WIN WORKFORCE INTELLIGENCE NETWORK

Q4 2018
October - December

CITY OF DETROIT

WIN Labor Market Report

INTRODUCTION
City of Detroit | Q4 2018

Report Contents

2 - State of the Labor Market
3 - Key Findings
4 - Workforce Overview
8 - Real-Time Demand Overview

Occupation Groups

11 - Business and Finance
14 - Energy
17 - Health Care
20 - Information Technology
23- Skilled Trades and Technicians

About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of six Michigan Works! Agencies (MWAs) and ten 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 2018 in the City of Detroit and includes summative data for October, November, and December of 2018. For Detroit, the business and finance, energy, health care, information technology, and skilled trades and technicians 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.

WIN WORKFORCE INTELLIGENCE NETWORK

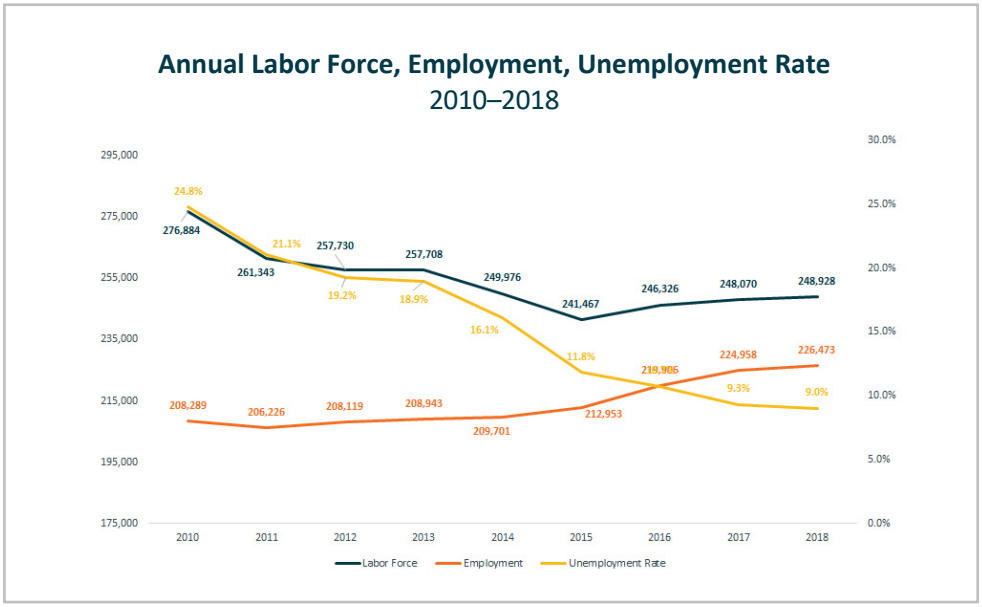
ANNUAL STATE OF THE LABOR MARKET
City of Detroit| Q4 2018

State of the Labor Market in the City of Detroit

The labor force and employment figures in Detroit have risen slightly into Q4 2018, continuing the steady growth seen throughout the year. This quarter, employment has risen much more quickly than the labor force, meaning a smaller proportion of the labor force is looking for work. This has caused the quarterly unemployment rates to fall to 8.6 percent from the quarterly rate of 9.7 percent in Q3 2018. This matches the 8.6 percent quarterly unemployment rate during Q4 2017. Employer demand remains high for business and finance- related workers. The business and finance occupation group reported the highest demand among the five key groups analyzed for the city, with 7,461 job postings during Q4 2018. Other occupation groups also offer great job opportunities for active job seekers: 35 percent of Health Care postings were open to workers with two or fewer years of experience, and Skilled Trades jobs offer opportunities for those with a high school diploma and a willingness to undertake training.

Annual Labor Market Information

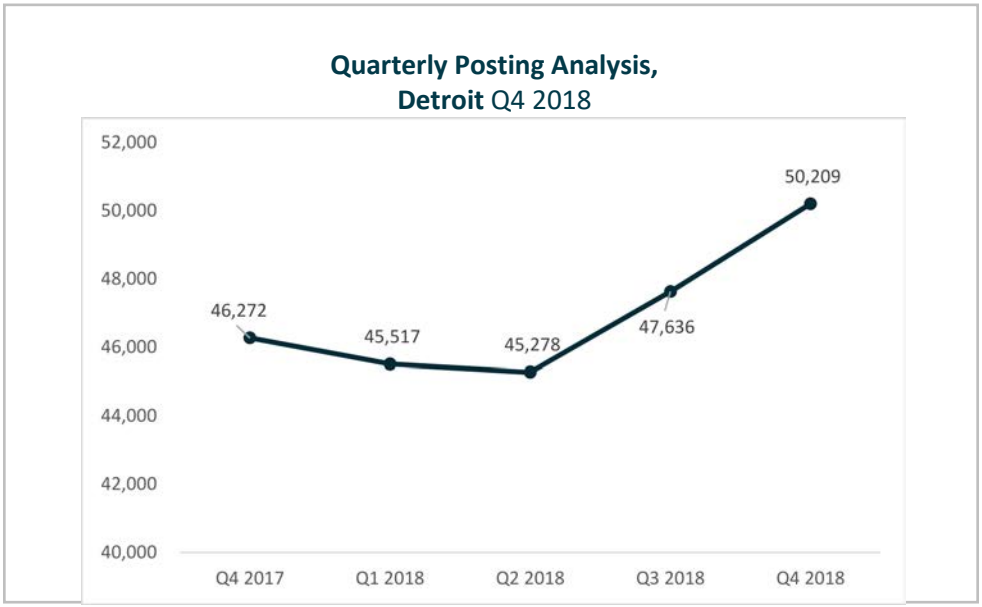
Continuing a ten-year high, the labor force in the city of Detroit increased by 858 individuals between 2017 and 2018. Employment grew by nearly double that figure, gaining 1,516 workers between 2017 and 2018. With employment increasing at a much faster rate than the labor force, the unemployment rate in the city of Detroit fell by 0.3 percentage points from an annual rate of 9.3 percent in 2017 to an annual rate of 9.0 percent in 2018.



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data from the fourth quarter of 2018, including posting information from October, November, and December, indicated strong employer demand in the City of Detroit. There were 50,209 postings in the city during Q4 2018. Demand has been rising through the year, growing by 2,573 postings between Q3 2018 and Q4 2018 and up by 4,692 postings since Q1 2018.



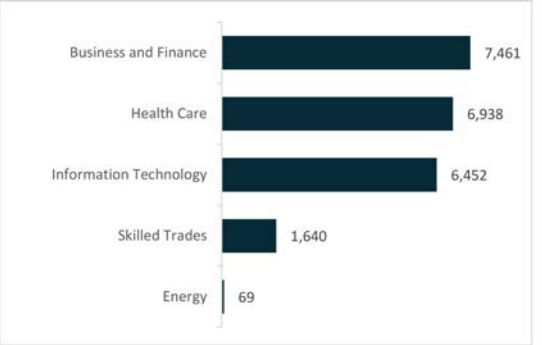
Data: Emsi | Analysis: Workforce Intelligence Network

QUARTERLY WORKFORCE INDICATORS
City of Detroit | Key Findings for Q4 2018

The health care occupation group experienced strong growth through each quarter of 2018.

Employers seeking health care workers have shown sustained demand growth during 2018, resulting in a Q4 2018 total of 6,938 ads. This is similar to levels experienced by other major occupation groups business and finance and IT. Most of the occupation groups analyzed by WIN experienced a decline in online job postings during at least one quarter of 2018, but employers added approximately 1,700 postings for health care workers over the year, with the most dramatic growth between Q3 and Q4 2018. Registered Nurses have remained by far the most in-demand job. Health care occupation educational requirements vary from high school or certifications for technician and assistant positions, to bachelor's degrees for occupations like nurses, to advanced degrees for physician roles. For more information about the health care occupation group, see page 17.

Postings by Occupation Group
Q4 2018

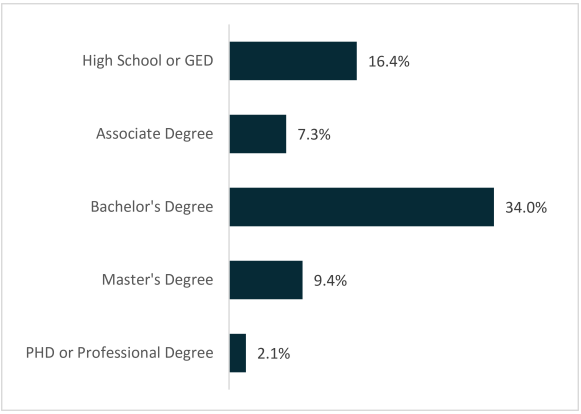


Data: Emsi | Analysis: Workforce Intelligence Network

A bachelor's degree is the most in-demand educational credential for all openings in the city, specified in 34 percent of job postings.

Of the 50,209 total postings in the city of Detroit during Q4 2018, 17,056 (34.0 percent) required a college degree. An additional 5,814 postings (11.6 percent) required an advanced degree. This is significantly higher than across southeast Michigan as a whole; regionwide, 24.0 percent of postings require a bachelor's degree while 7.4 percent post requirements for advanced education. The high demand for business and technology roles within the city limits drives this high demand for college education.

Education Levels In-Demand
Q4 2018



Data: Emsi | Analysis: Workforce Intelligence Network

Detroit's unemployment rate is currently at 8.6 percent, matching the rate from Q4 2017.

The labor market in Detroit has shown a pattern of stability through the end of 2018. Though the labor force has fallen somewhat since Q3 2018, the current levels of both labor force and employment are still higher than during Q4 2017. For more information about this quarter's unemployment rate and other labor market indicators, see page 4.

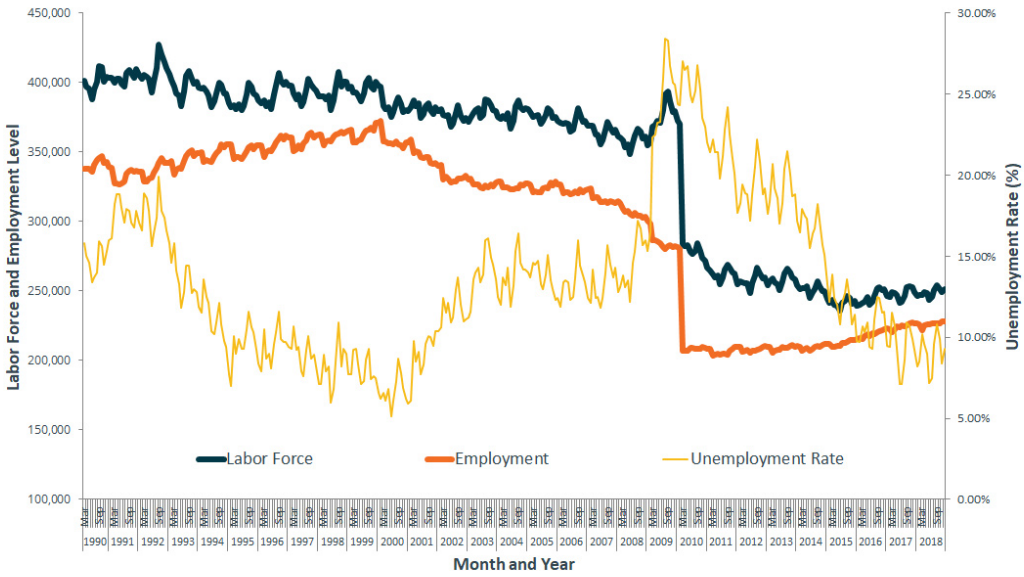
Quarterly Labor Market Data

	4th Quarter 2017	4th Quarter 2018	Change from 4th Quarter 2017	Percent Change from 4th Quarter 2017
Labor Force	247,688	249,595	1,907	0.8%
Employment	226,375	228,010	1,634	0.7%
Unemployment	21,313	21,585	273	1.3%
Unemployment Rate	8.6%	8.6%	0.0%	na

Note: Monthly data averaged by quarter | Data: BLS

WORKFORCE OVERVIEW
City of Detroit | Labor Market Information Q4 2018

Labor Force, Employment, Unemployment Rate
1990-2018



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Labor Market Data
Q4 2017 - Q4 2018

	4th Quarter 2017	1st Quarter 2018	2nd Quarter 2018	3rd Quarter 2018	4th Quarter 2018	Change from 3rd Quarter 2018	Percent Change from 3rd Quarter 2018	Change from 4th Quarter 2017	Percent Change from 4th Quarter 2017
Labor Force	247,688	248,211	246,345	251,559	249,595	-1,964	-0.8%	1,907	0.8%
Employment	226,375	224,416	226,331	227,137	228,010	872	0.4%	1,634	0.7%
Unemployment	21,313	23,796	20,014	24,422	21,585	-2,837	-11.6%	273	1.3%
Unemployment Rate	8.6%	9.6%	8.1%	9.7%	8.6%	-1.1%	na	0.0%	na

Note: Monthly data averaged by quarter | Data: BLS

Labor Force, Employment, and Unemployment

Employment in the City of Detroit has been growing steadily year over year since 2010, though the labor force was steadily falling until 2015 and there is still variation between quarters. The labor force decreased by 1,964 workers (-0.8 percent) between Q3 2018 and Q4 2018. Employment in the city has increased from Q3 2018, gaining 1,634 workers (+0.7 percent). With employment rising as the labor force drops, the unemployment rate fell this quarter: the quarterly unemployment rate decreased by 1.1 percentage points between Q3 2018 and Q4 2018 to 8.6 percent.

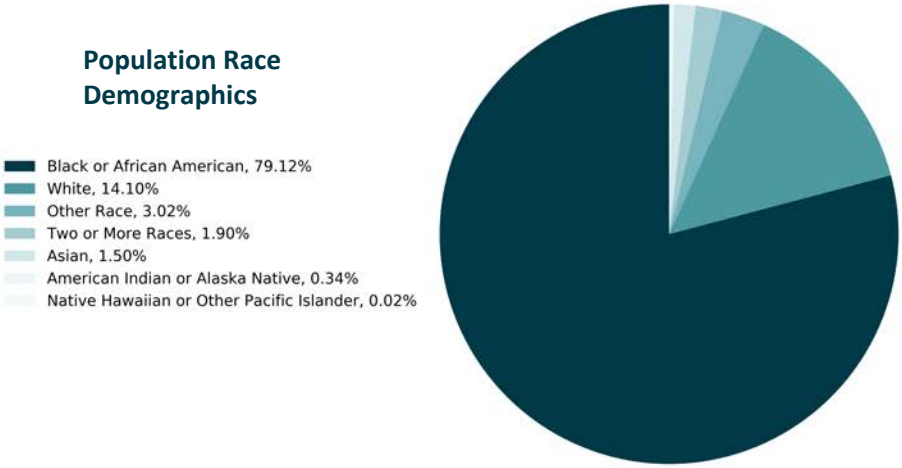
WORKFORCE OVERVIEW
City of Detroit | 2017 Annual Population Demographics

Population Demographics

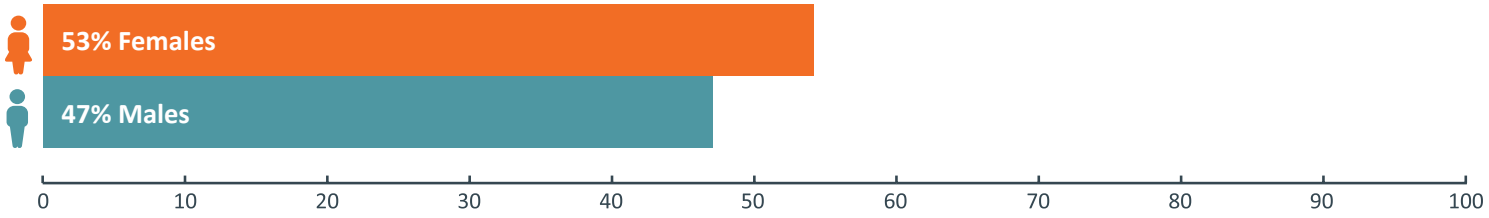
According to the data from the most recent Census Bureau 2017 ACS Five Year estimates, during 2017, 679,865 people were living in the city of Detroit. The sex of the populace was split almost evenly, with about 52.7 percent of the population identifying as female, and the other 47.3 percent identifying as male. The majority of the population identified as black or African American (79.1 percent) with the second largest number of individuals identifying as white (14.1 percent). The city skews younger than the surrounding region; 25.6 percent of population was over the age of 55, compared to 36.2 percent under the age of 25.

679,865
People in the City
0.5% Decrease from 2016

Population Race Demographics



Population Gender Demographics



Population Age Demographics

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

WORKFORCE OVERVIEW
City of Detroit | 2017 Annual Labor Force Demographics

2017 Labor Force, Employment, and Unemployment Demographics

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	282,932	226,452	56,021	19.8%
Sex				
Male 16+	134,071	105,228	28,843	21.5%
16-19	6,195	3,477	2,718	43.9%
20-24	18,941	12,774	6,167	32.6%
25-54	87,974	70,883	17,091	19.4%
55-64	16,483	14,061	2,422	14.7%
65 Plus	4,478	4,033	445	9.9%
Female 16+	148,661	121,396	27,265	18.3%
16-19	6,807	3,645	3,162	46.5%
20-24	21,075	15,344	5,731	27.2%
25-54	95,409	79,377	16,032	16.8%
55-64	19,995	18,070	1,925	9.6%
65 Plus	5,375	4,960	415	7.7%
Race				
White	41,426	36,593	4,805	11.6%
Black / African American	223,934	174,962	48,594	21.7%
Native American	883	666	216	24.5%
Asian	4,138	3,657	476	11.5%
Native Hawaiian / Pacific Islander	68	68	0	0.0%
Some Other Race	8,465	7,218	1,244	14.7%
Two or More Races	4,035	3,227	815	20.2%
Ethnicity				
Hispanic	20,100	17,138	2,955	14.7%

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

Labor Market Demographics

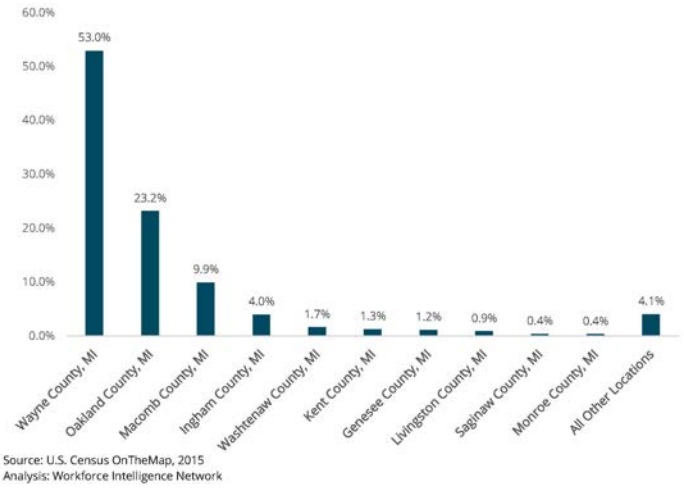
During 2017, the most recent census year, there were about 283,000 people in the labor force, meaning they were either working or looking for work, in the city of Detroit. The 282,932 individuals (41.6 percent) participating in the labor force make up a little under half of those living in the city. The highest unemployment rates were seen in those aged 24 years old or younger. Females under the age of 19 face an unemployment rate of 46.5 percent. Native American job seekers also have a difficult time finding employment, facing an unemployment rate of 24.5 percent.

WORKFORCE OVERVIEW
City of Detroit | 2015 Regional Commuting Patterns

Regional Commuting Patterns

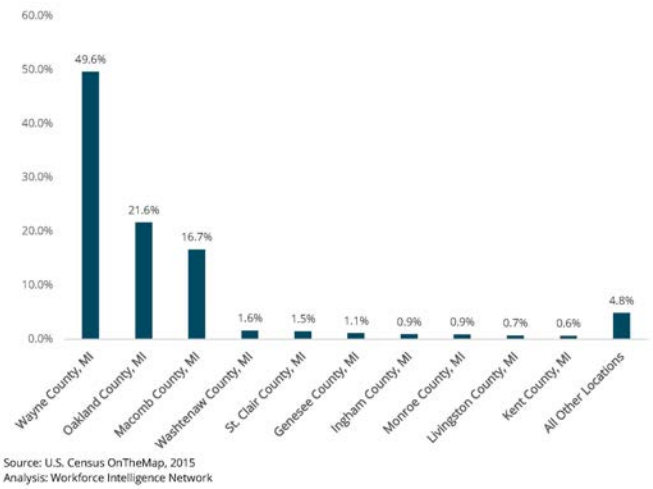
According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the city's workforce consisted of 177,431 residents. 58,730 (33.1 percent) of the residents lived and worked within Detroit's city limits, while the remaining 118,701 residents (65.9 percent) traveled outside 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

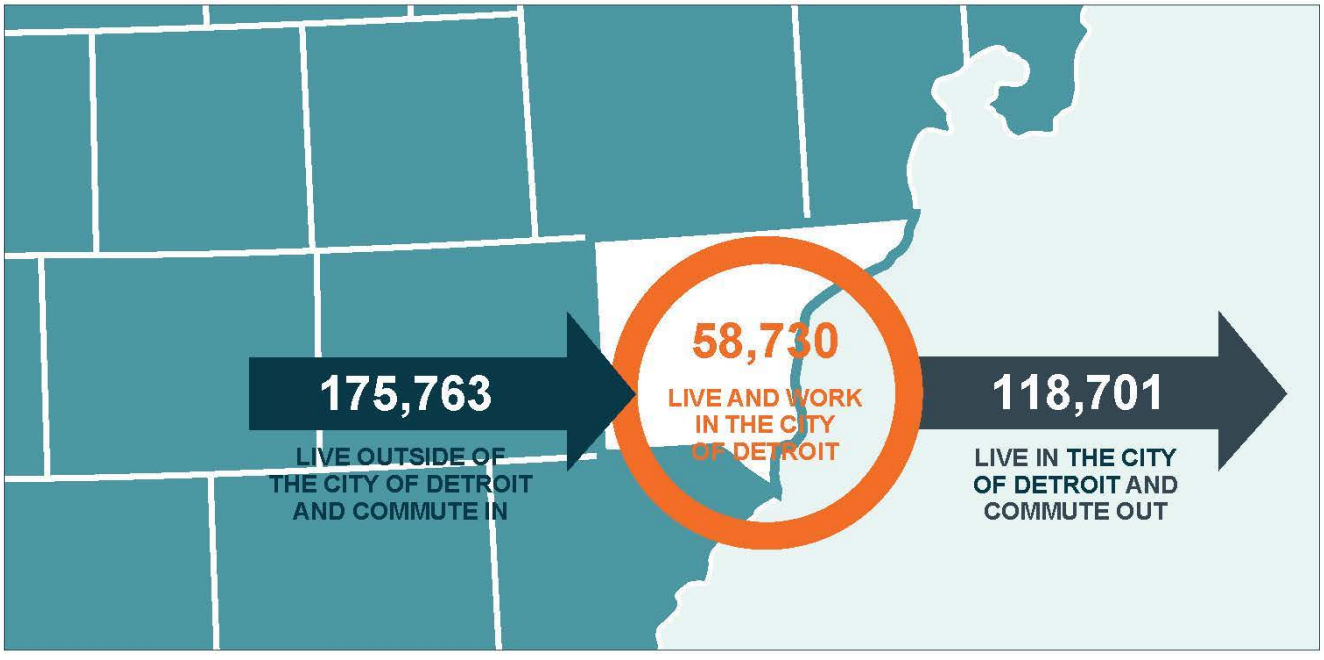


Data: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

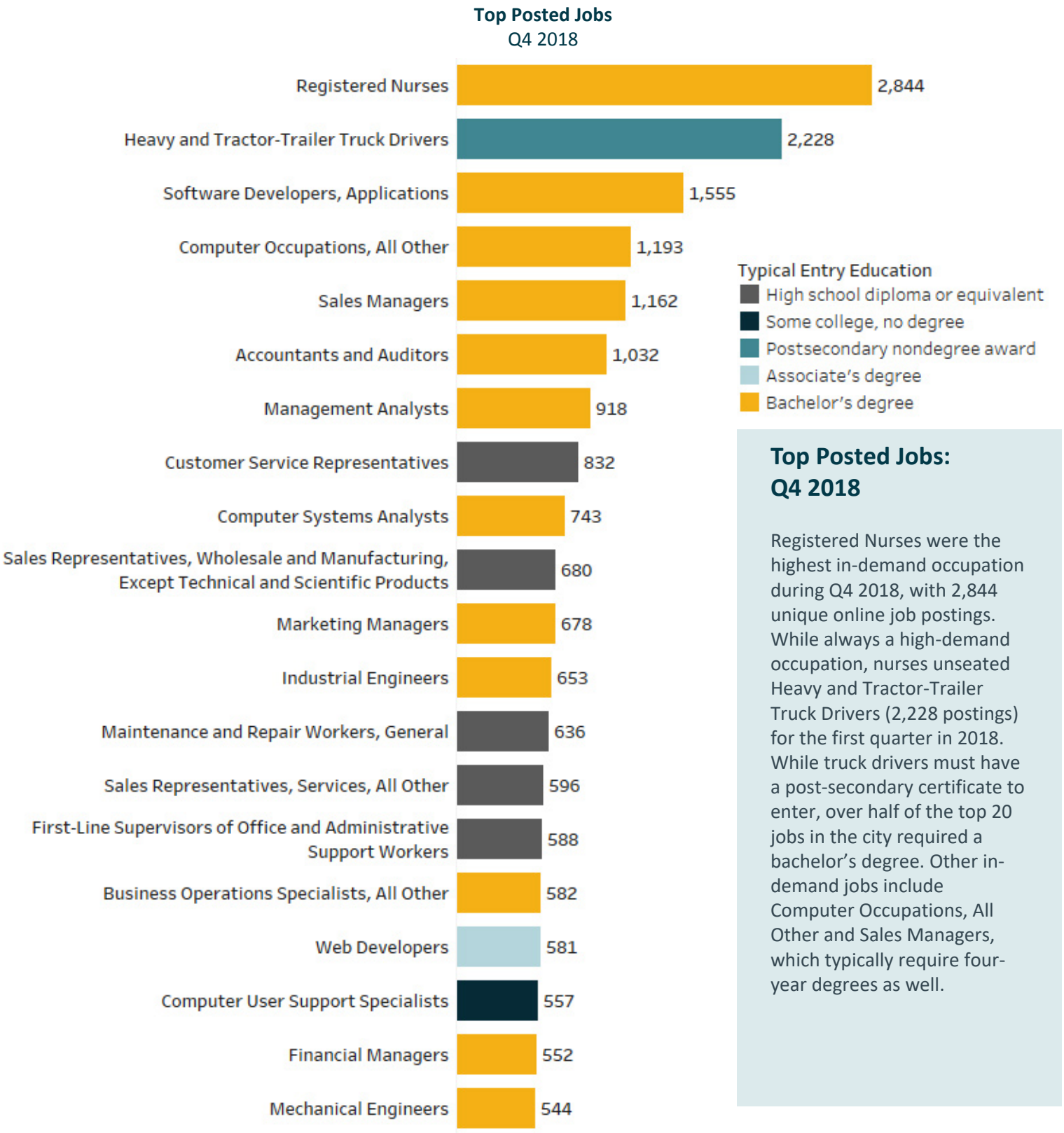
Where City of Detroit Workers Live



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



REAL-TIME DEMAND OVERVIEW
City of Detroit | Top Posted Jobs | Q4 2018



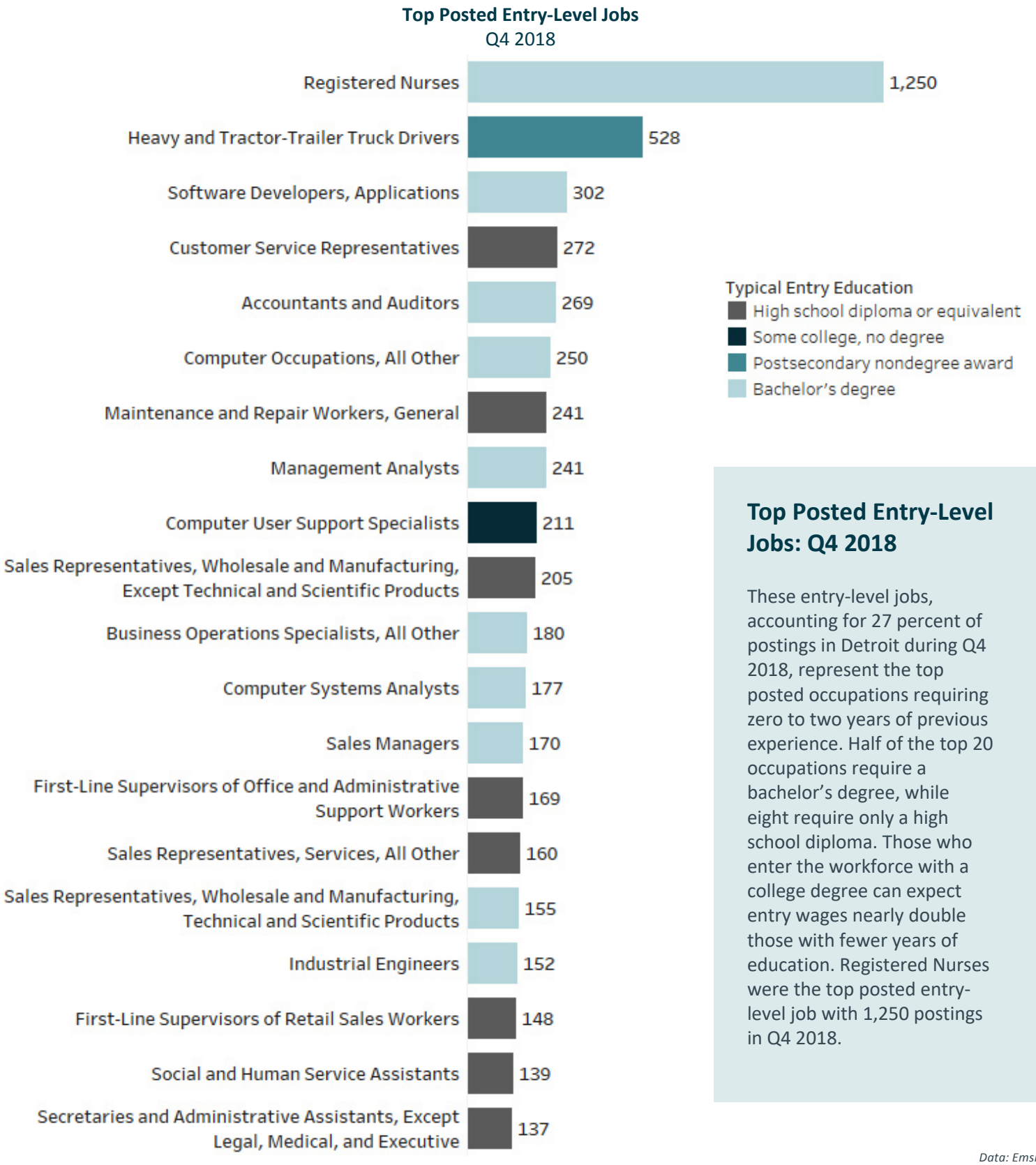
Top Posted Jobs: Q4 2018

Registered Nurses were the highest in-demand occupation during Q4 2018, with 2,844 unique online job postings. While always a high-demand occupation, nurses unseated Heavy and Tractor-Trailer Truck Drivers (2,228 postings) for the first quarter in 2018. While truck drivers must have a post-secondary certificate to enter, over half of the top 20 jobs in the city required a bachelor's degree. Other in-demand jobs include Computer Occupations, All Other and Sales Managers, which typically require four-year degrees as well.

Data: Emsi
Analysis: Workforce Intelligence Network

REAL-TIME DEMAND OVERVIEW

City of Detroit | Top Posted Entry-Level Jobs | Q4 2018



Top Posted Entry-Level Jobs: Q4 2018

These entry-level jobs, accounting for 27 percent of postings in Detroit during Q4 2018, represent the top posted occupations requiring zero to two years of previous experience. Half of the top 20 occupations require a bachelor's degree, while eight require only 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. Registered Nurses were the top posted entry-level job with 1,250 postings in Q4 2018.

Data: Emsi
Analysis: Workforce Intelligence Network

REAL-TIME DEMAND OVERVIEW
City of Detroit | Skills and Certifications | Q4 2018

Top Posting Employers*

- Henry Ford Health System
- Virtual Vocations
- Deloitte LLP
- Tenet Healthcare Corporation
- Quicken Loans Inc.
- Wayne State University
- Ascension Health
- Marriott International, Inc.
- MGM Resorts International
- Anthem, Inc.
- City of Detroit
- Aureus Medical Management Services L.L.C.
- General Motors Company
- DTE Energy Company
- Soliant Health, Inc

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

Top In-Demand Skills

- Accounting
- Nursing
- Selling Techniques
- Customer Satisfaction
- Auditing
- Business Development
- Business Development
- SQL
- Continuous Improvement Process
- Microsoft Access
- Strategic Planning

Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Master of Business Administration (MBA)
- Certified Public Accountant
- Licensed Practical Nurse
- Certified Nursing Assistant
- Nurse Practitioner
- American Registry of Radiologic Technologists (ARRT) Certified
- Certified Information Systems Security Professional
- Advanced Practice Registered Nurse
- CompTIA Security+

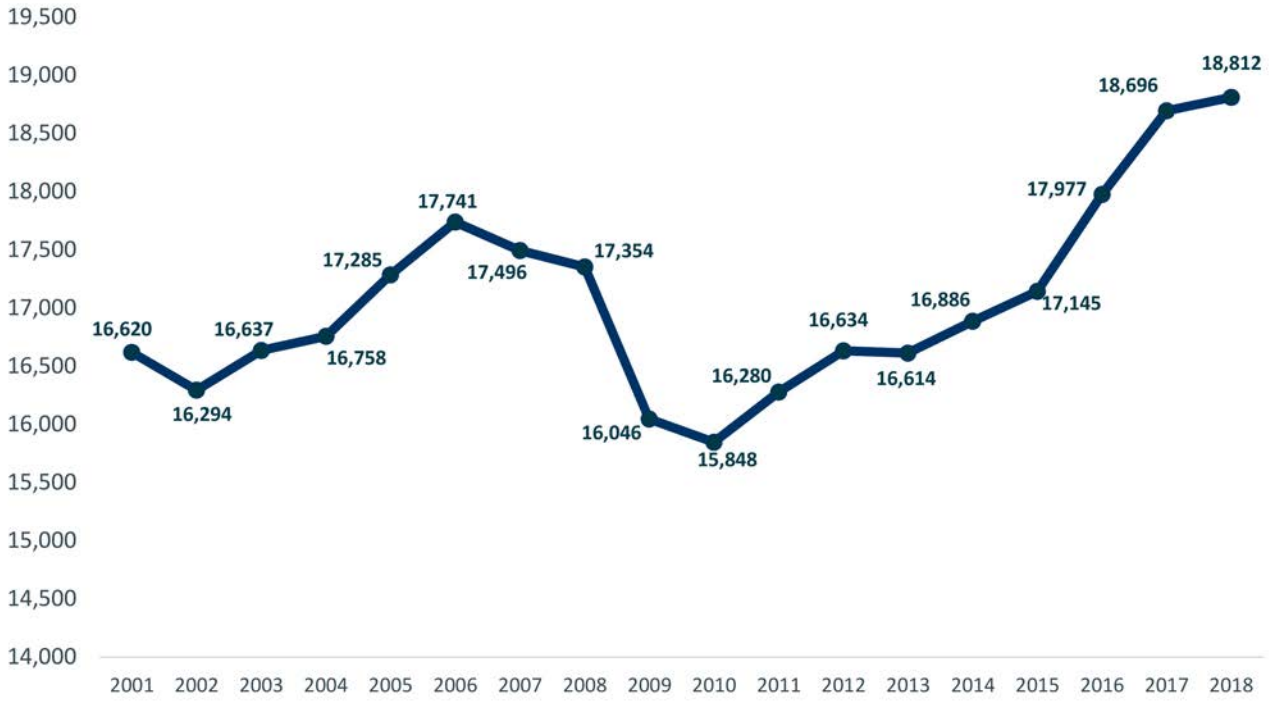
BUSINESS AND FINANCE OCCUPATION GROUP
City of Detroit | Q4 2018

Introduction

Jobs in the business and finance occupation group can be found in nearly every type of establishment 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.

18,812
Business Workers
0.6% Increase from 2017

Employment Over Time
2001–2018



Top Job Posting Employers*

- Deloitte LLP
- Virtual Vocations
- Quicken Loans Inc.
- General Motors Company
- Anthem, Inc.
- Robert Half International Inc.
- Ally Financial Inc.
- Intuit Inc.
- Ernst & Young LLP
- Comerica Incorporated

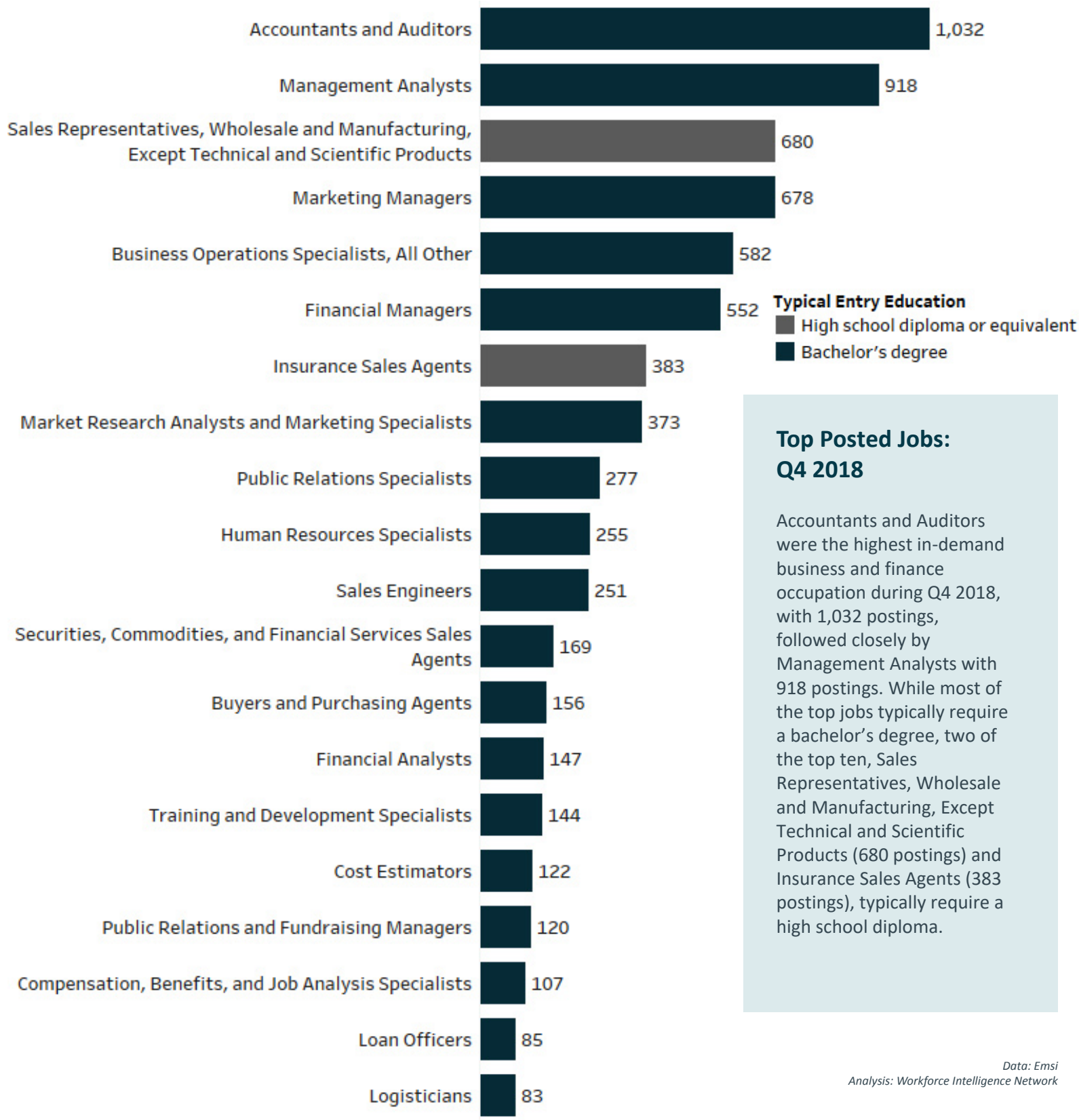
**Employer names are listed as they appear in online job postings.*

Data: Emsi | Analysis: Workforce Intelligence Network

7,461 Business and Finance Postings: 462 More Than Q3 2018

Accounting and Management Skills in High Demand

Business and Finance Top Posted Jobs
Q4 2018



Top Posted Jobs: Q4 2018

Accountants and Auditors were the highest in-demand business and finance occupation during Q4 2018, with 1,032 postings, followed closely by Management Analysts with 918 postings. While most of the top jobs typically require a bachelor's degree, two of the top ten, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (680 postings) and Insurance Sales Agents (383 postings), typically require a high school diploma.

Data: Emsi
Analysis: Workforce Intelligence Network

High Earning Potential for Marketing Managers

CPA: In-Demand Business and Finance Certification

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. According to the Bureau of Labor Statistics (BLS), the top posted business and finance job, Accountants and Auditors, offers median hourly wages of $33.38, translating to annual earnings of approximately $70,000. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to wages around $60 hourly, or about $125,000 annually.

Wage Overview for Top Posted Business and Finance Jobs Q4 2018

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
13-2011	Accountants and Auditors	$21.56	$26.82	$33.38	$42.39	$53.66
13-1111	Management Analysts	$24.25	$28.79	$37.27	$52.94	$75.48
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$15.97	$21.59	$30.07	$44.87	$58.90
11-2021	Marketing Managers	$33.67	$48.78	$67.08	$81.97	$112.46
13-1199	Business Operations Specialists, All Other	$19.31	$24.15	$33.53	$45.50	$56.65
11-3031	Financial Managers	$33.40	$41.98	$57.67	$78.09	$105.32
41-3021	Insurance Sales Agents	$11.30	$16.96	$23.15	$33.85	$62.49
13-1161	Market Research Analysts and Marketing Specialists	$20.95	$26.59	$35.90	$51.03	$62.42
27-3031	Public Relations Specialists	$16.89	$20.94	$29.00	$37.86	$48.37
13-1071	Human Resources Specialists	$18.45	$23.14	$29.84	$39.58	$54.88

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Auditing
- Selling Techniques
- Business Development
- Management Consulting

In-Demand Foundational Skills

- Management
- Communications
- Sales
- Leadership
- Operations

In-Demand Education Level*

- High School Diploma: 7.5%
- Associate Degree: 3.6%
- Bachelor's Degree: 54.3%
- Master's Degree: 17.2%

**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 Public Accountant
- Certified Internal Auditor
- Certified Information Systems Security Professional
- Certified Information Security Manager
- Chartered Financial Analyst

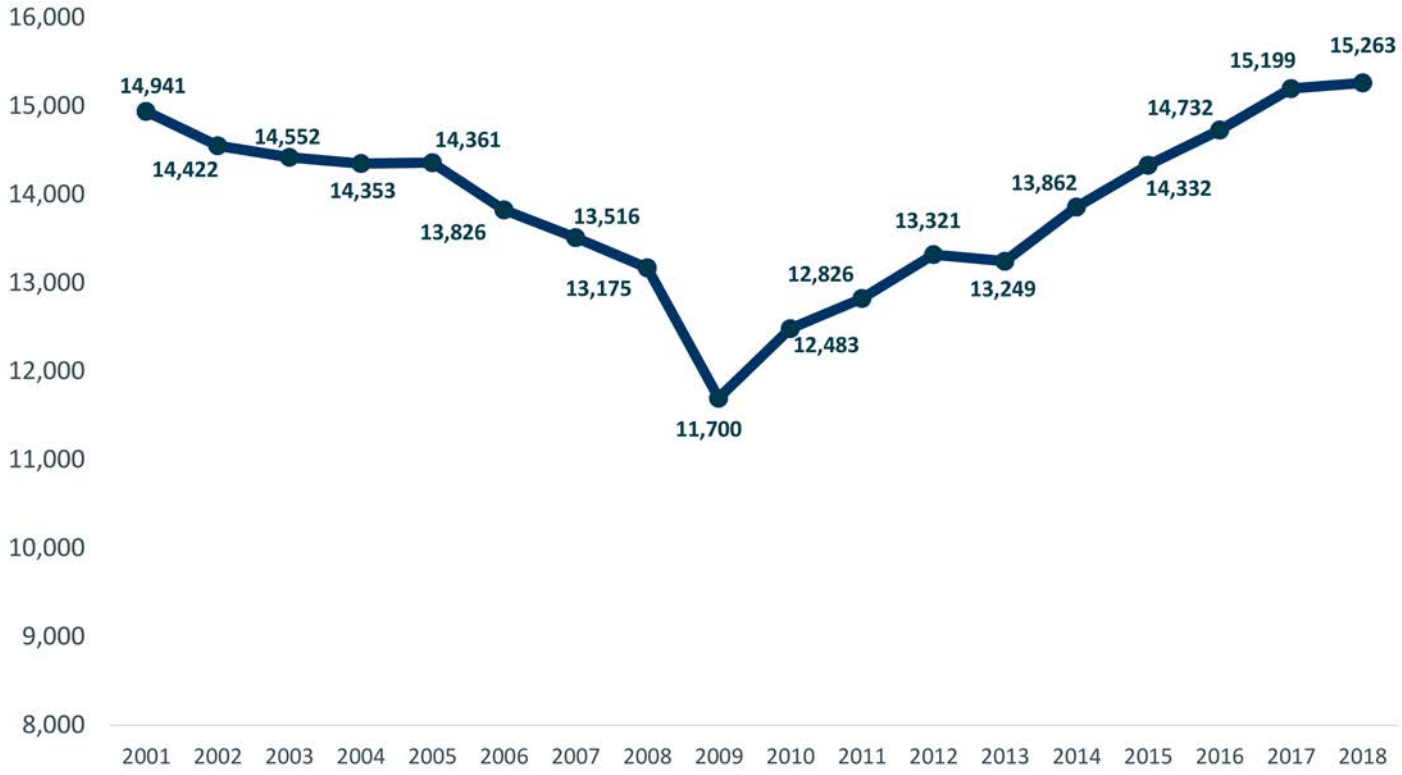
ENERGY OCCUPATION GROUP
City of Detroit | Q4 2018

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.

15,263
Energy Workers
0.4% Increase from 2017

Employment Over Time
2001–2018



Top Posting Employers*

- DTE Energy Company
- Cavo Broadband Communications, LLC
- Duke Energy Services Canada Ltd

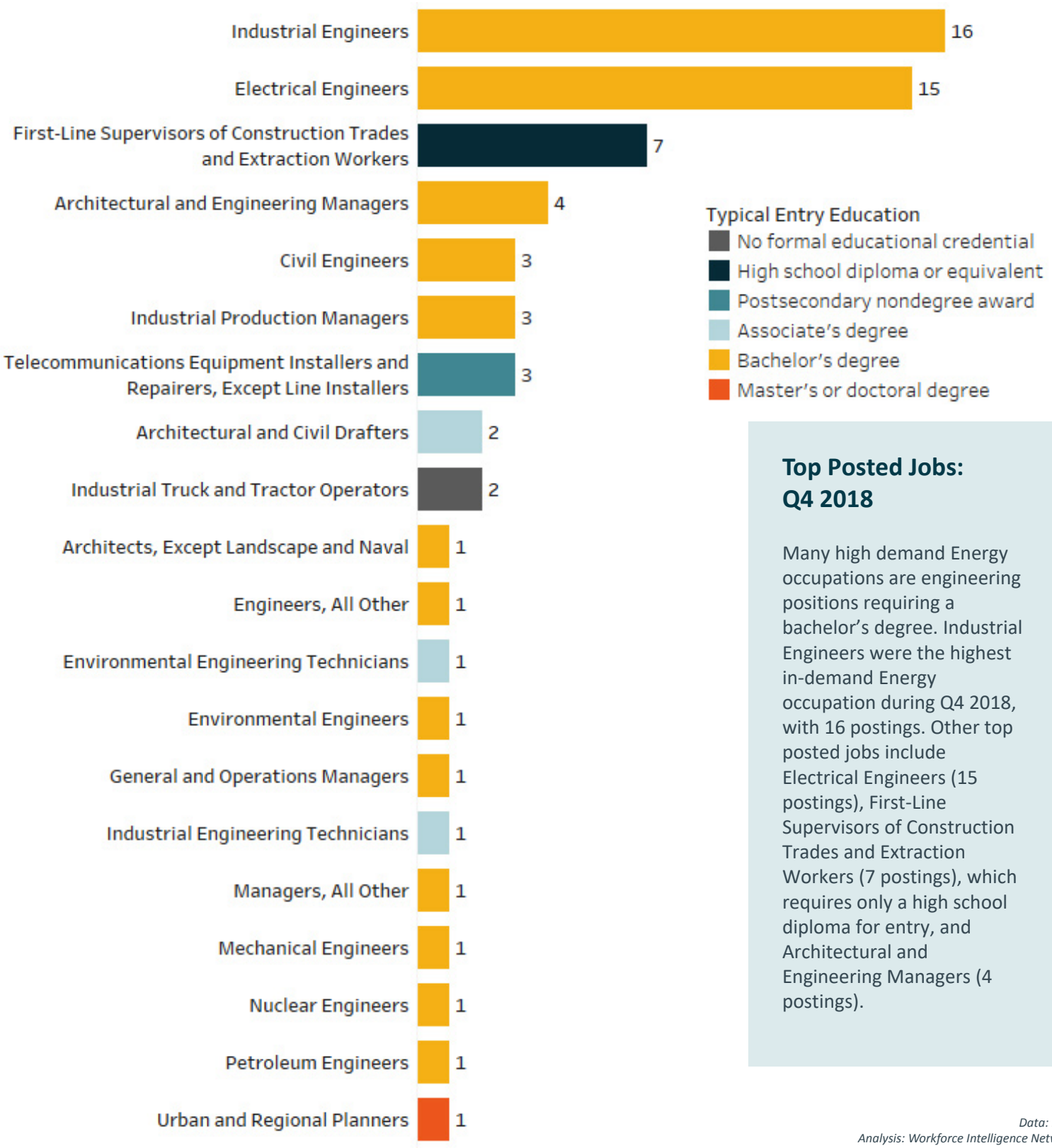
**Employer names are listed as they appear in online job postings.*

Data: Emsi | Analysis: Workforce Intelligence Network

69 Energy Postings: 21 Fewer Than in Q3 2018

Bachelors Degree Required for Most Energy Jobs

Energy Top Posted Jobs
Q4 2018



Top Posted Jobs: Q4 2018

Many high demand Energy occupations are engineering positions requiring a bachelor's degree. Industrial Engineers were the highest in-demand Energy occupation during Q4 2018, with 16 postings. Other top posted jobs include Electrical Engineers (15 postings), First-Line Supervisors of Construction Trades and Extraction Workers (7 postings), which requires only a high school diploma for entry, and Architectural and Engineering Managers (4 postings).

Data: Emsi
Analysis: Workforce Intelligence Network

Industrial Engineers: In-Demand Entry Level Job

Professional Engineering Certification: Most In-Demand Energy Certification

Energy Wage Overview

The high demand for engineers and managers in the energy field creates lucrative opportunities for job seekers willing to overcome the educational barriers related to these jobs. According to the Bureau of Labor Statistics (BLS), the top posted energy job, Industrial Engineers, offers a median hourly wage of $43.40, or annual earnings of approximately $90,000. Technician and construction-focused positions generally have shorter educational requirements than engineers and pay somewhat higher than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q4 2018

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	$31.05	$35.88	$43.40	$50.89	$59.59
17-2071	Electrical Engineers	$30.72	$35.60	$43.15	$50.99	$62.38
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	$16.31	$22.66	$31.48	$38.87	$47.44
11-9041	Architectural and Engineering Managers	$43.05	$52.25	$65.17	$78.51	$96.09
11-3051	Industrial Production Managers	$34.24	$45.06	$57.49	$71.88	$86.73
17-2051	Civil Engineers	$25.43	$30.81	$38.05	$50.83	$69.78
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	$17.77	$21.40	$31.68	$38.38	$44.70
17-3011	Architectural and Civil Drafters	$16.44	$20.09	$22.60	$25.59	$29.71
53-7051	Industrial Truck and Tractor Operators	$10.92	$12.85	$15.41	$19.42	$26.78
11-1021	General and Operations Managers	$26.61	$37.33	$53.17	$78.05	$104.03

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Customer Satisfaction
- Corporate Social Responsibility
- Continuous Improvement Process
- Corporate Services
- Blueprinting

In-Demand Foundational Skills

- Management
- Operations
- Leadership
- Problem Solving
- Presentations

In-Demand Education Level*

- High School Diploma: 21.7%
- Associate Degree: 15.9%
- Bachelor's Degree: 76.8%
- Master's Degree: 29.0%

**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

- Professional Engineer
- Associates in Rural Development
- Commercial Driver's License (CDL)
- PMI Certified

HEALTH CARE OCCUPATION GROUP
City of Detroit | Q4 2018

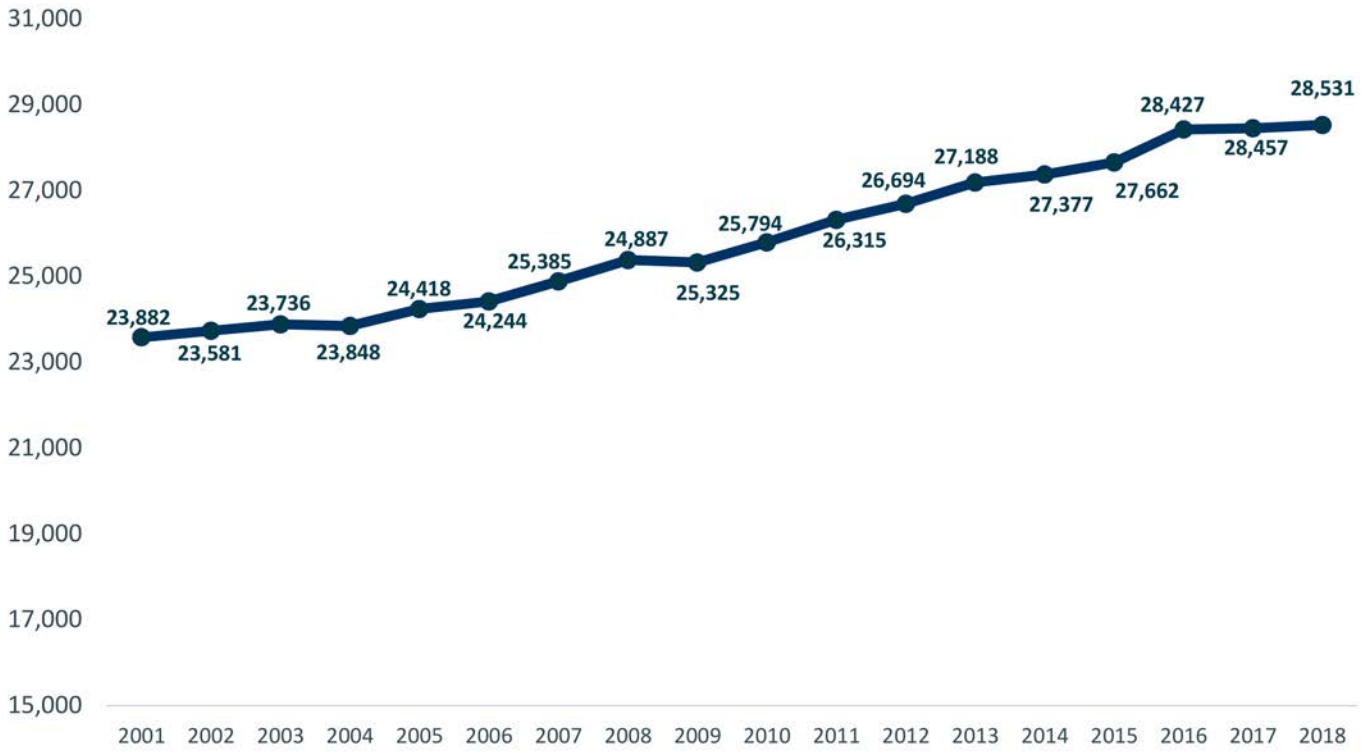
Introduction

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.

28,531
Health Care Workers

0.3% Increase from 2017

Employment Over Time
2001–2018



Top Posting Employers*

- Henry Ford Health System
- Tenet Healthcare Corporation
- Ascension Health
- Aureus Medical Management Services L.L.C.
- Soliant Health, Inc
- Nurses Rx
- Sunbelt Staffing, LLC
- Comphealth Associates, Inc
- Virtual Vocations
- Supplemental Healthcare

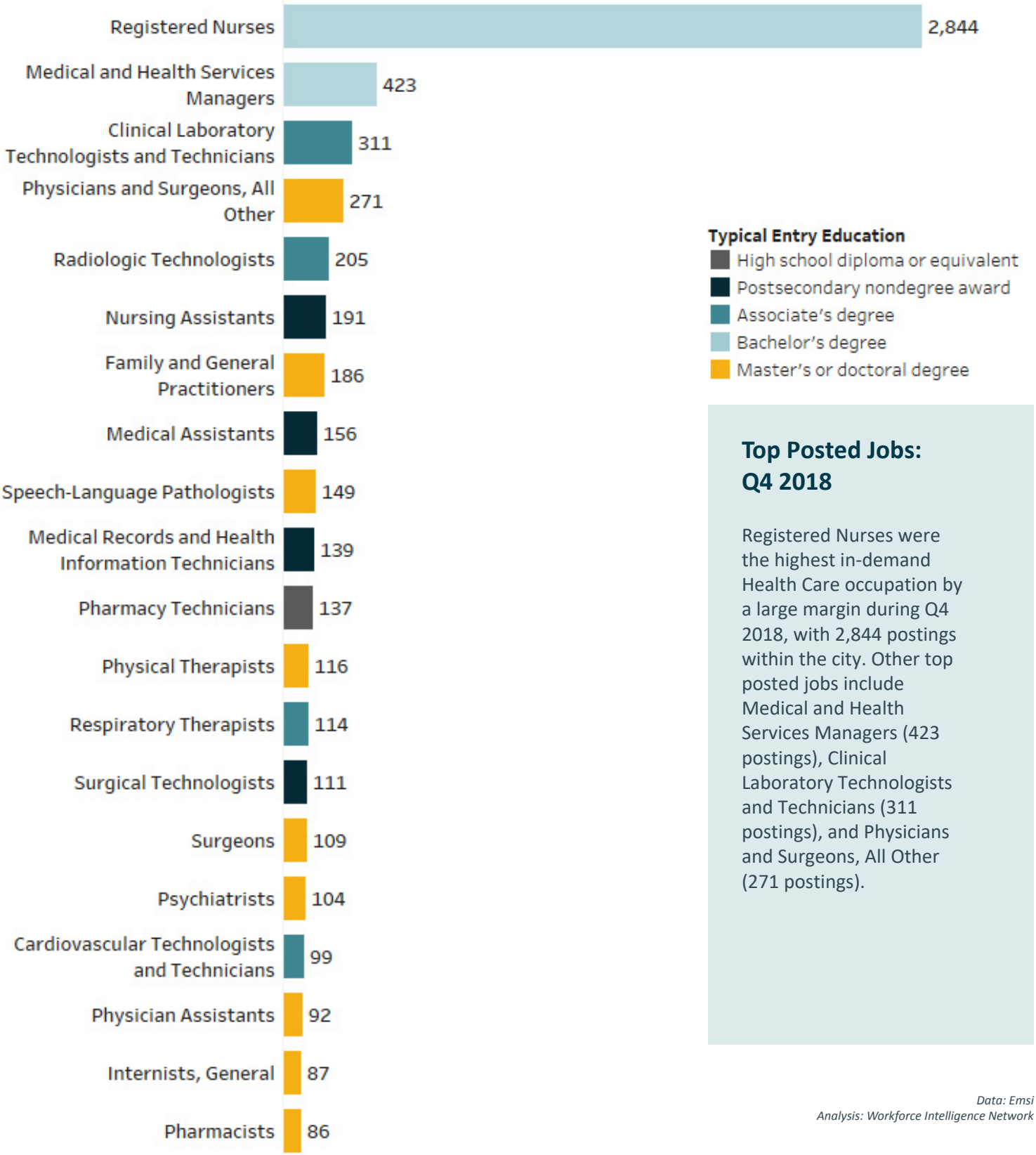
**Employer names are listed as they appear in online job postings.*

Data: Emsi | Analysis: Workforce Intelligence Network

6,938 Health Care Postings: 1,261 More Than Q3 2018

Bachelor's Degree Required for High Paying Health Care Jobs

Health Care Top Posted Jobs
Q4 2018



Top Posted Jobs: Q4 2018

Registered Nurses were the highest in-demand Health Care occupation by a large margin during Q4 2018, with 2,844 postings within the city. Other top posted jobs include Medical and Health Services Managers (423 postings), Clinical Laboratory Technologists and Technicians (311 postings), and Physicians and Surgeons, All Other (271 postings).

Data: Emsi
Analysis: Workforce Intelligence Network

High Earning Potential for Family and General Practitioners

Certified Nursing Assistant: Most In-Demand Health Care Certification

Health Care Wage Overview

Wages in the high-demand health care field scale with education and experience, though the group does boast a relatively broad array of entry requirements and high volume of jobs open to those with less than a bachelor's that pay more than the region's median wage of $17.81 per hour. Registered Nurses, the top posted health care job in Q4 2018, offers a median hourly wage of $33.97 or an annual salary of nearly $71,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Health Care Jobs in Q4 2018

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	$25.55	$29.28	$33.97	$38.08	$44.09
11-9111	Medical and Health Services Managers	$30.17	$39.44	$51.97	$74.00	$100.32
29-2018	Clinical Laboratory Technologists and Technicians	$13.53	$16.70	$23.85	$31.61	$36.40
29-1069	Physicians and Surgeons, All Other	$21.02	$24.35	$29.39	$96.30	$100.94
29-2034	Radiologic Technologists	$19.61	$23.14	$27.50	$31.76	$37.29
31-1014	Nursing Assistants	$10.29	$12.16	$13.89	$15.94	$18.16
29-1062	Family and General Practitioners	$51.25	$61.15	$90.92	$105.29	$158.86
31-9092	Medical Assistants	$11.43	$12.86	$14.44	$16.76	$18.72
29-1127	Speech-Language Pathologists	$26.61	$31.65	$36.12	$42.53	$48.09
29-2071	Medical Records and Health Information Technicians	$13.13	$15.37	$19.09	$25.32	$30.16

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Life Support
- Nursing Care
- Advanced Cardiovascular Life Support (ACLS)

In-Demand Foundational Skills

- Management
- Leadership
- Cardiopulmonary Resuscitation
- Communications
- Research

In-Demand Education Level*

- High School Diploma: 12.3%
- Associate Degree: 19.5%
- Bachelor's Degree: 24.5%
- Master's Degree: 9.4%

**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 Nursing Assistant
- Licensed Practical Nurse
- Nurse Practitioner
- American Registry of Radiologic Technologists (ARRT) Certified
- Medical Technologist

INFORMATION TECHNOLOGY (IT) OCCUPATION GROUP

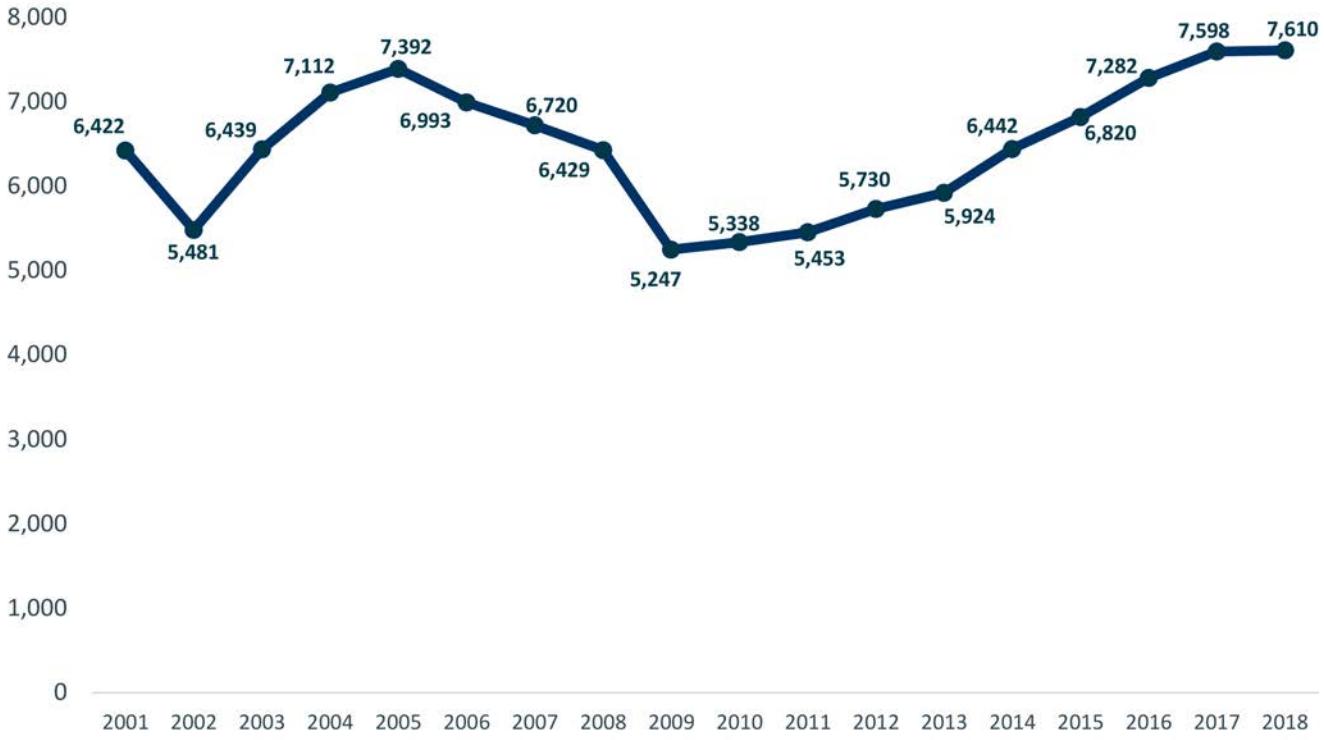
City of Detroit | Q4 2018

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.

7,610
IT Workers
12 Worker Increase from 2017

Employment Over Time
2001–2018



Top Posting Employers*

- Deloitte LLP
- Virtual Vocations
- Quicken Loans Inc.
- Strategic Staffing Solutions, Inc.
- Anthem, Inc.
- Ally Financial Inc.
- Fiserv, Inc.
- Avanade Inc.
- Cybercoders, Inc.
- General Motors Company

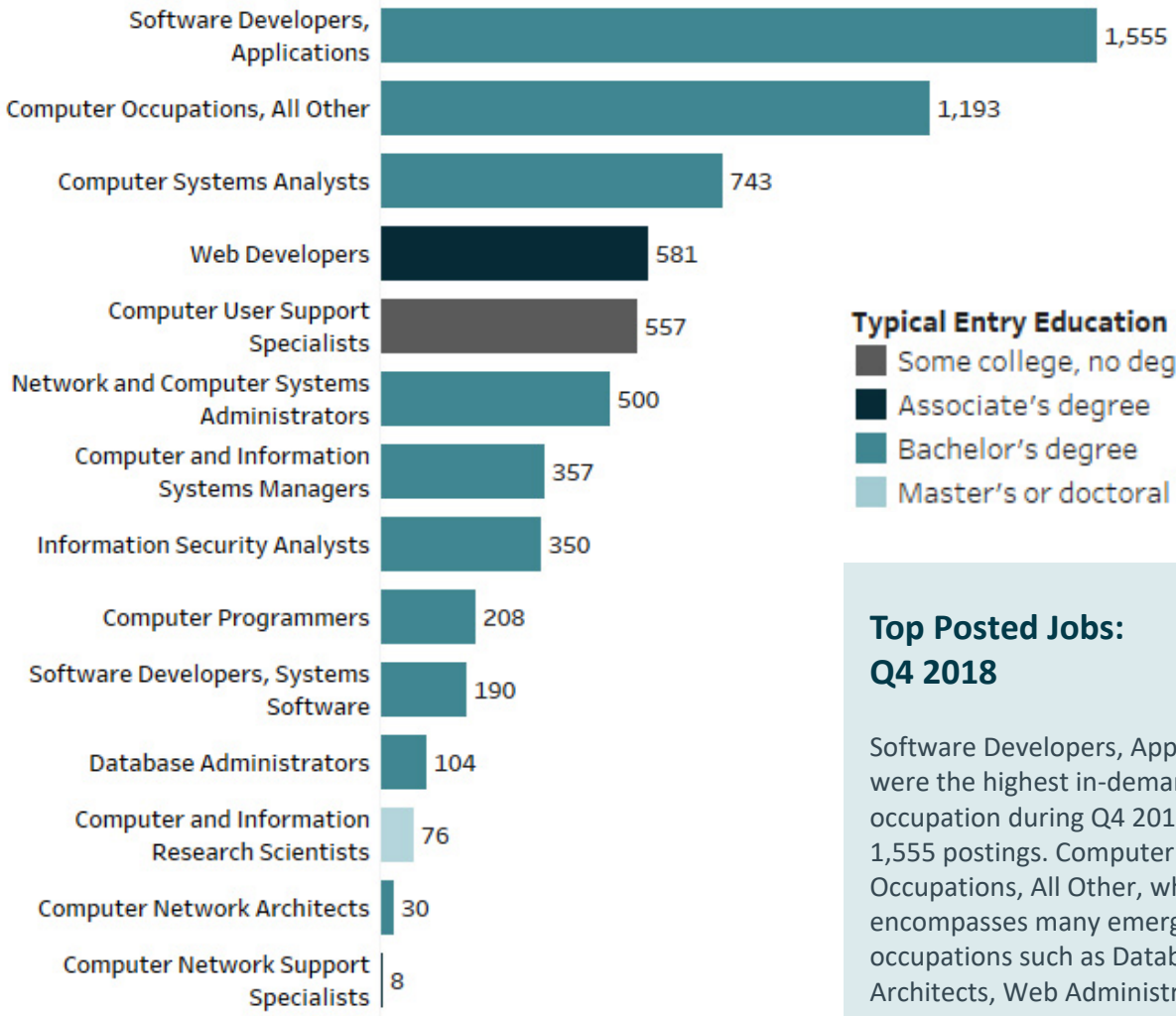
**Employer names are listed as they appear in online job postings.*

Data: Emsi | Analysis: Workforce Intelligence Network

Automotive and Tech Companies are Top IT Employers

Bachelors Degree Required for Most IT Jobs

Information Technology Top Posted Jobs
Q4 2018



Top Posted Jobs: Q4 2018

Software Developers, Applications were the highest in-demand IT occupation during Q4 2018, with 1,555 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 1,193 postings. While most of the top jobs typically post requirements for a bachelor's degree, Web Developers (581 postings) typically require an associate degree while Computer User Support Specialists (557 postings) prefer some college education, but no degree.

Data: Emsi
Analysis: Workforce Intelligence Network

High Earning Potential for Computer and Information System Managers

CISSP: Most In-Demand IT Certification

IT Wage Overview

Most IT related jobs offer high wages, making for a lucrative opportunity for job seekers willing to overcome the educational barriers related to these jobs. Software Developers, Applications, the top posted IT job in Q4 2018, offers a median hourly wage of $44.47 or an annual salary of over $92,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted IT Jobs in Q4 2018

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	$28.74	$35.20	$44.47	$55.94	$67.05
15-1199	Computer Occupations, All Other	$22.31	$28.32	$39.86	$50.78	$59.18
15-1121	Computer Systems Analysts	$24.85	$29.99	$38.97	$48.92	$60.68
15-1134	Web Developers	$15.15	$19.72	$27.13	$36.22	$45.41
15-1151	Computer User Support Specialists	$12.93	$16.66	$22.50	$29.40	$37.66
15-1142	Network and Computer Systems Administrators	$24.93	$29.71	$36.38	$44.80	$52.26
11-3021	Computer and Information Systems Managers	$41.01	$50.14	$61.63	$75.98	$94.45
15-1122	Information Security Analysts	$30.88	$37.02	$47.82	$58.60	$67.97
15-1131	Computer Programmers	$20.13	$23.65	$31.83	$40.73	$51.59
15-1133	Software Developers, Systems Software	$25.22	$32.60	$42.07	$48.74	$58.28

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- SQL
- Java
- Agile Software Development
- JavaScript
- Software Engineering

In-Demand Foundational Skills

- Management
- Communications
- Information Technology
- Operations
- Integration

In-Demand Education Level*

- High School Diploma: 3.9%
- Associate Degree: 3.9%
- Bachelor's Degree: 50.7%
- Master's Degree: 12.2%

**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 (CISSP)
- Certified Information Security Manager
- Microsoft Certified Systems Engineer
- Microsoft Certified Professional
- Certified Ethical Hacker

SKILLED TRADES AND TECHNICIANS (MANUFACTURING) OCCUPATION GROUP

City of Detroit | Q4 2018

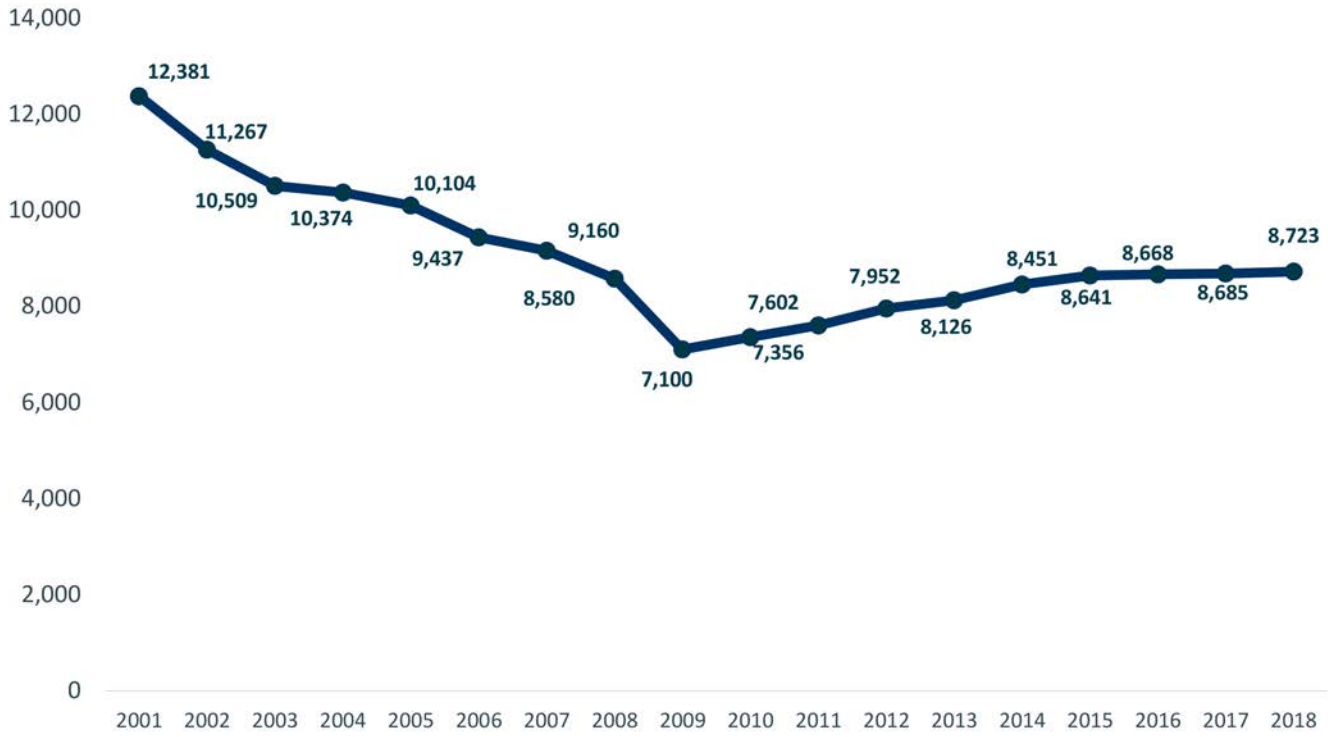
Introduction

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.

8,723
Trade Workers
0.4% Increase from 2017

Employment Over Time
2001–2018



Top Posting Employers*

- Flex-N-Gate Corporation
- FCA US LLC
- Kelly Services, Inc.
- Cbre Group, Inc.
- McDonald's Corporation
- E. W. Grobbel Sons, Inc.
- Textron Inc.
- Quicken Loans Inc.
- City of Detroit
- First Choice Staffing Inc

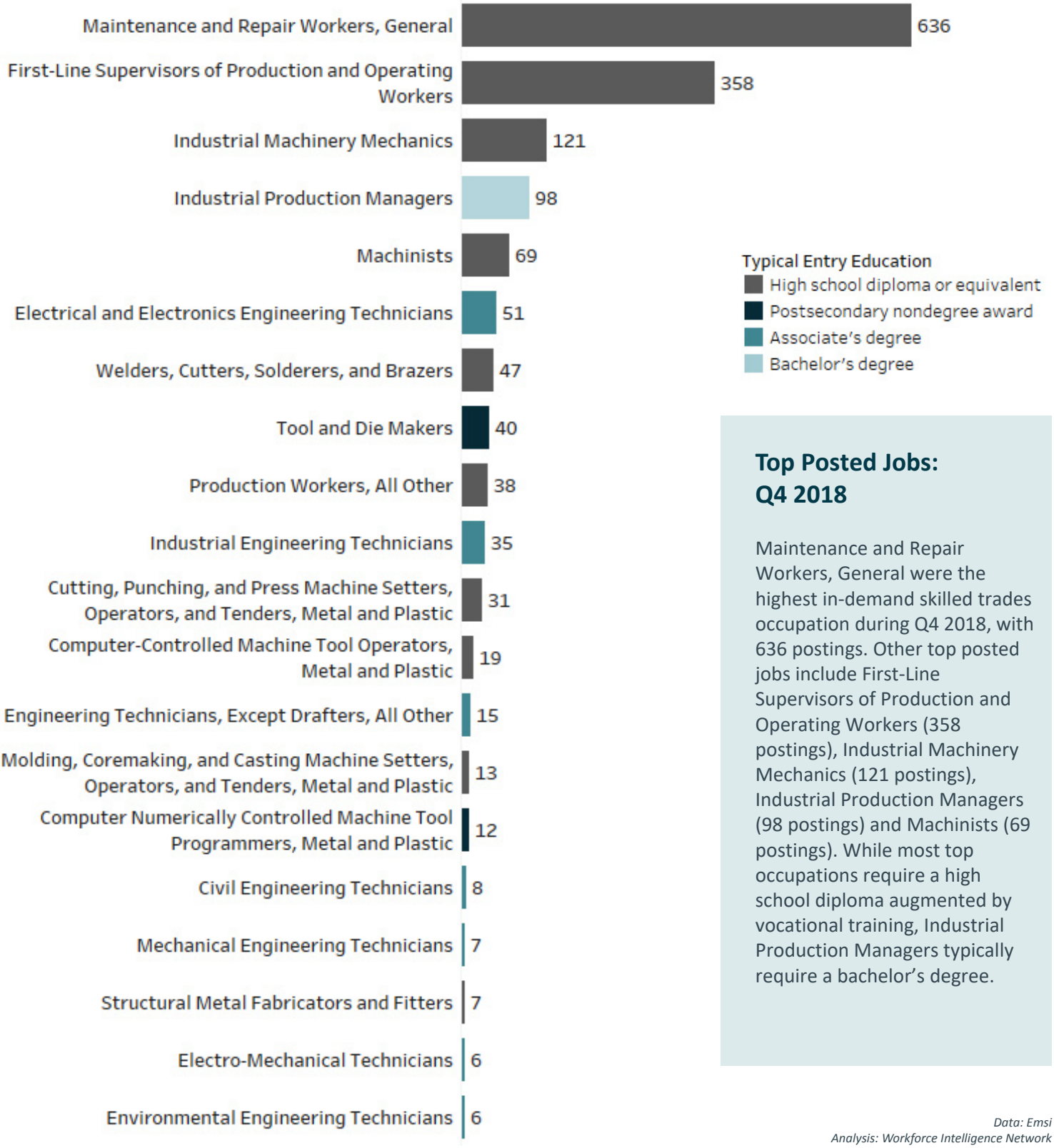
**Employer names are listed as they appear in online job postings.*

Data: Emsi | Analysis: Workforce Intelligence Network

1,640 Skilled Trades Postings: 91 More Than Q3 2018

Vocational Training Required for Most Skilled Trades Jobs

Skilled Trades and Technicians Top Posted Jobs
Q4 2018



Top Posted Jobs: Q4 2018

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during Q4 2018, with 636 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (358 postings), Industrial Machinery Mechanics (121 postings), Industrial Production Managers (98 postings) and Machinists (69 postings). While most top occupations require a high school diploma augmented by vocational training, Industrial Production Managers typically require a bachelor's degree.

Data: Emsi
Analysis: Workforce Intelligence Network

High Earning Potential for Industrial Production Managers

In-Demand Skilled Trades Certification: CDL

Skilled Trades and Technicians Wage Overview

Six of the top ten in-demand skilled trades occupation have median wages above $20 per hour according to the Bureau of Labor Statistics (BLS). Maintenance and Repair Workers, General, the top posted skilled trades job in Q4 2018, offers a median hourly wage of $18.28, which translates to an annual salary of about $38,000. Top five occupation Industrial Production Managers require additional experience and earn $57.49 hourly or roughly $120,000 annually.

Wage Overview for Top Posted Skilled Trades and Technicians Jobs in Q4 2018

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	$10.43	$13.29	$18.28	$24.20	$29.63
51-1011	First-Line Supervisors of Production and Operating Workers	$18.41	$24.59	$33.65	$43.93	$53.59
49-9041	Industrial Machinery Mechanics	$17.51	$22.40	$28.41	$34.39	$37.92
11-3051	Industrial Production Managers	$34.24	$45.06	$57.49	$71.88	$86.73
51-4041	Machinists	$10.96	$13.71	$18.18	$23.32	$28.72
17-3023	Electrical and Electronics Engineering Technicians	$16.23	$22.01	$29.75	$35.23	$40.10
51-4121	Welders, Cutters, Solderers, and Brazers	$12.65	$15.29	$18.50	$23.63	$33.15
51-4111	Tool and Die Makers	$18.35	$23.93	$30.33	$35.72	$38.61
51-9199	Production Workers, All Other	$11.14	$15.87	$18.05	$21.19	$23.89
17-3026	Industrial Engineering Technicians	$15.60	$18.36	$26.84	$35.94	$42.31

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Plumbing
- Preventive Maintenance
- HVAC
- Continuous Improvement Process
- Carpentry

In-Demand Foundational Skills

- Management
- Operations
- Troubleshooting
- Communications
- Problem Solving

In-Demand Education Level*

- High School Diploma: 39.3%
- Associate Degree: 9.8%
- Bachelor's Degree: 17.6%
- Master's Degree: 2.0%

**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)
- Certified Compensation Professional
- Certified First Responder
- American Society for Quality (ASQ) Certified
- Certified Occupational Therapy Assistant

Website
www.WINintelligence.org

Email
info@WINintelligence.org

Phone
313.744.2946

Address
25363 Eureka Rd.
Taylor, MI 48180

Facebook
@workforceintelligencenetwork

Twitter
@WIN-semich

WIN WORKFORCE INTELLIGENCE NETWORK