



# MONROE COUNTY

## WIN Quarterly Report



# Introduction: Monroe County

## About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of six Michigan Works! Agencies (MWAs) and ten community colleges across a 16-county region in Michigan. The counties in the WIN partnership include: Genesee, Hillsdale, Huron, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Saint Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

This report highlights labor market information and real-time job posting data for the Monroe county as a whole 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:

- Agriculture (page 6)
- Customer service (formerly retail & hospitality) (page 11)
- Energy (page 16)
- Skilled trades & technicians (manufacturing focused) (page 21)
- Transportation, distribution, and logistics (TDL) (page 26)

Data analyzed includes:

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



# Introduction: Monroe County

## **Key Findings: State of the Labor Market in Monroe County**

### **The labor force in Monroe County is at its largest since 2010.**

The labor force increased by 1,719 individuals (2%) reaching 78,837 through May of this year from 77,118 in Q2 2015.

### **Online job postings in Q3 of 2016 for all occupations groups in the County of Monroe rebounded.**

Postings from the previous quarter rose 47% (1,694 to 3,196).

### **Postings related to skilled trades increased from last quarter.**

Online job postings related to Skilled Trades increased by 21% in Q3 2016 to 115 postings from 95 postings from Q2 2016. During 2016 postings have been fluctuating but overall show an upward trend, indicating demand growth for skilled trades jobs.

### **In the TDL occupation group, heavy tractor-trailer truck drivers experienced another large increase in job postings.**

Online job postings for heavy and tractor-trailer truck drivers increased by 82% (291 postings) to 644 ads compared to 353 in Q2 2016.

### **The energy occupation group experienced a large increase in the amount of online job postings from Q2 to Q3 2016.**

Online job postings related to Energy have increased 257% going from 26 postings in Q2 2016 to 93 in Q3 2016. This spike lead to energy postings reaching a new 5 year high, nearly doubling the previous high of 47 postings.



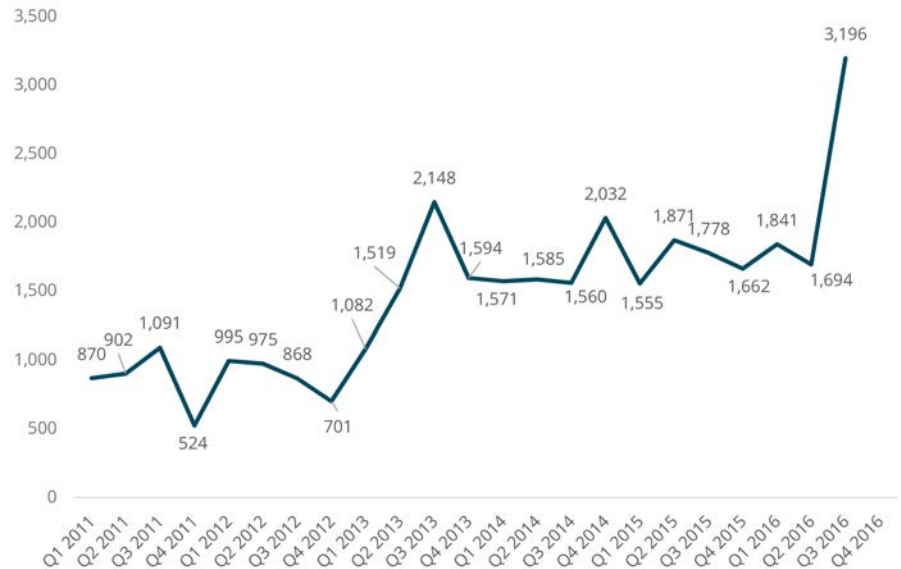
## Executive Summary

### Postings Over Time

Employer demand in Monroe County shot up between Q2 and Q3 2016. Online job postings in the county increased 89 percent, from 1,694 postings in Q2 to 3,196 in Q3, indicating intent to hire. Continued analysis will determine if hiring demands were met and if increased hiring is driving employment growth in Monroe County.

### Total Online Job Postings

Q1 2011 - Q3 2016



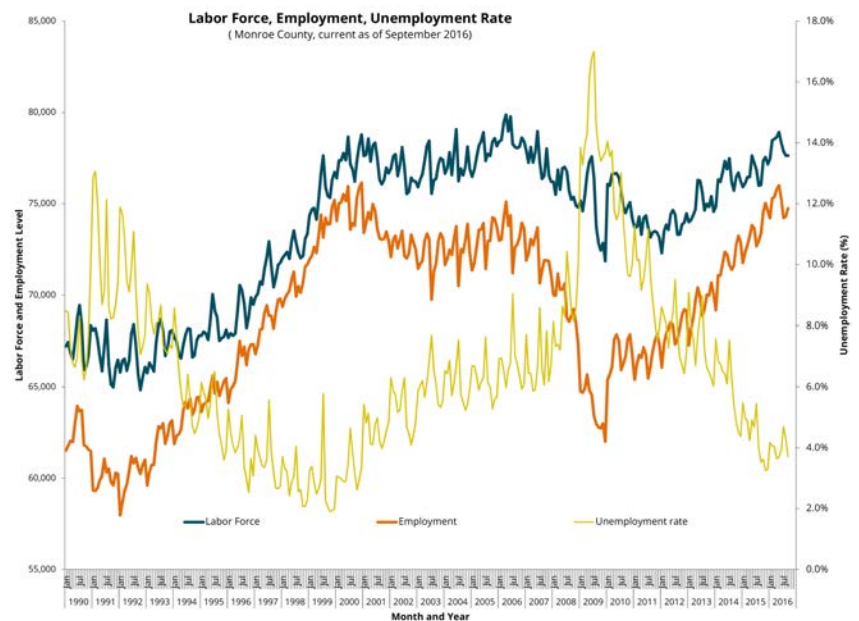
Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Labor Force, Employment, & Unemployment

Despite high demand reflected in Q3 2016 job postings, the Monroe County labor force and employment decreased compared to Q2 levels. Employment shrank faster than the county's labor force, driving the quarterly unemployment rate up half a percent, from 3.8 to 4.2 percent. While these indicators fluctuate more rapidly between quarters, annual trends show that employment in the county has grown; the 2016 unemployment rate (through September) is 4.0 percent, down from 4.4 in 2015.

### Labor Force, Employment, Unemployment Rate

January 1990 - September 2016



Data: BLS  
Analysis: Workforce Intelligence Network

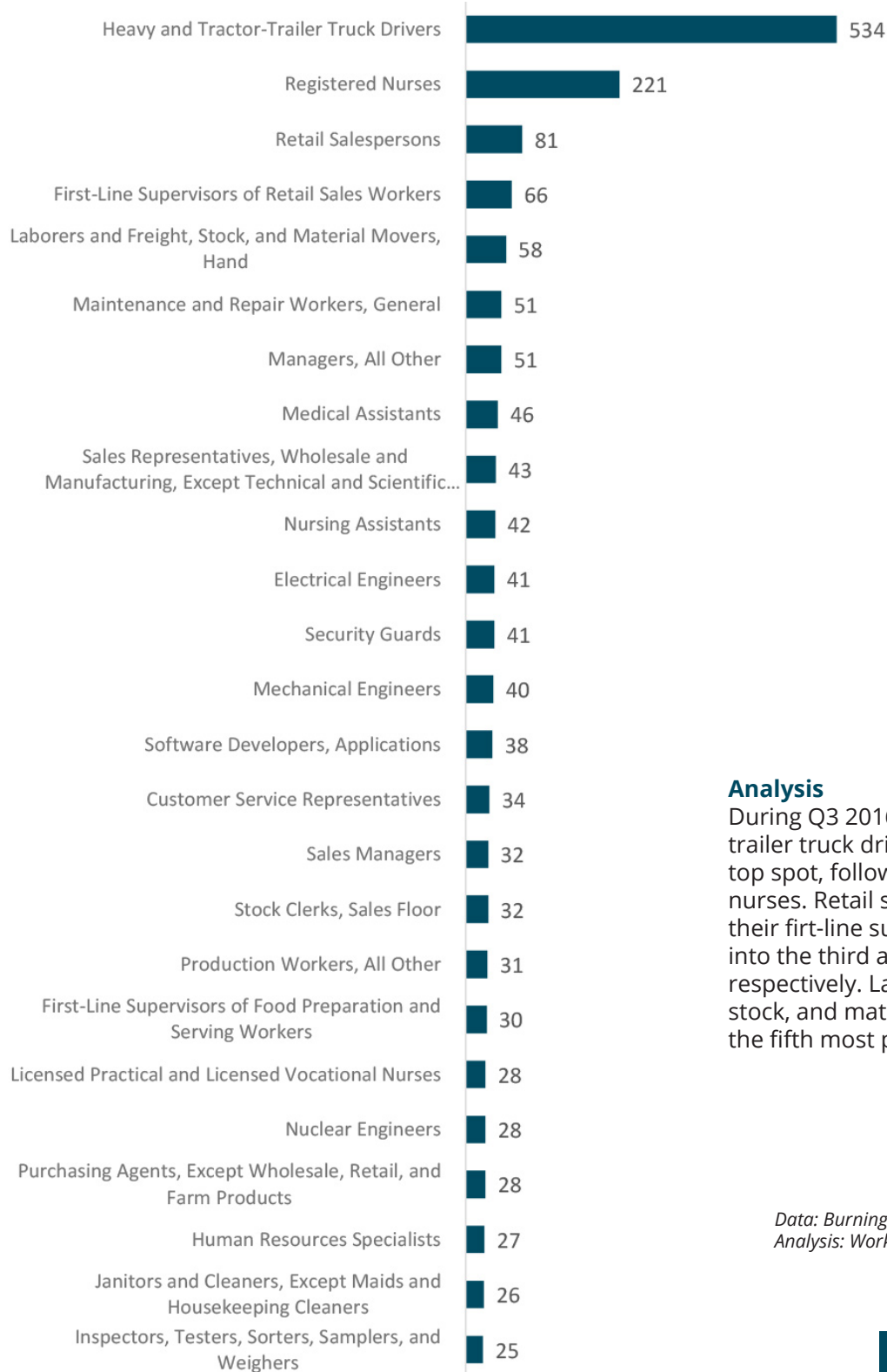


Unemployment rate at  
4.0%

Highest labor force  
numbers since 2010

### Top Jobs In Demand

Quarter 3 2016



### Analysis

During Q3 2016, heavy tractor trailer truck drivers retained their top spot, followed by registered nurses. Retail salespersons and their first-line supervisors moved into the third and fourth positions respectively. Laborers and freight, stock, and material movers remain the fifth most posted occupation.

Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Truck drivers and registered nurses most in-demand



89% increase in employer demand

### Top Jobs In Demand

Quarter 3 2016

Bookkeeping, Accounting, and Auditing Clerks	22
First-Line Supervisors of Mechanics, Installers, and Repairers	22
Industrial Engineers	22
Light Truck or Delivery Services Drivers	22
Production, Planning, and Expediting Clerks	22
Cashiers	20
Medical Secretaries	20
Combined Food Preparation and Serving Workers, Including Fast Food	19
Merchandise Displayers and Window Trimmers	18
Occupational Therapists	18
Physical Therapists	18
Cooks, Restaurant	17
Demonstrators and Product Promoters	17
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	17
Patient Representatives	16
Pharmacy Technicians	16
Nurse Practitioners	15
Driver/Sales Workers	14
Emergency Medical Technicians and Paramedics	14
Physician Assistants	14
Physicians and Surgeons, All Other	14
Sales Agents, Financial Services	14
First-Line Supervisors of Office and Administrative Support Workers	13
Office Clerks, General	13
Computer Systems Engineers/Architects	12

Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

## Introduction

### Agriculture

WIN's agriculture group brings together occupations that require knowledge of the farming, livestock, the environment, and natural sciences. Occupations range from farm workers, to environmental engineers, to meat butchers, and recreation workers.

### Postings Over Time

Online job postings for Agriculture occupations are low compared to other occupation groups in Monroe County. For this reason and the seasonal nature of Agriculture work, posting levels appear quite volatile. Agriculture job postings were up 25 percent, from 24 postings in Q2 to 30 in Q3 2016.

### Online Job Postings

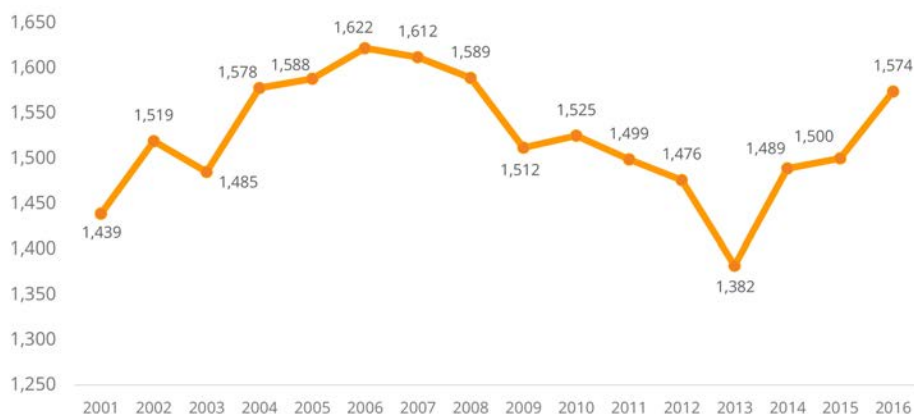


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

Employment in Agriculture occupations in Monroe County declined between 2006 and 2013, reaching a low of 1,382 employees that year. Employment in this occupation group, though, has grown each year since, with 1,574 Monroe County workers employed in Agriculture jobs in 2016.

### Employment Over Time



Data: EMSI, BLS  
Analysis: Workforce Intelligence Network

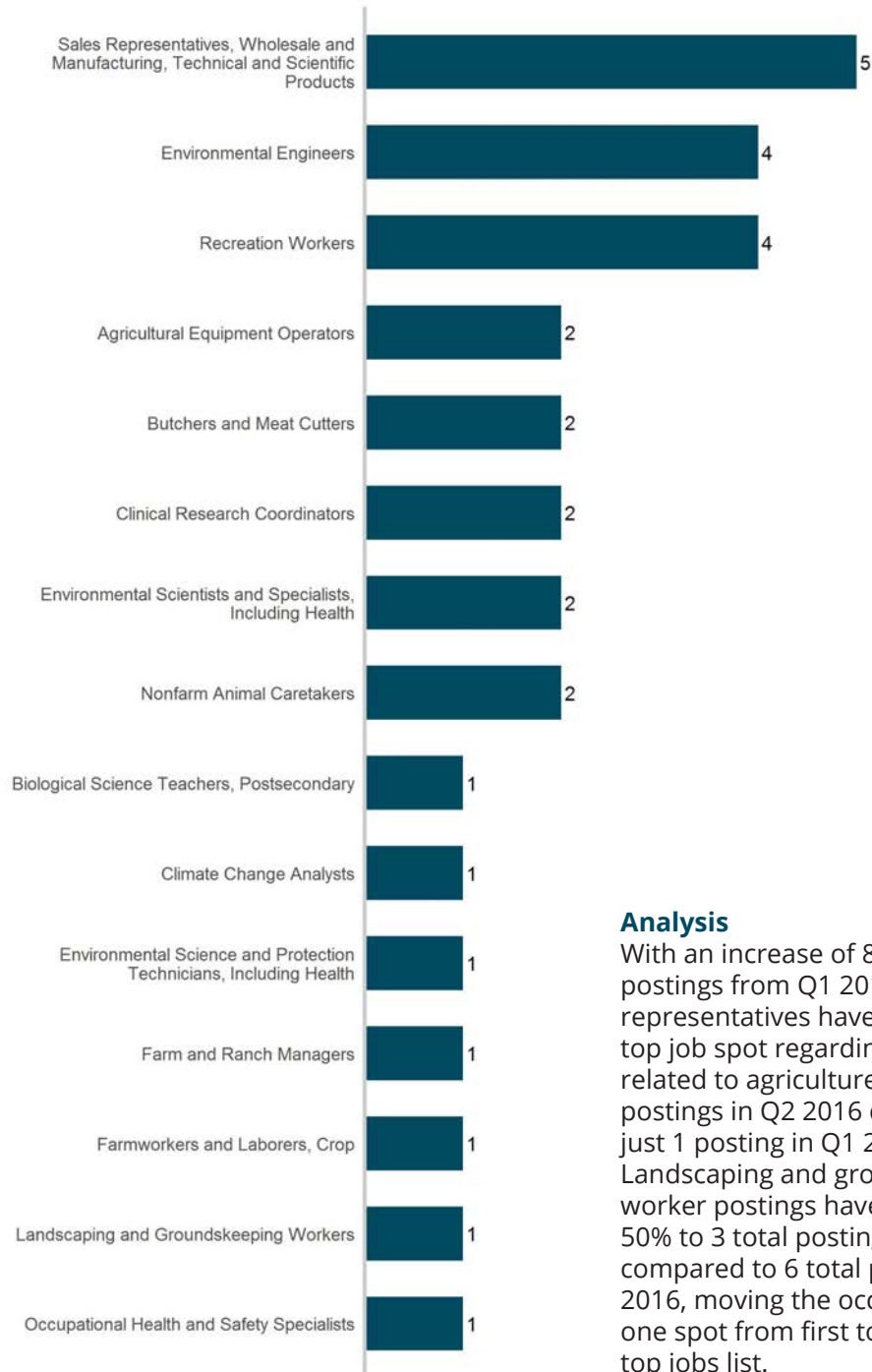


Top job is sales representative



25% increase in  
postings from Q1 2016

### Agriculture Top Jobs Quarter 3 2016



#### Analysis

With an increase of 83% in total postings from Q1 2016, sales representatives have claimed the top job spot regarding occupations related to agriculture with 6 total postings in Q2 2016 compared to just 1 posting in Q1 2016. Landscaping and grounds keeping worker postings have declined by 50% to 3 total postings in Q2 2016 compared to 6 total postings in Q1 2016, moving the occupation down one spot from first to second on the top jobs list.

53%  
Bachelor's Degree Preferred

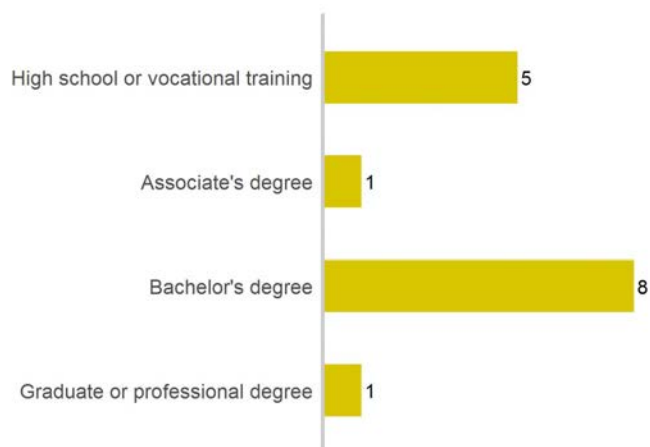


Less than 2 years of  
experience

### Agriculture Educational Attainment & Experience Required

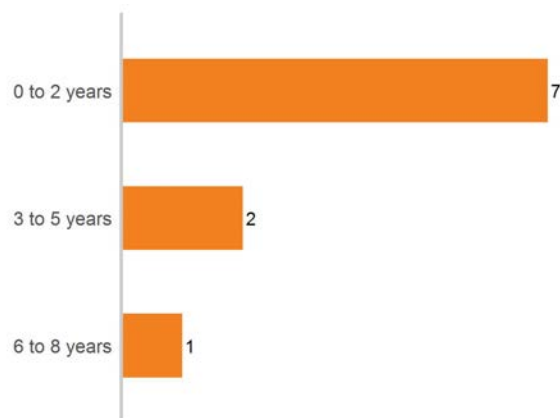
Half of Q3 2016 Agriculture job postings in Monroe County specified a desired education level for job candidates. Educational requirements for these occupations vary widely. Fifty-three percent (eight postings) required a bachelor's degree – these are postings for engineers, researchers, teachers, and technical sales representatives. Another 40 percent (six postings) were open to candidates with some post-secondary training or an associate's degree. Though only nine Q3 postings specified a desired level of experience, most were open to entry-level candidates with less than two years of experience.

### Minimum Educational Attainment Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Experience Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Full-time jobs available

4%

Decrease in online job postings

### Agriculture in-Demand Skills Q2 2016

The demand for highly technical occupations within the Agriculture group is reflected in the skills required in Q3 2016 job postings. In-demand workers in scientific sales, research, and engineering were expected to have customer service skills, knowledge of environmental or chemical engineering, and experience with government regulations. Basic employability skills like communication and organizational skills ensure that Agriculture workers will succeed in the workplace.

#### Technical in-Demand Skills

- Customer service, business communications
- Environmental engineering
- Government regulations
- Chemical engineering
- Clinical research

#### Foundational In-Demand Skills

- Communication skills
- Organizational skills
- Research and writing
- Planning
- Building effective relationships



Very little information on salary



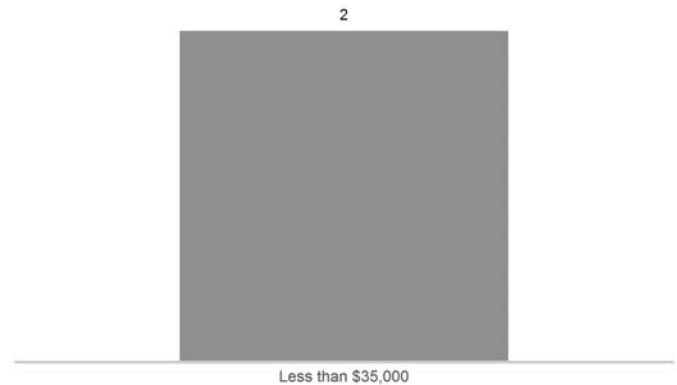
Postings have declined 50% for landscaping and grounds keeping workers

## Agriculture Wages

Wage data from Q3 2016 job postings provide an incomplete picture of salaries available for Agriculture workers in Monroe County. Wage data from the Bureau of Labor Statistics shows that the Agriculture occupations requiring the highest educational attainment – those like environmental engineers, research coordinators, and scientific sales representatives – earn high median hourly wages. Environmental engineers earn \$45.85 an hour at the median, or over \$95,000 a year.

## Advertised Salaries

Quarter 3 2016



## 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
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$20.99	\$32.30	\$40.71	\$47.28	\$59.36
17-2081	Environmental Engineers	\$28.66	\$38.67	\$45.85	\$52.04	\$58.70
39-9032	Recreation Workers	\$8.15	\$8.86	\$10.24	\$12.05	\$15.53
45-2091	Agricultural Equipment Operators	\$11.98	\$12.49	\$13.05	\$13.64	\$14.48
51-3021	Butchers and Meat Cutters	\$10.08	\$13.39	\$17.40	\$24.89	\$27.08
11-9121	Clinical Research Coordinators	\$27.61	\$33.71	\$43.15	\$53.93	\$70.43
19-2041	Environmental Scientists and Specialists, Including Health	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
39-2021	Nonfarm Animal Caretakers	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
25-1042	Biological Science Teachers, Postsecondary	#N/A	#N/A	#N/A	#N/A	#N/A
19-2041	Climate Change Analysts	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

Data: EMSI, BLS

Analysis: Workforce Intelligence Network

## 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 transferrable across the retail sector, the hotel industry, food and beverage service industry, call centers, and other areas.

### Postings Over Time

Online job postings for occupations related to Customer Service increased 37 percent, from 414 during Q2 to 567 in Q3 2016. This was also a 33 percent over the 425 online job postings in Q3 2015, one year ago.

### Employment Over Time

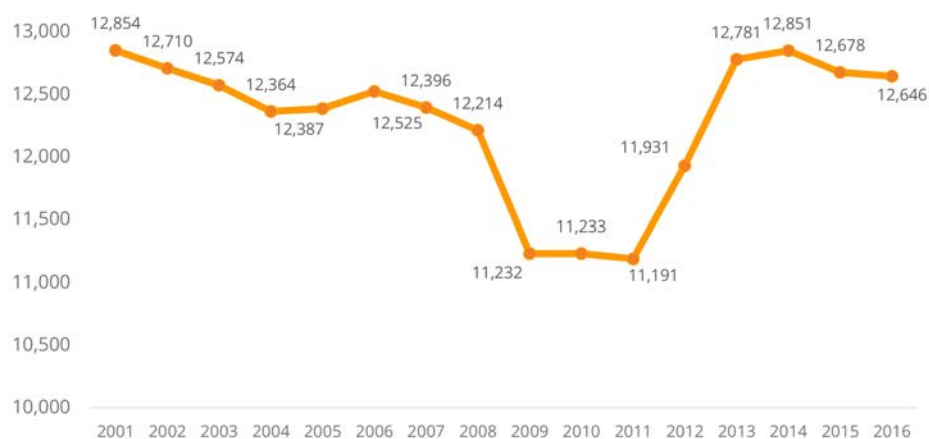
Like many other occupation groups in southeast Michigan and across the country, employment in the Customer Service occupations decreased during the Great Recession. In 2010, Customer Service employment had decreased 12,646 to employees. Nearly 28,000 Monroe County workers are employed in Customer Service jobs in 2016, indicating that employment has recovered from the recession.

### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time



Data: EMSI, BLS  
Analysis: Workforce Intelligence Network



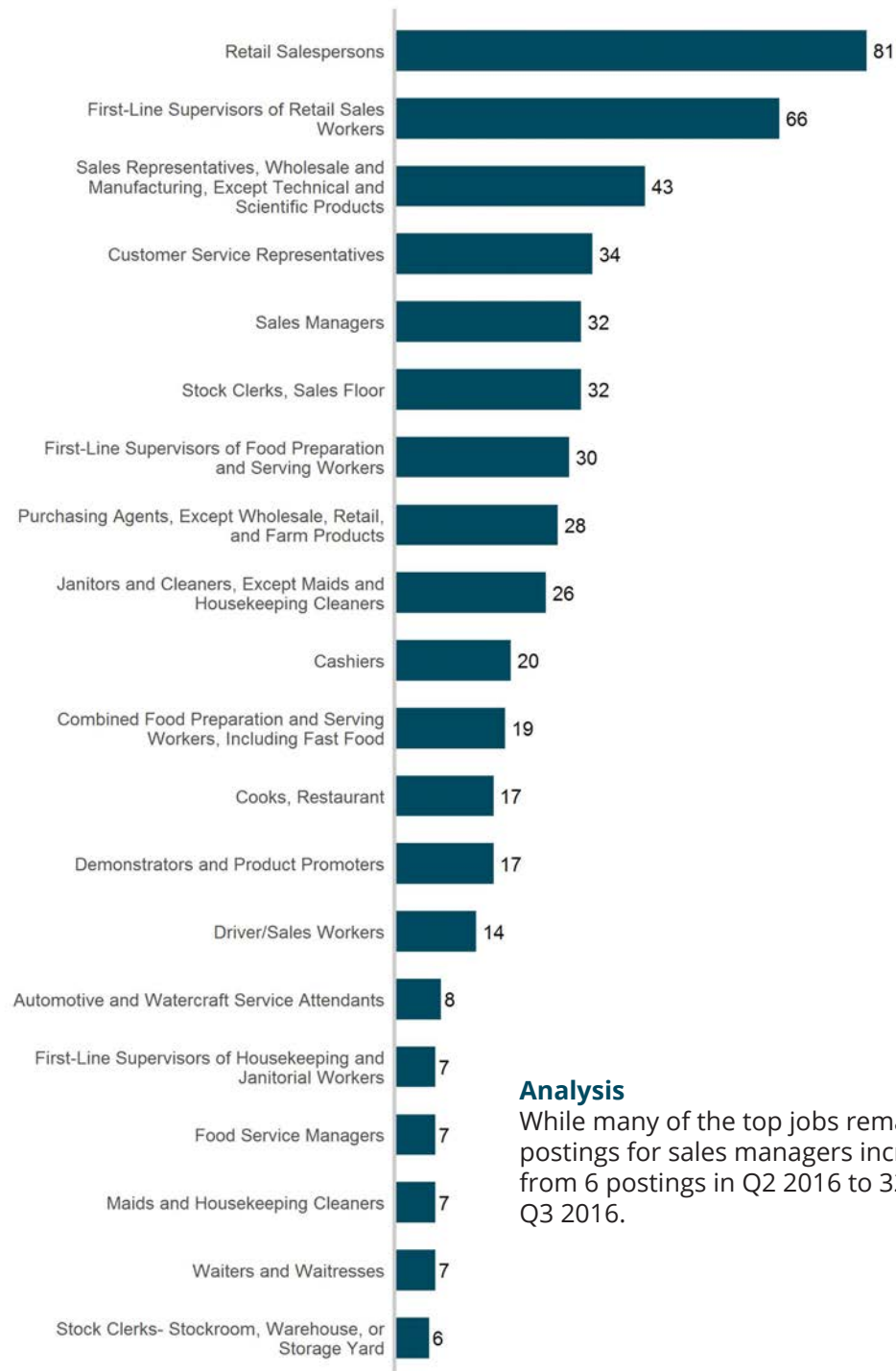
Postings increased by 37%



0-2 years of experience most Preferred

### Customer Service Top Jobs

Quarter 3 2016



#### Analysis

While many of the top jobs remained the same, postings for sales managers increased by 81%, from 6 postings in Q2 2016 to 32 postings in Q3 2016.



Preferred Education: High-School/ Vocational Training

%

Top Area of Study: Business Administration

### Customer Service Educational Attainment & Experience Required

Of the Q3 2016 job postings that specified a requirement for education for Monroe County Customer Service workers, 75 percent were available to workers with a high school diploma or an associate's degree. The remaining quarter of those postings preferred candidates with a bachelor's degree.

Many Customer Service jobs in southeast Michigan are entry-level positions. Sixty-seven percent of Q3 postings in this occupation group that specified a desired level of experience were open to candidates with less than 2 years on the job. Job postings requiring more experience are likely for supervisory and management positions.

### Minimum Educational Attainment Required Q3 2016

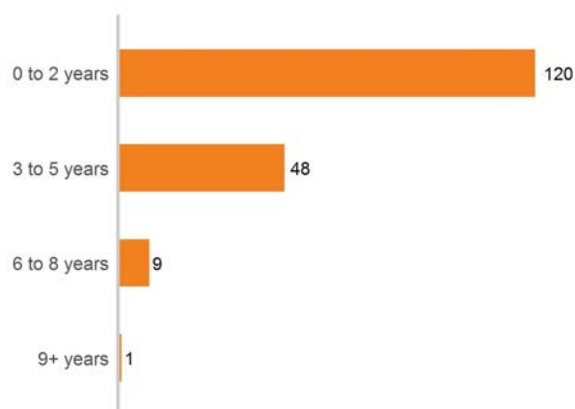


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Areas of Study in-Demand Q3 2016

- Business administration and management
- Accounting
- Marketing/marketing management
- Mechanical engineering
- Electrical and electronic engineering technology

### Experience Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Skills desired: Sales, Retail  
Setting Experience

28,000

Employees in customer service

### Customer Service in-Demand Skills Q3 2016

Customer Service job candidates in Monroe County are expected to have technical skills related to sales and providing customer service. Q3 2016 job postings desired candidates with experience in a retail setting and experience with store management and merchandising. In-demand employability skills like communication, organization, and problem solving ensure success in the Customer Service workplace.

#### Technical in-Demand Skills

- Customer Service/ Sales/ Building Relationships
- Retail Setting/ Store Management/ Supervisory Skills
- Merchandising/ Product Sales/ Sales Goals
- Scheduling/ Customer Contact
- Product Knowledge

#### Foundational In-Demand Skills

- Communications Skills/ Team Work
- Writing/ Organizational Skills
- Microsoft Office/ Computer Skills
- Physical Demand
- Supervisory Skills/ Planning/ Problem Solving

#### Job Type

- Temporary: 9.9%
- Full-time: 37.4%
- Part-time: 20.3%

#### Certifications In-Demand

- Commercial driver's license (CDL): class A
- Life and health insurance license
- Series 6
- Automotive Service Excellence (ASE) certification
- ServSafe



Average advertised salary:  
\$48,944

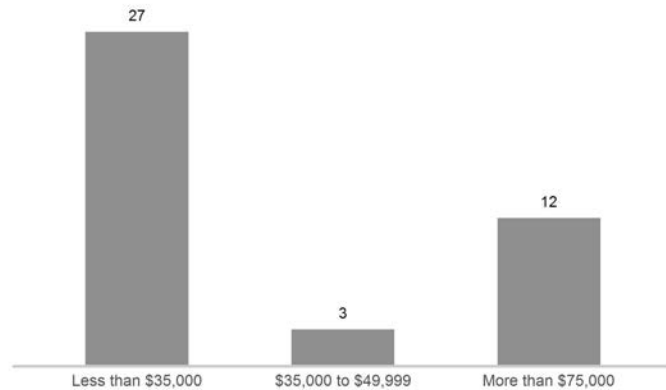


Desired Certification: CDL  
Class A

## Customer Service Wages

The most in-demand Customer Service occupations in Monroe County offer a wide range of salaries; the distribution of salaries from Q3 job postings can be seen in the chart to the right. According to data from the Bureau of Labor Statistics, the highest paid occupations in the Customer Service group are purchasing agents and wholesale and manufacturing sales representatives, who can make over \$20 an hour at the median, or more than \$41,000 a year.

## Advertised Salaries 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	\$8.73	\$9.81	\$13.21	\$18.04
41-4012	Sales Representatives, Wholesale and Manufacturing,	\$11.96	\$16.03	\$21.50	\$28.18	\$36.54
43-4051	Customer Service Representatives	\$8.15	\$8.87	\$11.01	\$15.63	\$19.14
41-1011	First-Line Supervisors of Retail Sales Workers	\$12.31	\$14.06	\$17.32	\$21.64	\$26.48
35-1012	First-Line Supervisors of Food Preparation and Serving	\$9.53	\$10.82	\$13.55	\$18.27	\$23.47
13-1023	Purchasing Agents, Except	\$17.74	\$21.65	\$28.36	\$39.53	\$47.28
53-6031	Automotive and Watercraft	\$8.15	\$8.49	\$9.68	\$11.33	\$13.94
37-2011	Janitors and Cleaners, Except	\$8.15	\$8.89	\$11.02	\$13.97	\$16.87
41-2011	Cashiers	\$8.15	\$8.55	\$9.22	\$10.34	\$13.26
35-3021	Combined Food Preparation	\$8.15	\$8.47	\$9.00	\$9.53	\$10.38

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.

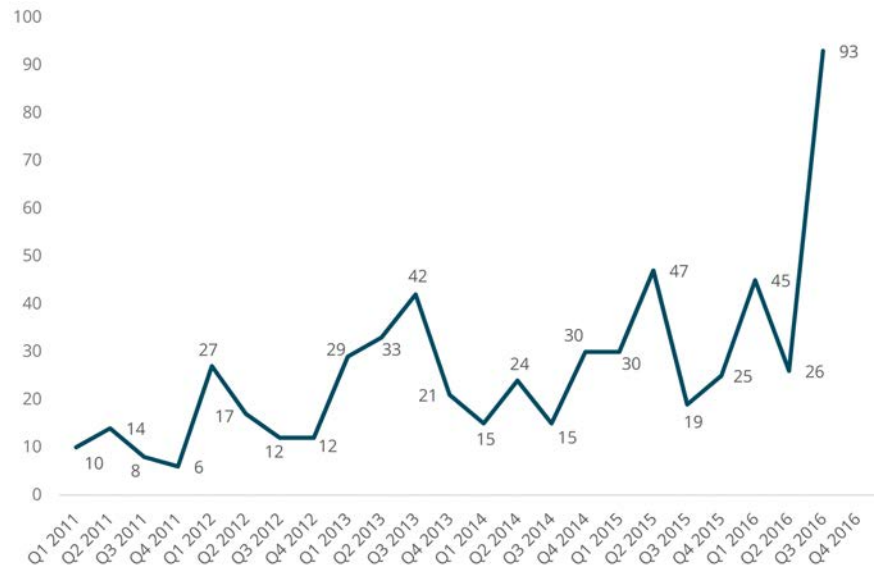
### Postings Over Time

Energy occupations were in high demand in Monroe County during Q3 2016. Online job postings for occupations in this group are generally low, compared to other occupation groups, and thus, appear volatile from quarter to quarter. Postings for these occupations more than tripled from 26 postings in Q2 2016 to 93 in Q3 2016.

### Employment Over Time

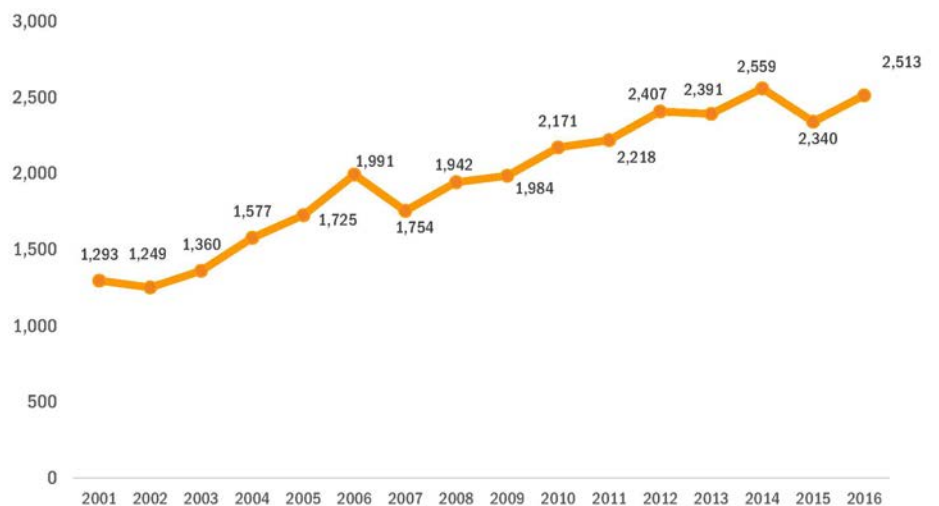
The data presented in the graph to the right represents Monroe County's total employment in the Energy industries (NAICS 2111, 2131, 2211, 2212, 2371), not just WIN-designated Energy occupations. In 2016, 2,513 workers are employed in these Energy industries in Monroe County. Unlike many other occupation groups and industries, employment in the Energy industries in Monroe County did not decline substantially during the Great Recession. Instead, employment in Detroit's Energy industries has generally increased since 2001.

### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time



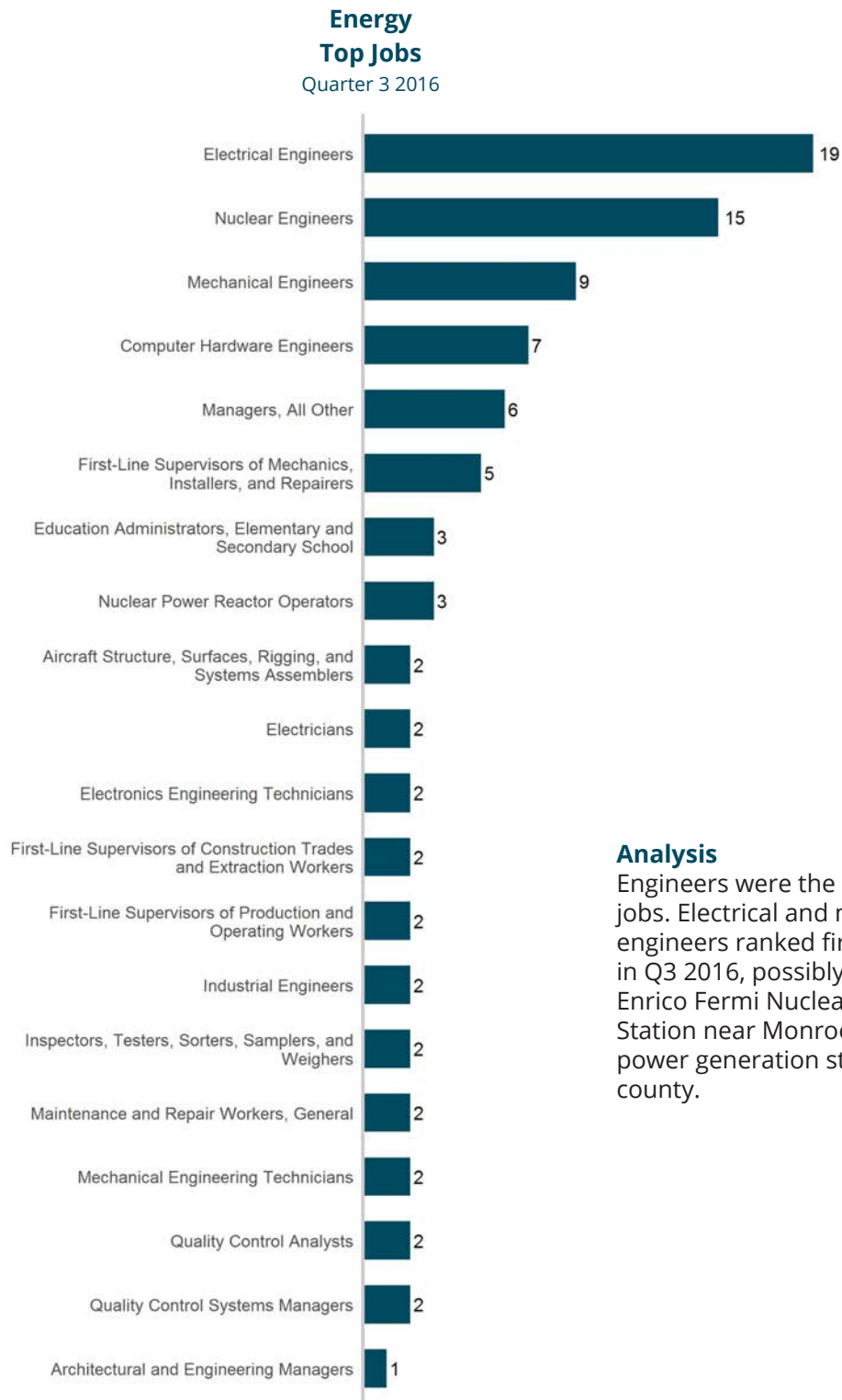
Data: EMSI, BLS  
Analysis: Workforce Intelligence Network



45 total postings



Nuclear engineers in-demand



### Analysis

Engineers were the most in-demand jobs. Electrical and nuclear engineers ranked first and second in Q3 2016, possibly due to the Enrico Fermi Nuclear Generating Station near Monroe and other power generation stations in this county.



3+ years, most in-demand  
experience

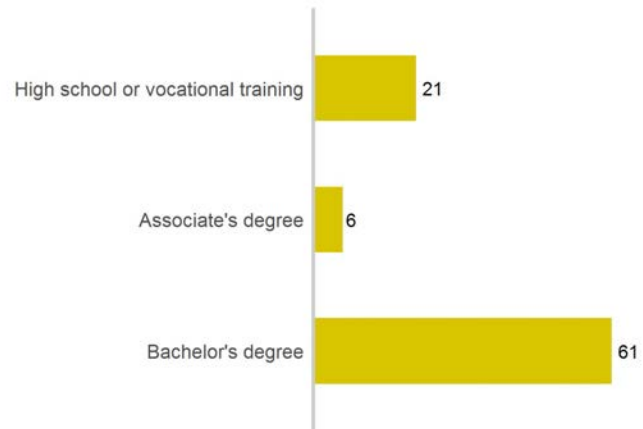
69%

Bachelor's degree preferred

### Energy Educational Attainment & Experience Required

Most Energy positions open in Monroe County require a bachelor's degree. Ninety-five percent of Q3 2016 postings specified a required level of educational attainment; of those that did, 69 percent required candidates to hold a bachelor's degree. This occupation group also requires higher levels of experience than many other occupation groups in Monroe County. Of the Q3 2016 postings that specified a desired level of experience, 92 percent preferred workers with at least three years of experience in the Energy field.

### Minimum Educational Attainment Required Q3 2016

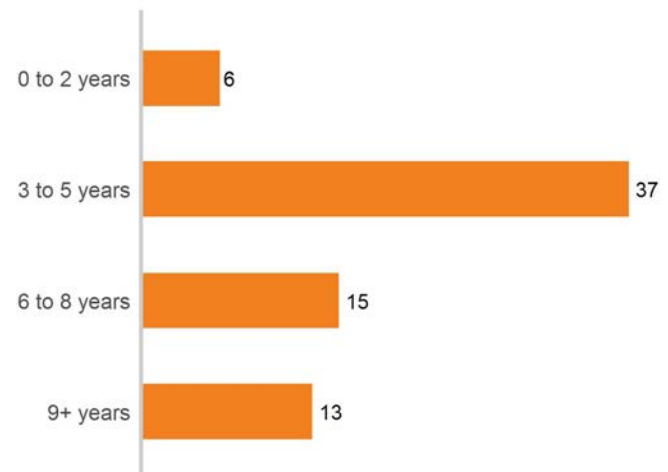


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Areas of Study in-Demand Q3 2016

- Electrical and electronic engineering technologies/technicians
- Mechanical engineering
- Computer engineering
- Business administration and management
- Construction engineering

### Experience Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

%

40% of postings are  
for full-time positions



93 postings in Q3  
2016

### Energy in-Demand Skills Q3 2016

The Energy group is one of the most highly technical of the WIN occupation groups analyzed in Monroe County. This high degree of technicality is reflected in the skills desired in Q3 2016 job postings. Energy professionals in Monroe County should have experience with nuclear energy and engineering support, as well as important project management skills. Baseline, employability skills in this group include mathematics and research skills.

#### Technical in-Demand Skills

- Budgeting
- Benchmarking
- Nuclear energy
- Project management
- Engineering support

#### Foundational In-Demand Skills

- Planning
- Writing
- Research
- Mentoring
- Problem Solving

#### Job Type

- Temporary: data not available
- Full-time: 39.8%
- Part-time: data not available

#### Certifications In-Demand

- Engineering in Training (EIT) certificate
- Professional Engineer (PE)
- Electrical certification (e.g. electrical installation certification)
- Project management certification (e.g. PMP)
- American Society of Mechanical Engineers (ASME) certified



Engineer in training (EIT)  
is the most sought after  
certification



> \$75,000 typical annual salary

## Energy

### Wages

There is insufficient data from Q3 2016 Energy job postings to analyze advertised wages. Wage data from the Bureau of Labor Statistics show that the in-demand engineers in the Energy group earn high median hourly wages, some above \$50 an hour. The high educational requirements for these occupations is translated into high wages for other positions, like managers and nuclear power reactor operators, too.

## Advertised Salaries

Quarter 3 2016

Insufficient data from job postings.

## 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
17-2071	Electrical Engineers	\$29.71	\$38.39	\$44.89	\$50.72	\$58.25
17-2161	Nuclear Engineers	\$38.31	\$48.14	\$54.78	\$59.58	\$66.37
17-2141	Mechanical Engineers	\$26.21	\$29.88	\$34.87	\$42.81	\$50.19
17-2061	Computer Hardware Engineers	\$35.55	\$48.09	\$56.01	\$63.68	\$71.23
11-9199	Managers, All Other	\$24.85	\$31.98	\$44.25	\$53.80	\$61.93
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$15.78	\$19.70	\$27.03	\$39.25	\$45.60
11-9032	Education Administrators, Elementary and Secondary School	\$28.47	\$36.74	\$43.33	\$48.61	\$54.95
51-8011	Nuclear Power Reactor Operators	\$30.09	\$38.48	\$45.96	\$59.15	\$60.55
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
47-2111	Electricians	\$24.15	\$27.37	\$31.72	\$35.37	\$38.59

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.

### Postings Over Time

Online job postings for Skilled Trades workers in Monroe County increased 21 percent, from 95 postings in Q2 to 115 in Q3 2016. Following a peak in demand at 140 job postings in Q1 2014, demand for Skilled Trades workers has generally fluctuated between 80 and 95 postings per quarter.

### Employment Over Time

Skilled Labor employment within Monroe county during 2016 has seen slow growth after a decline in 2014. In 2016, there were 2,564 Skilled Trade employees were identified in Monroe, an increase of 572 from the 2009 recession.

### Online Job Postings



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time



Data: EMSI, BLS  
Analysis: Workforce Intelligence Network



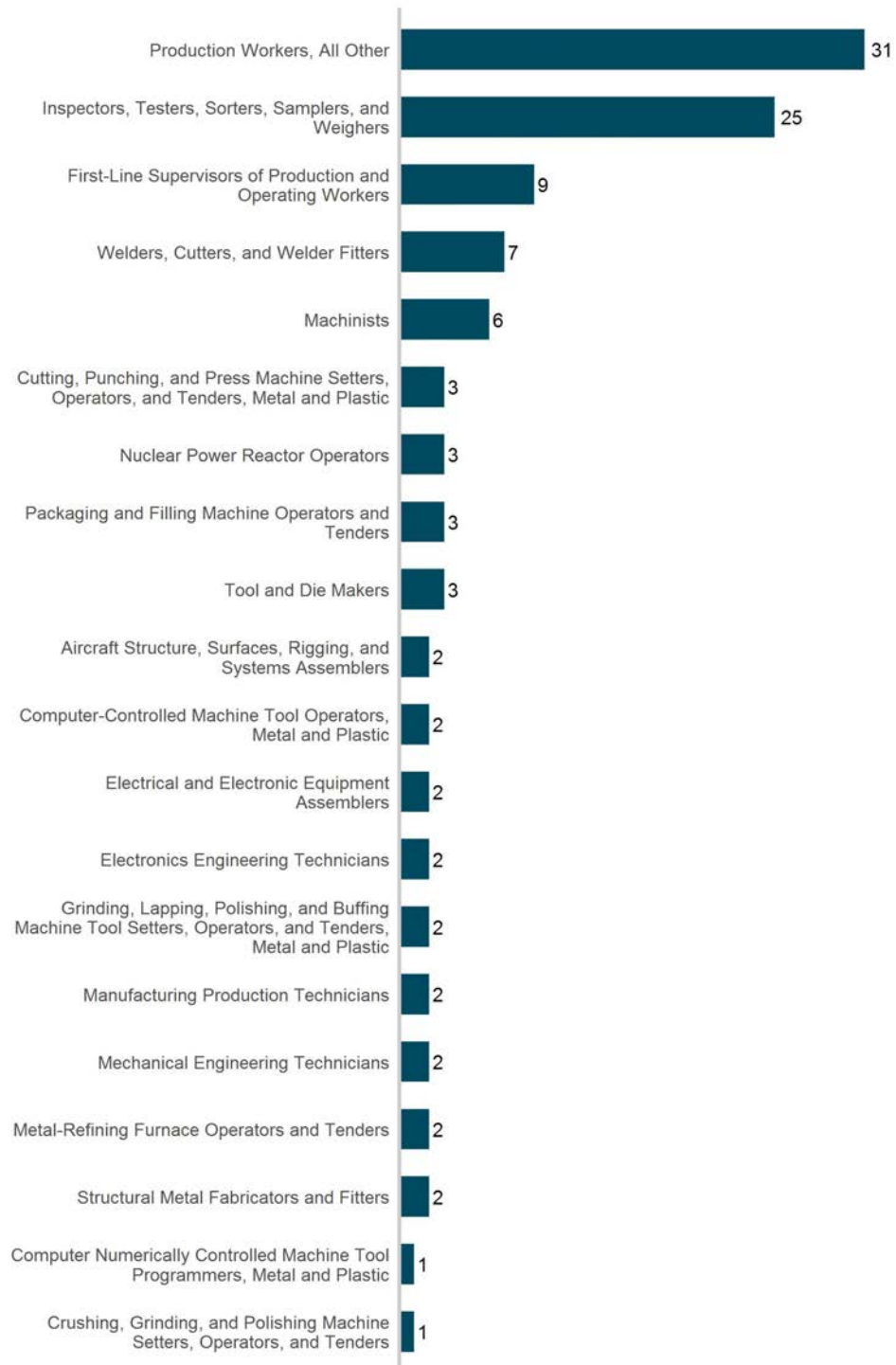
Postings increased by 21%



Entry Level Experience  
Desired

### Skilled Trades & Technicians Top Jobs

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Desired Education: High-School/ Vocational

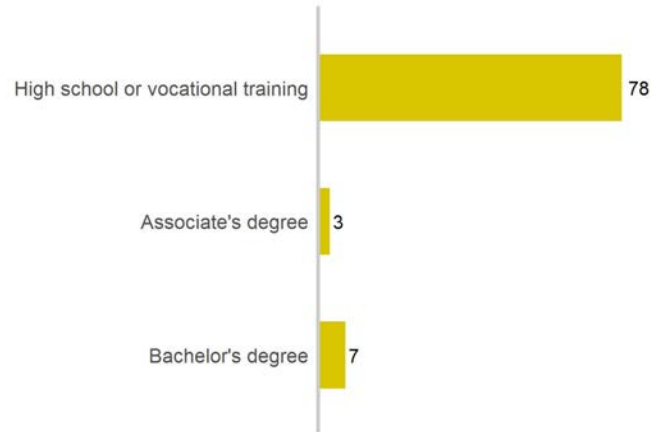
%

Demanded area of study: Engineering

### Skilled Trades & Technicians Educational Attainment & Experience Required

Of the 95 postings for occupations related to energy in Monroe County 76% (72 postings) expressed a desired level of education, with 57 of the 72 postings (79%) requested that the applicant have high school or vocational training. A desired experience level was expressed for 47 of the 95 job postings (49%) with 42 postings (89%) asking for 0-5 years and 5 (11%) asking for 9+ years.

### Minimum Educational Attainment Required Q3 2016

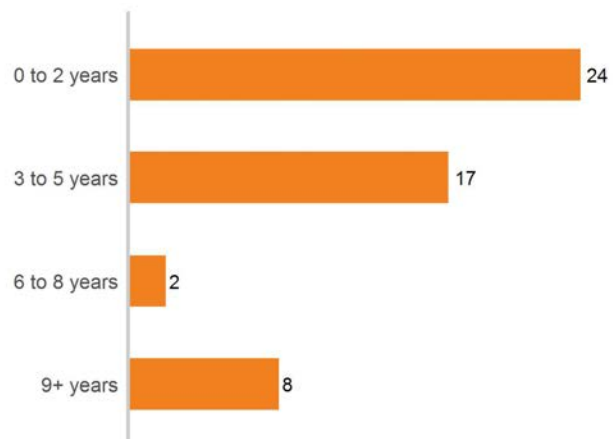


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Areas of Study in-Demand Q3 2016

- Engineering, general
- Business administration and management
- Engineering technology, general
- Mechanical engineering

### Experience Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Skills desired: mechanical,  
problem solving, communication

%

Majority of postings are full-time

### Skilled Trades & Technicians in-Demand Skills Q3 2016

The occupations in the Skilled Trades group require a wide array of high-level technical skills. Machinery, repair, inspection, and other traditional skills remain the most common in Skilled Trades job postings. Communication skills were also present in many of the Skilled Labor postings including problem solving skills, planning, and quality assurance and control. Advanced technical skills such as mathematics do appear through the skills list most likely coinciding with the demand for procedural knowledge. Employers also look for troubleshooting, safety, and assessment skills when posting Skilled Trade jobs. These skills are imperative for Skilled Trades so that collaboration can be fostered in a safe and flowing environment.

#### Technical in-Demand Skills

- Inspection
- Repair
- Machinery
- Micrometers
- Packaging

#### Foundational In-Demand Skills

- Communication
- Problem Solving
- Planning
- Quality Assurance and Control
- Troubleshooting

#### Job Type

- Temporary: 2%
- Full-time: 72%
- Part-time: 14%
- Not Reported: 12%

#### Certifications In-Demand

- American Society for Quality Certification
- Certified quality auditor
- Certified quality engineer
- Certified reliability engineer
- Six Sigma black belt



Average Salary 11% less than  
state average



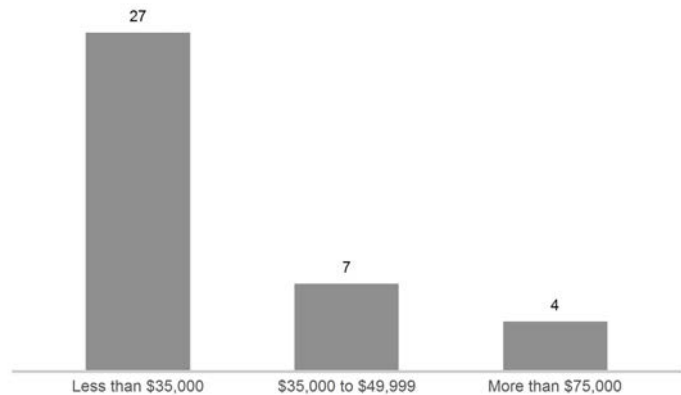
The ASQ certification is  
the most sought after

## Skilled Trades & Technicians Wages

Of the 95 postings related to skilled trades, 39% (37 postings) offered salary expectations, with 73% (27 postings) offering a salary of \$35,000 or less. There were 10 postings of the 37 (27%) that offered salaries between \$35,000 to \$74,999.

## Advertised Salaries

Quarter 3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

## Wage Data from Bureau of Labor Statistics 2016

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
51-9199	Production Workers, All Other	\$10.69	\$13.56	\$18.64	\$26.76	\$30.60
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.77	\$11.07	\$15.57	\$21.47	\$26.84
51-1011	First-Line Supervisors of Production and Operating Workers	\$20.62	\$28.10	\$37.64	\$45.29	\$53.51
51-4121	Welders, Cutters, and Welder Fitters	\$12.85	\$14.80	\$17.19	\$20.65	\$25.26
51-4041	Machinists	\$16.53	\$23.40	\$27.87	\$32.27	\$34.95
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	\$9.91	\$10.38	\$11.16	\$11.93	\$21.65
51-8011	Nuclear Power Reactor Operators	\$30.09	\$38.48	\$45.96	\$59.15	\$60.55
51-9111	Packaging and Filling Machine Operators and Tenders	\$10.61	\$13.22	\$17.44	\$26.36	\$30.21
51-4111	Tool and Die Makers	\$15.22	\$19.04	\$21.85	\$25.11	\$28.17
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

Data: EMSI, BLS  
Analysis: Workforce Intelligence Network

# Transportation, Distribution, and Logistics (TDL)

## Introduction

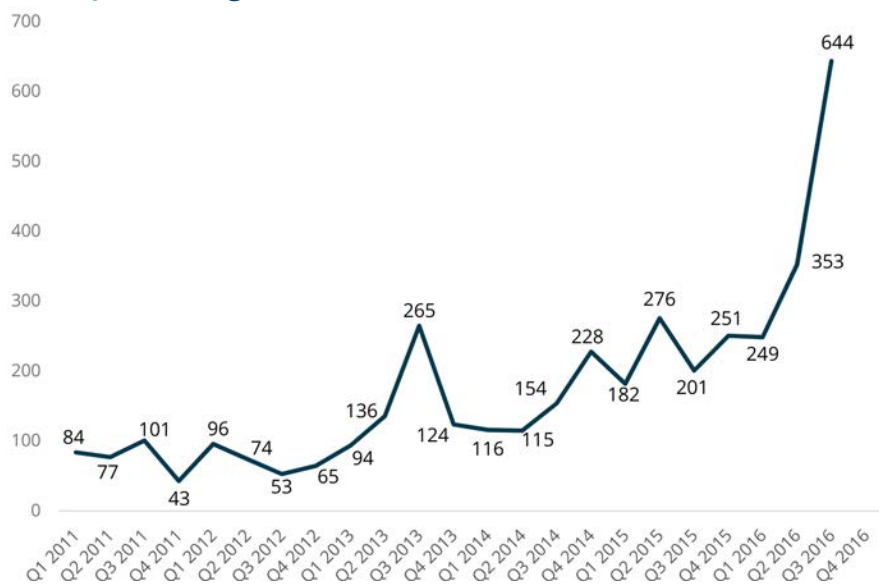
### Transportation, Distribution, and Logistics (TDL)

Transportation, distribution, and logistics (TDL) workers help move materials in an efficient manner whether it is from one company to another or directly to a consumer. Logistics workers range from materials movers to logistics analysts, coordinating and analyzing material and goods movement.

### Postings Over Time

Online job postings for occupations related to TDL were up 82% to 644 during Q3 2016, compared to 353 during Q2 2016. This also doubles the amount from Q3 2015, which reported having 210 postings within this occupational group.

### Online Job Postings

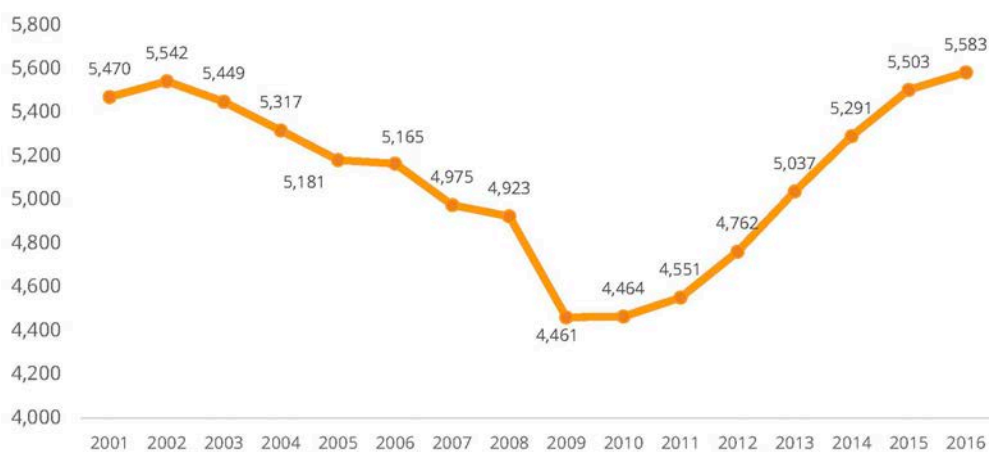


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Employment Over Time

2016 marked a new high point in employment for the Transportation Job group in Monroe county after steady increases since 2009. There were a total of 5,583 workers within the occupation group a sixteen-year high point overall, and an increase of 1,122 workers from the 2009 employment drop.

### Employment Over Time



Data: EMSI, BLS  
Analysis: Workforce Intelligence Network



Job postings increased by  
82% from Q2 2016



Job postings tripled Q3  
2015 levels

## Transportation, Distribution, and Logistics (TDL)

### Top Jobs

Quarter 3 2016



### Analysis

Online job postings for heavy and tractor-trailer truck drivers increased by 271 postings from Q2 2016. Heavy tractor-trailer truck drivers have retained the top position again in Q3 2016



Postings desired 0-2 years of prior experience.

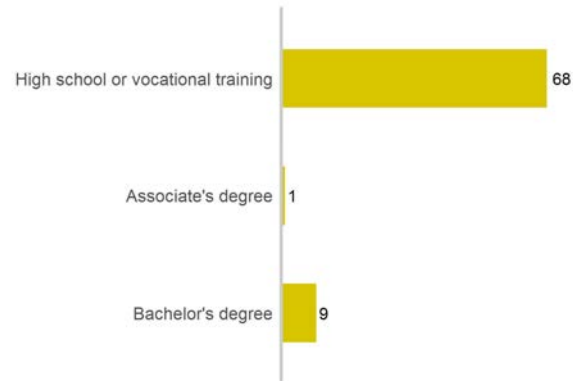
%

Preferred min education: high-school/ vocational training

### Transportation, Distribution, and Logistics (TDL) Educational Attainment & Experience Required

Of the 644 postings for TDL group occupations, 47% (303 postings) expressed a desired experience level, 92% of which stated less than 5 years of experience, indicating that most online ads advertising experience were for entry-level positions. Employers of TDL related occupations in Monroe County most often prefer workers with a high school degree/equivalent or vocational training, with 68 of 78 online postings expressing these levels of educational attainment as a preferred or necessary qualification.

### Minimum Educational Attainment Required Q3 2016

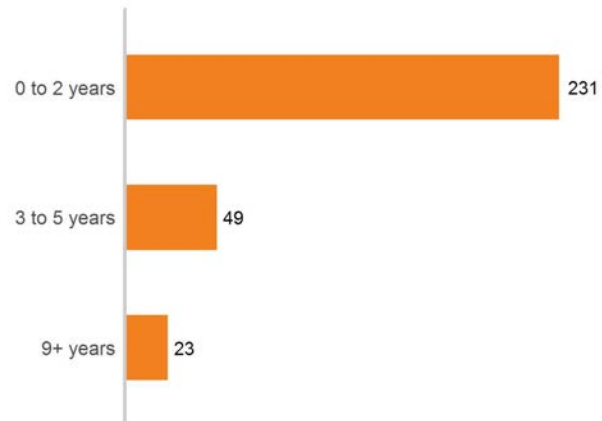


Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network

### Areas of Study in-Demand Q3 2016

- Logistics, materials and supply chain management
- Mechanical Engineering
- Business Administration and Management

### Experience Required Q3 2016



Data: Burning Glass Technologies  
Analysis: Workforce Intelligence Network



Most Desired Certification:  
CDL

%

Inspection and  
organization skills  
desired

### Transportation, Distribution, and Logistics (TDL) in-Demand Skills Q3 2016

The occupations in the Transportation group require a wide array of high-level technical skills. Repair, inspection, forklift operation, and truck driving skills remain the most common in Skilled Trades job postings. Management skills were also present in many of the Transportation postings focusing on logistics, supply chain management, operations management, customer service, and staff management. Advanced technical skills such as mathematics and analytics do appear through the skills list most likely coinciding with the demand for procedural knowledge. Employers also look for communication, safety, and assessment skills when posting Transportations jobs. These skills are imperative for this occupation group as detailed plans are key in cost saving techniques, and communication and safety knowledge bring about an optimal work environment when transporting goods or materials.

#### Technical in-Demand Skills

- Repair/ Inspection
- Forklift Operation/ Truck Driving
- Labeling/ Scheduling/ Cycle Counting
- Scheduling
- Customer Service/Contact

#### Foundational In-Demand Skills

- Organizational Skills/ Planning/ Preventive Maintenance
- Physical Demand
- Computer Skills/ Microsoft Office
- Communication Skills/ English/ Customer Service
- Project Management

#### Job Type

- Temporary: 5%
- Full-time: 16%
- Part-time: 1%
- Not Reported: 78%

#### Certifications In-Demand

- Commercial driver's license
- Air brake certified
- APICS (American Production and Inventory Control Society) certification
- Automotive Service Excellence (ASE) certification
- Forklift Operator Certification



Advertised average salary:  
\$66,706.



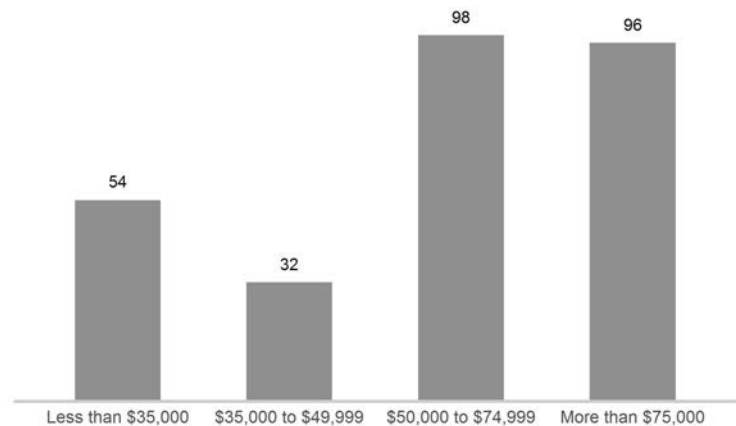
Area of Study: Logistics,  
materials and supply  
chain management

### Transportation, Distribution, and Logistics (TDL) Wages

Of the 280 postings that gave wage information in the TDL group in Q3 2016, 54 (19%) were below \$35,000 a year. 70% (194 postings) offered a salary range of \$50,000 and above. The mean real-time advertised salary for that gave wage information in Monroe during Q3 2016 was \$66,706. .

### Advertised Salaries

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
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$11.20	\$15.18	\$19.22	\$22.32	\$25.62
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$8.15	\$9.05	\$12.10	\$15.29	\$18.96
13-1081	Logisticians	\$23.52	\$30.74	\$39.42	\$49.25	\$52.42
53-6031	Automotive and Watercraft Service Attendants	\$8.15	\$8.49	\$9.68	\$11.33	\$13.94
53-7051	Industrial Truck and Tractor Operators	\$10.23	\$12.07	\$15.86	\$22.38	\$27.31
43-5081	Stock Clerks- Stockroom, Warehouse, or Storage Yard	\$8.76	\$9.57	\$11.64	\$15.67	\$20.04
53-7061	Cleaners of Vehicles and Equipment	\$8.15	\$8.37	\$9.78	\$11.60	\$13.26
53-7021	Crane and Tower Operators	\$17.62	\$19.64	\$21.20	\$22.77	\$23.70
53-7064	Packers and Packagers, Hand	\$8.15	\$8.58	\$9.30	\$11.46	\$14.72
53-3041	Taxi Drivers and Chauffeurs	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data

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	75,641	73,660	73,796	74,985	76,425	76,732	<b>78,167</b>	1,435	1.9%
Employment	66,771	66,681	68,065	69,422	71,760	73,387	<b>75,021</b>	1,633	2.2%
Unemployment	8,869	6,979	5,731	5,563	4,664	3,345	<b>3,146</b>	-198	-5.9%
Unemployment Rate	11.7%	9.5%	7.8%	7.4%	6.1%	4.4%	<b>4.0%</b>	-0.3%	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	76,294	77,349	78,152	78,632	<b>77,717</b>	-915	-1.2%	1,423	1.9%
Employment	72,990	74,728	74,959	75,679	<b>74,424</b>	-1,255	-1.7%	1,434	2.0%
Unemployment	3,304	2,621	3,193	2,953	<b>3,293</b>	340	11.5%	-11	-0.3%
Unemployment Rate	4.3%	3.4%	4.1%	3.8%	<b>4.2%</b>	0.5%	na	-0.1%	na

*\*Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics


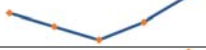
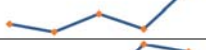








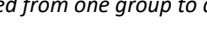
### Monthly Labor Market Data

	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	76,857	75,993	76,032	77,344	77,546	77,157	77,440	78,471	78,546	78,647	78,911	78,339	77,876	77,642	77,633
Employment	72,669	72,948	73,352	74,545	75,028	74,611	74,214	75,284	75,380	75,785	75,995	75,257	74,222	74,299	74,751
Unemployment	4,188	3,045	2,680	2,799	2,518	2,546	3,226	3,187	3,166	2,862	2,916	3,082	3,654	3,343	2,882
Unemployment Rate	5.4%	4.0%	3.5%	3.6%	3.2%	3.3%	4.2%	4.1%	4.0%	3.6%	3.7%	3.9%	4.7%	4.3%	3.7%

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


















Data: Bureau of Labor Statistics

# Monroe 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	1,871	1,778	1,662	1,694	3,196		70.8%	92.3%
Agriculture	26	23	20	24	30		15.4%	50.0%
Business & finance	119	108	133	112	169		42.0%	27.1%
Construction	14	19	14	31	28		100.0%	100.0%
Customer service	407	425	355	414	567		39.3%	59.7%
Education	28	53	24	48	58		107.1%	141.7%
Energy	47	19	25	26	93		97.9%	272.0%
Engineers & designers	107	91	75	76	187		74.8%	149.3%
Health care	277	200	178	110	647		133.6%	263.5%
Information technology	117	97	82	70	95		-18.8%	15.9%
Skilled trades & technicians	82	91	85	95	115		40.2%	35.3%
Transportation, distribution, and logistics	276	201	251	353	644		133.3%	156.6%

*\*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.*

## Total Job Postings: WIN Partnership

	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Share of Q2 2016 Total	Change Over Time	Annual Change Q2 2015-Q2 2016	Quarter Growth Q1 2016-Q2 2016
WIN-Region Total	129,794	140,225	126,959	143,199	139,765	100.0%		7.7%	-2.4%
Detroit	27,742	30,426	27,966	29,296	28,456	20.5%		2.6%	-2.9%
Genesee & Shiawassee	5,071	5,465	4,721	5,711	5,631	4.0%		11.0%	-1.4%
Hillsdale & Lenawee	1,495	1,467	1,580	1,678	1,606	1.2%		7.4%	-4.3%
Jackson	2,415	2,373	2,099	2,557	2,181	1.8%		-9.7%	-14.7%
Livingston	2,151	2,274	2,048	2,472	2,162	1.7%		0.5%	-12.5%
Macomb	13,586	14,136	12,658	14,754	14,257	10.3%		4.9%	-3.4%
Monroe	1,871	1,778	1,662	1,841	1,694	1.3%		-9.5%	-8.0%
Oakland	40,219	44,474	39,030	45,418	43,058	31.7%		7.1%	-5.2%
St. Clair	1,807	1,697	1,461	1,730	1,788	1.2%		-1.1%	3.4%
Thumb Area	1,208	1,199	1,561	1,673	1,598	1.2%		32.3%	-4.5%
Washtenaw	11,192	11,812	10,540	11,951	11,020	8.3%		-1.5%	-7.8%
Wayne	50,930	55,824	51,993	55,886	54,770	39.0%		7.5%	-2.0%
Outer Wayne	23,188	25,398	24,027	26,590	26,314	18.6%		13.5%	-1.0%
Prosperity Region 6	8,086	8,361	7,743	9,114	9,017	6.4%		11.5%	-1.1%
Prosperity Region 9	19,124	19,704	17,929	20,499	18,663	14.3%		-2.4%	-9.0%
Prosperity Region 10	104,735	114,434	103,681	116,058	112,085	81.0%		7.0%	-3.4%

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