WIN

WORKFORCE INTELLIGENCE NETWORK

Research. Engagement. Solutions

LABOR MARKET REPORT
CITY OF DETROIT

Q2 2022
April - June

WIN WORKFORCE INTELLIGENCE NETWORK

About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of Michigan Works! Agencies (MWAs) and community colleges across a 19-county region in Michigan. The counties in the WIN partnership include Clinton, Eaton, Genesee, Hillsdale, Huron, Ingham, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

The WIN data and research team analyzes job posting data at the occupation level within eleven customized occupation groups built using specific Standard Occupational Classification (SOC) codes to provide more contextualized information. Occupation groups combine data for jobs with similar skillsets, educational attainment, and experience requirements, which provides a more in-depth snapshot of the current labor market when compared to traditional industry data based upon North American Industry Classification System (NAICS) codes. Occupation outlook sections utilize these metrics to identify and display the top in-demand jobs, entry-level requirements, and earning potential.

WIN produces a quarterly 19-county region report using data from all eleven occupation groups. A report focused on the city of Detroit is also produced quarterly, focusing on five occupation groups related to the Detroit labor market. County reports are produced annually and focus on five occupation groups chosen to reflect the labor market specific to the county.

This report highlights labor market information and real-time job posting data for the City of Detroit, including a workforce overview that identifies key components of the area's labor market such as labor force status, demographic, and commuting data. WIN's analysis of online job postings, a proxy for employer demand, is a pioneering method for tracking the labor market's health. This data is used to provide real-time demand and job posting information for both employers and job seekers. This report analyzes the second quarter of 2022 labor market information from the City of Detroit for the Business and Finance, Energy, Healthcare, Information Technology (IT), and Skilled Trades occupation groups.

For more information about the southeast Michigan labor market, custom occupation groups, and 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.

REPORT CONTENTS

VISIT
winintelligence.org

EMAIL
info@winintelligence.org

FOLLOW

@workforce intelligence network

@win-semich

@workforce intelligence network (win)

ANNUAL STATE OF THE LABOR MARKET

State of the Labor Market in the City of Detroit

The city of Detroit experienced a decline in both the labor force and overall employment, as the labor market continued to experience major shifts in hiring and skills demanded due to the COVID-19 crisis. In Q2 2022, the labor force, employment, and unemployment figures all decreased from Q1 to Q2 2022. The number of unemployed workers decreased by 11.8 percent, with the size of the labor force decreasing by 2.9 percent and the number of employed individuals decreasing by 1.8 percent.

Software Developers and Software Quality Assurance Analysts and Testers top the list as the most demanded occupation in Q2 2022, accounting for 4,077 job postings. Healthcare occupation group also continues to be heavily demanded in the city of Detroit. All five of the occupation groups experienced growth in employer demand since Q1 2022.

Annual Labor Market Information

To date in 2022, the labor force in Detroit grew 4.1 percent over 2021, increasing by 10,036 individuals, for 2022 labor force figure of 251,991 individuals. Employment tracked proportionately to the labor force, reporting an increase of 3.3 percent, or 7,240 more workers, in the second quarter of 2022. The unemployment rate increased to 10.5 percent over the same period, an increase of 0.7 percentage points. As recovery from the COVID-19 pandemic continues, swings in employment and unemployment are anticipated.

Annual Labor Force, Employment, Unemployment Rate 2012–2022

Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Between Q1 and Q2, employer demand has increased by 15.9 percent with an additional 6,119 unique postings for the City of Detroit. The second quarter had the highest recorded postings Q2 2021 and Q2 2022 with 44,562 postings, a 73.9 percent increase (11,651 postings) from Q2 2021. This steady increase in job postings is a positive indicator of economic recovery from the COVID-19 crisis.

Average Quarterly Posting Analysis City of Detroit Q2 2021 - Q2 2022

ANNUAL WORKFORCE INDICATORS

Key Findings

Employer demand increases by 17.0 percent, a gain of 10,731 job postings since Q2 2022.

17%

Employer demand increased by 1.8 percent, a gain of 1,068 job postings since Q3.

Bachelor's Degree

Most in-demand minimum education level during Q2.
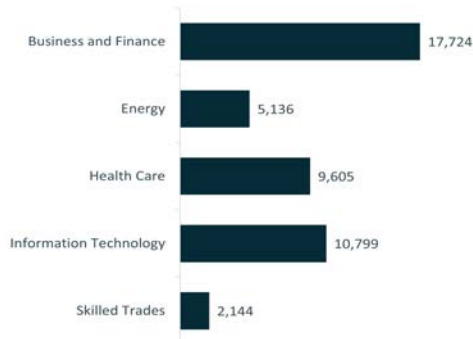
In Q2, employment totaled

223,382

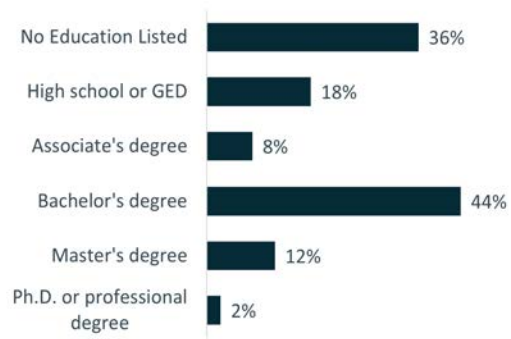a decrease of 4,164 workers (1.8 percent) since Q1

During Q2, there were 73,846 job postings, 10,731 more of the 63,115 postings made during Q1 2021 in the city of Detroit. Healthcare, Business and Finance, and Information Technology occupation groups were the highest posting employers in Q2. The top posted job occupations include Registered Nurses, Computer Occupation, All Other, Software Developers and Software Quality Assurance Analysts and Testers, and Personal Service Managers, all Other. More information about in-demand job postings can be found on page 7.

Of the 73,846 unique postings in the city of Detroit during Q2 2022, 32,270 (43.7 percent) required a college degree. An additional 8,713 postings (11.8 percent) required an advanced degree. The high demand for business and finance and information technology roles within the city, drives this high demand for college education.

Top 5 Posting Occupation Groups
Q2 2022

Business and Finance	17,724
Energy	5,136
Health Care	9,605
Information Technology	10,799
Skilled Trades	2,144

Education Levels In-Demand
Q2 2022

No Education Listed	36%
High school or GED	18%
Associate's degree	8%
Bachelor's degree	44%
Master's degree	12%
Ph.D. or professional degree	2%

The city of Detroit has seen steady labor force and employment growth in Q1 2022 over Q2 2021. However, for Q2 2022, Labor Force participation declined by 7,491 individuals or 2.9 percent and employment decreased by 4,164 individuals or 1.8 percent from Q1 2022. On the other hand, unemployment figures showed fluctuation over each quarter from Q2 2021 to Q2 2022 and unemployment rate decreased by 1.0 percentage points from the previous quarter for an overall Q2 2022 unemployment rate of 10.0 percent. More information regarding this year's unemployment rate and other labor market indicators can be found on page 4.

Quarterly Labor Market Data

	2nd Quarter 2021	3rd Quarter 2021	4th Quarter 2021	1st Quarter 2022	2nd Quarter 2022	Change from 1st Quarter 2021	Percent Change from 1st Quarter 2021	Change from 2nd Quarter 2021	Percent Change from 2nd Quarter 2021
Labor Force	237,463	245,070	248,037	255,737	248,245	-7,491	-2.9%	10,782	4.5%
Employment	214,189	220,331	225,179	227,546	223,382	-4,164	-1.8%	9,193	4.3%
Unemployment	23,274	24,739	22,859	28,190	24,863	-3,327	-11.8%	1,589	6.8%
Unemployment Rate	9.8%	10.1%	9.2%	11.0%	10.0%	-1.0%	na	0.2%	na

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

Data: Emsi | Analysis: Workforce Intelligence Network

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

The labor force in the City of Detroit experienced growth year over year from 2015 through 2020 and peaked in 2020 with 262,129 workers. During the pandemic, the labor force marked a 7.7 percent decline to 241,955 but has since increased to 251,991, 4.1 percent over 2021. Employment showed a similar trend, with growth year after year from 2012 through 2019. The COVID-19 pandemic ushered in a significant drop, with employment dipping 10.2 percent in 2020 over 2019. In Q2 2022, employment increased to 225,464 or 3.3 percent over 2021. Meanwhile, the number of unemployed individuals in the City of Detroit grew by 2,796 workers, or 11.8 percent, between 2021 and Q2 2022.

	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2020 Annual	2021 Annual	2022 YTD	Change from 2021	Percent Change 2021
Labor Force	257,730	257,708	249,976	241,467	246,326	248,070	248,928	251,966	262,129	241,955	251,991	10,036	4.1%
Employment	208,119	208,943	209,701	212,953	219,906	224,958	226,473	230,163	206,652	218,224	225,464	7,240	3.3%
Unemployment	49,611	48,765	40,275	28,514	26,420	23,112	22,454	21,804	55,477	23,731	26,527	2,796	11.8%
Unemployment Rate	19.2%	18.9%	16.1%	11.8%	10.7%	9.3%	9.0%	8.7%	21.2%	9.8%	10.5%	0.7%	n/a

Data: Bureau of Labor Statistics

CENSUS 2020 LABOR FORCE DEMOGRAPHICS

During 2020, there were 286,678 individuals in the labor force, meaning they were either working or looking for work. Employed workers make up 85.1 percent of the city's labor force. The highest unemployment rates in 2020 were seen in those aged 24 years old or younger, with 65.6 percent of unemployed individuals identifying as males compared to 55.5 percent of unemployed individuals identifying as female. Overall, males have a higher unemployment rate than females, at 17.1 percent and 12.9 percent respectively. Black or African American, Native American, and job seekers that identify as Two or More Races faced the most challenges in securing employment, with each group experiencing an unemployment rate of approximately 17 percent in 2020.

Civilian Labor Force by Demographic Group				
Demographic Group	Civilian Labor Force	Total Employment	Total Unemployment	Unemployment Rate
Total Population 16 +	286,678	243,926	42,752	14.9%
Sex				
Male 16+	136,777	113,394	23,383	17.1%
16-19	6,453	3,844	2,609	40.4%
20-24	16,893	12,647	4,246	25.1%
25-54	91,417	77,844	13,573	14.8%
55-64	17,247	14,794	2,453	14.2%
65 Plus	4,767	4,265	502	10.5%
Female 16+	149,901	130,532	19,369	12.9%
16-19	6,951	4,719	2,232	32.1%
20-24	18,097	13,857	4,240	23.4%
25-54	98,050	86,706	11,344	11.6%
55-64	19,692	18,480	1,212	6.2%
65 Plus	7,111	6,770	341	4.8%
Race				
White	44,941	40,897	4,045	9.0%
Black / African	218,521	182,465	36,056	16.5%
Native American	953	796	157	16.5%
Asian	5,819	5,353	465	8.0%
Native Hawaiian / Pacific Islander	49	49	0	0%
Some Other Race	9,894	8,994	900	9.1%
Two or More Races	6,595	5,500	1,095	16.6%
Ethnicity				
Hispanic	20,688	18,433	2,255	10.9%

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

POPULATION DEMOGRAPHICS

2020 Census Population

According to the Census Bureau 2020 ACS Five Year estimates, the City of Detroit had a population of 672,351 people. 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 (77.1 percent) with the second largest number of individuals identifying as White (14.4 percent). The city's age demographics skew younger than the surrounding region; 26.0 percent of the population was over the age of 54, compared to 35.0 percent under the age of 25, while 39.1 percent of the population fell between the ages of 25-54.

Population Gender Demographics

52.7% Female
47.3% Male
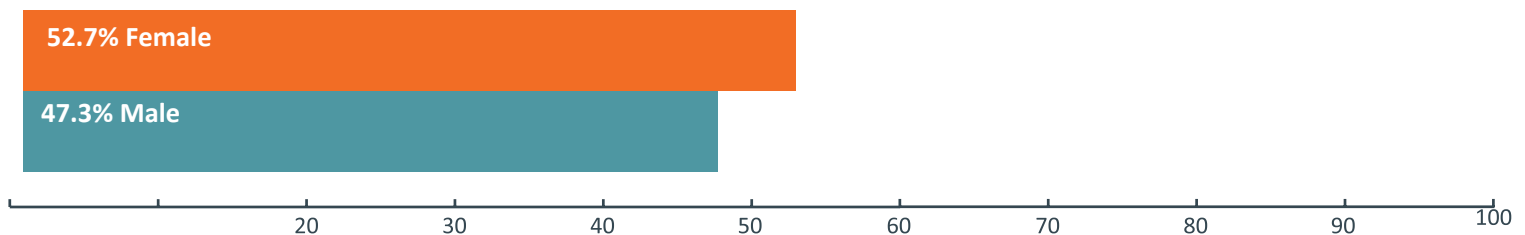
Population Race Demographics

- White, 14.4%
- Black or African American, 77.1%
- Hispanic or Latino, 7.7%
- Asian, 1.7%
- Two or More Races, 2.4%
- American Indian or Alaska Native, 0.4%
- Native Hawaiian or Other Pacific Islander, 0.02%
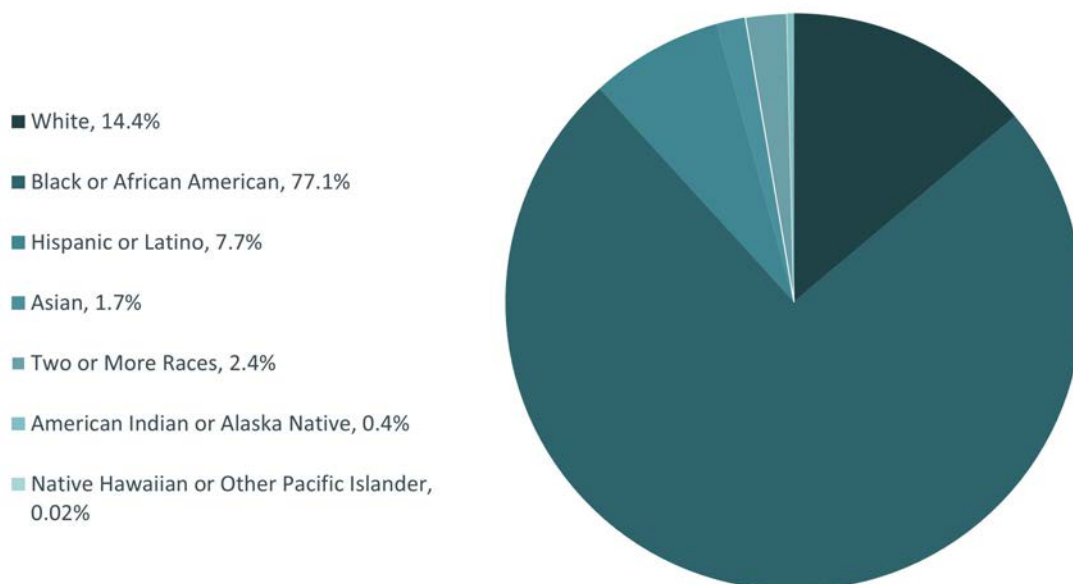
Population Age Demographics

| Age 14 and Under 20.9% | Age 15-24 14.1% | Age 25-54 39.1% | Age 55+ 26.0% |

REGIONAL COMMUTING PATTERNS

According to the most recent OnTheMap data set from the Census Bureau Detroit's 2019 workforce consisted of 195,233 residents. 31.7 percent of the residents also worked in the city, while the remaining 68.3 percent traveled outside for work. With 235,654 workers employed in the city during 2019 there were 73.7 percent living outside of the city and commuting in. While there is a higher percentage of both inbound and outbound commuters in Detroit than other areas of the WIN regions, Detroit is ultimately a net importer of jobs, with more workers commuting into the area for employment than leaving.

Where City of Detroit Residents Work
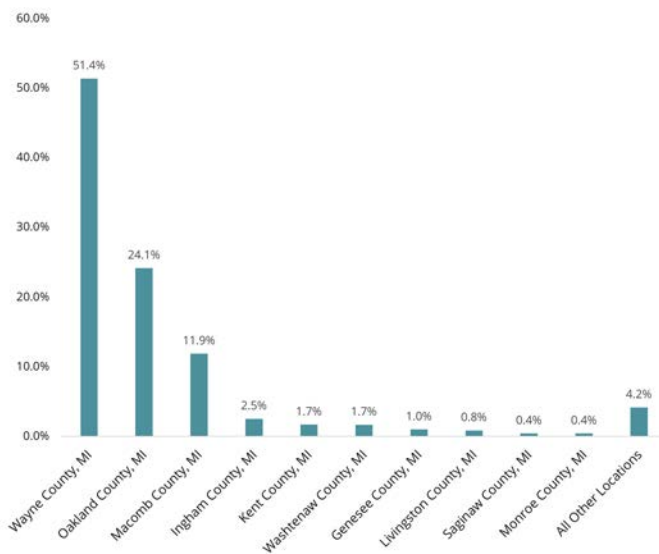
Where City of Detroit Workers Live
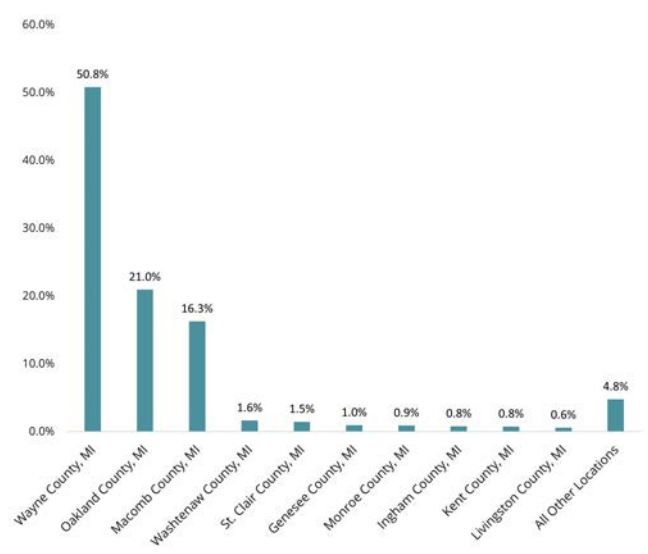
Source: U.S. Census OnTheMap, 2019
Analysis: Workforce Intelligence Network

Source: U.S. Census OnTheMap, 2019
Analysis: Workforce Intelligence Network

173,711 LIVE OUTSIDE OF THE CITY OF DETROIT AND COMMUTE IN

61,943 LIVE AND WORK IN THE CITY OF DETROIT

133,290 LIVE IN THE CITY OF DETROIT AND COMMUTE OUT

Top Posted Jobs

Software Developers and Software Quality Assurance Analysts and Testers is the highest in-demand occupation during Q2, with 4,077 unique online job postings. Registered Nurses is the second largest occupation with 3,506 postings. Computer Occupations, All Other (2,697 postings) round out the top three occupations in Q2. The majority of these positions require a bachelor's degree, which is common in over half of the top 20 posted jobs for the city.

Top Posted Entry-Level Jobs

Entry-level jobs, which usually require zero to two years of previous experience, account for 22.6 percent of postings in Detroit. Four of the top ten entry level occupations require a bachelor's degree, while the remaining six require a high school diploma, postsecondary non-degree award, or some college with no degree. Those who enter the workforce with a college degree can expect entry wages nearly double from those without. Registered Nurses were the top posted entry-level job with 1,241 postings requiring zero to two years of experience and a bachelor's degree.

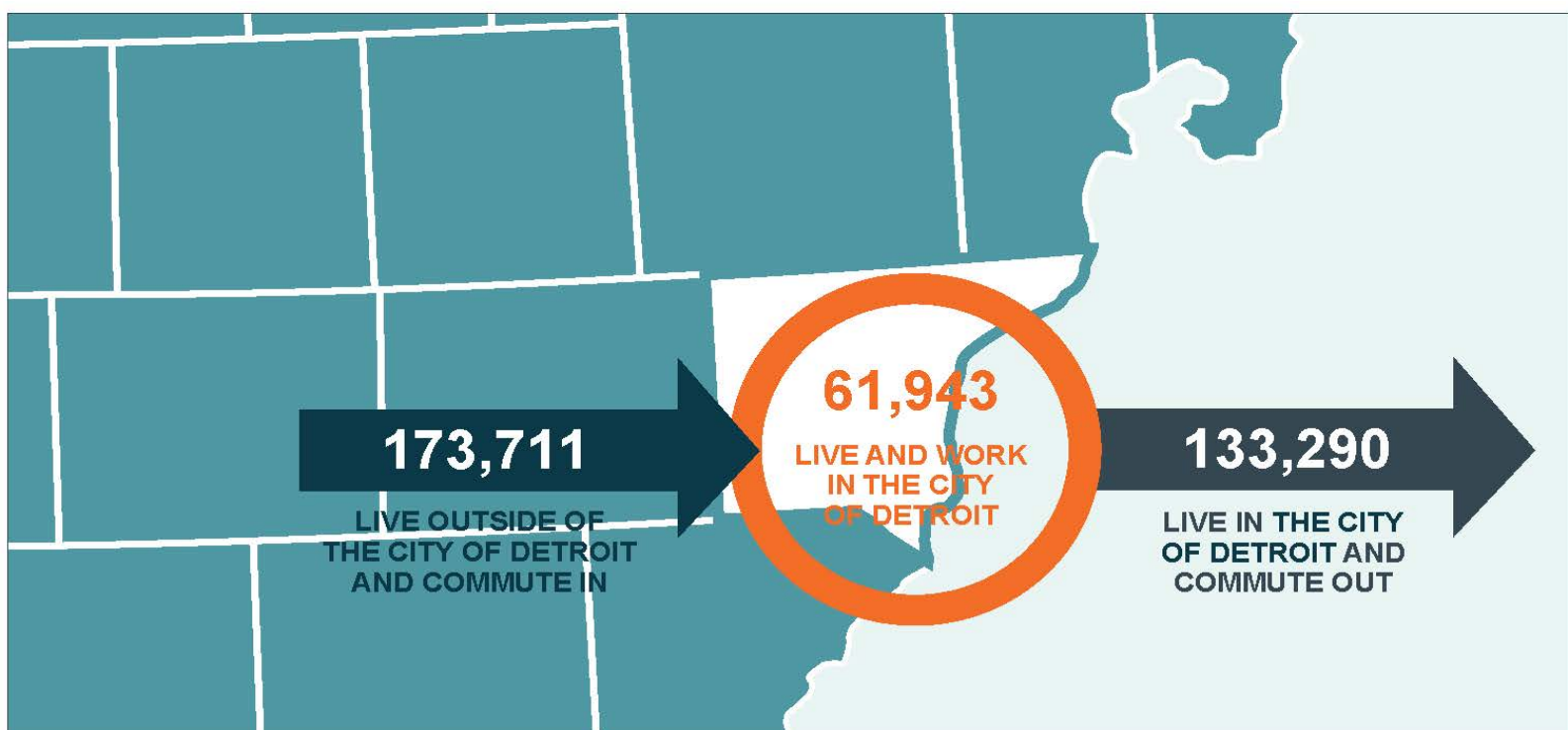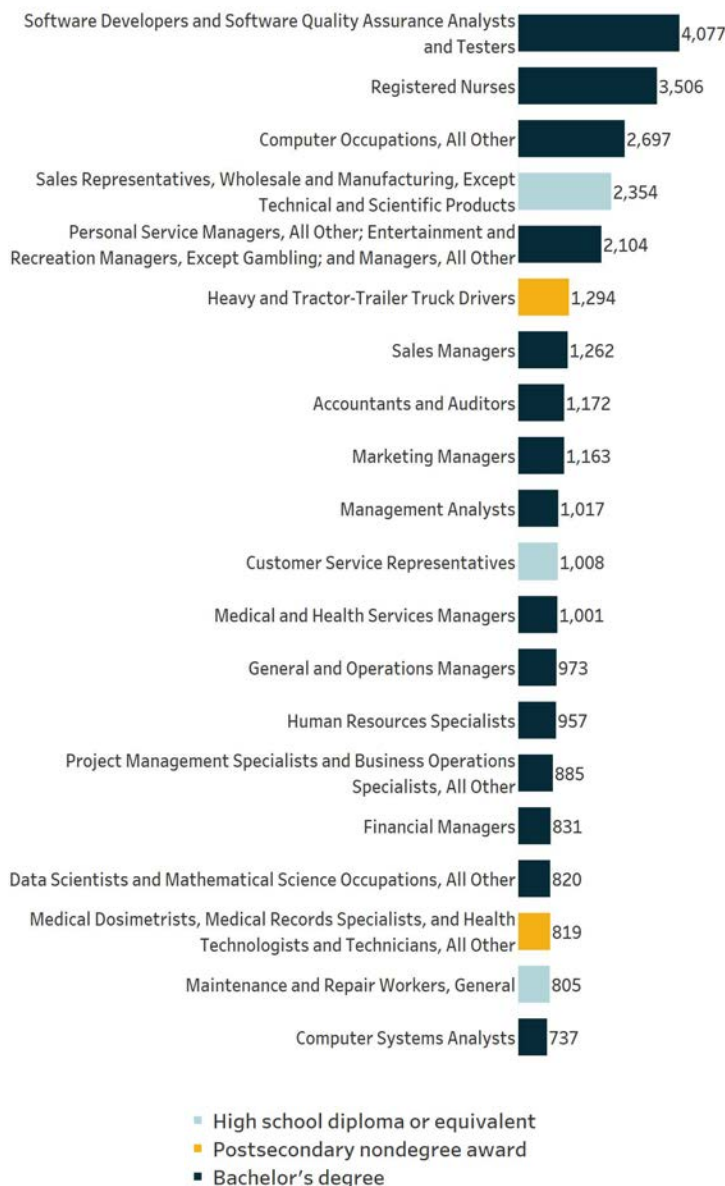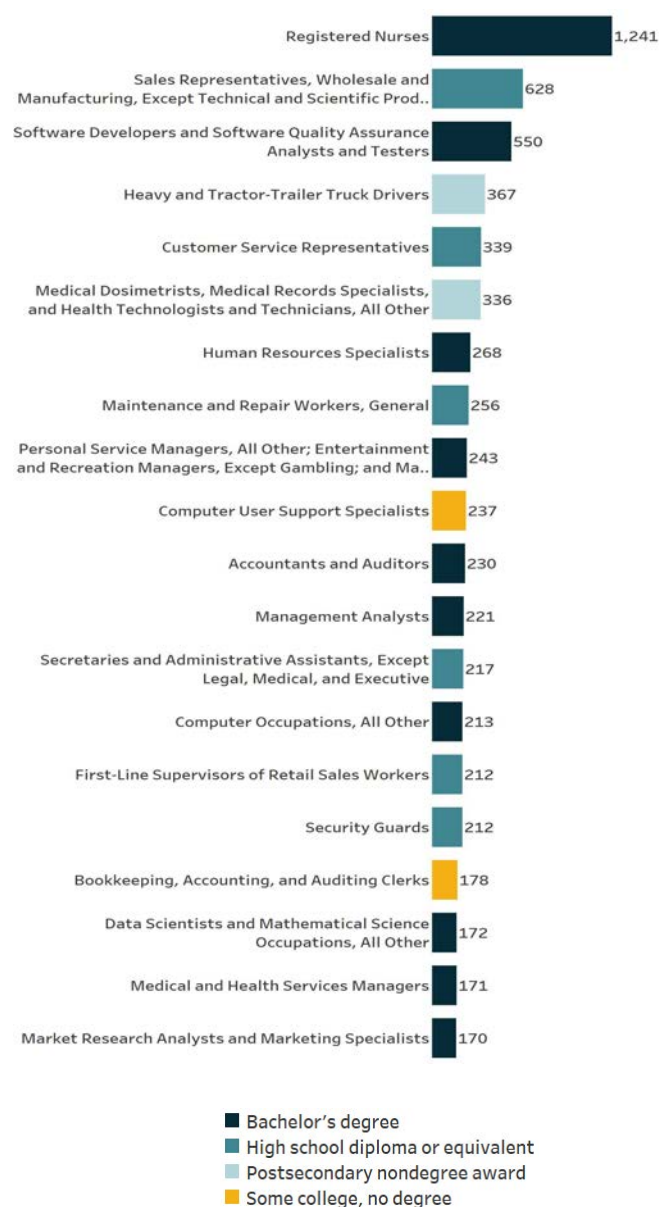| Top Posted Jobs	
Software Developers and Software Quality Assurance Analysts and Testers	4,077
Registered Nurses	3,506
Computer Occupations, All Other	2,697
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	2,354
Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	2,104
Heavy and Tractor-Trailer Truck Drivers	1,294
Sales Managers	1,262
Accountants and Auditors	1,172
Marketing Managers	1,163
Management Analysts	1,017
Customer Service Representatives	1,008
Medical and Health Services Managers	1,001
General and Operations Managers	973
Human Resources Specialists	957
Project Management Specialists and Business Operations Specialists, All Other	885
Financial Managers	831
Data Scientists and Mathematical Science Occupations, All Other	820
Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	819
Maintenance and Repair Workers, General	805
Computer Systems Analysts	737

- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree

Top Posted Entry-Level Jobs	
Registered Nurses	1,241
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Prod..	628
Software Developers and Software Quality Assurance Analysts and Testers	550
Heavy and Tractor-Trailer Truck Drivers	367
Customer Service Representatives	339
Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	336
Human Resources Specialists	268
Maintenance and Repair Workers, General	256
Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Ma..	243
Computer User Support Specialists	237
Accountants and Auditors	230
Management Analysts	221
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	217
Computer Occupations, All Other	213
First-Line Supervisors of Retail Sales Workers	212
Security Guards	212
Bookkeeping, Accounting, and Auditing Clerks	178
Data Scientists and Mathematical Science Occupations, All Other	172
Medical and Health Services Managers	171
Market Research Analysts and Marketing Specialists	170

- Bachelor's degree
- High school diploma or equivalent
- Postsecondary nondegree award
- Some college, no degree

REAL-TIME DEMAND OVERVIEW
Employer Demand Highlights

Top Posting Employers*

- Deloitte
- Henry Ford Health System
- Tenet Healthcare
- Ascension
- Accenture
- City Of Detroit
- United States Department of Veterans Affairs
- Tenet
- General Motors
- Comerica

- Delaware North
- Rocket Companies
- Little Caesars
- State Of Michigan
- Ally Financial
- Centene
- DTE Energy
- Beaumont Health
- MGM Resorts International
- KPMG

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

In-Demand Technical Skills

- Marketing
- Nursing
- Cascading Style Sheets (CSS)
- Auditing
- Accounting
- Finance
- Computer Science
- WebKit
- Flexbox
- Data Analysis

In-Demand Foundational Skills

- Communications
- Customer Service
- Management
- Leadership
- Operations
- Problem Solving
- Detail Oriented
- Sales
- Valid Driver's License
- Planning

Top In-Demand Qualifications

- Basic Life Support (BLS) Certification
- Advanced Cardiovascular Life Support (ACLS) Certification
- Licensed Practical Nurse
- Commercial Driver's License (CDL)
- Bachelor Of Science in Nursing (BSN)
- Bachelor Of Science in Business
- Certified Nursing Assistant
- Basic Cardiac Life Support

- Nurse Practitioner
- Master Of Business Administration (MBA)
- American Registry of Radiologic Technologists (ARRT) Certified
- ServSafe Certification
- Licensed Master Social Worker
- Certified Public Accountant
- Patient Care Technician

BUSINESS AND FINANCE OCCUPATION GROUP

Jobs in the Business and Finance occupation group can be found in nearly every type of establishment throughout the city. These workers require strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in Detroit.

Employment Over Time
2012-2022
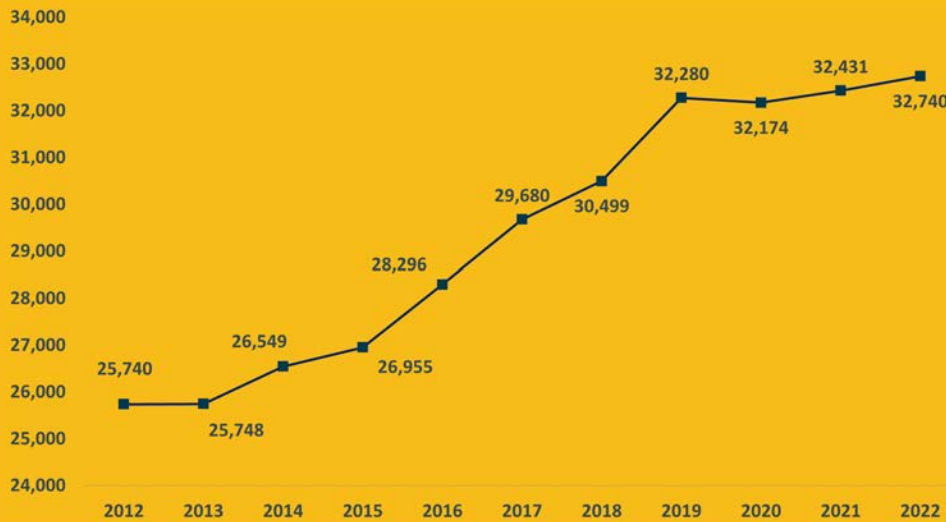
309
Business and Finance Workers
1.0 % increase from 2021

Business and Finance Education and Experience

The Business and Finance occupation group offers high paying job opportunities for workers. A bachelor's degree is the most in-demand education level in Q2, as noted in 11,776 postings. A master's degree is the second most in-demand education level with 2,954 postings, while 4,561 postings do not specify any education level. Many business and finance occupation postings do not specify a required length of experience. Over half of the postings lists a requirement of two or more years of experience.

Data: Emsi | Analysis: Workforce Intelligence Network
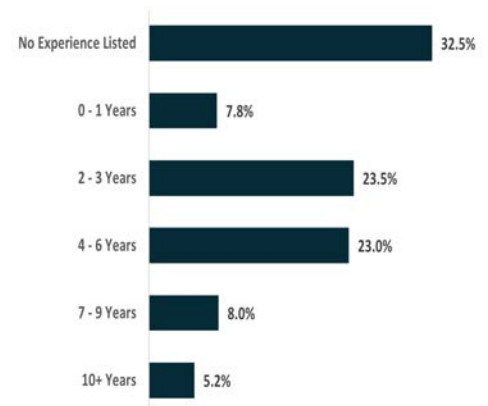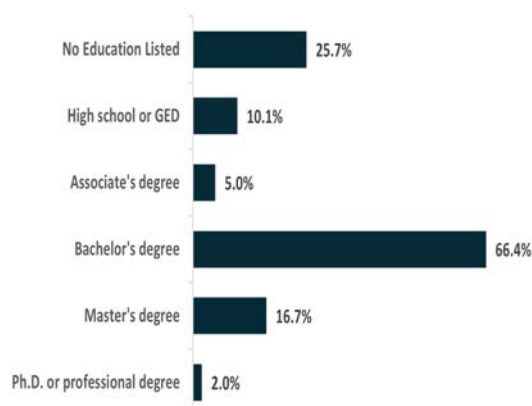
BUSINESS AND FINANCE OCCUPATION GROUP

Top Posted Jobs

The Business and Finance occupation group with the highest number of Q2 postings (2,354) was Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products. This was followed by Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other, with 2,104 postings. While most of the top jobs typically require a bachelor's degree, the highest-posting occupation group, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, and Insurance Sales Agents (206 postings), both require a high school diploma and offer moderate on-the-job training for those without prior experience.

Occupation	Postings
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	2,354
Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	2,104
Sales Managers	1,262
Accountants and Auditors	1,172
Marketing Managers	1,163
Management Analysts	1,017
General and Operations Managers	973
Human Resources Specialists	957
Project Management Specialists and Business Operations Specialists, All Other	885
Financial Managers	831
Market Research Analysts and Marketing Specialists	670
Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	631
Operations Research Analysts	345
Public Relations and Fundraising Managers	330
Public Relations Specialists	299
Buyers and Purchasing Agents	299
Administrative Services and Facilities Managers	289
Insurance Sales Agents	206
Compliance Officers	197
Property, Real Estate, and Community Association Managers	180

Legend:
- High school diploma or equivalent
- Bachelor's degree

BUSINESS AND FINANCE OCCUPATION GROUP

Wage Overview

For job seekers able to obtain the required education, Business and Finance occupations offer lucrative opportunities. The top posted occupation, Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products, offers median hourly wages of $33.41 ($69,492 annually), while Sales Managers have a median hourly wage of $71.58 ($148,886 annually). Additional experience may lead to a role as a Marketing or Financial Manager, with median hourly wages at $69.04 ($143,603 annually). Human Resources Specialists provided the lowest median hourly wage for the top posted jobs in this occupation group at $29.81, which is still significantly above the state median of $21.73.

Wage Overview for Top Posted Business and Finance Jobs in Q2 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$14.19	$20.99	$33.41	$49.06	$65.06
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	$30.85	$42.65	$57.16	$71.95	$92.20
11-2022	Sales Managers	$40.31	$55.59	$71.58	$88.78	$133.79
13-2011	Accountants and Auditors	$24.32	$29.82	$37.75	$49.26	$65.37
11-2021	Marketing Managers	$38.14	$52.83	$69.04	$85.79	$121.40
13-1111	Management Analysts	$28.80	$35.40	$43.75	$54.82	$68.53
11-1021	General and Operations Managers	$21.98	$33.79	$54.57	$84.85	$117.35
13-1071	Human Resources Specialists	$17.49	$22.43	$29.81	$39.20	$50.46
13-1198	Project Management Specialists and Business Operations Specialists, All Other	$21.39	$27.95	$38.23	$52.36	$64.97
11-3031	Financial Managers	$41.74	$52.18	$66.91	$84.30	$129.20

In-Demand Technical Skills

- Marketing
- Finance
- Accounting
- Auditing
- Business Development

In-Demand Foundational Skills

- Communications
- Management
- Sales
- Leadership
- Operations

In-Demand Certifications

- Master Of Business Administration (MBA)
- Bachelor Of Science in Business
- Certified Public Accountant
- Project Management Professional Certification
- Bachelor Of Science in Business Administration

In-Demand Education Level*

- High School Diploma: 10.1%
- Associate Degree: 5.0%
- Bachelor's Degree: 66.4%
- Master's Degree: 16.7%

Top Posting Employers

- Deloitte
- PricewaterhouseCoopers
- KPMG
- Microsoft
- Accenture
- VMware
- General Motors
- Ally Financial
- DTE Energy
- GPAC

Not all job postings indicate the required educational attainment level; the percentages indicated may not equal 100 percent.

ENERGY OCCUPATION GROUP

Energy-related occupations include jobs in engineering, science, mining, and extraction. Workers in this field have a range of skills related to keeping businesses and homes powered. Energy companies employ workers in a variety of occupations, many of which are also included in other WIN occupation groups. Posting data referenced in this section pertains only to job postings from energy-related businesses.

Employment Over Time
2012-2022
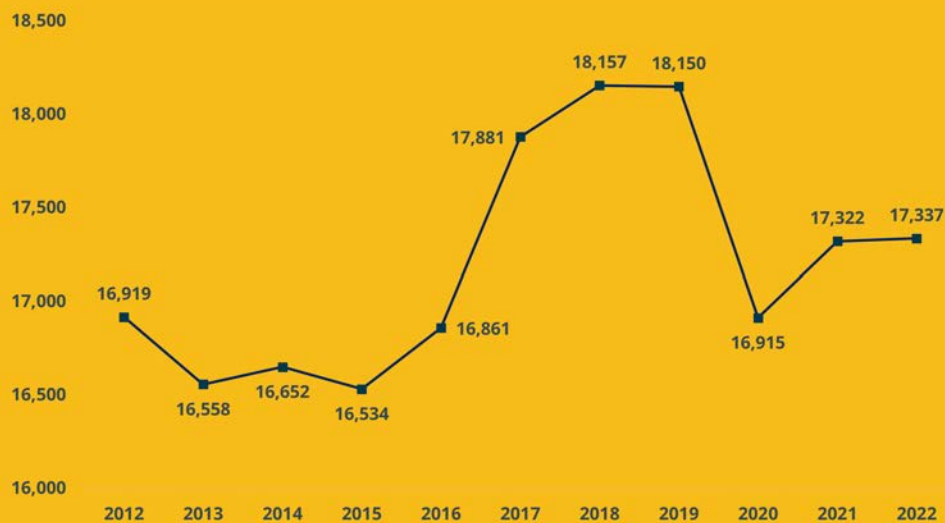
15
Energy Workers
Slight decrease
from 2021

Energy Education and Experience

The Energy occupation group requires a specialized workforce with specific skills. A bachelor's degree is the most in-demand education level in Q2 with 53.2 percent of 2,730 postings. A master's degree is the second most in-demand education level with 15.8 percent, while 3.5 percent require a Ph.D. The amount of experience required varies widely from none to over ten years. Even many energy occupation postings do not request any specific experience.

Data: Emsi | Analysis: Workforce Intelligence Network
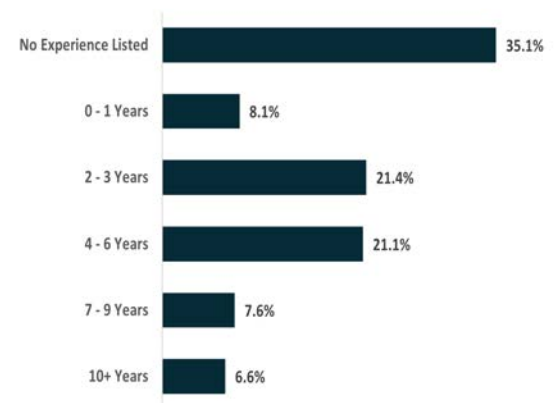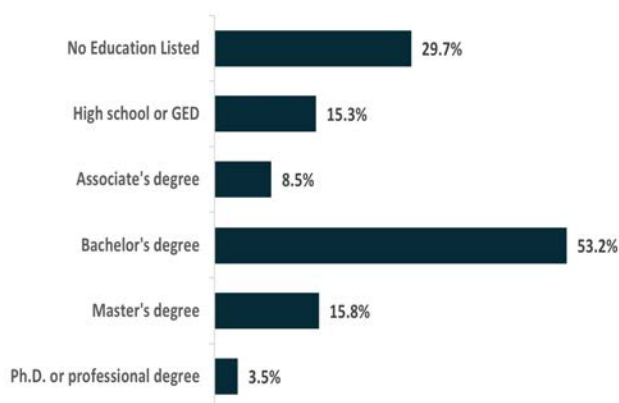
ENERGY OCCUPATION GROUP

Top Posted Jobs

Most high-demand Energy occupations are engineering positions requiring a bachelor's degree. General and Operations Managers has emerged as the highest in-demand Energy occupation in Q2 with 973 postings. Other top posted jobs requiring a bachelor's degree include Architectural and Engineering Managers (390 postings) and Electrical Engineers (351 postings). First-line supervisors of construction trades and Extraction workers (117 postings) are required to hold a high school diploma or equivalent and may receive moderate to long-term on-the-job training in lieu of previous experience.

Occupation	Postings
General and Operations Managers	973
Architectural and Engineering Managers	390
Electrical Engineers	351
Industrial Engineers	339
Engineers, All Other	297
Civil Engineers	278
Industrial Engineering Technologists and Technicians	235
Mechanical Engineers	225
Industrial Production Managers	187
Natural Sciences Managers	120
First-Line Supervisors of Construction Trades and Extraction Workers	117
Architects, Except Landscape and Naval	116
Medical Scientists, Except Epidemiologists	109
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	99
Life, Physical, and Social Science Technicians, All Other	96
Industrial Truck and Tractor Operators	72
Construction and Building Inspectors	72
Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except ..	71
Telecommunications Equipment Installers and Repairers, Except Line Installers	63
Drafters, All Other	62

Legend:
- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Associate's degree
- Bachelor's degree
- Doctoral or professional degree

ENERGY OCCUPATION GROUP

Wage Overview

High demand for engineers and managers in the energy field provides lucrative opportunities for job seekers able to obtain the required educational level. The top posted energy job, General and Operations Managers, offers a median hourly wage of $54.57 ($113,506 annually). Construction- and technician-focused positions generally have shorter educational requirements and pay higher median wages than similar occupations in other industries.

Wage Overview for Top Posted Energy Jobs in Q2 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
11-1021	General and Operations Managers	$21.98	$33.79	$54.57	$84.85	$117.35
11-9041	Architectural and Engineering Managers	$48.21	$56.99	$67.53	$79.44	$92.57
17-2071	Electrical Engineers	$31.08	$37.14	$45.65	$55.50	$64.38
17-2112	Industrial Engineers	$31.90	$37.84	$46.45	$55.98	$63.31
17-2199	Engineers, All Other	$25.34	$33.88	$42.30	$56.16	$66.54
17-2051	Civil Engineers	$24.97	$29.04	$34.97	$42.49	$49.94
17-3026	Industrial Engineering Technologists and Technicians	$19.41	$23.47	$28.57	$35.57	$42.35
17-2141	Mechanical Engineers	$31.70	$36.46	$44.62	$55.34	$64.32
11-3051	Industrial Production Managers	$34.06	$44.21	$56.74	$71.68	$89.16
11-9121	Natural Sciences Managers	$29.94	$45.81	$57.79	$74.54	$93.65

In-Demand Technical Skills

- Construction
- Auditing
- Computer Science
- Automation
- Marketing

In-Demand Foundational Skills

- Communications
- Management
- Operations
- Leadership
- Problem Solving

In-Demand Certifications

- Professional Engineer
- Master Of Business Administration (MBA)
- Licensed Professional Engineer
- Bachelor Of Science in Business
- Engineer in Training

In-Demand Education Level*

- High School Diploma: 15.3%
- Associate Degree: 8.5%
- Bachelor's Degree: 53.2%
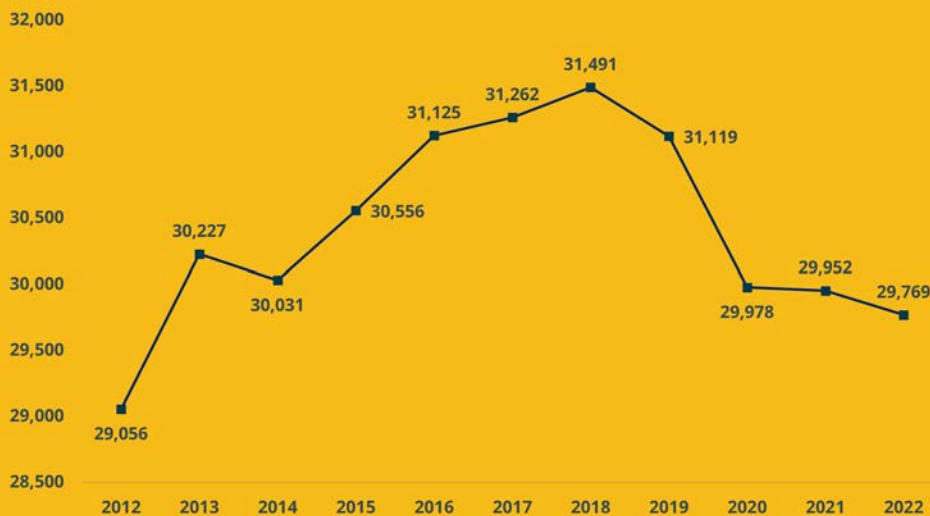- Master's Degree: 15.8%

Top Posting Employers

- DTE Energy
- General Motors
- Deloitte
- GPAC
- Microsoft
- American Axle & Manufacturing
- Henry Ford Health System
- VMware
- Actalent
- PricewaterhouseCoopers

Not all job postings indicate the required educational attainment level; the percentages indicated may not equal 100 percent.

HEALTHCARE OCCUPATION GROUP

The Healthcare occupation group includes jobs related to healthcare support and practitioners. Employment in this group has been increasing consistently, with more healthcare workers needed to care for Michigan's aging population. Annually, there are about 23,600 job openings for these positions across southeast Michigan, and this is projected to continue increasing.
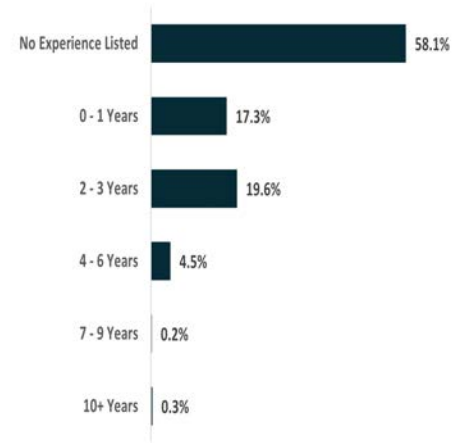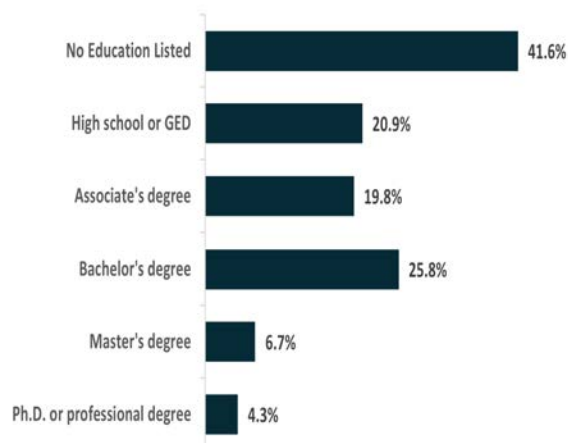
Employment Over Time
2012-2022

- 2012: 29,056
- 2013: 30,227
- 2014: 30,031
- 2015: 30,556
- 2016: 31,125
- 2017: 31,262
- 2018: 31,491
- 2019: 31,119
- 2020: 29,978
- 2021: 29,952
- 2022: 29,769

183 Healthcare Workers
0.6% Decrease from 2021

Healthcare Education and Experience

The Healthcare occupation group offers many job opportunities for active job seekers at all experience levels. A bachelor's degree is the most in-demand education level in Q2, with 2,474 postings. A high school diploma or equivalent is the second most in-demand education level (2,010 postings). Many postings from this occupation group do not request any specific experience and education level.

Education	Percent
No Education Listed	41.6%
High school or GED	20.9%
Associate's degree	19.8%
Bachelor's degree	25.8%
Master's degree	6.7%
Ph.D. or professional degree	4.3%

Experience	Percent
No Experience Listed	58.1%
0 - 1 Years	17.3%
2 - 3 Years	19.6%
4 - 6 Years	4.5%
7 - 9 Years	0.2%
10+ Years	0.3%

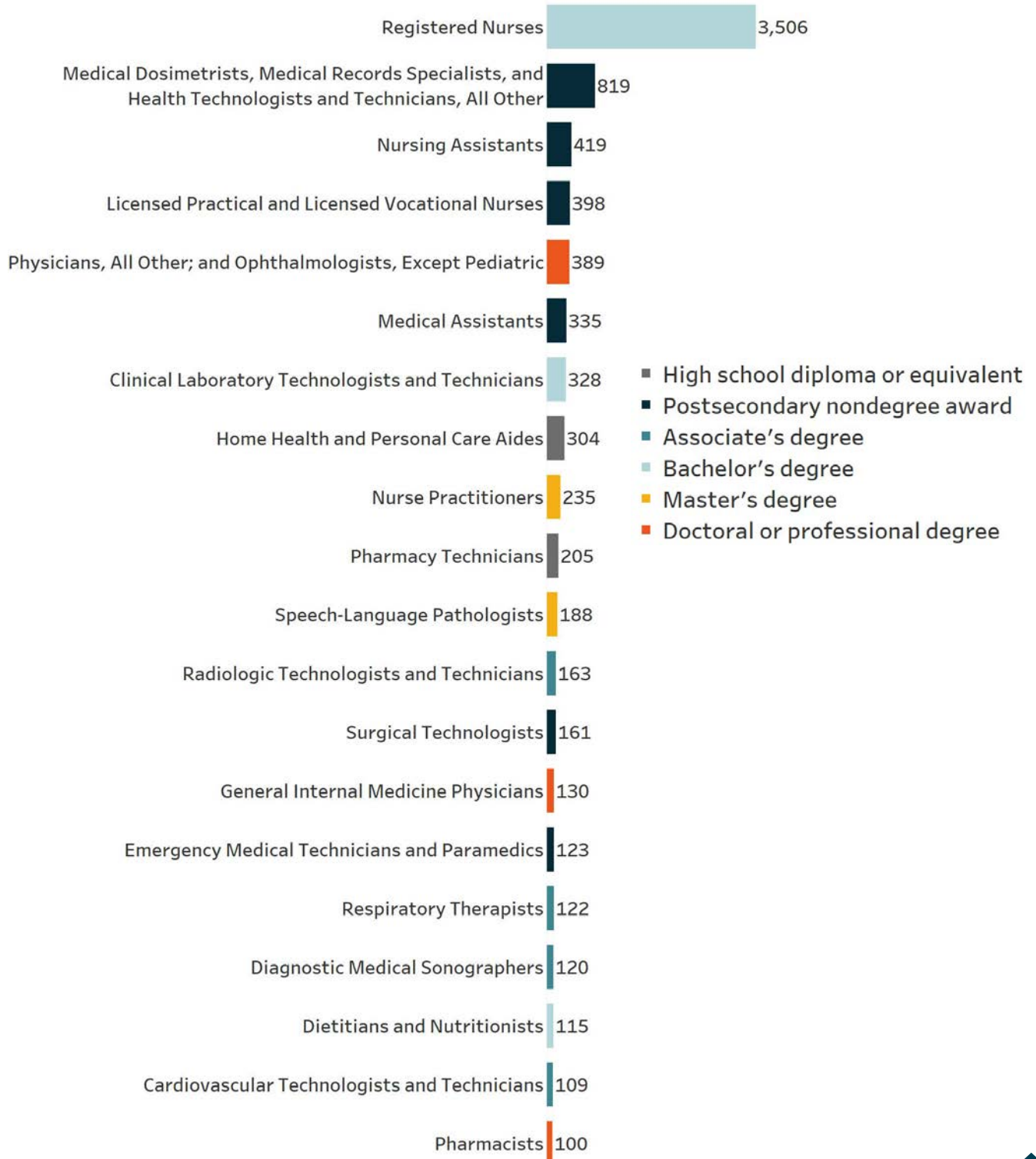*Data: Emsi | Analysis: Workforce Intelligence Network*

HEALTHCARE OCCUPATION GROUP

Top Posted Jobs

Registered Nurses were the highest in-demand Healthcare occupation with 3,506 total postings, a number significantly higher than all of the other occupations. A bachelor's degree is the most in-demand education level amongst healthcare occupations, indicated in 26 percent of postings. A high school diploma or equivalent accounts for 21 percent of posting requirements. Other top posted jobs include Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other (819 postings), Nursing Assistants (419 postings), Licensed Practical and Licensed Vocational Nurses (398) and Physicians, All Other; and Ophthalmologists, Except Pediatric (389).

Occupation	Postings
Registered Nurses	3,506
Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	819
Nursing Assistants	419
Licensed Practical and Licensed Vocational Nurses	398
Physicians, All Other; and Ophthalmologists, Except Pediatric	389
Medical Assistants	335
Clinical Laboratory Technologists and Technicians	328
Home Health and Personal Care Aides	304
Nurse Practitioners	235
Pharmacy Technicians	205
Speech-Language Pathologists	188
Radiologic Technologists and Technicians	163
Surgical Technologists	161
General Internal Medicine Physicians	130
Emergency Medical Technicians and Paramedics	123
Respiratory Therapists	122
Diagnostic Medical Sonographers	120
Dietitians and Nutritionists	115
Cardiovascular Technologists and Technicians	109
Pharmacists	100

Legend:
- High school diploma or equivalent
- Postsecondary nondegree award
- Associate's degree
- Bachelor's degree
- Master's degree
- Doctoral or professional degree

HEALTHCARE OCCUPATION GROUP

Wage Overview

Wages in Healthcare are generally higher than the state median hourly wage of $21.73, with pay increasing in line with required education, training, and experience for Healthcare's top jobs. Registered Nurses, the top posted healthcare job in Q2, offers a median hourly wage of $37.15 ($77,272 annually). Although many positions require an associate degree or higher, there are several jobs above the state minimum wage open to those with a high school diploma or equivalent.

Wage Overview for Top Posted Healthcare Jobs in Q2 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	$27.88	$31.55	$37.15	$43.13	$49.51
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	$14.56	$17.39	$21.68	$29.10	$36.19
31-1131	Nursing Assistants	$12.54	$13.74	$15.55	$17.89	$19.44
29-2061	Licensed Practical and Licensed Vocational Nurses	$20.96	$24.13	$27.04	$29.67	$31.44
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	$26.33	$28.36	$31.81	$103.63	$117.60
31-9092	Medical Assistants	$13.62	$15.34	$17.58	$19.56	$22.35
29-2018	Clinical Laboratory Technologists and Technicians	$15.08	$18.18	$27.44	$34.88	$39.31
31-1128	Home Health and Personal Care Aides	$10.66	$11.28	$12.33	$14.24	$16.42
29-1171	Nurse Practitioners	$43.30	$47.02	$53.40	$61.72	$69.01
29-2052	Pharmacy Technicians	$11.64	$13.95	$17.05	$20.06	$23.55

In-Demand Technical Skills

- Nursing
- Nursing Care
- Patient Preparation
- Cardiopulmonary Resuscitation (CPR)
- Medical Records

In-Demand Foundational Skills

- Communications
- Leadership
- Management
- Teaching
- Customer Service

In-Demand Certifications

- Basic Life Support (BLS) Certification
- Bachelor Of Science in Nursing (BSN)
- Advanced Cardiovascular Life Support (ACLS) Certification
- Licensed Practical Nurse
- Certified Nursing Assistant

In-Demand Education Level*

- High School Diploma: 20.9%
- Associate Degree: 19.8%
- Bachelor's Degree: 25.8%
- Master's Degree: 6.7%
- Ph.D. Or professional Degree: 4.3%

Top Posting Employers

- Henry Ford Health System
- Tenet Healthcare
- Tenet
- Ascension
- United States Department of Veterans Affairs
- Regional West Medical Center
- Dmc Sinai Grace Hospital
- Beaumont Health
- West Valley Hospital
- Dmc Children's Hospital of Michigan

Not all job postings indicate the required educational attainment level; the percentages indicated may not total 100 percent.

INFORMATION TECHNOLOGY OCCUPATION GROUP

Information Technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the Information Technology group does not currently employ as many individuals as the other groups here, it is quickly growing.

**Employment Over Time**
2012-2022
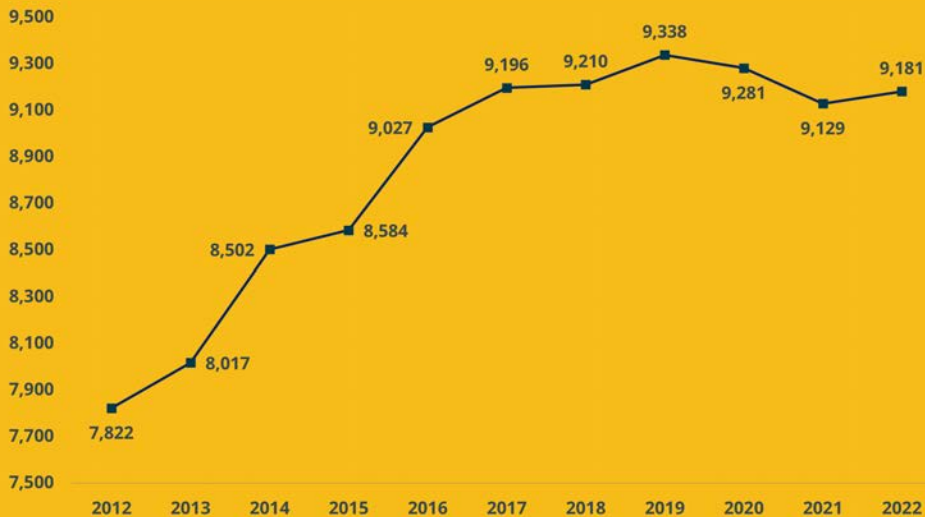
52 Information Technology Workers

0.6% Increase from 2021

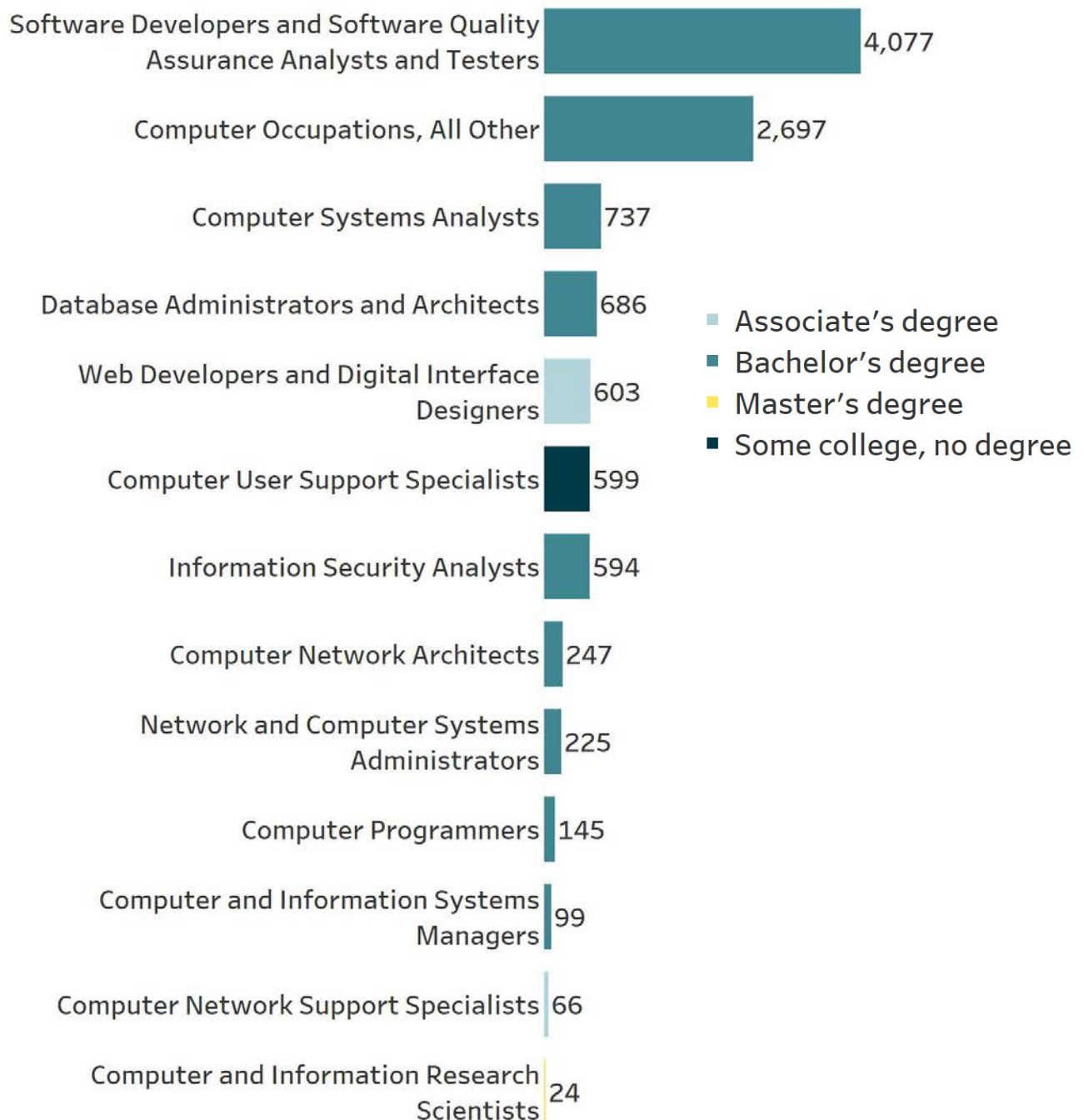## Information Technology Education and Experience

The Information Technology occupation group offers ample opportunities for active job seekers, with 13,275 postings in Q2. A bachelor's degree is the most in-demand education level, with a master's degree the second most required education level. Many IT occupation postings were open to workers with two to three years of experience, with 2,877 postings. Workers with four to six years of experience are also heavily in-demand with 2,402. Although 3,101 postings do not request any specific experience level, 52 postings requested workers with zero to one year of experience.

Data: Emsi | Analysis: Workforce Intelligence Network
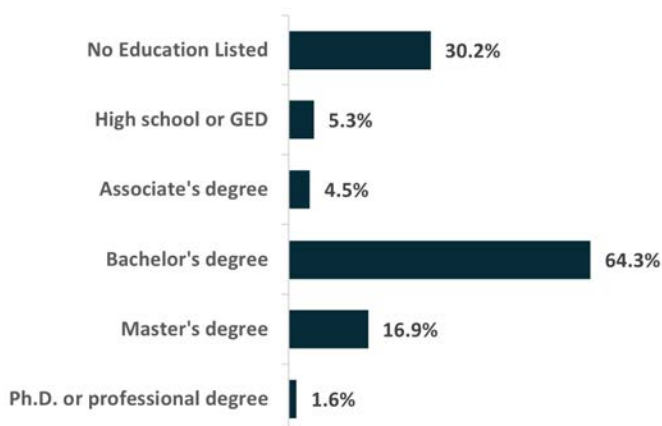
INFORMATION TECHNOLOGY OCCUPATION GROUP

Top Posted Jobs

Software Developers and Software Quality Assurance Analysts and Testers were the highest in-demand IT occupation in Q2, with 4,077 total postings. Computer Occupations, All Other, which encompasses emerging occupations such as Database Architects, Web Administrators, and Search Marketing Strategists was next most in-demand with 2,697 total postings. While most of the top jobs require a bachelor's degree, Web Developers and Digital Interface Designers (603 postings) typically require an associate degree while Computer User Support Specialists (599 postings) prefer some college education, but do not require a degree.

Occupation	Postings
Software Developers and Software Quality Assurance Analysts and Testers	4,077
Computer Occupations, All Other	2,697
Computer Systems Analysts	737
Database Administrators and Architects	686
Web Developers and Digital Interface Designers	603
Computer User Support Specialists	599
Information Security Analysts	594
Computer Network Architects	247
Network and Computer Systems Administrators	225
Computer Programmers	145
Computer and Information Systems Managers	99
Computer Network Support Specialists	66
Computer and Information Research Scientists	24

Legend:
- Associate's degree
- Bachelor's degree
- Master's degree
- Some college, no degree

INFORMATION TECHNOLOGY OCCUPATION GROUP

Wage Overview

Most IT jobs offer high wages, making for a lucrative opportunity for job seekers able to obtain the additional education related to these jobs. Software Developers and Software Quality Assurance Analysts and Testers, the top posted IT job in Q2, offers a median hourly wage of $47.79 ($99,403 annually). Computer User Support Specialists, which requires some college, no degree, offers a median wage of $20.92 ($43,513 annually).

Wage Overview for Top Posted Information Technology Jobs in Q2 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	$29.56	$37.69	$47.79	$59.31	$69.06
15-1299	Computer Occupations, All Other	$21.39	$29.53	$41.04	$52.76	$63.84
15-1211	Computer Systems Analysts	$31.78	$38.72	$48.68	$60.96	$73.59
15-1245	Database Administrators and Architects	$27.03	$33.14	$46.81	$59.36	$67.73
15-1257	Web Developers and Digital Interface Designers	$18.59	$26.26	$36.25	$45.70	$55.35
15-1232	Computer User Support Specialists	$15.17	$17.50	$20.92	$28.70	$36.05
15-1212	Information Security Analysts	$29.75	$38.10	$48.71	$60.22	$69.99
15-1241	Computer Network Architects	$30.17	$44.07	$57.59	$69.32	$81.65
15-1244	Network and Computer Systems Administrators	$27.27	$34.34	$41.97	$51.41	$61.36
15-1251	Computer Programmers	$22.18	$26.49	$37.58	$49.40	$60.96

In-Demand Technical Skills

- Computer Science
- Agile Methodology
- SQL (Programming Language)
- Amazon Web Services
- Software Development

In-Demand Foundational Skills

- Communications
- Management
- Leadership
- Problem Solving
- Troubleshooting (Problem Solving)

In-Demand Certifications

- Certified Information Systems Security Professional
- Project Management Professional Certification
- Certified Information System Auditor (CISA)
- Master Of Business Administration (MBA)
- Secret Clearance

In-Demand Education Level*

- High School Diploma: 5.3%
- Associate Degree: 4.5%
- Bachelor's Degree: 64.3%
- Master's Degree: 16.9%
- Ph.D. or professional Degree: 1.6%

Top Posting Employers

- Deloitte
- Accenture
- Microsoft
- General Dynamics
- General Motors
- PricewaterhouseCoopers
- Strategic Staffing Solutions
- VMware
- Amazon
- CyberCoders

Not all job postings indicate the required educational attainment level; the percentages indicated may not total 100 percent.

SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

The Skilled Trades and Technicians occupation group includes jobs related to advanced manufacturing. Southeast Michigan has one of the highest demands for skilled trades labor, such as CNC machinists and welders, 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.

Employment Over Time
2012-2022

70 Skilled Trades Workers

0.7% Decrease from 2021

Skilled Trades Education and Experience
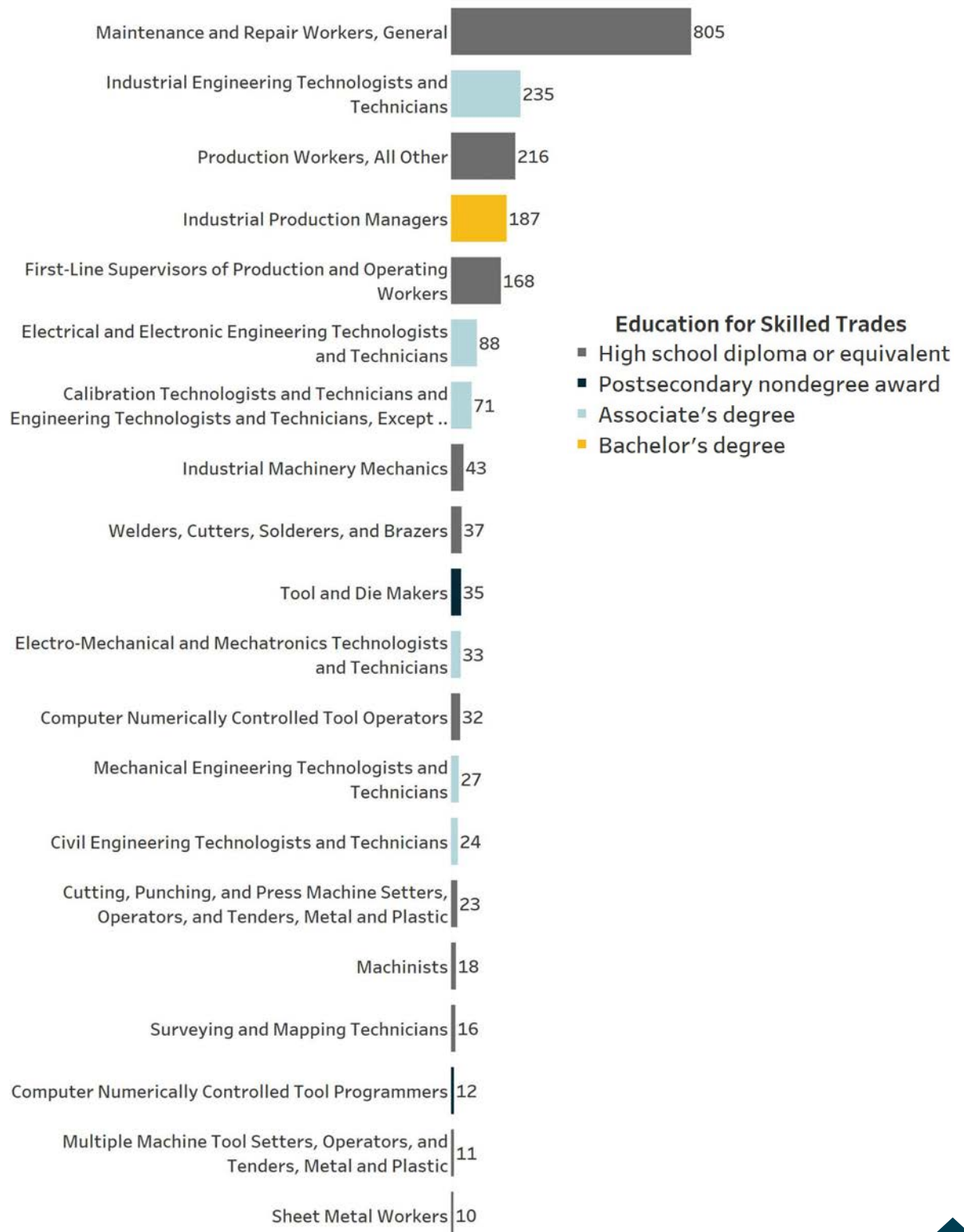
The Skilled Trades occupation group offers many opportunities for active job seekers in southeast Michigan. A high school diploma or equivalent was the most in-demand education level (743 postings), while a bachelor's degree was the second most in-demand education level (386 postings). Many Skilled Trades occupation postings were open to workers with zero to three years of experience.
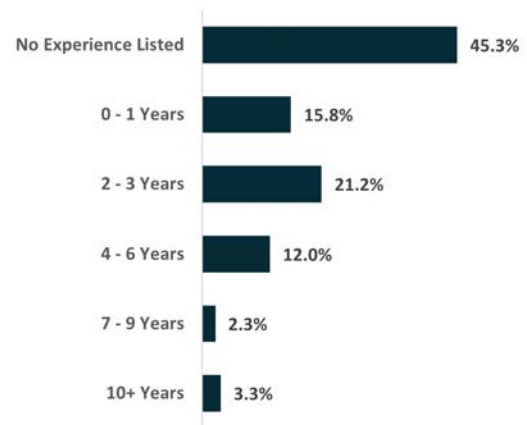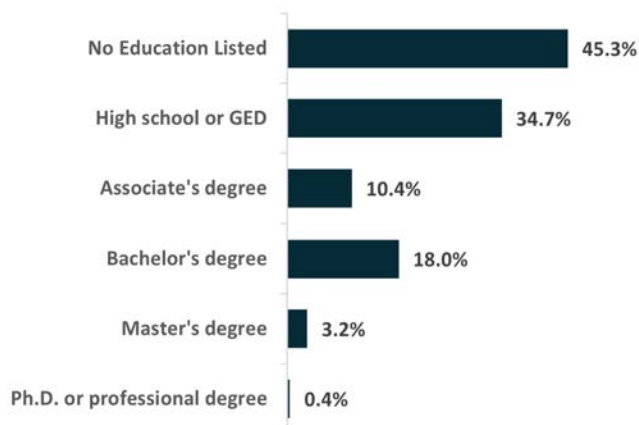
SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Top Posted Jobs

Maintenance and Repair Workers, General was the highest in-demand Skilled Trades occupation during Q2 (805 postings). Other top posted jobs include Industrial Engineering Technologists and Technicians (235 postings), Production Workers, All Other (216 postings), Industrial Production Managers (187 postings), and First-Line Supervisors of Production and Operating Workers (168 postings). The majority of this occupation group's top posted jobs required a high school diploma or equivalent and offered moderate to long-term on-the-job training in lieu of experience.

Occupation	Postings
Maintenance and Repair Workers, General	805
Industrial Engineering Technologists and Technicians	235
Production Workers, All Other	216
Industrial Production Managers	187
First-Line Supervisors of Production and Operating Workers	168
Electrical and Electronic Engineering Technologists and Technicians	88
Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except ..	71
Industrial Machinery Mechanics	43
Welders, Cutters, Solderers, and Brazers	37
Tool and Die Makers	35
Electro-Mechanical and Mechatronics Technologists and Technicians	33
Computer Numerically Controlled Tool Operators	32
Mechanical Engineering Technologists and Technicians	27
Civil Engineering Technologists and Technicians	24
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	23
Machinists	18
Surveying and Mapping Technicians	16
Computer Numerically Controlled Tool Programmers	12
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	11
Sheet Metal Workers	10

Education for Skilled Trades
- High school diploma or equivalent
- Postsecondary nondegree award
- Associate's degree
- Bachelor's degree

SKILLED TRADES AND TECHNICIANS OCCUPATION GROUP

Wage Overview

Seven of the top ten in-demand Skilled Trades occupation offer median hourly wages above $20. Maintenance and Repair Workers, General, the top posted Skilled Trades job in Q2, offered a median hourly wage of $18.86, ($39,228 annually). Job seekers can expect to see a significant shift in wages based on experience and education requirements: Industrial Production Managers requires an additional five years or more of work experience and offers a median hourly wage of $56.74 ($118,019 annually).

Wage Overview for Top Posted Skilled Trades Jobs in Q2 2022

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
49-9071	Maintenance and Repair Workers, General	$12.71	$15.41	$18.86	$24.85	$30.77
17-3026	Industrial Engineering Technologists and Technicians	$19.41	$23.47	$28.57	$35.57	$42.35
51-9199	Production Workers, All Other	$10.05	$11.30	$13.56	$17.68	$23.39
11-3051	Industrial Production Managers	$34.06	$44.21	$56.74	$71.68	$89.16
51-1011	First-Line Supervisors of Production and Operating Workers	$19.65	$24.95	$32.79	$41.90	$52.82
17-3023	Electrical and Electronic Engineering Technologists and Technicians	$19.52	$24.56	$30.67	$35.34	$39.93
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	$17.75	$23.97	$35.47	$44.37	$52.36
49-9041	Industrial Machinery Mechanics	$16.88	$21.11	$26.49	$32.12	$38.06
51-4121	Welders, Cutters, Solderers, and Brazers	$13.61	$16.41	$19.95	$24.13	$29.73
51-4111	Tool and Die Makers	$16.50	$21.16	$27.43	$33.60	$37.35

In-Demand Technical Skills

- Field Service Management
- Plumbing
- Machinery
- Hand Tools
- Preventive Maintenance

In-Demand Foundational Skills

- Communications
- Troubleshooting (Problem Solving)
- Customer Service
- Management
- Valid Driver's License

In-Demand Certifications

- Commercial Driver's License (CDL)
- HVAC Certification
- Automotive Service Excellence (ASE) Certification
- Master Of Business Administration (MBA)
- Project Management Professional Certification

In-Demand Education Level*

- High School Diploma: 34.7%
- Associate Degree: 10.4%
- Bachelor's Degree: 18.0%
- Master's Degree: 3.2%

Top Posting Employers

- Consumers Energy
- Diverse Staffing
- Xcel Staffing
- H.B. Fuller
- Dawn Food Products
- Schneider Electric
- The Related Group
- Elm Plating Company
- Eaton Corporation
- U. S. Staffing

Not all job postings indicate the required educational attainment level; the percentages indicated may not equal 100 percent.

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