

# ST. CLAIR COUNTY

## WIN Quarterly Report



# Introduction: St. Clair County

## Introduction

The Workforce Intelligence Network (WIN) partnership is a collaboration of Michigan Works! Agencies (MWAs) and community colleges across a 16 county region in Michigan. The counties in the 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. Prosperity Region 6 includes: St. Clair, Genesee, Shiawassee, Huron, Lapeer, Tuscola, and Sanilac counties.

This report highlights labor market information and real-time job posting data for St. Clair County with special sections devoted to 5 occupational groups. WIN's analysis of online job postings, a proxy for employer demand, is a pioneering method for tracking the health of the labor market.

Occupational groups include:

- Skilled trades (page 7)
- Customer service (formerly retail & hospitality) (page 12)
- Information technology (page 17)
- Health care (page 22)
- Energy (page 27)

Data analyzed includes:

- Employer demand
- Top posting jobs
- In-demand credentials, degrees, and skills
- Educational attainment required
- Wages offered in job postings
- Employment
- Unemployment
- Labor force



# Introduction: St. Clair County

## Key findings

### 1. **St. Clair County employment and labor force increase during Q3 2016.**

Employment in St. Clair County grew 1.3% during the recent quarter. The labor force grew as well with 1.7% more people participating in the workforce. Although unemployment rose by 0.4% this indicates a strengthening of the labor market for St. Clair County with higher employment and labor force participation. (See page 4 for details).

### 2. **Employer demand, as gauged by online job postings, seems to have started to increase after leveling off.**

Within Q3 2016, employer demand increased 26%, reaching 2,239 postings. This is the second time postings have broken 2,000 postings within the past year, only after a large spike in 2013. 2016 has seen growth overall in demand through the year and could indicate employer demand starting an upward trend. (See page xx for details).

### 3. **Employer demand for the Skilled Trades occupations increased 33% between Q2 and Q3 2016.**

While each occupation group analyzed in this report either saw postings or remain the same as last quarter, Health care and Skilled Trades postings both increased by 28% and 33% respectively. These increases in employer demand for occupation groups could indicate overall demand increasing in St. Clair County.

### 4. **The Information Technology (IT) occupation group in St. Clair County continues to see stagnant employer demand.**

Employers in St. Clair County posted the same amount of IT job ads in Q3 as they did in Q2 2016. The negligible growth in employment for IT occupations over the past few years, however, may indicate that local employers are struggling to find qualified workers. (See page 17 for details).

### 5. **Majority of occupation groups searching for applicant with less than 5 years of experience.**

While a large majority of Energy related job postings sought applicants with more than 6 years of experience, the other four occupation groups had high demand for workers with less than five years prior experience. Skilled trades, Health Care, and Customer Service related postings had a large majority of postings available to entry level applicants with 0 to 2 years of experience.



## Executive Summary

### Postings over time

Employers in St. Clair County posted 2,259 online job ads between July and September 2016, up over the 1,788 job ads seen in Q2 2016. Employer demand, approximated by these online postings, has leveled off at quarterly posting averages between 1,500 and 1,800 after a spike at 4,541 online job postings in Q3 2013, indicating, employer demand may be starting to increase.

### WIN Region Online Job Postings



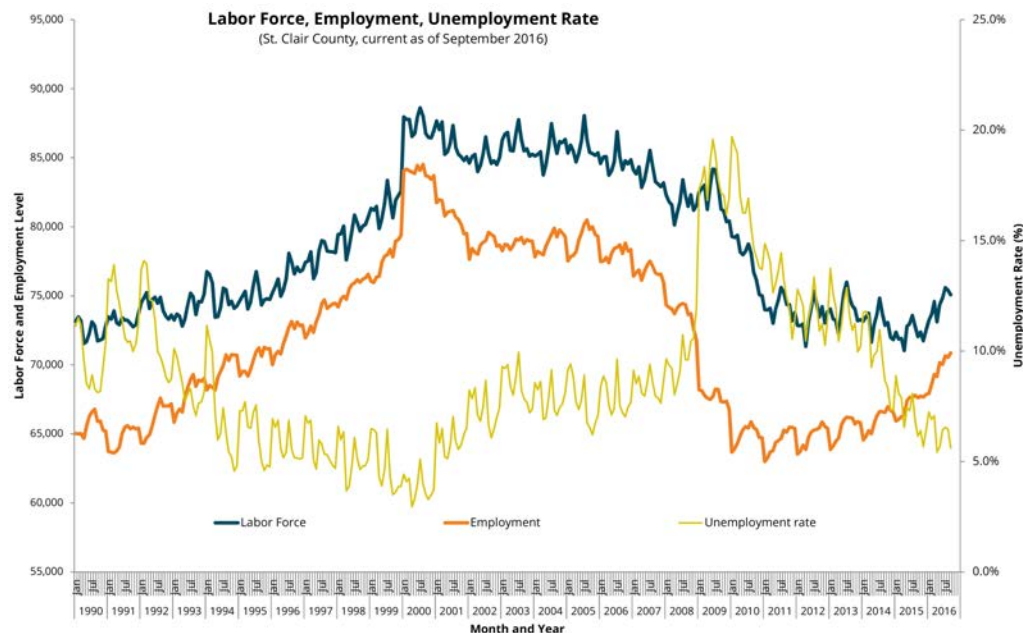
Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Labor force/employment/unemployment

Employment in St. Clair County grew 1.3% between Q2 and Q3 2016, while the labor force grew at a similar rate of 1.7%. This means that the increase of 898 jobs between Q2 and Q3 can be attributed, largely, to new jobs added in the county. Because employment grew while the labor force grew, the county's unemployment rate increased 0.4 percentage points between quarters, from 5.8% in Q2 to 6.2% in Q3. Overall, the unemployment rate in the county has decreased from 16.4% in 2010 and employment has grown by over 3,000 jobs in the same time period.

### Labor Force, Employment, Unemployment Rate

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

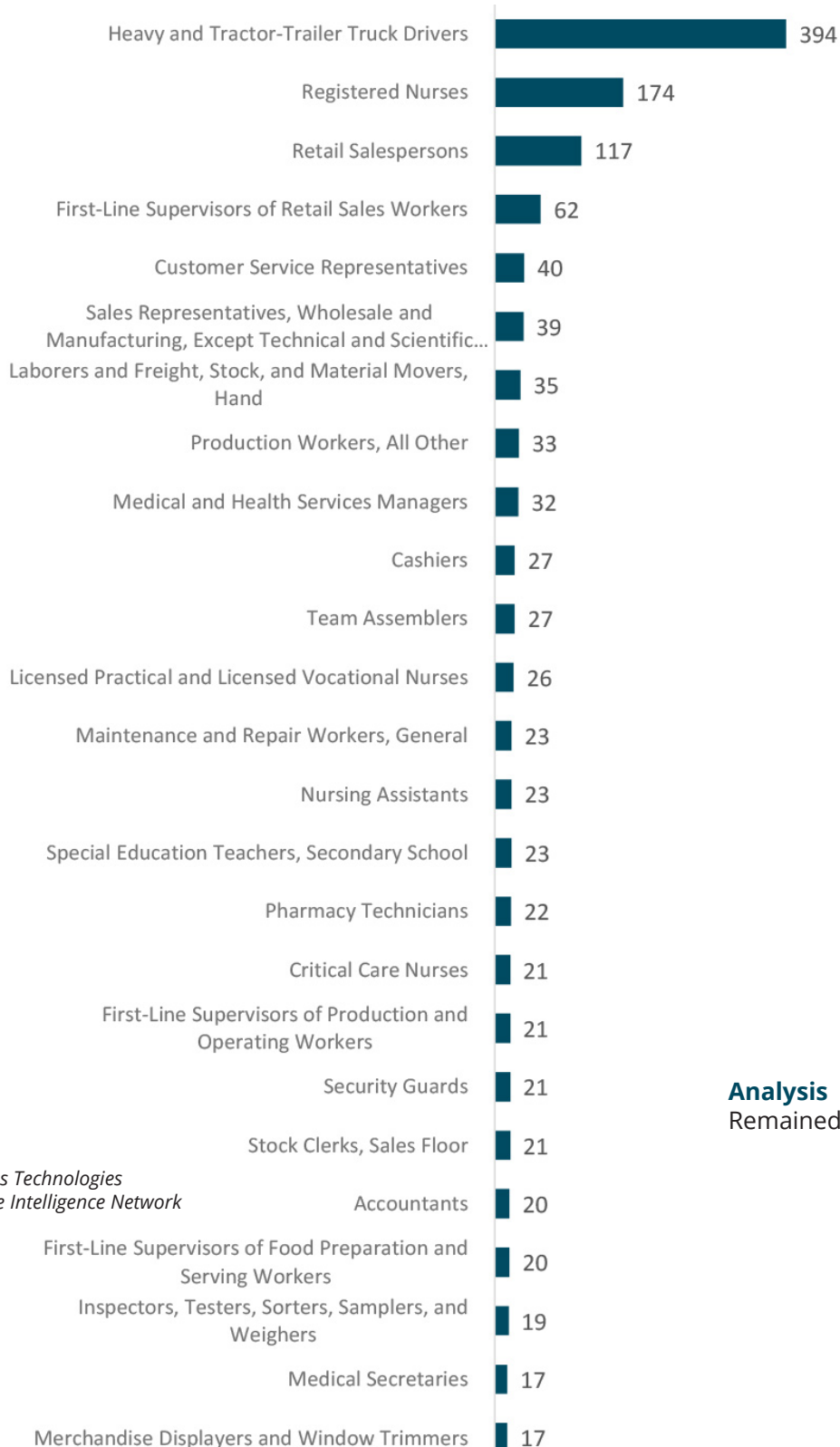


Most in-demand: truck drivers



6.2% quarterly unemployment rate

### Top Jobs Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

**Analysis**  
Remained Unchanged



Now hiring: 2,250 job postings



Demand for: TDL, Health Care,  
and Customer Service workers

### Top Jobs

Quarter 3 2016

Manufacturing Engineers	16
Combined Food Preparation and Serving Workers, Including Fast Food	15
Managers, All Other	15
Sales Agents, Financial Services	15
Purchasing Agents, Except Wholesale, Retail, and Farm Products	14
Demonstrators and Product Promoters	13
Family and General Practitioners	13
Medical Assistants	13
Mechanical Engineers	12
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	11
Emergency Medical Technicians and Paramedics	11
Human Resources Specialists	11
Industrial Engineers	11
Software Developers, Applications	11
Electrical Engineers	10
Loan Interviewers and Clerks	10
Medical and Clinical Laboratory Technicians	10
Office Clerks, General	10
Physicians and Surgeons, All Other	10
Tellers	10
Driver/Sales Workers	9
Electricians	9
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	9
Pharmacists	9
Stock Clerks- Stockroom, Warehouse, or Storage Yard	9

Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Analysis

Remained Unchanged



# Customer Service

## Introduction

### Customer Service

The customer service group is the largest occupational group that WIN analyzes, both in terms of employment and online job postings. This group is of very high importance to the region because it is the first to grow when the economy expands and the first to contract in a downturn: it is often a leading indicator. As defined by WIN, this group encompasses all customer service occupations, with skills transferable across the retail sector, the hotel industry, food and beverage service industry, call centers, and other areas.

### Online Job Postings



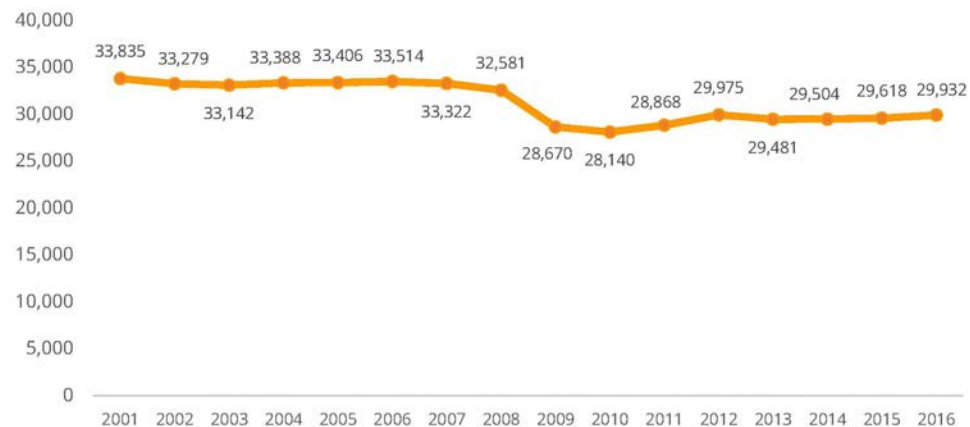
Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Job Posting Analysis

Online job postings for Customer Service occupations in St. Clair County were up 17% in Q3 to 474 postings, from 405 in Q2 2016. The number of postings that St. Clair area employers post for Customer Service workers fluctuates each quarter, but postings overall continue trending downward since a peak in demand in Q3 2013 at 1,134 postings.

### Employment Over Time

Quarter 3 2016



Data: EMSI  
Analysis: Workforce Intelligence Network

### Employment Analysis

Employment in the Customer Service occupations in St. Clair County is around 29,932 in 2016. Pre-recession employment numbers hovered around 33,000 and dipped to 28,140 in 2010, at the lowest point. The 29,932 employees in 2016 represent a 6% increase over the 2010 low. Customer Service employment, however, has not grown much since reaching the 29,000 mark again in 2012.

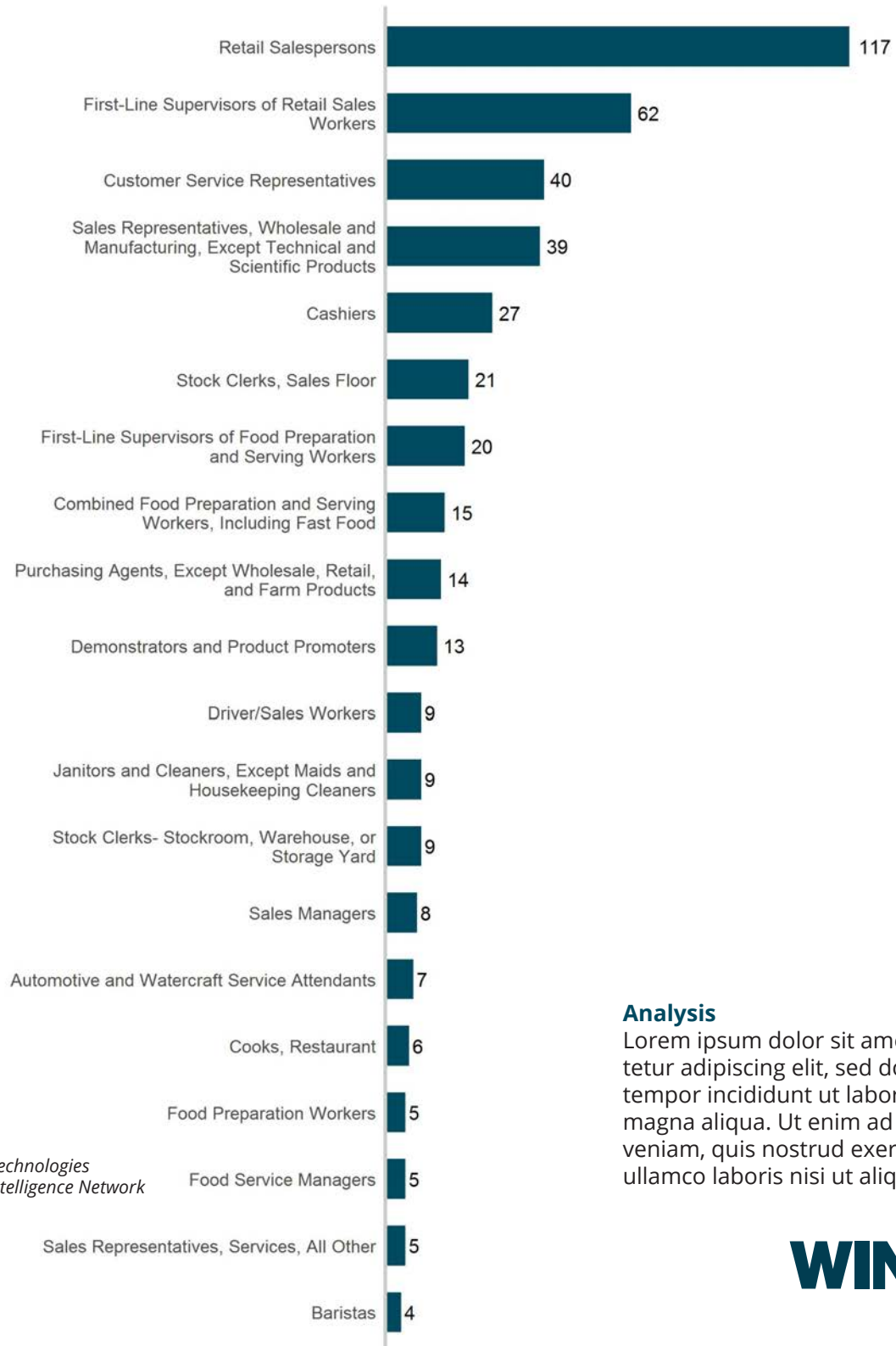


1474 Customer Service job ads



30,000 Customer Service workers

### Customer Service Top Jobs Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

#### Analysis

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea.



Knowledge area: Business,  
engineering

34%

full-time positions

### Customer Service Educational Attainment Required

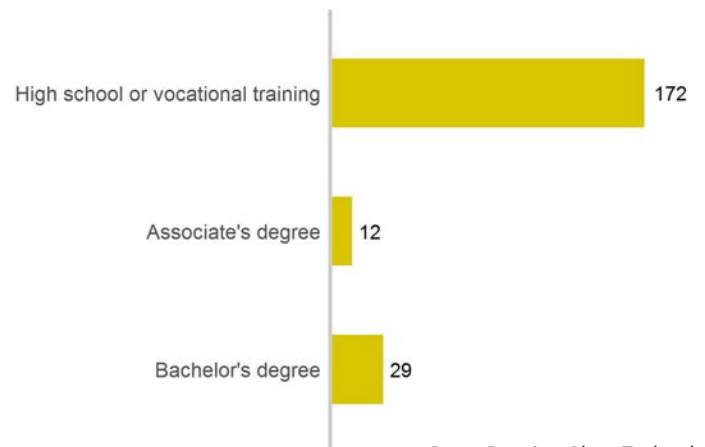
Of the 474 online job ads posted for Customer Service occupations in St. Clair County, 213 specified a desired minimum level of educational attainment for job applicants. Most Customer Service group jobs are available to workers with a high school diploma and/or some vocational training (172 postings). Twenty-nine job postings required a bachelor's degree – in the Customer Service group, these are likely for supervisory roles and higher-level sales representative jobs that may require knowledge of technical products such as auto sales.

Similarly, 213 Customer Service job postings specified the level of experience required for candidates. Again, most Customer Service jobs do not require extensive experience, with 111 ads open to entry level applicants with 0 to 2 years of experience. The 9 job ads that required more than 9 years of experience are likely for occupations like sales managers.

### Degrees and Certifications Required

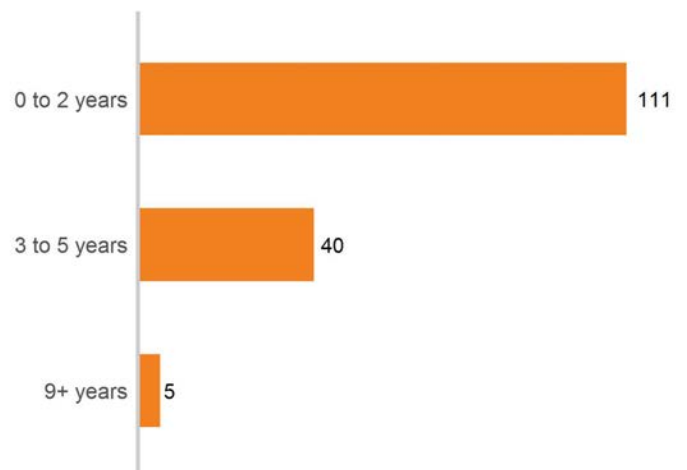
- Business Administration and Management, General
- Engineering, General
- Chemistry
- Chemical Engineering
- Culinary Arts/Chef Training

### Educational Attainment



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Experience Required



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Mean advertised salary:  
\$65,838

%

Most top jobs require just high  
school diploma

### Customer Service in-Demand Skills

St. Clair County employers looking to hire Customer Service workers in Q3 2016 were focused on recruiting for baseline skills that include communication, organizational skills, and time management. More specialized skills and experiences being sought included previous experience with customer service in a retail setting, store management, merchandising, and cash handling.

#### Technical in-Demand Skills

- Sales, Product sales
- Customer service, experience in a retail setting
- Store management, supervisory skills
- Merchandising
- Customer Contact

#### Foundational In-Demand Skills

- Communication skills
- Mathematics
- Organizational skills
- Writing
- Multi-Tasking/ Time Management

#### Job Type

- Temporary: 9.9%
- Full-Time: 34.4%
- Part-Time: 25.5%

#### Certifications Required

- Automotive Service Excellence (ASE)
- Alcohol server certification
- Forklift Operator Certification
- Insurance License
- Series 6



Most top jobs require less than 2-years experience



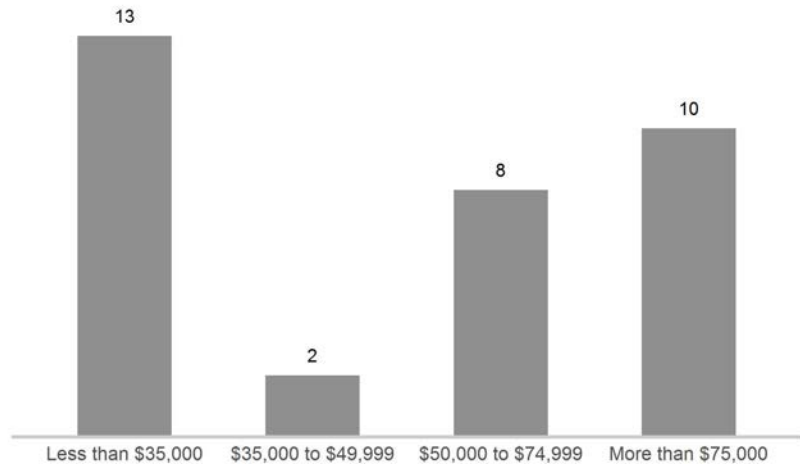
In-demand: serving certifications & ASE

### Customer Service Wages

Just 33 of the 474 Customer Service jobs postings in St. Clair during Q3 2016 specified a salary range or hourly wage. The majority of those postings (13 ads) stated wages that equate to annual earnings less than \$35,000, or wages less than \$17 per hour. 18 postings did offer over \$50,000 dollars a year in job postings but these are likely for supervisory positions or more technical sales workers. Wage data from the Bureau of Labor Statistics confirms the trend from the postings. Seven of the top 10 in-demand jobs in the group have median wages less than \$17 per hour.

### Advertised Wages in Job Postings

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-2031	Retail Salespersons	\$8.15	\$8.70	\$9.82	\$12.72	\$18.53
41-1011	First-Line Supervisors of Retail Sales Workers	\$10.82	\$13.37	\$17.07	\$22.08	\$27.65
43-4051	Customer Service Representatives	\$8.16	\$10.09	\$13.24	\$16.82	\$21.28
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$10.89	\$16.13	\$23.96	\$36.13	\$51.15
41-2011	Cashiers	\$8.15	\$8.64	\$9.48	\$11.35	\$14.79
43-5081	Stock Clerks, Sales Floor	\$8.15	\$8.97	\$10.84	\$13.87	\$17.66
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	\$8.15	\$9.58	\$12.73	\$17.45	\$21.88
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	\$8.15	\$8.48	\$9.02	\$9.59	\$11.62
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$17.34	\$22.54	\$29.09	\$35.96	\$44.17
41-9011	Demonstrators and Product Promoters	\$8.67	\$9.04	\$9.67	\$10.29	\$10.66

Data: EMSI, BLS  
Analysis: Workforce Intelligence Network

## Introduction

### Energy

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.

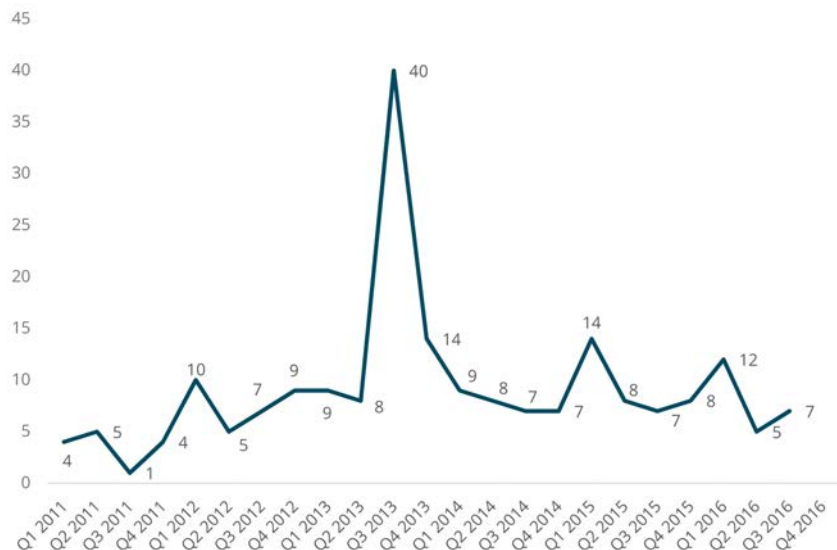
### Job Posting Analysis

St. Clair County employers posted seven online job postings in the Energy occupations during Q3, an increase from five in Q2 2016. Employer demand for these occupations is generally small, with few postings each quarter.

### Employment Analysis

The data presented in the graph to the right represents St. Clair County's total employment in the Energy industries (NAICS 2111, 2131, 2211, 2212, 2371), not just WIN-designated Energy occupations. In 2016, 1,412 workers are employed in these Energy industries in St. Clair County. Employment in these industries dipped slightly, losing about 200 jobs, during the Great Recession but recovered to 1,476 employees in 2014. Employment numbers have, however, decreased both in 2015 and 2016.

### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

Quarter 3 2016



Data: EMSI  
Analysis: Workforce Intelligence Network



Now hiring: 7 Energy job  
postings



Stable employment in Energy  
industries



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

#### Analysis

None of the top jobs from Q2 2016 maintained postings in the third quarter. Air traffic controllers were the highest in-demand job of the occupation group with two job postings.



> \$20/hour: Median Energy wages

%

In-demand skills: Supervisory Skills, Calibration

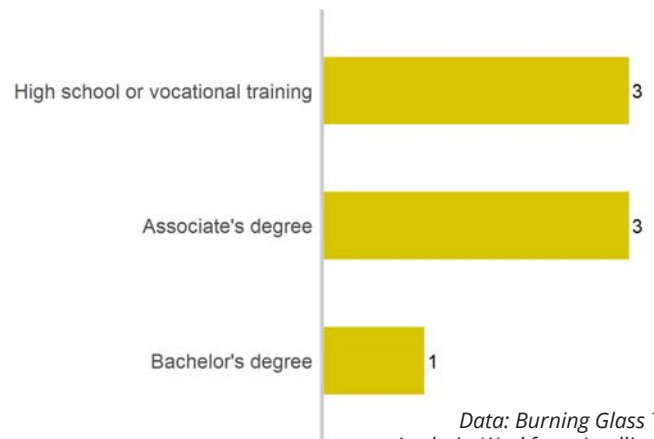
### Energy Educational Attainment Required

Data from Q3 online job postings show that many Energy jobs open in St. Clair County are available to workers with a high school diploma and some vocational training (three postings). An additional three job postings this quarter sought candidates with an associate's degree. There was one posting for applicants with a bachelor's degree, most likely for the in-demand manager occupations. Seven job posting from Q3 specified a desired level of experience with three postings searching for applicants with less than 5 years of experience.

### Degrees and Certifications Required

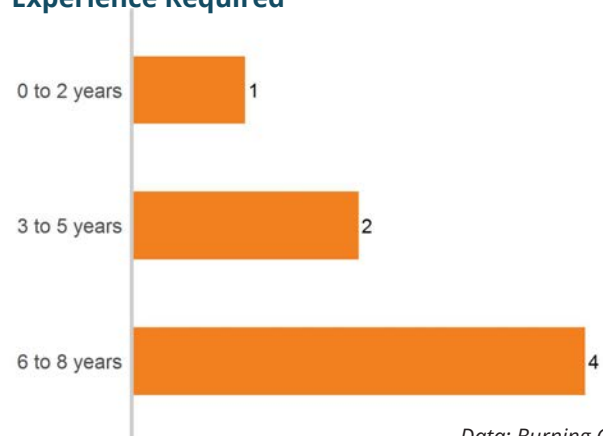
- Engineering, General
- Electrical and Electronic Engineering Technologies/Technicians, Other
- Mechanical Engineering
- Business Administration and Management, General
- Communication, General

### Educational Attainment



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Experience Required



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Foundational skills demanded:  
Problem Solving, communication

%

Knowledge areas: engineering,  
business, communications

### Energy in-Demand Skills

Baseline, employability skills for Energy occupations in St. Clair County include communication skills, computer skills, and organizational skills. Employers looking to hire workers for Energy occupations during Q3 2016 sought candidates with experience in budget preparation and supervisory skills.

#### Technical in-Demand Skills

- Supervisory Skills
- Calibration
- Programmable Logic Controller (PLC) Programming
- Project Management
- Repair

#### Foundational In-Demand Skills

- Problem Solving
- Communication Skills
- Organizational Skills
- Planning
- Preventive Maintenance/ Trouble Shooting

#### Job Type

- Temporary: data not available
- Full-Time: data not available
- Part-Time: data not available

#### Certifications Required

- American Board for Engineering and Technology (ABET)



## ABET Certification Demanded



## Experienced workers In-Demand

### Energy Wages

No Energy job postings from Q3 2016 advertised a wage or salary range. In the absence of this data, wage data from the Bureau of Labor Statistics show that many of the in-demand Energy occupations in St. Clair County pay high wages. Two of the top five occupations can expect wages greater than \$25 per hour, or \$52,000 annually, at the median.

### Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
53-2021	Air Traffic Controllers	N/A	N/A	N/A	N/A	N/A
49-3011	Aircraft Mechanics and Service Technicians	N/A	N/A	N/A	N/A	N/A
49-3023	Automotive Specialty Technicians	\$9.14	\$10.62	\$17.40	\$24.48	\$29.14
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	\$18.08	\$20.84	\$29.69	\$34.75	\$39.78
11-9161	Emergency Management Directors	N/A	N/A	N/A	N/A	N/A
17-2199	Engineers, All Other	\$18.17	\$32.00	\$41.16	\$50.97	\$62.59

Data: EMSI, BLS

Analysis: Workforce Intelligence Network

## Introduction

### Health Care

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.

### Job Posting Analysis

Along with Customer Service, Health Care is one of the largest occupation groups in St. Clair County. Employers in the county posted 466 online job postings for Health Care workers during Q3. This is a large 28% increase from the 365 postings seen in Q2 2016. Overall, employer demand in the Health Care occupations continues to grow in St. Clair County, like in much of southeast Michigan. Q3 2016 also marks the highest quarterly demand for Health Care occupations over the past 5 years.

### Employment Analysis

Health Care occupations employed 4,900 workers in St. Clair County during 2015; estimates for 2016 have grown to 4,969. As employer demand, determined by online job ads, has grown steadily over the past 5 years, so has employment.

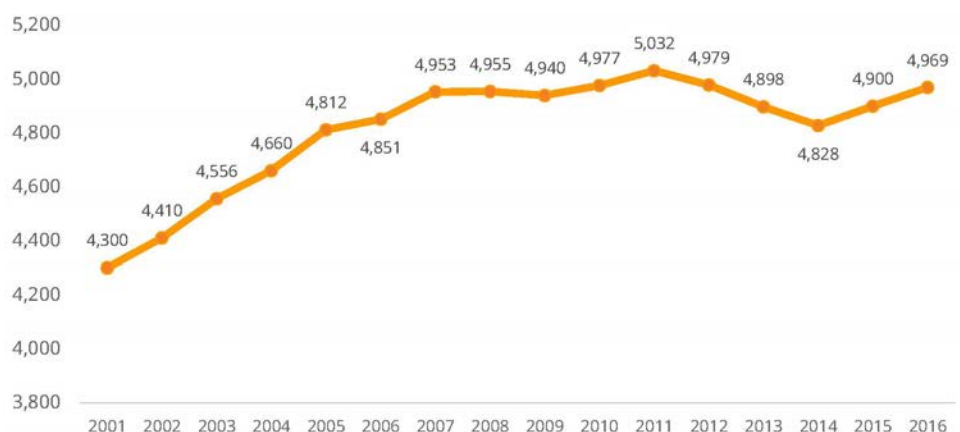
### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

Quarter 3 2016



Data: EMSI  
Analysis: Workforce Intelligence Network



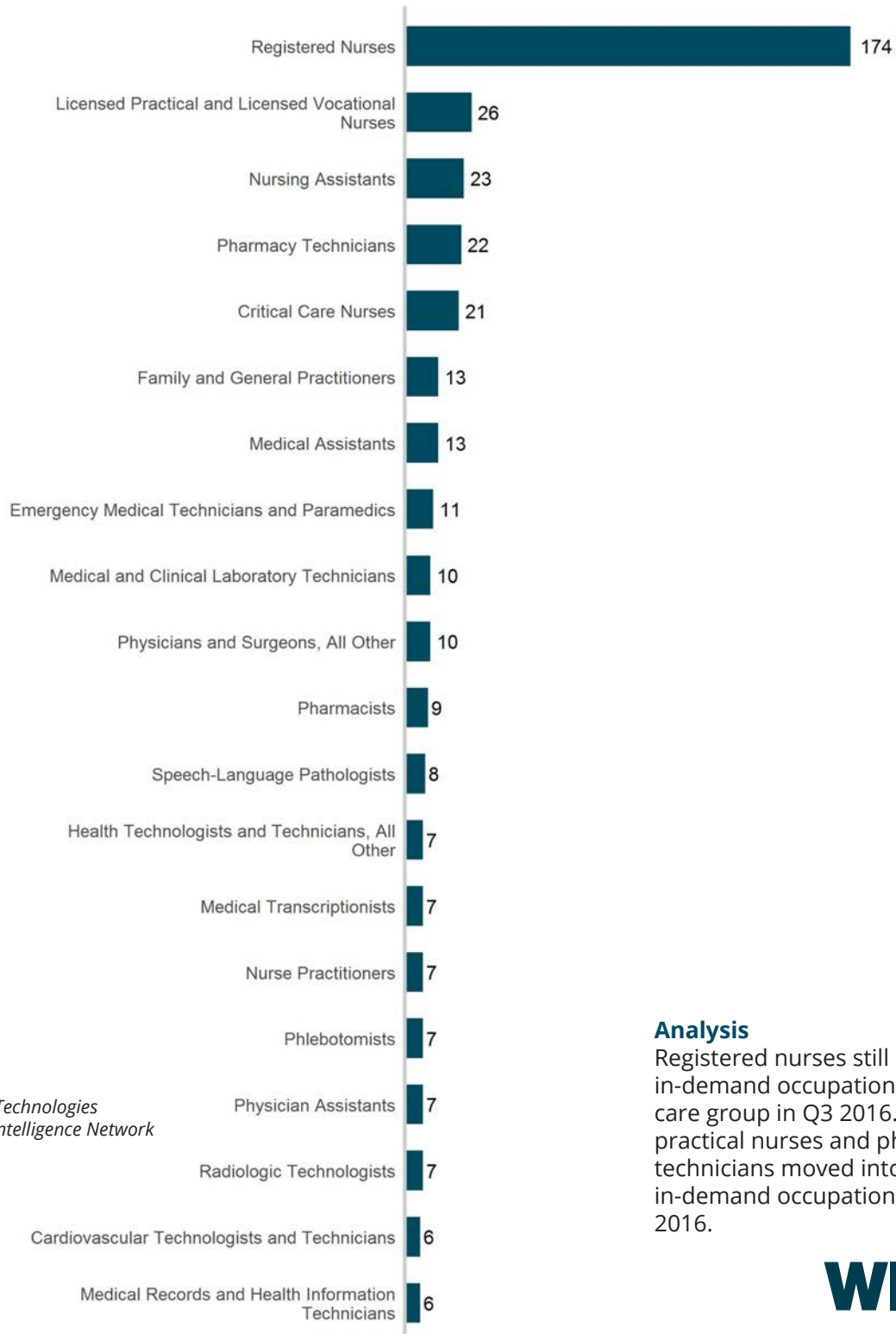
Now hiring: 466 Health Care  
job postings



4,900 Health Care workers

### Health Care Top Jobs

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

#### Analysis

Registered nurses still hold the top in-demand occupation of the health care group in Q3 2016. Licensed practical nurses and pharmacy technicians moved into the top five in-demand occupations during Q3 2016.



\$30/hour for registered nurses

%

Short-term training required

## Health Care Educational Attainment Required

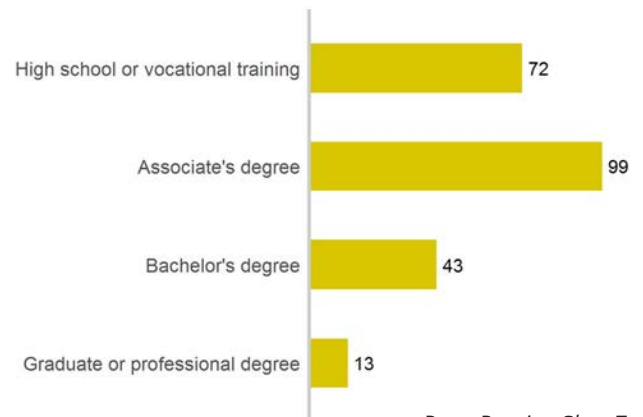
Because occupations like registered nurses and medical assistants are the most in-demand Health Care jobs in St. Clair County, most of Q3 job postings did not require more than some vocational training or an associate's degree. With this in mind, though, a large number of Health Care professions are available to workers with higher education (a bachelor's or graduate degree) and offer higher wages.

Similar to the demand for applicants with vocational training or an associate's degree, most of the Health Care postings in St. Clair County during Q3 were options for workers with less than 2 years of experience. Entry-level workers (194 postings) are able to secure a job as a medical assistant or registered nurse if they are willing to undertake some short-term training or a degree program.

## Degrees and Certifications Required

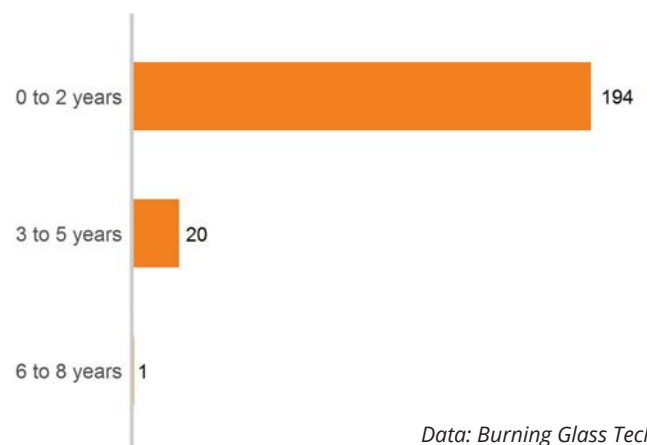
- Nursing Science
- Audiology/Audiologist and Speech-Language Pathology/Pathologist
- Chemistry
- Exercise Physiology
- Physical Therapy/Therapist

## Educational Attainment



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

## Experience Required



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Mean advertised salary:  
\$74,956

%

Associate's degree required

### Health Care in-Demand Skills

St. Clair County workers looking to find a job in the Health Care occupations are expected to have good communication skills, problem solving and decision-making skills, and demonstrated organizational and supervisory ability as a prerequisite for employment. Beyond these foundational skills, Health Care employers are seeking job candidates who have experience with patient care and medical techniques including cardiac life support, surgical services, and CPR.

#### Technical in-Demand Skills

- Patient care, education, and direction
- Advanced Cardiac Life Support (ACLS)
- Acute Care
- Surgical services
- Cardiopulmonary Resuscitation (CPR)

#### Foundational In-Demand Skills

- Communication skills
- Problem solving and decision making
- Planning and organizational skills
- Quality assurance and control
- Teamwork and collaboration

#### Job Type

- Temporary: 4.9%
- Full-Time: 29.0%
- Part-Time: 8.8%

#### Certifications Required

- Registered nurse (RN)
- First Aid CPR AED
- American Heart Association Certificate
- Basic Cardiac Life Support Certification
- Emergency Medical Technician (EMT)



Knowledge areas: nursing,  
audiology, chemistry



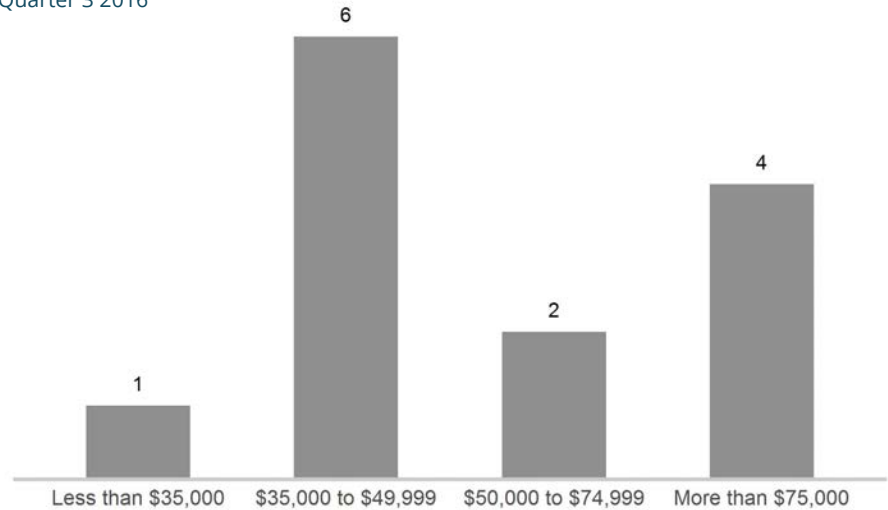
Certifications in-demand: RN,  
CNA, EMT

### Health Care Wages

Only 13 of the 466 Health Care job postings for Q3 advertised a salary range. Of those that did, 6 jobs offered salaries over \$50,000 a year. Data from the Bureau of Labor Statistics show that a job in Health Care, like as a registered nurse, can pay over \$30 per hour at the median, or \$62,400 annually, for a position that generally requires just a two-year degree.

### Advertised Wages in Job Postings

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$22.77	\$26.68	\$30.43	\$34.82	\$49.77
29-2061	Licensed Practical and Licensed Vocational Nurses	\$15.22	\$17.92	\$20.98	\$24.15	\$26.18
31-1014	Nursing Assistants	\$8.88	\$10.31	\$12.15	\$14.15	\$15.82
29-2052	Pharmacy Technicians	\$8.33	\$9.88	\$12.24	\$14.73	\$16.54
29-1141	Critical Care Nurses	\$22.77	\$26.68	\$30.43	\$34.82	\$49.77
29-1062	Family and General Practitioners	\$26.41	\$54.18	\$77.37	\$91.93	\$144.55
31-9092	Medical Assistants	\$9.65	\$11.11	\$12.61	\$14.72	\$16.42
29-2041	Emergency Medical Technicians and Paramedics	\$9.57	\$11.68	\$14.32	\$17.00	\$20.20
29-2012	Medical and Clinical Laboratory Technicians	\$10.61	\$12.13	\$14.64	\$18.86	\$24.61
29-1069	Physicians and Surgeons, All Other	\$24.66	\$68.30	\$82.80	\$99.60	\$156.60

Data: EMSI, BLS  
Analysis: Workforce Intelligence Network



# Information Technology

## Introduction

### Information Technology (IT)

Information technology 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 meet the employment levels of the others, it is quickly growing.

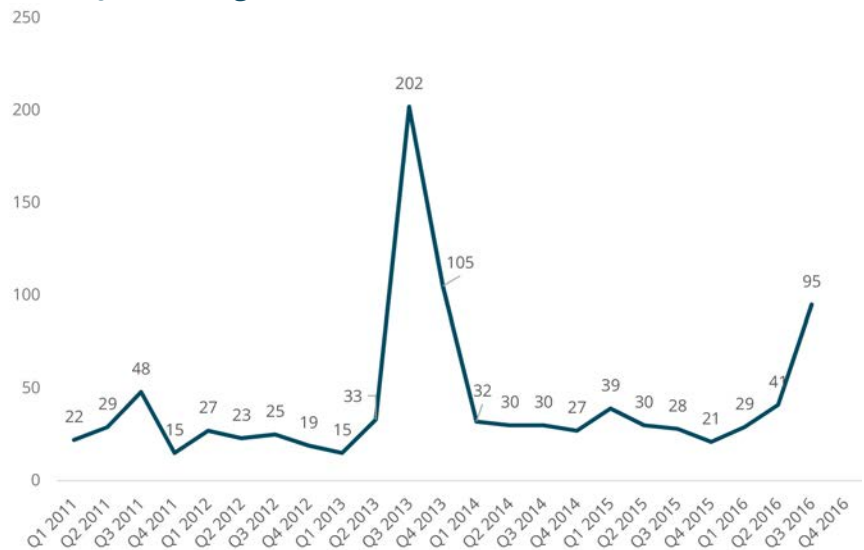
### Job Posting Analysis

St. Clair County employers posted 41 online job ads for Information Technology (IT) workers during Q3 2016. This is the same number of postings in Q2 – quarterly postings for this occupation group have hovered between 20 and 30 since Q1 2014.

### Employment Analysis

Only 593 St. Clair County workers are employed in Information Technology occupations in 2016. While employment in many of the county's other occupation groups has begun to recover post-recession, the 593 employee estimate for 2016 is similar to the 597 employed in 2010 at the trough of Great Recession employment. IT employment rebounded to 640 in 2012 but has decreased every year since, save for the negligible addition of 3 jobs from 2015 to 2016.

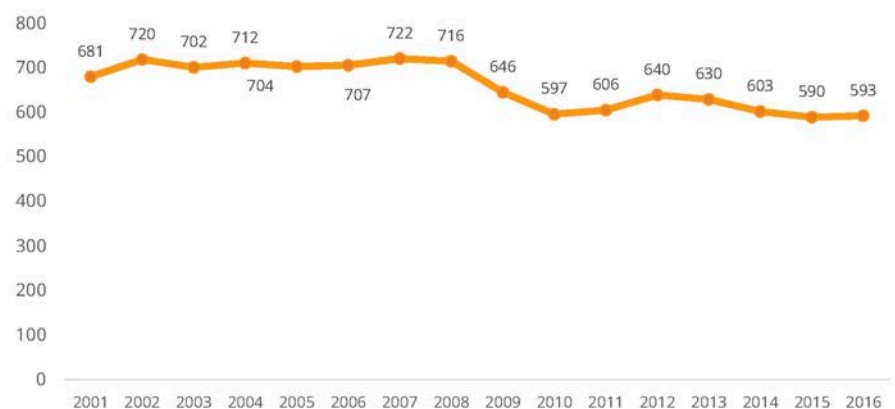
### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

Quarter 3 2016



Data: EMSI  
Analysis: Workforce Intelligence Network



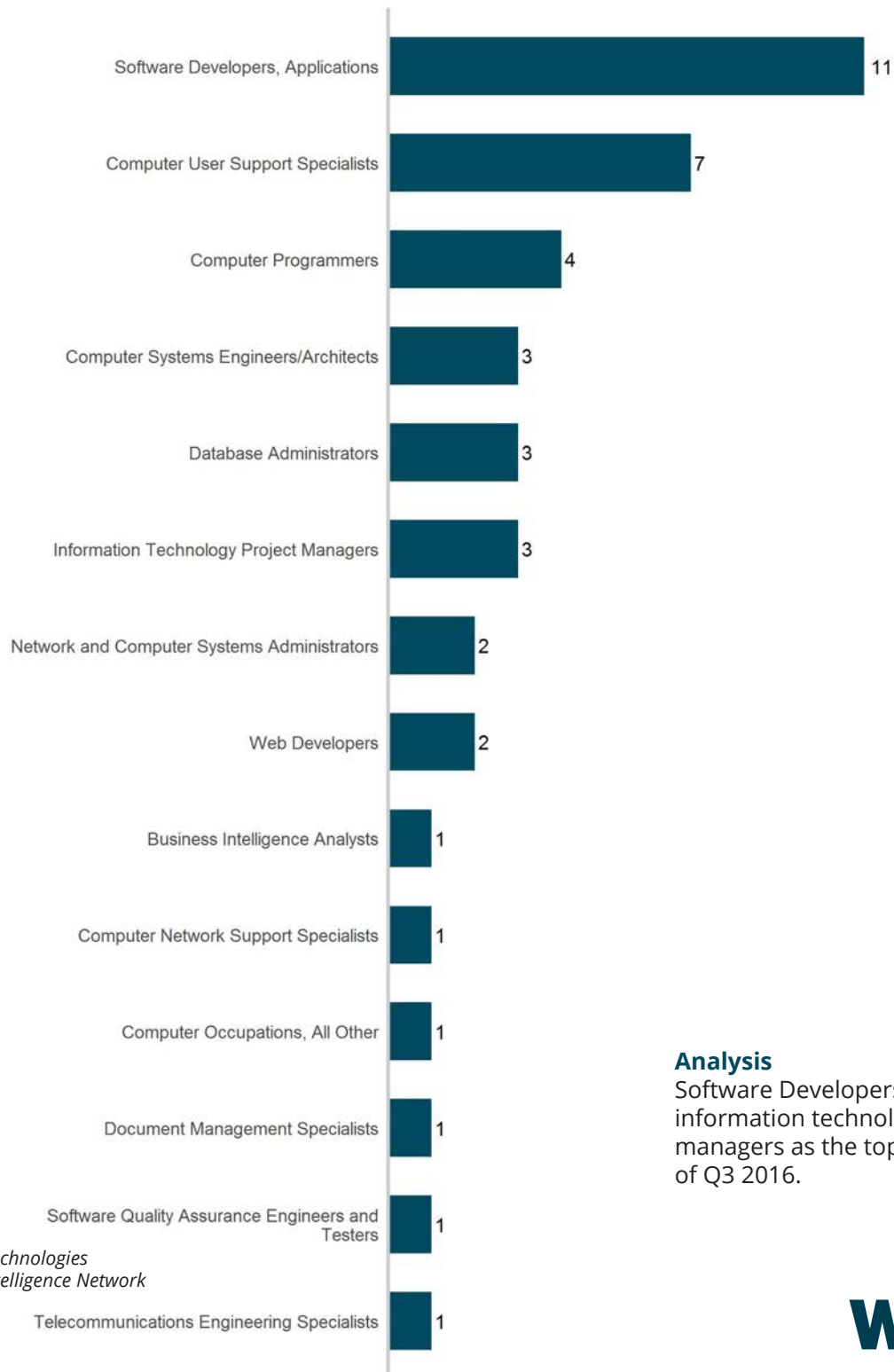
Now hiring: 41 Information  
Technology ads



Nearly 600 IT workers in St.  
Clair County

### Information Technology Top Jobs

Quarter 3 2016



#### Analysis

Software Developers overtook information technology project managers as the top in-demand job of Q3 2016.

Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Advertised Salary > \$75,000

%

> \$20/hour: Median IT wages

### Information Technology Educational Attainment Required

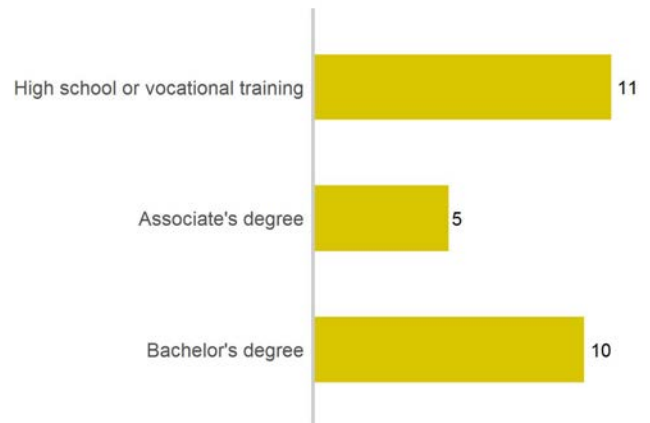
Of the 41 online job ads posted for Information Technology occupations in St. Clair County, 26 specified a desired minimum level of educational attainment for job applicants. Traditionally, employers looking to hire for some of the most in-demand IT occupations, like software developers, seek candidates with a bachelor's degree. Ten Q2 2016 job ads required a bachelor's degree. Many other IT jobs are within reach for applicants willing to undertake some vocational training or complete an associate's degree (16 postings).

The Information Technology jobs open in St. Clair County require more prior experience, according to job posting data. Eight of the 41 IT job postings from Q2 required 3 to 5 years of experience. Another large fraction of the postings, 8 of 41, were open to entry level workers with less than 2 years of experience.

### Degrees and Certifications Required

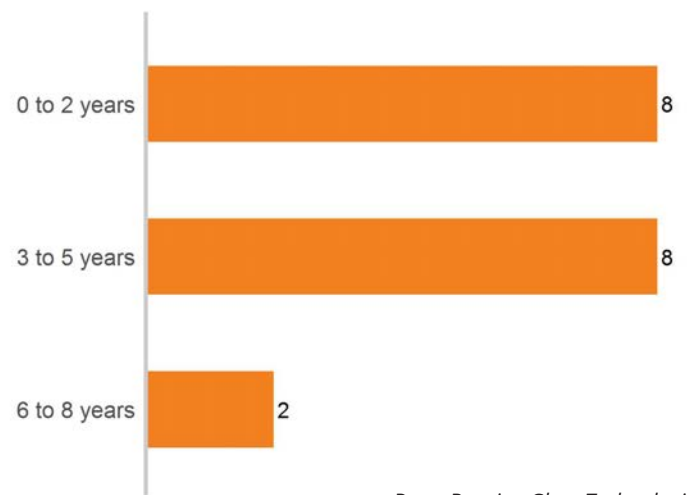
- Engineering, General
- Computer Science
- Information Technology
- Business Administration and Management, General
- Chemistry

### Educational Attainment



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Experience Required



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



In-demand: customer service,  
product installation

%

Knowledge areas: computer  
science, business, engineering

### Information Technology in-Demand Skills

St. Clair County employers looking to hire Information Technology workers during Q3 2016 sought applicants with skills communication and teamwork, basic computer skills, and research and writing skills. Many of the most in-demand IT jobs in St. Clair County required good customer service skills, most likely due to the high demand of computer support specialists. These basic skills should be paired with more technical or specialized skills like providing technical support.

#### Technical in-Demand Skills

- Customer service
- Microsoft Office
- Record Keeping
- Repair
- Hardware and Software Installation

#### Foundational In-Demand Skills

- Troubleshooting, problem solving
- Writing
- Communication skills, teamwork, collaboration
- Physical Demand
- Computer Skills

#### Job Type

- Temporary: 4.9%
- Full-Time: 41.5%
- Part-Time: 14.6%

#### Certifications Required

- Microsoft Certified Professional (MCP)
- Apple Certified Macintosh Technician
- Network+ Certified
- Basic Electricity Certificate
- Certified A+ Technician



## Certifications in-demand: MCP



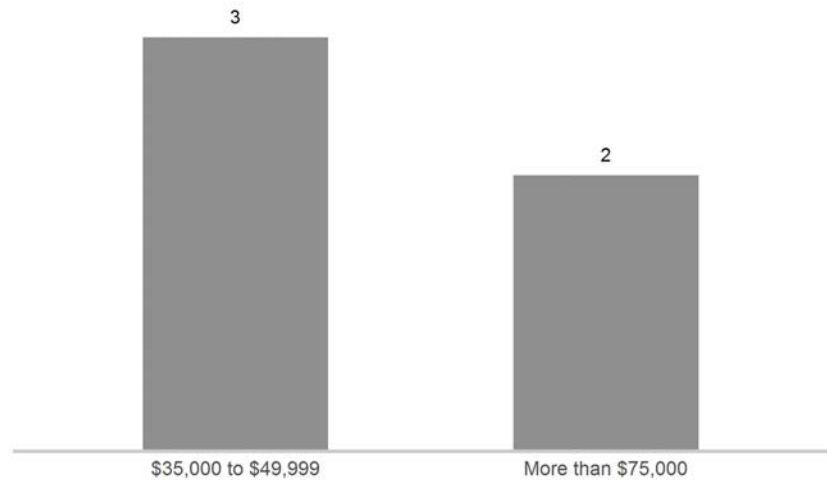
Baseline skills: writing, troubleshooting

### Information Technology Wages

Information Technology occupations are some of the highest paying in southeast Michigan. Only 5 Q3 job ads posted a salary range, but of those that did, 2 offered more than \$75,000 a year. Bureau of Labor Statistics data confirm that IT occupations pay well: 7 of the top 10 offer wages over \$20 per hour. These wages calculate to an annual salary of over \$42,000 a year.

### Advertised Wages in Job Postings

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	\$25.47	\$28.28	\$35.21	\$44.75	\$53.91
15-1151	Computer User Support Specialists	\$8.15	\$9.97	\$14.14	\$19.34	\$25.51
15-1131	Computer Programmers	\$10.08	\$13.49	\$20.15	\$28.10	\$38.19
15-1199	Computer Systems Engineers/Architects	\$9.97	\$13.49	\$20.61	\$29.21	\$38.77
15-1141	Database Administrators	\$10.17	\$13.54	\$21.65	\$29.95	\$39.20
15-1199	Information Technology Project Managers	\$9.97	\$13.49	\$20.61	\$29.21	\$38.77
15-1142	Network and Computer Systems Administrators	\$8.45	\$9.47	\$22.75	\$33.37	\$52.12
15-1134	Web Developers	\$8.51	\$11.37	\$17.52	\$24.91	\$34.18
15-1199	Business Intelligence Analysts	\$9.97	\$13.49	\$20.61	\$29.21	\$38.77
15-1152	Computer Network Support Specialists	\$8.91	\$11.29	\$16.97	\$24.34	\$33.84

Data: EMSI, BLS  
Analysis: Workforce Intelligence Network

# Skilled Trades & Technicians (Manufacturing Focused)

## Introduction

### Skilled Trades & Technicians

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.

### Job Posting Analysis

St. Clair County advanced manufacturing employers looking to hire Skilled Trades workers posted 126 online job ads during Q3 2016. This is a 33% increase over the 85 job postings in St. Clair for this occupation group during Q2. This marks the fourth consecutive quarter of growth for Skilled Trades job postings.

### Employment Analysis

As job postings for Skilled Trades occupations in St. Clair County tend to be quite volatile quarter-to-quarter, employment has steadily grown each year since the low at 1,944 employees in 2009. In 2016, 2,861 St. Clair County workers are employed in Skilled Trades jobs, a 47% increase over the 2009 recession low and still a 2% increase over 2015's employment numbers.

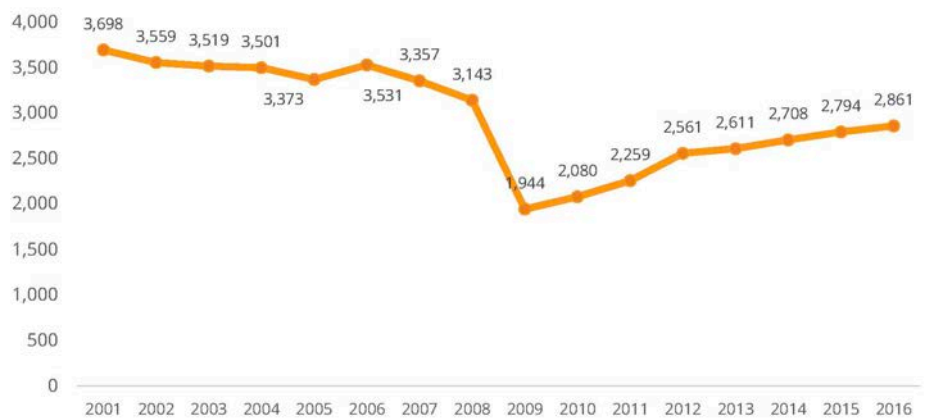
### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

Quarter 3 2016



Data: EMSI  
Analysis: Workforce Intelligence Network



Education required: HS diploma & training

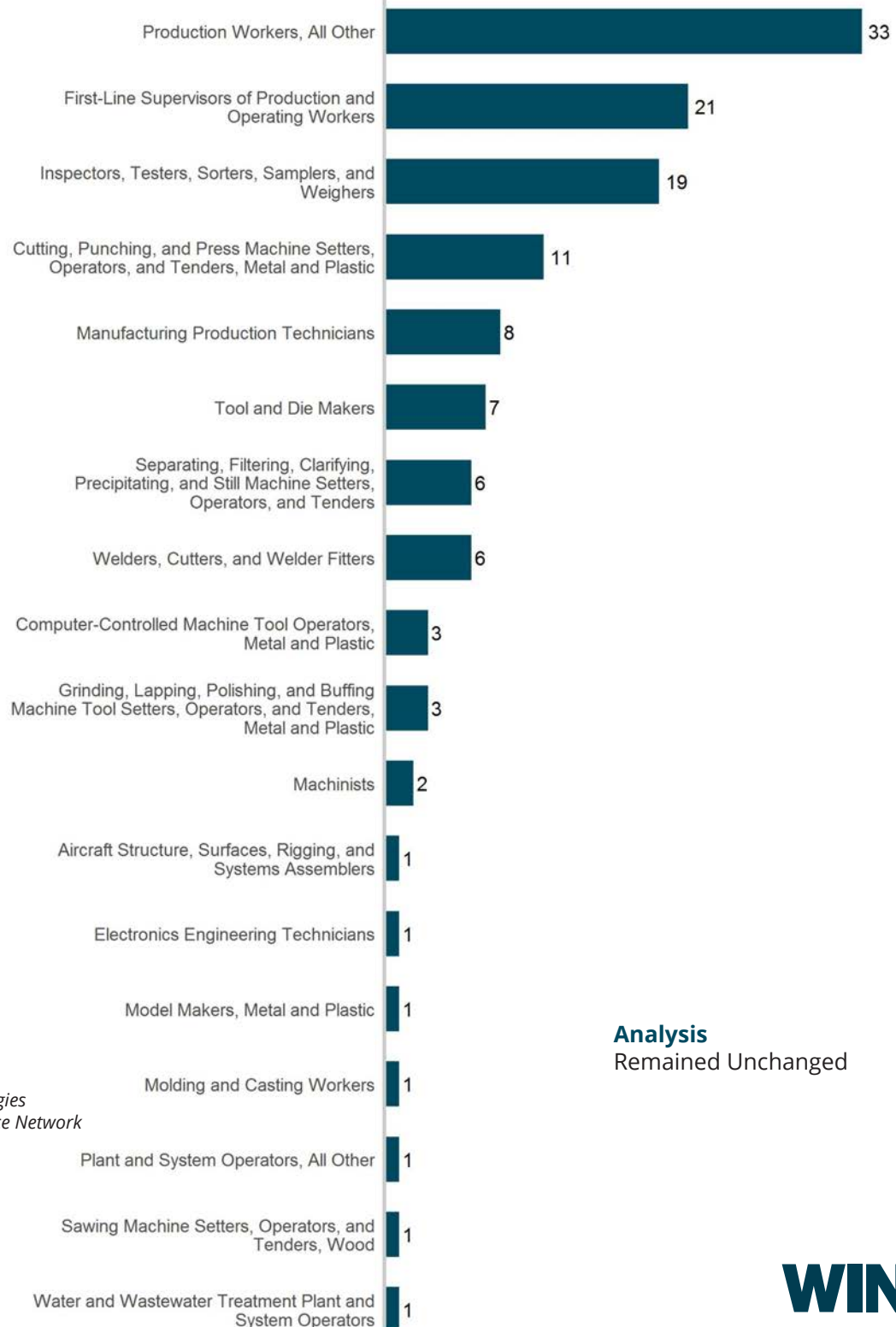


Experience required: less than 5 years

## Skilled Trades & Technicians

### Top Jobs

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

**Analysis**  
Remained Unchanged



71% ads for full-time positions

%

Mean advertised salary:  
\$39,345

### Skilled Trades & Technicians Educational Attainment Required

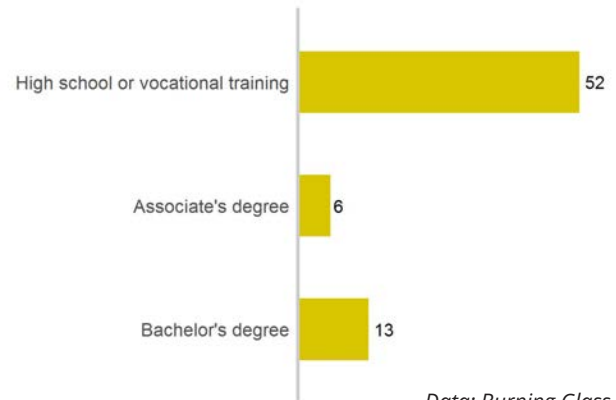
Only 71 of the 126 Q3 Skilled Trades job postings specified a desired level of educational attainment. The distribution of these requirements can be seen in the graph to the right: almost all jobs are attainable with a high school diploma and/or some vocational training. Most employers require training outside of high school but not all training results in a formal credential. Only 13 postings explicitly requested that applicants hold a bachelor's degree – these postings tend to be for supervisory positions within the Skilled Trades occupations.

A similar number of job ads specified a desired experience level for Skilled Trades workers. The data show that most Skilled Trades jobs available in St. Clair County are within reach for workers with less than 5 years of experience (62 postings during Q3). Of these postings 35 were available to entry level applicants with 0 to 2 years of experience.

### Degrees and Certifications Required

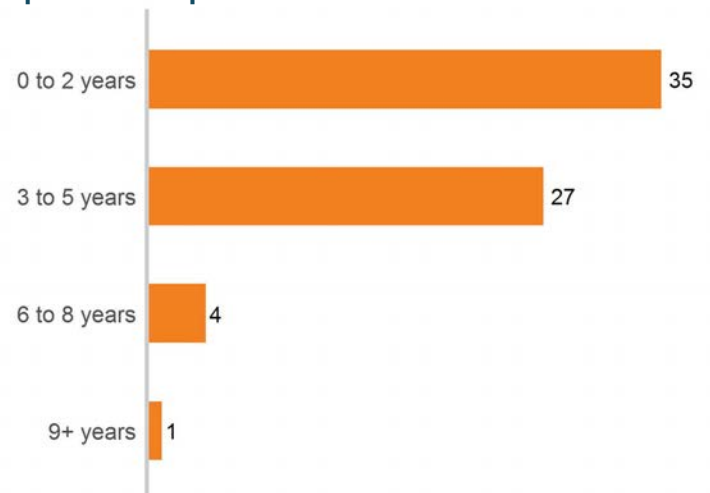
- Business Administration and Management, General

### Educational Attainment



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Experience Required



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Employment growth every  
year since 2009

%

Now hiring: 126 online job  
postings

### Skilled Trades & Technicians in-Demand Skills

The occupations in the Skilled Trades group require a wide array of technical skills, like machining and calibration, along with more foundational skills. Job postings in the Skilled Trades occupation group for Q3 2016 listed required knowledge or experience in inspection, repair, and scheduling. Employers are also seeking foundational skills like attention to detail, and a demonstrated ability to solve problems and communicate well from their job candidates. Many Skilled Trades jobs also require some degree of physical demand.

#### Technical in-Demand Skills

- Inspection/ Repair
- Scheduling
- Calibration
- Machining
- Packaging

#### Foundational In-Demand Skills

- Communication skills
- Detail Oriented
- Problem solving
- Mathematics
- Physical Demand

#### Job Type

- Temporary: 17.5%
- Full-Time: 70.6%
- Part-Time: 1.6%

#### Certifications Required

- Automotive Service Excellence (ASE) Certification
- Commercial Driver's License
- Forklift Operator Certification
- Microsoft Certified Solutions Expert (MCSE)



In-demand certification: ASE,  
forklift operation



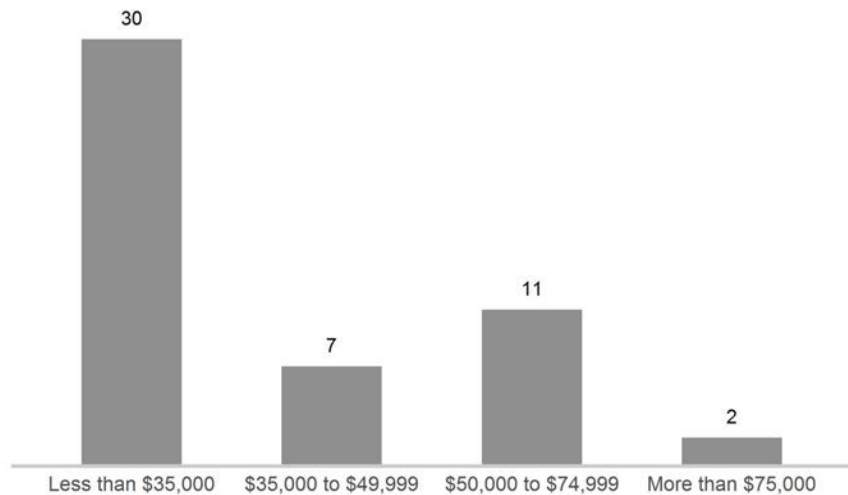
Knowledge areas: business  
administration

### Skilled Trades & Technicians Wages

Fifty of the 126 Skilled Trades job postings in St. Clair County during Q3 2016 specified a wage or salary range. The majority of those (30 postings) offered wages that amount to less than \$35,000 a year, or less than \$17 per hour. The Skilled Trades occupations tend to be some of the lowest paying in southeast Michigan and across the country. Wage data from the Bureau of Labor Statistics shows only five of the top in-demand Skilled Trades occupations for St. Clair workers make less than \$17 per hour at the median. The highest paid occupations in the group are in management, like first-line supervisors of production workers, and engineering, like manufacturing production technicians, roles.

### Advertised Wages in Job Postings

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
51-9199	Production Workers, All Other	\$9.37	\$12.66	\$14.93	\$16.65	\$19.66
51-1011	First-Line Supervisors of Production and Operating Workers	\$14.86	\$19.02	\$25.89	\$33.69	\$41.20
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$8.72	\$10.26	\$13.84	\$20.43	\$25.45
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$8.80	\$10.31	\$13.02	\$16.75	\$22.99
17-3029	Manufacturing Production Technicians	\$14.66	\$20.00	\$27.52	\$33.08	\$42.71
51-4111	Tool and Die Makers	\$14.16	\$17.83	\$22.68	\$29.08	\$32.00
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	\$9.29	\$14.12	\$16.70	\$20.10	\$23.55
51-4121	Welders, Cutters, and Welder Fitters	\$10.86	\$13.19	\$15.65	\$19.26	\$24.64
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$10.05	\$12.45	\$18.25	\$20.85	\$24.92
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$9.10	\$11.38	\$14.61	\$18.04	\$20.78

Data: EMSI, BLS  
Analysis: Workforce Intelligence Network

### Annual Labor Market Data

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 to- date (through Sept 2016)	Change from 2015	Percent Change from 2015
Labor Force	77,674	74,208	73,465	73,970	73,080	72,335	<b>74,435</b>	2,101	2.9%
Employment	64,934	64,509	64,841	65,398	65,980	67,169	<b>69,691</b>	2,522	3.8%
Unemployment	12,741	9,699	8,624	8,572	7,101	5,166	<b>4,744</b>	-422	-8.2%
Unemployment Rate	16.4%	13.1%	11.7%	11.6%	9.7%	7.1%	<b>6.4%</b>	-0.8%	na

*\*Note: Monthly data averaged by year*

Data: Bureau of Labor Statistics

### Quarterly Labor Market Data

	3rd Quarter 2015	4th Quarter 2015	1st Quarter 2016	2nd Quarter 2016	3rd Quarter 2016	Change from 2nd Quarter 2016	Percent Change from 2nd Quarter 2016	One-Year Change from 3rd Quarter 2015	One-Year Percent Change from 3rd Quarter 2015
Labor Force	72,799	72,207	73,825	74,116	<b>75,365</b>	1,249	1.7%	2,566	3.5%
Employment	67,687	67,757	68,603	69,786	<b>70,684</b>	898	1.3%	2,997	4.4%
Unemployment	5,112	4,450	5,222	4,330	<b>4,681</b>	351	8.1%	-431	-8.4%
Unemployment Rate	7.0%	6.2%	7.1%	5.8%	<b>6.2%</b>	0.4%	na	-0.8%	na

*\*Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics





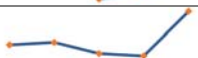





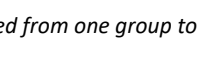

### Monthly Labor Market Data

	July 2015	August 2015	September 2015	October 2015	November 2015	December 2015	January 2016	February 2016	March 2016	April 2016	May 2016	June 2017	July 2017	August 2017	September 2017
Labor Force	73,584	72,761	72,052	72,378	71,747	72,496	73,230	73,660	74,584	73,124	74,382	74,842	75,594	75,418	75,084
Employment	67,642	67,801	67,618	67,741	67,679	67,850	67,926	68,575	69,308	69,158	70,169	70,031	70,647	70,540	70,865
Unemployment	5,942	4,960	4,434	4,637	4,068	4,646	5,304	5,085	5,276	3,966	4,213	4,811	4,947	4,878	4,219
Unemployment Rate	8.1%	6.8%	6.2%	6.4%	5.7%	6.4%	7.2%	6.9%	7.1%	5.4%	5.7%	6.4%	6.5%	6.5%	5.6%

*\* Note: Data shown for 15 most recently available months*












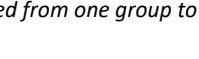
Data: Bureau of Labor Statistics

# St. Clair County Job Posting Data by Occupation Group\* Over Time

	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Change Over Time	Annual Change Q3 2015-Q3 2016	Quarter Growth Q1 2016-Q3 2016
Total Postings	1,807	1,697	1,461	1,788	2,259		25.0%	54.6%
Agriculture	27	23	14	33	20		-25.9%	42.9%
Business & finance	43	79	45	72	89		107.0%	97.8%
Construction	22	12	4	16	24		9.1%	500.0%
Customer service	474	543	386	405	474		0.0%	22.8%
Education	22	24	15	13	49		122.7%	226.7%
Energy	8	7	8	5	7		-12.5%	-12.5%
Engineers & designers	63	41	50	59	70		11.1%	40.0%
Health care	285	299	312	365	466		63.5%	49.4%
Information technology	30	28	21	41	95		216.7%	352.4%
Skilled trades & technicians	96	75	50	85	126		31.3%	152.0%
Transportation, distribution, and logistics	238	167	158	305	463		94.5%	193.0%

*\*Note: Some overlap exists between groups, the occupational groups are not mutually exclusive. Thus, postings should not be added from one group to another but instead should be analyzed on their own.*

## Job Posting Data by Occupation Group\* Over Time

	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Change Over Time	Annual Change Q3 2015-Q3 2016	Quarter Growth Q1 2016-Q3 2016
Total Postings	129,794	140,225	126,959	139,765	149,379		15.1%	17.7%
Agriculture	1,644	1,578	1,426	1,835	1,776		8.0%	24.5%
Business & finance	9,437	10,547	8,884	9,011	9,044		-4.2%	1.8%
Construction	1,096	1,183	917	1,281	1,492		36.1%	62.7%
Customer service	25,802	30,285	27,235	30,303	34,218		32.6%	25.6%
Education	2,227	2,584	2,219	2,114	3,034		36.2%	36.7%
Energy	224	264	211	272	259		15.6%	22.7%
Engineers & designers	9,753	10,433	9,675	9,454	8,977		-8.0%	-7.2%
Health care	17,394	17,110	17,666	17,880	20,099		15.6%	13.8%
Information technology	16,922	19,360	16,403	17,335	16,966		0.3%	3.4%
Skilled trades & technicians	3,961	4,409	3,675	4,503	4,755		20.0%	29.4%
Transportation, distribution, and logistics	9,901	8,405	7,909	11,380	13,548		36.8%	71.3%

*\*Note: Some overlap exists between groups, the occupational groups are not mutually exclusive. Thus, postings should not be added from one group to another but instead should be analyzed on their own.*

Website

**[www.win-semich.org](http://www.win-semich.org)**

Email

**[info@win-semich.org](mailto:info@win-semich.org)**

Phone

**313.744.2946**

Address

**440 E. Congress St., 4th Floor  
Detroit, MI 48226**

Facebook

**@workforceintelligencenetwork**

Twitter

**@win-semich**