WIN WORKFORCE INTELLIGENCE NETWORK

Q4 2019

October – December

CITY OF DETROIT

WIN Labor Market Report

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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 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 City of Detroit. 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 2019 in the City of Detroit and includes comparison analysis to the third quarter of 2019. For the City of Detroit, the business and finance, energy, health care, information technology, and skilled trades and technician's occupation groups are analyzed.

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.

WIN WORKFORCE INTELLIGENCE NETWORK

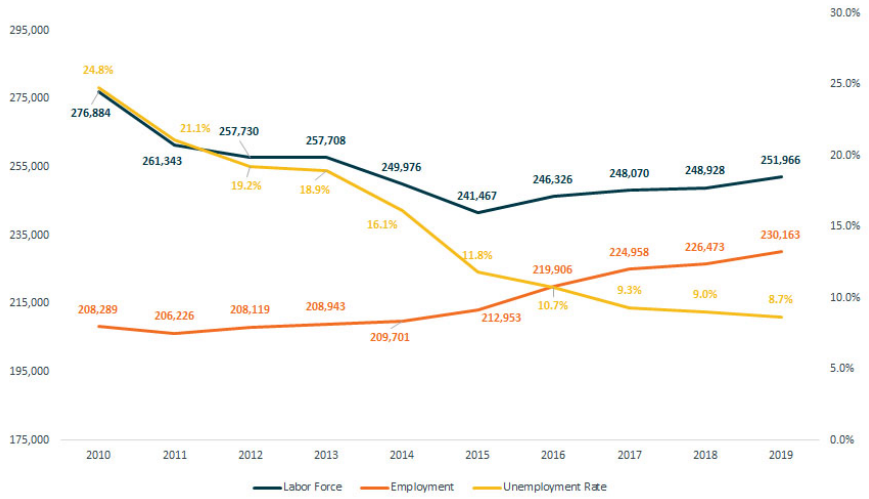
State of the Labor Market in the City of Detroit

During 2019, the annual labor force and employment figures in Detroit increased by 1.2 percent and 1.6 percent respectively, up since annual 2018 figures. This quarter in Detroit, the labor force decreased by 2.2 percent, a 5,679-worker decease from Q3 2019. Comparatively, employment in Detroit increased by 0.1 percent, equaling to a 225 worker increase in employment in Q4. The Q3 2019 unemployment rate of 9.6 percent decreased by 2.1 percentage points, with Q4 2019 reporting an unemployment rate of 7.5 percent. Employer demand for health care workers is still on the rise among the five key groups analyzed for the city, with 10,099 job postings during Q4 2019. Registered Nurses have remained the top demanded occupation, accounting for 5,617 postings in Q4.

Annual Labor Market Information

The labor force in southeast Michigan continues to grow, increasing by 3,039 individuals between 2018 annual figures and the 2019 annual levels. Employment increased by 3,689 workers between 2018 and 2019. As the increase in employment accounted for most, but not all, of the sustained increase in labor force,the unemployment rate decreased slightly by 0.4 percentage points. The 2018 annual unemployment rate of 9.0 percent decreased by 0.4 percentage points to an 2019 annual unemployment rate of 8.7 percent.

Annual Labor Force, Employment, Unemployment Rate
2010–2019

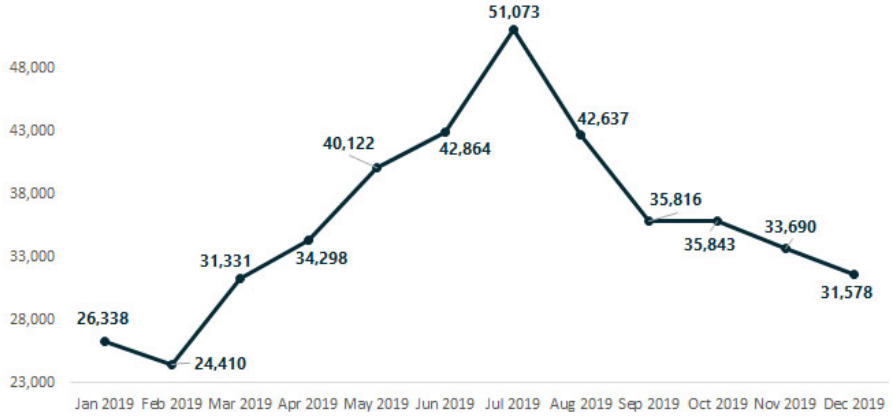


Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data obtained for the fourth quarter of 2019 indicates that employer demand has decreased since Q3 2019. In Q4 2019, there were 55,777 unique postings in the city of Detroit, a decrease of 23,703 postings since Q3 2019. The decrease in the number of online ads indicate employer demand for jobs has decreased in Q4. Monthly posting data indicates a steady increase in postings during the beginning of 2019, however the second half of the year saw a decline in postings.

Quarterly Posting Analysis, Detroit
Q4 2019

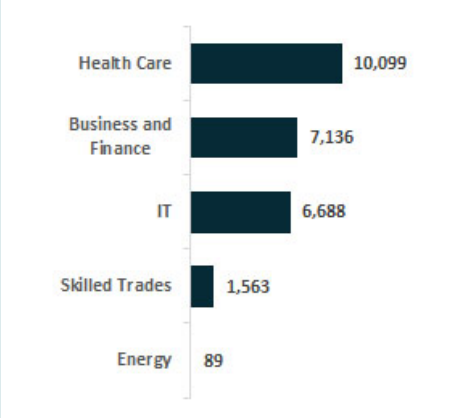


Data: Emsi | Analysis: Workforce Intelligence Network

Employer demand declines by 42.5 percent, a loss of 23,703 job postings since Q3 2019. Health Care remains the top posting occupation group through Q4 2019 with 10,099 postings.

During Q4 2019, there were 55,777 job postings, 23,703 less of the 79,480 postings made during Q3 2019 in the city of Detroit. The top posted job titles this quarter include Registered Nurses, Truck Drivers, Travel Nurses-Medical/Surgical, Software Engineers, and Customer Service Representatives (Office and Administrative Support). There are 5,568 more postings in Q4 2019 than in Q4 2018. Energy employers posted 22.5 percent, or 20 more advertisements in Q4 2019 than Q4 2018, with top job Civil Engineers accounting for 22.2 percent of the new postings. For more information about quarterly job postings, see page 9.

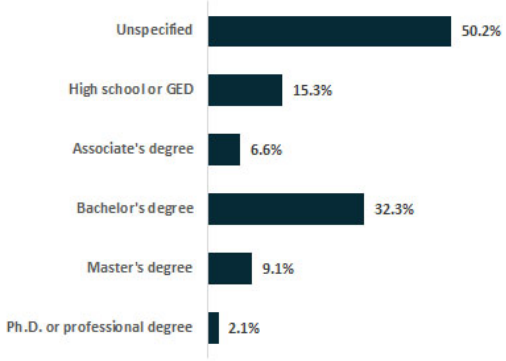
Top 5 Posting Occupation Groups
Q4 2019



Job postings made by employers in the city of Detroit indicate a bachelor's degree remains the most in-demand minimum education level during Q4 2019.

Of the 55,777 unique postings in the city of Detroit during Q4 2019, 24,243 (37.6 percent) required a college degree. An additional 6,230 postings (9.7 percent) required an advanced degree. Across southeast Michigan, 28.7 percent of postings require a college degree, while 7.0 percent of posting require advanced education. The high demand for business and finance and information technology roles within the city, drives this high demand for college education.

Education Levels In-Demand
Q4 2019



Quarterly Labor Market Data

	4th Quarter 2018	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	Change from 3rd Quarter 2019	Percent Change from 3rd Quarter 2019	Change from 4th Quarter 2018	Percent Change from 4th Quarter 2018
Labor Force	249,595	251,305	249,998	256,121	250,442	-5,679	-2.2%	847	0.3%
Employment	228,010	229,300	228,255	231,435	231,660	225	0.1%	3,650	1.6%
Unemployment	21,585	22,005	21,743	24,686	18,782	-5,904	-23.9%	-2,803	-13.0%
Unemployment Rate	8.6%	8.8%	8.7%	9.6%	7.5%	-2.1%	na	-1.1%	na

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

Employment in the city of Detroit grew in Q4 2019 by 3,650 workers.

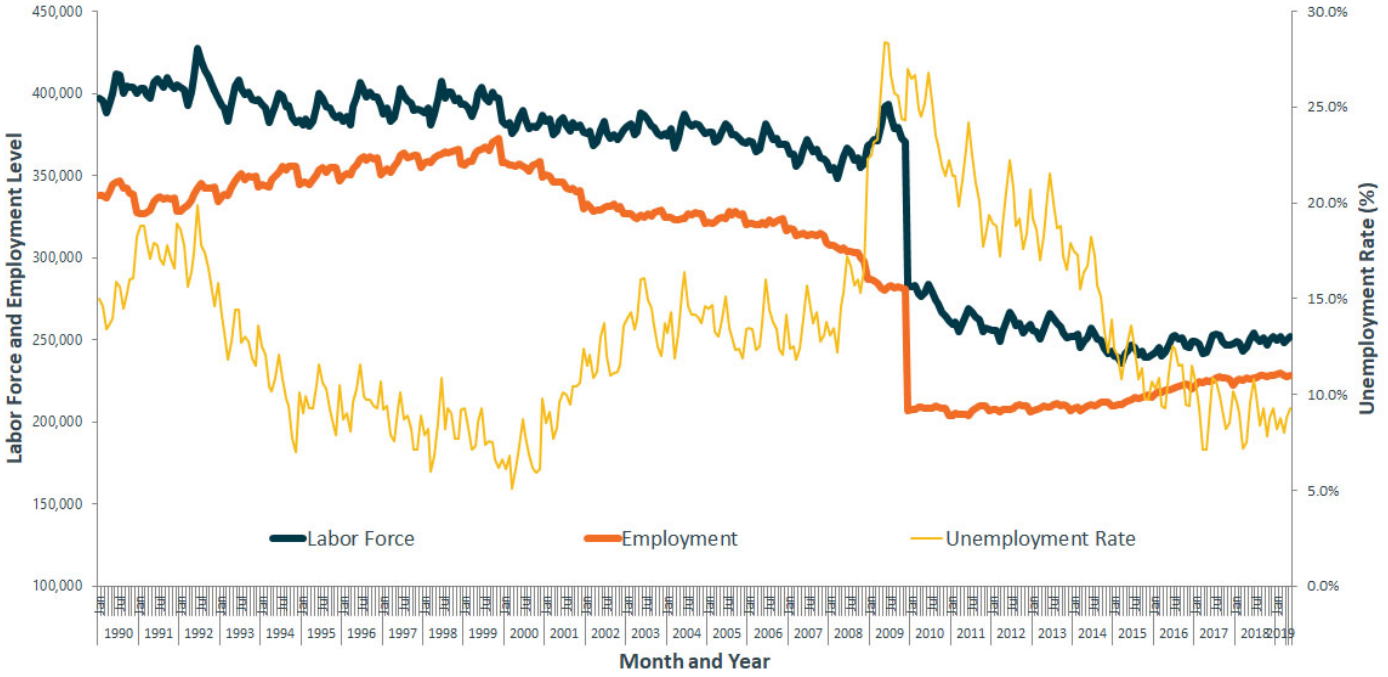
Following growth fluctuations in the labor force through 2019, during the fourth quarter, participation declined slightly. During Q4 2019, labor force figures were down 5,679 individuals from 250,442 in Q4, a 2.2 percent decrease since Q3 2019 which had 256,121 individuals. Although the decrease in labor force participation in Q4 2019, employment grew by 225 workers, an increase of 0.1 percent. Despite the labor force decline, unemployment for the city of Detroit decreased by 5,904 workers, a 23.9 percent decrease since Q3 2019. Following the trend, the unemployment rate also fell by 2.1 percentage points. For more information about this year's unemployment rate and other labor market indicators, see page 4.

Data: Emsi | Analysis: Workforce Intelligence Network

Labor Force, Employment, and Unemployment

The labor force in the city of Detroit has been growing steadily year over year since 2015, though there is still fluctuation between quarters since 2010. The labor force change from annual 2018 to annual 2019 is an increase of 3,039 individuals, or 1.2 percent. Employment in Detroit has been on the rise since annual 2011, with an increase of 3,689 workers since annual 2018. Unemployment for the city of Detroit, recorded with 22,454 unemployed workers in annual 2018, fell 3.0 percent, a decrease of 650 workers, bringing 2019 annual unemployment down to 21,804 workers. The unemployment rate also decreased by 0.4 percentage points, leading to an annual 2019 unemployment rate of 8.7 percent.

Labor Force, Employment, Unemployment Rate
1990-2019



Data: BLS | Analysis: Workforce Intelligence Network

Annual Labor Market Data
2010 - 2019

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	Change from 2018	Percent Change from 2018
Labor Force	276,884	261,343	257,730	257,708	249,976	241,467	246,326	248,070	248,928	251,966	3,039	1.2%
Employment	208,289	206,226	208,119	208,943	209,701	212,953	219,906	224,958	226,473	230,163	3,689	1.6%
Unemployment	68,596	55,117	49,611	48,765	40,275	28,514	26,420	23,112	22,454	21,804	-650	-3.0%
Unemployment Rate	24.8%	21.1%	19.2%	18.9%	16.1%	11.8%	10.7%	9.3%	9.0%	8.7%	-0.4%	na

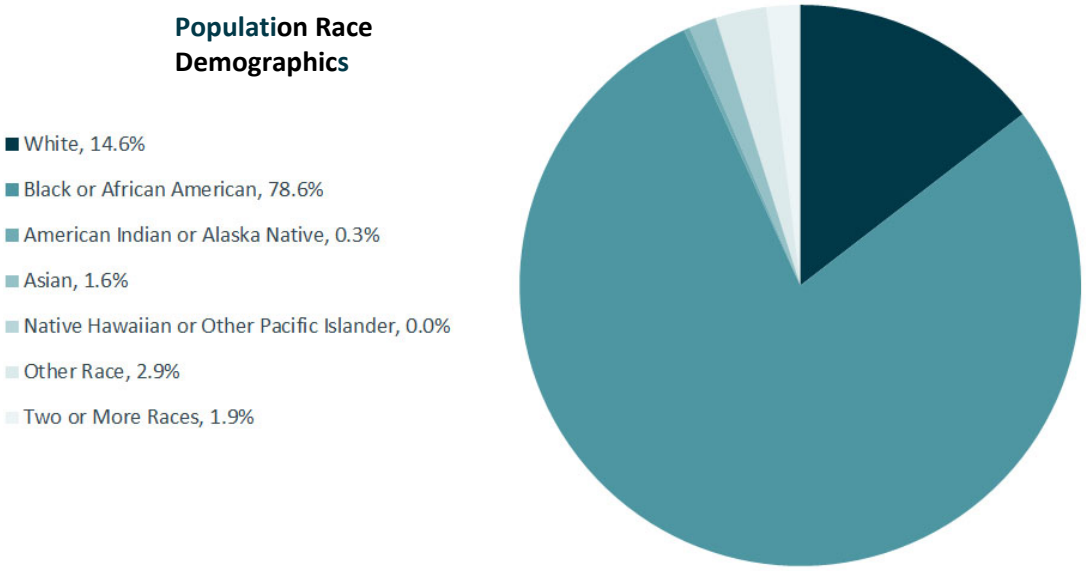
Data: Bureau of Labor Statistics

Population Demographics

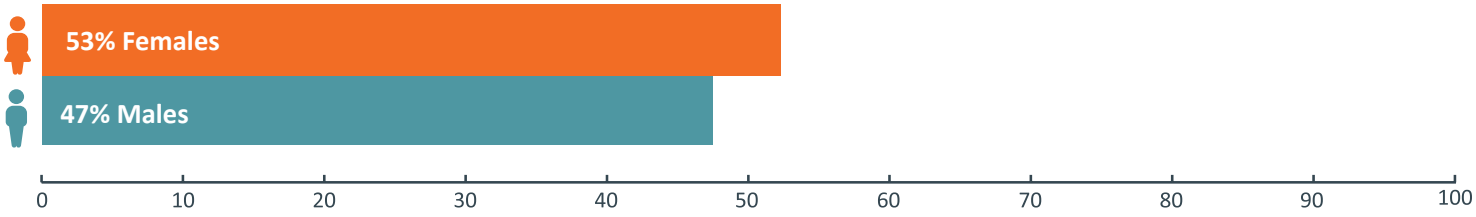
According to the data from the Census Bureaus' most recent 2018 ACS Five Year estimates, during 2018, 677,155 people were living in the city of Detroit. The sex of the populace was split almost evenly, with about 52.7 percent of the population identifying as female, and the other 47.3 percent identifying as male. Much of the population identified as black or African American (78.6 percent) with the second largest number of individuals identifying as white (14.6 percent). The city skews younger than the surrounding region; 25.7 percent of population was over the age of 55, compared to 35.8 percent under the age of 25. The city of Detroit also has a strong middle-aged population between the ages of 25-54, accounting for 38.4 percent of the total population.

677,155
People in the City
0.4% Decrease from 2017

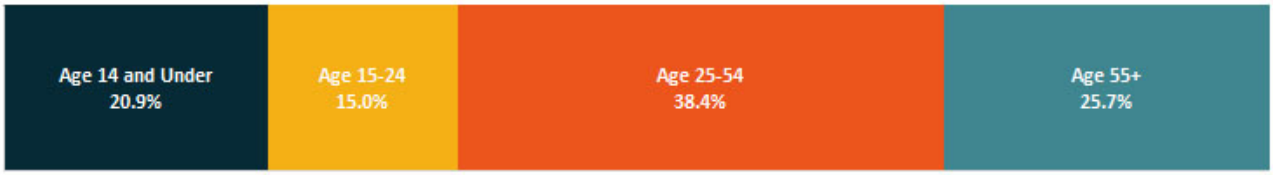
Population Race Demographics



Population Gender Demographics



Population Age Demographics



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

Labor Market Demographics

During 2018, the most recent census year, there were about 284,000 people in the labor force, either working or looking for work, in the city of Detroit. Resident employment in the city totals 234,659 workers or just over half, or 53.9 percent, of the total population in Detroit. The highest unemployment rates in 2018 were seen in those aged 24 years old or younger, accounting for an unemployment rate of 32.5 percent for males and 28.0 percent for females. Overall, males in the city of Detroit have a higher unemployment rate than females, with 19.0 percent and 15.8 percent respectively, for 2018. Black or African American job seekers have a difficult time finding employment, facing an unemployment rate of 19.2 percent. Native American job seekers also face difficulty, with an unemployment rate of 17.9 percent.

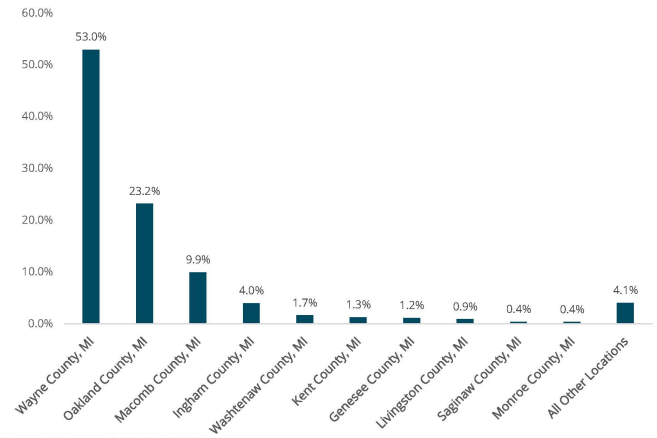
Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	283,827	234,659	49,168	17.3%
Sex				
Male 16+	134,962	109,259	25,703	19.0%
16-19	6,355	3,754	2,601	40.9%
20-24	18,082	12,753	5,329	29.5%
25-54	89,364	74,153	15,211	17.0%
55-64	16,547	14,501	2,046	12.4%
65 Plus	4,614	4,098	516	11.2%
Female 16+	148,865	125,400	23,465	15.8%
16-19	6,815	4,060	2,755	40.4%
20-24	20,699	15,759	4,940	23.9%
25-54	96,439	82,638	13,801	14.3%
55-64	19,487	17,995	1,492	7.7%
65 Plus	5,425	4,948	477	8.8%
Race				
White	42,651	38,346	7,748	9.9%
Black / African	223,144	180,008	79,635	19.2%
Native American	904	743	344	17.9%
Asian	4,853	4,389	865	9.7%
Native Hawaiian / Pacific Islander	65	65	0	0.0%
Some Other Race	8,070	7,210	1,402	10.6%
Two or More Races	4,438	3,687	1,531	16.9%
Ethnicity				
Hispanic	20,010	17,869	3,580	17.9%

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

Regional Commuting Patterns

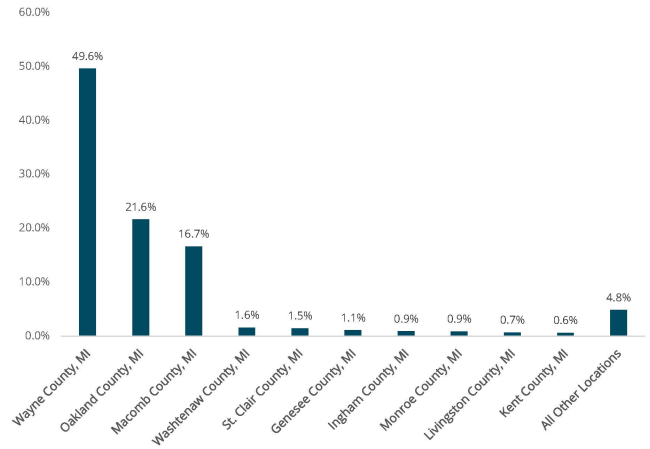
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the city's workforce consisted of 177,431 residents. 58,730 (33.1 percent) of the residents lived and worked within Detroit's city limits, while the remaining 118,701 residents (65.9 percent) traveled outside of the region for work. There were 234,493 workers employed in the city during 2015. Of those, 175,763 workers (75.0 percent) lived outside of the city's borders and commuted in. Thus, Detroit is a net importer of jobs, with more workers commuting into the area for employment than leaving. However, the city has a much higher percentage of both inbound and outbound commuters than many areas.

Where City of Detroit Residents Work



Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

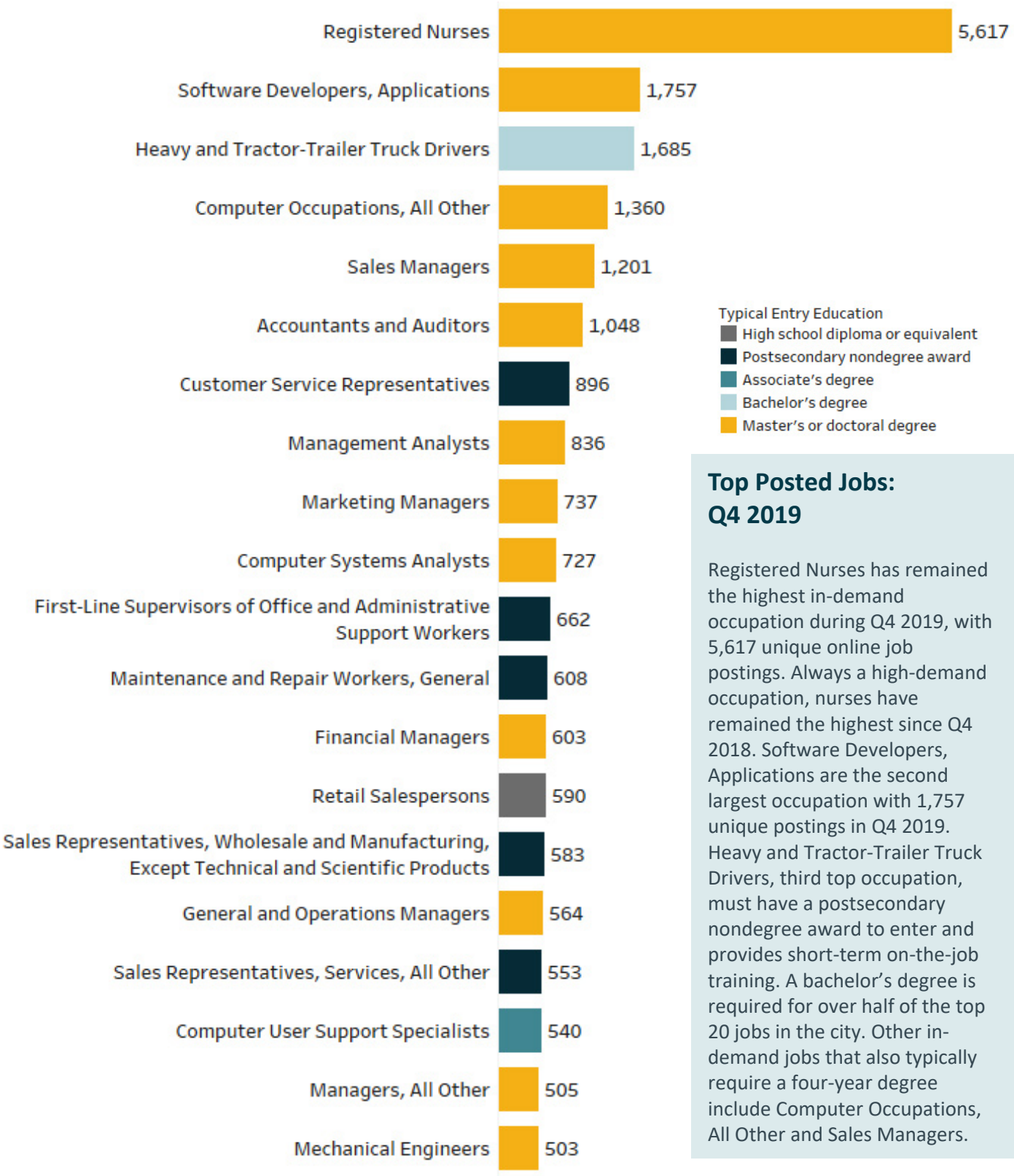
Where City of Detroit Workers Live



Source: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

Data: U.S. Census OnTheMap, 2015 | Analysis: Workforce Intelligence Network

Top Posted Jobs
Q4 2019

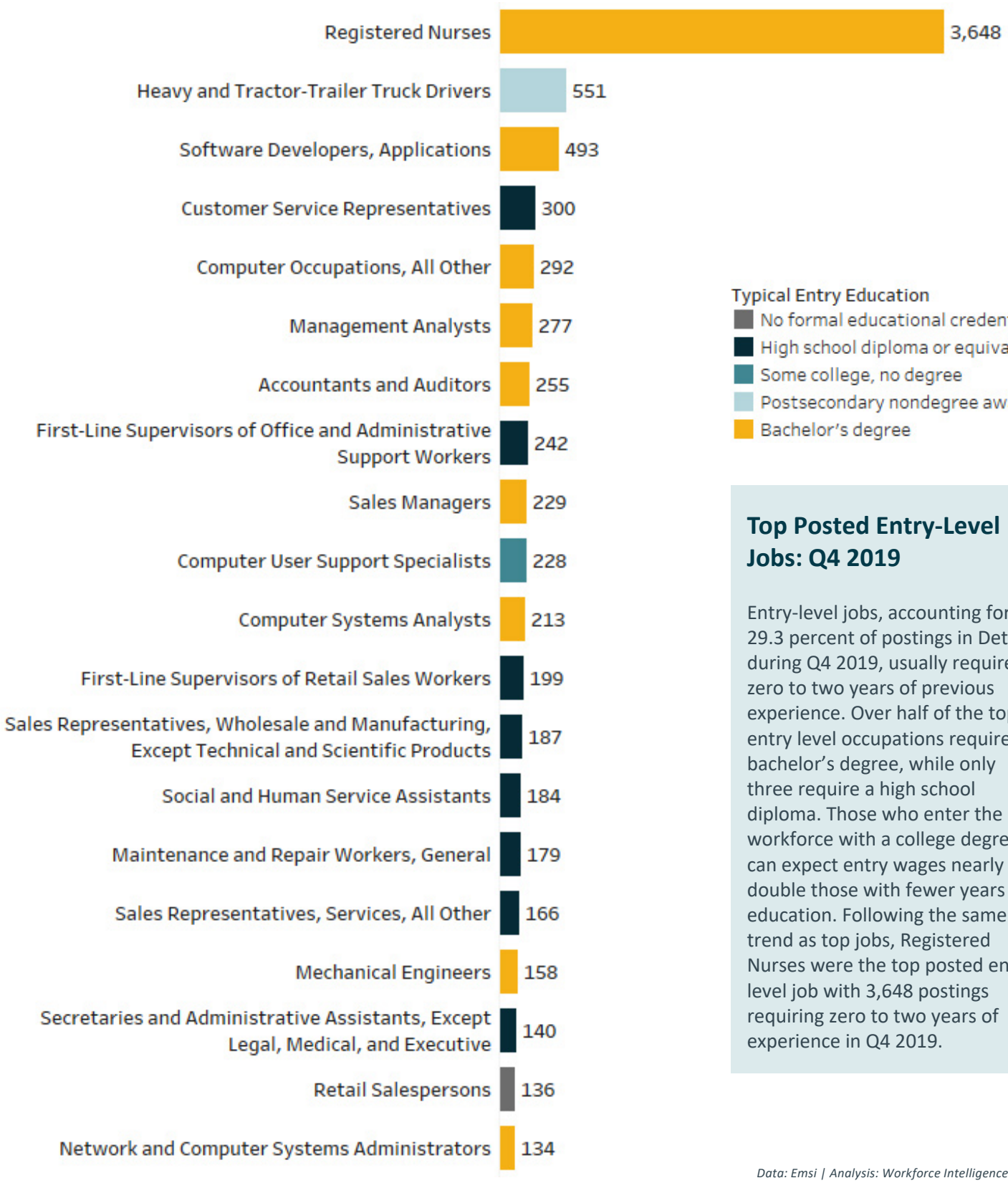


Top Posted Jobs: Q4 2019

Registered Nurses has remained the highest in-demand occupation during Q4 2019, with 5,617 unique online job postings. Always a high-demand occupation, nurses have remained the highest since Q4 2018. Software Developers, Applications are the second largest occupation with 1,757 unique postings in Q4 2019. Heavy and Tractor-Trailer Truck Drivers, third top occupation, must have a postsecondary nondegree award to enter and provides short-term on-the-job training. A bachelor's degree is required for over half of the top 20 jobs in the city. Other in-demand jobs that also typically require a four-year degree include Computer Occupations, All Other and Sales Managers.

Data: Emsi | Analysis: Workforce Intelligence Network

Top Posted Entry-Level Jobs
Q4 2019



Top Posted Entry-Level Jobs: Q4 2019

Entry-level jobs, accounting for 29.3 percent of postings in Detroit during Q4 2019, usually require zero to two years of previous experience. Over half of the top 10 entry level occupations require a bachelor's degree, while only three require a high school diploma. Those who enter the workforce with a college degree can expect entry wages nearly double those with fewer years of education. Following the same trend as top jobs, Registered Nurses were the top posted entry-level job with 3,648 postings requiring zero to two years of experience in Q4 2019.

Data: Emsi | Analysis: Workforce Intelligence Network

Top Posting Employers*

- General Healthcare Resources, Inc.
- Henry Ford Health System
- Deloitte LLP
- Tenet Healthcare Corporation
- Accenture PLC
- Quicken Loans Inc.
- Wayne County Schools
- Ford Motor Company
- Ascension Health
- Anthem, Inc.
- Family of Companies
- Soliant Health, Inc
- DTE Energy Company
- City of Detroit
- Pricewaterhousecoopers LLP
- General Motors Company
- NurseFly
- COMPASS GROUP PLC
- William Beaumont Hospital
- Ernst & Young LLP

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

In-Demand Technical Skills

- Accounting
- Basic Life Support
- Auditing
- Selling Techniques
- Nursing
- Agile Software Development
- Customer Relationship Management
- Restaurant Operation
- Automation
- Business Development

In-Demand Foundational Skills

- Management
- Communications
- Leadership
- Sales
- Customer Service
- Operations
- Problem Solving
- Presentations
- Research
- Microsoft Excel

Top In-Demand Qualifications

- Master of Business Administration (MBA)
- Bachelor of Science in Nursing (BSN)
- Certified Public Accountant
- Licensed Practical Nurse
- Project Management Professional Certification
- Nurse Practitioner
- Certified Information Systems Security Professional
- Certified Nursing Assistant
- Certified Information System Auditor (CISA)
- Associates Degree in Nursing

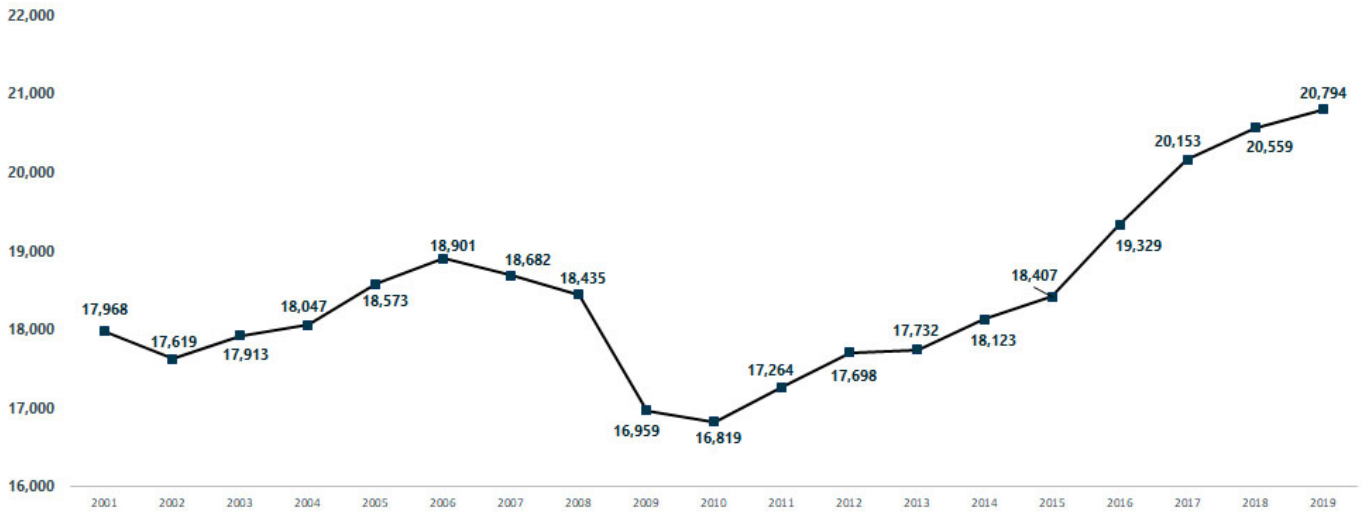
Icons: The Noun Project

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.

20,794
Business and Finance Workers
1.1% Increase from 2018

Employment Over Time
2001–2019



Top Posting Employers*

- Deloitte LLP
- Ernst & Young LLP
- Rgp
- Quicken Loans Inc.
- General Motors Company
- Pricewaterhousecoopers LLP
- Anthem, Inc.
- Family of Companies
- Accenture PLC
- DTE Energy Company

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

60%
of Postings Require a Bachelor's Degree

Data: Emsi | Analysis: Workforce Intelligence Network

Business and Finance
Top Posted Jobs
Q4 2019

Top Posted Jobs: Q4 2019

Accountants and Auditors were the highest in-demand business and finance occupation during Q4 2019, with 1,048 postings, followed closely by Management Analysts with 836 postings, both requiring no work experience. While most of the top jobs typically require a bachelor's degree, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (583 postings), and Insurance Sales Agents (228 postings), only require a high school diploma and no work experience, coupled with moderate-term on-the-job training.

Data: Emsi | Analysis: Workforce Intelligence Network

Business and Finance Wage Overview

Most business and finance related jobs offer high wages, making for a lucrative opportunity for job seekers willing to attain the necessary education. The top posted business and finance job, Accountants and Auditors, offers median hourly wages of $35.92, translating to annual earnings of approximately $71,840. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to median wages around $65.27 hourly, or about $130,540 annually. Entry level occupations also see high median wages of $33.03, earning about $66,060 annually.

Wage Overview for Top Posted Business and Finance Jobs in Q4 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
13-2011	Accountants and Auditors	$22.97	$28.19	$35.92	$47.29	$65.04
13-1111	Management Analysts	$23.72	$30.28	$41.44	$58.28	$84.65
11-2021	Marketing Managers	$38.93	$49.27	$65.27	$82.27	$128.70
11-3031	Financial Managers	$38.32	$47.68	$62.58	$80.17	$119.85
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$15.50	$21.81	$33.03	$48.19	$62.43
13-1161	Market Research Analysts and Marketing Specialists	$16.80	$24.38	$33.55	$47.28	$60.90
13-1199	Business Operations Specialists, All Other	$18.39	$24.82	$34.20	$47.95	$60.84
27-3031	Public Relations Specialists	$15.36	$20.79	$28.43	$37.03	$47.31
13-1071	Human Resources Specialists	$17.52	$22.26	$29.40	$38.69	$50.43
41-3021	Insurance Sales Agents	$13.09	$17.80	$23.96	$37.71	$60.95

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Auditing
- Financial Statements
- Business Development
- Selling Techniques

In-Demand Foundational Skills

- Management
- Sales
- Communications
- Leadership
- Presentations

In-Demand Education Level*

- High School Diploma: 8.6%
- Associate Degree: 5.4%
- Bachelor's Degree: 60.3%
- Master's Degree: 18.3%

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

In-Demand Certifications

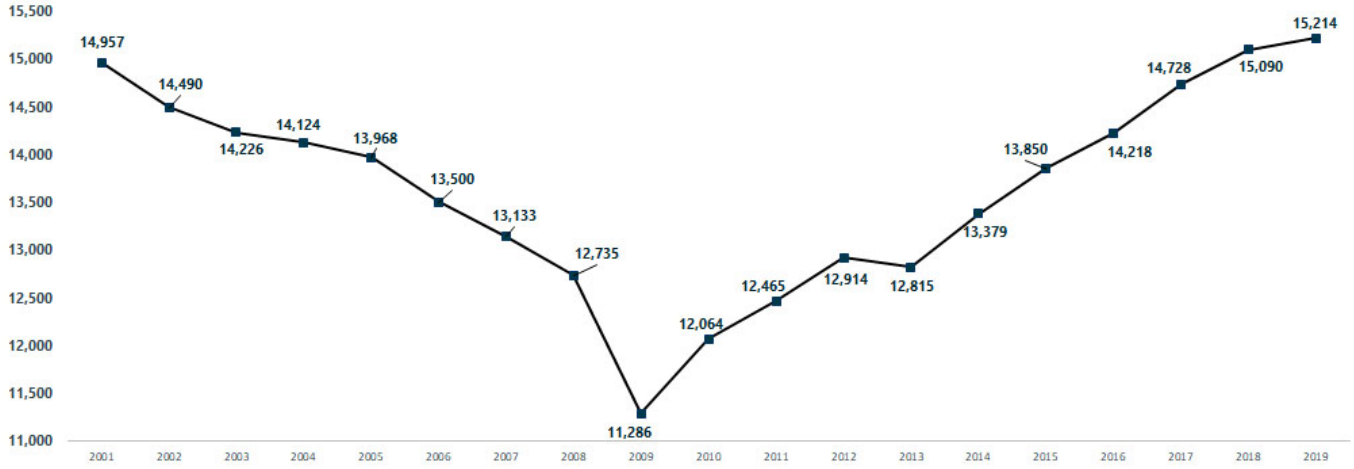
- Master of Business Administration (MBA)
- Certified Public Accountant
- Certified Internal Auditor
- Certified Information System Auditor (CISA)
- Certified Information Systems Security Professional

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. Data referenced in this section pertain only to job postings from energy-related businesses.

15,214
Energy Workers
0.8% Increase from 2018

Employment Over Time
2001–2019



Top Posting Employers*

- DTE Energy Company
- Aegion Corporation
- Elevate Energy
- Oge Energy Corp.
- Semco Energy, Inc.
- Energy Source, LLC

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

Electrical Engineers

Most In-Demand Energy Occupation in Q4 2019

Data: Emsi | Analysis: Workforce Intelligence Network

Energy
Top Posted Jobs
Q4 2019

Top Posted Jobs: Q4 2019

Many high-demand Energy occupations are engineering positions requiring a bachelor's degree. Electrical Engineers has remained the highest in-demand Energy occupation through Q4 2019, with 18 postings. Other top posted jobs for a bachelor's degree include Industrial Engineers (11 postings) and Architectural and Engineering Managers (seven postings). Solar Photovoltaic Installers (eight postings) and First-Line Supervisors of Construction Trades and Extraction Workers (five postings), require only a high school diploma or equivalent for entry.

Data: Emsi | Analysis: Workforce Intelligence Network

Energy Wage Overview

The high demand for engineers and managers in the energy field creates lucrative opportunities for job seekers willing to obtain the additional educational necessary for these jobs. The top posted energy job, Electrical Engineers, offers a median hourly wage of $43.87, or annual earnings of approximately $87,740. Construction and technician focused positions generally have shorter educational requirements than engineers and pay higher median wages than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q4 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2071	Electrical Engineers	$29.64	$35.52	$43.87	$53.50	$61.68
17-2112	Industrial Engineers	$30.45	$36.02	$44.09	$53.07	$60.28
47-2231	Solar Photovoltaic Installers	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
11-9041	Architectural and Engineering Managers	$45.46	$53.65	$63.36	$75.23	$89.89
17-2051	Civil Engineers	$24.26	$28.41	$34.32	$42.87	$54.06
11-9199	Managers, All Other	$31.51	$39.59	$51.04	$61.60	$76.47
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	$19.13	$26.61	$33.09	$44.35	$52.22
11-3051	Industrial Production Managers	$35.48	$44.62	$56.00	$69.87	$86.51
11-1021	General and Operations Managers	$22.86	$36.39	$55.95	$85.26	$120.39
17-2199	Engineers, All Other	$23.54	$33.49	$43.53	$55.18	$63.16

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Electrical Engineering
- Electrical Systems
- Distributed Computing
- Distributed Generation
- Electric Vehicle

In-Demand Foundational Skills

- Management
- Problem Solving
- Interpersonal Skills
- Operations
- Presentations

In-Demand Education Level*

- High School Diploma: 22.5%
- Associate Degree: 15.7%
- Bachelor's Degree: 73.0%
- Master's Degree: 23.6%

**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

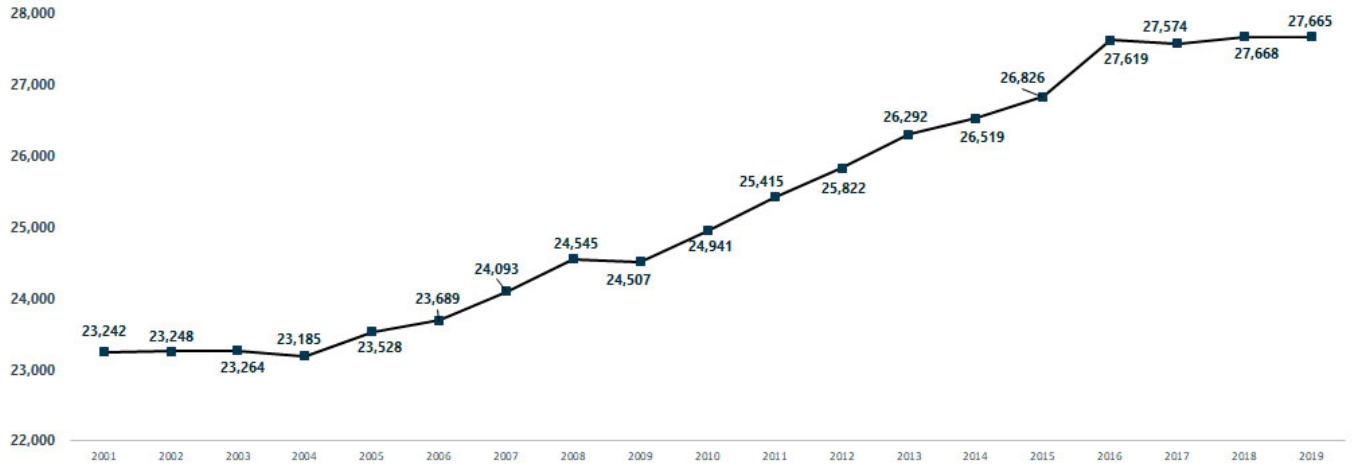
- CNABCEP Certified Energy Practitioner
- Licensed Professional Engineer
- Six Sigma Black Belt Certification
- Certified Energy Manager
- LEED Accredited Professional (AP)

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.

27,665
Health Care Workers
3 Worker Decrease from 2018

Employment Over Time
2001–2019



Top Posting Employers*

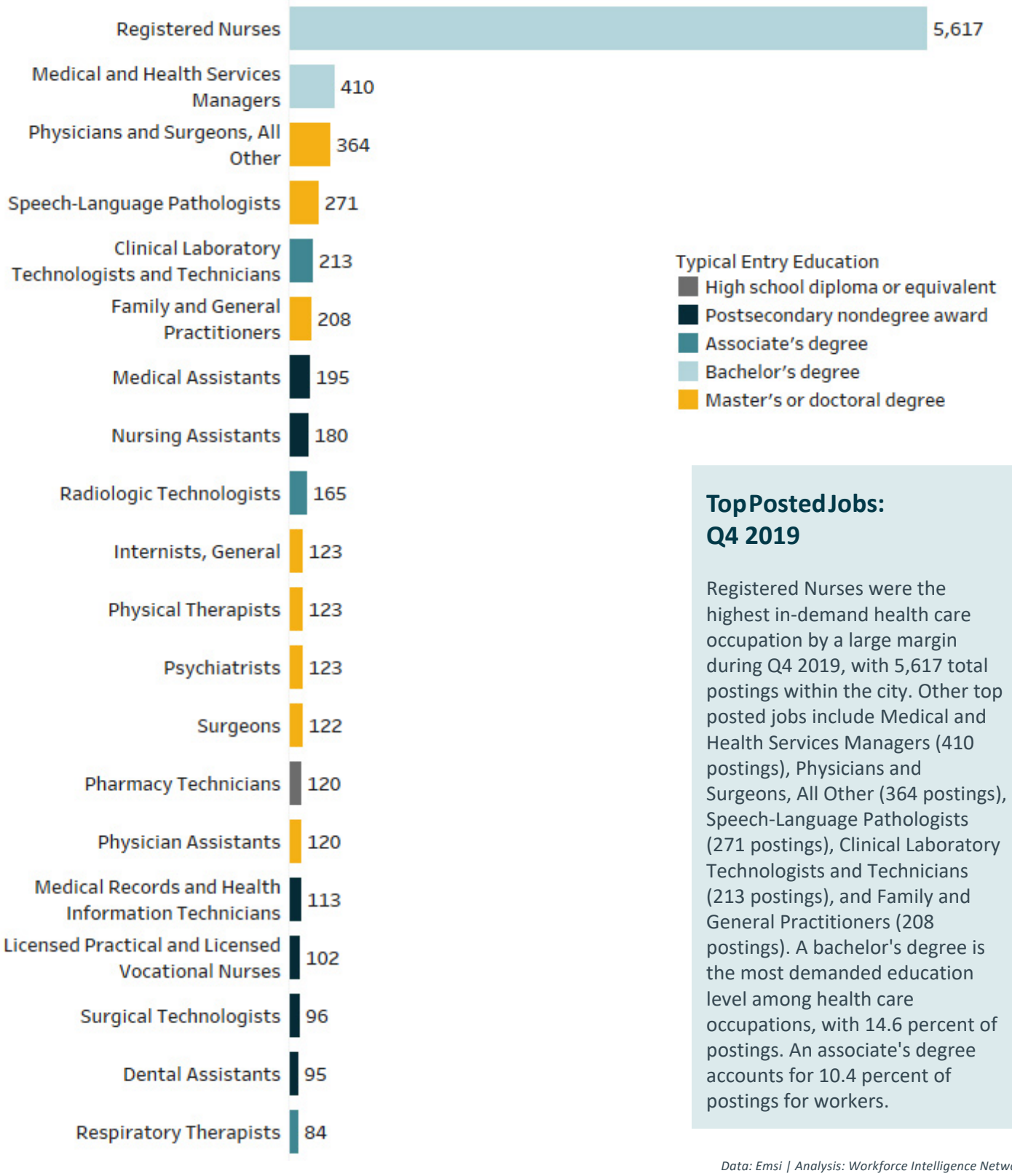
- General Healthcare Resources, Inc.
- Henry Ford Health System
- Tenet Healthcare Corporation
- Ascension Health
- NurseFly
- William Beaumont Hospital
- Soliant Health, Inc
- Supplemental Healthcare
- Trustaff Management, Inc.
- Onestaff Medical LLC

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

25%
of Health Care Employers Seek Candidates With an Associate or Bachelor's Degree

Data: Emsi | Analysis: Workforce Intelligence Network

Health Care
Top Posted Jobs
Q4 2019



Top Posted Jobs: Q4 2019

Registered Nurses were the highest in-demand health care occupation by a large margin during Q4 2019, with 5,617 total postings within the city. Other top posted jobs include Medical and Health Services Managers (410 postings), Physicians and Surgeons, All Other (364 postings), Speech-Language Pathologists (271 postings), Clinical Laboratory Technologists and Technicians (213 postings), and Family and General Practitioners (208 postings). A bachelor's degree is the most demanded education level among health care occupations, with 14.6 percent of postings. An associate's degree accounts for 10.4 percent of postings for workers.

Data: Emsi | Analysis: Workforce Intelligence Network

Health Care Wage Overview

Wages in health care are generally on the higher end of the pay scale with education, training, and experience being needed for most top jobs. Although this group offers a broad array of occupations requiring higher education, there several jobs open to those with a high school diploma or equivalent or a postsecondary nondegree award, that pay more than the region's median wage of $17.81 per hour. Registered Nurses, the top posted health care job in Q4 2019, offers a median hourly wage of $36.27 or an annual salary of nearly $72,540.

Wage Overview for Top Posted Health Care Jobs in Q4 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	$27.40	$31.54	$36.27	$40.82	$47.96
11-9111	Medical and Health Services Managers	$28.35	$36.06	$47.71	$65.01	$103.04
29-1069	Physicians and Surgeons, All Other	$22.67	$27.07	$63.42	$101.97	$131.87
29-1127	Speech-Language Pathologists	$27.40	$32.47	$37.96	$47.01	$67.49
29-2018	Clinical Laboratory Technologists and Technicians	$14.77	$17.92	$25.78	$32.74	$37.93
29-1062	Family and General Practitioners	$42.94	$57.58	$89.11	$101.09	$161.53
31-9092	Medical Assistants	$12.59	$13.74	$15.55	$18.27	$20.43
31-1014	Nursing Assistants	$11.48	$13.00	$14.53	$16.58	$18.64
29-2034	Radiologic Technologists	$20.02	$23.78	$28.51	$33.46	$38.21
29-1063	Internists, General	$22.42	$28.02	$96.03	$110.86	$177.85

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Basic Life Support
- Nursing
- Advanced Cardiovascular Life Support (ACLS)
- Intensive Care Unit
- Cardiopulmonary Resuscitation (CPR)

In-Demand Foundational Skills

- Management
- Leadership
- Customer Service
- Communications
- Teaching

In-Demand Education Level*

- High School Diploma: 8.5%
- Associate Degree: 10.4%
- Bachelor's Degree: 14.6%
- Master's Degree: 7.8%

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

In-Demand Certifications

- Licensed Practical Nurse
- Nurse Practitioner
- Certified Nursing Assistant
- Associates Degree in Nursing
- American Registry of Radiologic Technologists (ARRT) Certified

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.

7,649
IT Workers
109 Worker
Increase from 2018

Employment Over Time
2001–2019

Top Posting Employers*

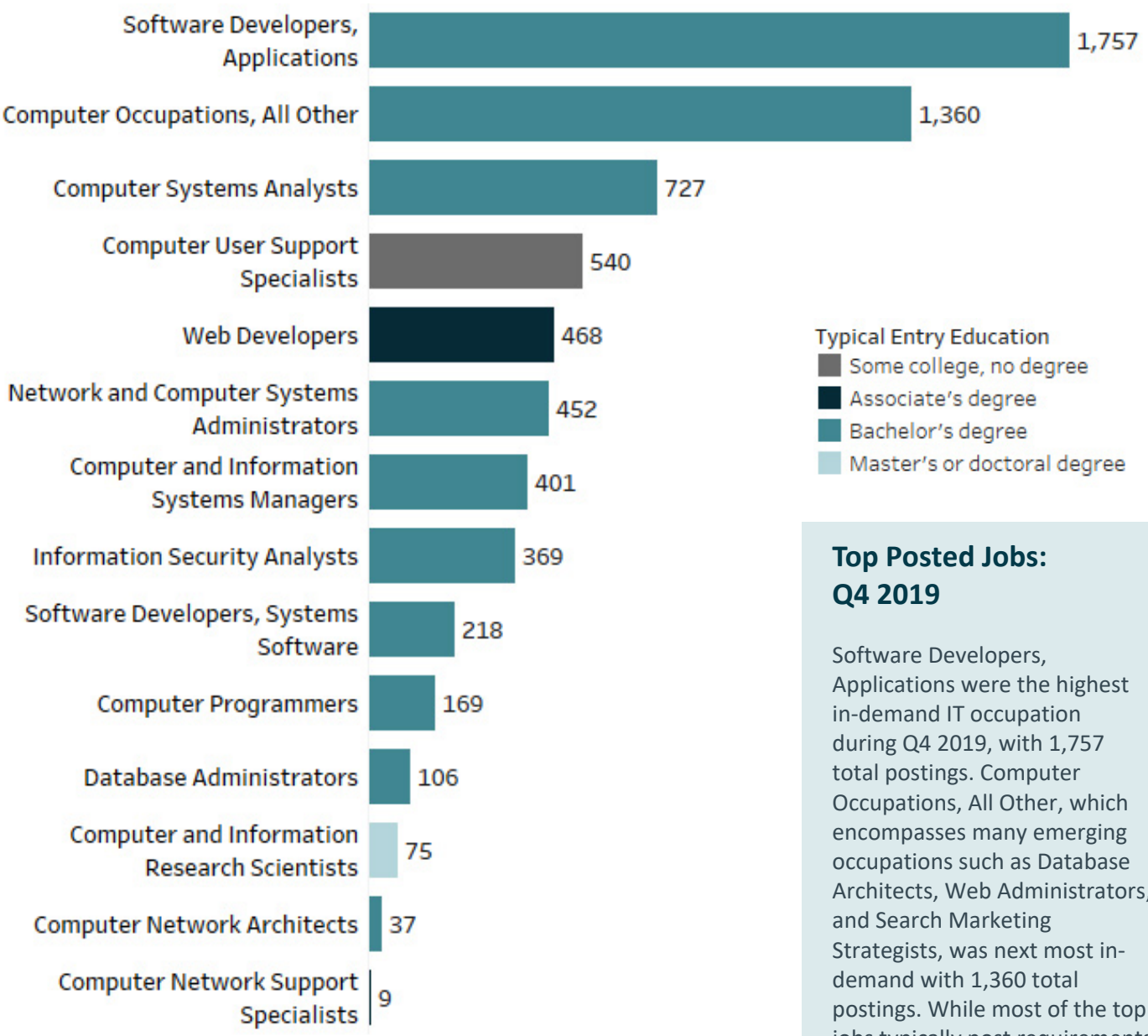
- Deloitte LLP
- Accenture PLC
- Quicken Loans Inc.
- Strategic Staffing Solutions, Inc.
- Pricewaterhousecoopers LLP
- Ford Motor Company
- Family of Companies
- Amazon.com, Inc.
- Anthem, Inc.
- Ally Financial Inc.

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

Software Developers, Applications
Top IT Occupation in Q4 2019

Data: Emsi | Analysis: Workforce Intelligence Network

IT
Top Posted Jobs
Q4 2019



Top Posted Jobs: Q4 2019

Software Developers, Applications were the highest in-demand IT occupation during Q4 2019, with 1,757 total postings. Computer Occupations, All Other, which encompasses many emerging occupations such as Database Architects, Web Administrators, and Search Marketing Strategists, was next most in-demand with 1,360 total postings. While most of the top jobs typically post requirements for a bachelor's degree, Web Developers (468 postings) typically require an associate degree while Computer User Support Specialists (540 postings) prefer some college education, but no degree.

Data: Emsi | Analysis: Workforce Intelligence Network

Information Technology Wage Overview

Most IT related jobs offer high wages, making for a lucrative opportunity for job seekers willing to obtain the additional education related to these jobs. Software Developers, Applications, the top posted IT job in Q4 2019, offers a median hourly wage of $45.06 or an annual salary of over $90,120. Computer User Support Specialists which require some college, no degree offers median wages around 23.35, averaging to $46,700 annually.

Wage Overview for Top Posted IT Jobs in Q4 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	$29.18	$35.77	$45.06	$56.11	$64.79
15-1199	Computer Occupations, All Other	$20.16	$27.92	$38.48	$50.09	$61.44
15-1121	Computer Systems Analysts	$26.17	$32.65	$40.66	$51.16	$63.03
15-1151	Computer User Support Specialists	$13.91	$17.43	$23.35	$30.41	$39.10
15-1134	Web Developers	$11.50	$21.28	$32.34	$43.45	$51.41
15-1142	Network and Computer Systems Administrators	$25.77	$32.33	$39.84	$50.16	$60.30
11-3021	Computer and Information Systems Managers	$41.65	$52.92	$65.67	$80.55	$100.79
15-1122	Information Security Analysts	$30.35	$35.61	$45.37	$57.93	$66.67
15-1133	Software Developers, Systems Software	$23.40	$34.18	$44.45	$54.05	$63.89
15-1131	Computer Programmers	$22.43	$30.38	$38.06	$46.50	$54.12

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Agile Software Development
- Java
- SQL
- Automation
- Software Development

In-Demand Foundational Skills

- Management
- Communications
- Leadership
- Problem Solving
- Troubleshooting

In-Demand Education Level*

- High School Diploma: 4.4%
- Associate Degree: 5.0%
- Bachelor's Degree: 57.4%
- Master's Degree: 12.5%

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

In-Demand Certifications

- Certified Information Systems Security Professional
- Project Management Professional Certification
- Certified Information System Auditor (CISA)
- Certified Information Security Manager
- Microsoft Certified Professional

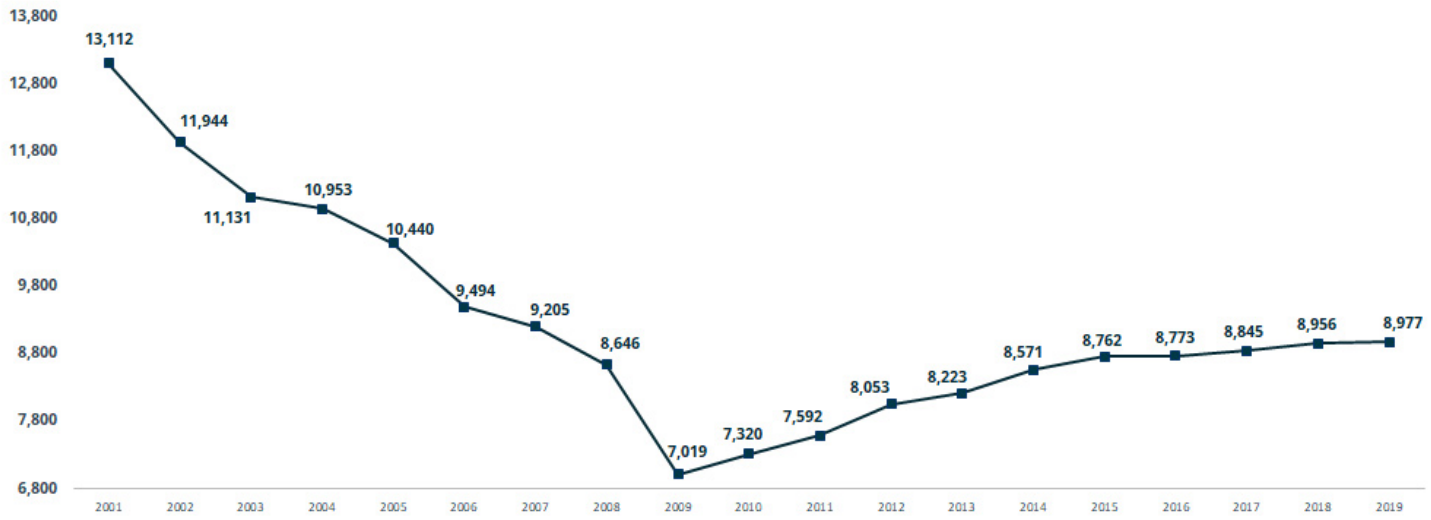
Introduction

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.

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

8,952
Skilled Trades Workers
5 Worker Decrease from 2018

Employment Over Time
2001–2019



Top Posting Employers*

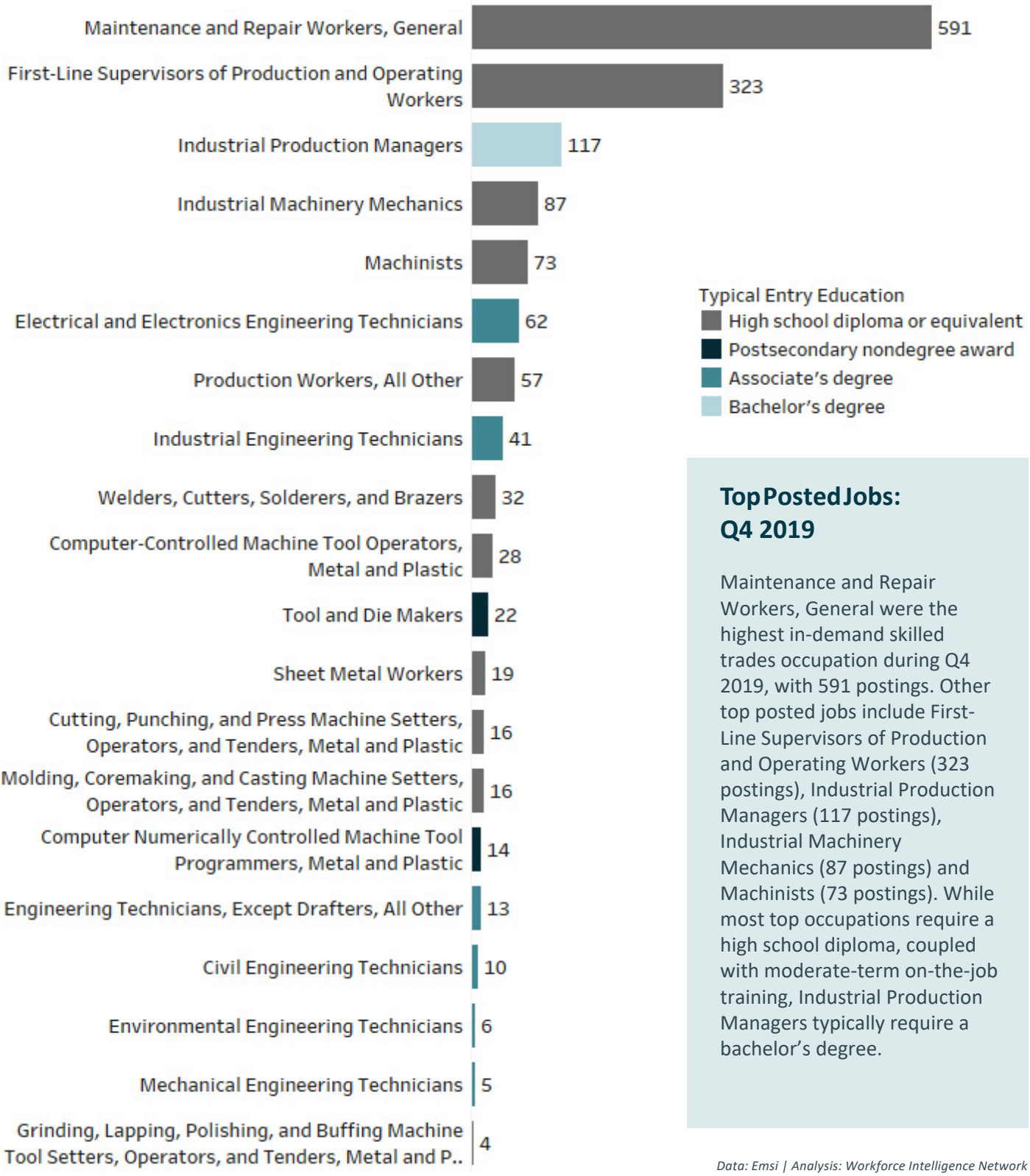
- E. W. Grobbel Sons, Inc.
- Flex-N-Gate Corporation
- Fieldco
- Textron Inc.
- City of Detroit
- FCA US LLC
- Wilson, Jeff Chrysler Automobiles, Inc
- DTE Energy Company
- Art Jacobs
- Housing Management Inc

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

37%
of Postings Require a High School Diploma or Equivalent

Data: Emsi | Analysis: Workforce Intelligence Network

Skilled Trades
Top Posted Jobs
Q4 2019



Top Posted Jobs: Q4 2019

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during Q4 2019, with 591 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (323 postings), Industrial Production Managers (117 postings), Industrial Machinery Mechanics (87 postings) and Machinists (73 postings). While most top occupations require a high school diploma, coupled with moderate-term on-the-job training, Industrial Production Managers typically require a bachelor's degree.

Data: Emsi | Analysis: Workforce Intelligence Network

Skilled Trades Wage Overview

Half of the top ten in-demand skilled trades occupation have median wages above $20 per hour. Maintenance and Repair Workers, General, the top posted skilled trades job in Q4 2019, offers a median hourly wage of $17.35, which translates to an annual salary of about $34,700. The third top occupation, Industrial Production Managers, requires an additional five years or more of work experience and earn $55.85 hourly or roughly $111,700 annually.

Wage Overview for Top Posted Skilled Trades Jobs in Q4 2019

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	$11.00	$13.52	$17.35	$23.08	$28.96
51-1011	First-Line Supervisors of Production and Operating Workers	$18.70	$24.24	$32.16	$41.32	$51.11
11-3051	Industrial Production Managers	$35.12	$44.37	$55.85	$69.76	$86.42
49-9041	Industrial Machinery Mechanics	$15.45	$19.77	$25.28	$31.44	$37.42
51-4041	Machinists	$11.30	$15.27	$19.99	$25.99	$30.20
17-3023	Electrical and Electronics Engineering Technicians	$16.71	$22.22	$30.14	$35.05	$39.11
51-9199	Production Workers, All Other	$9.25	$10.36	$14.58	$20.58	$31.97
17-3026	Industrial Engineering Technicians	$16.75	$20.86	$26.38	$33.34	$38.89
51-4121	Welders, Cutters, Solderers, and Brazers	$13.31	$15.96	$19.10	$23.83	$29.57
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	$12.14	$14.45	$19.16	$23.57	$29.24

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Plumbing
- HVAC
- Preventive Maintenance
- Painting
- Carpentry

In-Demand Foundational Skills

- Management
- Operations
- Troubleshooting
- Communications
- Leadership

In-Demand Education Level*

- High School Diploma: 36.6%
- Associate Degree: 9.8%
- Bachelor's Degree: 17.0%
- Master's Degree: 2.1%

**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

- HVAC Certification
- EPA 608 Technician Certification
- CFC Refrigeration Certification
- National Apprenticeship Certificate
- Six Sigma Black Belt Certification

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