

Q4 2020
October - December

WIN REGION

16 COUNTIES IN SOUTHEAST MI

Quarterly Labor Market Report





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About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of six Michigan Works! Agencies (MWAs) and community colleges across a 16-county region in Michigan. The counties in the WIN partnership include: Genesee, Hillsdale, Huron, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Saint Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

This report highlights labor market information and real-time job posting data for the entire 16-county region of southeast Michigan. A workforce overview is provided within identifying key components of the area's labor market including 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 health of the labor market. This data is used to provide a real-time demand overview, detailing posting related findings for both employers and job seekers. WIN's 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, their entry requirements, and their earning potential.

WIN produces a 16-county region report quarterly 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 Detroit's 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 analyzes data from the fourth quarter of 2020 in the 16-county WIN region and includes summative data for July, August, and September of 2020. All eleven occupation groups are analyzed for the WIN region.

For more information pertaining to the labor market in southeast Michigan, the custom occupation groups within this report, or any other 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.



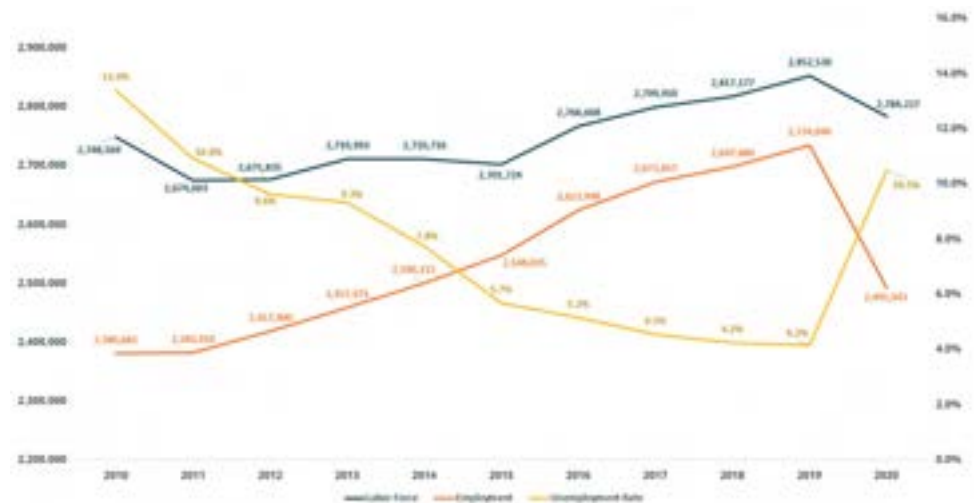
State of the Labor Market in the 16-County WIN Region

During the fourth quarter of 2020, the labor force and employment figures both increased in southeast Michigan. Shifts in the labor market due to the COVID-19 crisis have continued to be tracked in this quarter's report, and gradual reopening and hiring trends are visible through monthly data. The labor force and employment both rose this quarter in the region, causing the unemployment rate to decrease by 1.5 percentage points to 8.1 percent in Q4 2020. Employer demand for each occupation group analyzed by WIN has gradually gained upward momentum during Q4 2020. Almost all the occupation groups have seen employer demand increase this quarter.

Annual Labor Market Information

The labor force in southeast Michigan continues to decline from its 2019 peak, decreasing by 68,303 individuals between 2019 and 2020. Employment fell by an even greater amount, reporting 242,104 fewer workers annually between 2019 and 2020. The unemployment rate rose to 10.5 percent, an increase of 6.6 percentage points since 2019. However, due to swings in month-to-month employment levels in 2020, both temporary and permanent, examining data over shorter timeframes may be more instructive as the pandemic response continues to evolve.

Annual Labor Force, Employment, Unemployment Rate
2010–2020



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data from the fourth quarter of 2020, including posting information from October, November and December, showed an increase in employer demand levels in southeast Michigan. This indicates the region is slowly showing signs of recovery in response to the COVID-19 pandemic. There were 19,674 more postings (6.6 percent) during Q4 2020 than in Q3 2020, however, Q4 has had 3,931 fewer postings than Q4 2019. Monthly demand suggests that levels are stabilizing to keep pace with reopening's and slowed hiring, however; the fall in postings occurred between March and April 2020, while October and December represented the greatest improvement.

Monthly Posting Analysis
WIN Region
Q4 2019–Q4 2020



Data: Emsi | Analysis: Workforce Intelligence Network



Employer demand increased to 320,006 jobs posted during Q4 2020, reflecting both an overall pattern of growing demand and the increased recovery from COVID-19 shutdown measures.

During Q4 2020, there were 320,006 job postings, 19,674 more (6.6 percent) than the 300,332 postings made during Q3 2020 in the 16-county WIN region. Almost all the occupation groups this quarter has seen an increase in postings, indicating a steady rebound in job ads since Q2 2020 (the height of pandemic related job losses). Transportation, Distribution, and Logistics saw the greatest demand in Q4 2020. For more information about quarterly job postings, see page 9.

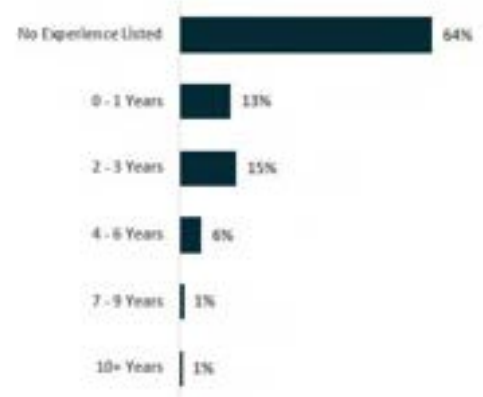
Posting Trends by Occupation Group
Q4 2020



Transportation, Distribution, and Logistics occupations seen the greatest demand in postings in Q4 2020, with 69,343 postings.

Heavy and Tractor Trailer Truck Drivers is the top requested occupation this quarter and has retained this spot since Q2 2020. While most occupation groups this quarter required postsecondary education, TDL jobs typically require a high school diploma. Many postings this quarter were open to entry level workers, accounting for 22.2 percent in southeast Michigan.

Experience Levels In-Demand
Q4 2020



Quarterly employment data for Q4 2020 in the 16-county WIN region indicates a gain of 88,955 jobs, or 3.5 percent, since Q3 2020.

The labor market in southeast Michigan is showing continued Q4 recovery in both the labor force and employment since Q2 2020 (the height of pandemic job losses). During Q4 2020, labor force figures were 1.8 percent higher (50,530 individuals) and employment is 3.5 percent higher (88,955 individuals) than in Q3 2020. The unemployment rate has declined to 8.1 percent in Q4 2020, a 1.5 percentage point decrease since Q3 2020, which was recorded at 9.6 percent. For more information about this year's unemployment rate and other labor market indicators, see page 4.

Monthly Labor Market Data



Data: Bureau of Labor Statistics

Data: Emsi | Analysis: Workforce Intelligence Network



Labor Force, Employment, and Unemployment

Through the fourth quarter of 2020, the labor market in southeast Michigan has seen steady growth, gradually returning to the stability shown each year since 2010. The labor force is down by 68,303 individuals (2.4 percent) between 2020 and 2019, while employment in the 16-county area dropped by 242,104 workers (8.9 percent). With both the labor force and employment decreasing, unemployment increased by 173,800 individuals. The unemployment rate increased by 6.6 percentage points since 2019, for a 2020 unemployment rate of 10.5 percent.

Labor Force, Employment, Unemployment Rate
1990-2020



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data
Q4 2019 - Q4 2020

	4th Quarter 2019	1st Quarter 2020	2nd Quarter 2020	3rd Quarter 2020	4th Quarter 2020	Change from 3rd Quarter 2020	Percent Change from 3rd Quarter 2020	Change from 4th Quarter 2019	Percent Change from 4th Quarter 2019
Labor Force	2,851,971	2,850,456	2,667,138	2,777,299	2,827,829	50,530	1.8%	-24,142	-0.8%
Employment	2,751,261	2,731,643	2,102,752	2,510,612	2,599,567	88,955	3.5%	-151,695	-5.5%
Unemployment	100,710	118,813	564,386	266,687	228,262	-38,425	-14.4%	127,552	126.7%
Unemployment Rate	3.5%	4.2%	21.2%	9.6%	8.1%	-1.5%	n/a	4.5%	n/a

Note: Monthly data averaged by quarter | Data: BLS

Annual Labor Market Data
2010 - 2020

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 YTD	Change from 2019	Percent Change from 2019
Labor Force	2,748,569	2,674,603	2,675,835	2,710,993	2,730,716	2,701,724	2,766,608	2,799,920	2,817,177	2,852,530	2,784,227	-68,303	-2.4%
Employment	2,380,682	2,382,010	2,417,900	2,457,971	2,500,215	2,548,035	2,623,998	2,672,857	2,697,880	2,734,046	2,491,943	-242,104	-8.9%
Unemployment	367,888	292,593	257,935	253,021	230,500	153,690	142,610	127,063	119,297	118,484	292,285	173,800	146.7%
Unemployment Rate	13.4%	10.9%	9.6%	9.3%	7.8%	5.7%	5.2%	4.5%	4.2%	4.2%	10.5%	6.3%	n/a

Note: Monthly data averaged by year | Data: BLS



Population Demographics

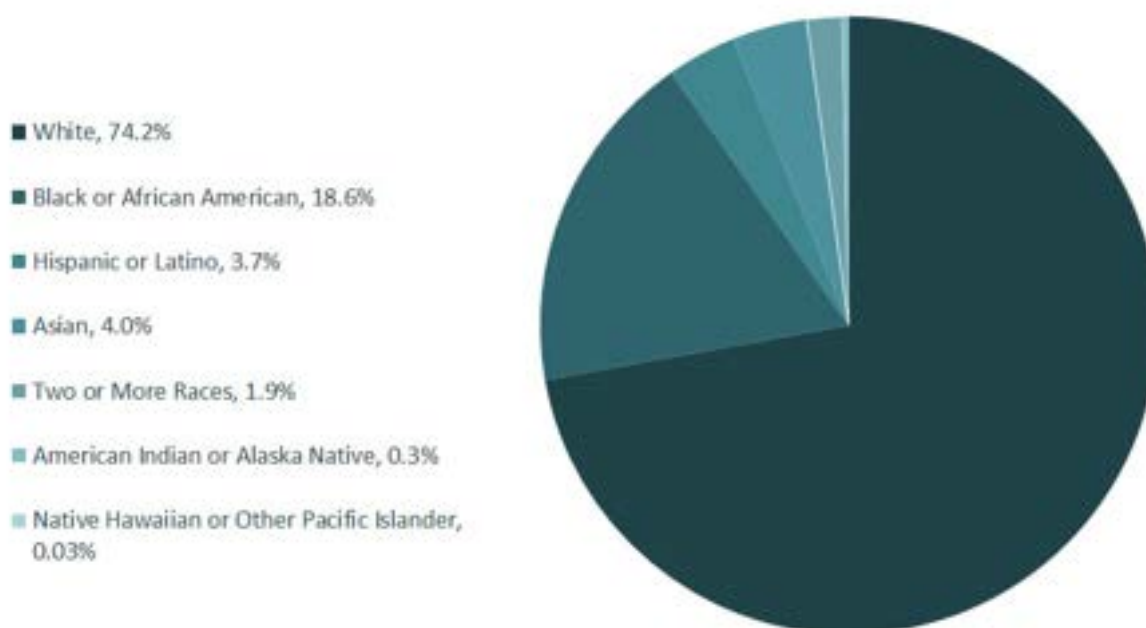
According to data from the most recent Census Bureau 2019 ACS Five Year estimates, the population in southeast Michigan decreased by 932 individuals between 2018 and 2019. During 2019, 5,739,174 people were living in the region. The sex of the populace was split almost evenly, with 51.1 percent of the population identifying as female, and the other 48.9 percent identifying as male. Most of the population identified as white (72.7 percent) with the second largest number of individuals identifying as Black or African American (16.8 percent). The region is facing an aging population, with 29.2 percent of the population reporting over the age of 54, compared to 31.2 percent aged 24 or under and 38.6 percent 25-54 years of age.



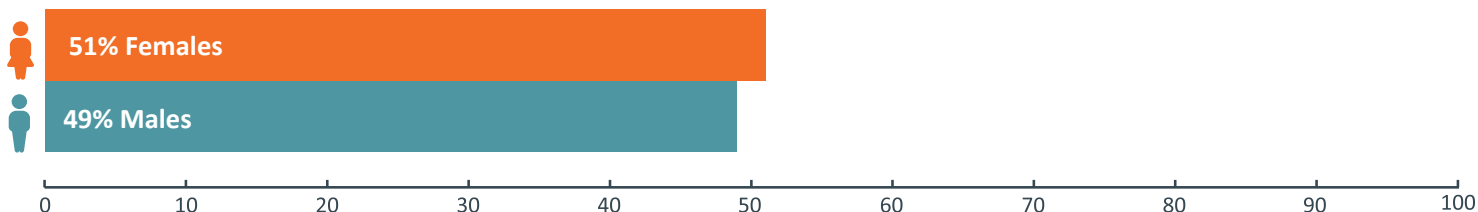
5,739,174
People in the Region

905 Resident Decrease
from 2018

Population Race Demographics



Population Gender Demographics



Population Age Demographics





Labor Market Demographics

During 2019, the most recent census year, there were 2,862,910 individuals in the labor force, meaning they were either working or looking for work, in southeast Michigan. Slightly less than half of the population, 46.7 percent or 2,680,937 individuals living in the region were actively working. The highest unemployment rates were seen in those aged 24 years old or younger. Males and females under the age of 25 have unemployment rates of 33.8 percent and 26.3 percent, respectively.

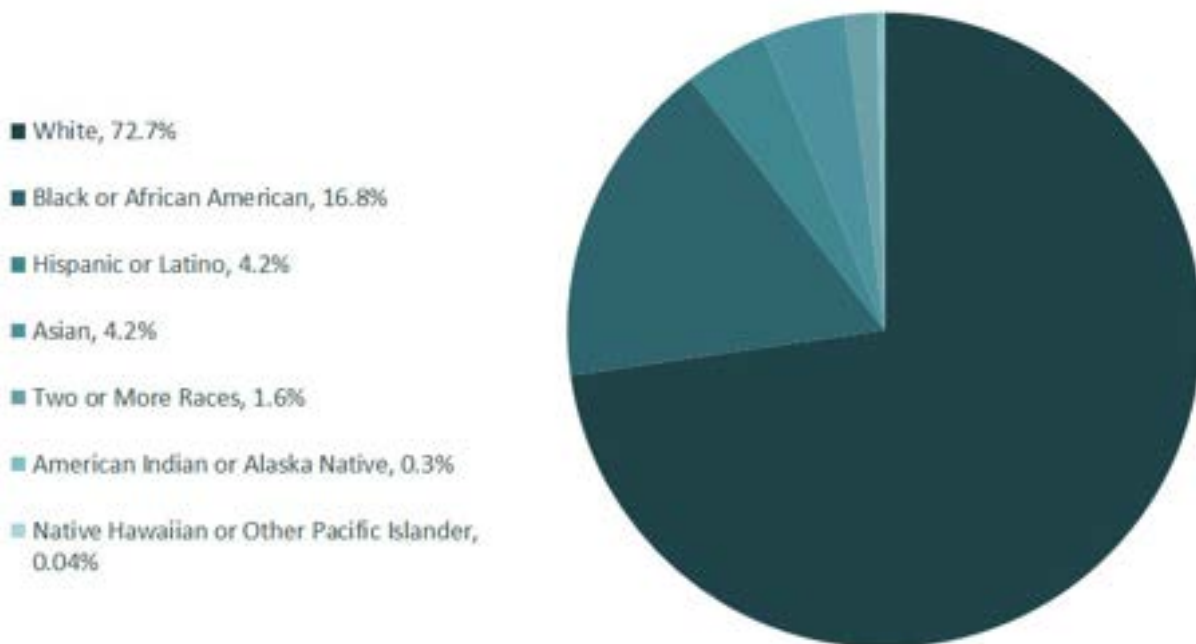
Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	2,862,910	2,680,937	181,973	6.4%
Sex				
Male 16+	1,500,729	1,400,977	99,752	6.6%
16-19	62,798	49,278	13,520	21.5%
20-24	150,999	132,459	18,540	12.3%
25-54	948,790	894,317	54,473	5.7%
55-64	259,690	249,182	10,508	4.0%
65 Plus	78,452	75,741	2,711	3.5%
Female 16+	1,362,181	1,279,960	82,221	6.0%
16-19	64,085	53,738	10,347	16.1%
20-24	144,108	129,520	14,588	10.1%
25-54	854,185	807,297	46,888	5.5%
55-64	235,475	227,200	8,275	3.5%
65 Plus	64,328	62,205	2,123	3.3%
Race				
White	2,139,736	2,038,623	101,113	4.9%
Black / African American	509,780	440,746	69,035	12.0%
Native American	8,790	8,141	649	5.8%
Asian	121,477	116,452	5,025	4.2%
Native Hawaiian / Pacific Islander	871	807	64	7.4%
Some Other Race	27,513	25,547	1,966	7.9%
Two or More Races	55,923	50,524	5,399	9.8%
Ethnicity				
Hispanic	116,122	107,763	8,359	6.9%



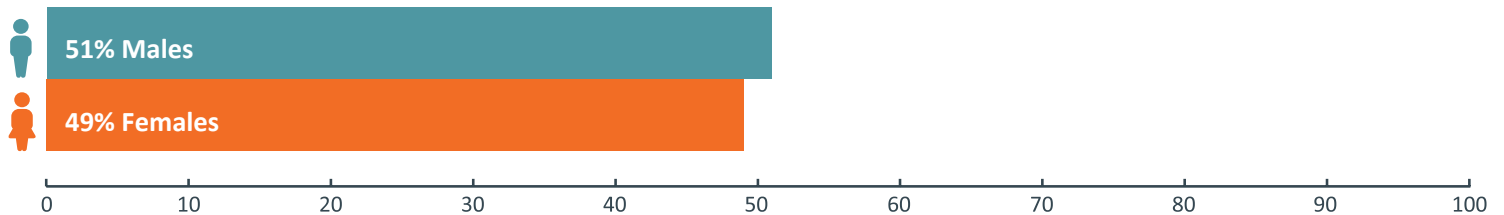
Current Workforce Demographics

While Census Bureau data is lagged by about two years, Emsi uses predictive modeling to estimate workforce information for the previous year, allowing for more current analysis. In 2020, there were a total of 2,554,603 individuals working in southeast Michigan. A slight majority (50.8 percent or 1,296,673 workers) were male, while 49.2 percent (1,257,929 workers) of the workforce was female. Most of those working in the region were white, accounting for 73.4 percent of the workforce, while African American or black workers accounted for 16.3 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 4.2 percent. Only 13.6 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 Race and Ethnicity Demographics



Workforce Gender Demographics



Workforce Age Demographics

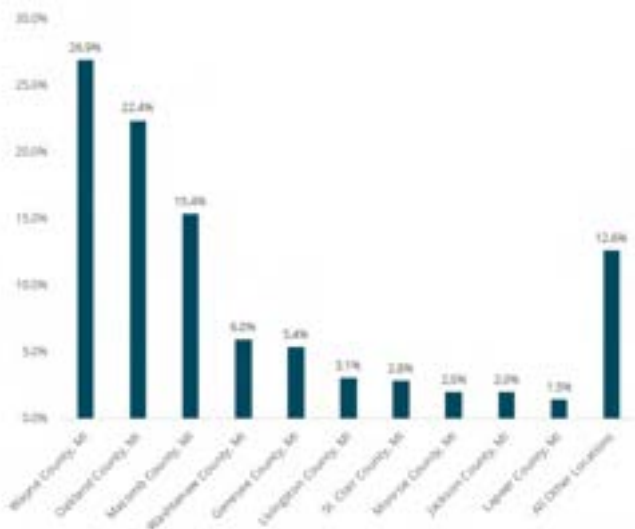




Regional Commuting Patterns

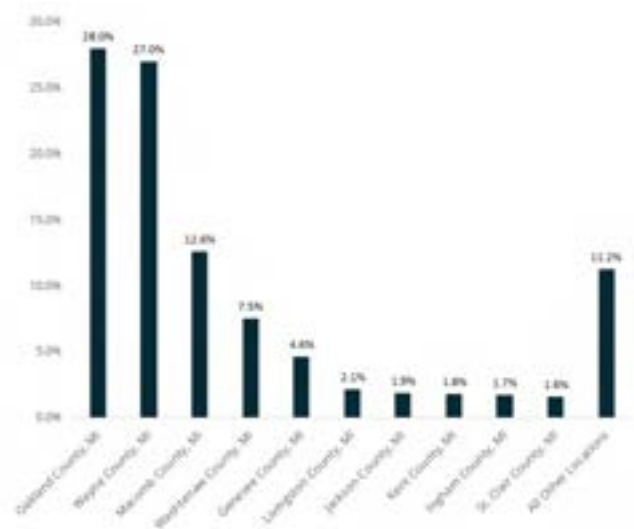
According to the most recent OnTheMap data set available from the Census Bureau, during 2018, the region's workforce consisted of 2,377,319 residents. There were 2,150,005 (90.4 percent) residents living and working within the 16-county region, while the remaining 227,314 residents (9.6 percent) traveled outside of the region for work. There were 2,345,906 workers employed in the region during 2018. Of those, 195,901 workers (8.4 percent) lived outside of the region's borders and commuted in. From this information, we can see that the southeast Michigan area is a net exporter of jobs, with more workers leaving the area for employment than inwardly commuting.

Where 16-County WIN Region Residents Work

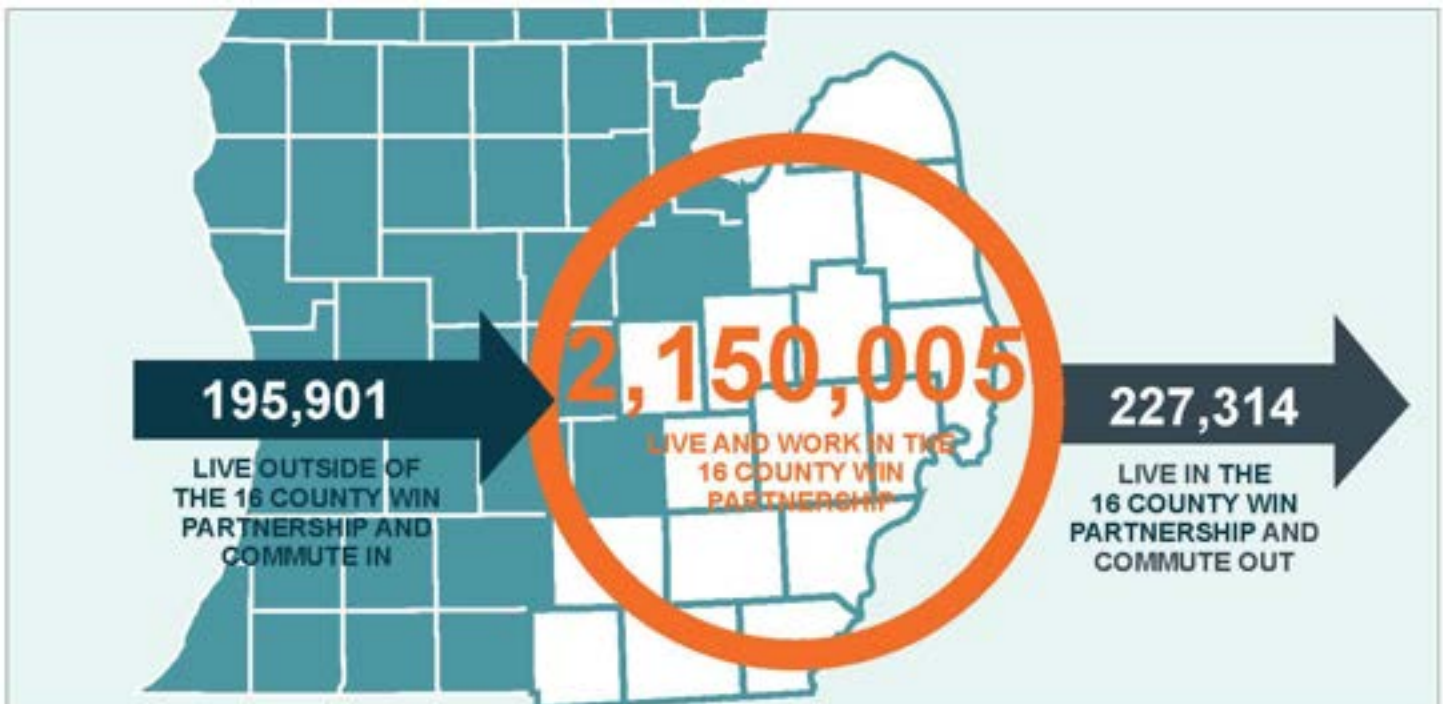


Source: U.S. Census OnTheMap, 2018
Analysis: Workforce Intelligence Network

Where 16-County WIN Region Workers Live



Source: U.S. Census OnTheMap, 2018
Analysis: Workforce Intelligence Network

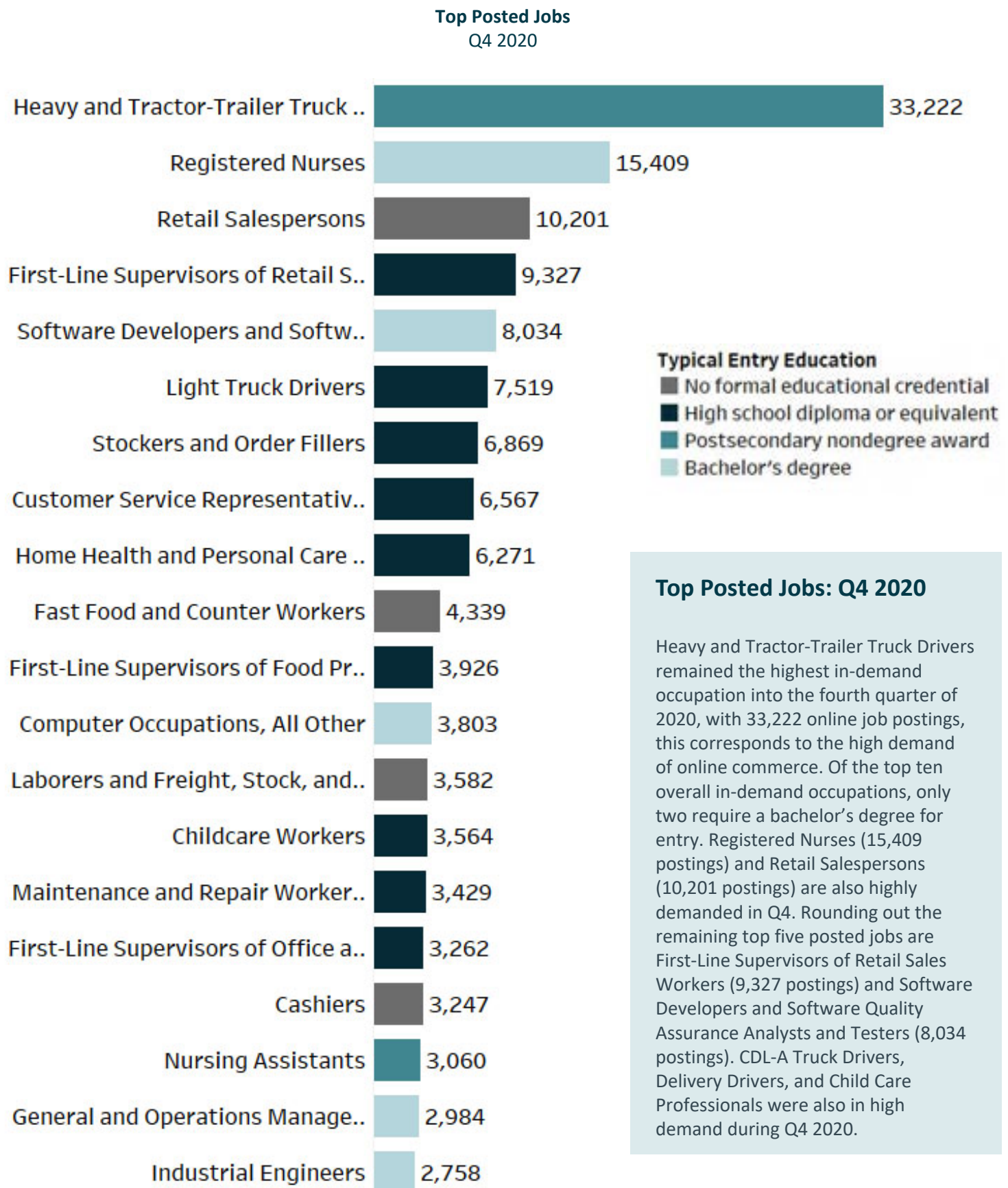


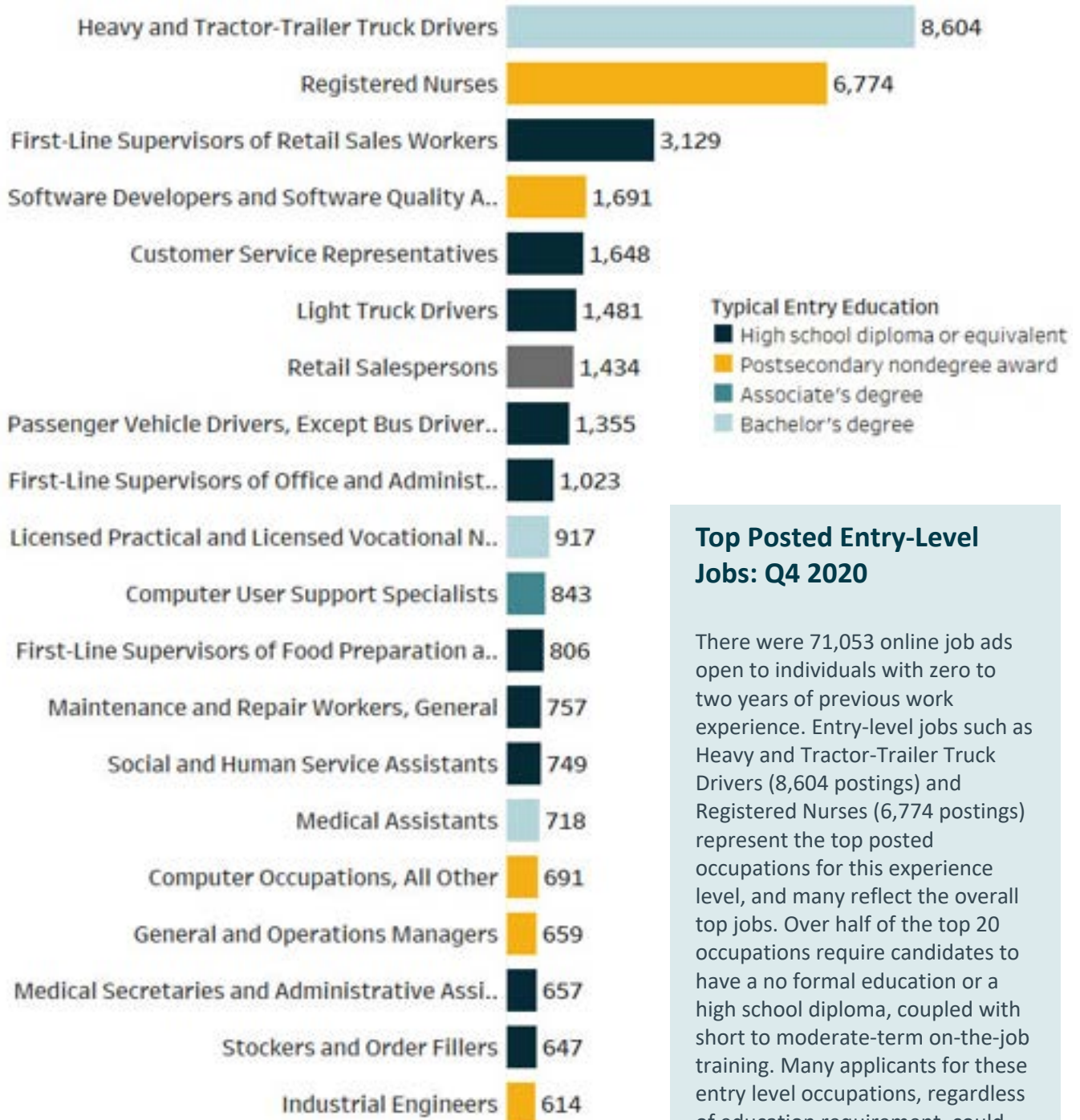


REAL-TIME DEMAND OVERVIEW

16-County WIN Region | Top Posted Jobs | Q4 2020

9

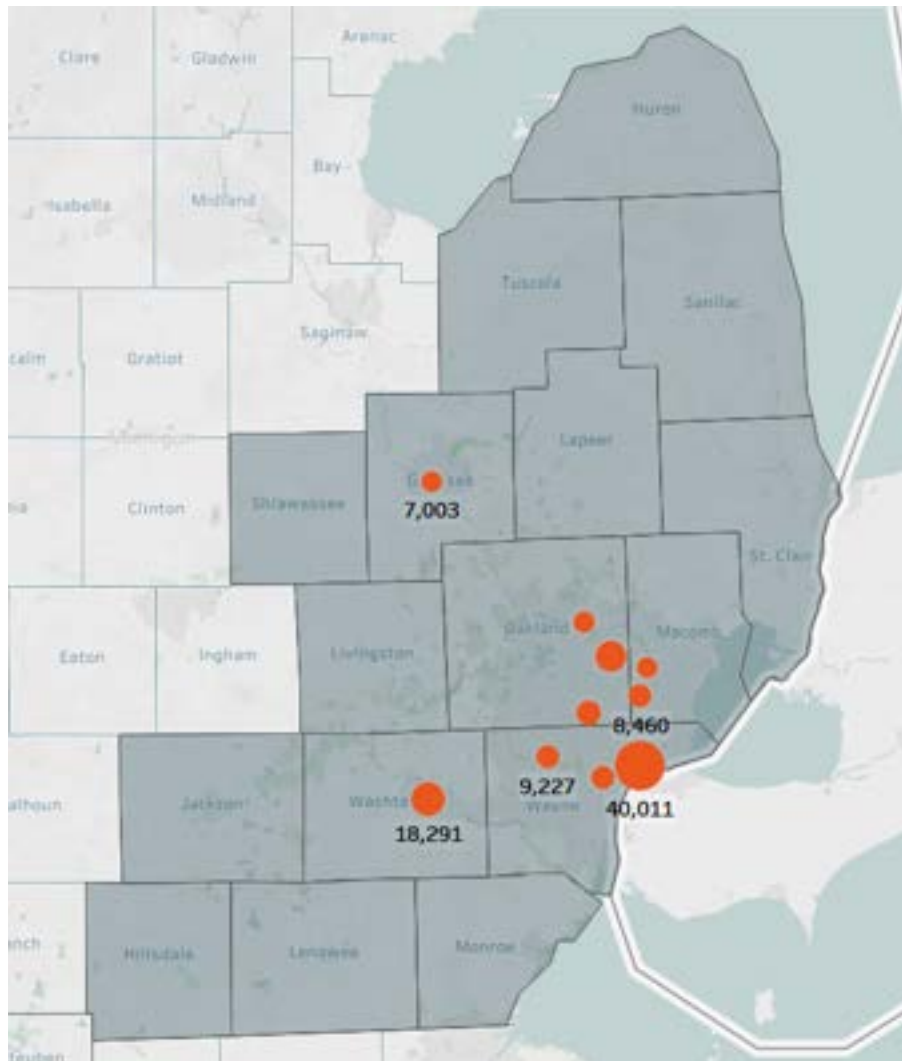


Top Posted Entry-Level Jobs
Q4 2020Top Posted Entry-Level
Jobs: Q4 2020

There were 71,053 online job ads open to individuals with zero to two years of previous work experience. Entry-level jobs such as Heavy and Tractor-Trailer Truck Drivers (8,604 postings) and Registered Nurses (6,774 postings) represent the top posted occupations for this experience level, and many reflect the overall top jobs. Over half of the top 20 occupations require candidates to have a no formal education or a high school diploma, coupled with short to moderate-term on-the-job training. Many applicants for these entry level occupations, regardless of education requirement, could benefit from taking some coursework to develop the skills requested in job postings.



Employer Demand by City



Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Licensed Practical Nurse
- Bachelor of Science in Nursing (BSN)
- Certified Nursing Assistant
- CNOR Certification
- Critical Care Registered Nurse (CCRN)
- Licensed Vocational Nurses
- Bachelor of Science in Business
- CDL Class B License
- Associates Degree In Nursing

Top In-Demand Skills

- Nursing
- Basic Life Support
- Merchandising
- Selling Techniques
- Auditing
- Communications
- Customer Service
- Management
- Sales
- Leadership

Top Posting Employers*

- Uber Technologies, Inc.
- Henry Ford Health System
- University of Michigan
- Penske Automotive Group, Inc.
- HealthCare Employment Network
- Mercy Medical Center, Inc.
- McLaren, Inc.
- Ascension
- Trinity Health Corporation
- Kelly Services, Inc.

**Employer names are listed as they appear in online job postings.*



Introduction

WIN's agriculture occupation group brings together occupations that require knowledge of the 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.



71,801

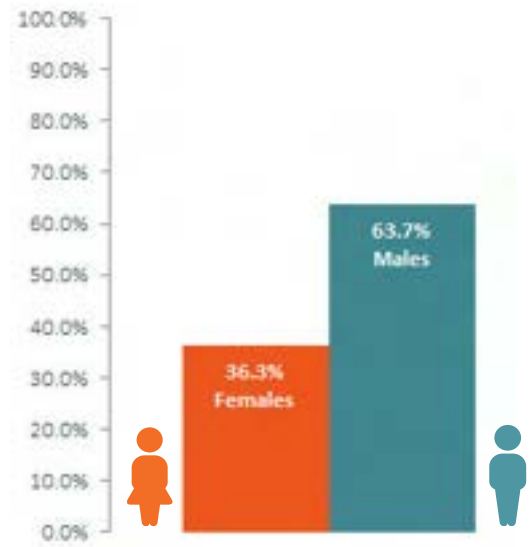
Agriculture Workers

0.1% Increase
from 2019

Employment Over Time 2001–2020



Worker Gender Demographics



Agriculture Worker Demographics

According to 2020 Emsi data, the 71,801 workers in agriculture occupations are not very diverse. A large majority of workers are white males between the ages of 25 and 54. Only 36.3 percent of agriculture workers identify as women, while 14.0 percent of workers were under the age of 25, compared to 22.7 percent of workers are age 55 or older.

Race and Ethnicity Demographics

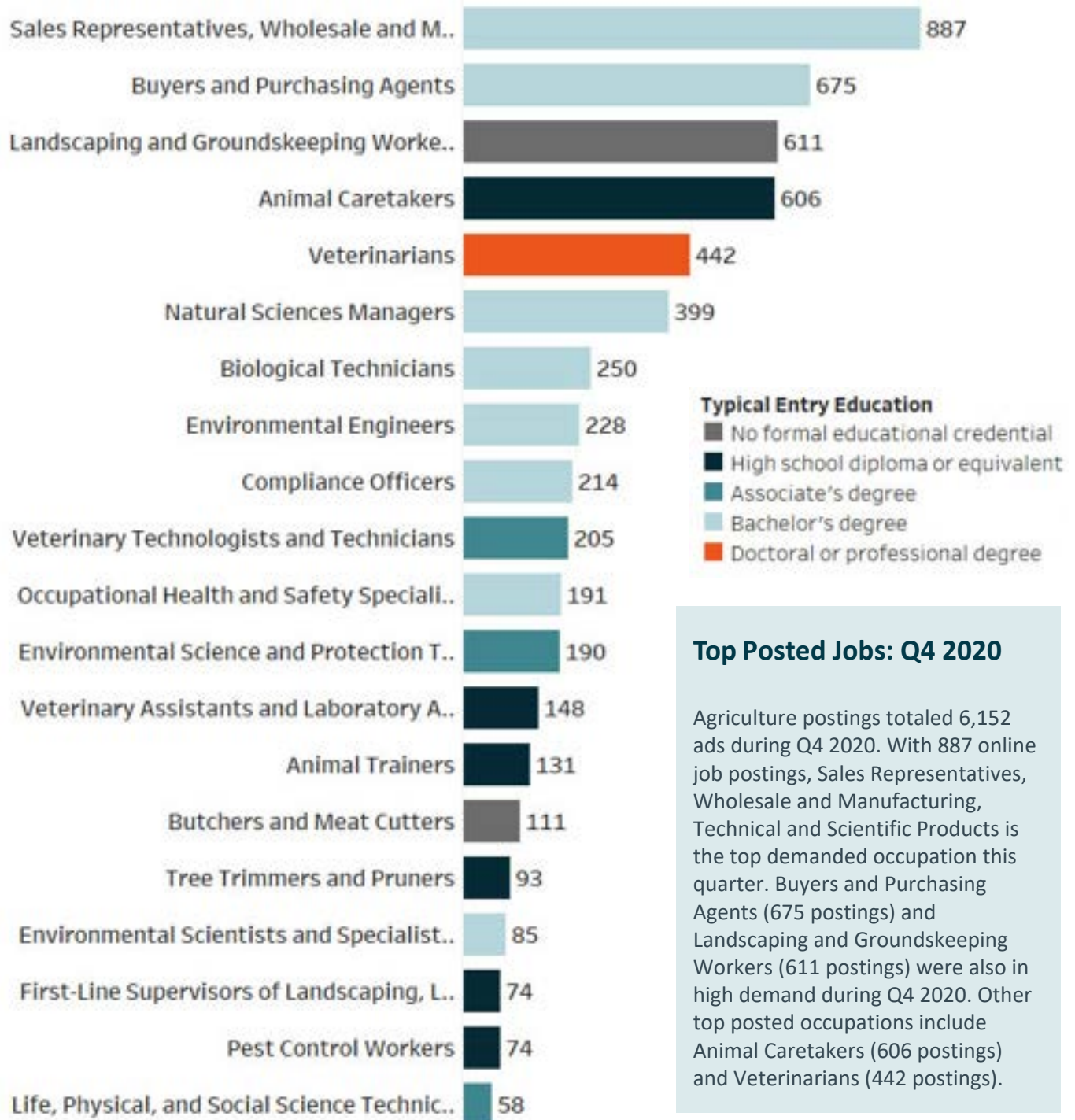
75.9% White | 12.2% Black or African American | 6.8% Hispanic or Latino

Worker Age Demographics





Agriculture Top Posted Jobs Q4 2020





Agriculture Wage Overview

Of the top posted agriculture-related jobs, over half of the top ten occupations in Q4 offer median wages of more than \$30 per hour. The top posted job, Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products, offers median hourly earnings of \$49.04, which translates to annual earnings of approximately \$93,101. 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 Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$26.66	\$33.95	\$49.04	\$63.30	\$78.41
13-1028	Buyers and Purchasing Agents	\$19.96	\$25.44	\$33.42	\$44.12	\$55.51
37-3011	Landscaping and Groundskeeping Workers	\$10.59	\$12.01	\$14.28	\$17.42	\$20.49
39-2021	Animal Caretakers	\$9.71	\$10.43	\$11.47	\$13.07	\$16.05
29-1131	Veterinarians	\$30.73	\$34.97	\$41.48	\$52.56	\$64.41
11-9121	Natural Sciences Managers	\$36.20	\$42.01	\$51.59	\$67.29	\$85.06
19-4021	Biological Technicians	\$15.25	\$16.97	\$19.74	\$24.52	\$29.12
17-2081	Environmental Engineers	\$28.01	\$34.28	\$43.69	\$56.34	\$66.17
13-1041	Compliance Officers	\$19.59	\$26.37	\$35.21	\$44.53	\$48.55
29-2056	Veterinary Technologists and Technicians	\$13.80	\$15.50	\$17.78	\$20.51	\$23.82

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Purchasing
- Selling Techniques
- Auditing
- Landscaping
- Surgery

In-Demand Foundational Skills

- Communications
- Management
- Sales
- Customer Service
- Leadership

In-Demand Education Level*

- High School Diploma: 20.5%
- Associate Degree: 7.2%
- Bachelor's Degree: 28.8%
- Master's Degree: 6.5%

In-Demand Qualifications

- Doctor Of Veterinary Medicine (DVM/VMD)
- Certified Veterinary Technician
- Commercial Driver's License (CDL)
- Bachelor of Science in Business
- Pesticide Applicator License

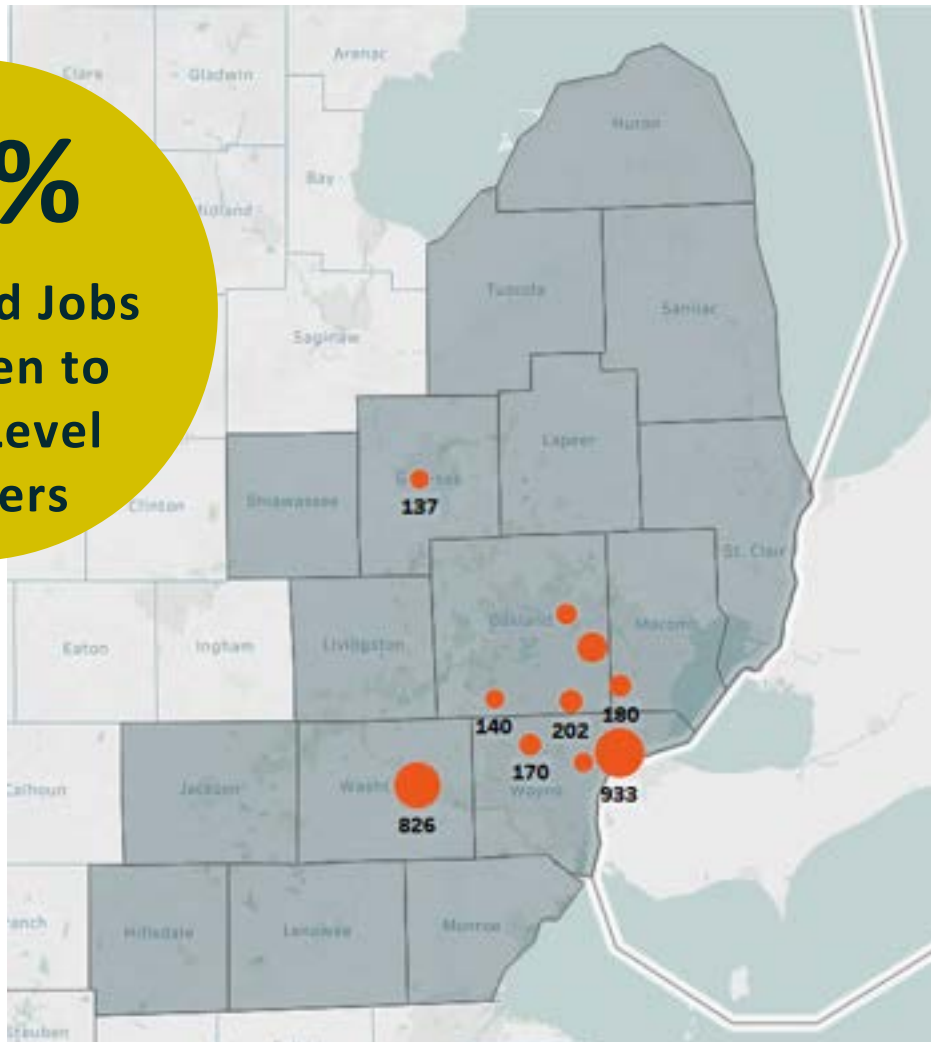
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent



Employer Demand by City

14%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- University of Michigan
- Banfield Pet Hospital
- Petsmart, Inc.
- Petco Inc
- Oracle Corporation
- Kelly Services, Inc.
- The Davey Tree Expert Company
- Bluepearl LLC
- Care.com, Inc.
- IQVIA

Job Postings by City

1. Detroit: 933 Postings
2. Ann Arbor: 826 Postings
3. Troy: 349 Postings
4. Southfield: 202 Postings
5. Warren: 180 Postings
6. Livonia: 170 Postings
7. Auburn Hills: 164 Postings
8. Novi: 140 Postings
9. Flint: 137 Postings
10. Dearborn: 130 Postings

*Employer names are listed as they appear in online job postings.



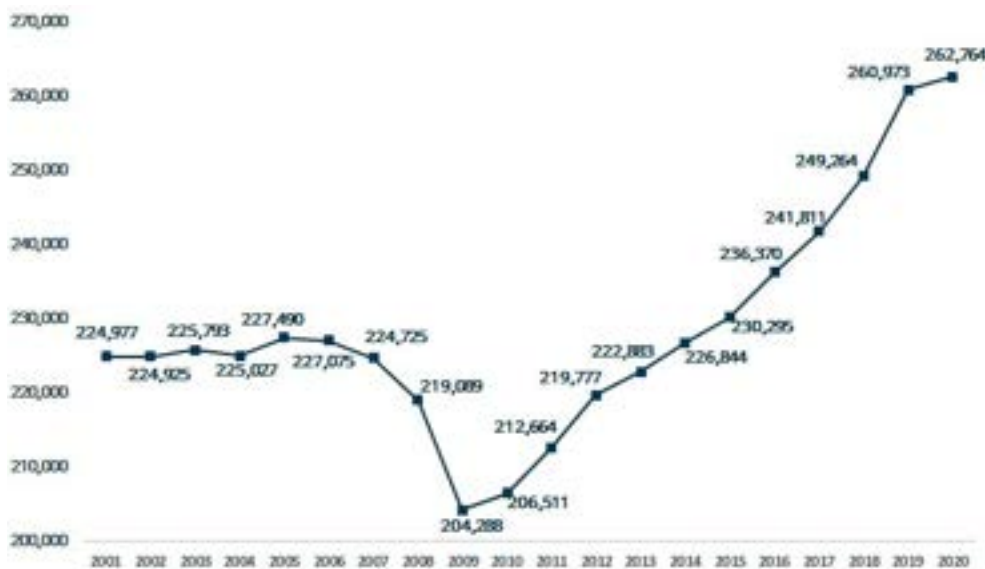
Introduction

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.

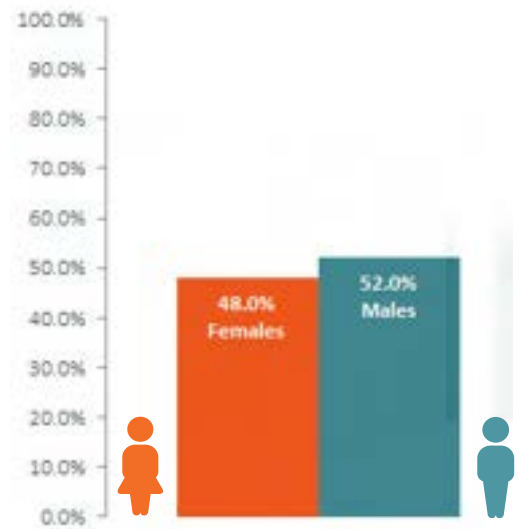


262,764
**Business and
Finance Workers**
0.7% Increase from
2019

Employment Over Time
2001–2020



**Worker Gender
Demographics**



Business and Finance Worker Demographics

The business and finance occupation group is somewhat diverse in respect to its nearly 262,764 workers. Almost half the working population identify as female (48.0 percent), however 80.6 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 25.0 percent 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.

Race and Ethnicity Demographics

80.6% White | **10.8% Black or African American** | **4.2% Asian**

Worker Age Demographics





Business and Finance Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

There were 30,928 business and finance postings during Q4 2020, indicating increased employer demand this quarter. General and Operations Managers is the top in-demand occupation through Q4 2020, with 2,986 postings. Accountants and Auditors (2,537 postings) is the second highest demanded, while Sales Managers (2,473 postings), Marketing Managers (2,276 postings), and Insurance Sales Agents (1,962 postings) round out the top demanded occupations.



Business and Finance 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, General and Operations Managers, offers median hourly wages of \$51.18, translating to annual earnings of approximately \$106,454. All the top business occupations offer median wages over \$23 per hour, and most prefer a bachelor's degree for entry.

Wage Overview for Top Posted Business and Finance Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
11-1021	General and Operations Managers	\$22.16	\$33.03	\$51.18	\$80.19	\$114.61
13-2011	Accountants and Auditors	\$21.56	\$26.35	\$33.71	\$44.11	\$58.20
11-2022	Sales Managers	\$35.37	\$50.33	\$66.75	\$83.07	\$120.34
11-2021	Marketing Managers	\$37.09	\$48.32	\$62.84	\$79.05	\$110.64
41-3021	Insurance Sales Agents	\$15.24	\$18.50	\$26.39	\$41.58	\$64.66
13-1111	Management Analysts	\$25.78	\$32.28	\$41.20	\$53.73	\$75.87
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$14.42	\$20.75	\$32.26	\$47.31	\$62.94
11-3031	Financial Managers	\$36.44	\$46.26	\$61.33	\$78.73	\$112.83
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$30.65	\$38.61	\$50.40	\$62.41	\$78.02
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$15.04	\$17.51	\$23.95	\$41.10	\$68.79

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Auditing
- Selling Techniques
- Forecasting
- Business Development

In-Demand Foundational Skills

- Communications
- Sales
- Management
- Customer Service
- Leadership

In-Demand Education Level*

- High School Diploma: 16.1%
- Associate Degree: 4.5%
- Bachelor's Degree: 44.3%
- Master's Degree: 11.7%

In-Demand Certifications

- Bachelor of Science in Business
- Certified Public Accountant
- Series 7 General Securities Representative License (Stockbroker)
- Bachelor of Science in Business Administration
- Project Management Professional Certification

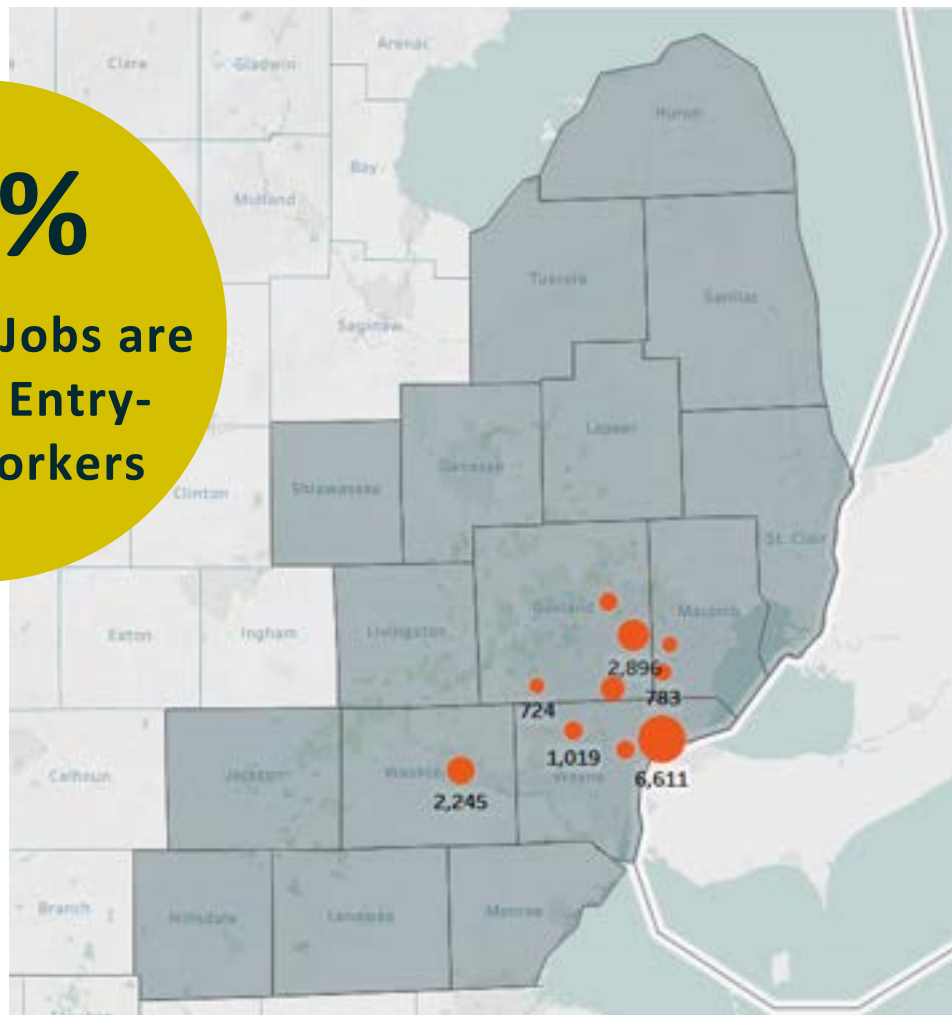
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent



Employer Demand by City

11%

**of Posted Jobs are
Open to Entry-
Level Workers**



Top Posting Employers*

- Oracle Corporation
- Virtual Vocations
- JPMorgan Chase & Co.
- Robert Half International Inc.
- Deloitte LLP
- Independent Insurance Agents
- Kelly Services, Inc.
- Flagstar Bancorp, Inc.
- Intuit Inc.
- H&R Block, Inc.

Job Postings by City

1. Detroit: 6,611 Postings
2. Troy: 2,896 Postings
3. Ann Arbor: 2,245 Postings
4. Southfield: 1,673 Postings
5. Livonia: 1,019 Postings
6. Dearborn: 981 Postings
7. Auburn Hills: 869 Postings
8. Warren: 783 Postings
9. Novi: 724 Postings
10. Sterling Heights: 664 Postings

**Employer names are listed as they appear in online job postings.*



Introduction

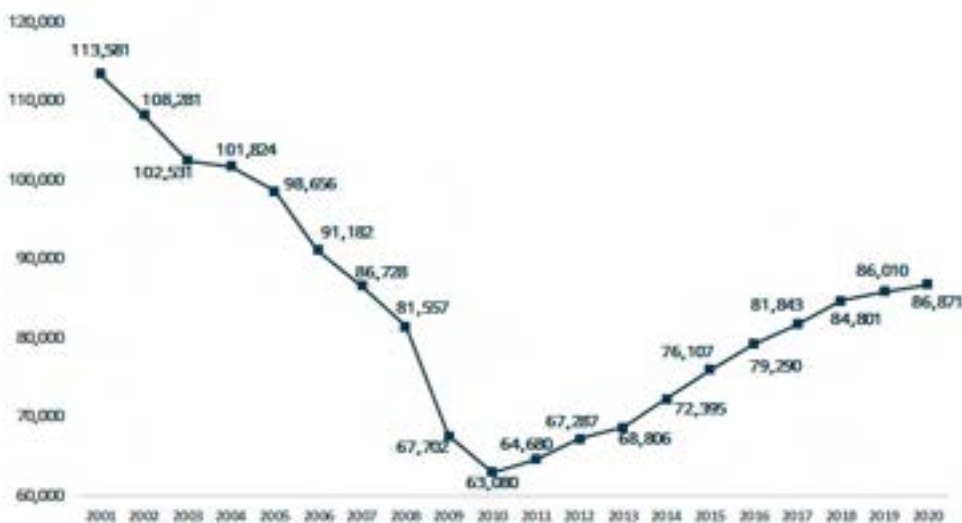
Jobs in the WIN construction occupation group are associated with the skilled trades, engineering, management, and planning. Many construction employers are slowly adopting online job search methods, so online job ads may not provide a complete picture of demand for these workers. Even so, it is an important and in-demand occupation group for southeast Michigan, with about 14,000 annual job openings and posting data provides a glimpse into employer needs.



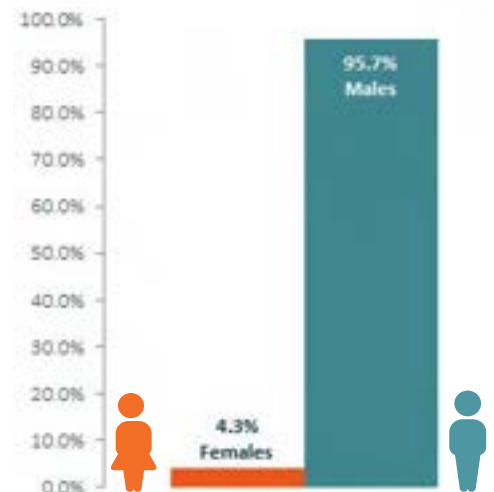
86,871 Construction Workers

1.0% Increase
from 2019

Employment Over Time 2001–2020



Worker Gender Demographics



Construction Worker Demographics

The construction occupation group is not very diverse, despite having over 86,871 workers. A large majority of workers are white males between the ages of 25 and 54. Only 4.3 percent of workers identified as female, while 16.6 percent identified as a race other than white. There is 10.7 percent of workers under the age of 25, while workers aged 55 and older accounted for 19.6 percent.

Race and Ethnicity Demographics

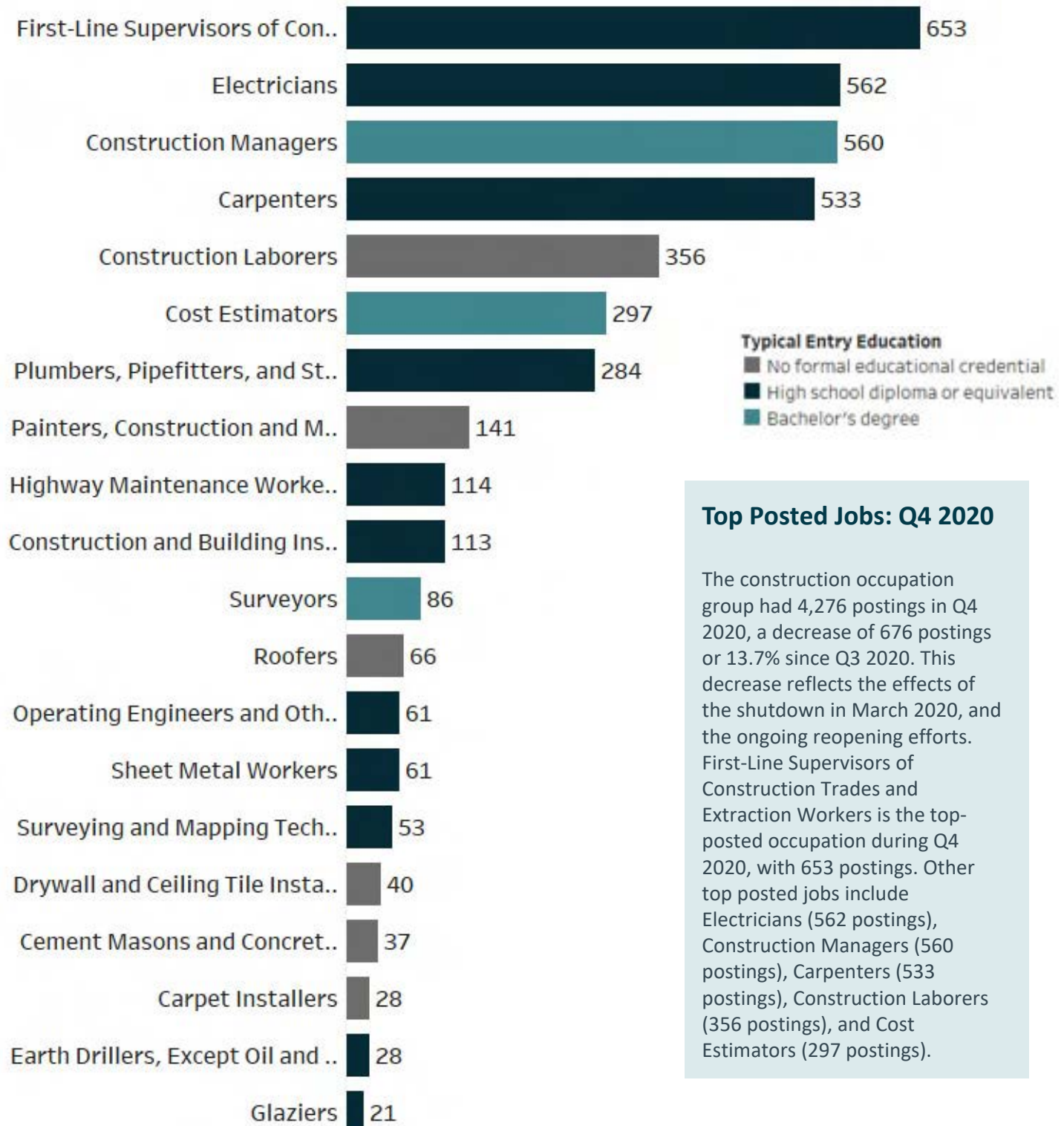
83.4% White | **7.2% Black or African American** | **7.0% Hispanic or Latino**

Worker Age Demographics





Construction Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

The construction occupation group had 4,276 postings in Q4 2020, a decrease of 676 postings or 13.7% since Q3 2020. This decrease reflects the effects of the shutdown in March 2020, and the ongoing reopening efforts. First-Line Supervisors of Construction Trades and Extraction Workers is the top-posted occupation during Q4 2020, with 653 postings. Other top posted jobs include Electricians (562 postings), Construction Managers (560 postings), Carpenters (533 postings), Construction Laborers (356 postings), and Cost Estimators (297 postings).



Construction Wage Overview

The top posted construction job, First-Line Supervisors of Construction Trades and Extraction Workers offers a median wage of \$34.77 per hour or \$72,322 per year. Those working in apprentice-able occupations can also anticipate high wage potential, such as Plumbers, Pipefitters, and Steamfitters, which report a median wage of \$34.44 per hour or \$71,800 annually.

Wage Overview for Top Posted Construction Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.44	\$26.97	\$34.77	\$44.10	\$51.67
47-2111	Electricians	\$17.70	\$24.18	\$32.65	\$38.75	\$47.53
11-9021	Construction Managers	\$31.07	\$37.18	\$49.23	\$62.61	\$79.81
47-2031	Carpenters	\$15.01	\$18.15	\$25.87	\$32.74	\$37.51
47-2061	Construction Laborers	\$12.83	\$15.08	\$19.36	\$24.60	\$29.41
13-1051	Cost Estimators	\$17.26	\$22.81	\$30.56	\$40.80	\$50.66
47-2152	Plumbers, Pipefitters, and Steamfitters	\$16.12	\$25.24	\$34.44	\$40.30	\$46.39
47-2141	Painters, Construction and Maintenance	\$12.99	\$15.44	\$19.05	\$24.45	\$29.76
47-4051	Highway Maintenance Workers	\$13.71	\$17.31	\$21.15	\$25.25	\$28.72
47-4011	Construction and Building Inspectors	\$13.65	\$19.32	\$27.33	\$32.84	\$37.57

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Carpentry
- Subcontracting
- Construction Management
- Plumbing
- Renovation

In-Demand Foundational Skills

- Construction
- Valid Driver's License
- Communications
- Android (Operating System)
- Apple iOS

In-Demand Education Level*

- High School Diploma: 21.1%
- Associate Degree: 6.6%
- Bachelor's Degree: 12.8%
- Master's Degree: 0.6%

In-Demand Certifications

- Commercial Driver's License (CDL)
- Journeyman Electrician
- Project Management Professional Certification
- National Apprenticeship Certificate
- Pesticide Applicator License

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



Employer Demand by City

8%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- Growing People and Companies
- Michael Page International, Inc.
- Allied Building Svc.
- Aerotek, Inc.
- Domino's Pizza
- HomeAdvisor, Inc.
- Army National Guard
- Contractor
- The Skilled Trades Company
- Leaffilter North LLC

Job Postings by City

1. Detroit: 1,203 Postings
2. Ann Arbor: 318 Postings
3. Livonia: 209 Postings
4. Flint: 162 Postings
5. Troy: 119 Postings
6. Sterling Heights: 118 Postings
7. Novi: 100 Postings
8. Warren: 99 Postings
9. Jackson: 93 Postings
10. Southfield: 88 Postings

**Employer names are listed as they appear in online job postings.*



Introduction

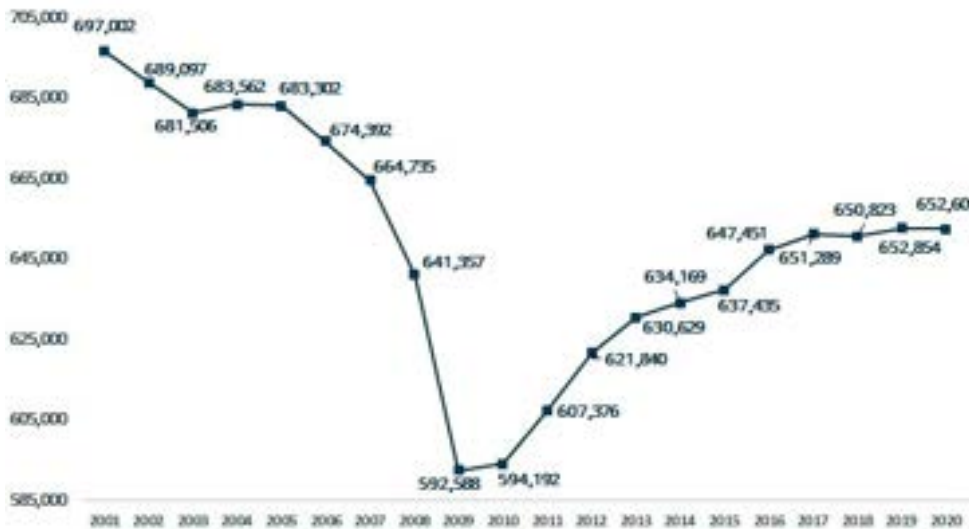
The customer service group is the largest occupation group that WIN analyzes, both in terms of employment and online job postings, and reports over 100,000 job openings annually. This group is of very high importance to the region because it is the first to grow when the economy expands and the first to contract in a downturn: it is often a leading indicator. The large number of postings for this occupation group are due in part to the relatively high worker turnover. 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. These skills are also transferrable to public-facing positions in many other occupation groups.



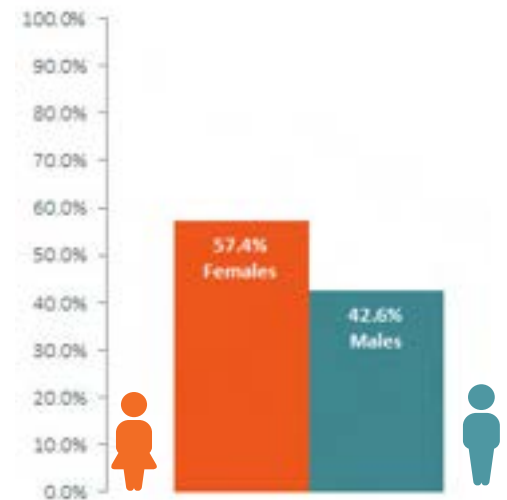
652,609
Customer Service
Workers

A decrease of 245
workers from 2019

Employment Over Time
2001–2020



Worker Gender
Demographics



Customer Service Worker Demographics

In Q4 2020, there were 652,609 workers in the customer service occupation group, with a more diverse workforce than other groups analyzed. During Q4 2020, 57.4 percent of workers identified as female, while 28.3 percent of workers in customer service identified as a racial minority. A quarter of the customer service workers (25.4 percent) were under the age of 24, as compared to the 55 and older age group which was 20.1 percent.

Race and Ethnicity Demographics

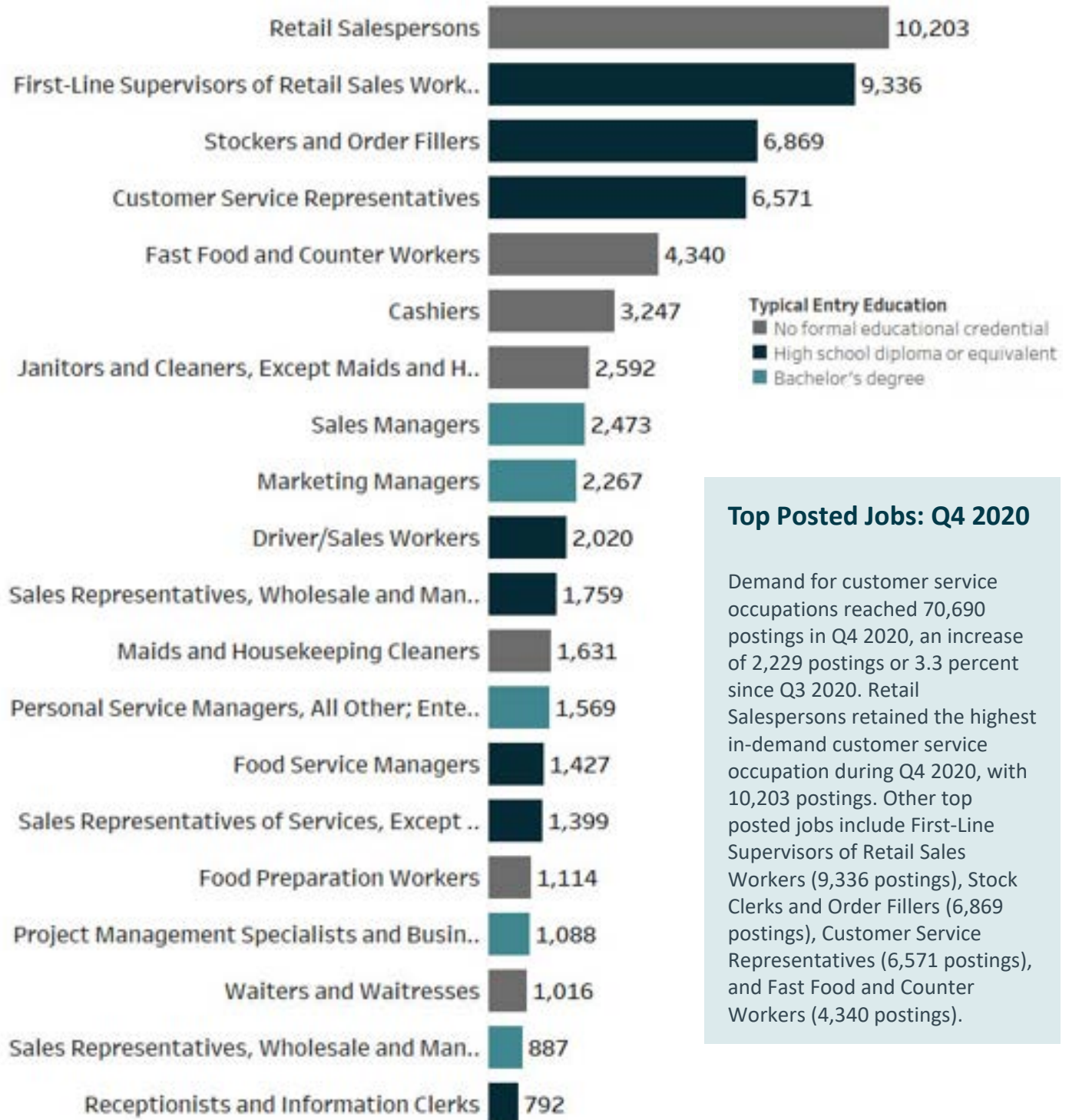
71.7% White | **17.9% Black or African American** | **4.7% Hispanic or Latino**

Worker Age Demographics





Customer Service Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

Demand for customer service occupations reached 70,690 postings in Q4 2020, an increase of 2,229 postings or 3.3 percent since Q3 2020. Retail Salespersons retained the highest in-demand customer service occupation during Q4 2020, with 10,203 postings. Other top posted jobs include First-Line Supervisors of Retail Sales Workers (9,336 postings), Stock Clerks and Order Fillers (6,869 postings), Customer Service Representatives (6,571 postings), and Fast Food and Counter Workers (4,340 postings).



Customer Service Wage Overview

Despite being in high demand, most customer service-related occupations offer relatively low wages. However, two of the top ten posted occupations report median wages over the state's median wage of \$18.60 per hour, many of which are management roles requiring both education and experience. The top posted occupation this quarter, Retail Salespersons earn a median hourly wage of \$11.97. With interest in gaining additional experience and training, workers can transition to managerial positions such as First-Line Supervisors of Retail Sales Workers, which has a median wage of \$18.57 per hour or \$38,626 annually.

Wage Overview for Top Posted Customer Service Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-2031	Retail Salespersons	\$9.68	\$10.50	\$11.97	\$14.91	\$21.50
41-1011	First-Line Supervisors of Retail Sales Workers	\$12.16	\$14.71	\$18.57	\$25.21	\$33.45
53-7065	Stockers and Order Fillers	\$9.95	\$11.00	\$12.74	\$15.92	\$20.66
43-4051	Customer Service Representatives	\$11.30	\$13.43	\$16.76	\$21.83	\$29.14
35-3023	Fast Food and Counter Workers	\$9.69	\$9.94	\$10.53	\$11.68	\$12.83
41-2011	Cashiers	\$9.66	\$10.06	\$10.97	\$12.15	\$14.56
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$9.90	\$10.72	\$12.29	\$15.68	\$19.13
11-2022	Sales Managers	\$35.37	\$50.33	\$66.75	\$83.07	\$120.34
11-2021	Marketing Managers	\$37.09	\$48.32	\$62.84	\$79.05	\$110.64
53-3031	Driver/Sales Workers	\$9.80	\$10.16	\$12.63	\$20.35	\$24.82

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Customer Service
- Sales
- Communications
- Management
- Leadership

In-Demand Education Level*

- High School Diploma: 33.4%
- Associate Degree: 4.1%
- Bachelor's Degree: 12.0%
- Master's Degree: 2.4%

In-Demand Certifications

- Automotive Service Excellence (ASE) Certification
- Bachelor of Science in Business
- Commercial Driver's License (CDL)
- ServSafe Certification
- Food Handler's Card

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



Employer Demand by City

13%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- Amazon.com, Inc.
- Dollar General Corporation
- The Home Depot
- AutoZone, Inc.
- Wal-Mart, Inc.
- Dollar Tree, Inc.
- The Kroger Co
- CVS Health Corporation
- Shipt, Inc.
- Lowe's Companies, Inc.

Job Postings by City

1. Detroit: 6,282 Postings
2. Troy: 3,584 Postings
3. Ann Arbor: 3,510 Postings
4. Livonia: 2,068 Postings
5. Novi: 1,922 Postings
6. Southfield: 1,897 Postings
7. Auburn Hills: 1,592 Postings
8. Warren: 1,555 Postings
9. Dearborn: 1,530 Postings
10. Flint: 1,455 Postings

*Employer names are listed as they appear in online job postings.



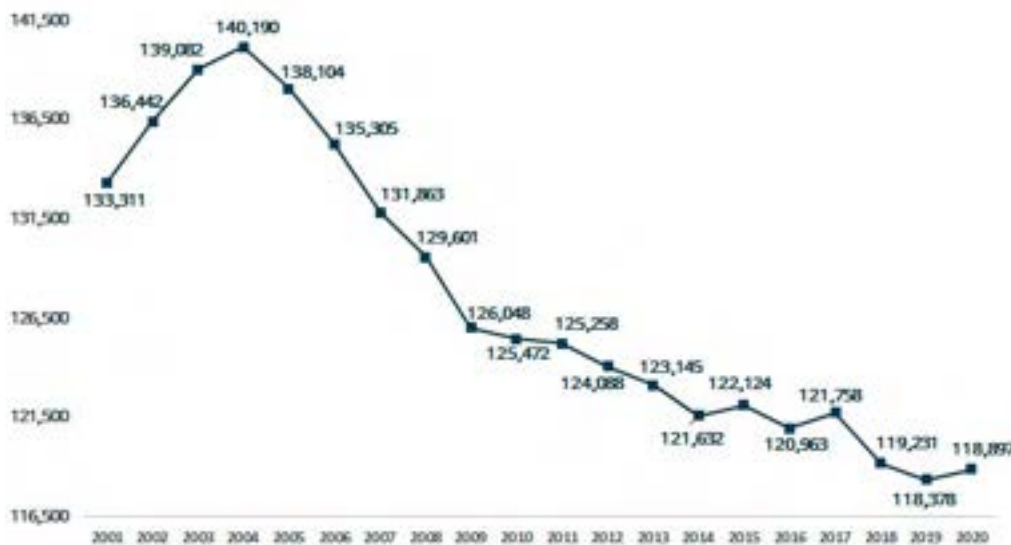
Introduction

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.

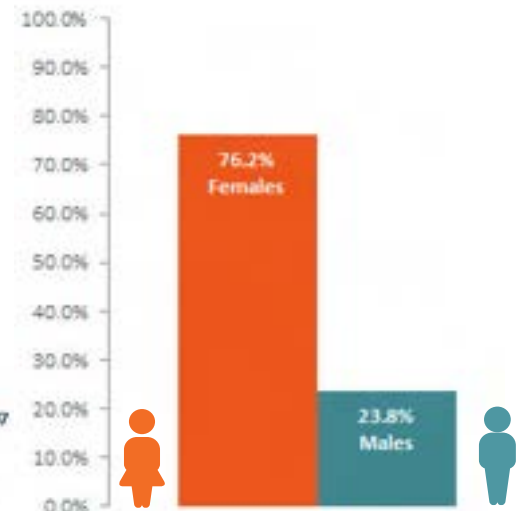


118,897
Education Workers
0.4% Increase from
2019

Employment Over Time
2001–2020



Worker Gender Demographics



Education Worker Demographics

Due to many schools shifting to distance learning and providing online classes, employment decreased by 519 or 0.4 percent since 2019, for a total of 118,897 workers in 2020. This occupation group is composed primarily of white females between the ages of 25 and 54. Only 23.8 percent of workers are males, and only 19.2 percent of workers identify as a racial minority.

Race and Ethnicity Demographics

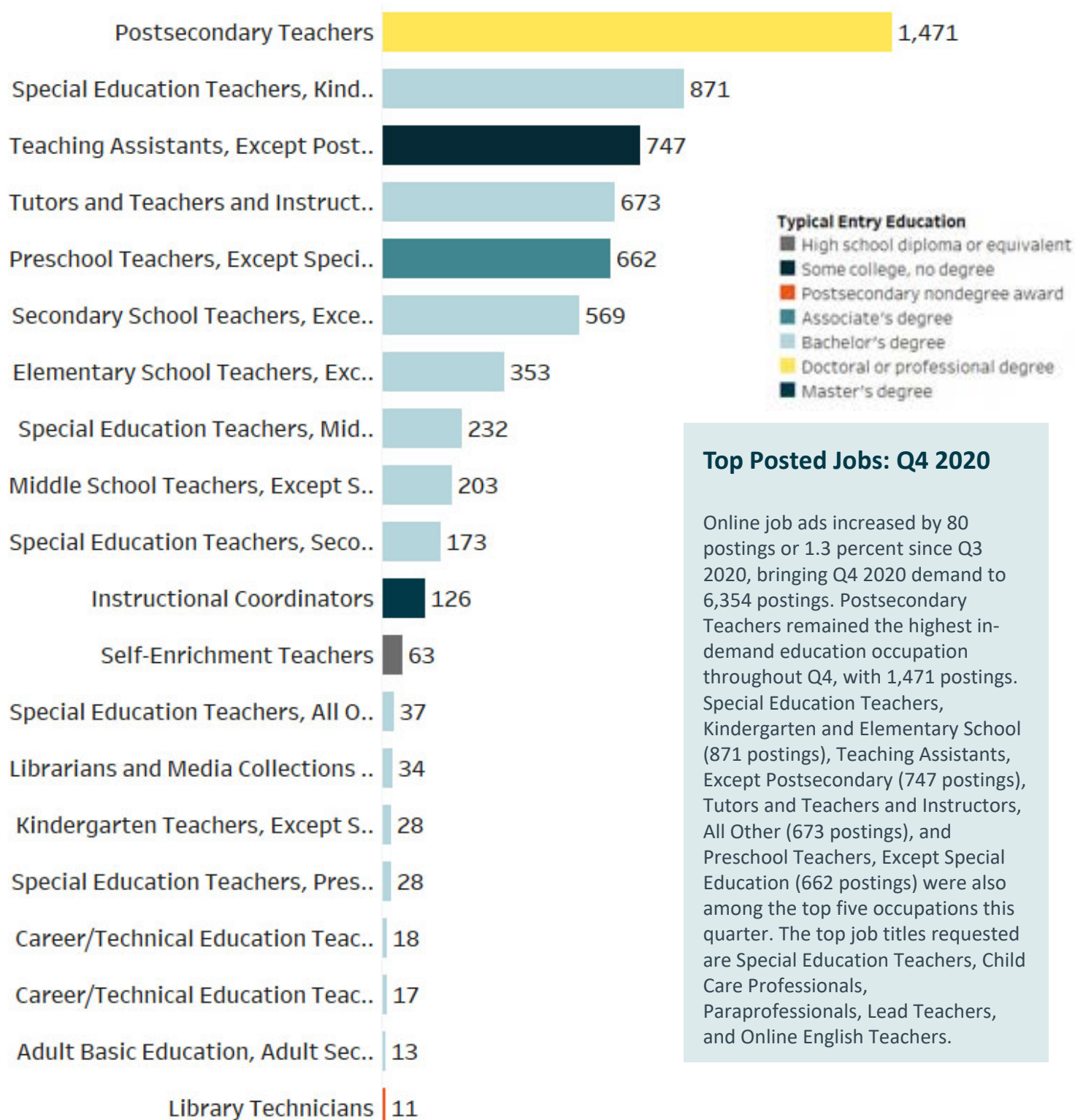
80.8% White | **11.0% Black or African-American** | **3.8% Asian**

Worker Age Demographics





Education Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

Online job ads increased by 80 postings or 1.3 percent since Q3 2020, bringing Q4 2020 demand to 6,354 postings. Postsecondary Teachers remained the highest in-demand education occupation throughout Q4, with 1,471 postings. Special Education Teachers, Kindergarten and Elementary School (871 postings), Teaching Assistants, Except Postsecondary (747 postings), Tutors and Teachers and Instructors, All Other (673 postings), and Preschool Teachers, Except Special Education (662 postings) were also among the top five occupations this quarter. The top job titles requested are Special Education Teachers, Child Care Professionals, Paraprofessionals, Lead Teachers, and Online English Teachers.



Education 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. Seven of the top ten posted education jobs offer median wages of over \$30 per hour. The top posted job, Postsecondary Teachers, offers a median wage of \$39.46 hourly, translating to annual earnings of about \$82,077.

Wage Overview for Top Posted Education Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
25-1099	Postsecondary Teachers	\$16.59	\$24.26	\$39.46	\$56.69	\$74.38
25-2052	Special Education Teachers, Kindergarten and Elementary School	\$20.92	\$25.16	\$31.23	\$41.07	\$48.00
25-9045	Teaching Assistants, Except Postsecondary	\$9.88	\$11.29	\$13.35	\$15.53	\$18.49
25-3097	Tutors and Teachers and Instructors, All Other	\$10.54	\$12.58	\$19.85	\$30.28	\$41.36
25-2011	Preschool Teachers, Except Special Education	\$10.06	\$11.26	\$14.33	\$20.52	\$27.26
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$19.79	\$23.65	\$30.71	\$38.91	\$45.68
25-2021	Elementary School Teachers, Except Special Education	\$19.47	\$24.22	\$34.44	\$43.74	\$51.92
25-2057	Special Education Teachers, Middle School	\$23.77	\$26.63	\$32.07	\$40.42	\$46.32
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$19.83	\$23.88	\$32.07	\$39.79	\$46.37
25-2058	Special Education Teachers, Secondary School	\$22.31	\$28.17	\$34.26	\$39.63	\$48.75

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Special Education
- Child Development
- Individualized Education Programs (IEP)
- Lesson Planning
- Cardiopulmonary Resuscitation (CPR)

In-Demand Foundational Skills

- Teaching
- Communications
- Basic Math
- Leadership
- Research

In-Demand Education Level*

- High School Diploma: 12.2%
- Associate Degree: 7.3%
- Bachelor's Degree: 23.1%
- Master's Degree: 10.3%

In-Demand Certifications

- NHA Certified
- Teaching English As A Foreign Language
- Math Endorsement
- Science Endorsement
- Certificate In English Language Teaching To Adults (CELTA)

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



Employer Demand by City

6%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- Sunbelt Staffing, LLC
- Soliant Health, Inc
- Wayne RESA
- Procare Therapy, Inc.
- University of Michigan
- KinderCare Learning Centers
- Oakland University
- K12 Services Inc
- Care.com, Inc.
- Learning Care Group, Inc.

Job Postings by City

1. Detroit: 793 Postings
2. Ann Arbor: 469 Postings
3. Wayne: 347 Postings
4. Dearborn: 244 Postings
5. Flint: 225 Postings
6. Troy: 185 Postings
7. Rochester: 182 Postings
8. Livonia: 175 Postings
9. Sterling Heights: 173 Postings
10. Warren: 156 Postings

**Employer names are listed as they appear in online job postings.*



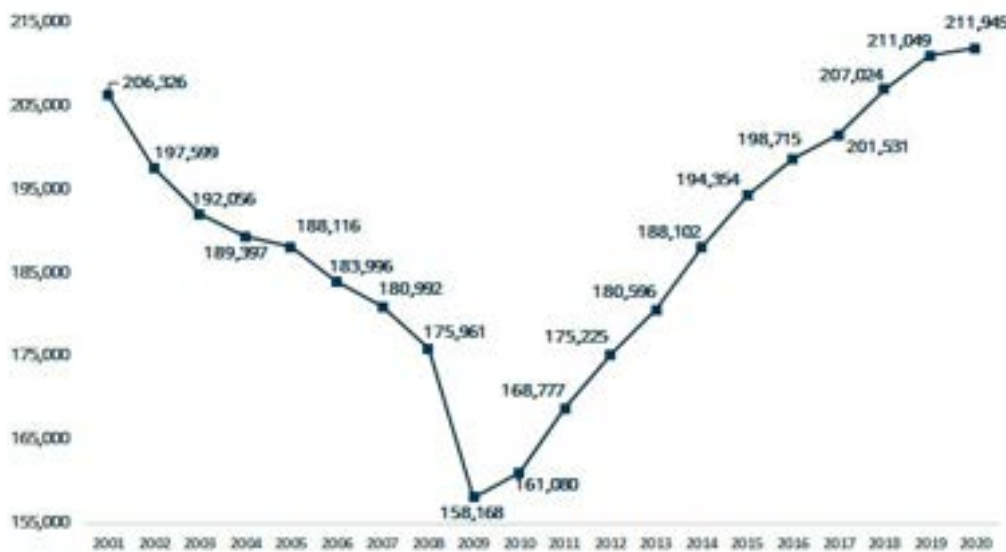
Introduction

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 pertain only to job postings from energy-related businesses, while employment and wage data apply for these workers in every industry.

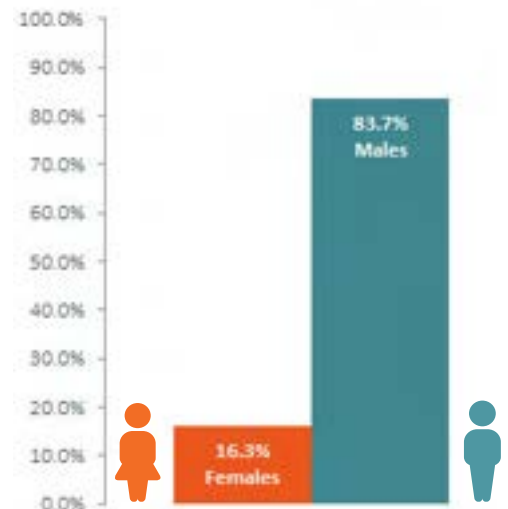


211,945
Energy Workers
0.4% Increase from
2019

Employment Over Time
2001–2020



Worker Gender Demographics



Energy Worker Demographics

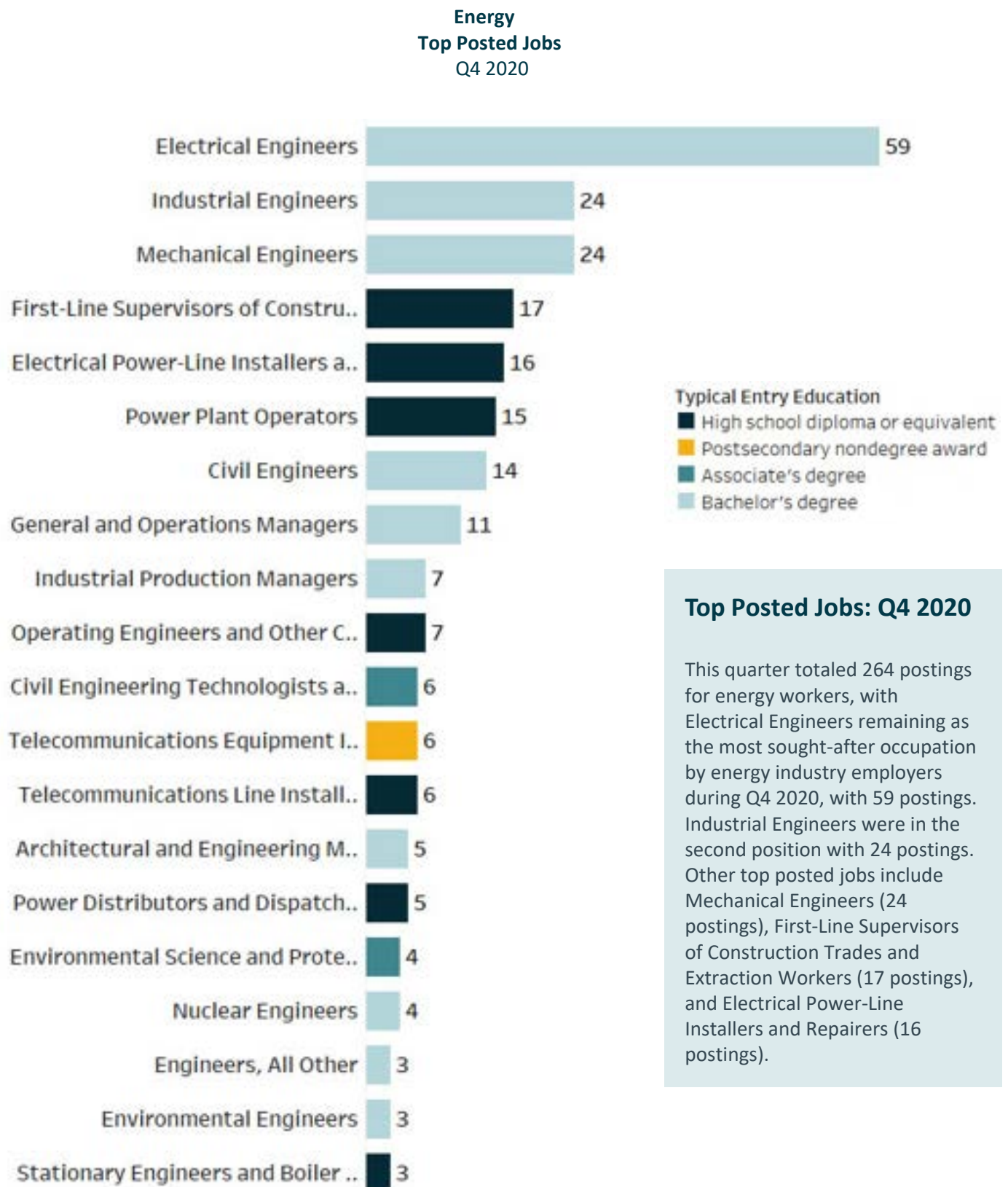
For Q4 2020, there were 211,945 workers in the energy occupation group. This group is primarily made up of white males between the ages of 25 and 54, with 16.3 percent of workers identifying as female and just 16.7 percent identifying as a racial minority. In 2020, 5.3 percent of the workers in the occupation group are under the age of 25 compared to the 24.5 percent 55 years of age or older.

Race and Ethnicity Demographics

78.9% White | **9.9% Black or African American** | **6.5% Asian**

Worker Age Demographics







Energy 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 have median wages over \$25 per hour. The top posted energy job, Electrical Engineers, offers a median hourly wage of \$44.80, or annual earnings of approximately \$93,184. Technician and construction-focused positions related to energy generally have shorter term educational requirements than engineers and pay somewhat higher than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2071	Electrical Engineers	\$31.31	\$36.89	\$44.80	\$54.12	\$63.09
17-2112	Industrial Engineers	\$31.07	\$36.68	\$45.08	\$54.42	\$61.97
17-2141	Mechanical Engineers	\$30.84	\$36.25	\$45.24	\$56.11	\$64.85
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.44	\$26.97	\$34.77	\$44.10	\$51.67
49-9051	Electrical Power-Line Installers and Repairers	\$17.96	\$25.62	\$37.24	\$44.40	\$49.87
51-8013	Power Plant Operators	\$30.81	\$35.21	\$41.01	\$48.05	\$57.38
17-2051	Civil Engineers	\$25.66	\$30.30	\$36.85	\$45.22	\$55.24
11-1021	General and Operations Managers	\$22.16	\$33.03	\$51.18	\$80.19	\$114.61
11-3051	Industrial Production Managers	\$34.73	\$44.06	\$56.18	\$70.30	\$85.86
47-2073	Operating Engineers and Other Construction Equipment Operators	\$20.36	\$23.69	\$27.64	\$31.82	\$37.84

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Engineering Design Process
- Electric Power Distribution
- Corrective And Preventive Action (CAPA)
- Electrical Engineering
- Voltage

In-Demand Foundational Skills

- Communications
- Management
- Operations
- Planning
- Problem Solving

In-Demand Education Level*

- High School Diploma: 26.5%
- Associate Degree: 17.4%
- Bachelor's Degree: 52.3%
- Master's Degree: 12.9%

In-Demand Certifications

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

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



Employer Demand by City

6%

**of Posted Jobs
are Open to
Entry-Level
Workers**



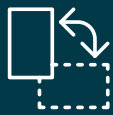
Top Posting Employers*

- CMS Energy Corporation
- DTE Energy Company
- Lg Electronics
- Henkels & McCoy, Inc.
- Service Electric Company
- Aegion Corporation
- Cavo Broadband Communications, LLC
- Itc Holdings Corp.
- ROYAL DUTCH SHELL PLC
- Omega Homes Inc

Job Postings by City

1. Jackson: 78 Postings
2. Detroit: 39 Postings
3. Ann Arbor: 13 Postings
4. Dearborn: 12 Postings
5. Canton: 10 Postings
6. Flint: 9 Postings
7. Howell: 9 Postings
8. Newport: 9 Postings
9. Troy: 9 Postings
10. Novi: 6 Postings

*Employer names are listed as they appear in online job postings.



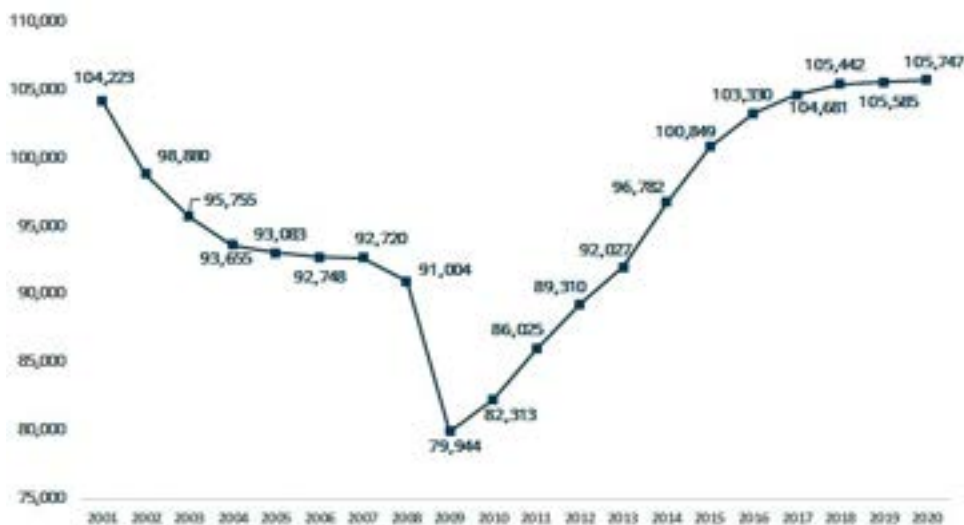
Introduction

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.

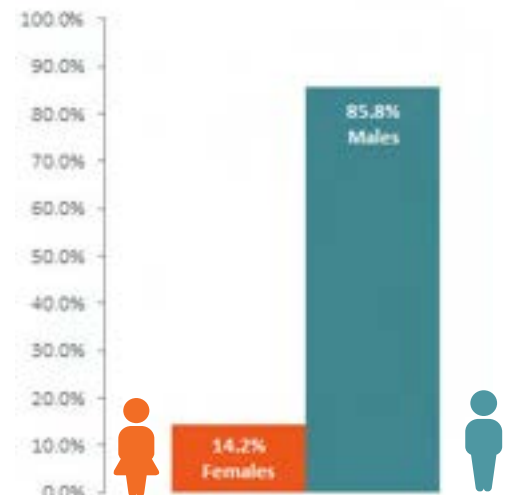


105,747
Engineering Workers
0.2% Increase from 2019

Employment Over Time
2001–2020



Worker Gender Demographics



Engineering and Design Worker Demographics

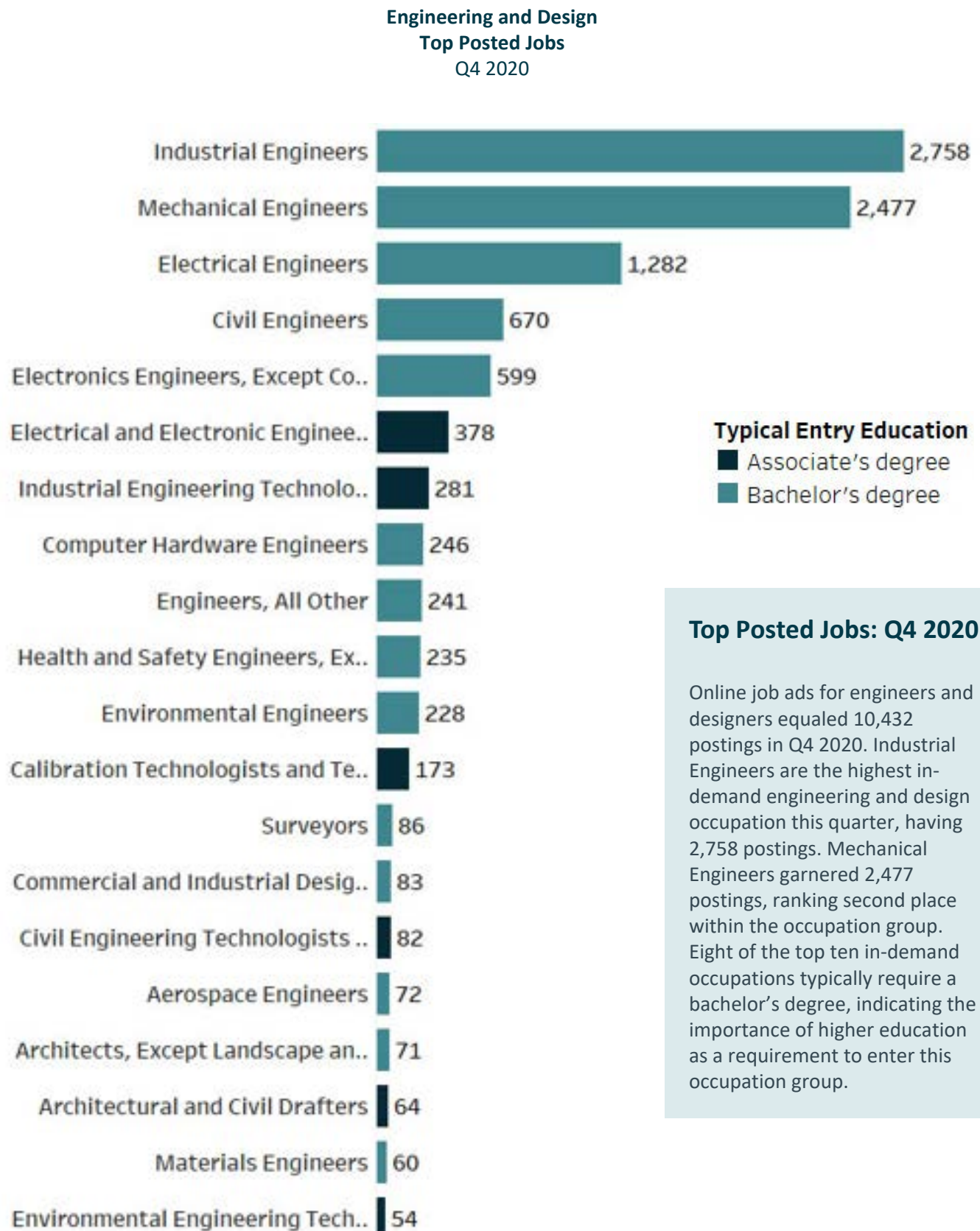
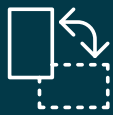
During Q4 2020, there were 105,747 workers in the engineering and design group. Majority of the workforce, 69.4 percent, are between the ages of 25-54, likely due to consistently high educational requirements. This group is heavily dominated by white males, with the female workers totaling just 14.2 percent of the current workforce. Minority engineering and design workers equal 18.2 percent of the workforce.

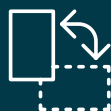
Race and Ethnicity Demographics

77.6% White | 10.1% Asian | 7.8% Black or African American

Worker Age Demographics







Engineering and Design Wage Overview

Most engineering and design related jobs offer high wages, providing a lucrative opportunity to job seekers willing to meet the minimum education requirements required for these jobs. Median wages are above \$27 per hour across the top occupations, and the top posted engineering and design job, Industrial Engineers, offers a median hourly wage of \$45.08, equating to an annual salary of approximately \$93,766.

Wage Overview for Top Posted Engineering and Design Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	\$31.07	\$36.68	\$45.08	\$54.42	\$61.97
17-2141	Mechanical Engineers	\$30.84	\$36.25	\$45.24	\$56.11	\$64.85
17-2071	Electrical Engineers	\$31.31	\$36.89	\$44.80	\$54.12	\$63.09
17-2051	Civil Engineers	\$25.66	\$30.30	\$36.85	\$45.22	\$55.24
17-2072	Electronics Engineers, Except Computer	\$33.96	\$41.28	\$50.98	\$60.97	\$81.44
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$17.81	\$22.13	\$28.62	\$34.73	\$39.69
17-3026	Industrial Engineering Technologists and Technicians	\$17.81	\$22.10	\$27.89	\$35.08	\$41.49
17-2061	Computer Hardware Engineers	\$21.44	\$29.37	\$44.04	\$57.52	\$67.51
17-2199	Engineers, All Other	\$24.98	\$33.85	\$43.09	\$55.63	\$64.46
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$33.12	\$38.77	\$47.93	\$58.29	\$68.70

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Communications
- Problem Solving
- Management
- Leadership
- Microsoft Office

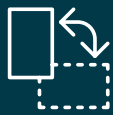
In-Demand Education Level*

- High School Diploma: 8.4%
- Associate Degree: 7.5%
- Bachelor's Degree: 50.4%
- Master's Degree: 14.3%

In-Demand Certifications

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

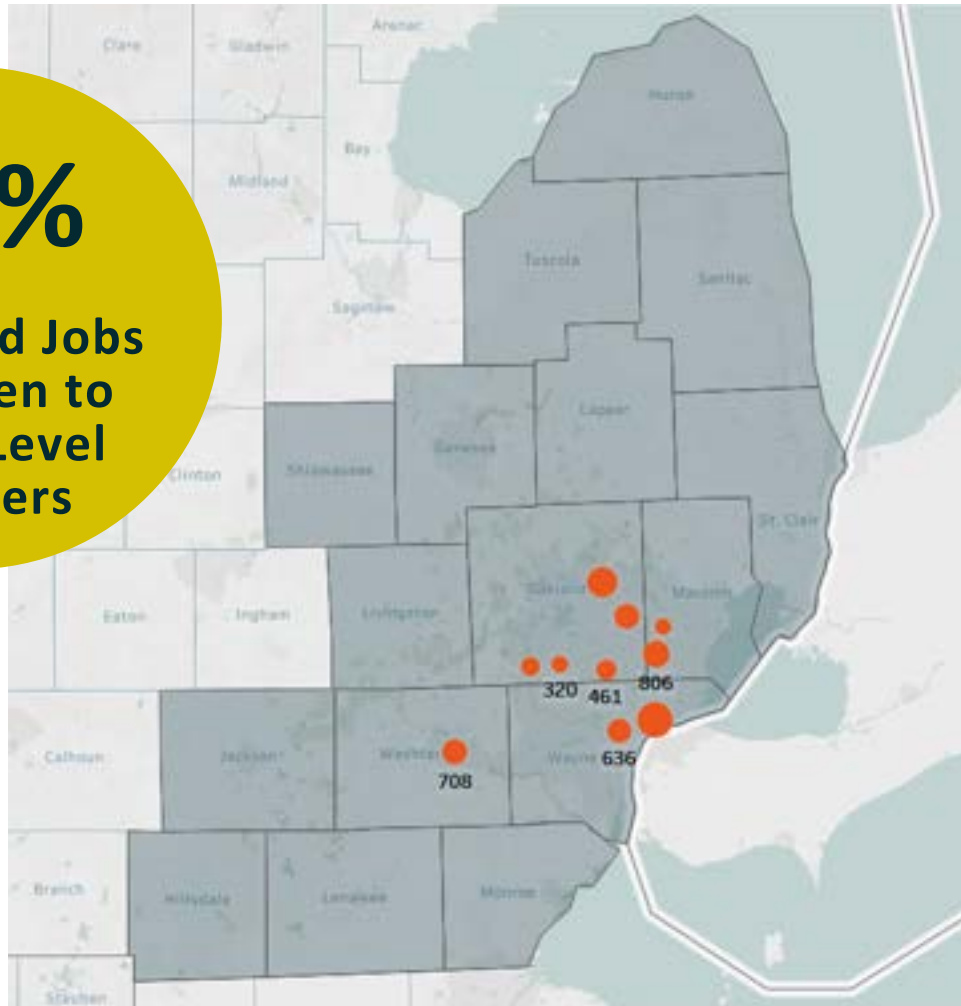
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent



Employer Demand by City

10%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- General Motors Company
- Kelly Services, Inc.
- Cynet Systems Inc.
- Aerotek, Inc.
- Gtech Services, Inc
- Ford Motor Company
- Growing People and Companies
- Iconma, L.L.C.
- ALTAIR ENGINEERING, INC.
- FCA US LLC

Job Postings by City

- Detroit: 1,424 Postings
- Auburn Hills: 1,047 Postings
- Warren: 806 Postings
- Troy: 712 Postings
- Ann Arbor: 708 Postings
- Dearborn: 636 Postings
- Southfield: 461 Postings
- Novi: 405 Postings
- Farmington Hills: 320 Postings
- Sterling Heights: 309 Postings

* Employer names are listed as they appear in online job postings.



Introduction

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, more health care workers needed to care for Michigan's aging population and in response to regulatory and other changes. Registered nurses are routinely the most in-demand job in this group. Annually, there are about 23,600 job openings for these positions, and this is projected to continue increasing.

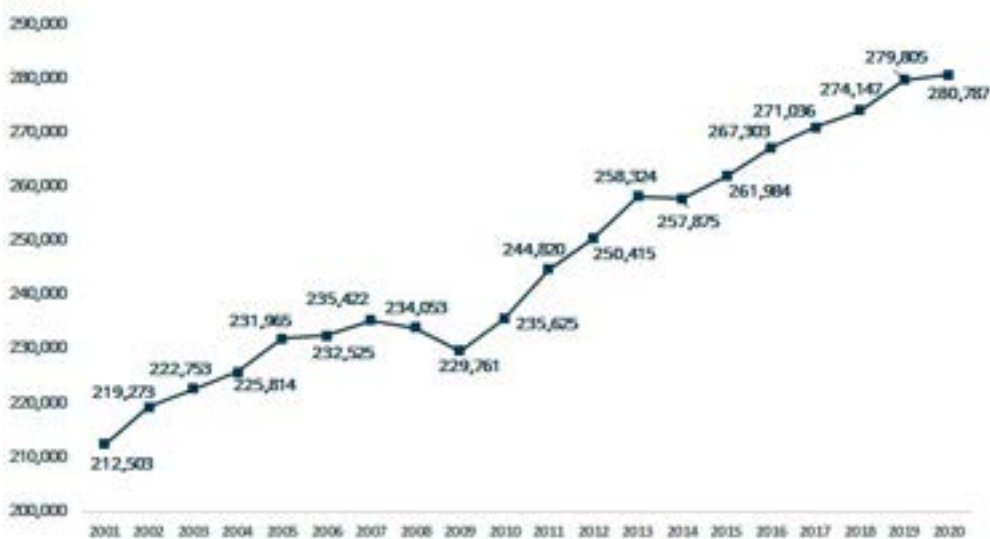


280,787

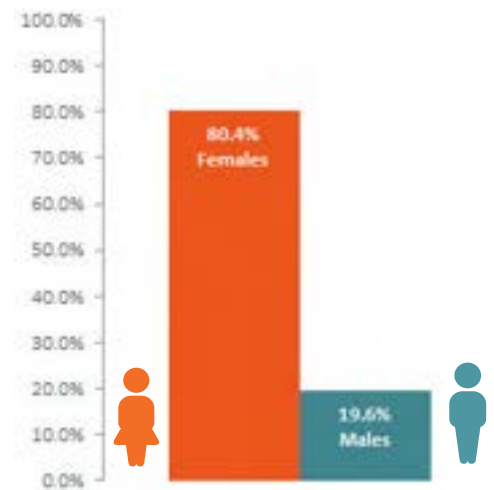
Health Care Workers

0.4% Increase from 2019

Employment Over Time
2001–2020



Worker Gender
Demographics



Health Care Worker Demographics

The health care occupation group employs around 280,787 workers, who are overwhelmingly female (80.4 percent) and between the ages of 25 and 54 (68.3 percent), although 22.5 percent of workers are 55 years of age or older. The racial composition of this group is somewhat more diverse than others, with 67.3 percent of workers identifying as white, 22.2 percent identifying as Black or African American, and 10.5 percent identifying otherwise.

Race and Ethnicity Demographics

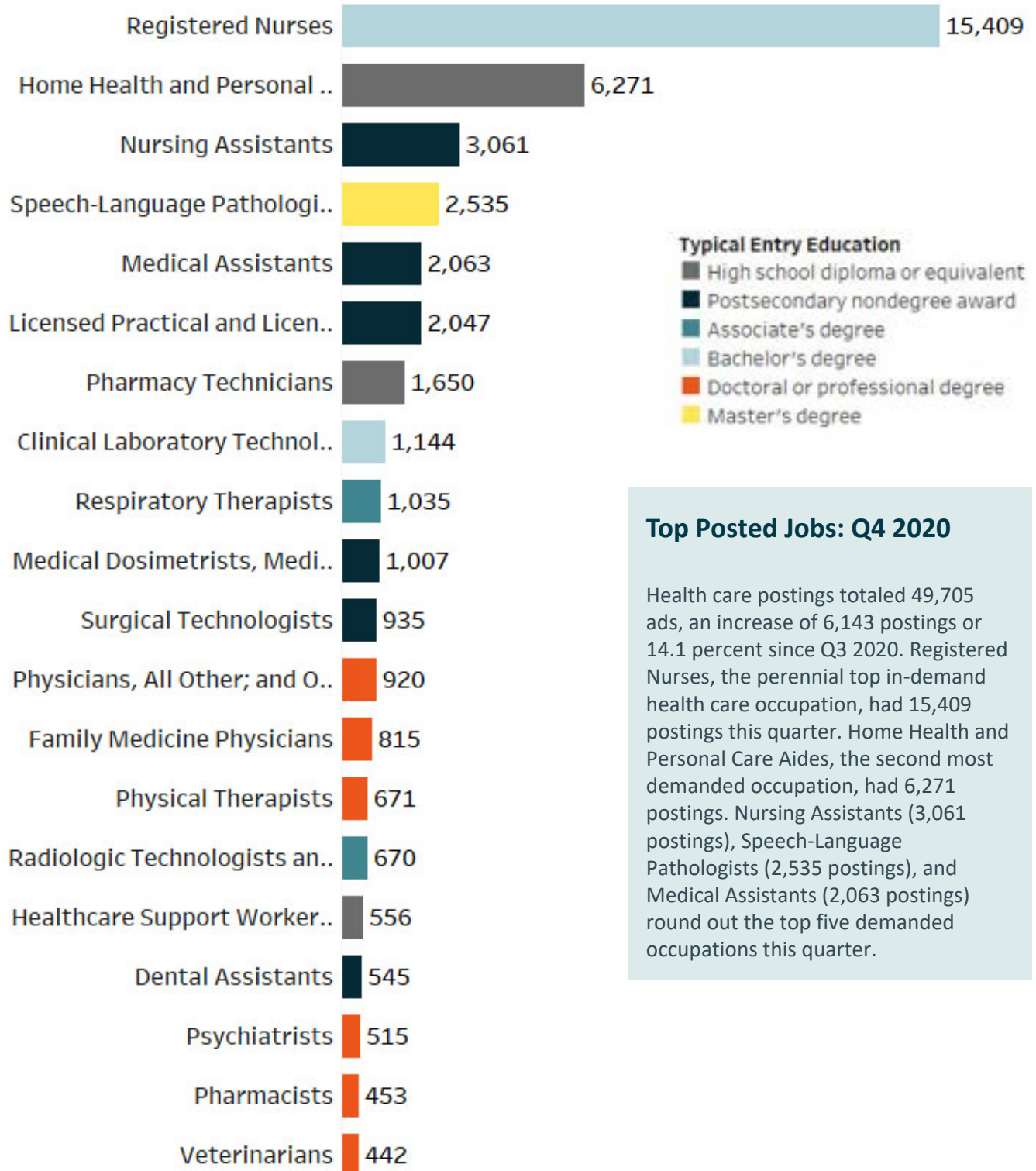
67.3% White | 22.2% Black or African American | 5.7% Asian

Worker Age Demographics





Health Care Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

Health care postings totaled 49,705 ads, an increase of 6,143 postings or 14.1 percent since Q3 2020. Registered Nurses, the perennial top in-demand health care occupation, had 15,409 postings this quarter. Home Health and Personal Care Aides, the second most demanded occupation, had 6,271 postings. Nursing Assistants (3,061 postings), Speech-Language Pathologists (2,535 postings), and Medical Assistants (2,063 postings) round out the top five demanded occupations this quarter.



Health Care Wage Overview

Wages in the high-demand health care field tend to scale with both education and experience. The health care occupation group offers a relatively broad array of entry requirements and a high volume of jobs are open to candidates with less than a bachelor's degree. However, most of the top-posted jobs that require less than a bachelor's degree pay under than the state's median wage of \$18.60 per hour. Licensed Practical and Licensed Vocational Nurses earn a median hourly wage of \$25.90 per hour or annual salary of about \$53,872.

Wage Overview for Top Posted Health Care Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$27.15	\$31.03	\$35.98	\$41.69	\$47.92
31-1128	Home Health and Personal Care Aides	\$9.91	\$10.58	\$11.70	\$13.38	\$15.65
31-1131	Nursing Assistants	\$12.09	\$13.43	\$15.22	\$17.49	\$19.25
29-1127	Speech-Language Pathologists	\$25.42	\$31.43	\$37.53	\$46.44	\$62.90
31-9092	Medical Assistants	\$12.86	\$14.22	\$16.30	\$18.53	\$20.84
29-2061	Licensed Practical and Licensed Vocational Nurses	\$20.35	\$22.77	\$25.90	\$28.58	\$30.51
29-2052	Pharmacy Technicians	\$11.06	\$13.06	\$16.19	\$19.65	\$23.69
29-2018	Clinical Laboratory Technologists and Technicians	\$14.20	\$17.35	\$25.77	\$33.17	\$37.77
29-1126	Respiratory Therapists	\$21.81	\$24.99	\$28.54	\$32.58	\$37.12
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	\$13.71	\$16.51	\$21.01	\$26.65	\$32.72

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Cardiopulmonary Resuscitation (CPR)
- Caregiving
- Home Care

In-Demand Foundational Skills

- Communications
- Customer Service
- Compassion
- Management
- Leadership

In-Demand Education Level*

- High School Diploma: 18.6%
- Associate Degree: 19.9%
- Bachelor's Degree: 7.0%
- Master's Degree: 5.4%

In-Demand Certifications

- Certified Nursing Assistant
- Licensed Practical Nurse
- Nurse Practitioner
- Licensed Vocational Nurses
- Associates Degree In Nursing

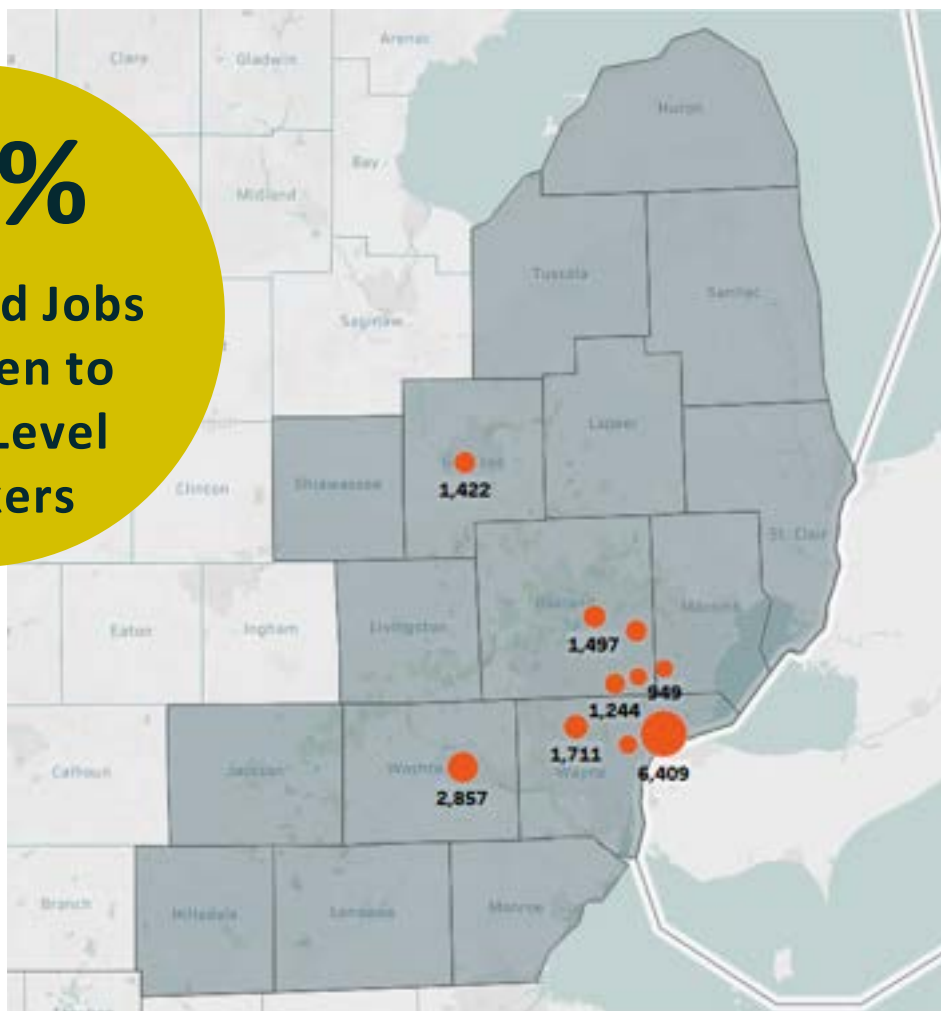
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent



Employer Demand by City

17%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- Henry Ford Health System
- CareInHomes.com
- Soliant Health, Inc
- Ascension
- Trinity Health Corporation
- Mercy Medical Center, Inc.
- William Beaumont Hospital
- Beaumont Health System
- HealthCare Employment Network
- McLaren, Inc.

Job Postings by City

1. Detroit: 6,409 Postings
2. Ann Arbor: 2,857 Postings
3. Livonia: 1,711 Postings
4. Pontiac: 1,497 Postings
5. Flint: 1,422 Postings
6. Troy: 1,346 Postings
7. Southfield: 1,244 Postings
8. Dearborn: 1,050 Postings
9. Warren: 949 Postings
10. Royal Oak: 943 Postings

*Employer names are listed as they appear in online job postings.



Introduction

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.



84,211

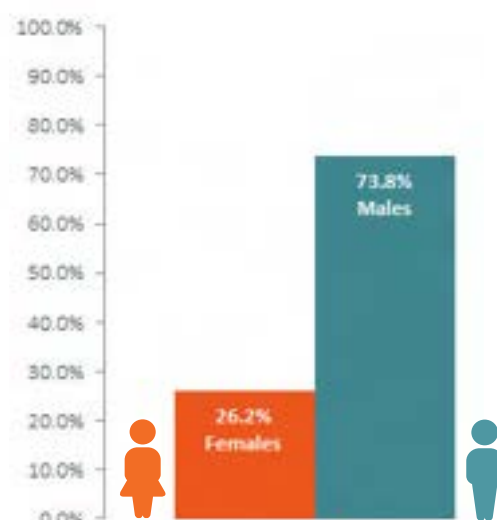
IT Workers

0.3% Increase
from 2019

Employment Over Time
2001–2020



Worker Gender Demographics



Information Technology Worker Demographics

In Q4 2020, the IT occupation group had 84,211 workers. A large majority of workers are white males between the ages of 25 and 54 (78.1 percent). Currently, 73.8 percent of the workers in IT in southeast Michigan identify as male, and 67.4 percent identify as white. There are a broad range of organizations providing specialized training resources for female and minority IT workers creating more opportunities throughout southeast Michigan.

Race and Ethnicity Demographics

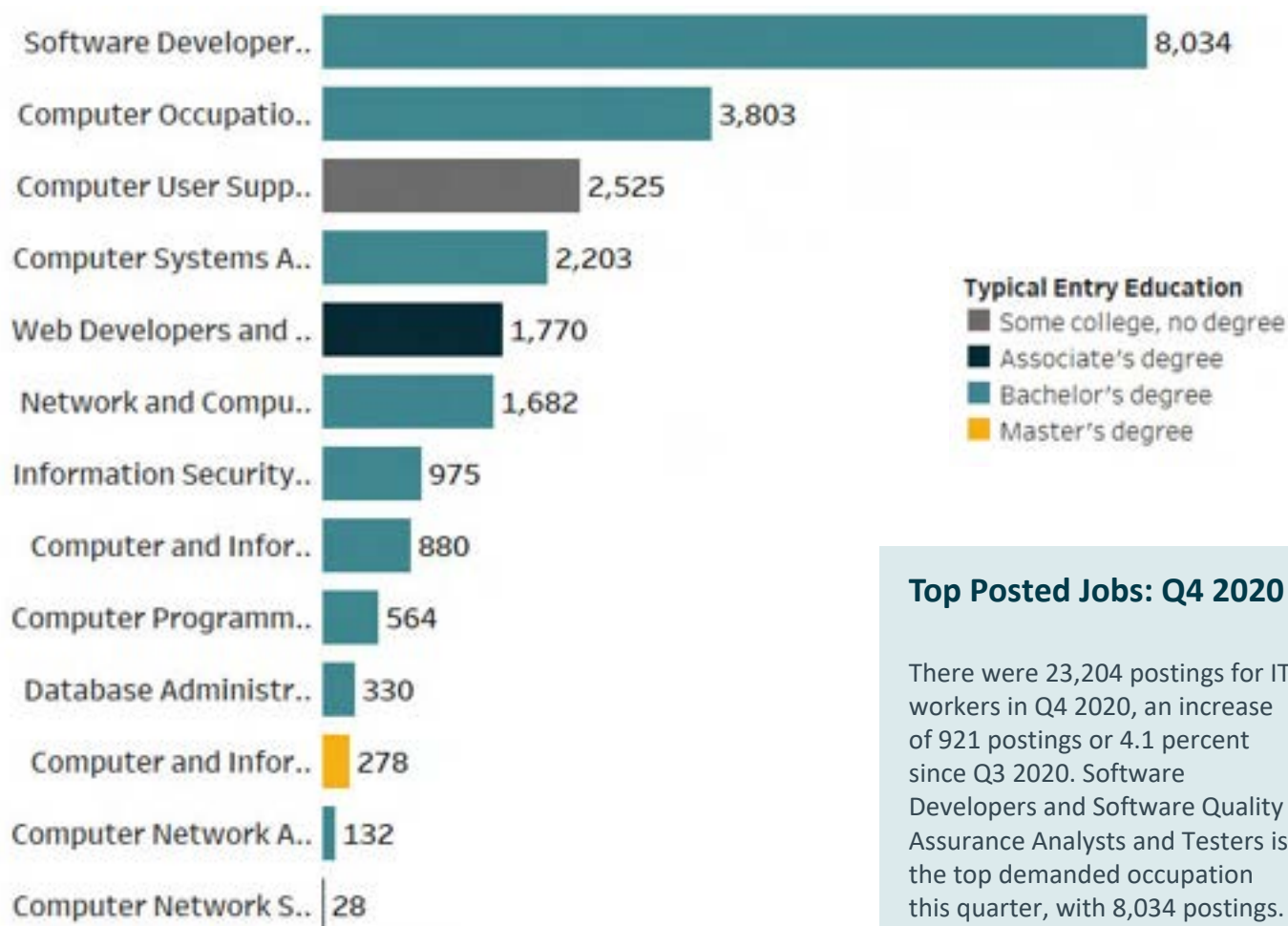
67.4% White | **10.0% Black or African American** | **18.4% Asian**

Worker Age Demographics





Information Technology Top Posted Jobs Q4 2020



Top Posted Jobs: Q4 2020

There were 23,204 postings for IT workers in Q4 2020, an increase of 921 postings or 4.1 percent since Q3 2020. Software Developers and Software Quality Assurance Analysts and Testers is the top demanded occupation this quarter, with 8,034 postings. Other top posted jobs include Computer Occupations, All Other (3,803 postings), Computer User Support Specialists (2,525 postings), Computer Systems Analysts (2,203 postings) and Web Developers and Digital Interface Designers (1,770 postings).



Information Technology Wage Overview

Most IT-related jobs offer high wages providing a lucrative opportunity to job seekers willing to meet the minimum education requirements for these jobs. Software Developers and Software Quality Assurance Analysts and Testers, the top posted IT job, earn a median hourly wage of \$44.29 per hour or nearly \$92,123 per year. Occupations requiring shorter-term training, such as Computer User Support Specialists and Web Developers and Digital Interface Designers, make over \$20 per hour.

Wage Overview for Top Posted IT Jobs in Q4 2020

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	\$27.95	\$35.15	\$44.29	\$54.72	\$63.53
15-1299	Computer Occupations, All Other	\$19.55	\$25.57	\$35.71	\$47.80	\$59.21
15-1232	Computer User Support Specialists	\$13.87	\$17.00	\$22.14	\$29.04	\$36.10
15-1211	Computer Systems Analysts	\$26.16	\$32.91	\$41.37	\$51.40	\$61.70
15-1244	Network and Computer Systems Administrators	\$25.43	\$31.54	\$38.84	\$48.25	\$57.95
15-1257	Web Developers and Digital Interface Designers	\$17.55	\$23.14	\$31.73	\$42.34	\$50.19
15-1212	Information Security Analysts	\$27.97	\$34.29	\$43.36	\$55.54	\$64.49
11-3021	Computer and Information Systems Managers	\$40.29	\$50.11	\$62.80	\$76.92	\$94.63
15-1251	Computer Programmers	\$20.59	\$27.13	\$35.92	\$44.51	\$51.34
15-1245	Database Administrators and Architects	\$24.93	\$31.15	\$43.02	\$54.38	\$62.72

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Computer Science
- Agile Methodology
- Java
- Software Engineering
- SQL

In-Demand Foundational Skills

- Communications
- Management
- Leadership
- Troubleshooting
- Problem Solving

In-Demand Education Level*

- High School Diploma: 5.0%
- Associate Degree: 3.4%
- Bachelor's Degree: 45.0%
- Master's Degree: 13.8%

In-Demand Certifications

- Certified Information Systems Security Professional
- Project Management Professional Certification
- Cisco Certified Network Associate
- Certified Information Security Manager
- Certified Information System Auditor (CISA)

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



Employer Demand by City

9%

**of Posted Jobs
are Open to
Entry-Level
Workers**



Top Posting Employers*

- Oracle Corporation
- Cynet Systems Inc.
- General Motors Company
- Deloitte LLP
- Virtual Vocations
- Teksystems, Inc.
- Kelly Services, Inc.
- Humana Inc.
- Quicken Loans Inc.
- Stefanini, Inc.

Job Postings by City

1. Detroit: 5,419 Postings
2. Troy: 2,818 Postings
3. Ann Arbor: 2,028 Postings
4. Dearborn: 1,909 Postings
5. Southfield: 1,554 Postings
6. Auburn Hills: 1,263 Postings
7. Warren: 789 Postings
8. Farmington Hills: 740 Postings
9. Livonia: 583 Postings
10. Novi: 570 Postings

**Employer names are listed as they appear in online job postings.*



Introduction

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.

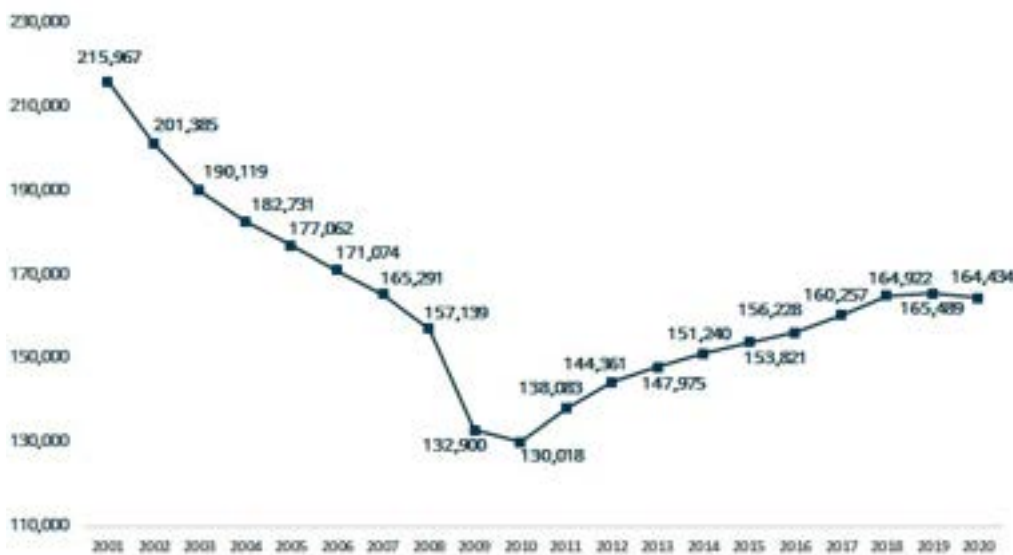


164,434

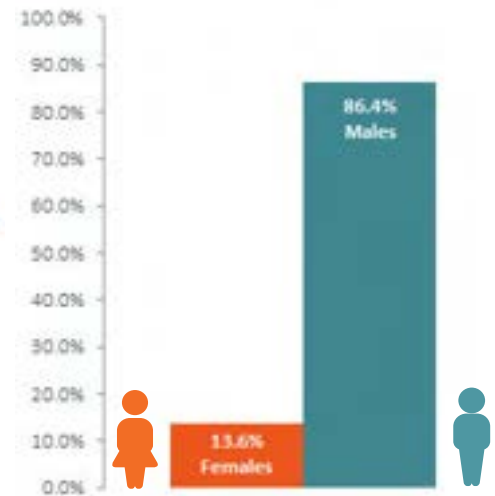
Skilled Trades Workers

0.6% Decrease
from 2019

Employment Over Time
2001–2020



Worker Gender
Demographics



Skilled Trades Worker Demographics

The skilled trades occupation group employed 164,434 workers in southeast Michigan in Q4 2020. A large majority of skilled trades workers are white males between the ages of 25 and 54. The 55 and older age group, which accounts for 27.2 percent of the workforce, shows a slightly higher than normal retiring population for this industry.

Race and Ethnicity Demographics

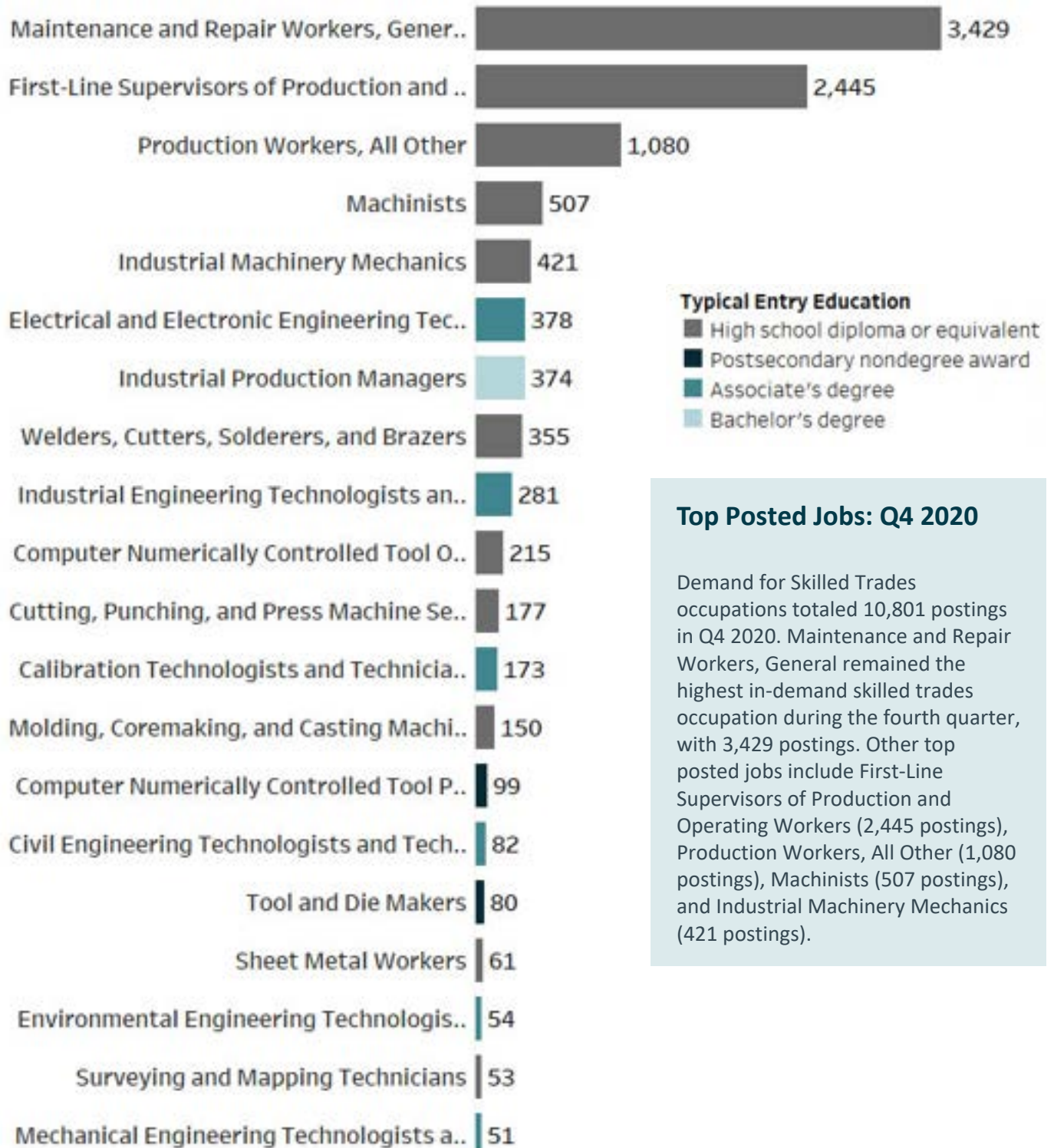
77.2% White | **13.9% Black or African American** | **4.3% Hispanic or Latino**

Worker Age Demographics





Skilled Trades
Top Posted Jobs
Q4 2020



Top Posted Jobs: Q4 2020

Demand for Skilled Trades occupations totaled 10,801 postings in Q4 2020. Maintenance and Repair Workers, General remained the highest in-demand skilled trades occupation during the fourth quarter, with 3,429 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (2,445 postings), Production Workers, All Other (1,080 postings), Machinists (507 postings), and Industrial Machinery Mechanics (421 postings).



Skilled Trades Wage Overview

Eight of the top ten in-demand skilled trades occupations have median wages above the state median of \$18.60 per hour. Management and technician roles requiring additional education and training earn even more. Maintenance and Repair Workers, General, the top posted skilled trades job in Q4 2020, offers a median hourly wage of \$17.63. This translates to an annual salary of about \$36,670.

Wage Overview for Top Posted Skilled Trades Jobs in Q4 2020

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	\$11.21	\$13.82	\$17.63	\$23.38	\$29.28
51-1011	First-Line Supervisors of Production and Operating Workers	\$19.11	\$24.22	\$32.14	\$40.99	\$51.24
51-9199	Production Workers, All Other	\$9.81	\$11.38	\$13.94	\$18.80	\$24.48
51-4041	Machinists	\$12.42	\$16.13	\$20.77	\$27.06	\$32.66
49-9041	Industrial Machinery Mechanics	\$16.15	\$20.13	\$25.61	\$31.28	\$36.95
17-3023	Electrical and Electronic Engineering Technologists and Technicians	\$17.81	\$22.13	\$28.62	\$34.73	\$39.69
11-3051	Industrial Production Managers	\$34.73	\$44.06	\$56.18	\$70.30	\$85.86
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.43	\$15.91	\$19.31	\$23.78	\$29.49
17-3026	Industrial Engineering Technologists and Technicians	\$17.81	\$22.10	\$27.89	\$35.08	\$41.49
51-9161	Computer Numerically Controlled Tool Operators	\$12.44	\$14.67	\$19.37	\$24.32	\$29.18

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Plumbing
- HVAC
- Preventive Maintenance
- Machining
- Painting

In-Demand Foundational Skills

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

In-Demand Education Level*

- High School Diploma: 40.6%
- Associate Degree: 9.9%
- Bachelor's Degree: 10.7%
- Master's Degree: 1.2%

In-Demand Certifications

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

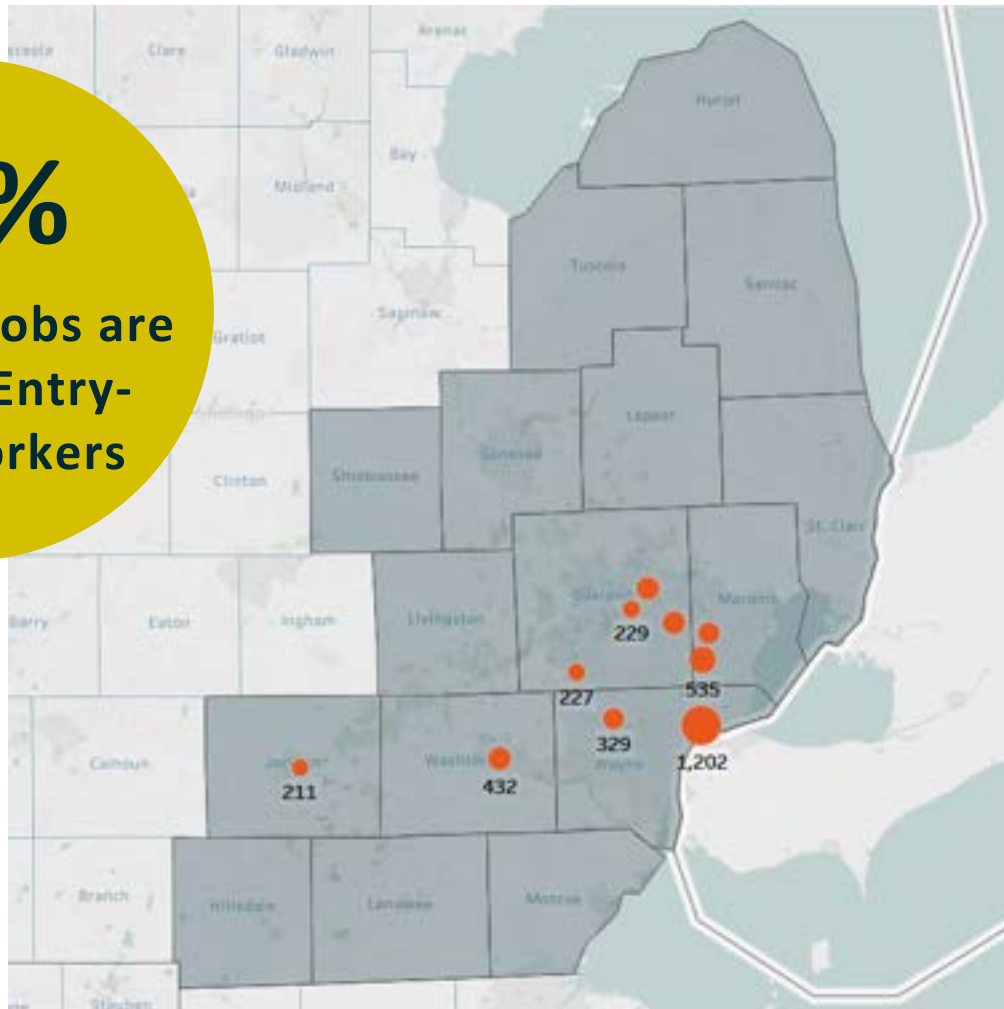
*Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent



Employer Demand by City

12%

**of Posted Jobs are
Open to Entry-
Level Workers**



Top Posting Employers*

- McDonald's Corporation
- Kelly Services, Inc.
- Nesco Resource
- Aerotek, Inc.
- Express Employment Professionals
- The Home Depot
- ManpowerGroup Global
- Sentech Services
- Flex-N-Gate Corporation
- Trillium Staffing

Job Postings by City

1. Detroit: 1,202 Postings
2. Warren: 535 Postings
3. Ann Arbor: 432 Postings
4. Auburn Hills: 394 Postings
5. Troy: 389 Postings
6. Sterling Heights: 343 Postings
7. Livonia: 329 Postings
8. Pontiac: 229 Postings
9. Novi: 227 Postings
10. Jackson: 211 Postings

*Employer names are listed as they appear in online job postings.



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATION GROUP 16-County WIN Region | Q4 2020

12

Introduction

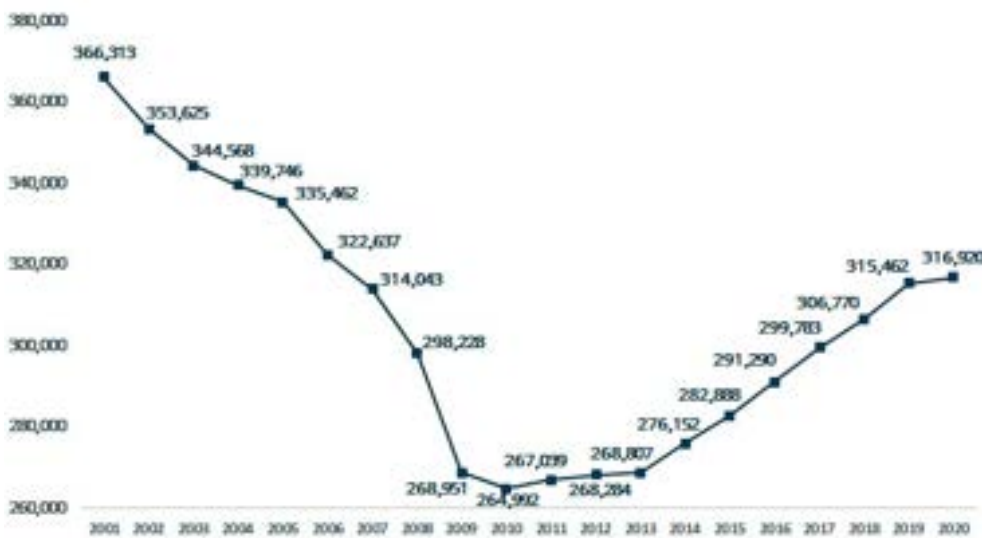
Transportation, distribution, and logistics (TDL) workers help move materials in an efficient manner, whether it is from one company to another or directly to consumers. Logistics workers range from materials movers to logistics analysts, coordinating and analyzing material and goods movement. For all TDL workers, there are over 37,000 job openings annually in Southeast Michigan.



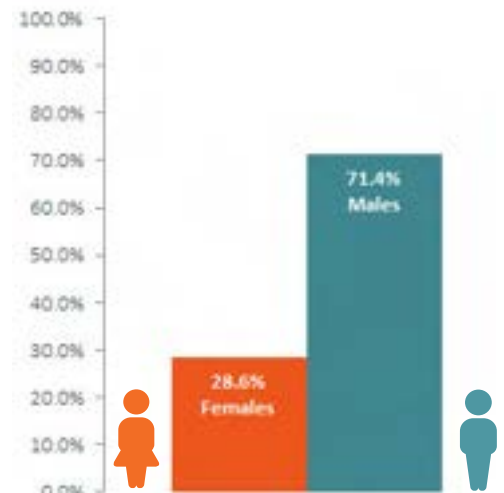
316,920
TDL Workers

0.5% Increase from
2019

Employment Over Time
2001–2020



Worker Gender Demographics



Transportation, Distribution, and Logistics Worker Demographics

The TDL occupation group has a large workforce, employing 316,920 individuals in 2020. These workers are 71.4 percent male and 69.6 percent white. Majority, or 63.5 percent of the workforce are between the ages of 25 through 54 years of age.

Race and Ethnicity Demographics

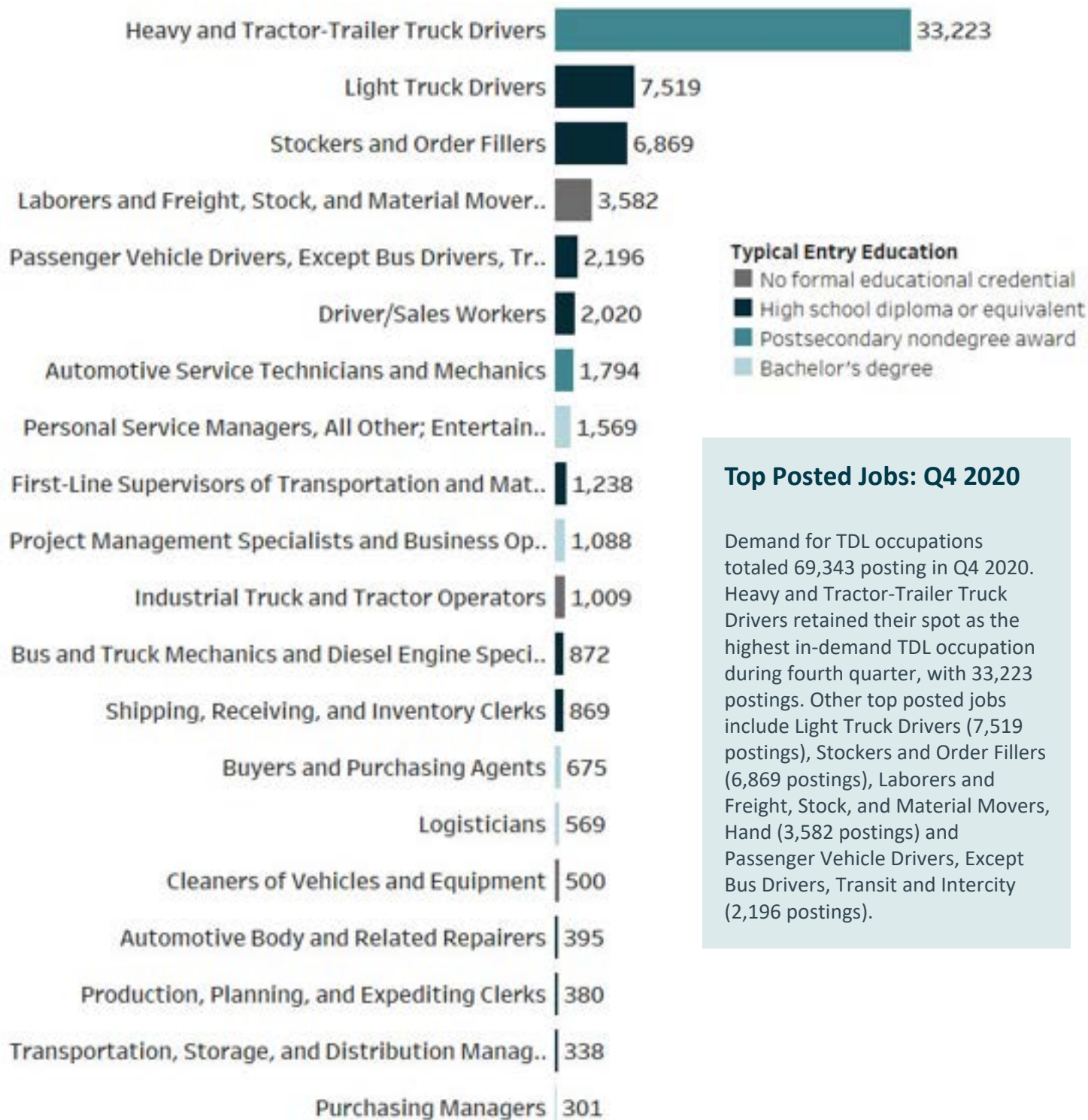
69.6% White | **21.1% Black or African American** | **4.7% Hispanic or Latino**

Worker Age Demographics





Transportation, Distribution, and Logistics Top Posted Jobs Q4 2020





Transportation, Distribution, and Logistics Wage Overview

Half of the top ten in-demand TDL occupations offer median wages above \$18.60 per hour. Heavy and Tractor-Trailer Truck Drivers, the top posted TDL job this quarter, earn a median hourly wage of \$20.05, or an annual salary of nearly \$41,704. Logistics roles that require additional education, such as Business Operations Specialists, typically offer even higher wages.

Wage Overview for Top Posted TDL Jobs in Q4 2020

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$12.82	\$15.58	\$20.05	\$24.64	\$29.59
53-3033	Light Truck Drivers	\$10.11	\$11.52	\$15.92	\$22.99	\$30.75
53-7065	Stockers and Order Fillers	\$9.95	\$11.00	\$12.74	\$15.92	\$20.66
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$10.51	\$12.27	\$14.95	\$18.39	\$22.16
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	\$10.38	\$12.46	\$15.84	\$18.25	\$20.12
53-3031	Driver/Sales Workers	\$9.80	\$10.16	\$12.63	\$20.35	\$24.82
49-3023	Automotive Service Technicians and Mechanics	\$10.69	\$13.34	\$20.75	\$28.61	\$34.62
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	\$30.65	\$38.61	\$50.40	\$62.41	\$78.02
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	\$16.22	\$20.20	\$25.34	\$33.66	\$41.11
13-1198	Project Management Specialists and Business Operations Specialists, All Other	\$19.28	\$25.57	\$34.76	\$47.22	\$59.34

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Warehousing
- Flatbed Truck Operation
- Merchandising
- Over-the-Road Driving
- Dry Van Truck Operation

In-Demand Foundational Skills

- Valid Driver's License
- Customer Service
- Communications
- Management
- Good Driving Record

In-Demand Education Level*

- High School Diploma: 19.1%
- Associate Degree: 2.1%
- Bachelor's Degree: 4.7%
- 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

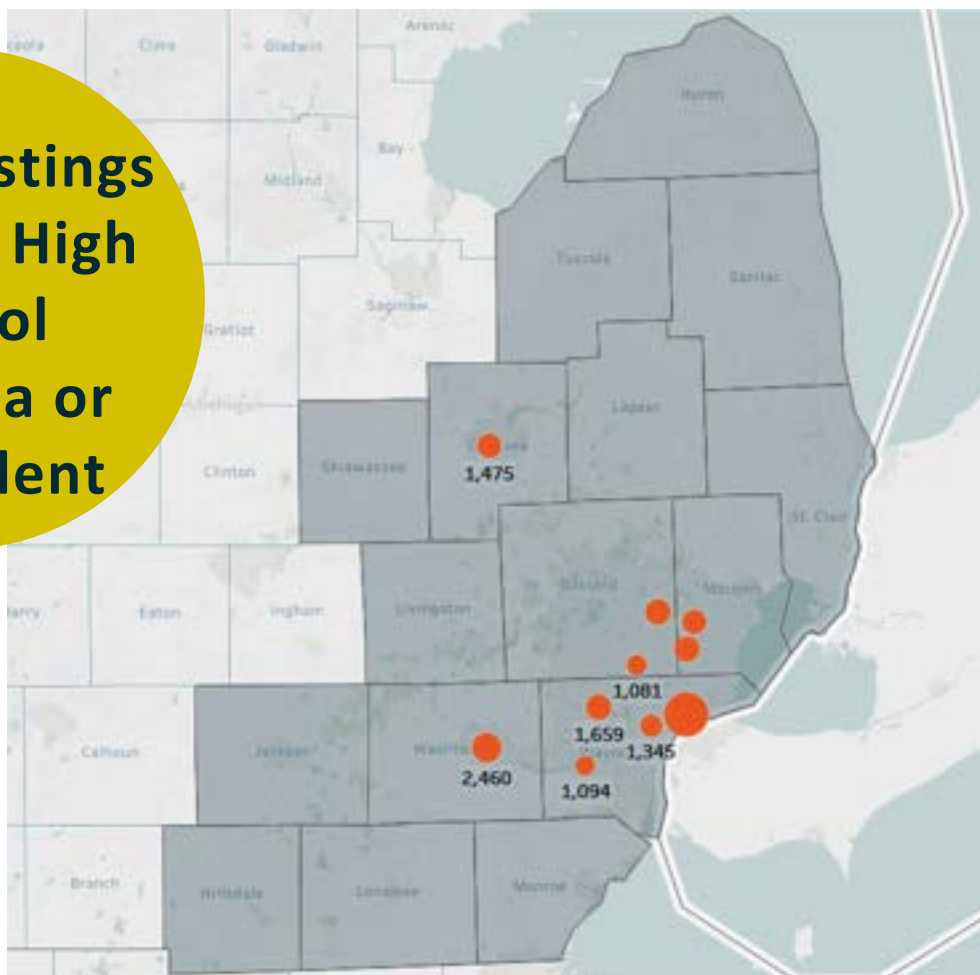
In-Demand Certifications

- Commercial Driver's License (CDL)
- Hazmat Endorsement
- Transportation Worker Identification Credential (TWIC) Card
- CDL Class B License
- Tanker Endorsement



Employer Demand by City

**Most Postings
Require High
School
Diploma or
Equivalent**



Top Posting Employers*

- Amazon.com, Inc.
- C.R. England, Inc.
- Uber Technologies, Inc.
- Roehl Transport, Inc.
- USA Truck, Inc.
- U.S. Xpress, Inc.
- Shipt, Inc.
- Doordash
- Marten Transport, Ltd.
- Penske Automotive Group, Inc.

Job Postings by City

1. Detroit: 5,620 Postings
2. Ann Arbor: 2,460 Postings
3. Warren: 1,803 Postings
4. Troy: 1,724 Postings
5. Livonia: 1,659 Postings
6. Sterling Heights: 1,640 Postings
7. Flint: 1,475 Postings
8. Dearborn: 1,345 Postings
9. Romulus: 1,094 Postings
10. Southfield: 1,081 Postings

*Employer names are listed as they appear in online job 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)

Twitter

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