

# WIN

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## LABOR MARKET REPORT WIN REGION

October - December 2021

# INTRODUCTION

19-County WIN Region  
Q4 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 WIN Region, including a workforce overview that identifies key components of the area's labor market such as labor force status, demographic, and commuting data. WIN's analysis of online job postings, a proxy for employer demand, is a pioneering method for tracking the labor market's health. This data is used to provide real-time demand and job posting information for both employers and job seekers. This report analyzes the Quarter 4 2021 (Q4) labor market information from the WIN Region for all eleven occupation groups.

For more information about the southeast Michigan labor market, custom occupation groups, and workforce-related data projects, please visit [www.WINintelligence.org](http://www.WINintelligence.org) or contact the data and research team directly at [research@WINintelligence.org](mailto:research@WINintelligence.org). For more information about jobseeker resources and our partners, please visit [www.micareertraining.org](http://www.micareertraining.org).

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# ANNUAL STATE OF THE LABOR MARKET

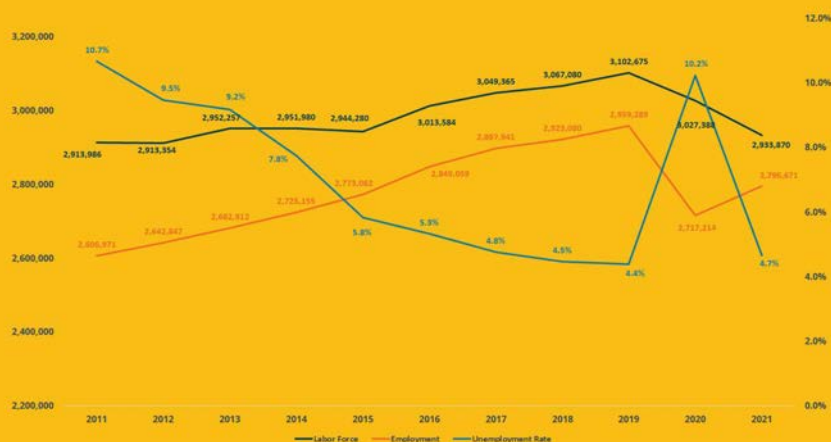
## State of the Labor Market in the 19-County WIN Region | Q4 2021

In comparison to Q3, Q4 saw a decrease of 0.6% in the unemployment rate, while both the labor force and total number of individuals employed increased. These trends signify an increased hiring rate as the economic recovery continues from the COVID-19 pandemic. Employer demand also experienced continued growth from Q3 to Q4, noted by a 3.4 percent increase (25,152) in job postings. According to EMSI data (2021), nine of the occupation groups experienced increased demand in Q4, with only two in decline.

### Annual Labor Market Information

The labor force in southeast Michigan continues to decline from its 2019 peak, decreasing by 93,518 individuals between 2020 and 2021, while employment has increased by 79,457 workers in that same time period. Between a smaller labor force and increased employment, the number of unemployed individuals decreased by 55.8 percent (172,975) and, likewise, the unemployment rate decreased from 10.2 percent to 4.7 percent, which falls within .3 percentage points from the pre-pandemic rate of 4.4%.

### Annual Labor Force, Employment, Unemployment Rate 2011–2021



Data: BLS | Analysis: Workforce Intelligence Network

### Quarterly Employer Demand Overview

Posting data for Q4 reveals increased employer demand compared to Q3. There were 25,152 more postings in Q4 than Q3, an increase of 3.4 percent. Each month in 2021 saw increasingly more postings, peaking in October with 260,425. November and December saw consistent declines, which may indicate an impending plateau on the current economic recovery trend.

### Monthly Posting Analysis WIN Region Q4 2021 - Q3 2021



## Key Findings

Employer demand grew to 382,804 postings, especially in the Customer Service, Business and Finance, and Skilled Trades occupation groups.

### Registered Nurses

the highest demand in Q4 with 16,070 postings.

Q4 Labor Force totaled

**2,997,528**

a gain of 19,463 individuals (0.7 percent) from Q3.

Q4 saw a 3.6 percent (11,096 post) increase in job postings from Q3 in the 19-county WIN region. Likewise, the majority of occupation groups (9) saw a similar increase in demand, with only two experiencing a minimal decrease from Q3 to Q4.

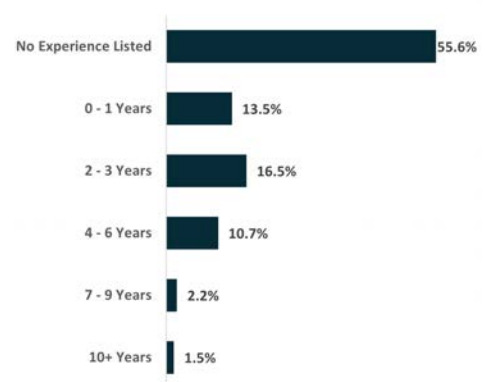
The specific occupation most in-demand was Registered Nurses with 16,070 postings. This occupation typically requires a bachelor's degree as a barrier to entry. However, many postings in Q4 were open to entry-level workers, accounting for 22.6 percent of total postings in southeast Michigan. Customer Service occupations saw the greatest aggregate demand at 114,637 postings, with Retail Salesperson being the most in-demand occupation with 13,260 postings, followed by Customer Service Representatives with 9,448 postings.

For more information about quarterly job postings, see page 9.

### Posting Trends by Occupation Group Q4 2021



### Experience Levels In-Demand Q4 2021



The labor market continues to show recovery into Q4 with employment increasing by 1.3 percent (36,824 individuals) from Q3 and the percent of unemployed individuals decreasing by 11.8 percent (17,361 individuals). The unemployment rate also decreased by 0.6 percentage points from 4.9 percent to 4.3 percent between Q3 and Q4. Southeast Michigan experienced an increase in total labor force by 0.7 percent (19,463 individuals) between Q3 and Q4, accounting for a total Q4 labor force amounting to 2,997,528 individuals, and employment of 2,868,100 individuals. More information about this year's unemployment rate and other labor market indicators is available through page four.

### Quarterly Labor Market Data

	4th Quarter 2020	1st Quarter 2021	2nd Quarter 2021	3rd Quarter 2021	4th Quarter 2021	Change 3rd Quarter 2021	Percent Change from 3rd Quarter 2021	Change from 4th Quarter 2021	Percent Change from 4th Quarter 2021
Labor Force	3,048,477	2,906,907	2,921,033	2,978,065	2,997,528	19,463	0.7%	-50,949	-1.7%
Employment	2,786,514	2,759,757	2,780,975	2,831,276	2,868,100	36,824	1.3%	81,586	2.9%
Unemployment	261,963	147,150	140,058	146,789	129,428	-17,361	-11.8%	-132,535	-50.6%
Unemployment Rate	8.6%	5.1%	4.8%	4.9%	4.3%	-0.6%	n/a	-4.3%	n/a

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

Data: Emsi | Analysis: Workforce Intelligence Network



# LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

The labor market indicators in southeast Michigan continued to show improvement into Q4, particularly the 5.6% drop in unemployment, which is equal to a decrease of 172,975 unemployed individuals and an increase of 79,457 employed individuals. The labor force participation rate is noteworthy, as it has decreased by 93,518 individuals during that same time frame.

## Labor Force, Employment, Unemployment Rate 2011-2021

	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 Annual	2021 Annual	Change from 2020	Percent Change from 2020
Labor Force	2,913,986	2,913,354	2,952,257	2,951,980	2,944,280	3,013,584	3,049,365	3,067,080	3,102,675	3,027,388	2,933,870	-93,518	-3.1%
Employment	2,606,971	2,642,847	2,682,912	2,725,155	2,773,062	2,849,059	2,897,941	2,923,080	2,959,289	2,717,214	2,796,671	79,457	2.9%
Unemployment	310,982	276,258	271,334	228,797	171,877	160,764	145,179	137,279	136,409	310,174	137,199	-172,975	-55.8%
Unemployment Rate	10.7%	9.5%	9.2%	7.8%	5.8%	5.3%	4.8%	4.5%	4.4%	10.2%	4.7%	-5.6%	n/a

Data: Bureau of Labor Statistics

## CENSUS 2020 LABOR FORCE DEMOGRAPHICS

As the most current census year, 2020 data indicated a labor force of 3,116,577 individuals in southeast Michigan. The labor force is defined as individuals who are either working or looking for work. In Q4, employed individuals in southeast Michigan accounted for slightly less than half of the populations (46.9%), at 2,918,637 individuals. The highest unemployment rates were experienced by those aged 24 years or younger, with males making up a slightly higher percentage of the total unemployment rate in every age group. Asian workers experienced the lowest unemployment rate at 4.4%, while Black/African-American workers experienced the highest rate of unemployment at 14.9%.

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
<b>Total Population 16 +</b>	3,116,577	2,918,637	197,940	6.4%
<b>Sex</b>				
Male 16+	1,623,443	1,515,228	108,215	6.7%
16-19	67,168	52,905	14,263	21.2%
20-24	164,173	144,609	19,564	11.9%
25-54	1,022,463	965,404	57,059	5.6%
55-64	281,665	268,361	13,304	4.7%
65 Plus	87,974	83,949	4,025	4.6%
Female 16+	1,493,134	1,403,409	89,725	6.0%
16-19	70,792	59,240	11,552	16.3%
20-24	160,491	143,144	17,347	10.8%
25-54	925,215	876,667	48,548	5.2%
55-64	260,866	251,407	9,459	3.6%
65 Plus	75,770	72,951	2,819	3.7%
<b>Race</b>				
White	2,319,399	2,204,238	115,161	5.2%
Black / African American	527,878	459,583	68,295	14.9%
Native American	8,687	8,078	609	7.5%
Asian	136,873	131,166	5,708	4.4%
Native Hawaiian / Pacific Islander	959	916	43	4.7%
Some Other Race	33,317	30,518	2,799	9.2%
Two or More Races	92,583	83,566	9,017	10.8%
<b>Ethnicity</b>				
Hispanic	138,445	127,623	10,822	8.5%

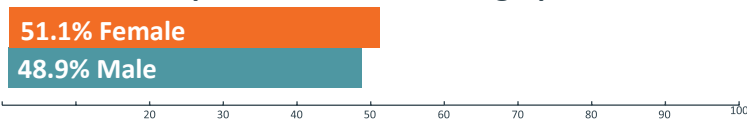
Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

# POPULATION DEMOGRAPHICS

## 2020 Census Population

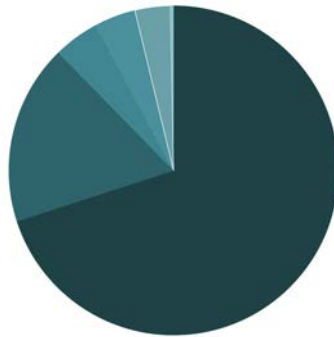
According to data from the Census Bureau 2020 ACS Five Year estimates, the population in southeast Michigan decreased by 3,933 individuals between 2019 and 2020. During 2020, 6,217,483 people were living in the 19-county WIN region. The sex of the populace was split almost evenly, with 51.1 percent of the population identifying as female and the other 48.9 percent identifying as male. Most of the population identified as White (69.2 percent) with the second largest number of individuals identifying as Black or African American (17.5 percent). The region's population is spread most prominently across the older age groups, with 38.4 percent aged 25-54, 30.4 percent over the age of 54, and only 31.2 percent aged 24 or under.

### Population Gender Demographics



### Population Race Demographics

- White, 69.2%
- Black or African American, 17.5%
- Hispanic or Latino, 4.5%
- Asian, 4.0%
- Two or More Races, 3.4%
- American Indian or Alaska Native, 0.3%
- Native Hawaiian or Other Pacific Islander, 0.03%



### Population Age Demographics

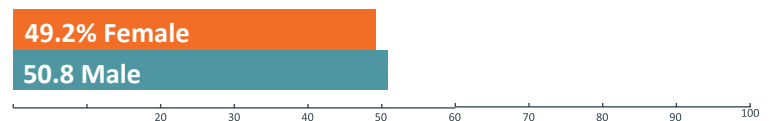


Data: American Community Survey 5-Year Estimates | Analysis: Workforce Intelligence Network

## 2021 Workforce

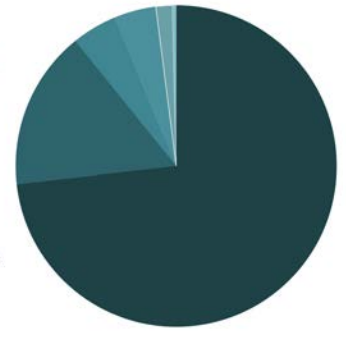
Census Bureau data lags by approximately two years, while Emsi uses predictive modeling to estimate workforce information for the previous year, allowing for more current analysis. In 2021, there were a total of 2,530,291 individuals working in the WIN region, with the labor force demographics closely aligning to the state's general population. Males made up 50.8 percent of the workforce (1,292,800 workers); the majority of workers in the region were white, accounting for 73.2 percent of the workforce, while African American or Black workers accounted for 16.0 percent of the workforce; Hispanic or Latino individuals accounted for 4.5 percent, slightly higher than Asians at 4% of the total workforce. Only 13.3 percent of workers were under the age of 25, compared to 23.0 percent over the age of 55, indicating an aging workforce in southeast Michigan.

### Workforce Gender Demographics



### Workforce Race and Ethnicity Demographics

- White, 73.2%
- Black or African American, 16.0%
- Hispanic or Latino, 4.5%
- Asian, 4.3%
- Two or More Races, 1.6%
- American Indian or Alaska Native, 0.3%
- Native Hawaiian or Other Pacific Islander, 0.03%



### Workforce Age Demographics

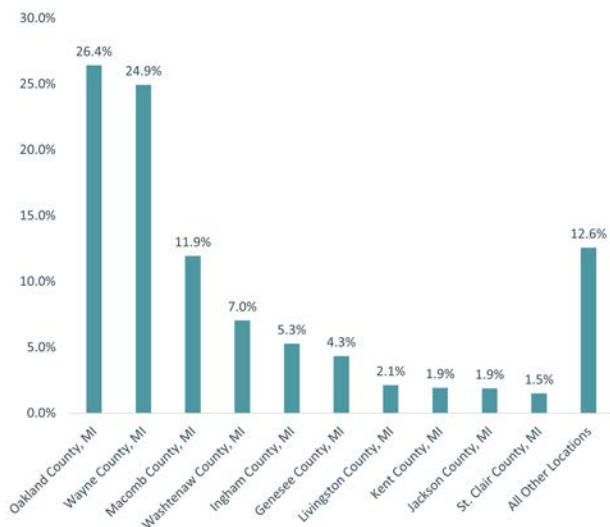


Data: Emsi | Analysis: Workforce Intelligence Network

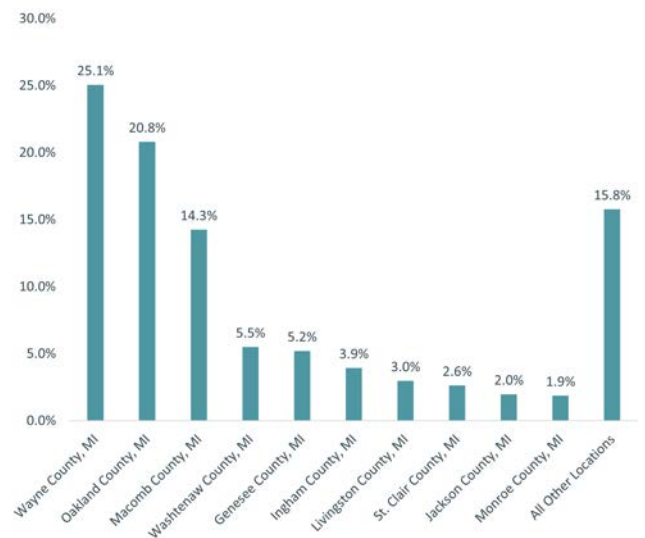
# REGIONAL COMMUTING PATTERNS

According to the most recent Census Bureau OnTheMap data set, in 2019 the region's workforce consisted of 2,591,658 workers, with 92.2 percent (2,390,564 individuals) living and working inside the region while the remaining 7.8 percent (201,094 individual) traveled outside of the region for work. Employed workers totaled 2,588,567, with 7.6 percent (198,003 workers) living outside of the region and commuting in. The majority of the WIN Region workforce lives and works within the 19 counties with a nearly equal percentage of workers commuting in for work as commute out.

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: 60,341 Postings
2. Lansing: 25,229 Postings
3. Ann Arbor: 24,891 Postings
4. Troy: 18,120 Posting
5. Warren: 14,633 Postings
6. Dearborn: 14,224 Postings
7. Southfield: 13,178 Postings
8. Livonia: 11,892 Postings
9. Novi: 10,392 Postings
10. Farmington: 9,503 Postings

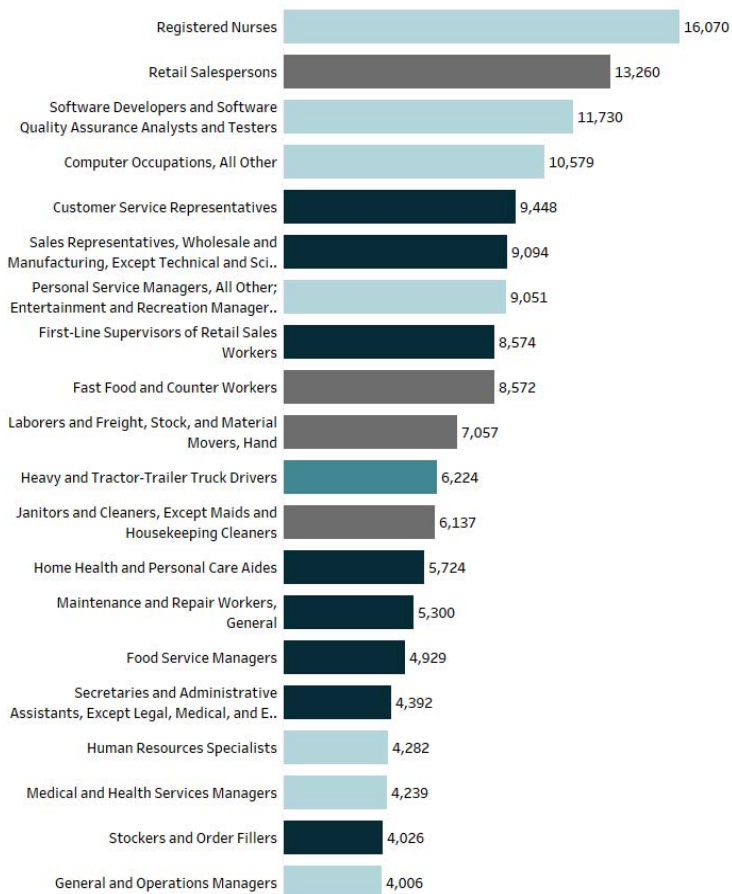




## TOP POSTED JOBS

### Top Posted Jobs

Registered Nurses, which requires a bachelor's degree for entry, is the top posted occupation for Q4, with 16,070 unique online job postings. Retail Salespersons (13,260 postings) and Software Developers and Software Quality Assurance Analysts and Testers (11,730 postings) round out the top three in-demand occupations. Retail positions typically require no formal education or credential, while software positions often require short-term on-the-job training and a bachelor's degree for entry. The majority of Q4 in-demand jobs do not maintain a formal education requirement, opting instead for a high school diploma or equivalent coupled with short-term on-the-job training.

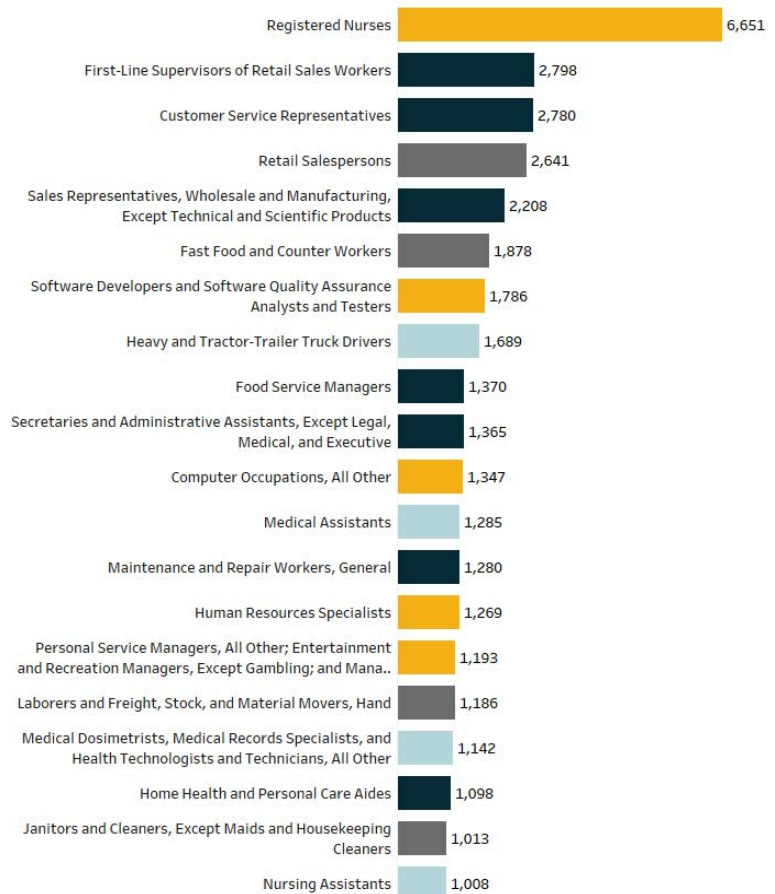


#### Typical Entry Education

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

### Top Posted Entry-Level Jobs

Entry-level jobs, which usually require zero to two years of previous experience, account for 22.6 percent of the Q4 postings in the WIN region. The top posted entry-level occupation was Registered Nurses (6,551 postings that required a bachelor's degree). However, those who enter the workforce with a high school diploma or equivalent are heavily demanded among many of the top ten occupations, with this minimal requirement accounting for 40.0 percent of entry-level postings. First-Line Supervisors of Retail Sales Workers (2,798) was the second highest on the list, with Customer Service Representatives (2,780) and Retail Salespersons (2,641) coming in third and fourth, respectively.



#### Typical Entry Education

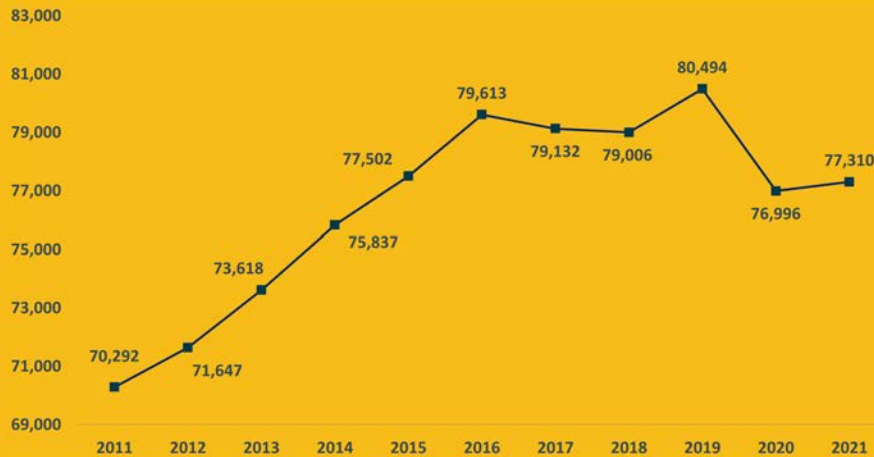
- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree



# AGRICULTURE OCCUPATION GROUP

WIN's Agriculture Occupation Group requires skill sets that include farming, livestock, the environment, and natural sciences. Occupations range from Farm Workers, Environmental Engineers, Meat Butchers, or Recreation Workers. Year over year, there are approximately 10,700 openings dedicated to these positions in Southeast Michigan.

Employment Over Time  
2011-2021



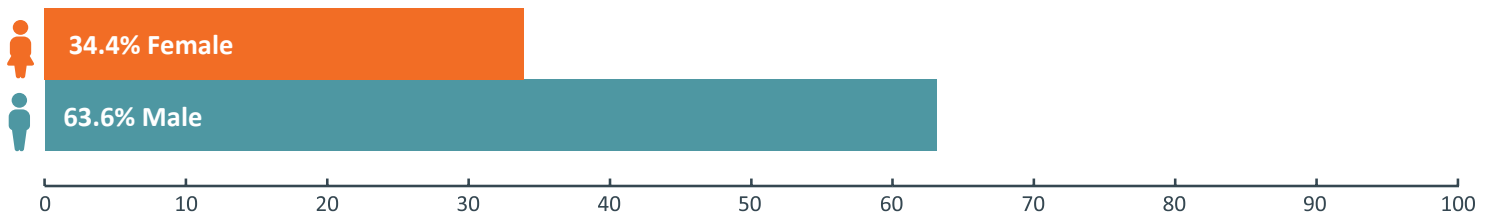
**314**  
**Agriculture**  
**Workers**  
**0.4% Increase**  
**from 2020**



## Agriculture Worker Demographics

According to 2021 Emsi data, the 77,310 workers in agricultural occupations present an opportunity in diversity. A large majority of workers are male (63.6 percent) between the ages of 25 and 54 (63.8 percent). Only 36.4 percent of agriculture workers identify as women, while 13.3 percent of workers were under the age of 25, compared to 23.0 percent of workers who are age 55 or older.

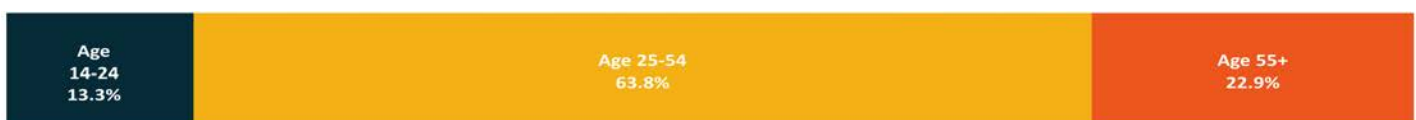
### Worker Gender Demographics



### Race and Ethnicity Demographics

**76.5% White** | **1.4% Black or African-American** | **7.0% Hispanic or Latino**

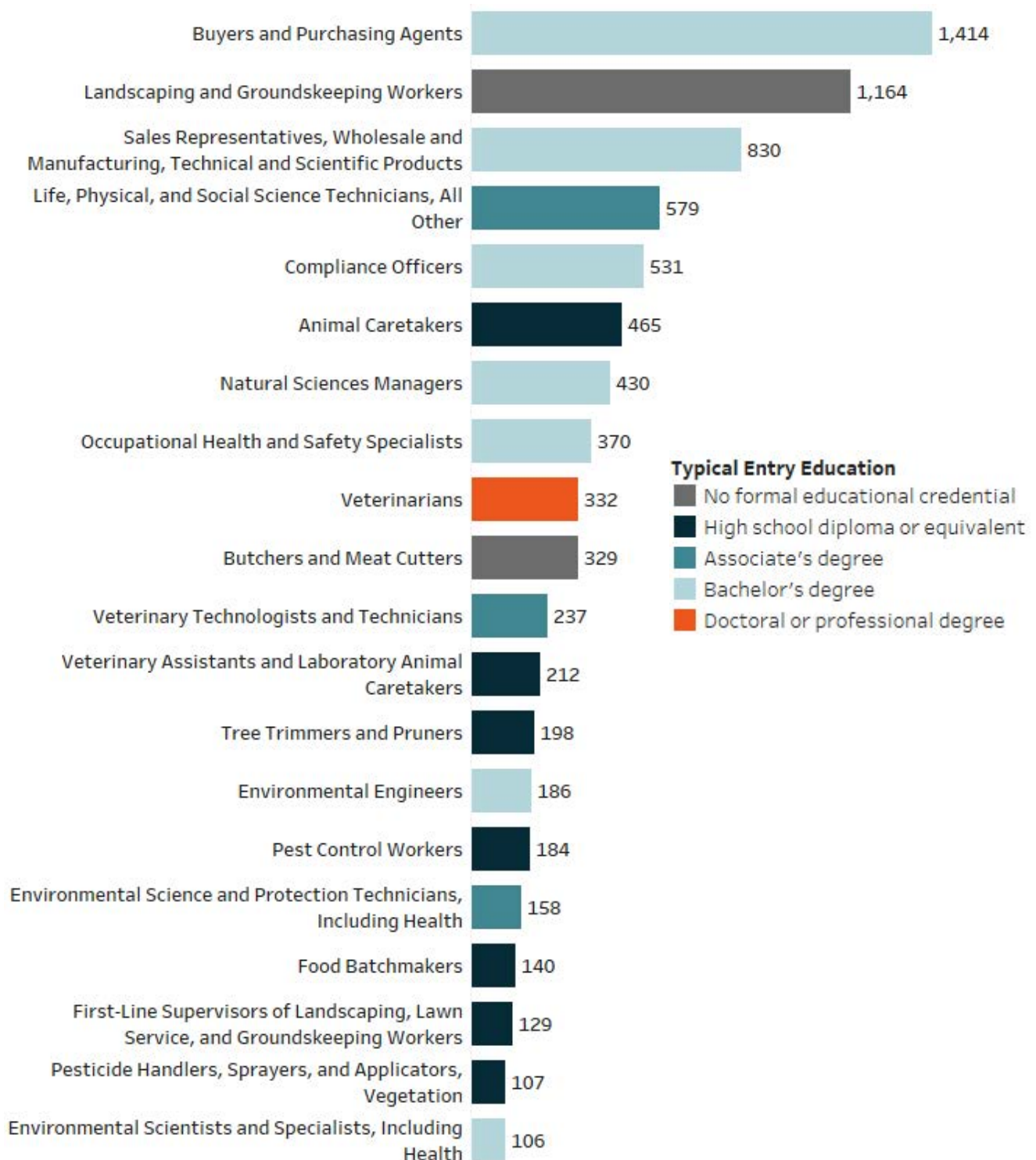
### Worker Age Demographics



# AGRICULTURE OCCUPATION GROUP

## Top Posted Jobs

Agricultural position job postings totaled 9,173 during Q4. The most in-demand agricultural occupation was Buyers and Purchasing with 1,414 postings. Landscaping and Groundskeeping Workers (1,164) and Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (830) were also in high demand. Other top posted occupations included Life, Physical, and Social Science Technicians, All Other (579), and Compliance Officers (531).



# AGRICULTURE OCCUPATION GROUP

## Wage Overview

With agriculture wages varying widely with education and experience, six of the top ten agriculture-related jobs in Q4 offer median wages of more than \$30.00 per hour. The highest posted job, Buyers and Purchasing Agents, offers a median hourly wage of \$32.94, which translates to annual earnings of approximately \$68,515. With such a broad array of skill sets represented, agriculture occupation wage scales flex according to education and experience.

### Wage Overview for Top Posted Agriculture Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
13-1028	Buyers and Purchasing Agents	\$20.14	\$25.22	\$32.94	\$43.27	\$53.48
37-3011	Landscaping and Groundskeeping Workers	\$11.09	\$12.77	\$15.17	\$18.51	\$22.13
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$26.09	\$35.37	\$51.26	\$69.41	\$84.06
19-4099	Life, Physical, and Social Science Technicians, All Other	\$13.50	\$16.21	\$19.37	\$25.04	\$30.93
13-1041	Compliance Officers	\$19.70	\$26.90	\$35.74	\$46.25	\$51.14
39-2021	Animal Caretakers	\$10.02	\$10.70	\$11.80	\$13.82	\$16.54
11-9121	Natural Sciences Managers	\$32.48	\$45.68	\$56.59	\$73.22	\$93.13
19-5011	Occupational Health and Safety Specialists	\$23.06	\$28.19	\$36.37	\$45.53	\$53.52
29-1131	Veterinarians	\$31.70	\$36.78	\$45.97	\$58.67	\$74.59
51-3021	Butchers and Meat Cutters	\$10.38	\$11.66	\$14.92	\$18.42	\$21.82

### In-Demand Technical Skills

- Purchasing
- Auditing
- Procurement
- Landscaping
- Trimming

### In-Demand Foundational Skills

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

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 26.7%
- Associate Degree: 7.4%
- Bachelor's Degree: 30.9%
- Master's Degree: 6.6%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- PetCo
- University Of Michigan
- Banfield Pet Hospital
- The Davey Tree Expert Company
- PetSmart
- Kroger
- General Dynamics
- Brilar
- Merck
- Meijer

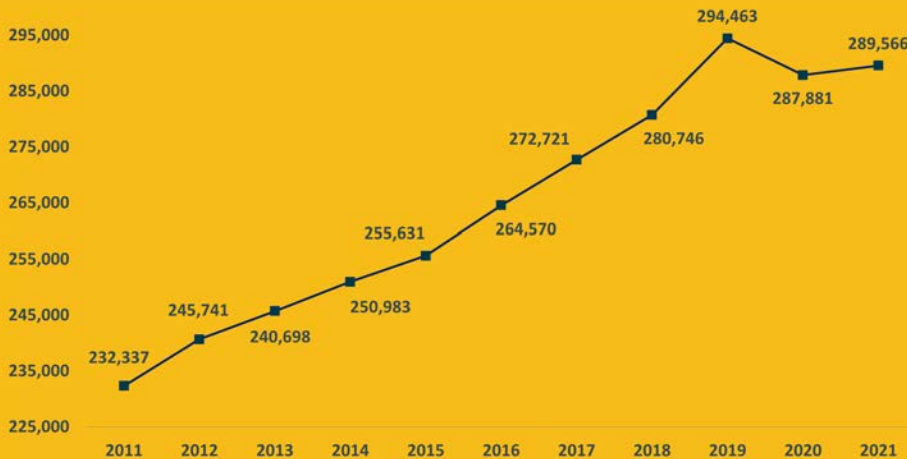
### Job Postings by City

1. Detroit: 1,372 Posting
2. Ann Arbor: 734 Posting
3. Lansing: 646 Posting
4. Troy: 340 Posting
5. Southfield: 309 Posting
6. Auburn Hills: 293 Posting
7. Livonia: 284 Posting
8. Warren: 278 Posting
9. Farmington: 233 Posting
10. Novi: 223 Posting

# BUSINESS AND FINANCE OCCUPATION GROUP

Occupations in the Business and Finance Group can be found in nearly every type of employer establishment throughout the region. These workers require 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 approximately 21,000 job openings annually.

Employment Over Time  
2011-2021



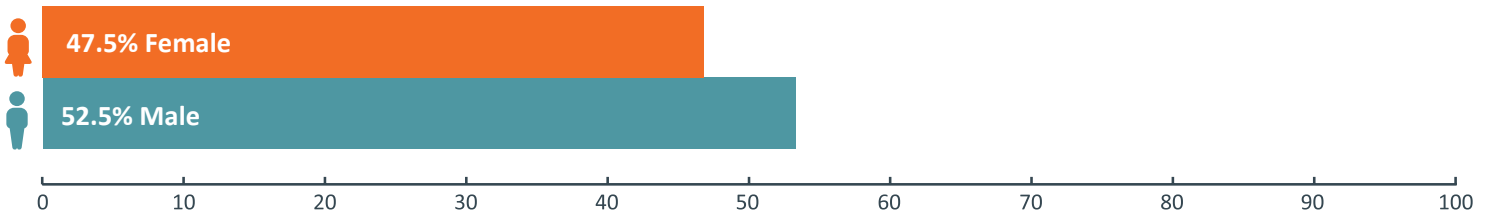
**1,685 Business and Finance Workers**  
**0.6% Increase from 2020**



## Business and Finance Worker Demographics

The Business and Finance Occupation Group workforce consists of 289,566 individuals. While almost half the workers identify as female (47.5 percent), 80.5 percent of workers identified as white, indicating an opportunity for racial diversity. 4.6 percent of the workers in this occupation group are under the age of 25, compared to 24.8 percent aged 55 and older. The difference in age groups is common among occupations that maintain a bachelor's degree entry-level requirement and is also indicative of the region's aging labor force.

### Worker Gender Demographics



### Race and Ethnicity Demographics

**80.5% White** | **10.8% Black or African-American** | **4.2% Asian**

### Worker Age Demographics

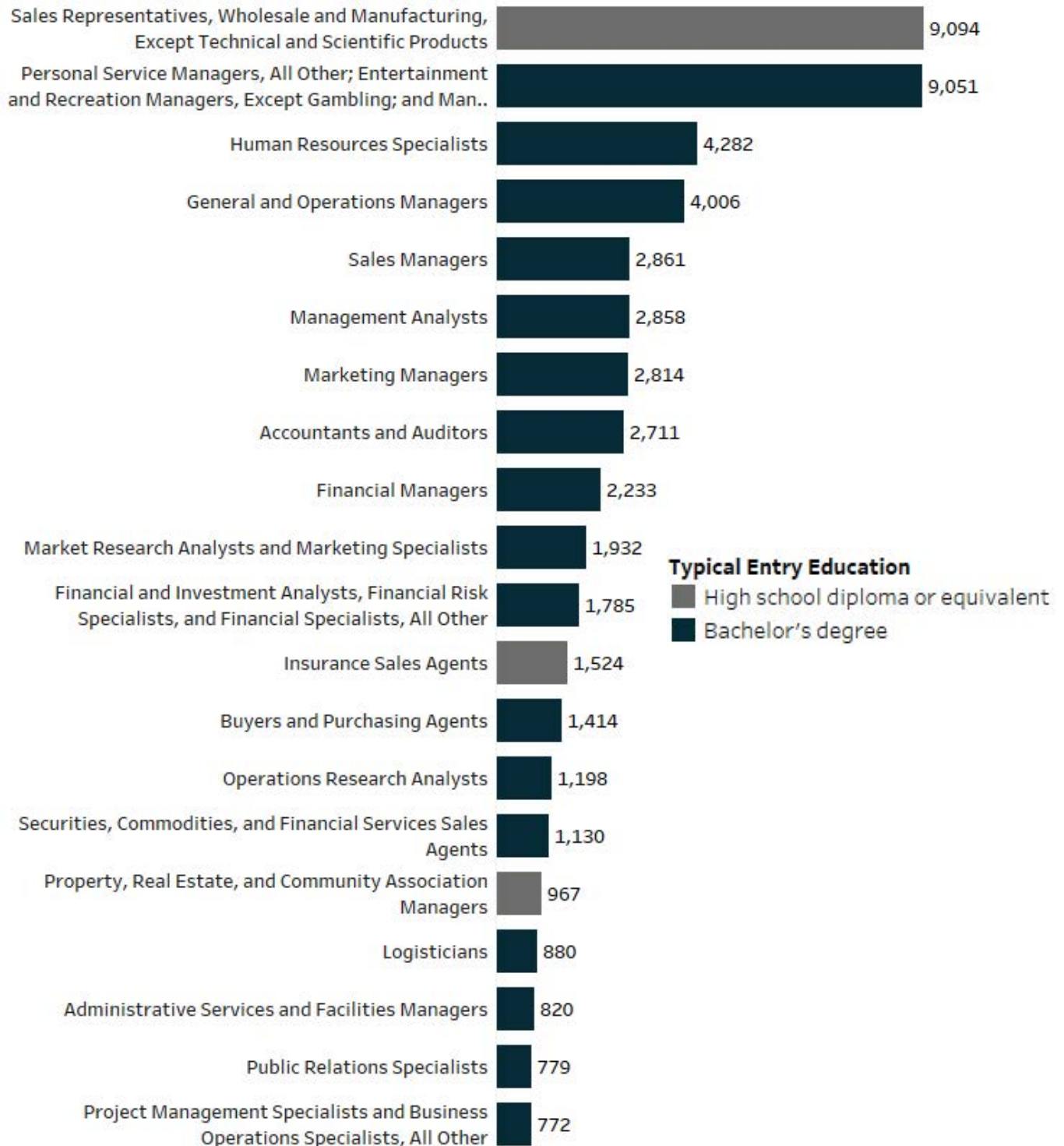




# BUSINESS AND FINANCE OCCUPATION GROUP

## Top Posted Jobs

There were 59,897 Business and Finance Occupation Group postings during Q4. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products is the top in-demand occupation with 9,094 postings. Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other (9,051) is the second-highest in-demand, while Human Resources Specialists (4,282), General and Operations Managers (4,006), and Sales Managers (2,861) round out the list of top in-demand occupations from this group.



# BUSINESS AND FINANCE OCCUPATION GROUP

## Wage Overview

The majority of business- and finance-related jobs offer high wages, providing a lucrative opportunity for job seekers who are able to attain the necessary education. The top posted job, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, offers a median hourly wage of \$32.15, equating to approximately \$66,873 annually. Most of the top in-demand business occupations maintain an entry-level requirement of a bachelor's degree, and, with the exception of Human Resource Specialists, offer a median wage of greater than \$35.00 per hour.

### Wage Overview for Top Posted Business and Finance Jobs in Q4 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	\$14.63	\$20.62	\$32.15	\$47.92	\$64.47
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$29.42	\$40.41	\$54.50	\$69.21	\$86.46
13-1071	Human Resources Specialists	\$17.67	\$22.49	\$29.57	\$38.30	\$48.22
11-1021	General and Operations Managers	\$21.31	\$32.58	\$52.19	\$79.79	\$110.79
11-2022	Sales Managers	\$37.72	\$51.73	\$68.23	\$85.80	\$122.23
13-1111	Management Analysts	\$26.50	\$32.87	\$41.70	\$52.99	\$66.99
11-2021	Marketing Managers	\$35.69	\$48.60	\$64.32	\$81.31	\$110.19
13-2011	Accountants and Auditors	\$22.33	\$27.19	\$34.46	\$44.56	\$57.46
11-3031	Financial Managers	\$38.50	\$47.69	\$62.00	\$79.74	\$113.51
13-1161	Market Research Analysts and Marketing Specialists	\$17.88	\$23.76	\$32.47	\$46.15	\$59.13

### In-Demand Technical Skills

- Finance
- Accounting
- Auditing
- Selling Techniques
- Customer Relationship Management

### In-Demand Foundational Skills

- Communications
- Management
- Sales
- Leadership
- Customer Service

### In-Demand Certifications

- Certified 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: 18.2%
- Associate Degree: 6.5%
- Bachelor's Degree: 52.7%
- Master's Degree: 10.1%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

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

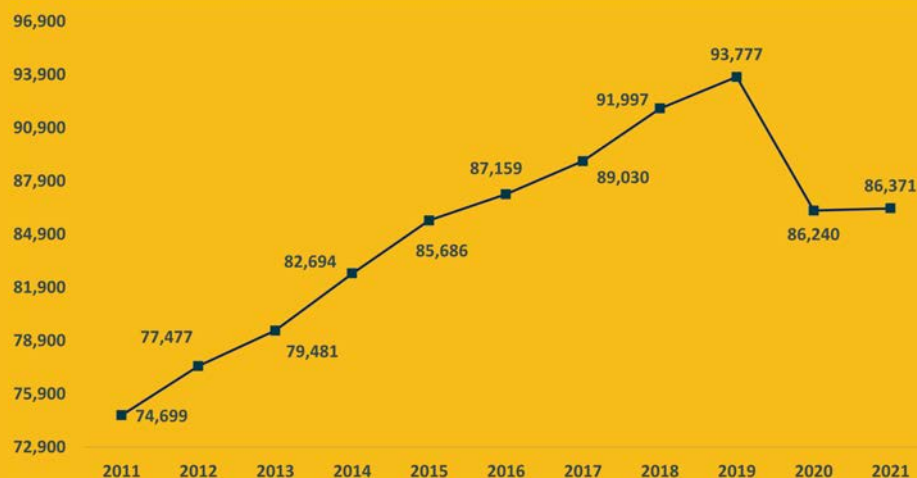
### Job Postings by City

1. Detroit: 13,653 Postings
2. Lansing: 5,912 Postings
3. Ann Arbor: 4,303 Postings
4. Troy: 3,812 Postings
5. Southfield: 2,669 Postings
6. Dearborn: 2,144 Postings
7. Warren: 1,791 Postings
8. Livonia: 1,768 Postings
9. Auburn Hills: 1,675 Postings
10. Farmington: 1,611 Postings

# CONSTRUCTION OCCUPATION GROUP

Jobs in the WIN Construction Occupation Group are associated with skilled trades, engineering, management, and planning. As many construction employers are slowly adapting their recruitment process to include online methods, the number of online job postings may not accurately depict employer need. Regardless, there are approximately 14,000 annual job openings for these occupations in the WIN region, a notable source of employment for southeast Michigan.

Employment Over Time  
2011-2021



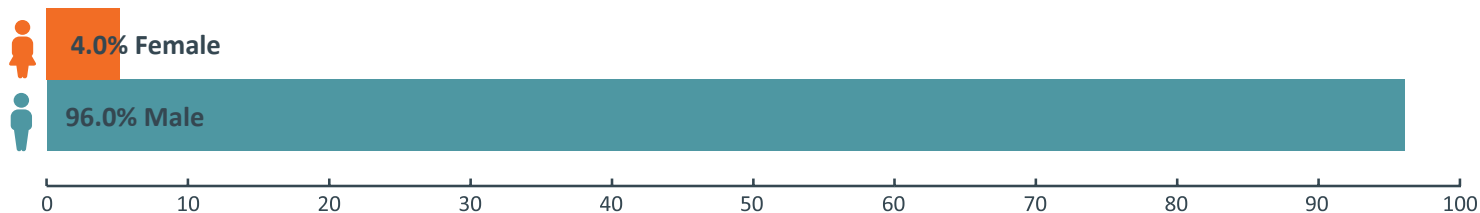
**131**  
**Construction**  
**Workers**  
**0.2%**  
**Increase**  
**from 2020**



## Construction Worker Demographics

The Construction Occupation Group is not diverse, despite a workforce of over 86,371 individuals. Males dominate the majority at 96.0 percent and are typically between the ages of 25 and 54 (69.0 percent). Only 4.0 percent of workers identified as female, while 16.6 percent identified as a race other than White. Workers under the age of 25 accounted for 11.0 percent of workers, while those age 55 and older accounted for 20.0 percent.

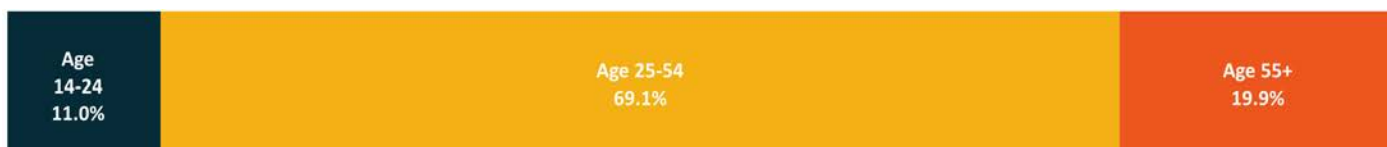
### Worker Gender Demographics



### Race and Ethnicity Demographics

**83.4% White** | **87.1% Hispanic or Latino** | **6.9% Black or African-American**

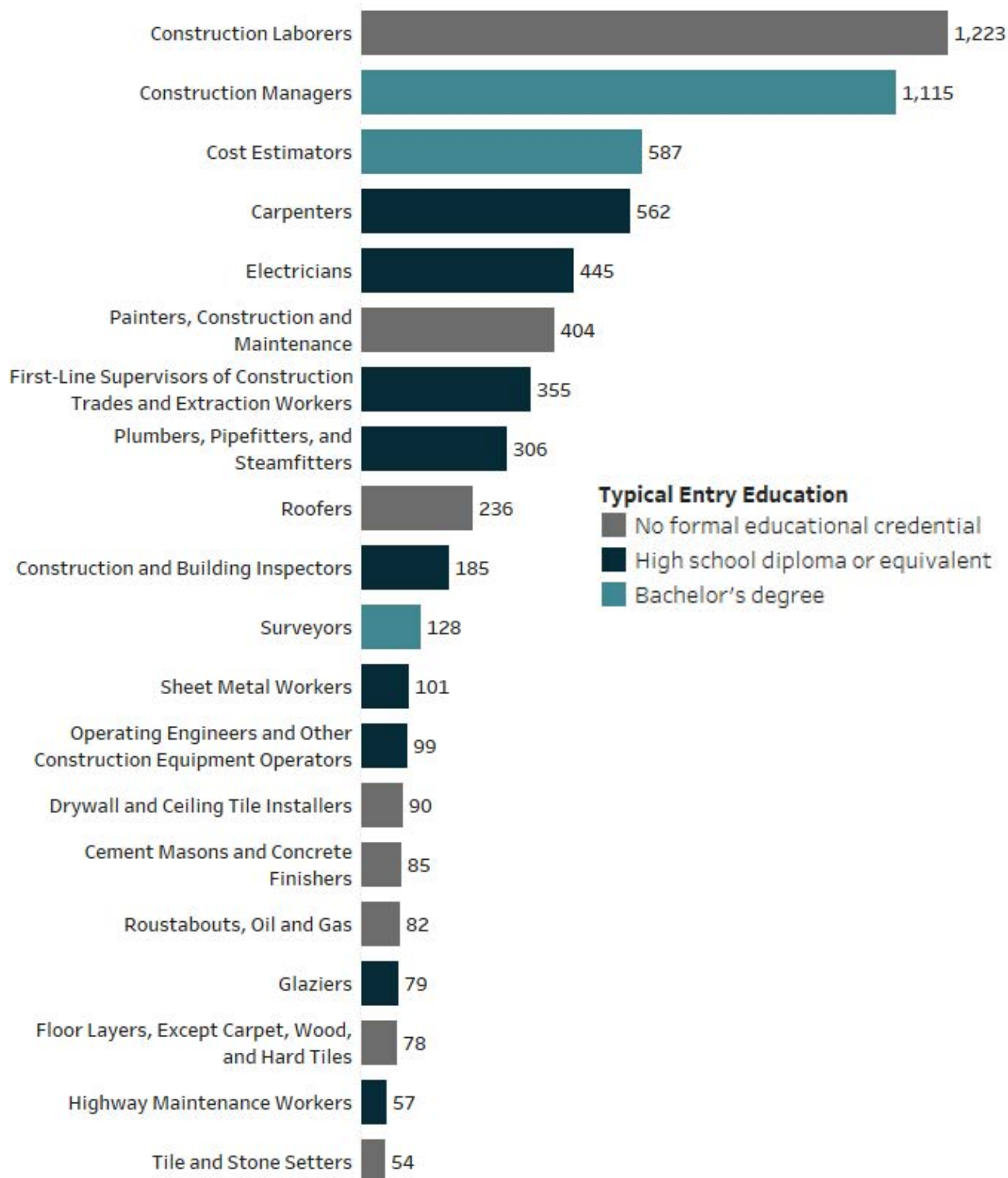
### Worker Age Demographics



# CONSTRUCTION OCCUPATION GROUP

## Top Posted Jobs

The Construction Occupation Group accounted for 6,729 postings in Q4, an increase in demand over Q3, which had 5,892 postings. Construction Laborers is the top posted occupation with 1,223 postings. Other top posted occupations include Construction Managers (1,115), Cost Estimators (587), Carpenters (562), and Electricians (445).





# CONSTRUCTION OCCUPATION GROUP

## Wage Overview

The top posted construction job, Construction Laborers, offers a median wage of \$20.03 per hour, equaling \$41,667 annually. Apprentice-able occupations tend to maintain a high wage potential, such as Plumbers, Pipefitters, and Steamfitters (306 postings), which boasts a median wage of \$35.29 per hour or \$73,414 annually.

## Wage Overview for Top Posted Construction Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
47-2061	Construction Laborers	\$13.35	\$15.89	\$20.03	\$24.86	\$29.78
11-9021	Construction Managers	\$32.19	\$39.09	\$51.65	\$65.16	\$82.77
13-1051	Cost Estimators	\$18.70	\$23.67	\$31.17	\$41.09	\$53.04
47-2031	Carpenters	\$15.08	\$18.13	\$24.75	\$31.32	\$36.68
47-2111	Electricians	\$17.79	\$24.06	\$32.93	\$39.27	\$47.22
47-2141	Painters, Construction and Maintenance	\$14.31	\$16.74	\$21.18	\$28.00	\$31.69
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$21.85	\$27.73	\$35.96	\$44.94	\$52.68
47-2152	Plumbers, Pipefitters, and Steamfitters	\$16.16	\$24.29	\$35.29	\$41.46	\$47.46
47-2181	Roofers	\$16.67	\$19.62	\$24.74	\$33.13	\$39.12
47-4011	Construction and Building Inspectors	\$13.74	\$17.53	\$25.93	\$31.39	\$37.01

### In-Demand Technical Skills

- Construction
- Carpentry
- Subcontracting
- Construction Management
- Painting

### In-Demand Foundational Skills

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

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 24.8%
- Associate Degree: 5.1%
- Bachelor's Degree: 13.2%
- Master's Degree: 1.5%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- GPAC
- Michael Page
- Tradesmen International
- Amcomm Telecommunications
- Aerotek
- Michaels
- Actalent
- Walbridge Aldinger
- Sentech Services
- CDM Smith

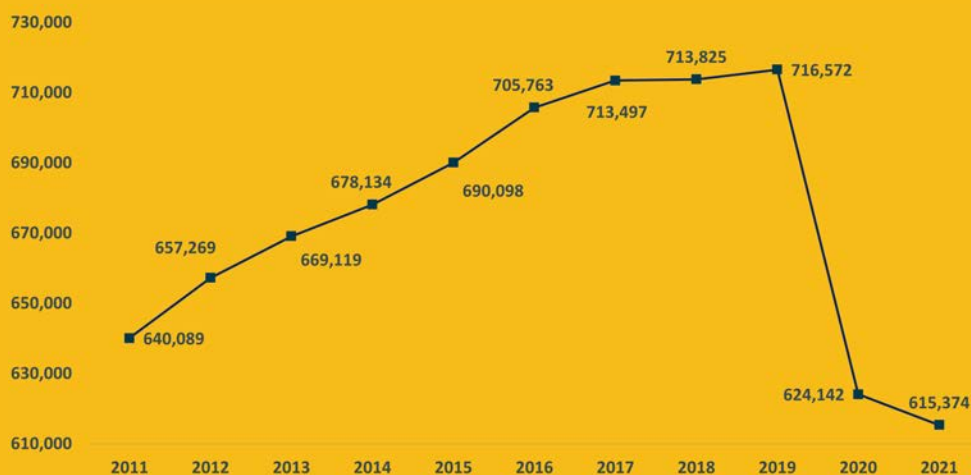
### Job Postings by City

1. MDTetroit: 1,210 Postings
2. Lansing: 382 Postings
3. Ann Arbor: 327 Postings
4. Livonia: 305 Postings
5. Warren: 283 Postings
6. Sterling Heights: 179 Postings
7. Novi: 177 Postings
8. Troy: 169 Postings
9. Flint: 167 Postings
10. Farmington: 155 Postings

# CUSTOMER SERVICE OCCUPATION GROUP

The Customer Service Occupation Group encompasses all customer service occupations, with skills transferable across the retail sector, hotel industry, food and beverage service industry, call centers, and other areas. This group maintains a larger presence than any other occupation group that WIN analyzes, both in terms of employment and online job postings. The Customer Service Occupation Group is typically a leading economic indicator, being the first to grow when the economy expands and the first to contract in a downturn.

Employment Over Time  
2011-2021

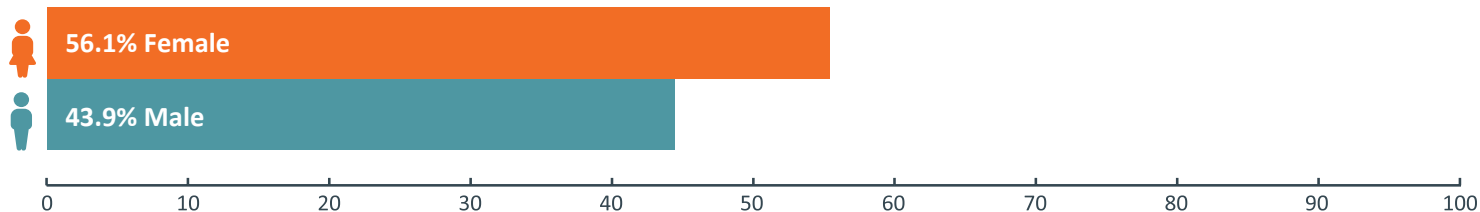


**8,768 Customer  
Service Workers**  
**1.4% Decrease  
from 2020**

## Customer Service Worker Demographics

615,374 workers made up the Q4 Customer Service Occupation Group, with a more diverse workforce than the other groups analyzed: 56.1 percent of workers identified as female, with 27.6 percent identifying as a racial minority. Approximately one-quarter of the customer service workers (24.3 percent) were under the age of 24, as compared to the 55 and older age group at 20.6 percent.

### Worker Gender Demographics



### Race and Ethnicity Demographics

**72.4% White** | **16.9% Black or African-American** | **5.0% Hispanic or Latino**

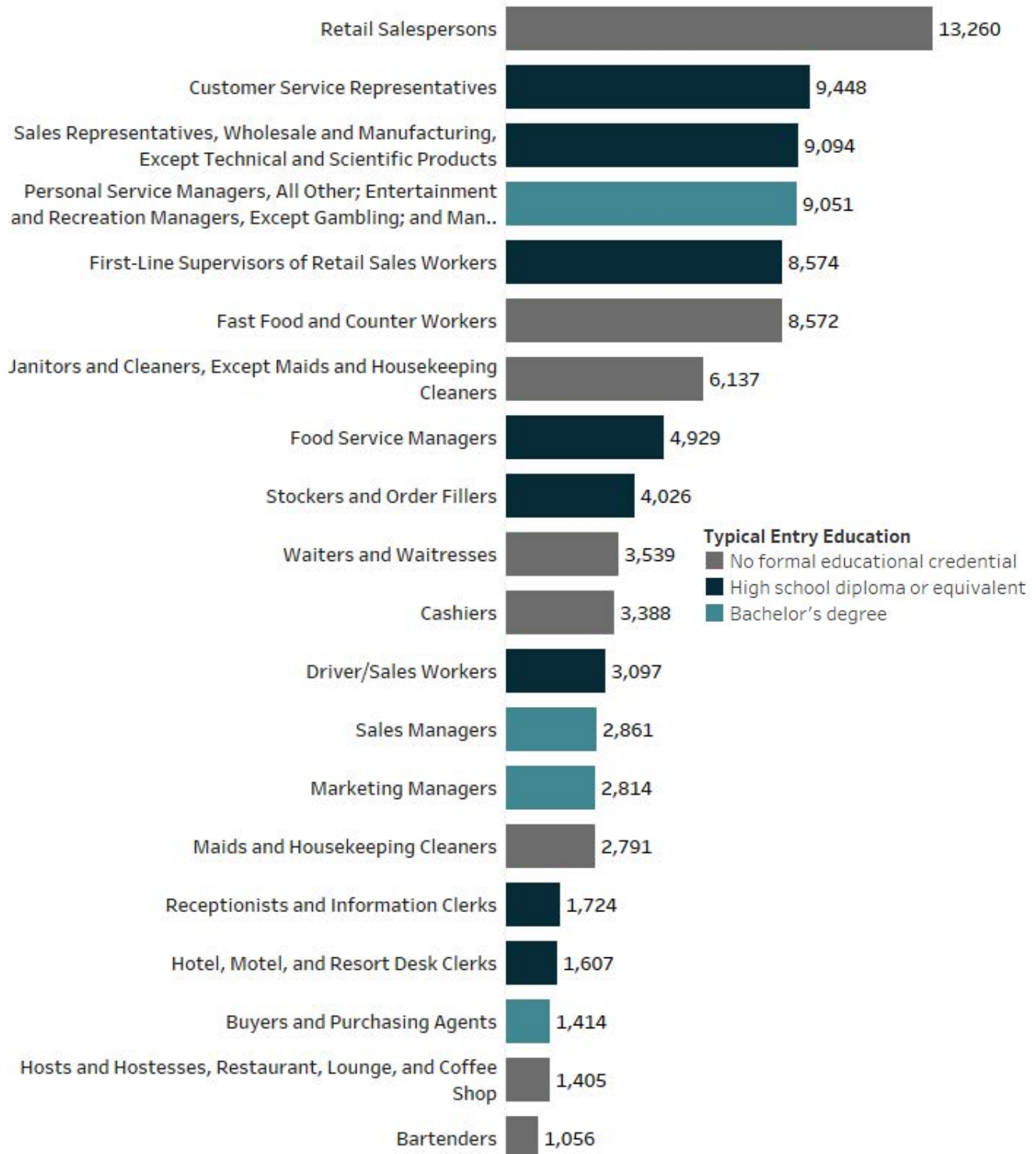
### Worker Age Demographics



# CUSTOMER SERVICE OCCUPATION GROUP

## Top Posted Jobs

The number of customer service jobs increased by 19,868 postings from Q3, topping out at 114,637 in Q4. Retail Salespersons was the highest in-demand customer service occupation with 13,260 postings. Other top posted jobs include Customer Service Representatives (9,448), Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (9,094), Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other (9,051), and First-Line Supervisors of Retail Sales Workers (8,574).



# CUSTOMER SERVICE OCCUPATION GROUP

## Wage Overview

Despite high demand for workers, most customer service-related occupations offer comparatively low wages. Only four of the top ten posted occupations report median hourly wages above the state median of \$18.60, many of which are management roles requiring both education and experience. The top posted occupation Q4, Retail Salespersons, earn a median hourly wage of \$12.66. Many of these positions require a high school diploma or equivalent, and offer on-the-job training for workers to gain additional experience with the potential to transition into managerial positions such as First-Line Supervisors of Retail Sales Workers, which has a median wage of \$19.20 per hour, equaling \$39,933 annually.

### Wage Overview for Top Posted Customer Service Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-2031	Retail Salespersons	\$10.18	\$11.09	\$12.66	\$16.01	\$22.39
43-4051	Customer Service Representatives	\$11.70	\$13.81	\$17.55	\$23.29	\$30.86
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.63	\$20.62	\$32.15	\$47.92	\$64.47
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$29.42	\$40.41	\$54.50	\$69.21	\$86.46
41-1011	First-Line Supervisors of Retail Sales Workers	\$12.61	\$15.29	\$19.20	\$26.13	\$35.41
35-3023	Fast Food and Counter Workers	\$9.99	\$10.31	\$11.13	\$12.21	\$13.95
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$10.29	\$11.29	\$13.03	\$16.28	\$19.59
11-9051	Food Service Managers	\$23.04	\$27.09	\$35.07	\$44.69	\$49.96
53-7065	Stockers and Order Fillers	\$10.57	\$11.85	\$14.14	\$18.09	\$24.52
35-3031	Waiters and Waitresses	\$9.78	\$10.10	\$11.02	\$12.86	\$16.97

### In-Demand Technical Skills

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

### In-Demand Foundational Skills

- Customer Service
- Sales
- Communications
- Management
- Leadership

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 33.7%
- Associate Degree: 5.0%
- Bachelor's Degree: 16.7%
- Master's Degree: 2.7%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- Meijer
- Lowe's
- Kroger
- Walmart
- Advantage Solutions
- Panera Bread
- McDonald's
- Applebee's
- Verizon Communications
- General Motors

### Job Postings by City

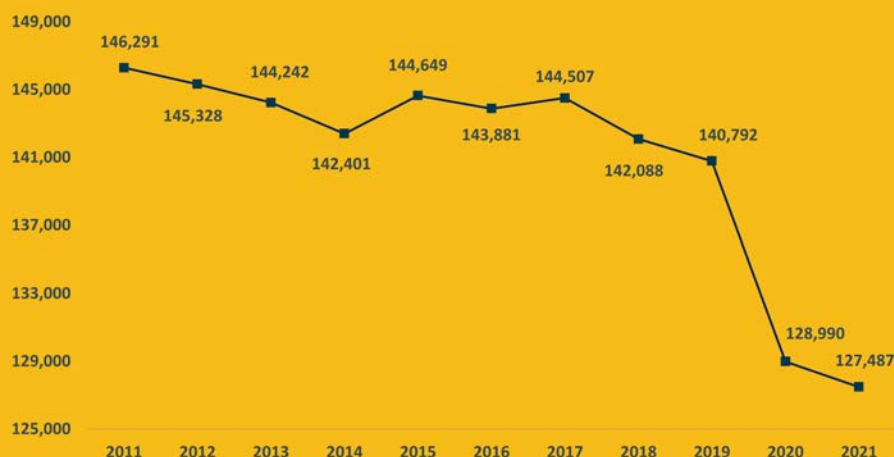
- Detroit: 13,951 Postings
- Ann Arbor: 6,554 Postings
- Lansing: 5,940 Postings
- Troy: 5,430 Postings
- Novi: 3,780 Postings
- Livonia: 3,346 Postings
- Southfield: 3,171 Postings
- Warren: 3,163 Postings
- Dearborn: 2,932 Postings
- Farmington: 2,669 Postings



## EDUCATION OCCUPATION GROUP

Education-related jobs can be found both in the private and public sectors, such as public schools, private schools, and training institutions. There are approximately 15,000 openings for these positions annually. As educators are the backbone of training for the future workforce, the Education Occupation Group has a wide array of skills and credentials that workers can earn, depending on the target age group and area of interest for the educator.

Employment Over Time  
2011-2021

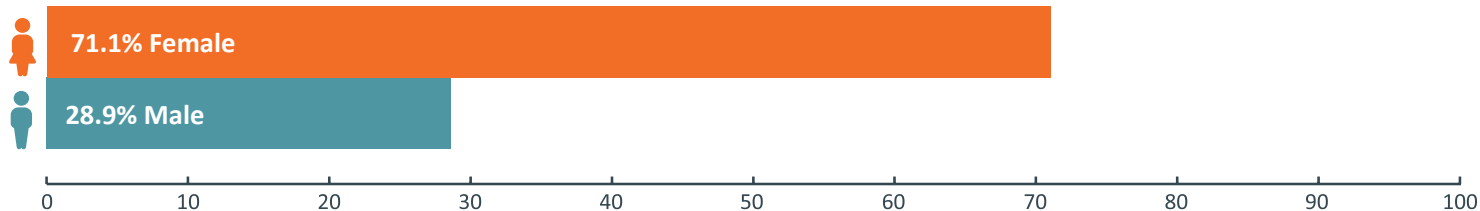


**1,503**  
**Education**  
**Workers**  
**1.2%**  
**Decrease**  
**from 2020**

### Education Worker Demographics

As educational institutions maintained the shift to distance and virtual learning, education-related jobs continued to experience a decline in Q4, with a total workforce numbering 127,487. This occupation is experiencing an opportunity in diversity, with the majority of workers identifying as White (80.1%), female (71.1 percent), and between the ages of 25 and 54 (66.3 percent). Males make up 28.9 percent of workers and only 19.9 percent of workers identify as a racial minority.

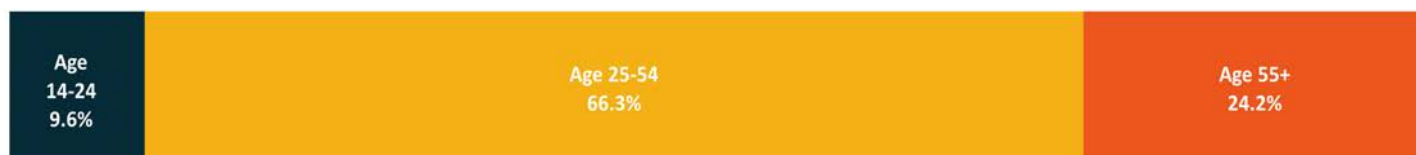
#### Worker Gender Demographics



#### Race and Ethnicity Demographics

**80.1% White** | **9.2% Black or African-American** | **5.1 % Asian**

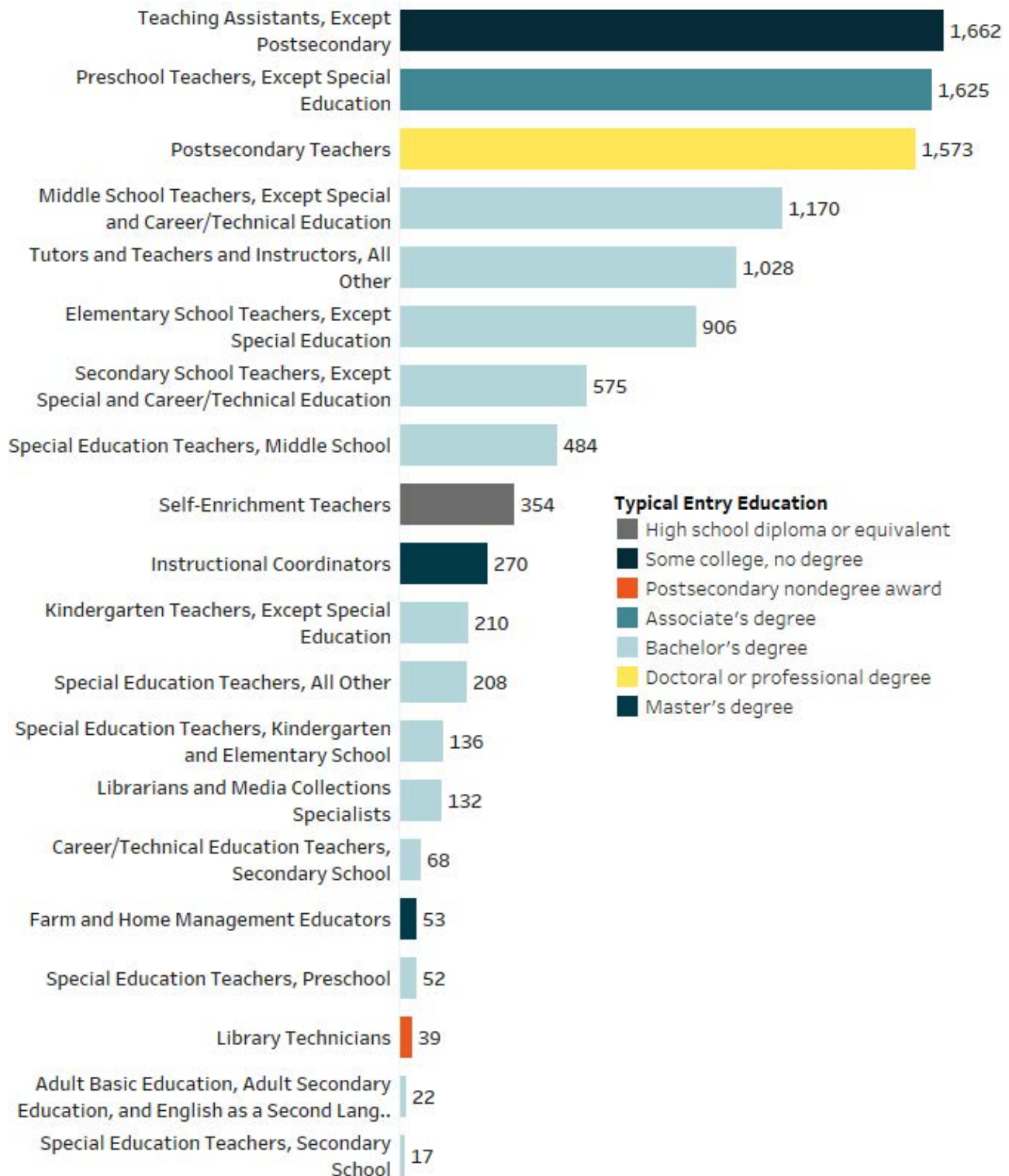
#### Worker Age Demographics



# EDUCATION OCCUPATION GROUP

## Top Posted Jobs

The Education Occupation Group accounted for a total of 10,634 job postings in Q4. Teaching Assistants, Except Postsecondary remained the highest in-demand education occupation with 1,662 postings. Preschool Teachers, Except Special Education (1,625), Postsecondary Teachers (1,573), Middle School Teachers, Except Special and Career/Technical Education (1,170), and Tutors and Teachers and Instructors, All Other (1,028) were also among the top five occupations. The top job titles posted were Assistant Teachers, Teachers, Special Education Teachers, Paraprofessionals, and Child Care Teachers.



# EDUCATION OCCUPATION GROUP

## Wage Overview

Many education-related jobs offer competitive median wages with growth potential. These positions provide an excellent opportunity for job seekers who are able to attain the necessary credentials, most often a bachelor's degree. Six of the top ten posted education jobs offer median wages of over \$30 per hour. The top posted job, Teaching Assistants, Except Postsecondary, offers a median wage of \$13.76 hourly, equating to annual earnings of about \$28,620.

### Wage Overview for Top Posted Education Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
25-9045	Teaching Assistants, Except Postsecondary	\$10.31	\$11.95	\$13.76	\$15.66	\$18.55
25-2011	Preschool Teachers, Except Special Education	\$10.16	\$11.35	\$14.24	\$20.20	\$27.50
25-1099	Postsecondary Teachers	\$21.85	\$29.81	\$41.12	\$56.46	\$73.41
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$19.41	\$23.48	\$31.29	\$38.31	\$44.89
25-3097	Tutors and Teachers and Instructors, All Other	\$10.82	\$12.88	\$17.13	\$27.86	\$40.79
25-2021	Elementary School Teachers, Except Special Education	\$20.15	\$24.94	\$33.96	\$42.82	\$49.91
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$19.88	\$23.62	\$30.36	\$37.92	\$44.37
25-2057	Special Education Teachers, Middle School	\$20.52	\$24.96	\$30.59	\$39.70	\$47.36
25-3021	Self-Enrichment Teachers	\$10.05	\$12.12	\$16.72	\$22.04	\$27.61
25-9031	Instructional Coordinators	\$22.29	\$27.58	\$34.61	\$42.22	\$49.22

### In-Demand Technical Skills

- Child Development
- Special Education
- Lesson Planning
- Cardiopulmonary Resuscitation (CPR)
- 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
- Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)

### In-Demand Education Level\*

- High School Diploma: 21.8%
- Associate Degree: 9.8%
- Bachelor's Degree: 27.6%
- Master's Degree: 10.1%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- KinderCare
- University Of Michigan
- Learning Care Group
- Michigan State University
- K12
- Chippewa Valley Schools
- Stanford University
- Oakland University
- Eastern Michigan University
- Wayne State University

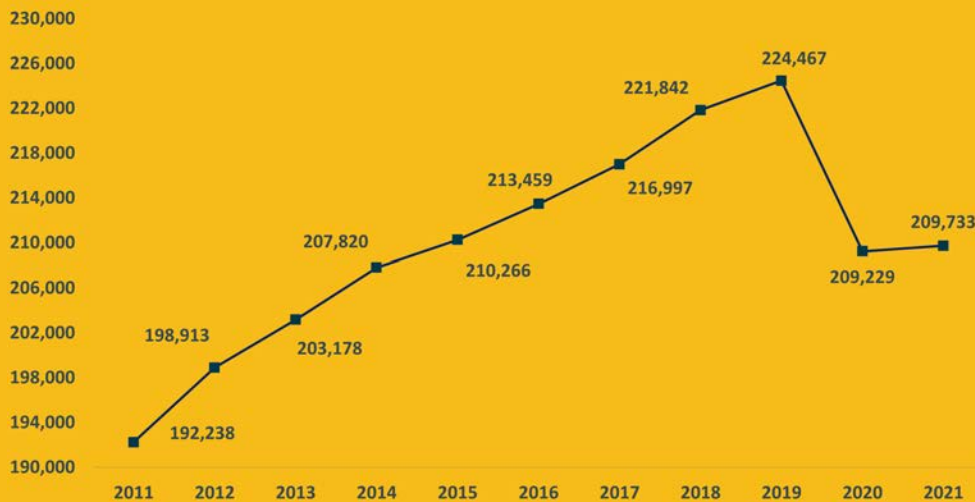
### Job Postings by City

1. Detroit: 1,560 Postings
2. Ann Arbor: 755 Postings
3. Flint: 413 Postings
4. Lansing: 402 Postings
5. Macomb: 354 Postings
6. Rochester: 345 Postings
7. Warren: 306 Postings
8. Southfield: 270 Postings
9. Troy: 263 Postings
10. Canton: 251 Postings

# ENERGY OCCUPATION GROUP

Energy-related occupations encompass jobs in engineering, science, mining, and extraction. Workers in this field have a range of skills 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 energy-related businesses, while employment and wage data apply for these workers in every industry.

Employment Over Time  
2011-2021



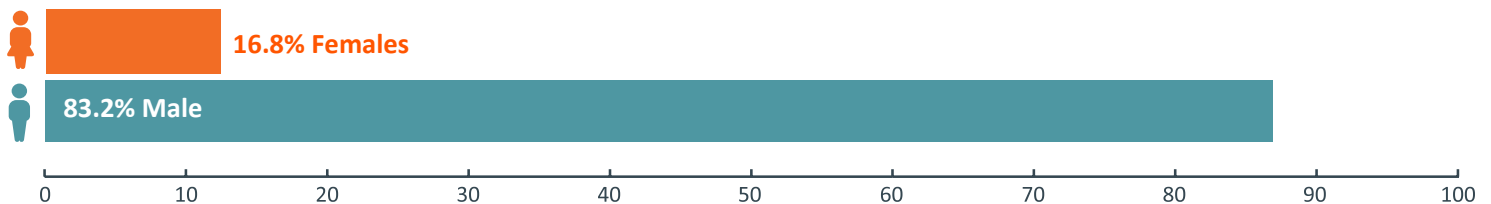
**504 Energy Workers**  
**0.2% Increase**  
**from 2020**



## Energy Worker Demographics

The Energy Occupation Group boasted 209,733 workers in Q4, an increase of 504 individuals from 2020. This group is primarily White (79.0%), male (83.2 percent), and between the ages of 25 and 54 (70.1 percent). Only 16.8 percent of workers identified as female and 21.0 percent identified as a racial minority. During Q4, 5.6 percent of the workers in the occupation group were under the age of 25, compared to 24.6 percent aged 55 years of age or older. The region's aging labor force coupled with 70% of the top ten jobs requiring a bachelor's degree for entry may have contributed to the lack of diversity among age groups.

### Worker Gender Demographics



### Race and Ethnicity Demographics

**79.0% White** | **10.1% Black or African-American** | **6.1% Asian**

### Worker Age Demographics

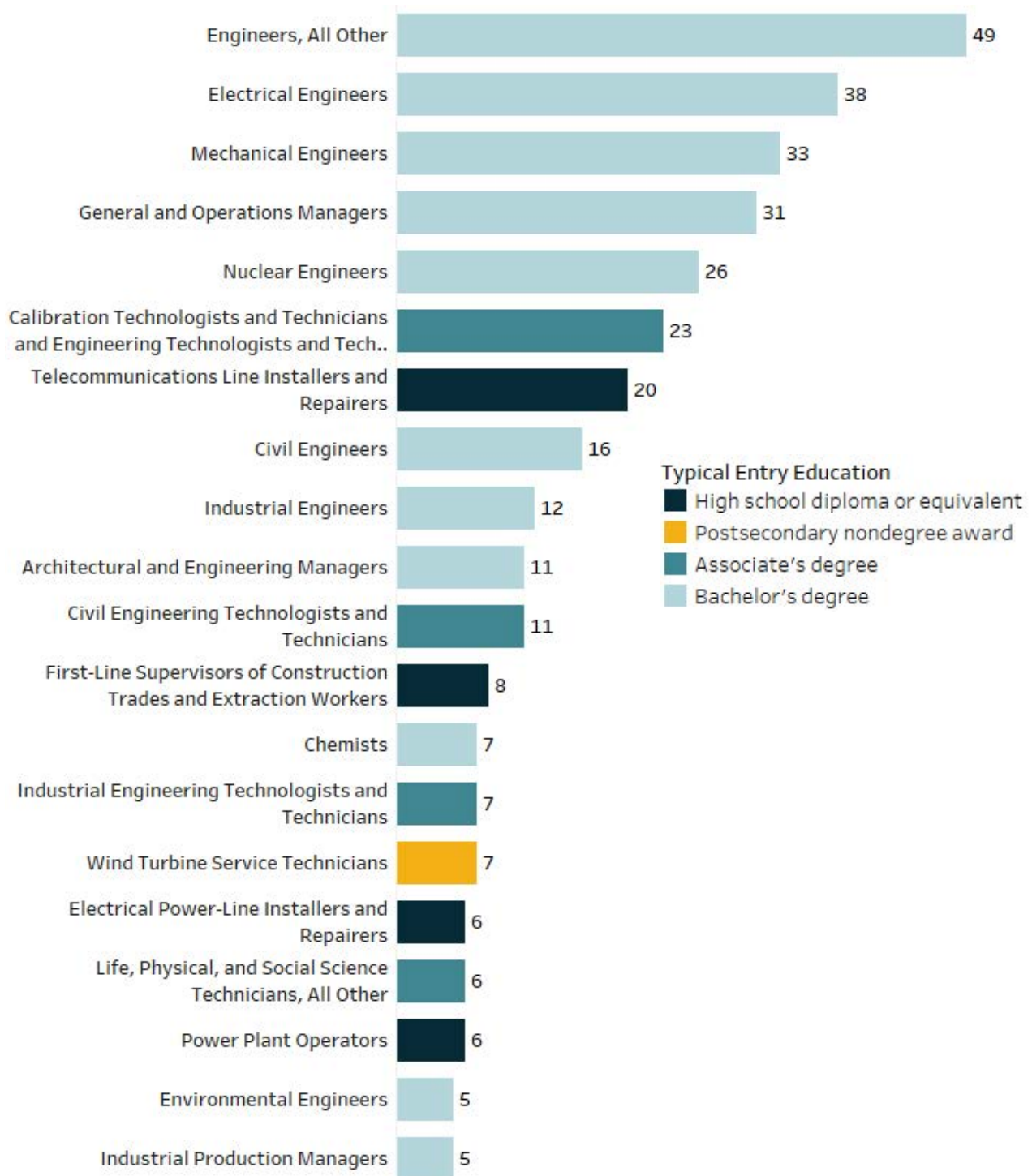




# ENERGY OCCUPATION GROUP

## Top Posted Jobs

Energy occupation postings totaled 373 in Q4, with Engineers, All Other as the most sought-after occupation (49 postings). Electrical Engineers were second highest with 38 postings. Other top posted jobs include Mechanical Engineers (33), General and Operations Managers (31), Nuclear Engineers (26), and Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (23).



# ENERGY OCCUPATION GROUP

## Wage Overview

The demand for engineers and highly specialized trades in the energy field create lucrative opportunities for job seekers who are able to obtain the applicable education or training. Each of the top ten energy occupations boasts a median wage greater than \$20 per hour. The top posted energy job, Engineers, All Other, offers a median hourly wage of \$42.70, or annual earnings of approximately \$88,816. Technician and construction-focused positions related to energy generally have shorter-term educational requirements than engineers and offer higher wages than comparable positions in other occupation groups.

### Wage Overview for Top Posted Energy Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Engineers, All Other	\$25.43	\$34.00	\$42.70	\$56.50	\$67.03
17-2071	Electrical Engineers	\$31.33	\$37.38	\$45.67	\$55.06	\$64.66
17-2141	Mechanical Engineers	\$31.74	\$36.71	\$45.14	\$56.18	\$65.58
11-1021	General and Operations Managers	\$21.31	\$32.58	\$52.19	\$79.79	\$110.79
17-2161	Nuclear Engineers	\$39.98	\$46.18	\$53.90	\$61.39	\$69.26
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$17.22	\$22.95	\$33.69	\$43.40	\$51.57
49-9052	Telecommunications Line Installers and Repairers	\$15.87	\$17.92	\$21.52	\$25.34	\$29.84
17-2051	Civil Engineers	\$26.38	\$30.60	\$37.36	\$45.81	\$53.53
17-2112	Industrial Engineers	\$31.82	\$37.68	\$46.35	\$56.09	\$63.82
11-9041	Architectural and Engineering Managers	\$48.10	\$56.09	\$67.19	\$79.77	\$93.03

### In-Demand Technical Skills

- Engineering Design Process
- Construction
- Natural Gas
- Process Improvement
- Chemistry

### In-Demand Foundational Skills

- Communications
- Management
- Planning
- Problem Solving
- Operations

### In-Demand Certifications

- Professional Engineer
- Licensed Professional Engineer
- Commercial Driver's License (CDL)
- Security Clearance

### In-Demand Education Level\*

- High School Diploma: 23.6%
- Associate Degree: 17.4%
- Bachelor's Degree: 65.7%
- Master's Degree: 26.0%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- DTE Energy
- Consumers Energy
- Williams
- Henkels & McCoy
- Verita Telecommunications Corp
- Underground Contractors
- NextEra Energy
- Crossfire
- National Solar
- SEMCO Energy

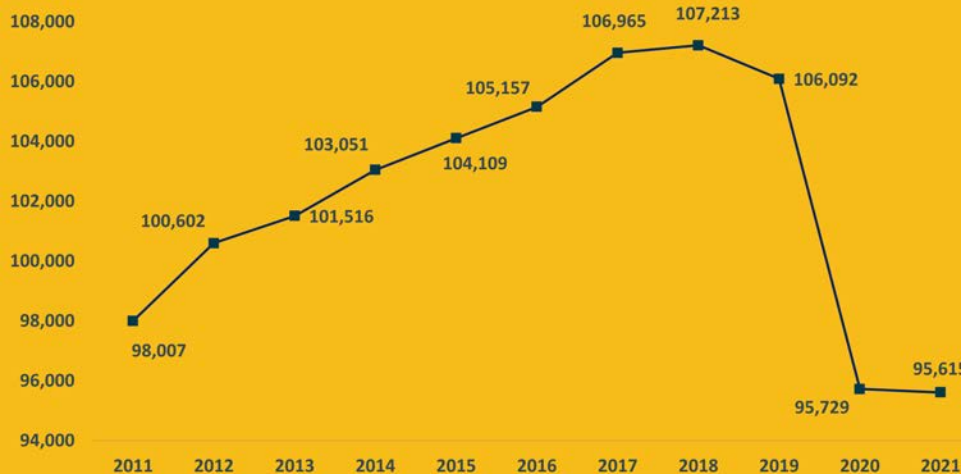
### Job Postings by City

- Detroit: 93 Postings
- Jackson: 71 Postings
- Newport: 42 Postings
- Adrian: 31 Postings
- Pontiac: 17 Postings
- Flint: 12 Postings
- Lansing: 12 Postings
- Canton: 11 Postings
- Ann Arbor: 8 Postings
- River Rouge: 7 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 computer-related occupations such as software development. Demand for engineers in the region has been consistently increasing year over year, with about 8,500 openings for engineers in southeast Michigan.

Employment Over Time  
2011-2021

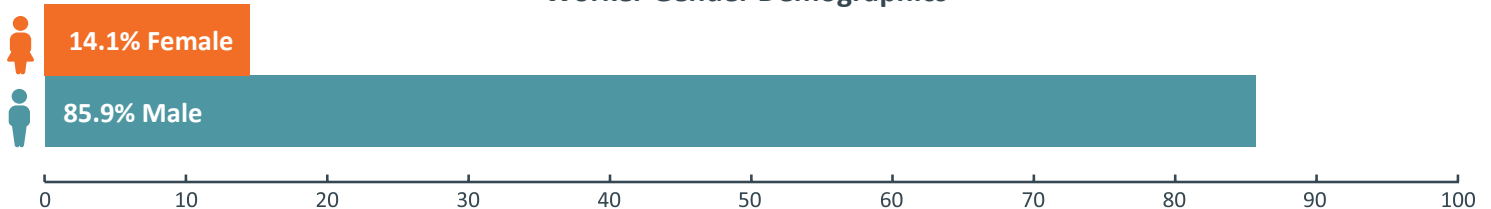


**114 Engineers  
and Designers  
Workers**  
**0.1% Decrease  
from 2020**

## Engineers and Designers Worker Demographics

Between 2019 and 2021, the number of workers in the Engineering and Design Occupation Group decreased by 10 percent, for a total workforce of 95,615 individuals. The Engineering and Design Occupation Group does not boast a diverse population: 77.1 percent are White, 85.9% are male, and only 5.5 percent of the workforce is under the age of 25. Female workers account for 14.1 percent and 22.9 percent of workers identify as a race other than White.

### Worker Gender Demographics



### Race and Ethnicity Demographics

**77.1% White | 9.9% Asian | 8.4% Black or African-American**

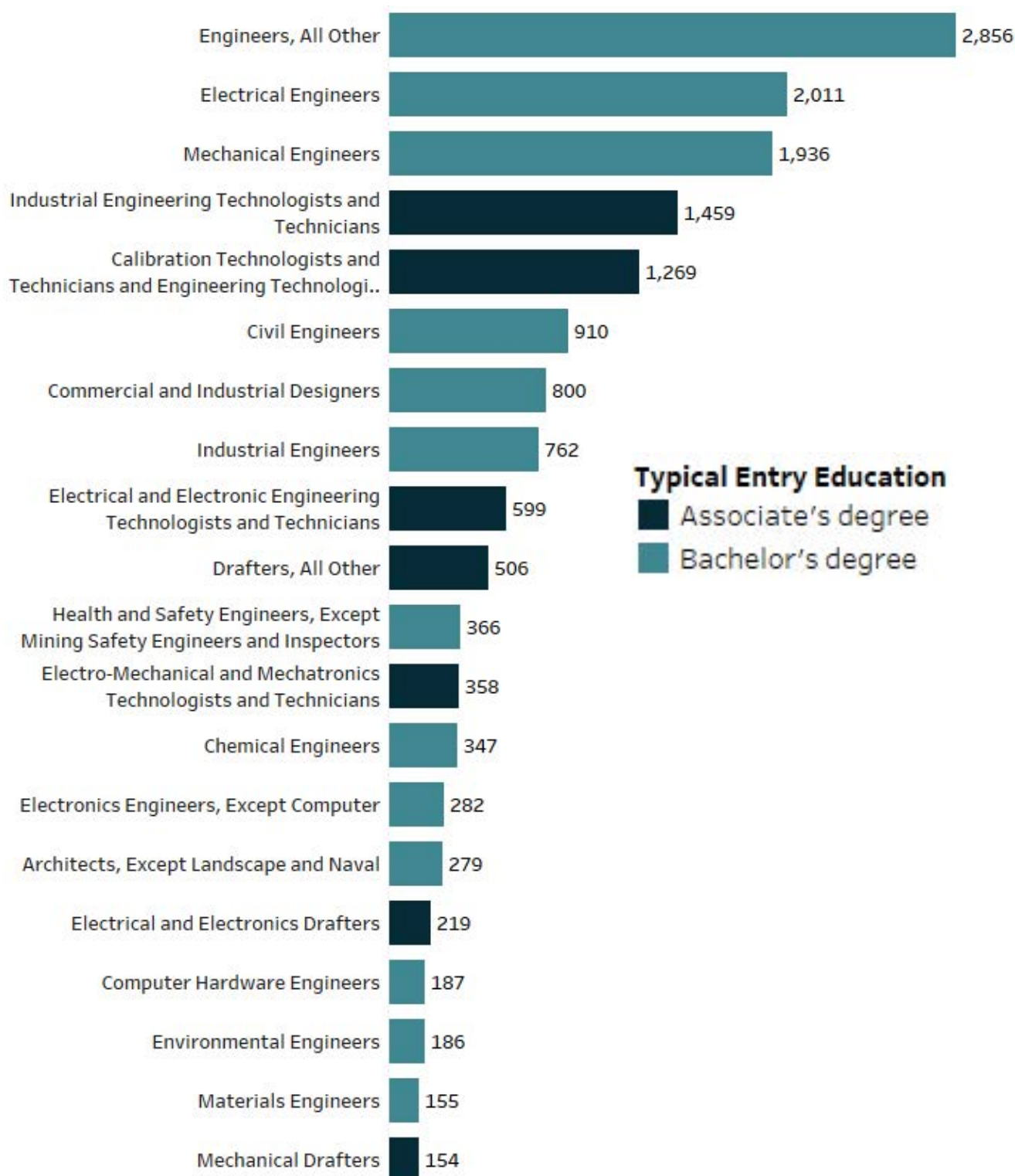
### Worker Age Demographics



# ENGINEERS AND DESIGNERS OCCUPATION GROUP

## Top Posted Jobs

Online job ads for engineers and designers totaled 16,331 postings in Q4. Engineers, All Other was the highest in-demand engineering and design occupation with 2,856 postings. Electrical Engineers were also in high demand with 2,011 postings, making it the second highest demanded within the occupation group. Over half of the top ten in-demand occupations require a bachelor's degree, indicating a barrier that contributes to the lack of diversity among workers.





# ENGINEERS AND DESIGNERS OCCUPATION GROUP

## Wage Overview

Between the high demand and high education levels required, engineering and design can be lucrative to job seekers that attain the necessary higher education of a bachelor's degree. The most in-demand job, Engineers, All Other, earns a median hourly wage of \$42.70, or \$88,816 annually. The lowest median wage in this occupation group belongs to Drafters, All Other, at \$28.44 hourly, or \$59,155 annually, with at least an associate's degree as an educational requirement.

### Wage Overview for Top Posted Engineers and Designers Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Engineers, All Other	\$25.43	\$34.00	\$42.70	\$56.50	\$67.03
17-2071	Electrical Engineers	\$31.33	\$37.38	\$45.67	\$55.06	\$64.66
17-2141	Mechanical Engineers	\$31.74	\$36.71	\$45.14	\$56.18	\$65.58
17-3026	Industrial Engineering Technologists and Technicians	\$19.36	\$23.38	\$28.85	\$36.13	\$42.98
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$17.22	\$22.95	\$33.69	\$43.40	\$51.57
17-2051	Civil Engineers	\$26.38	\$30.60	\$37.36	\$45.81	\$53.53
27-1021	Commercial and Industrial Designers	\$24.09	\$29.40	\$40.51	\$48.12	\$55.96
17-2112	Industrial Engineers	\$31.82	\$37.68	\$46.35	\$56.09	\$63.82
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$18.89	\$23.42	\$30.30	\$35.63	\$40.46
17-3019	Drafters, All Other	\$18.99	\$24.12	\$28.44	\$32.97	\$38.93

### In-Demand Technical Skills

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

### In-Demand Foundational Skills

- Communications
- Problem Solving
- Management
- Troubleshooting
- Operations

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 14.8%
- Associate Degree: 9.7%
- Bachelor's Degree: 49.3%
- Master's Degree: 15.5%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- General Motors
- GPAC
- Epitec
- Advantage Resourcing
- Ford
- Actalent
- Bartech Group
- Ronin Staffing
- Eaton Corporation
- Iconma, L.L.C.

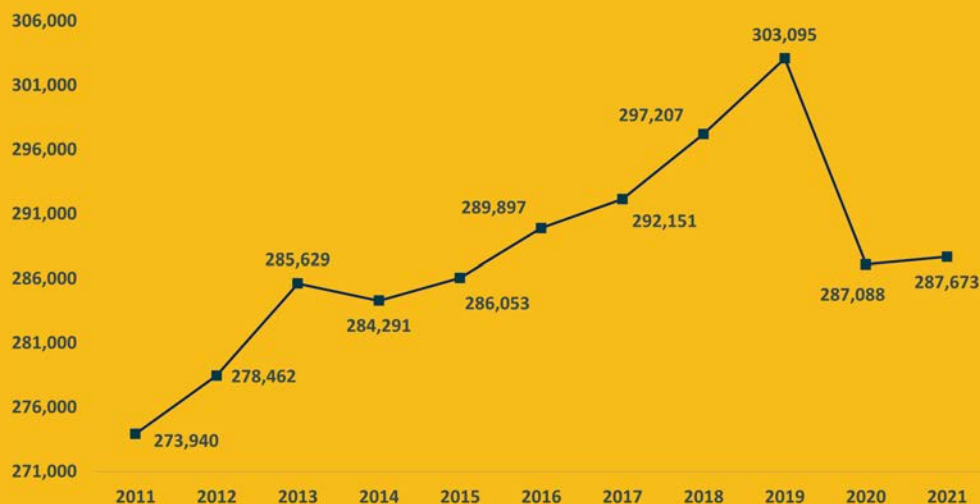
### Job Postings by City

1. Detroit: 1,927 Postings
2. Warren: 1,544 Postings
3. Dearborn: 1,167 Postings
4. Auburn Hills: 1,047 Postings
5. Ann Arbor: 993 Postings
6. Troy: 812 Postings
7. Lansing: 732 Postings
8. Plymouth: 722 Postings
9. Novi: 530 Postings
10. Southfield: 494 Postings

# HEALTHCARE OCCUPATION GROUP

The Healthcare Occupation Group includes jobs related to healthcare support and practitioners; Registered Nurses is the highest in-demand occupation from this group. Employment opportunities in healthcare have increased consistently year over year, as Michigan's aging population requires a larger workforce of healthcare workers. There are approximately 23,600 job openings annually, with employment opportunities in this occupation group projected to continue increasing.

Employment Over Time  
2011-2021



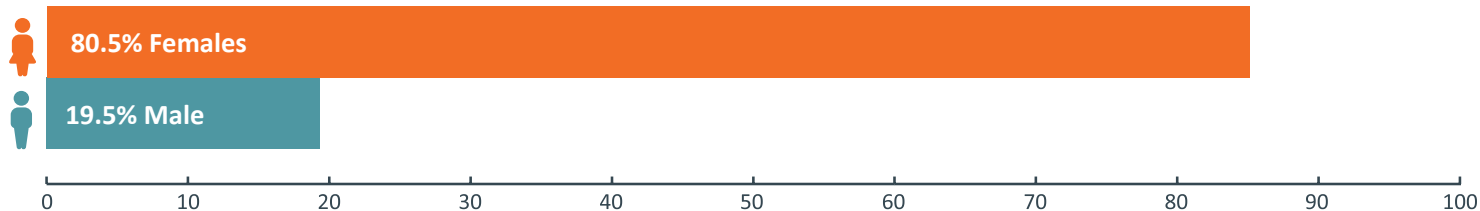
**585**  
Healthcare  
Workers  
0.2% Increase  
from 2020



## Healthcare Worker Demographics

According to 2021 Emsi data, the Healthcare Occupation Group employed 287,673 workers who were primarily female (80.5 percent) and between the ages of 25 and 54 (68.8 percent) or over the age of 54 (22.6 percent). The Healthcare Occupation Group is made up of primarily White workers (68.4 percent), with 31.6 percent identifying as a race other than white.

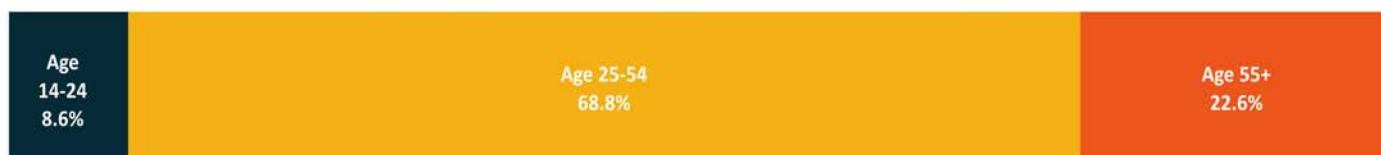
### Worker Gender Demographics



### Race and Ethnicity Demographics

68.4% White | 21.1% Black or African-American | 5.5% Asian

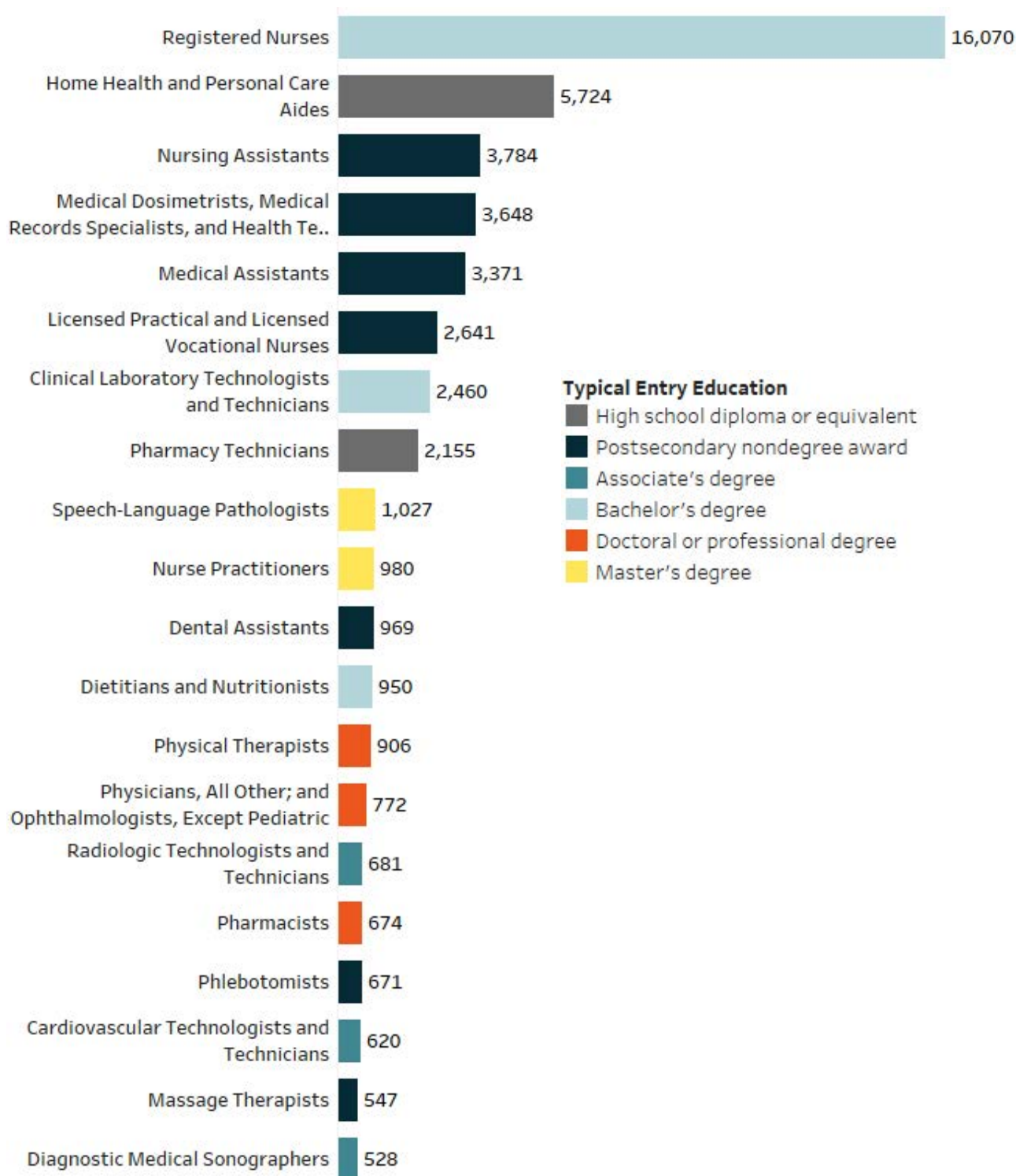
### Worker Age Demographics



# HEALTHCARE OCCUPATION GROUP

## Top Posted Jobs

Registered Nurse was the highest in-demand healthcare occupation throughout Q4, with 16,070 postings. Other top posted jobs include Home Health and Personal Care Aides (5,724), Nursing Assistants (3,784), Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other (3,648), and Medical Assistants (3,371). 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 (2,155), require a high school diploma or equivalent, coupled with short- to moderate-term on-the-job training.



# HEALTHCARE OCCUPATION GROUP

## Wage Overview

The hourly wage of the Healthcare Occupation Group jobs depends on the amount of education and experience required. There are employment opportunities that offer wages above the state's median hourly wage of \$18.60 and require a postsecondary non-degree award, such as Licensed Practical and Licensed Vocational Nurses, which boasts a median hourly wage of \$26.67, equaling \$55,369 annually. Registered Nurses, the top posted health care job, offers a median hourly wage of \$36.46 per hour, equaling \$75,834 annually, but requires a bachelor's degree for entry.

### Wage Overview for Top Posted Healthcare Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$27.37	\$31.20	\$36.46	\$42.31	\$48.65
31-1128	Home Health and Personal Care Aides	\$10.03	\$10.74	\$11.83	\$13.61	\$15.71
31-1131	Nursing Assistants	\$12.51	\$13.73	\$15.63	\$17.98	\$19.66
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	\$14.16	\$16.95	\$21.42	\$28.13	\$34.87
31-9092	Medical Assistants	\$13.17	\$14.81	\$17.03	\$19.11	\$21.40
29-2061	Licensed Practical and Licensed Vocational Nurses	\$20.67	\$23.55	\$26.67	\$29.43	\$31.41
29-2018	Clinical Laboratory Technologists and Technicians	\$14.95	\$18.25	\$26.07	\$33.46	\$38.28
29-2052	Pharmacy Technicians	\$11.20	\$13.33	\$16.50	\$19.68	\$22.99
29-1127	Speech-Language Pathologists	\$25.11	\$32.15	\$37.91	\$46.07	\$53.60
29-1171	Nurse Practitioners	\$42.51	\$46.31	\$52.46	\$60.15	\$66.76

### In-Demand Technical Skills

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

### In-Demand Foundational Skills

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

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 31.8%
- Associate Degree: 28.9%
- Bachelor's Degree: 12.9%
- Master's Degree: 6.7%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- Henry Ford Health System
- Ascension
- Trinity Health
- Beaumont Health
- University Of Michigan
- Tenet Healthcare
- Aya Healthcare
- McLaren Health Care
- Prestige Healthcare
- HCR ManorCare

### Job Postings by City

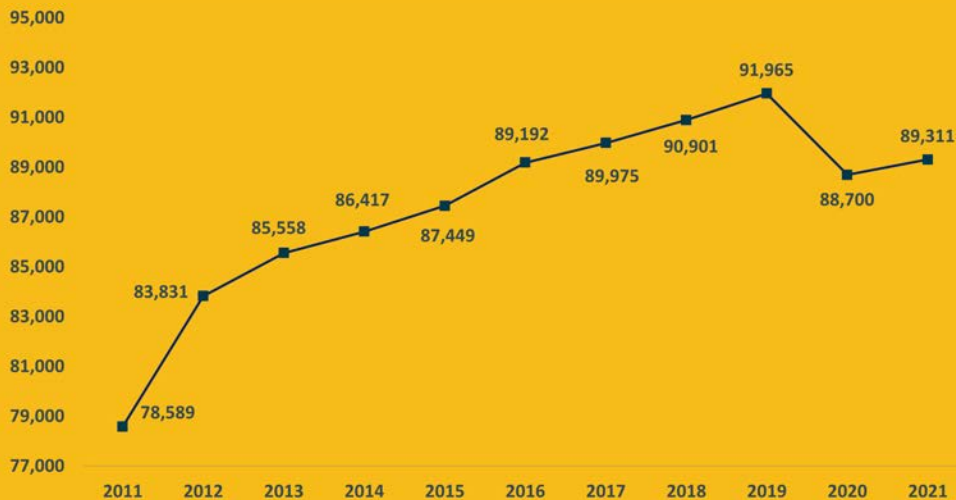
1. Detroit: 7,978
2. Ann Arbor: 3,862
3. Lansing: 2,202
4. Southfield: 1,955
5. Warren: 1,834
6. Livonia: 1,801
7. Dearborn: 1,749
8. Pontiac: 1,550
9. Troy: 1,549
10. Flint: 1,380



# 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, it is quickly growing with approximately 7,000 job openings reported annually.

**Employment Over Time**  
2011-2021



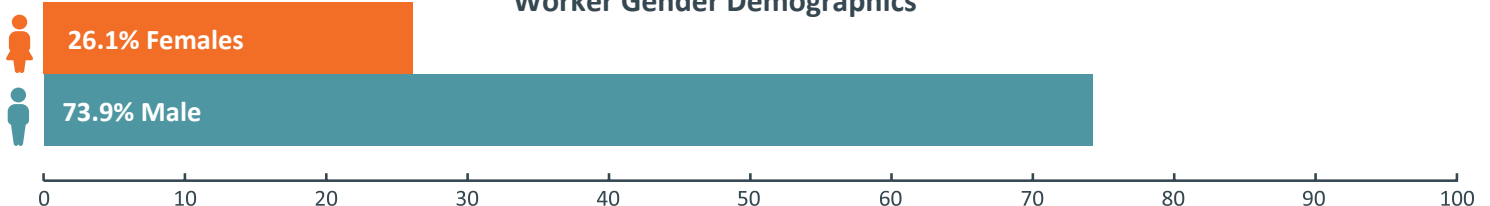
**610 Information  
Technology  
Workers**  
**0.7% Increase  
from 2020**



## Information Technology Worker Demographics

In Q4, the IT Occupation Group consisted of 89,311 workers. The majority of the workers are White (68.3%) and male (73.9%), but there is also a significant percentage of Asian workers (17.5 percent). While this occupation group is consistent with many others that employ a low percentage of workers under the age of 25 (5.7%), it is likely due more to education requirements and less an aging workforce, with only 16.6 percent of workers aged 55 or older.

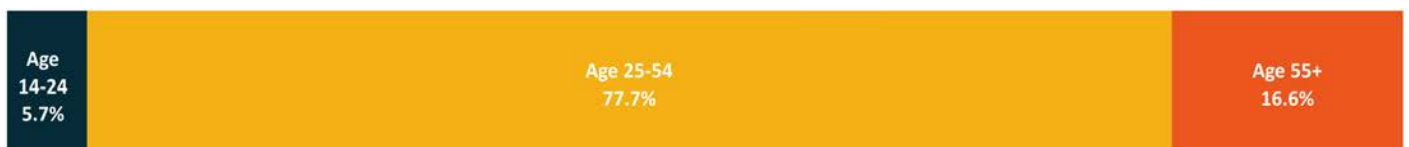
### Worker Gender Demographics



### Race and Ethnicity Demographics

**68.3% White | 17.5% Asian | 9.8% Black or African-American**

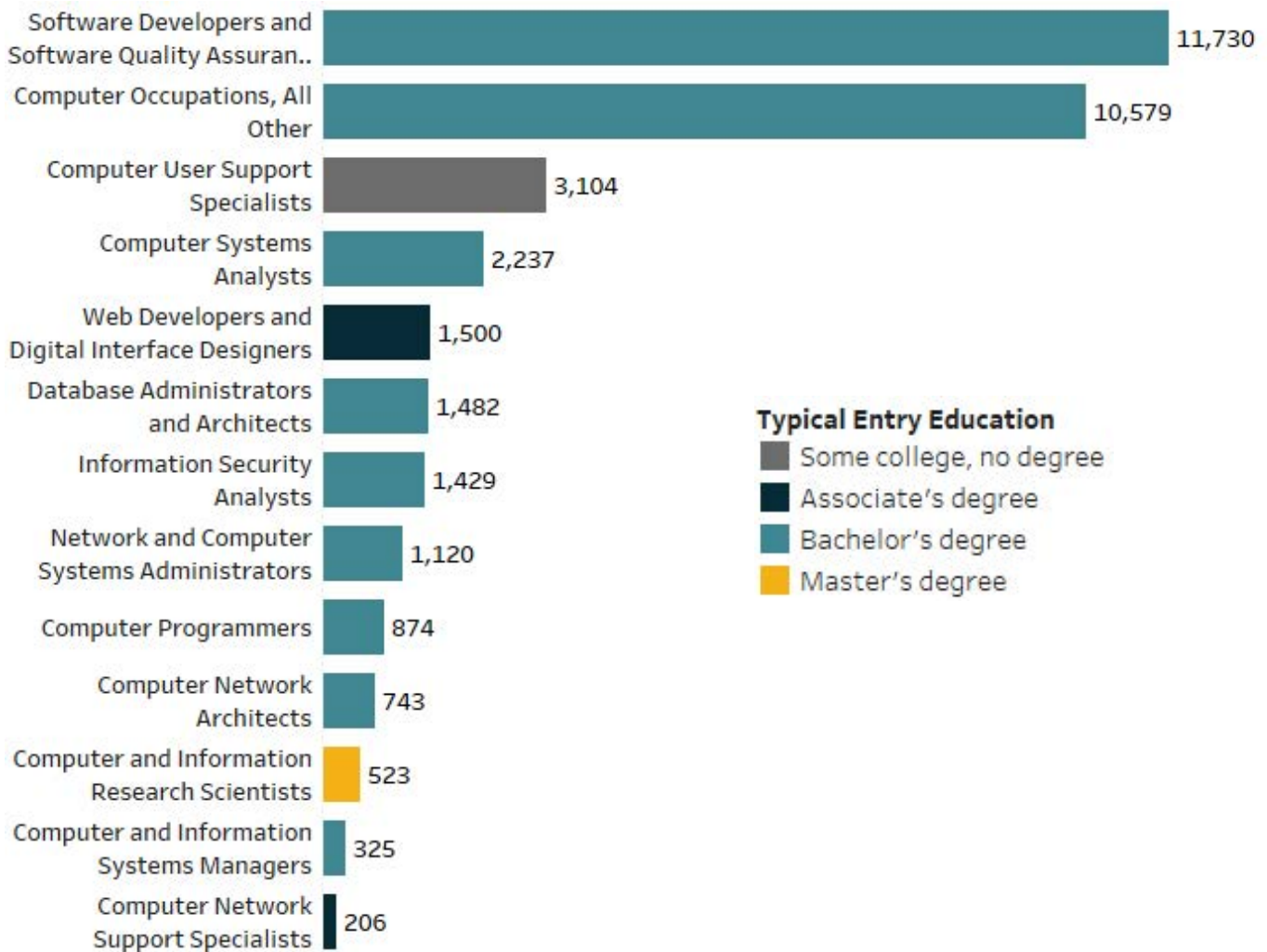
### Worker Age Demographics



# INFORMATION TECHNOLOGY OCCUPATION GROUP

## Top Posted Jobs: Q4

There were 35,852 postings for IT workers during Q4, a 6.4 percent increase from Q3. Software Developers and Software Quality Assurance Analysts and Testers is the top demanded occupation, with 11,730 postings. Other top posted jobs include Computer Occupations, All Other (10,579), Computer User Support Specialists (3,104), Computer Systems Analysts (2,237), and Web Developers and Digital Interface Designers (1,500).



# INFORMATION TECHNOLOGY OCCUPATION GROUP

## Wage Overview

Most IT-related jobs offer high wages, providing a lucrative opportunity to job seekers who are able to meet the minimum education requirements for these positions. Software Developers and Software Quality Assurance Analysts and Testers, the top posted IT occupation, earn a median hourly wage of \$44.27 per hour or nearly \$92,080 per year. Occupations requiring shorter-term training, such as Computer User Support Specialists, have median hourly wages of \$21.39, which is greater than the state median of \$18.60.

### Wage Overview for Top Posted Information Technology Jobs in Q4 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	\$27.58	\$34.84	\$44.27	\$55.17	\$64.79
15-1299	Computer Occupations, All Other	\$20.49	\$27.18	\$38.24	\$49.93	\$60.85
15-1232	Computer User Support Specialists	\$14.45	\$17.19	\$21.39	\$28.67	\$35.55
15-1211	Computer Systems Analysts	\$29.78	\$36.03	\$45.27	\$56.52	\$68.62
15-1257	Web Developers and Digital Interface Designers	\$17.22	\$24.60	\$34.34	\$43.66	\$53.42
15-1245	Database Administrators and Architects	\$26.30	\$32.36	\$44.50	\$56.52	\$64.92
15-1212	Information Security Analysts	\$28.59	\$36.15	\$46.25	\$57.49	\$67.63
15-1244	Network and Computer Systems Administrators	\$25.92	\$31.83	\$38.95	\$47.57	\$56.68
15-1251	Computer Programmers	\$20.77	\$25.37	\$36.11	\$47.14	\$57.78
15-1241	Computer Network Architects	\$30.19	\$42.17	\$54.59	\$66.24	\$78.28

### 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 (CISSP)
- Project Management Professional (PMP) Certification
- Security Clearance
- Secret Clearance
- Certified Information System Auditor (CISA)

### In-Demand Education Level\*

- High School Diploma: 6.4%
- Associate Degree: 5.7%
- Bachelor's Degree: 54.2%
- Master's Degree: 14.6%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- General Motors
- Epitec
- General Dynamics
- Deloitte
- Cynet Systems
- TEKsystems
- Ford
- Humana
- Microsoft
- University Of Michigan

### Job Postings by City

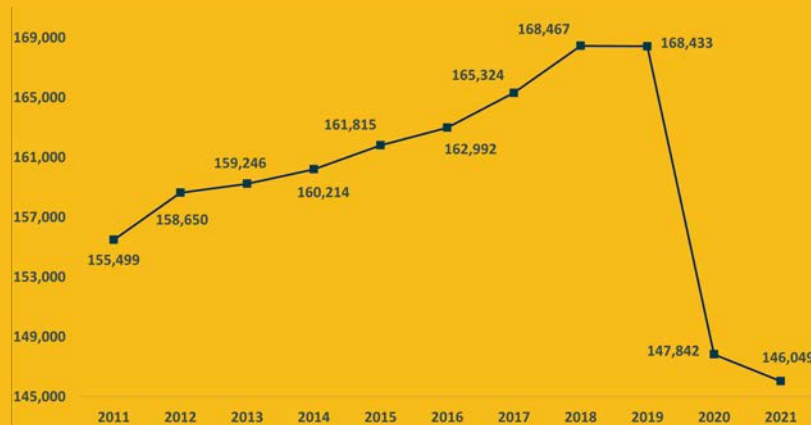
- Detroit: 8,322 Postings
- Lansing: 4,493 Postings
- Dearborn: 3,252 Postings
- Ann Arbor: 2,387 Postings
- Troy: 2,265 Postings
- Warren: 1,947 Postings
- Southfield: 1,792 Postings
- Auburn Hills: 1,643 Postings
- Farmington: 1,163 Postings
- Novi: 834 Postings

# SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

The Skilled Trade and Technicians Occupation Group 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 group, as the focus is on advanced manufacturing only.*

Employment Over Time  
2011-2021

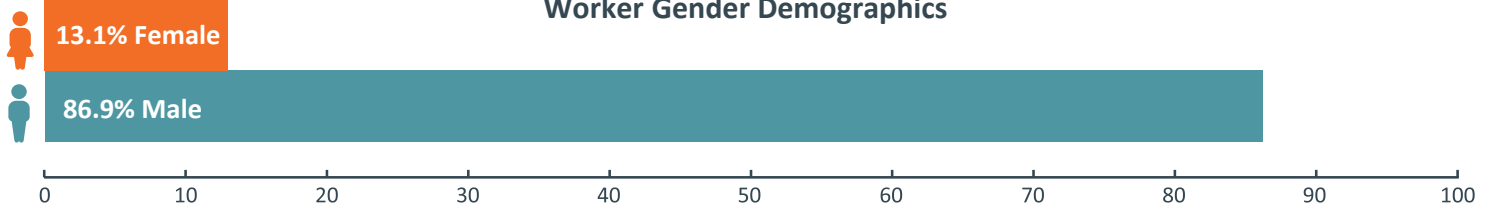


**1,793 Skilled  
Trades Workers**  
**1.2% Decrease  
from 2020**

## Skilled Trades Worker Demographics

The Skilled Trades Occupation Group employed 146,049 workers in Q4, a decline from the 2019 employment of 168,433 workers. A significant majority of skilled trades workers are male (86.9 percent) between the ages of 25 and 54 (65.8 percent). The 55 and older age group, which accounts for 27.7 percent of the workforce, shows a slightly higher than normal retiring population for this industry, and may prove to be a significant factor in future employment trends.

### Worker Gender Demographics



### Race and Ethnicity Demographics

**77.6% White** | **13.4% Black or African-American** | **4.6% Hispanic or Latino**

### Worker Age Demographics

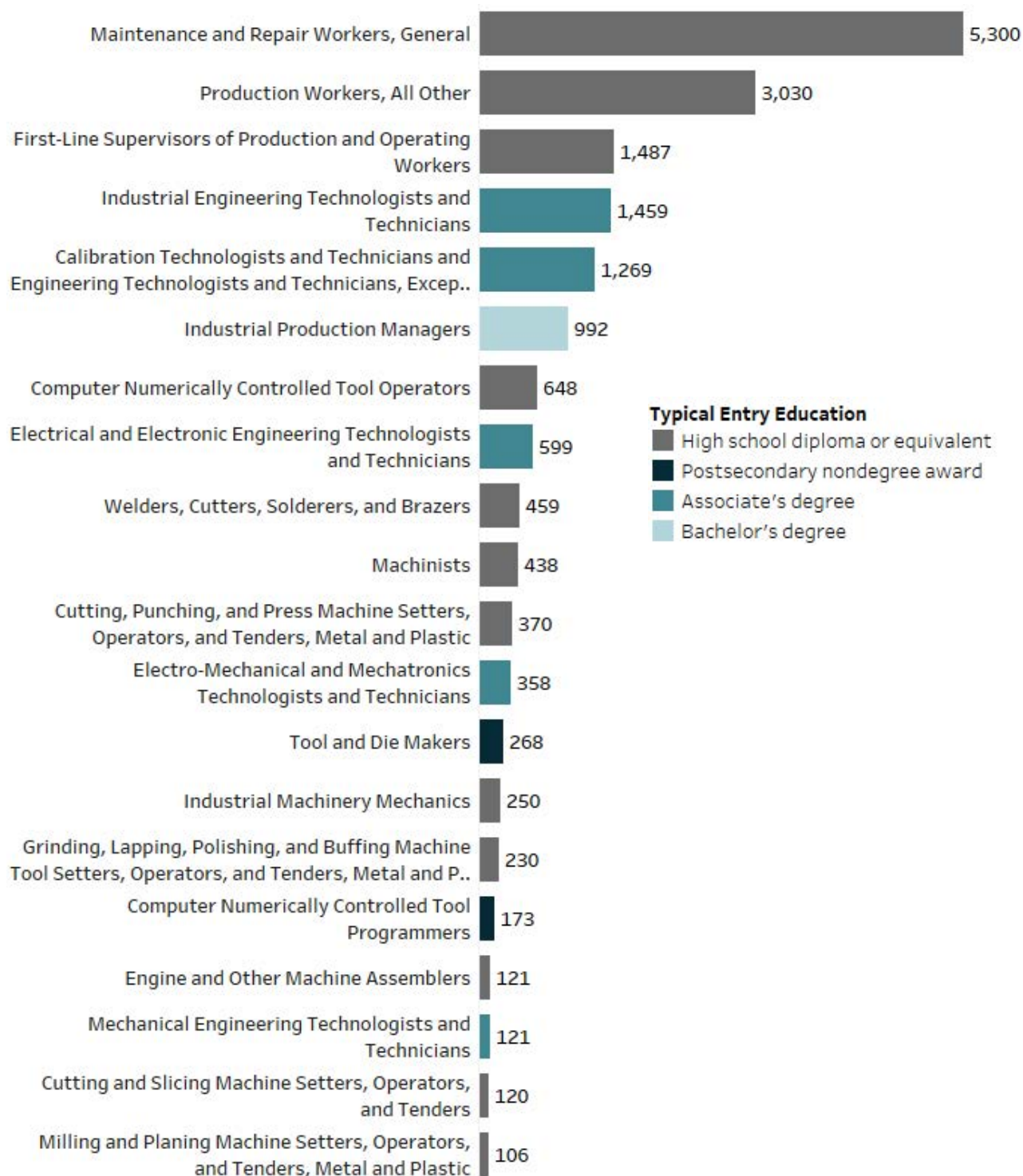




# SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

## Top Posted Jobs

Skilled trades occupations employment opportunities accounted for 18,637 postings in Q4. Maintenance and Repair Workers, General remained the highest in-demand skilled trades occupation during the year with 5,300 postings. Other top posted jobs include Production Workers, All Other (3,030), First-Line Supervisors of Production and Operating Workers (1,487), Industrial Engineering Technologists and Technicians (1,459), and Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (1,269).



# SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

## Wage Overview

Eight of the top ten in-demand skilled trades occupations boasted median hourly wages above the state's median of \$18.60 per hour. At \$18.22 per hour, the second lowest wage of the top ten in-demand skilled trades occupations, Maintenance and Repair Workers, General, is the top posted skilled trades job in Q4. Production Workers, All Others, offers the lowest median wage at \$14.47 per hour, and is the second highest top posted skilled trades job in Q4. Management and technician roles requiring additional education and training earn significantly above the state's median hourly wage, such as Machinists at \$22.12 per hour or \$46,009 annually.

### Wage Overview for Top Posted Skilled Trades Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
49-9071	Maintenance and Repair Workers, General	\$12.42	\$14.61	\$18.22	\$24.35	\$30.47
51-9199	Production Workers, All Other	\$10.53	\$11.96	\$14.47	\$19.02	\$25.35
51-1011	First-Line Supervisors of Production and Operating Workers	\$19.32	\$24.41	\$32.36	\$41.66	\$52.05
17-3026	Industrial Engineering Technologists and Technicians	\$19.36	\$23.38	\$28.85	\$36.13	\$42.98
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	\$17.22	\$22.95	\$33.69	\$43.40	\$51.57
11-3051	Industrial Production Managers	\$33.91	\$43.56	\$56.39	\$71.67	\$88.85
51-9161	Computer Numerically Controlled Tool Operators	\$12.94	\$15.05	\$19.43	\$25.84	\$30.73
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$18.89	\$23.42	\$30.30	\$35.63	\$40.46
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.91	\$16.56	\$20.12	\$24.58	\$30.38
51-4041	Machinists	\$14.24	\$17.43	\$22.12	\$28.02	\$33.29

### In-Demand Technical Skills

- Plumbing
- Machinery
- HVAC
- Machine Operation
- Painting

### In-Demand Foundational Skills

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

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 44.1%
- Associate Degree: 12.8%
- Bachelor's Degree: 11.3%
- Master's Degree: 1.7%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- Sentech Services
- Aerotek
- ManpowerGroup
- GPAC
- General Motors
- Nesco Resource
- McDonald's
- Randstad
- ResourceMFG
- Kelly Services

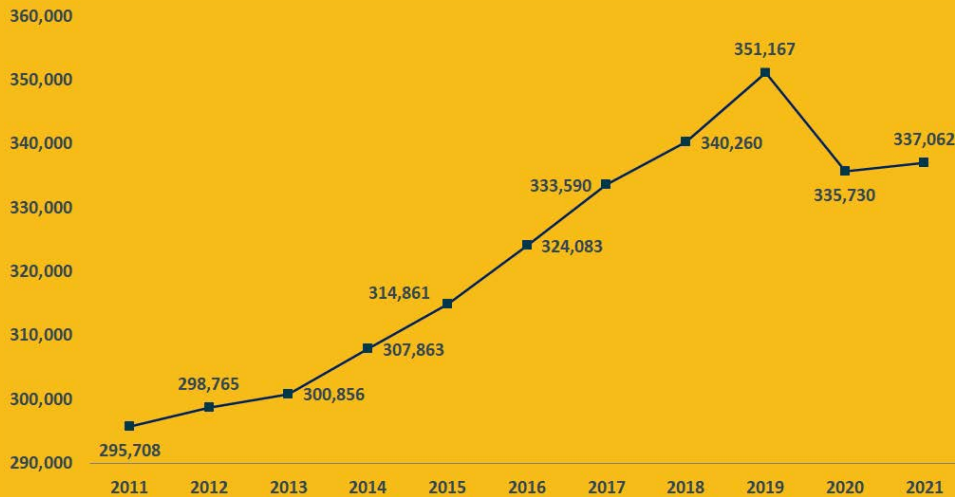
### Job Postings by City

1. Detroit: 1,921 Postings
2. Lansing: 995 Postings
3. Warren: 874 Postings
4. Ann Arbor: 754 Postings
5. Livonia: 625 Postings
6. Sterling Heights: 606 Postings
7. Troy: 587 Postings
8. Auburn Hills: 569 Postings
9. Plymouth: 466 Postings
10. Novi: 388 Postings

# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

Transportation, Distribution, and Logistics (TDL) Occupation Group workers efficiently move materials, generally in a B2B (business-to-business) or B2C (business-to-consumer) supply chain. TDL jobs range from Materials Movers to Logistics Analysts, coordinating and analyzing material and goods movement. There are 37,000 TDL job openings annually in Southeast Michigan, a significant employment opportunity for the region.

Employment Over Time  
2011-2021



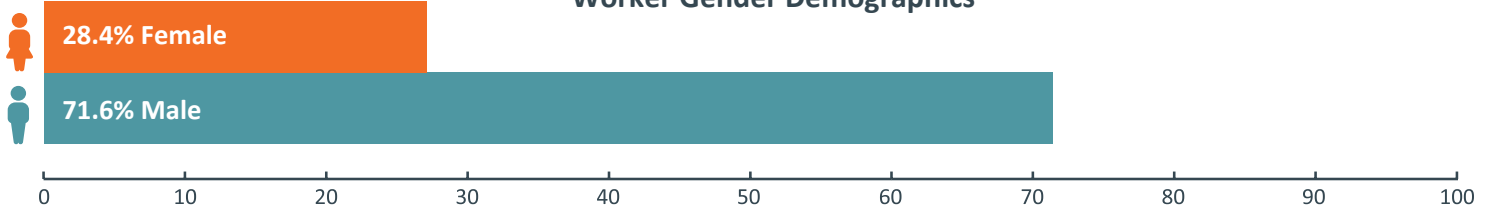
**1,331 TDL Workers**  
**0.4% Increase from 2020**



## TDL Worker Demographics

The TDL Occupation Group has a significant workforce in the WIN region, employing 337,062 individuals in Q4. The workforce has an opportunity with diversity, as most workers identify as White (70.2 percent) and male (71.6 percent). The majority (63.4 percent of the workforce) are between the ages of 25 and 54.

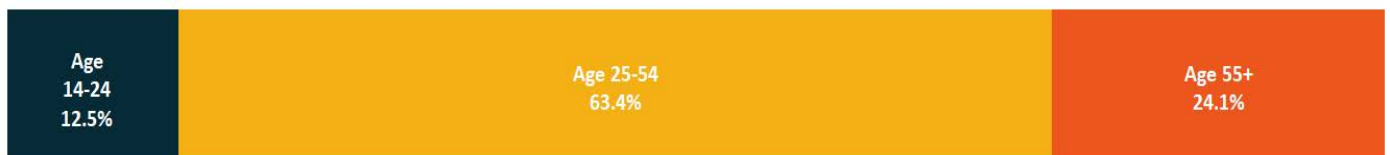
### Worker Gender Demographics



### Race and Ethnicity Demographics

**70.2% White** | **20.1% Black or African-American** | **5.0% Hispanic or Latino**

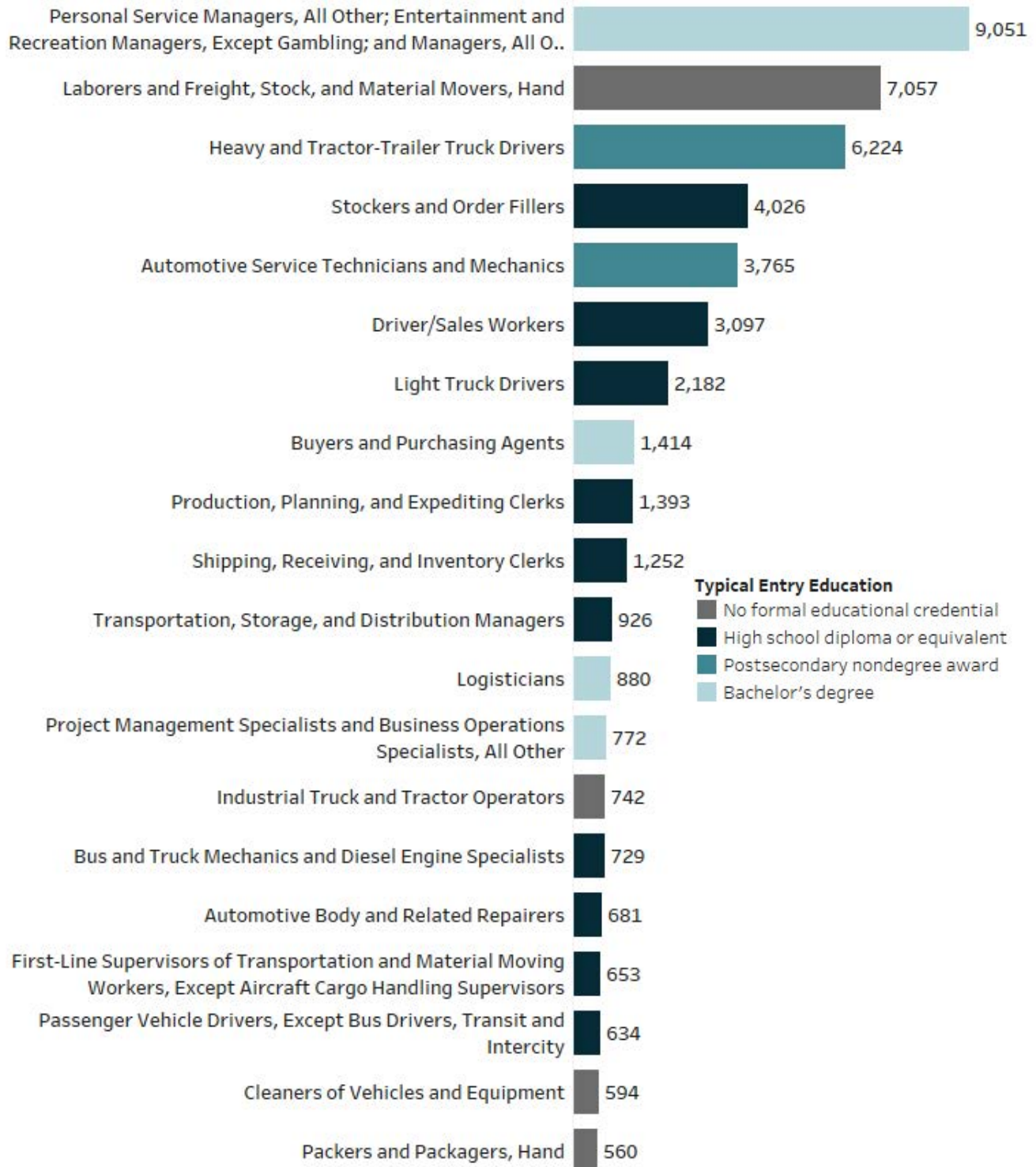
### Worker Age Demographics



# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

## Top Posted Jobs

Despite a decrease of 4,209 individual jobs in the TDL Occupational Group between Q3 and Q4, 52,503 jobs were posted for this group, offering more employment opportunities than most other occupational groups in the region. Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other was the highest in-demand Q4 TDL occupation with 9,051 postings. Other top posted jobs include Laborers and Freight, Stock, and Material Movers, Hand (7,057), Heavy and Tractor-Trailer Truck Drivers (6,224), Stockers and Order Fillers (4,026), and Automotive Service Technicians and Mechanics (3,765).





# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP

## Wage Overview

The most in-demand job, Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other, earns a median hourly wage of \$54.50, or an annual salary of approximately \$113,360. The majority of jobs in this sector require a high school diploma, making them more accessible to the greater labor force. Additional education and training can increase the median wages; Automotive Service Technicians and Mechanics earns an hourly wage of \$21.77, or approximately \$45,281 annually.

## Wage Overview for Top Posted TDL Jobs in Q4 2021

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$29.42	\$40.41	\$54.50	\$69.21	\$86.46
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$11.17	\$12.89	\$15.35	\$19.00	\$23.15
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$13.97	\$17.47	\$22.07	\$26.49	\$31.28
53-7065	Stockers and Order Fillers	\$10.57	\$11.85	\$14.14	\$18.09	\$24.52
49-3023	Automotive Service Technicians and Mechanics	\$11.40	\$14.32	\$21.77	\$29.70	\$37.89
53-3031	Driver/Sales Workers	\$10.31	\$11.27	\$14.03	\$20.99	\$25.22
53-3033	Light Truck Drivers	\$10.93	\$12.62	\$18.05	\$26.32	\$35.73
13-1028	Buyers and Purchasing Agents	\$20.14	\$25.22	\$32.94	\$43.27	\$53.48
43-5061	Production, Planning, and Expediting Clerks	\$15.57	\$20.12	\$26.56	\$32.53	\$37.93
43-5071	Shipping, Receiving, and Inventory Clerks	\$12.32	\$14.03	\$16.89	\$20.44	\$25.26

### In-Demand Technical Skills

- Warehousing
- Merchandising
- Palletizing
- Forklift Truck
- Purchasing

### In-Demand Foundational Skills

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

### In-Demand Certifications

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

### In-Demand Education Level\*

- High School Diploma: 31.0%
- Associate Degree: 5.4%
- Bachelor's Degree: 18.3%
- Master's Degree: 3.9%

*\*Not all job postings indicate the required educational attainment level; the percentages displayed here may not equal 100 percent.*

### Top Posting Employers

- Amazon
- UPS
- Meijer
- General Motors
- Walmart
- Penske Automotive Group
- Belle Tire
- Kroger
- ManpowerGroup
- Roehl Transport

### Job Postings by City

1. Detroit: 6,835
2. Lansing: 2,918
3. Ann Arbor: 2,263
4. Warren: 2,061
5. Troy: 1,877
6. Livonia: 1,677
7. Sterling Heights: 1,560
8. Dearborn: 1,503
9. Romulus: 1,431
10. Novi: 1,277

Website

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