- Security Clearance
- Project Management Professional Certification
- Cisco Certified Network Associate
- CompTIA Security+

In-Demand Education Level*

- High School Diploma: 6.7%
- Associate Degree: 5.7%
- Bachelor's Degree: 49.2%
- Master's Degree: 12.6%

**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

- MGeneral Motors
- Deloitte
- TEKsystems
- General Dynamics
- Epitex
- Ford
- CTG
- Accenture
- Robert Half
- Randstad

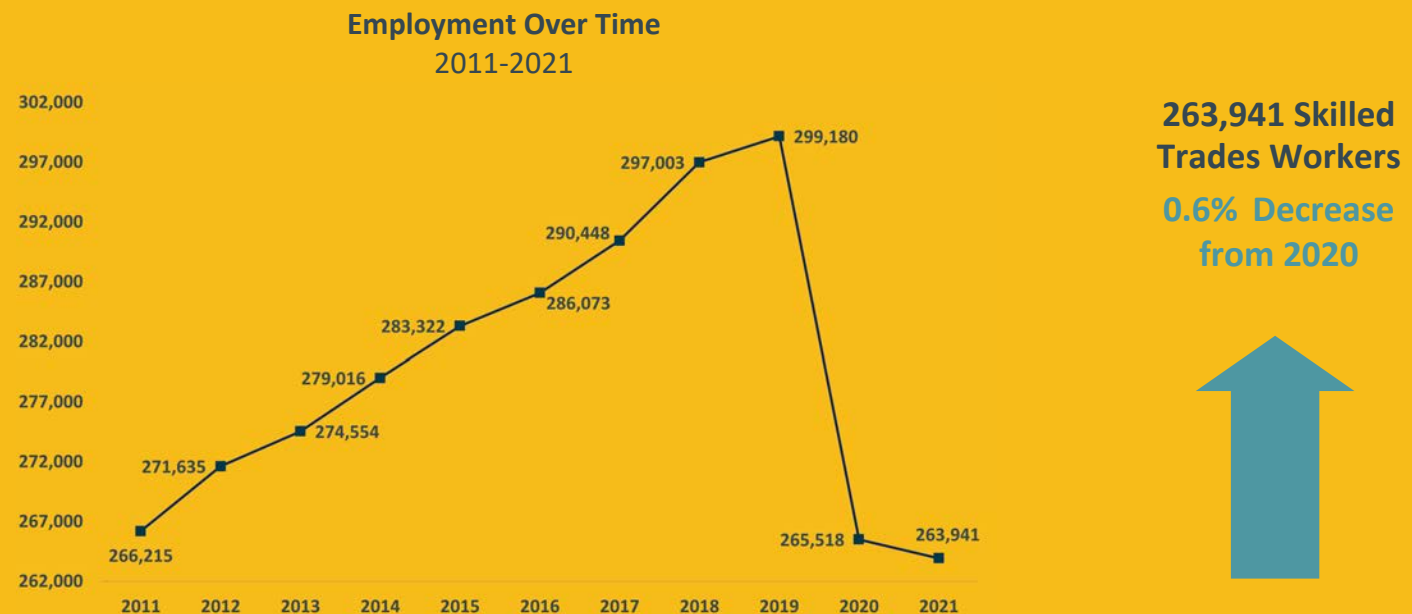
Job Postings by City

- Detroit: 19,791 Postings
- Lansing: 8,882 Postings
- Dearborn: 7,652 Postings
- Grand Rapids: 6,309 Postings
- Ann Arbor: 5,836 Postings
- Troy: 5,238 Postings
- Auburn Hills: 4,096 Postings
- Warren: 4,095 Postings
- Southfield: 4,091 Postings
- Farmington: 2,723 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.

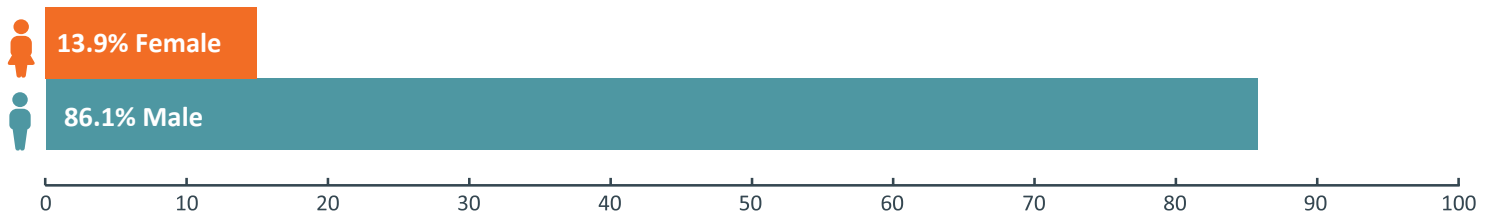
NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.



Skilled Trades Worker Demographics

According to 2021 Emsi data, the skilled trades occupation group employed about 263,941 workers in the state of Michigan. The majority of skilled trades workers are male (86.1 percent) between the ages of 25 and 54 (65.8 percent). Due to the aging workforce, additional outreach will be necessary as 27.3 percent are 55 years of age or older.

Worker Gender Demographics



Race and Ethnicity Demographics

80.9% White | 10.1% Black or African-American | 5.2% Hispanic or Latino

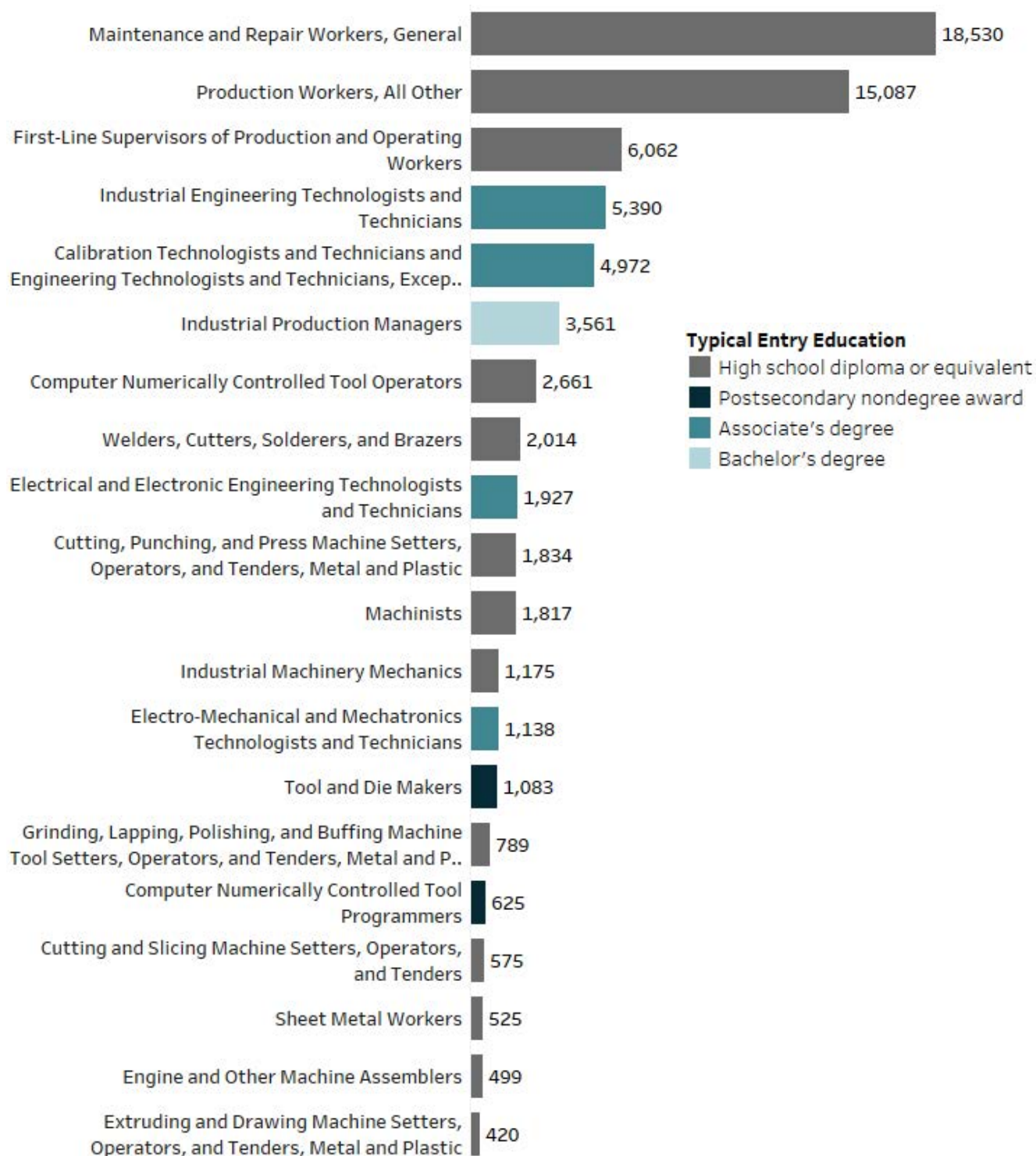
Worker Age Demographics



SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Top Posted Jobs

Maintenance and Repair Workers, General was the highest in-demand skilled trades occupation during 2021, with 18,530 postings. Other top posted jobs include Production Workers, All Other (15,087 postings), First-Line Supervisors of Production and Operating Workers (6,062 postings), Industrial Engineering Technologists and Technicians (5,390 postings), and Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (4,972 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 \$13.00 per hour. Maintenance and Repair Workers, General, the top posted skilled trades job in 2021, offers a median hourly wage of \$18.08, which translates to an annual salary of about \$37,606.

Wage Overview for Top Posted Skilled Trades Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
49-9071	Maintenance and Repair Workers, General	\$11.90	\$14.28	\$18.08	\$23.70	\$29.69
51-9199	Production Workers, All Other	\$10.47	\$11.55	\$13.62	\$17.03	\$23.00
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.86	\$23.79	\$30.86	\$39.43	\$49.91
17-3026	Industrial Engineering Technologists and Technicians	\$17.82	\$22.13	\$27.53	\$34.14	\$41.38
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$16.75	\$21.81	\$31.34	\$41.24	\$49.83
11-3051	Industrial Production Managers	\$33.29	\$42.79	\$54.40	\$68.55	\$86.50
51-9161	Computer Numerically Controlled Tool Operators	\$13.13	\$15.31	\$19.49	\$25.07	\$30.02
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.72	\$16.39	\$19.27	\$23.62	\$28.73
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$17.91	\$22.78	\$29.81	\$35.20	\$40.11
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$13.05	\$15.25	\$18.37	\$24.68	\$30.37

In-Demand Technical Skills

- Machinery
- Machine Operation
- Plumbing
- HVAC
- Packaging And Labeling

In-Demand Foundational Skills

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

In-Demand Certifications

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

In-Demand Education Level*

- High School Diploma: 43.9%
- Associate Degree: 11.1%
- Bachelor's Degree: 10.1%
- Master's Degree: 1.3%

**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

- Aerotek
- ManpowerGroup
- Adecco
- ResourceMFG
- Sentech Services
- Trillium Staffing
- McDonald's
- General Motors
- Kelly Services
- Nesco Resource

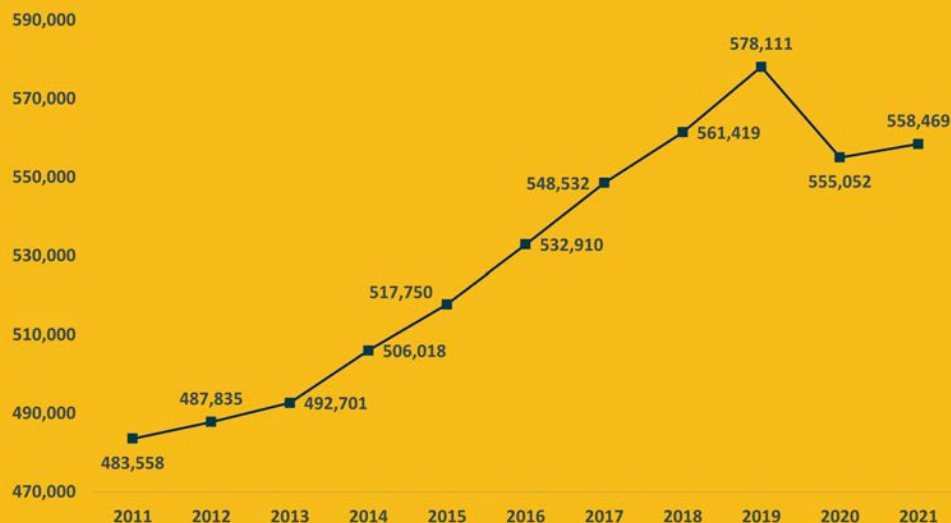
Job Postings by City

1. Grand Rapids: 6,601 Postings
2. Detroit: 4,782 Postings
3. Warren: 2,255 Postings
4. Lansing: 2,171 Postings
5. Holland: 2,127 Postings
6. Ann Arbor: 1,752 Postings
7. Sterling Heights: 1,722 Postings
8. Livonia: 1,558 Postings
9. Troy: 1,550 Postings
10. Auburn Hills: 1,523 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
2011-2021



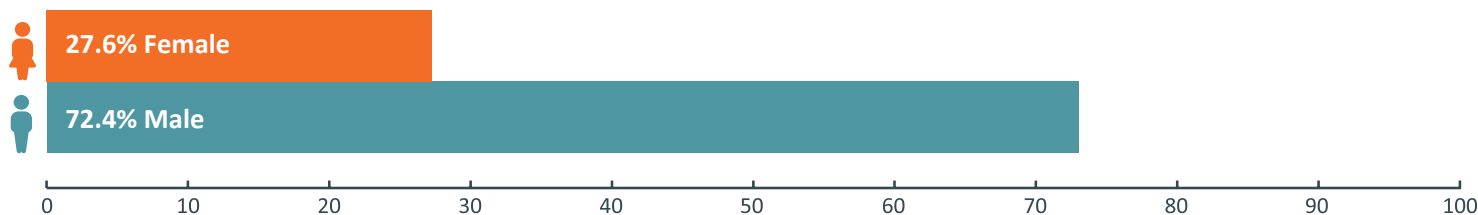
**558,469 TDL
Workers**
0.6% Increase
from 2020



TDL Worker Demographics

The TDL occupation group has a large workforce, employing 558,469 individuals in 2021. The workers in this occupation group are 72.4 percent male and 74.1 percent white. The majority, or 63.0 percent of the workforce, is between the ages of 25 through 54.

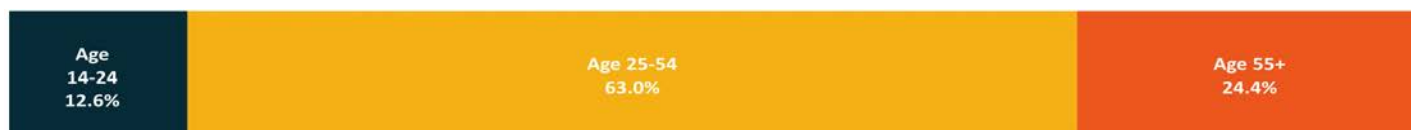
Worker Gender Demographics



Race and Ethnicity Demographics

74.1% White | **16.2% Black or African-American** | **5.5% Hispanic or Latino**

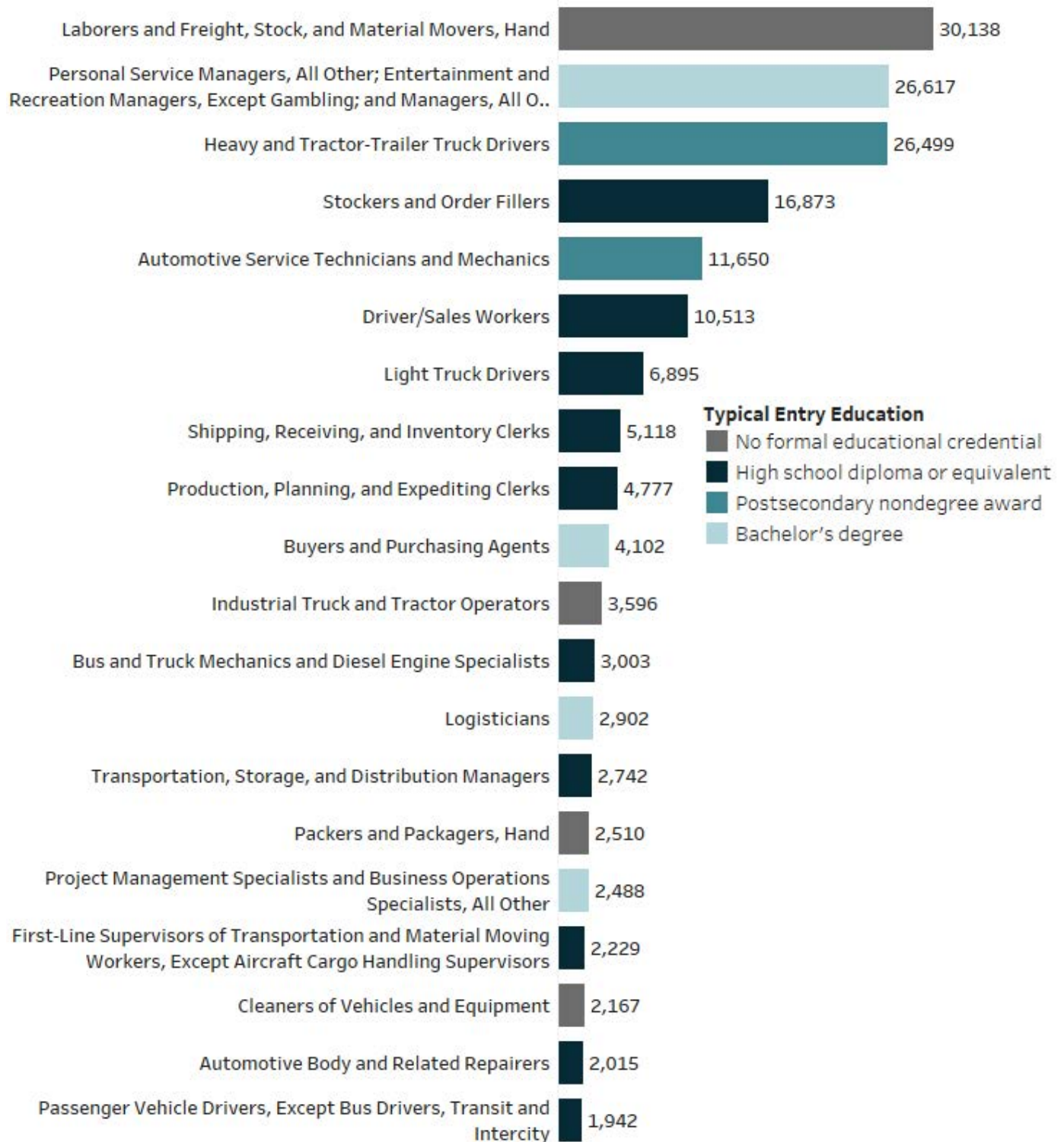
Worker Age Demographics



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Top Posted Jobs

Demand for TDL occupations totaled 190,172 postings in 2021. Laborers and Freight, Stock, and Material Movers, Hand took the top spot as the highest in-demand TDL occupation, with 30,138 postings. Other top posted jobs include Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other (26,617 postings), Heavy and Tractor-Trailer Truck Drivers (26,499 postings), Stockers and Order Fillers (16,873 postings), and Automotive Service Technicians and Mechanics (11,650 postings).



Wage Overview

Over half of the top ten in-demand TDL occupations offer median wages above \$16.00 per hour. Laborers and Freight, Stock, and Material Movers, Hand, the top posted TDL job, earn a median hourly wage of \$14.81, or an annual salary of nearly \$30,804. Supervisory roles that require additional education, such as Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other, typically offer even higher wages.

Wage Overview for Top Posted TDL Jobs in 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$10.74	\$12.21	\$14.81	\$18.52	\$22.58
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$24.98	\$36.73	\$52.03	\$66.27	\$83.45
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$14.21	\$17.60	\$21.85	\$25.75	\$30.82
53-7065	Stockers and Order Fillers	\$10.51	\$11.61	\$13.68	\$17.11	\$22.99
49-3023	Automotive Service Technicians and Mechanics	\$11.52	\$14.61	\$21.12	\$28.24	\$35.25
53-3031	Driver/Sales Workers	\$10.25	\$11.30	\$14.95	\$21.50	\$25.20
53-3033	Light Truck Drivers	\$10.73	\$12.29	\$17.53	\$24.96	\$35.04
43-5071	Shipping, Receiving, and Inventory Clerks	\$12.33	\$14.02	\$16.79	\$19.87	\$24.47
43-5061	Production, Planning, and Expediting Clerks	\$15.30	\$19.13	\$25.17	\$30.90	\$37.11
13-1028	Buyers and Purchasing Agents	\$19.42	\$24.01	\$31.11	\$40.50	\$51.55

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 B License
- Automotive Service Excellence (ASE) Certification
- Certified Forklift Operator
- Project Management Professional Certification

In-Demand Education Level*

- High School Diploma: 31.3%
- Associate Degree: 4.9%
- Bachelor's Degree: 14.9%
- Master's Degree: 2.9%

**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

- Amazon
- Meijer
- Walmart
- UPS
- The Home Depot
- ManpowerGroup
- Adecco
- Kroger
- Lowe's
- FedEx

Job Postings by City

1. Detroit: 17,715 Postings
2. Grand Rapids: 14,070 Postings
3. Lansing: 6,204 Postings
4. Warren: 5,304 Postings
5. Ann Arbor: 5,212 Postings
6. Troy: 4,526 Postings
7. Livonia: 4,442 Postings
8. Sterling Heights: 3,802 Postings
9. Romulus: 3,764 Postings
10. Dearborn: 3,653 Postings

Website

www.WINintelligence.org

Email

info@WINintelligence.org

Phone

313.744.2946

Address

25363 Eureka Rd.
Taylor, MI 48180

Facebook

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

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