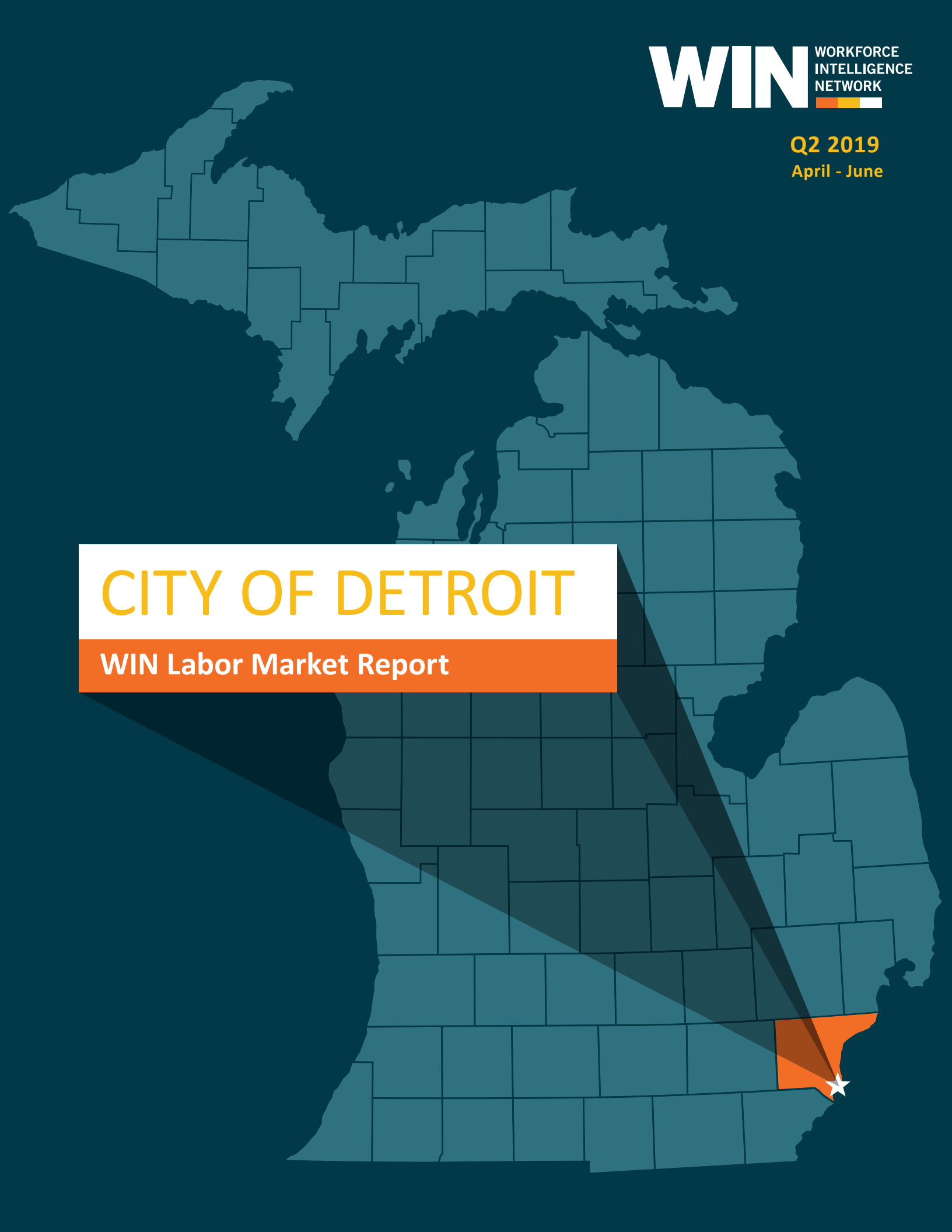


Q2 2019
April - June

CITY OF DETROIT

WIN Labor Market Report





INTRODUCTION

City of Detroit | Q2 2019

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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 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 second quarter of 2019 in the city of Detroit and includes comparison analysis to the first quarter of 2019. For the city of Detroit, the business and finance, energy, health care, IT, and skilled trades 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.



ANNUAL STATE OF THE LABOR MARKET

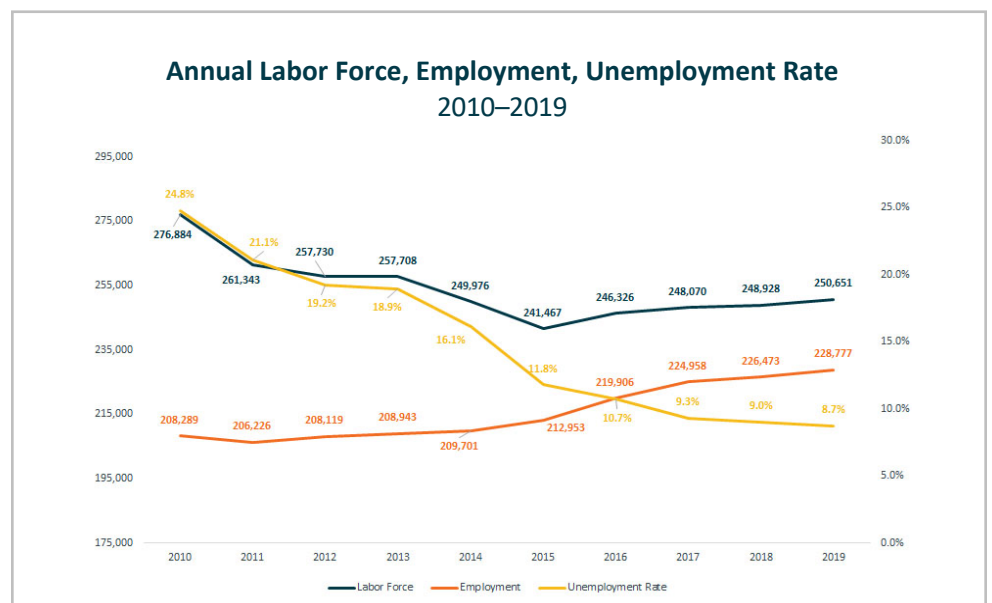
City of Detroit | Q2 2019

State of the Labor Market in the City of Detroit

Over the second quarter of 2019, the labor force and employment figures in Detroit has fluctuated slightly, down this quarter since Q1 2019. This quarter, as compared to Q1 2019, the size of the labor force decreased by 0.5 percent. While the size of the labor force and employment both decreased in Q2, the quarterly unemployment rate also decreased by 0.1 percentage points from the 8.8 percent recorded in Q1 2019. This decrease in employment represents an improvement over the annual unemployment rate of 9.0 percent during 2018. Employer demand for health care workers is still on the rise this quarter, with 14,995 job postings during Q2 2019. The business and finance and skills trades occupation groups also offer great job opportunities for active job seekers. Many business and finance occupation postings were open to workers with two or fewer years of experience, including 2,533 postings in Q2 2019.

Annual Labor Market Information

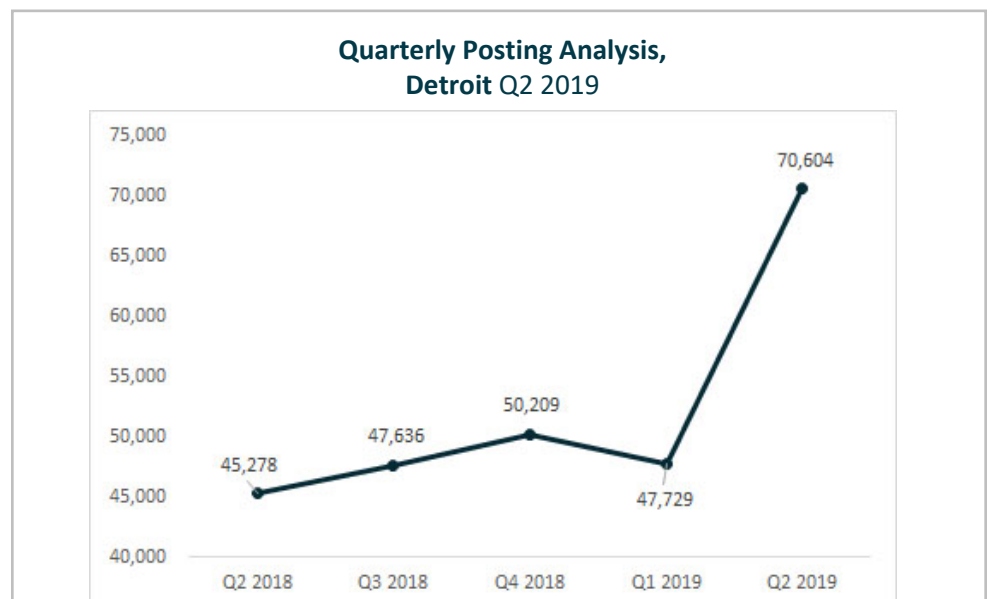
Continuing a ten-year high, the annual labor force in the city of Detroit increased by 1,724 individuals between 2018 and YTD 2019. Similarly, employment also grew annually between 2018 and YTD 2019 by 2,304 workers. Since the YTD employment and labor force both saw an increase through Q2 2019, the unemployment rate in the city of Detroit decreased slightly from an annual 2018 rate of 9.0 percent to a YTD 2019 rate of 8.7 percent.



Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Data obtained year to date (YTD) for the second quarter of 2019 indicated that employer demand has remained strong since the end of Q1 2019. There were 70,604 unique postings in the city of Detroit. Demand in Q2 2019 increased by 22,875 postings from the 47,729 unique postings reported during Q1 2019. The increase in the number of ads indicate supply and demand for jobs has remained strong into the second quarter of 2019.



Data: Emsi | Analysis: Workforce Intelligence Network



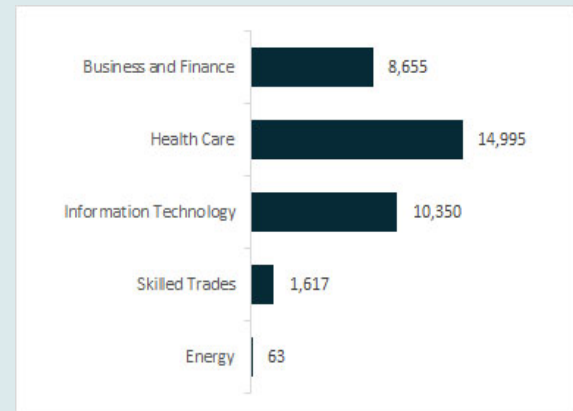
QUARTERLY WORKFORCE INDICATORS

City of Detroit | Key Findings for Q2 2019

The health care occupation group experienced strong growth through Q1 2019 and has continued the trend into Q2 2019.

Employers seeking health care workers showed sustained demand growth during Q1 2019 and into Q2 2019, resulting in a Q2 2019 total of 14,995 ads. Registered Nurses have also remained by far the most in-demand job during Q2. Other major occupation groups such as business and finance and information technology (IT) also showed strong growth this quarter, with 8,655 and 10,350 ads respectively. Insurance Sales Agents and Software Developers, Applications round out the top three occupations in-demand for Q2 2019. Health care educational requirements vary from a high school diploma or certification, to bachelor's degrees, and advanced degrees for physician roles. Many jobs in business and finance and IT occupations follow the same trend, usually requiring a bachelor's degree, although there are positions available requiring a high school diploma or a certification. For more information about each occupation group, see page 17.

Postings by Occupation Group Q2 2019

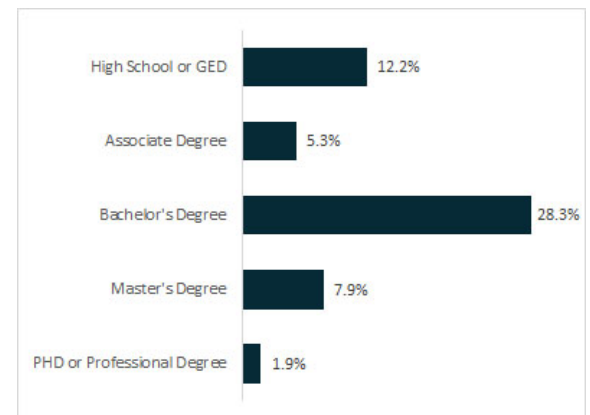


Data: Emsi | Analysis: Workforce Intelligence Network

A bachelor's degree is the most in-demand educational credential for all openings in the city, specified in 28.3 percent of job postings.

Of the 70,604 unique postings in the city of Detroit during Q2 2019, 26,918 (38.1 percent) required a college degree. An additional 1,328 postings (1.9 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 Q2 2019



Data: Emsi | Analysis: Workforce Intelligence Network

Detroit's quarterly unemployment rate has decreased by 0.1 percentage points between annual Q1 2019 recorded with 8.8 percent and YTD Q2 2019 with 8.7 percent.

In Q2 2019, unemployment figures have decreased by 262 workers since Q1 2019. The annual unemployment rate for both 2018 and YTD 2019 has shown a decrease by 0.3 percentage points. Quarterly changes in the unemployment rates between Q2 2018 and Q2 2019 YTD shows an increase by 0.6 percentage points. Unemployment rate fluctuations are common, as seen since Q2 2018. For more information about this quarter's unemployment rate and other labor market indicators, see page 4.

Annual Labor Market Data

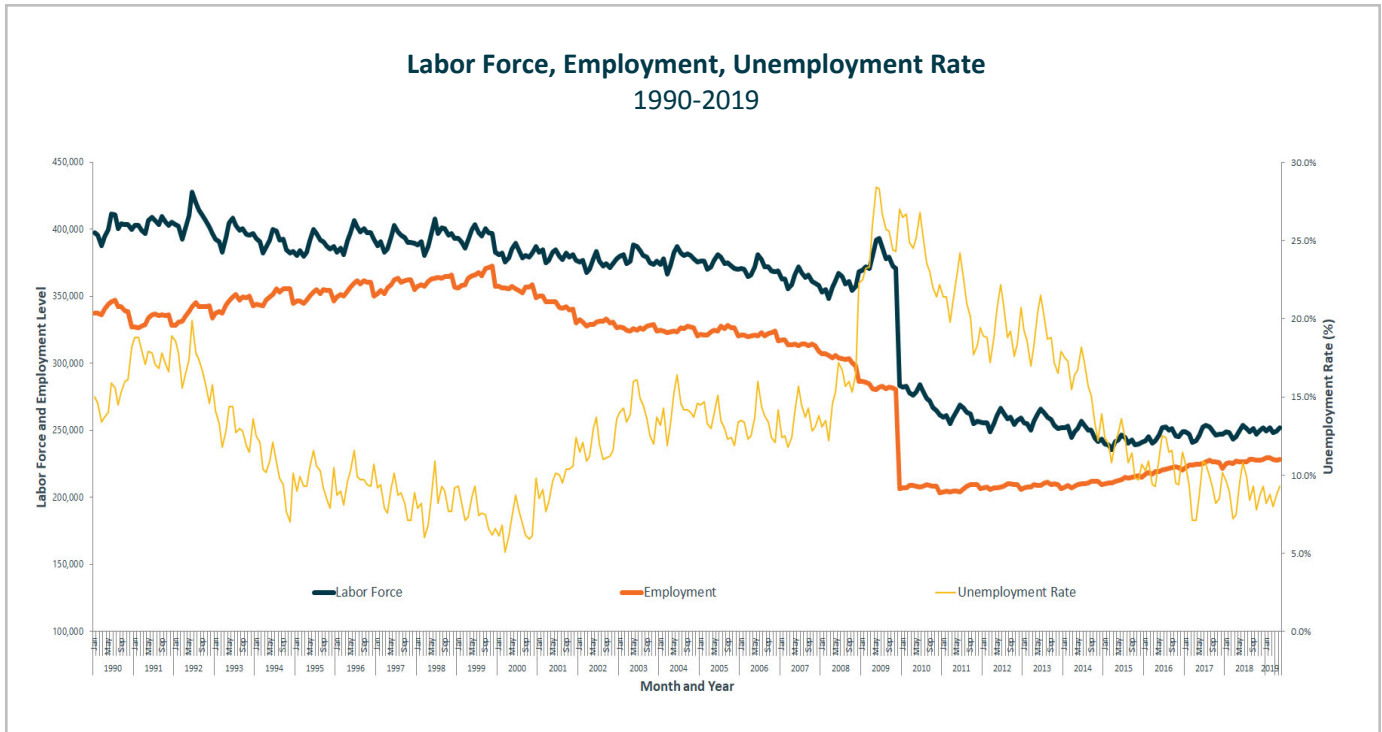
	2nd Quarter 2018	2nd Quarter 2019	Change from 2nd Quarter 2018	Percent Change from 2nd Quarter 2018
Labor Force	246,345	249,998	3,653	1.5%
Employment	226,331	228,255	1,924	0.9%
Unemployment	20,014	21,743	1,729	8.6%
Unemployment Rate	8.1%	8.7%	0.6%	na

Note: Monthly data averaged by quarter | Data: BLS



WORKFORCE OVERVIEW

City of Detroit | Labor Market Information Q2 2019



Quarterly Labor Market Data

Q2 2018 - Q2 2019

	2nd Quarter 2018	3rd Quarter 2018	4th Quarter 2018	1st Quarter 2019	2nd Quarter 2019	Change from 1st Quarter 2019	Percent Change from 1st Quarter 2019	Change from 2nd Quarter 2018	Percent Change from 2nd Quarter 2018
Labor Force	246,345	251,559	249,595	251,305	249,998	-1,307	-0.5%	3,653	1.5%
Employment	226,331	227,137	228,010	229,300	228,255	-1,045	-0.5%	1,924	0.9%
Unemployment	20,014	24,422	21,585	22,005	21,743	-262	-1.2%	1,729	8.6%
Unemployment Rate	8.1%	9.7%	8.6%	8.8%	8.7%	-0.1%	na	0.6%	na

Note: Monthly data averaged by quarter | Data: BLS

Labor Force, Employment, and Unemployment

The labor market in the City of Detroit has been growing steadily year over year since 2010, though there is still variation between quarters. The labor force decreased 1,307 workers between Q1 2019 to Q2 2019. Quarterly employment numbers in the city also decreased from Q1 2019, by 1,045 workers. With the labor force decreasing at a slightly slower rate than employment this quarter, the unemployment rate slightly decreased this quarter as well. The quarterly unemployment rate decreased by 0.1 percentage points, recorded from 8.8 percent in Q1 2019 to 8.7 percent in Q2 2019.



WORKFORCE OVERVIEW

City of Detroit | 2017 Annual Population Demographics

Population Demographics

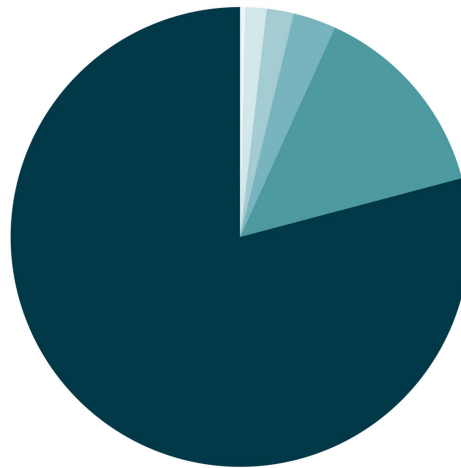
According to the data from the most recent Census Bureau 2017 ACS Five Year estimates, during 2017, 679,865 people were living in the city of Detroit. The sex of the populace was split almost evenly, with about 52.7 percent of the population identifying as female, and the other 47.3 percent identifying 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

- Black or African American, 79.12%
- White, 14.10%
- Other Race, 3.02%
- Two or More Races, 1.90%
- Asian, 1.50%
- American Indian or Alaska Native, 0.34%
- Native Hawaiian or Other Pacific Islander, 0.02%



Population Gender Demographics

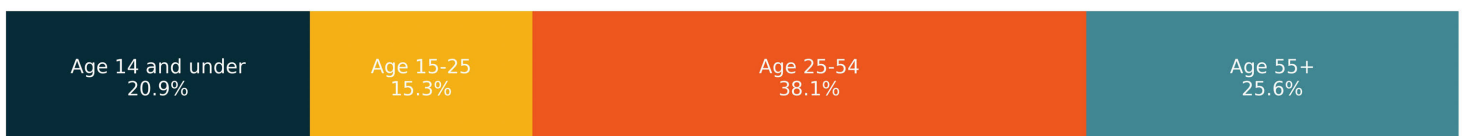


53% Females

47% Males

0 10 20 30 40 50 60 70 80 90 100

Population Age Demographics





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.



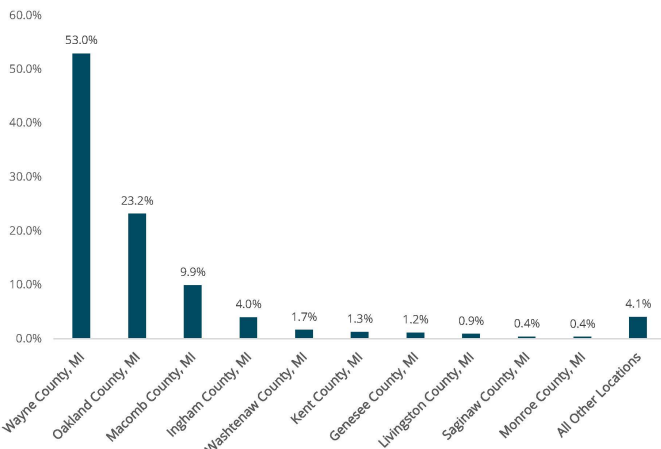
WORKFORCE OVERVIEW

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.

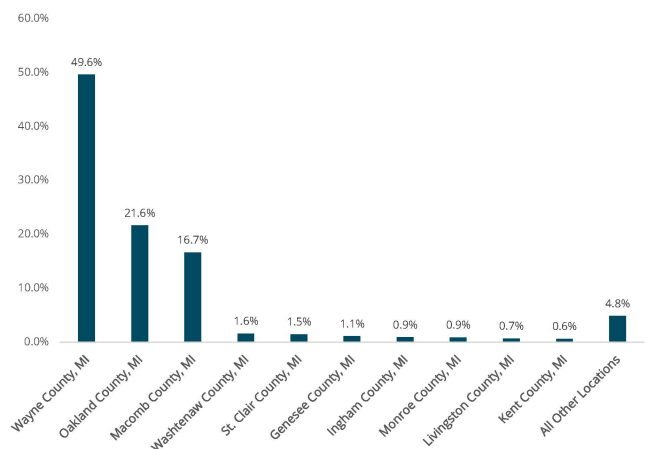
Where City of Detroit Residents Work



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

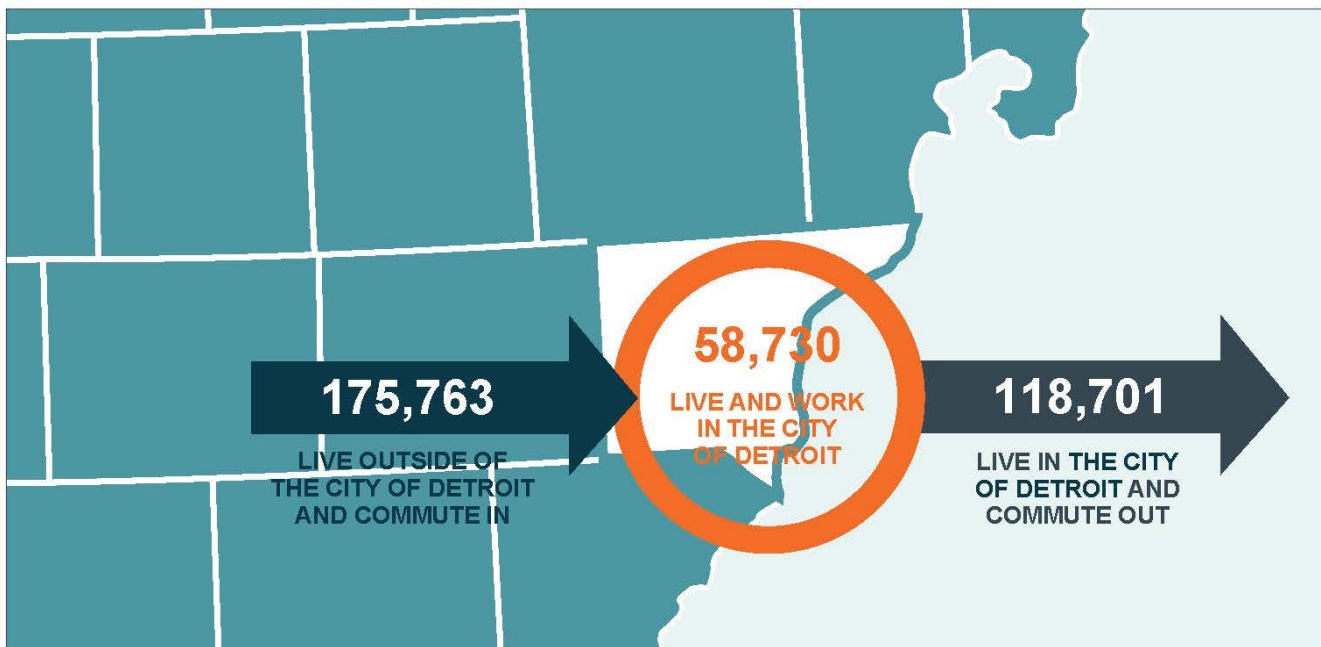
Data: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network

Where City of Detroit Workers Live



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

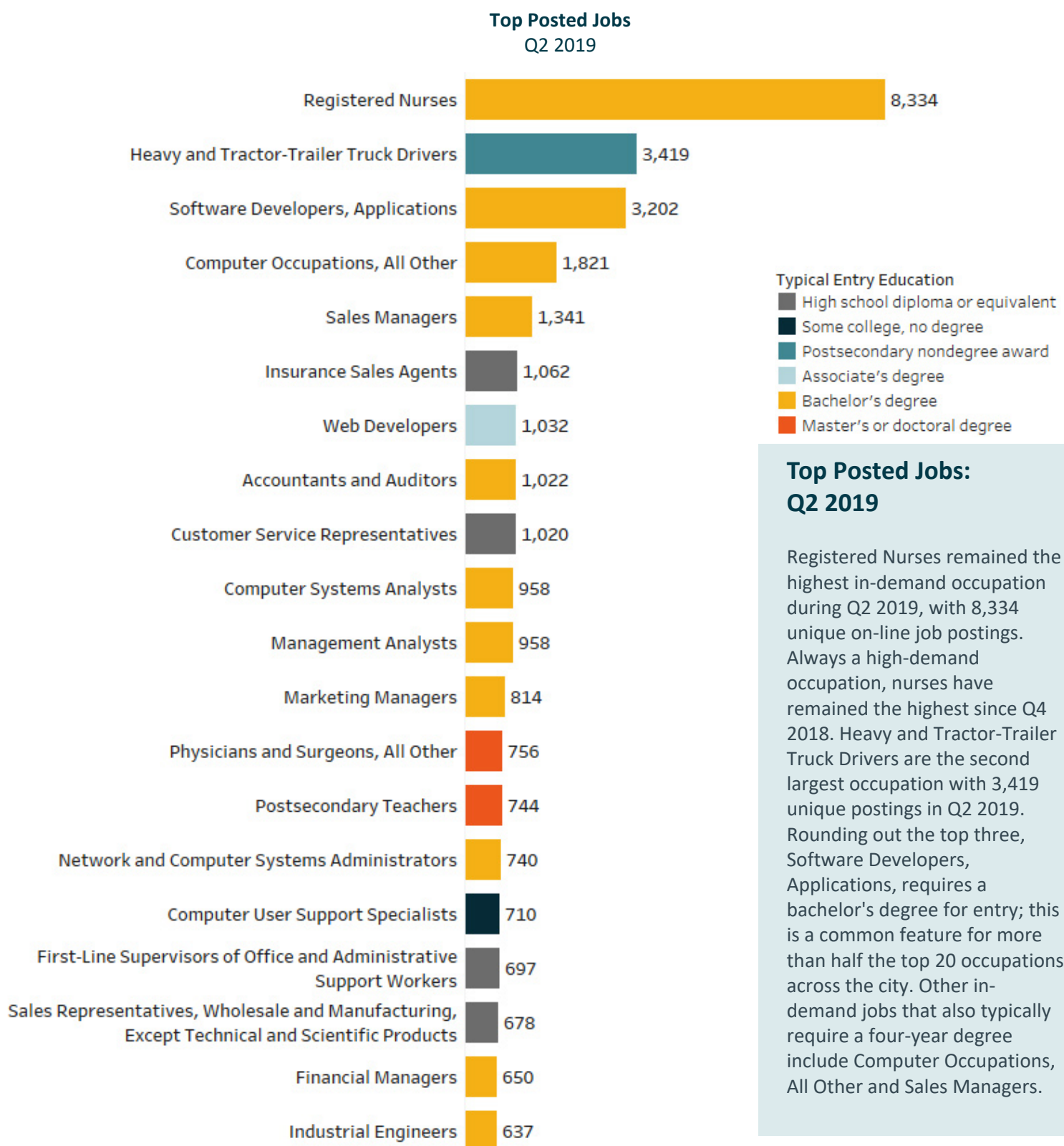
Data: U.S. Census OnTheMap, 2015
Analysis: Workforce Intelligence Network





REAL-TIME DEMAND OVERVIEW

City of Detroit | Top Posted Jobs | Q2 2019

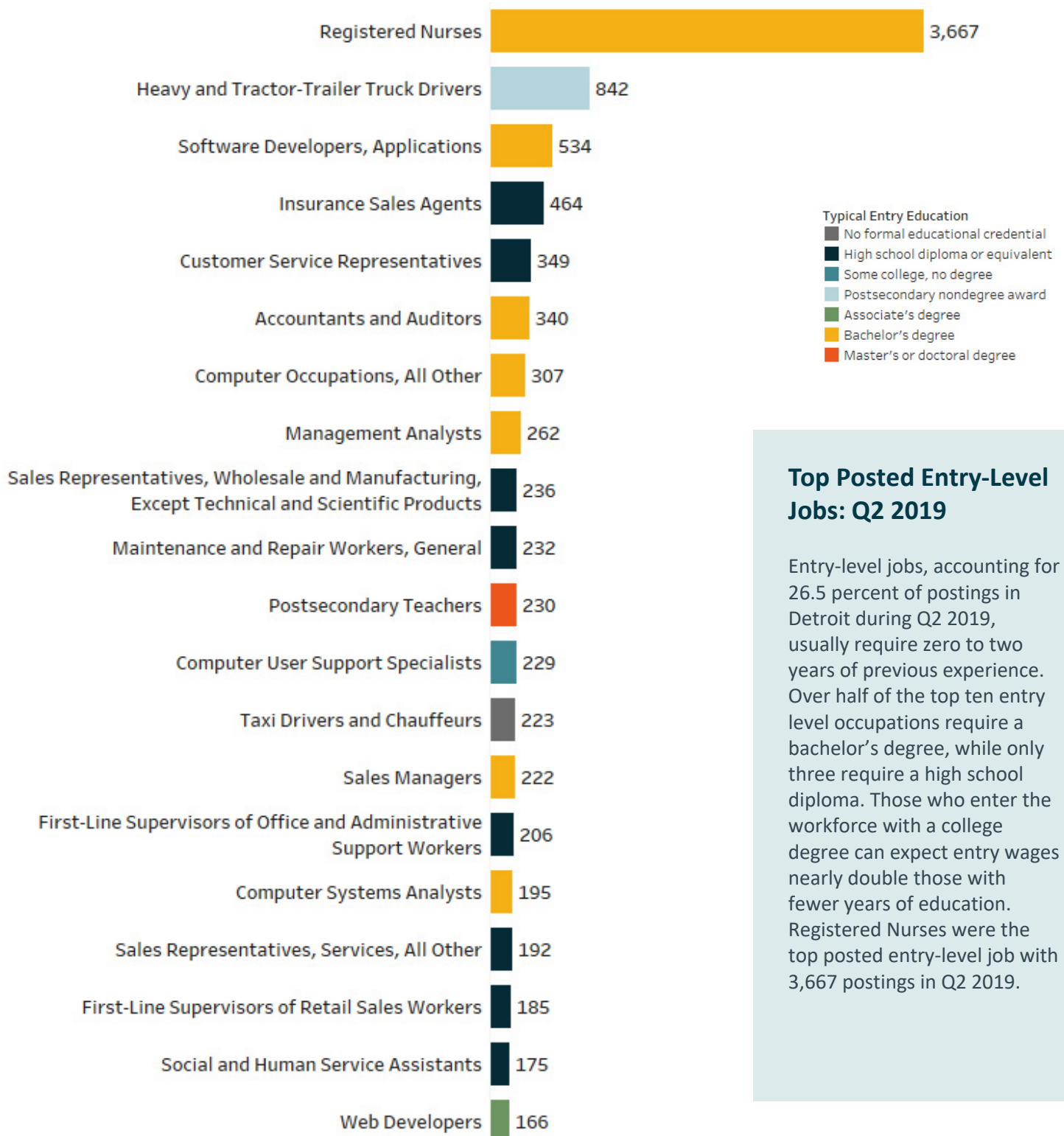




REAL-TIME DEMAND OVERVIEW

City of Detroit | Top Posted Entry-Level Jobs | Q2 2019

Top Posted Entry-Level Jobs
Q2 2019



Top Posted Entry-Level Jobs: Q2 2019

Entry-level jobs, accounting for 26.5 percent of postings in Detroit during Q2 2019, usually require zero to two years of previous experience. Over half of the top ten 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. Registered Nurses were the top posted entry-level job with 3,667 postings in Q2 2019.



REAL-TIME DEMAND OVERVIEW

City of Detroit | Skills and Certifications | Q2 2019

Top Posting Employers*

- General Healthcare Resources, Inc.
- Henry Ford Health System
- Deloitte LLP
- Ascension Health
- Tenet Healthcare Corporation
- Quicken Loans Inc.
- Assurance
- Shipt LLC
- Ameriplan Corporation
- Marriott International, Inc.
- Anthem, Inc.
- Wayne Reese
- General Motors Company
- Soliant Health, Inc
- City of Detroit

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

Top In-Demand Skills

- Nursing
- Basic Life Support
- Selling Techniques
- Accounting
- Advanced Cardiovascular Life Support (ACLS)
- Business Development
- SQL
- Agile Software Development
- Java
- Customer Satisfaction

Top In-Demand Qualifications

- Advanced Life Support
- Advanced Practice Registered Nurse
- American Medical Technologists
- American Registry of Radiologic Technologists (ARRT) Certified
- Associates Degree in Nursing
- Bachelor of Science in Nursing (BSN)
- Certificate in English Language Teaching To Adults (CELTA)
- Certified Case Manager
- Certified Coding Specialist
- Certified Compensation Professional



BUSINESS AND FINANCE OCCUPATION GROUP

City of Detroit | Q2 2019

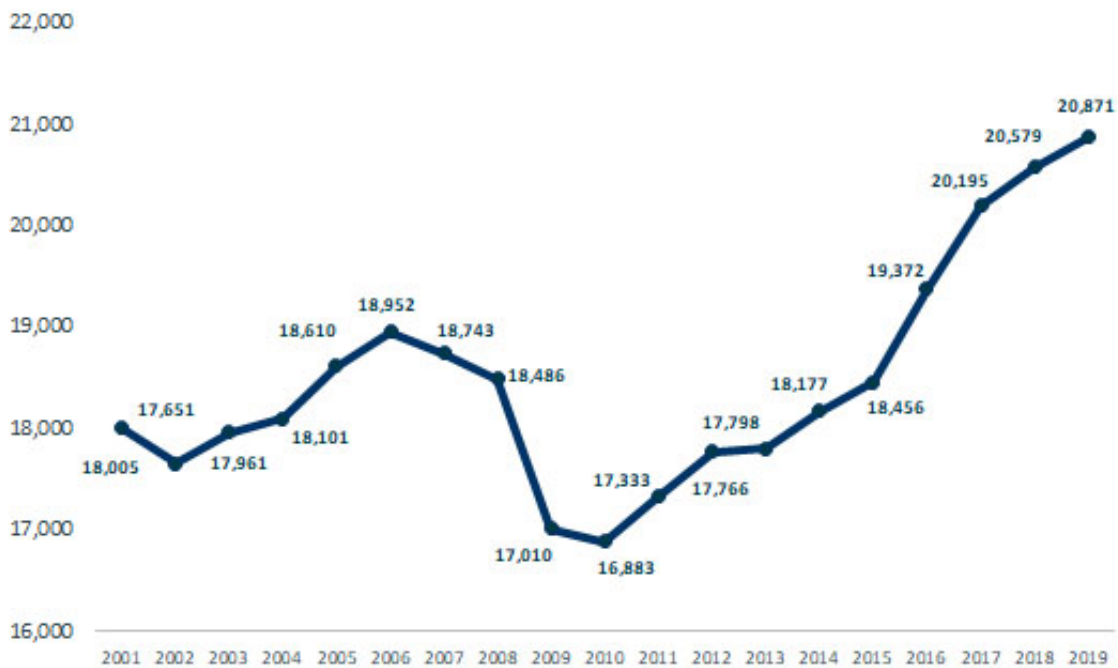
Introduction

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 Detroit.



20,871
Business Workers
9.9% Increase
from Q1 2019

Employment Over
Time 2001–2019



Top Job Posting Employers*

- Assurance
- Deloitte LLP
- Quicken Loans Inc.
- Pricewaterhousecoopers LLP
- General Motors Company
- Ernst & Young LLP
- Anthem, Inc.
- Kpmg LLP
- Ameriplan Corporation
- Assurance Wireless

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

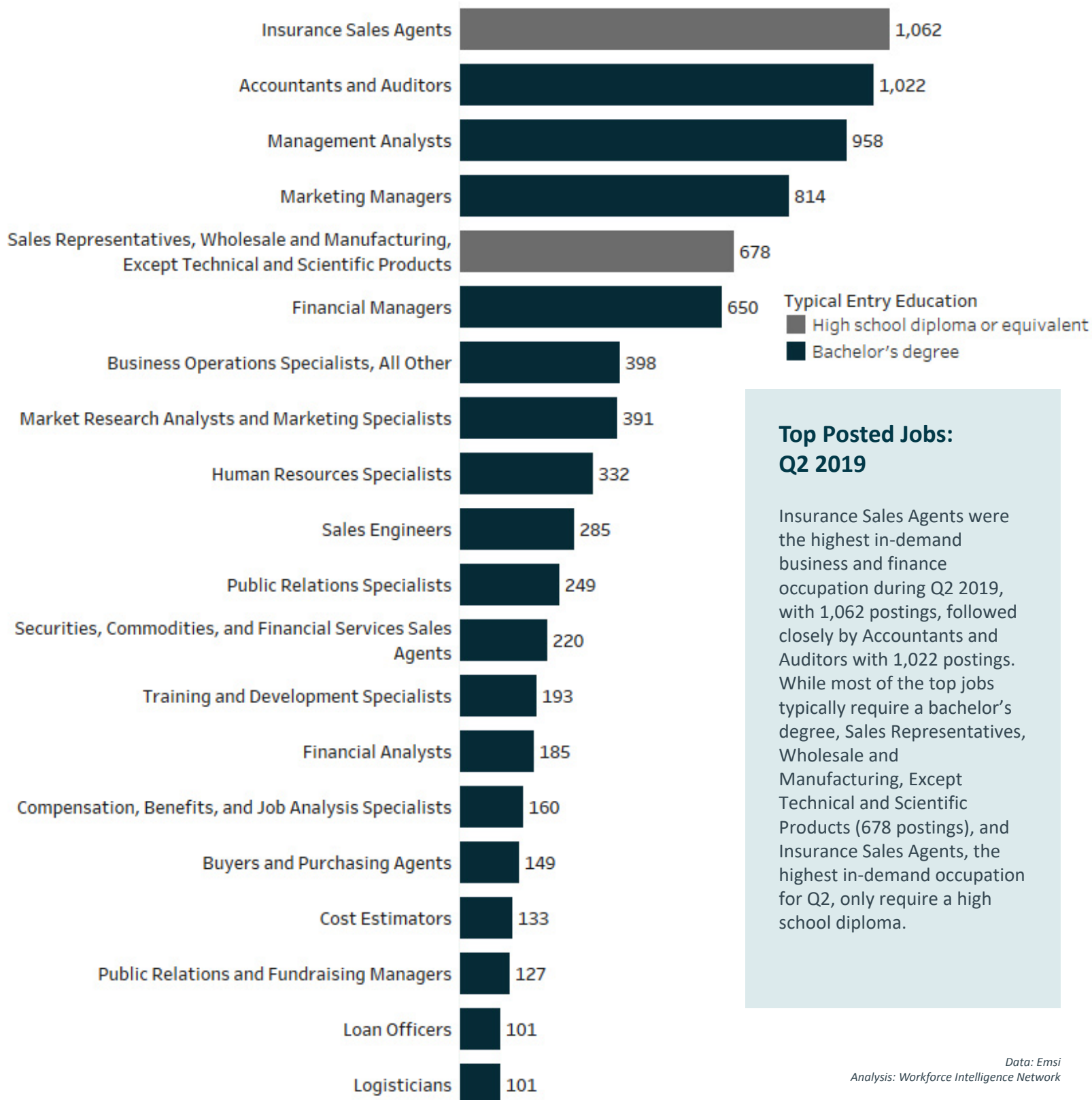


8,655 Business and Finance Postings:
1,917 More Than Q1 2019



Accounting and Management
Skills in High Demand

Business and Finance Top Posted Jobs
Q2 2019





High Earning Potential for Marketing Managers



ASNT Non-Destructive Tester: 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, Insurance Sales Agents, offers median hourly wages of \$23.95, translating to annual earnings of approximately \$46,000. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to median wages around \$65.39 hourly, or about \$126,000 annually.

Wage Overview for Top Posted Business and Finance Jobs Q2 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-3021	Insurance Sales Agents	\$13.09	\$17.80	\$23.95	\$37.70	\$60.93
13-2011	Accountants and Auditors	\$23.02	\$28.26	\$35.99	\$47.39	\$65.17
13-1111	Management Analysts	\$23.75	\$30.34	\$41.51	\$58.36	\$84.77
11-2021	Marketing Managers	\$38.96	\$49.33	\$65.39	\$82.43	\$128.97
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$15.59	\$21.96	\$33.16	\$48.30	\$62.47
11-3031	Financial Managers	\$38.44	\$47.82	\$62.79	\$80.43	\$120.25
13-1199	Business Operations Specialists, All Other	\$18.42	\$24.86	\$34.25	\$48.02	\$60.92
13-1161	Market Research Analysts and Marketing Specialists	\$16.84	\$24.44	\$33.62	\$47.39	\$61.03
13-1071	Human Resources Specialists	\$17.53	\$22.28	\$29.43	\$38.72	\$50.47
41-9031	Sales Engineers	\$30.76	\$37.88	\$48.94	\$59.97	\$71.64

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Accounting
- Selling Techniques
- Auditing
- Purchasing
- Business Development

In-Demand Foundational Skills

- Management
- Sales
- Communications
- Leadership
- Operations

In-Demand Education Level*

- High School Diploma: 6.5%
- Associate Degree: 3.4%
- Bachelor's Degree: 52.4%
- Master's Degree: 15.8%

*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

- ASNT Non-Destructive Tester
- Certification in Control Self-Assessment
- Certified Benefits Professional
- Certified Coding Specialist
- Certified Compensation Professional




ENERGY OCCUPATION GROUP

City of Detroit | Q2 2019

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.

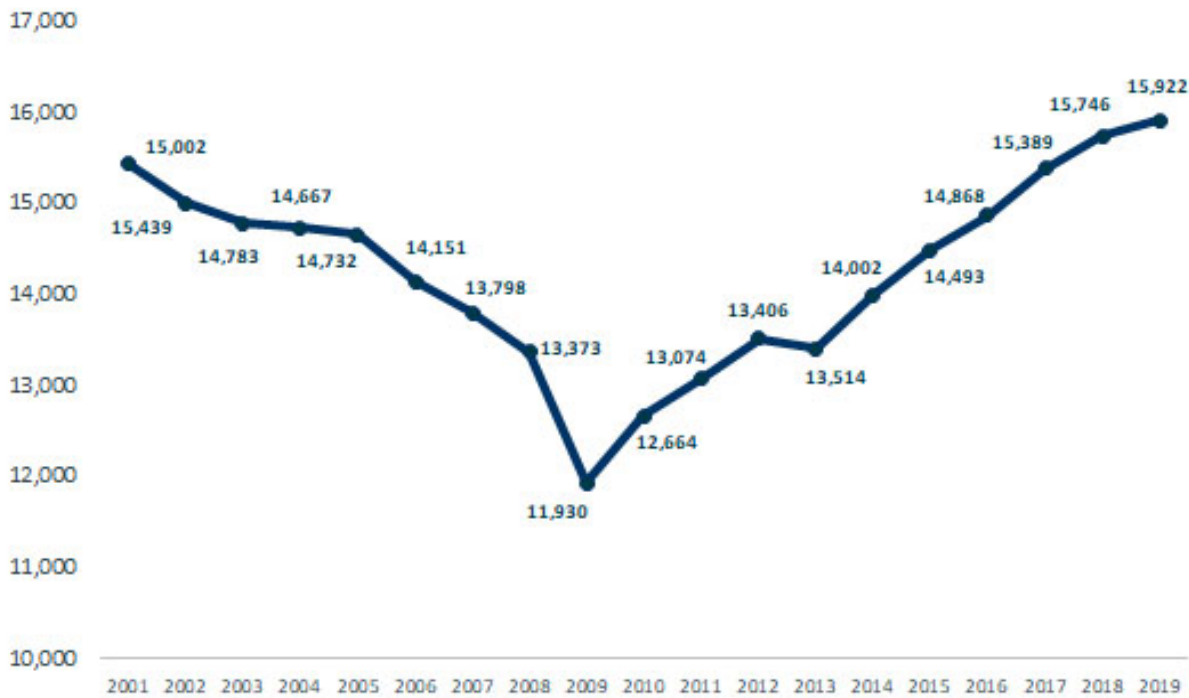


15,922

Energy Workers

4.1% Increase from Q1 2019

Employment Over Time 2001–2019



Top Posting Employers*

- DTE Energy Company
 - Black Hills Corporation
 - Schlumberger Limited
 - Autonomous Surface Vehicles, LLC
 - Riogen LLC
- Wm Energy, Inc.
 - Executive Energy Services, LLC
 - Henkels & McCoy, Inc.
 - Aegion Corporation
 - Alstom Inc

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

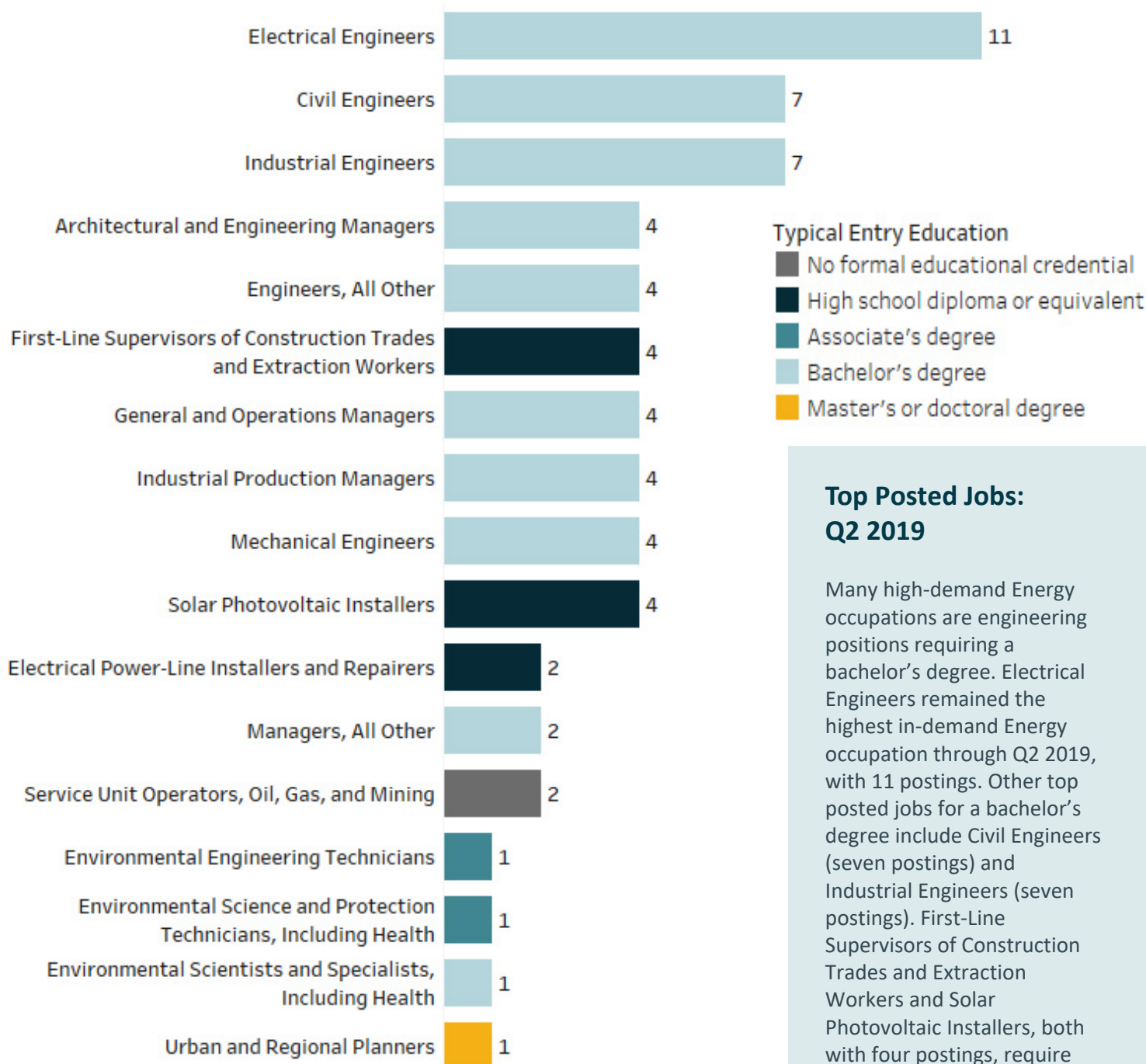


63 Energy Postings: 13
More Than in Q1 2019



Bachelors Degree Required
for Most Energy Jobs

Energy Top Posted Jobs
Q2 2019



Top Posted Jobs: Q2 2019

Many high-demand Energy occupations are engineering positions requiring a bachelor's degree. Electrical Engineers remained the highest in-demand Energy occupation through Q2 2019, with 11 postings. Other top posted jobs for a bachelor's degree include Civil Engineers (seven postings) and Industrial Engineers (seven postings). First-Line Supervisors of Construction Trades and Extraction Workers and Solar Photovoltaic Installers, both with four postings, require only a high school diploma or equivalent for entry.



Industrial Engineers: In-Demand Entry Level Job



Certified Welding Inspector: 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, Electrical Engineers, offers a median hourly wage of \$43.92, or annual earnings of approximately \$84,000. Technician and construction-focused positions generally have shorter educational requirements than engineers and pay higher median wages, \$31.99, than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q2 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2071	Electrical Engineers	\$29.62	\$35.53	\$43.92	\$53.59	\$61.81
17-2051	Civil Engineers	\$24.05	\$28.35	\$34.49	\$43.50	\$55.56
17-2112	Industrial Engineers	\$30.46	\$36.04	\$44.13	\$53.12	\$60.35
11-9041	Architectural and Engineering Managers	\$45.47	\$53.69	\$63.42	\$75.32	\$90.02
17-2199	Engineers, All Other	\$23.37	\$33.41	\$43.60	\$55.40	\$63.54
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$17.10	\$24.31	\$31.99	\$43.58	\$52.06
11-1021	General and Operations Managers	\$22.59	\$36.10	\$55.78	\$85.13	\$120.32
11-3051	Industrial Production Managers	\$35.17	\$44.42	\$55.89	\$69.81	\$86.48
17-2141	Mechanical Engineers	\$29.77	\$35.19	\$43.72	\$54.04	\$62.53
47-2231	Solar Photovoltaic Installers	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Customer Satisfaction
- Corporate Social Responsibility
- Continuous Improvement Process
- Corporate Services
- Control Systems

In-Demand Foundational Skills

- Management
- Operations
- Communications
- Problem Solving
- Interpersonal Skills

In-Demand Education Level*

- High School Diploma: 28.6%
- Associate Degree: 17.5%
- Bachelor's Degree: 61.9%
- Master's Degree: 11.1%

*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

- Certified Welding Inspector
- Licensed Professional Engineer
- PMI Certified
- Professional Engineer
- Project Management Professional Certification



HEALTH CARE OCCUPATION GROUP

City of Detroit | Q2 2019

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.



28,549
Health Care Workers
18 Worker Increase from
Q1 2019

Employment Over
Time 2001–2019



Top Posting Employers*

- General Healthcare Resources, Inc.
- Ascension Health
- Henry Ford Health System
- Tenet Healthcare Corporation
- Soliant Health, Inc
- Supplemental Healthcare
- Sunbelt Staffing, LLC
- Tenet
- Aureus Medical Management Services L.L.C.
- HealthCare Employment Network

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



14,995 Health Care Postings:
6,981 More Than Q1 2019



Bachelor's Degree Required for
High Paying Health Care Jobs

Health Care Top Posted Jobs
Q2 2019





High Earning Potential for Psychiatrists



Advanced Life Support: Most In-Demand Health Care Certification

Health Care Wage Overview

Wages in health care are generally on the higher end of the pay scale with education and experience being needed for most top jobs. Although the group does offer a broad array of occupations requiring higher education, there are a number of jobs open to those with less than an associate's degree that pay more than the region's median wage of \$17.81 per hour. Registered Nurses, the top posted health care job in Q2 2019, offers a median hourly wage of \$36.25 or an annual salary of nearly \$70,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Health Care Jobs in Q2 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$27.34	\$31.49	\$36.25	\$40.81	\$47.98
29-1069	Physicians and Surgeons, All Other	\$22.66	\$27.15	\$63.77	\$102.46	\$132.57
11-9111	Medical and Health Services Managers	\$27.64	\$35.46	\$47.29	\$64.68	\$102.72
29-1062	Family and General Practitioners	\$42.38	\$57.25	\$89.15	\$102.09	\$163.57
29-1127	Speech-Language Pathologists	\$27.08	\$32.21	\$37.85	\$47.06	\$67.80
29-2018	Clinical Laboratory Technologists and Technicians	\$14.77	\$17.92	\$25.79	\$32.74	\$37.94
29-1066	Psychiatrists	\$69.01	\$75.89	\$94.31	\$115.59	\$190.53
29-2034	Radiologic Technologists	\$20.01	\$23.77	\$28.52	\$33.48	\$38.25
31-1014	Nursing Assistants	\$11.43	\$12.97	\$14.52	\$16.57	\$18.66
31-9092	Medical Assistants	\$12.59	\$13.74	\$15.55	\$18.28	\$20.44

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Management
- Leadership
- Communications
- Teaching
- Decision Making

In-Demand Education Level*

- High School Diploma: 7.0%
- Associate Degree: 9.3%
- Bachelor's Degree: 12.7%
- Master's Degree: 6.0%

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

In-Demand Certifications

- Advanced Life Support
- Advanced Practice Registered Nurse
- American Association of Nurse Practitioners (AANP) Certified
- American Medical Technologists
- American Registry of Radiologic Technologists (ARRT) Certified



INFORMATION TECHNOLOGY (IT) OCCUPATION GROUP

City of Detroit | Q2 2019

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.



8,059
IT Workers
449 Worker Increase
from Q1 2019

Employment Over
Time 2001–2019



Top Posting Employers*

- Deloitte LLP
- Quicken Loans Inc.
- Strategic Staffing Solutions, Inc.
- Anthem, Inc.
- Amazon.com, Inc.
- Avanade Inc.
- Fast Switch, Ltd.
- Pricewaterhousecoopers LLP
- General Motors Company
- Ally Financial Inc.

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

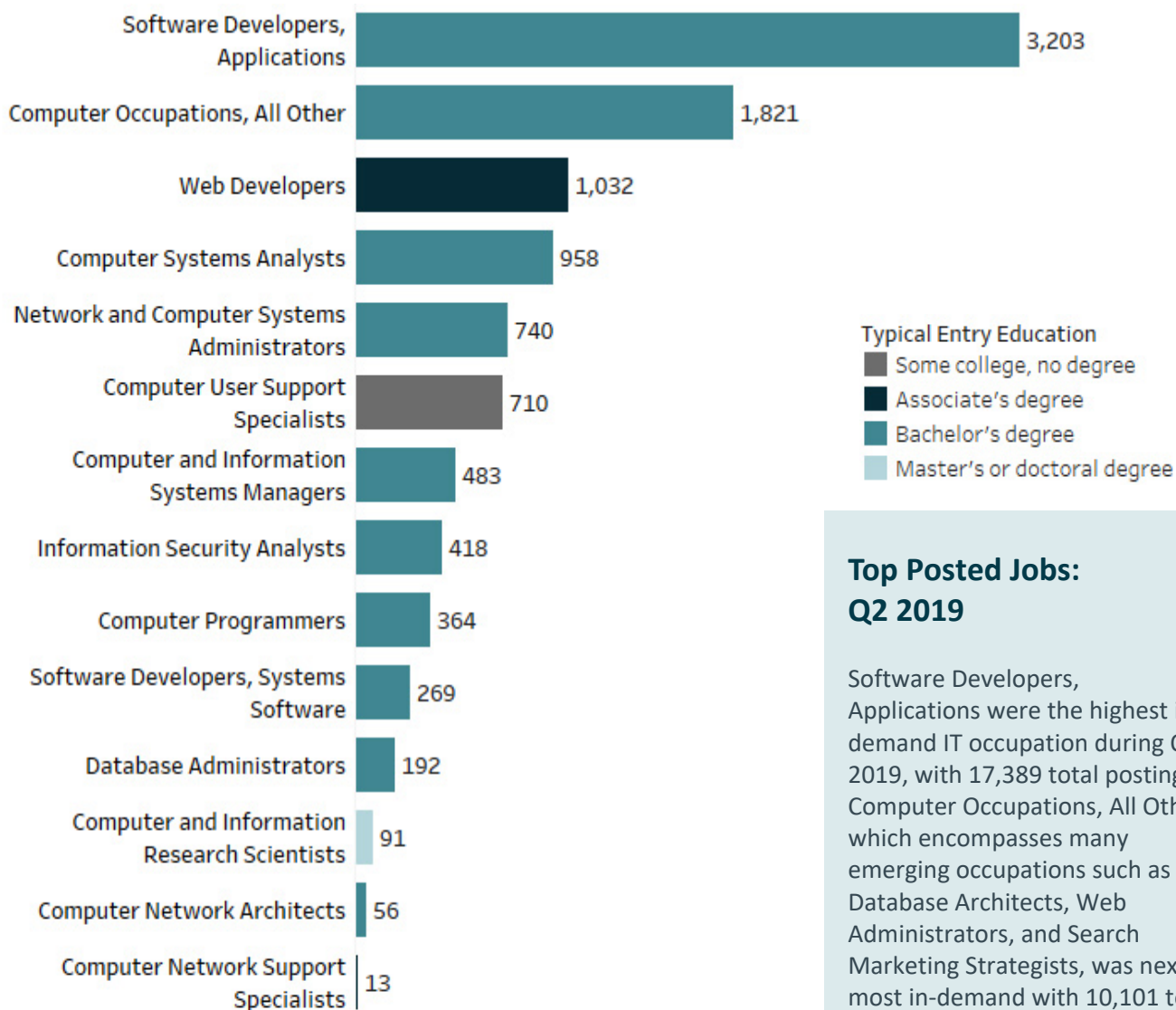


Professional Services and Mortgage Lending Companies are Top IT Employers



Bachelors Degree Required for Most IT Jobs

Information Technology Top Posted Jobs
Q2 2019



Top Posted Jobs: Q2 2019

Software Developers, Applications were the highest in-demand IT occupation during Q2 2019, with 17,389 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 10,101 total postings. While most of the top jobs typically post requirements for a bachelor's degree, Web Developers (1,032 postings) typically require an associate degree while Computer User Support Specialists (710 postings) prefer some college education, but no degree.



High Earning Potential for Software Developers, Applications



Associate Certified Electronics Technician: 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 Q2 2019, offers a median hourly wage of \$45.10 or an annual salary of over \$87,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted IT Jobs in Q2 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	\$29.21	\$35.81	\$45.10	\$56.16	\$64.84
15-1199	Computer Occupations, All Other	\$20.17	\$27.94	\$38.51	\$50.14	\$61.50
15-1134	Web Developers	\$11.74	\$21.39	\$32.41	\$43.48	\$51.40
15-1121	Computer Systems Analysts	\$26.21	\$32.70	\$40.73	\$51.25	\$63.14
15-1142	Network and Computer Systems Administrators	\$25.80	\$32.38	\$39.91	\$50.24	\$60.40
15-1151	Computer User Support Specialists	\$13.92	\$17.44	\$23.37	\$30.44	\$39.13
11-3021	Computer and Information Systems Managers	\$41.73	\$53.03	\$65.80	\$80.72	\$101.02
15-1122	Information Security Analysts	\$30.38	\$35.65	\$45.42	\$58.00	\$66.75
15-1131	Computer Programmers	\$22.44	\$30.38	\$38.07	\$46.51	\$54.15
15-1133	Software Developers, Systems Software	\$23.42	\$34.18	\$44.46	\$54.05	\$63.90

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

- Management
- Communications
- Integration
- Leadership
- Information Technology

In-Demand Education Level*

- High School Diploma: 3.0%
- Associate Degree: 2.9%
- Bachelor's Degree: 40.2%
- Master's Degree: 9.8%

*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

- Associate Certified Electronics Technician
- Certification in Control Self-Assessment
- Certified Benefits Professional
- Certified Coding Specialist
- Certified Compensation Professional



SKILLED TRADES AND TECHNICIANS (MANUFACTURING) OCCUPATION GROUP City of Detroit | Q2 2019

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.



9,282
Trade Workers

6.0% Increase
from Q1 2019

Employment Over
Time 2001–2019



Top Posting Employers*

- Flex-N-Gate Corporation
- E. W. Grobbel Sons, Inc.
- FCA US LLC
- Kelly Services, Inc.
- Aerotek, Inc.
- A.J.M. Packaging Corporation
- Army National Guard
- Ambassador Bridge
- Wilson, Jeff Chrysler Automobiles, Inc
- Express Services Inc

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

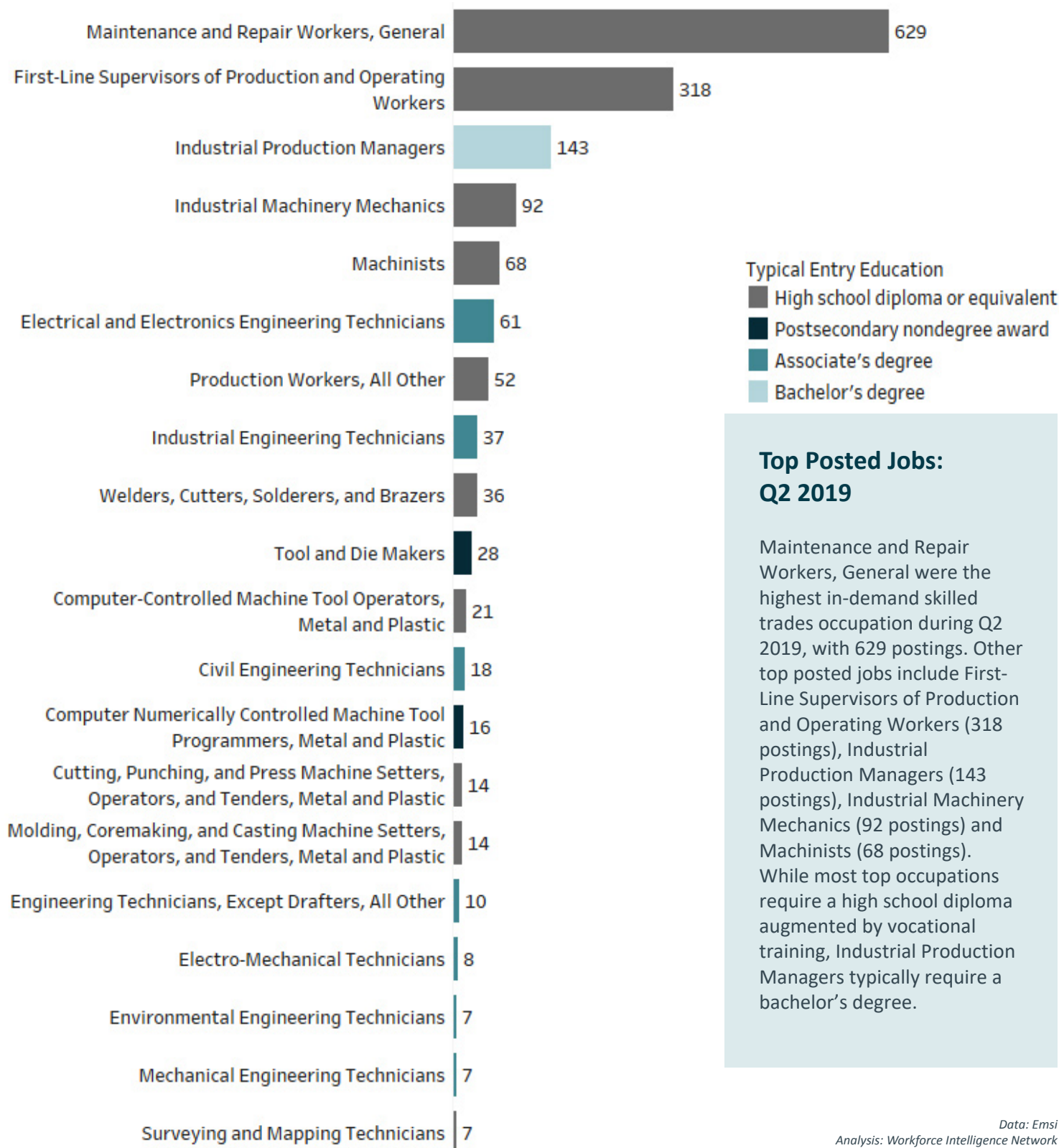


1,617 Skilled Trades Postings:
142 More Than Q1 2019



Vocational Training Required
for Most Skilled Trades Jobs

Skilled Trades and Technicians Top Posted Jobs Q2 2019





High Earning Potential for Industrial Production Managers



(American Society for Quality) ASQ Certified:
In-Demand Skilled Trades Certification

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 Q2 2019, offers a median hourly wage of \$17.35, which translates to an annual salary of about \$33,000. One of the top three occupations, Industrial Production Managers, require additional experience and earn \$55.89 hourly or roughly \$107,000 annually.

Wage Overview for Top Posted Skilled Trades and Technicians Jobs in Q2 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	\$18.73	\$24.27	\$32.19	\$41.34	\$51.12
11-3051	Industrial Production Managers	\$35.17	\$44.42	\$55.89	\$69.81	\$86.48
49-9041	Industrial Machinery Mechanics	\$15.45	\$19.77	\$25.28	\$31.45	\$37.43
51-4041	Machinists	\$11.30	\$15.27	\$19.99	\$25.99	\$30.19
17-3023	Electrical and Electronics Engineering Technicians	\$16.70	\$22.21	\$30.17	\$35.09	\$39.17
51-9199	Production Workers, All Other	\$9.25	\$10.37	\$14.57	\$20.56	\$31.91
17-3026	Industrial Engineering Technicians	\$16.74	\$20.86	\$26.39	\$33.36	\$38.91
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.32	\$15.97	\$19.11	\$23.83	\$29.57
51-4111	Tool and Die Makers	\$15.14	\$19.77	\$26.28	\$31.69	\$36.01

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

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

In-Demand Foundational Skills

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

In-Demand Education Level*

- High School Diploma: 35.3%
- Associate Degree: 7.9%
- Bachelor's Degree: 18.4%
- Master's Degree: 2.4%

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

In-Demand Certifications

- (American Society for Quality) ASQ Certified
- Advanced Practice Registered Nurse
- ASNT Non-Destructive Tester
- Associates Degree In Nursing
- Certified Case Manager

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