

Q1 2017
January - March

JACKSON COUNTY

WIN Labor Market Report





Introduction: Jackson 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 Jackson County with special sections devoted to five 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)
- Energy (page 11)
- Health Care (page 16)
- Information Technology (page 21)
- Skilled Trades & Technicians (manufacturing focused) (page 26)

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: Jackson County

2016 Year in Review

Overall job postings grew by 34 percent throughout 2016. Following a slight decline between Q1 and Q2 2016, demand rose through the rest of the year with the largest increase between Q4 2016 and Q1 2017. Specific occupation groups varied greatly in demand. Agriculture postings dipped from 47 to 19 between Q1 and Q3 2016, but rebounded to 48 ads in Q1 2017. Energy employers increased their postings consistently during 2016, but demand fell off in Q1 2017. However, Q1 2017 posting levels were 45.5 percent higher than in Q1 2016. Health care job postings followed a similar pattern to overall postings and experienced a 20.5 percent growth in demand from 405 postings in Q1 2016 to 488 in Q1 2017. Employer demand for Information technology jobs gained 54 postings between Q2 and Q4 2016. There was a sharp drop to 174 ads in Q4, but increases returned for Q1 2017. Skilled trades occupations began 2016 with 109 online job ads, and shot up following Q3 for a total of 157 in Q1 2017. This 44 percent increase in demand is the highest among the occupations analyzed here, although similar to many other Jackson County occupation groups.

The labor force in Jackson County increased 0.1 percent over the course of 2016, gaining 37 individuals for a total of 74,236. This increase mainly occurred between Q1 and Q2 2016, as the labor force levels have remained around 74,200 since Q3 2016. Employment varied by about 1,000 individuals each quarter, ultimately experiencing negligible change between Q1 2016 and Q1 2017. Given the modest changes in both labor force and employment in 2016, the annual unemployment rate remained stable and the quarterly rate increased by 0.1 percent.

Findings for Q1 2017

Three occupation groups experienced an increase in online job postings during Q1 2017.

During the recent quarter, online job postings in Jackson County were up by 34.2 percent. This can be attributed to a boost in postings in the agriculture, skilled trades, and health care occupation groups. While energy and IT occupation groups experienced a smaller decline in the number of postings.

Employment slows during Q1 2017 within Jackson County.

Within the past quarter the labor force and employment numbers fell in Jackson County. The number of unemployed workers in Jackson did increase, but it did not have a substantial impact on the county's overall unemployment rate. Overall, annual unemployment remains low indicating the labor market is holding strong even with the decline. See page 3 for more information.

The IT and health care occupation groups report high earnings.

Most job postings in the IT occupation group that advertised an annual salary were offering over \$50,000 per year. Nine of the top in-demand occupations reported median wages of over \$30 per hour, presenting a lucrative opportunity for those who can obtain the education needed to make it in the IT field. The health care field also presents an opportunity for high earnings with four top jobs earning over \$30 per hour.

Demand for Registered Nurses increases with a large jump in the number of total job postings.

The third top in-demand occupation in Jackson County, Registered Nurses, experienced an increase of over 70 postings from Q4 2016 (114 percent growth). This spike in postings led to an overall boost in demand. With the high demand for nurses, job seekers looking for an occupation could benefit by enrolling in a nursing program at an accredited institution.

The demand for entry level workers in Jackson County remains strong.

Within the occupation groups analyzed in this report, most employers were looking for candidates with zero to five years of experience. While many job postings indicate a desire for those with three to five years of experience, the demand for entry level workers remains strong, presenting great opportunities for job seekers.

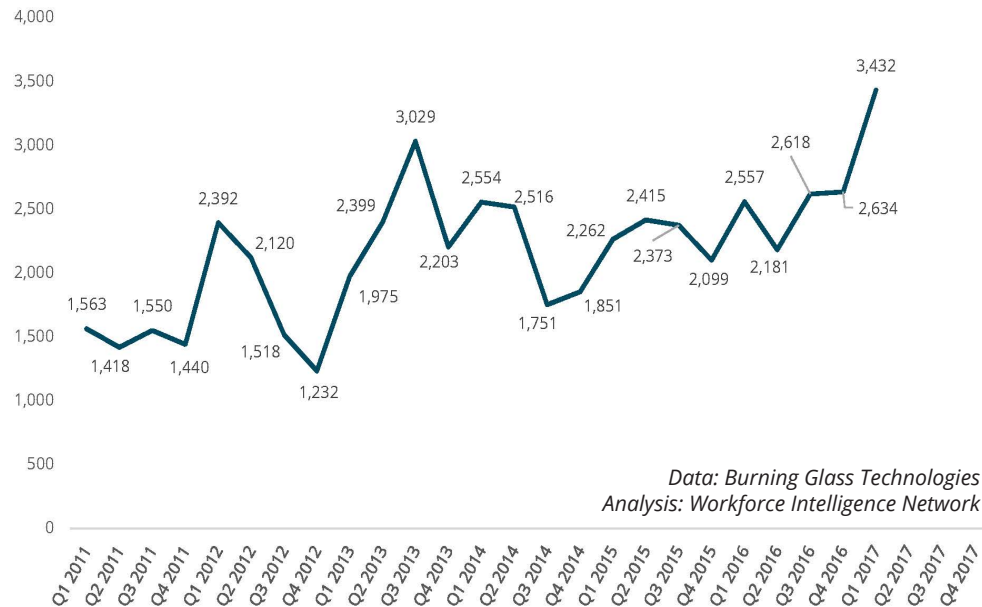


Executive Summary

Postings over time

Total online job postings by employers in Jackson during Q1 2017 were up 30 percent over Q4 2016 numbers. Employers in the region posted 3,432 online job ads between January and March 2017 compared to 2,634 during Q4 2016. This number is also 34 percent higher than the number of postings seen in the region during Q1 2016.

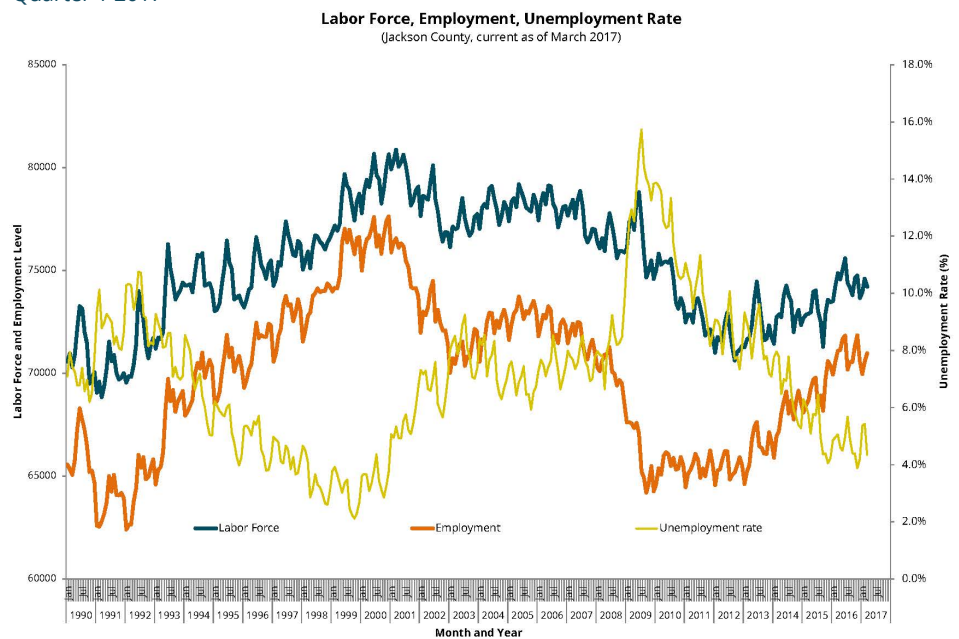
WIN Region Online Job Postings



Labor force/employment/unemployment

The Jackson County labor force fell by 195 workers from 2016 to 2017, a 0.3 decrease to 74,236 workers in the market. Employment also fell by 178 jobs (0.3 percent) in Jackson County moving into 2017. Because the labor market and the level of employment declined at equal percentages, the unemployment rate held steady at 4.7 percent.

Labor Force, Employment, Unemployment Rate Quarter 1 2017



Data: BLS
Analysis: Workforce Intelligence Network



Most in-demand occupation:
Retail Salespersons

4.7%
unemployment rate



Analysis

During Q1 2017, Retail Salespersons retained the top in-demand job in Jackson County. Heavy and Tractor-Trailer Truck Driver's remained consistent, placing it in the top five in-demand jobs within the area. Registered Nurses, Managers, and Sales Representatives all experienced small decreases but retained high spots in the top jobs list.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Now hiring:
3,432 job postings



30.3% increase in
employer demand

Top Jobs

Quarter 1 2017



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

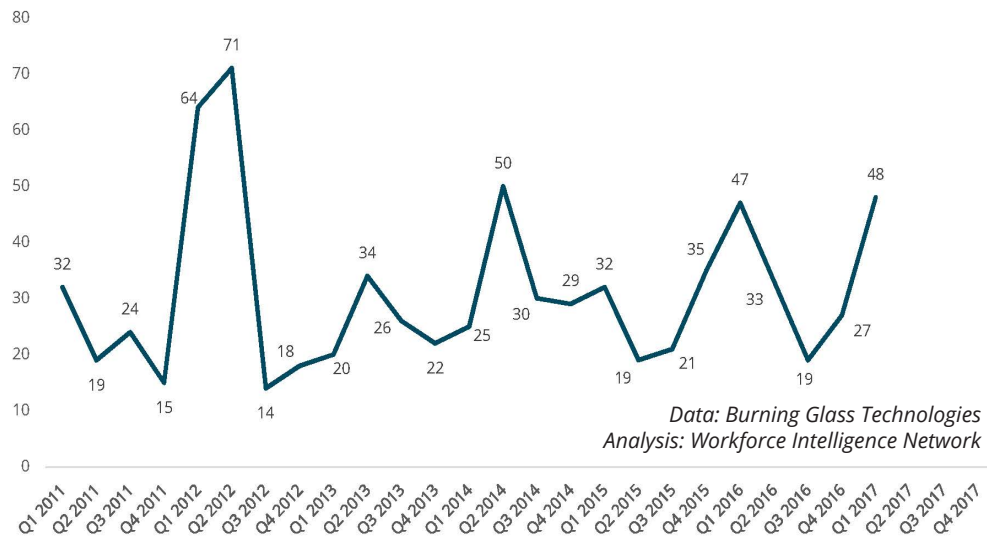
Introduction

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.

Job Posting Analysis

Jackson County employers looking to hire agriculture workers posted 48 online job ads during Q1 2017. This is a 77 percent increase from the 27 job postings in the county for this occupation group during the last quarter.

Online Job Postings



Employment Analysis

Jackson County has generally experienced an increasing employment trend in the agriculture occupation group since 2001. Jackson County experienced a small increase (0.3 percent) in employment from 2016 to 2017. Employment is currently above early 2000 levels, but is below the highest reported employment figures of 2013.

Employment Over Time

Quarter 1 2017



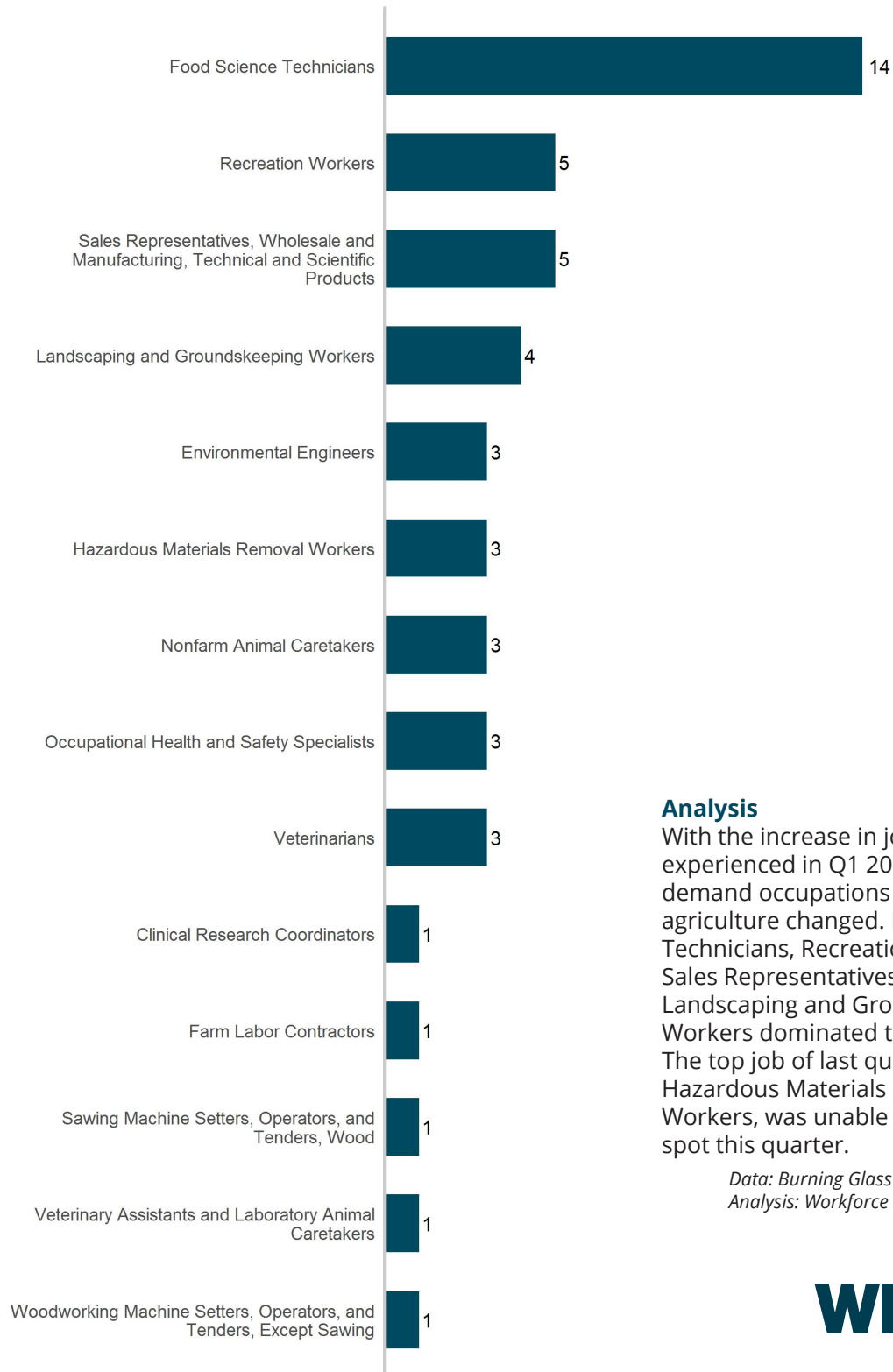


27 agriculture-related job
postings in Q1 2017



Top in-demand job:
Food Science Technicians

**Agriculture
Top Jobs**
Quarter 1 2017



Analysis

With the increase in job postings experienced in Q1 2017, the top in-demand occupations related to agriculture changed. Food Science Technicians, Recreation Workers, Sales Representatives, and Landscaping and Groundskeeping Workers dominated the top spots. The top job of last quarter (Q4 2016), Hazardous Materials Removal Workers, was unable to retain its spot this quarter.

*Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network*



Certifications in-demand: CDL and Hazardous Materials Certification

77%

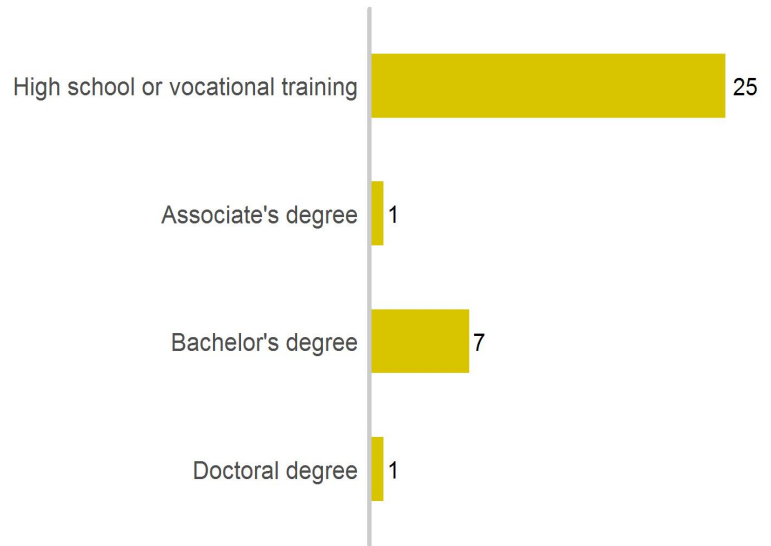
increase in number of postings from Q4 2016

Agriculture Educational Attainment Required

Out of the 48 postings, only 20 postings specify a desired level of experience. All of these postings were available to workers with less than five years of experience. Ten postings were available for entry level applicants with zero to three years of previous experience.

A few of postings specified a desired education level. Of the 34 postings containing education information, 74 percent (25 postings) required a high school diploma or vocational training and 20.5 percent (7 postings) required a bachelor's degree.³

Educational Attainment



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

In-Demand Area of Study

- Business Administration and Management, General
- Engineering, General
- Environmental Health
- Retail Operations
- Occupational Safety and Health Technology or Technician

Experience Required



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Hot Degree: Business Administration and Management



Experience desired:
0 to 5 years

Agriculture In-Demand Skills

The occupations in the agriculture group required a wide range of skills. Technical skills such as inspection and bridge construction was indicated to be critical. Other knowledge based skills like calculation and supervisory skills were also highly sought. A variety of soft skills such as organizational and communication skills were also shown to be important.

Technical In-Demand Skills

- Inspection
- Bridge Construction
- Calculation
- Supervisory Skills
- Construction Inspection

Foundational In-Demand Skills

- Mathematics
- Communication and Building Effective Relationships
- Computer Skills
- Time Management and Planning
- Problem Solving

Job Type

- Temporary: 10.4%
- Full-Time: 66.7%
- Part-Time: 6.3%

Certifications Required

- CDL
- Hazardous Materials Certification
- Applicators License
- Lean Six Sigma
- Professional Engineer



Education desired: High School Diploma



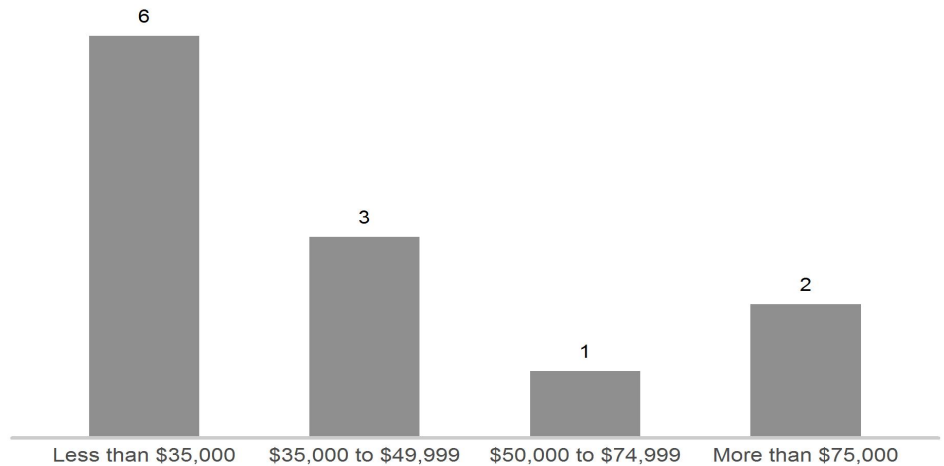
Technical and supervisory skills in-demand

Agriculture Wages

Of the 48 job postings in this occupation group, 12 postings advertised salary information, six of which advertised wages less than \$35,000 per year. Five of the top in-demand jobs reported wages over \$30 per hour within the agriculture group according to local Bureau of Labor and Statistics. Environmental Engineers reported a median hourly wage of \$43.05 which is around \$90,000 per year.

Advertised Wages in Job Postings

Quarter 1 2017



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
19-4011	Food Science Technicians	\$10.11	\$12.80	\$18.18	\$21.85	\$27.51
39-9032	Recreation Workers	\$8.56	\$9.01	\$10.07	\$12.43	\$15.44
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$21.61	\$27.46	\$37.97	\$52.59	\$68.37
37-3011	Landscaping and Groundskeeping Workers	\$9.02	\$10.00	\$11.35	\$13.87	\$17.05
17-2081	Environmental Engineers	\$26.22	\$34.95	\$43.05	\$52.25	\$61.21
47-4041	Hazardous Materials Removal Workers	\$14.78	\$18.28	\$22.45	\$26.17	\$28.55
39-2021	Nonfarm Animal Caretakers	\$8.39	\$8.87	\$9.55	\$11.35	\$14.13
29-9011	Occupational Health and Safety Specialists	\$22.73	\$28.66	\$36.19	\$43.78	\$51.86
29-1131	Veterinarians	\$28.51	\$33.52	\$45.84	\$57.59	\$65.03
11-9121	Clinical Research Coordinators	\$33.08	\$39.94	\$49.18	\$64.32	\$80.92

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Introduction

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

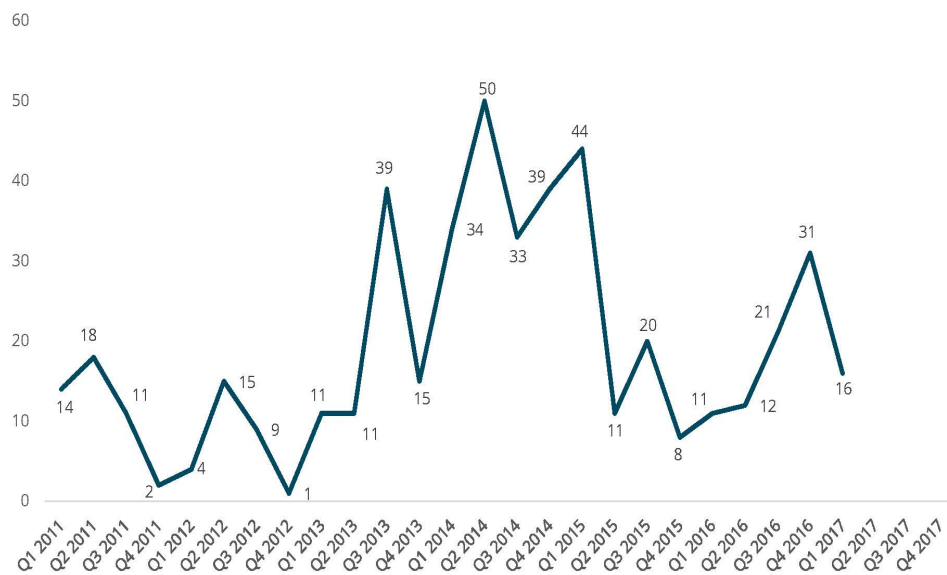
Job Posting Analysis

Online job postings for energy occupations were down 51 percent to 16 postings during Q1 2017, compared to 31 postings in Q4 2016. When compared to Q1 2016, job postings were up by 45 percent, which had 11 reported postings.

Employment Analysis

A new level of employment was achieved in 2017, with 2,832 workers employed in the energy industry. Employment in this industry declined during the period of 2005 through 2012, losing about 350 jobs, during the Great Recession but recovered to 2,759 employees in 2013. Employment numbers have, however, increased both in 2016 and 2017.

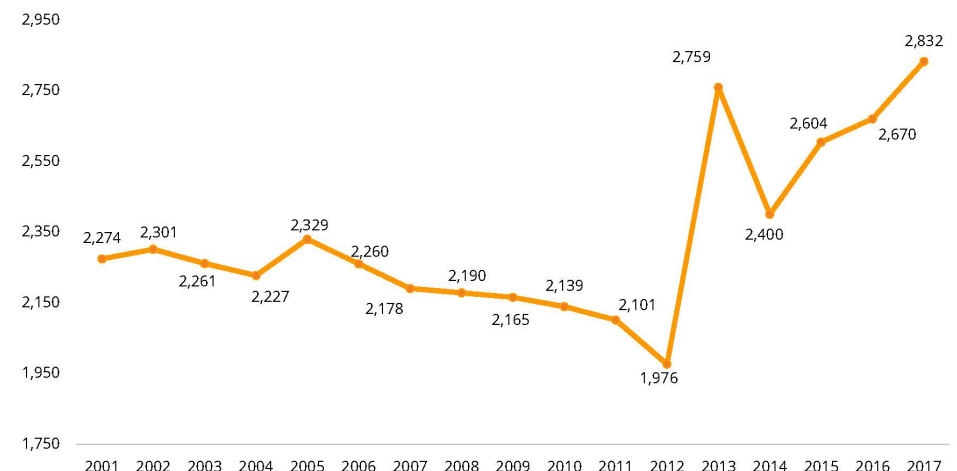
Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Quarter 1 2017



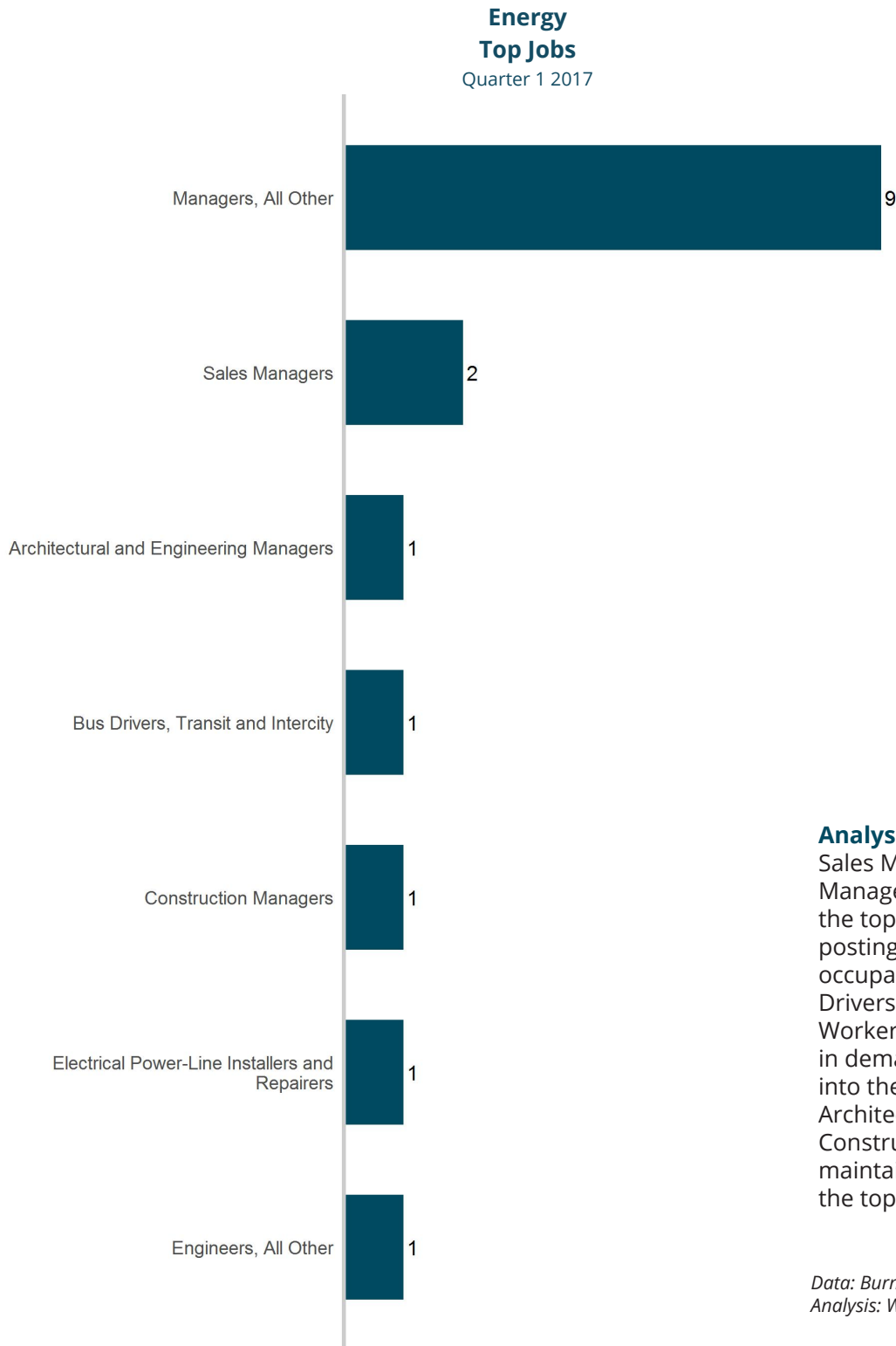
Data: EMSI
Analysis: Workforce Intelligence Network



Energy job postings declined
51% from Q4 2016



Over 2,800 workers employed
in energy occupations



Analysis

Sales Managers and All Other Managers continue to hold the top positions in total job postings for the energy occupation group. Bus Drivers, Transit and Intercity Workers experienced growth in demand, bringing them into the top five jobs. Architectural, Engineering and Construction Managers maintained their positions in the top five jobs.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Top in-demand job: Manager, All Other



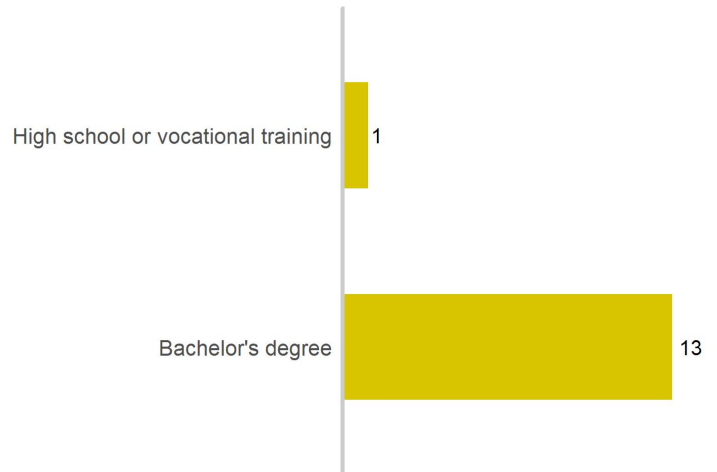
Technical and management skills are in demand

Energy Educational Attainment Required

Of the 16 energy occupation group job postings, three expressed a desired experience level within Q1 2017. One posting indicated a requirement of three to five years of experience and one posting desiring applicants with nine or more years of experience.

Energy jobs posted within Jackson County indicated an interest in candidates with a bachelor's degree as a preferred or necessary qualification (93 percent of postings sought this minimum level of educational attainment).

Educational Attainment



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

In-Demand Areas of Study

- Engineering, General
- Business Administration and Management, General
- Construction Management
- Engineering Technology, General

Experience Required



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



In-demand degree:
Engineering



Manager median wage:
\$32.30 per hour

Energy in-Demand Skills

The occupations in the energy group require a variety of technical and managerial skills. A large amount of job postings indicated an interest in those with technical skills, such as data collection and analysis, SAP knowledge, and other engineering skills. These technical skills reflect an increase in desire to bring in higher talent into the energy industry. Employers also look for management and communication skills such as budgeting, scheduling, and customer service expressing another interest in higher skilled labor within the energy field. These skills are vital for energy workers to maintain the infrastructure and improve on older systems within the county.

Technical in-Demand Skills

- Project Management and Scheduling/Budgeting
- Customer Service
- Business Strategy
- Data Collection
- SAP

Foundational In-Demand Skills

- Planning and Writing
- Communication Skills
- Leadership
- Physical Demand
- Creativity

Job Type

- Temporary: 18.8%
- Full-time: 50%
- Part-time: Data Not Available

Certifications Required

- Project Management Certification (e.g. PMP)
- American Board for Engineering and Technology (ABET) Accredited
- Professional Engineer



SAP and data skills in-demand



Bachelor's degree in high demand

Energy Wages

One posting contained an advertised salary, advertising a salary less than \$35,000 per year. Five of the jobs posted had reported median wages over \$30 per hour, with Managers making a median wage of \$32.30 per hour.

Advertised Wages in Job Postings

Quarter 1 2017



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
11-9199	Managers, All Other	\$21.41	\$26.15	\$32.30	\$39.48	\$47.39
11-2022	Sales Managers	\$31.26	\$42.44	\$55.93	\$73.41	\$114.67
11-9041	Architectural and Engineering Managers	\$40.65	\$49.46	\$60.17	\$72.35	\$85.16
53-3021	Bus Drivers, Transit and Intercity	\$11.37	\$12.86	\$15.65	\$19.31	\$22.05
11-9021	Construction Managers	\$21.85	\$25.40	\$29.71	\$36.50	\$47.25
49-9051	Electrical Power-Line Installers and Repairers	\$17.32	\$27.88	\$35.66	\$42.17	\$47.23
17-2199	Engineers, All Other	\$25.39	\$35.91	\$44.51	\$54.01	\$63.44

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Introduction

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, more health care workers needed to care for Michigan's aging population and in response to regulatory and other changes. Registered Nurses are routinely the most in-demand job in this group.

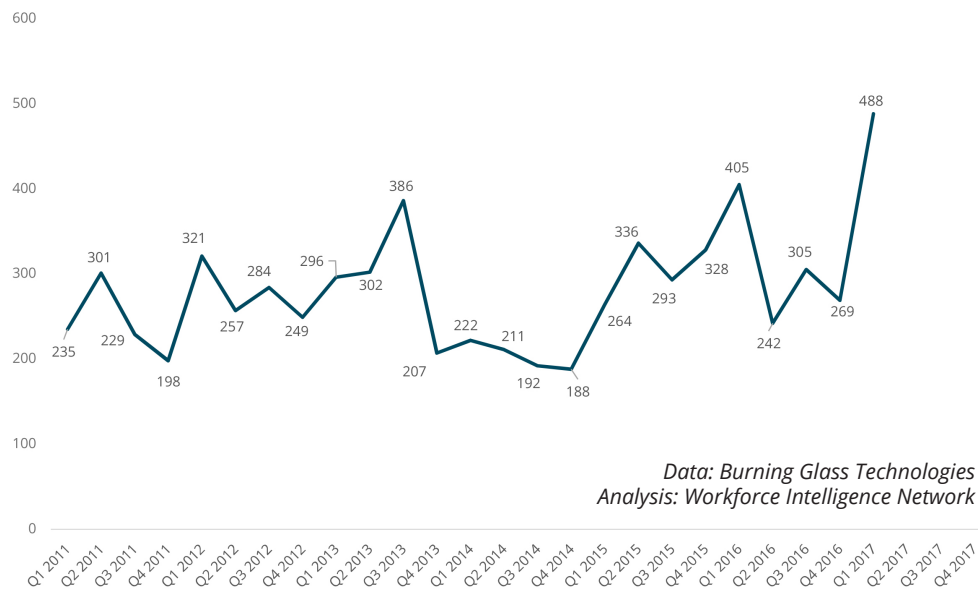
Job Posting Analysis

Health care is one of the largest occupation groups in Jackson County. Employers in the county posted 488 online job postings for health care workers during Q1 2017. This is a noteworthy increase (81.4 percent) from the 269 jobs posted in Q4 2016. Overall, employer demand in the health care occupation group continues to grow in Jackson County, like in much of Southeast Michigan. Increased demand is correlated with growth in employment for these types of workers.

Employment Analysis

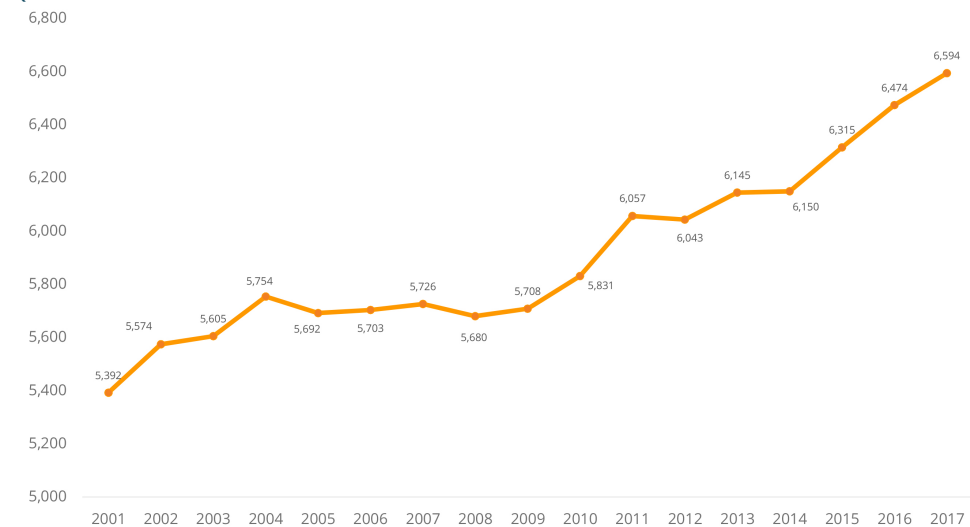
The increase in employer demand evident in health care postings during 2017 has resulted in an employment jump of 120 individuals (+ 1.8 percent). Unlike other occupation groups, health care employment was not severely affected during the Great Recession. Employment in this group has increased in all but four years since 2001.

Online Job Postings



Employment Over Time

Quarter 1 2017



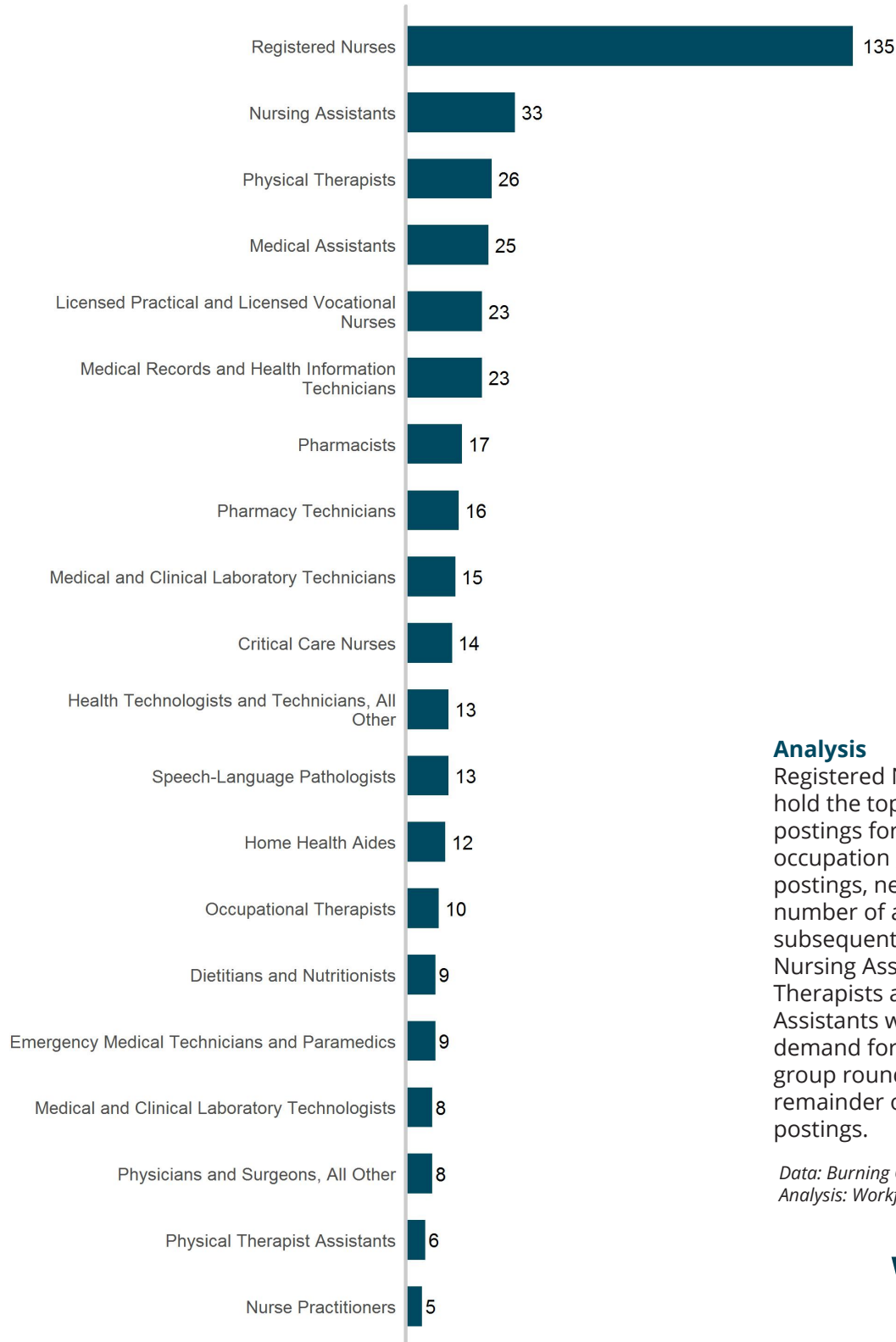


Now hiring: 488 health care
job postings



6,600 health care workers in
Jackson County

Health Care Top Jobs Quarter 1 2017



Analysis

Registered Nurses continue hold the top position in job postings for the health care occupation group with 135 postings, nearly quadruple the number of ads for the subsequent position of Nursing Assistant. Physical Therapists and Medical Assistants were also high in-demand for the occupation group rounding out the remainder of the top five postings.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Short-term training required for health care jobs



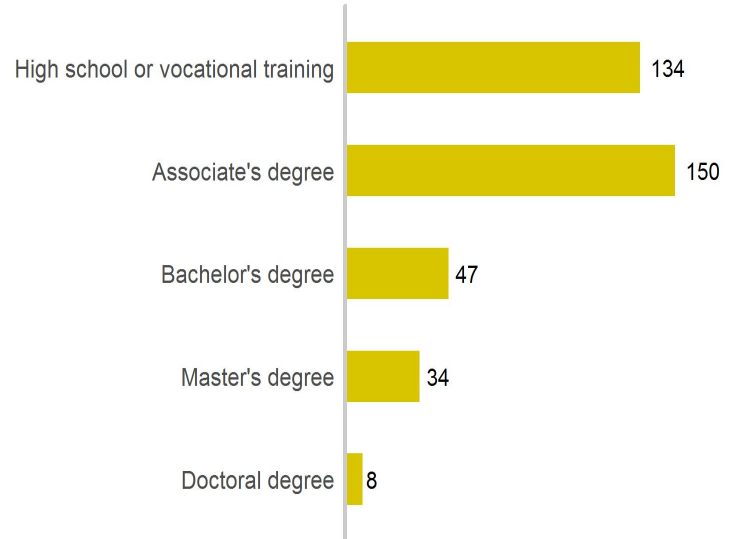
Median wage: \$30 per hr. for Registered Nurses

Health Care Educational Attainment Required

Because occupations like Registered Nurses and Medical Assistants are the most in-demand health care jobs in Jackson County, most of Q1 job postings did not require more than some vocational training or an associate's degree. With this in mind, many health care professions are available to workers with higher education (a bachelor's or graduate degree) and offer higher wages.

Like the demand for applicants with vocational training or an associate's degree, most of the health care postings in Jackson County during Q1 2017 were options for workers with less than two years of experience. Entry-level workers (179 postings) can secure a job as a Medical Assistant if they are willing to complete a short-term training or degree program.

Educational Attainment

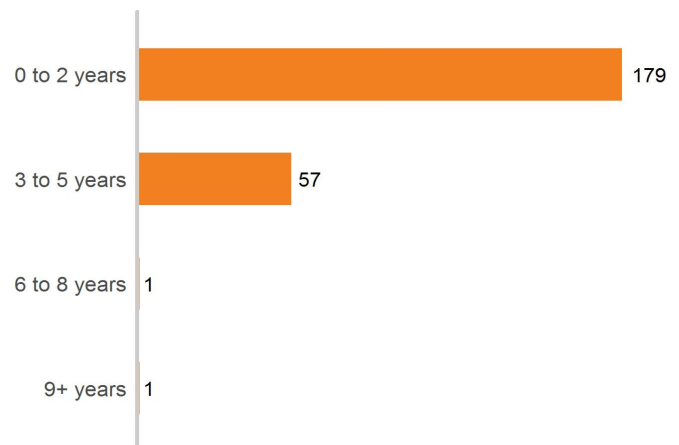


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

In-Demand Areas of Study

- Nursing Science
- Physical Therapy and Therapist
- Health Profession and Related Programs
- Clinical and Medical Laboratory Technician
- Business administration and Management, General

Experience Required



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Associate's degree required
for most health care jobs



Average advertised salary:
\$54,599 per year

Health Care In-Demand Skills

The occupations in the health care group required a wide range of skills. The skills specific to this group were treatment planning, rehabilitation, and customer service. Some skills required are generally applicable to other fields, including communication, organizational skills, and planning.

Technical In-Demand Skills

- Patient Care/Critical Care
- Rehabilitation
- Treatment Planning
- Customer Service
- Customer Billing

Foundational In-Demand Skills

- Communication Skills and Teamwork-Collaboration
- Organizational Skills and Detail-Oriented
- Physical Demand
- Writing
- Critical Thinking

Job Type

- Temporary: 5.1%
- Full-time: 56.2%
- Part-time: 9.6%

Certifications Required

- Registered Nurse
- First Aid CPR AED
- Certified Nursing Assistant
- Basic Cardiac Life Support Certification
- Certified Medical Assistant



Knowledge areas:
Nursing, Physical Therapy



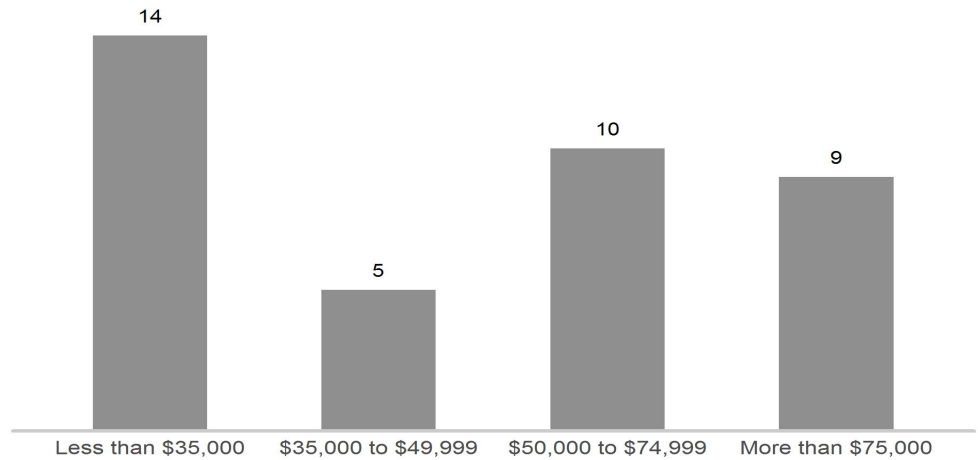
Certifications in-demand:
RN, CPR, CNA

Health Care Wages

Only 38 of the 488 health care job postings for Q1 advertised a salary range. Of those that did, 10 jobs offered salaries between \$50,000 and \$75,000 per year, with another nine advertising salaries over \$75,000 per 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 1 2017



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
29-1141	Registered Nurses	\$25.13	\$28.55	\$33.18	\$38.42	\$46.58
31-1014	Nursing Assistants	\$9.96	\$11.65	\$13.46	\$15.52	\$17.56
29-1123	Physical Therapists	\$27.34	\$33.06	\$39.92	\$49.33	\$62.25
31-9092	Medical Assistants	\$10.78	\$12.34	\$14.06	\$16.32	\$18.78
29-2061	Licensed Practical and Licensed Vocational Nurses	\$18.51	\$20.51	\$23.28	\$26.23	\$28.45
29-2071	Medical Records and Health Information Technicians	\$11.74	\$14.25	\$17.98	\$22.66	\$27.43
29-1051	Pharmacists	\$42.61	\$50.21	\$55.49	\$60.30	\$66.40
29-2052	Pharmacy Technicians	\$10.04	\$11.90	\$14.61	\$17.31	\$19.25
29-2012	Medical and Clinical Laboratory Technicians	\$10.79	\$12.75	\$15.28	\$19.12	\$27.00
29-1141	Critical Care Nurses	\$25.13	\$28.55	\$33.18	\$38.42	\$46.58

Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Information Technology

Introduction

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.

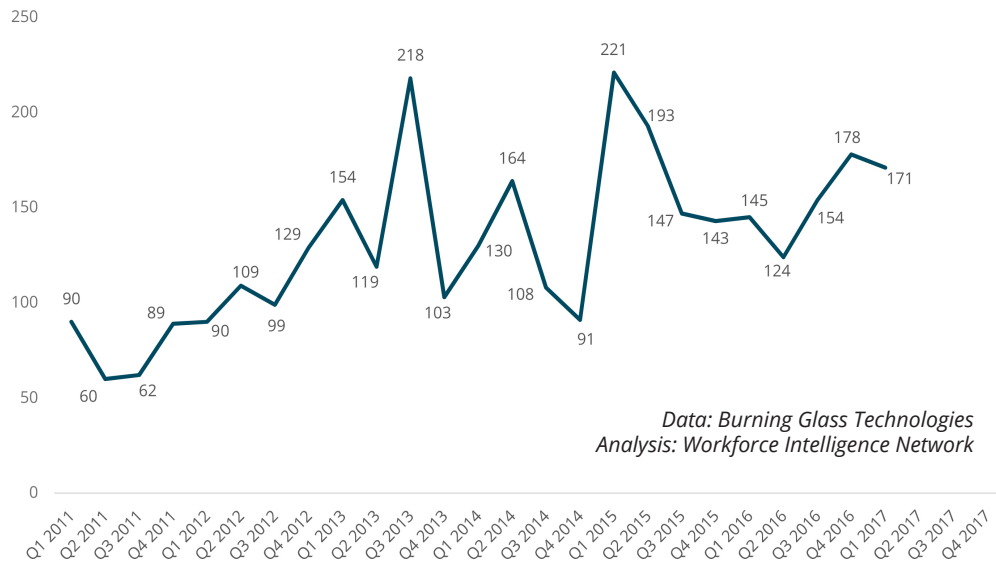
Job Posting Analysis

Information technology postings decreased in Jackson County moving through the first quarter of 2017. A total of 171 postings were advertised online during this quarter, four percent lower than the 178 postings during Q4 2016.

Employment Analysis

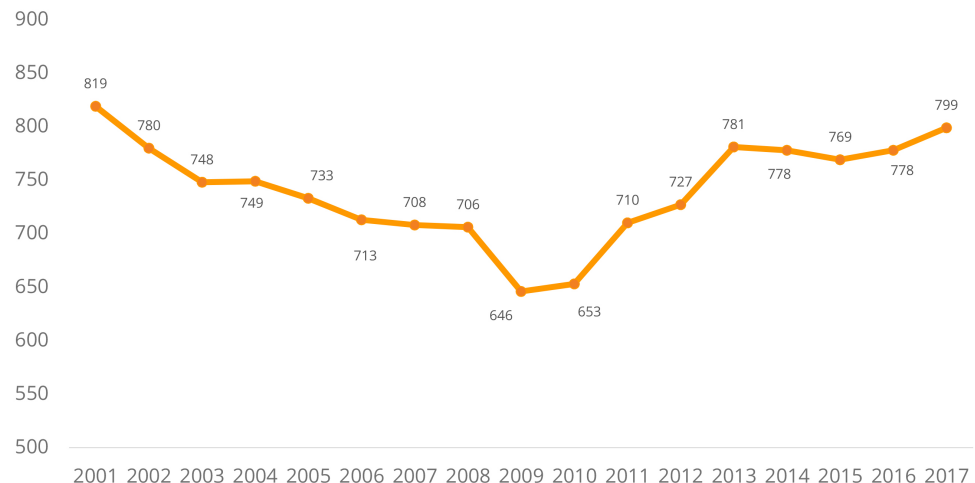
Only 799 Jackson County workers are employed in information technology occupations in 2017. Prior to the Great Recession of 2008, IT employment decreased in all but one year since the early 2000's, losing over 100 IT workers. IT employment rebounded to 781 in 2013 but has remained relatively stagnant for the past four years. Employment in the IT occupation group has almost recovered to the early 2000 level of employment.

Online Job Postings



Employment Over Time

Quarter 1 2017

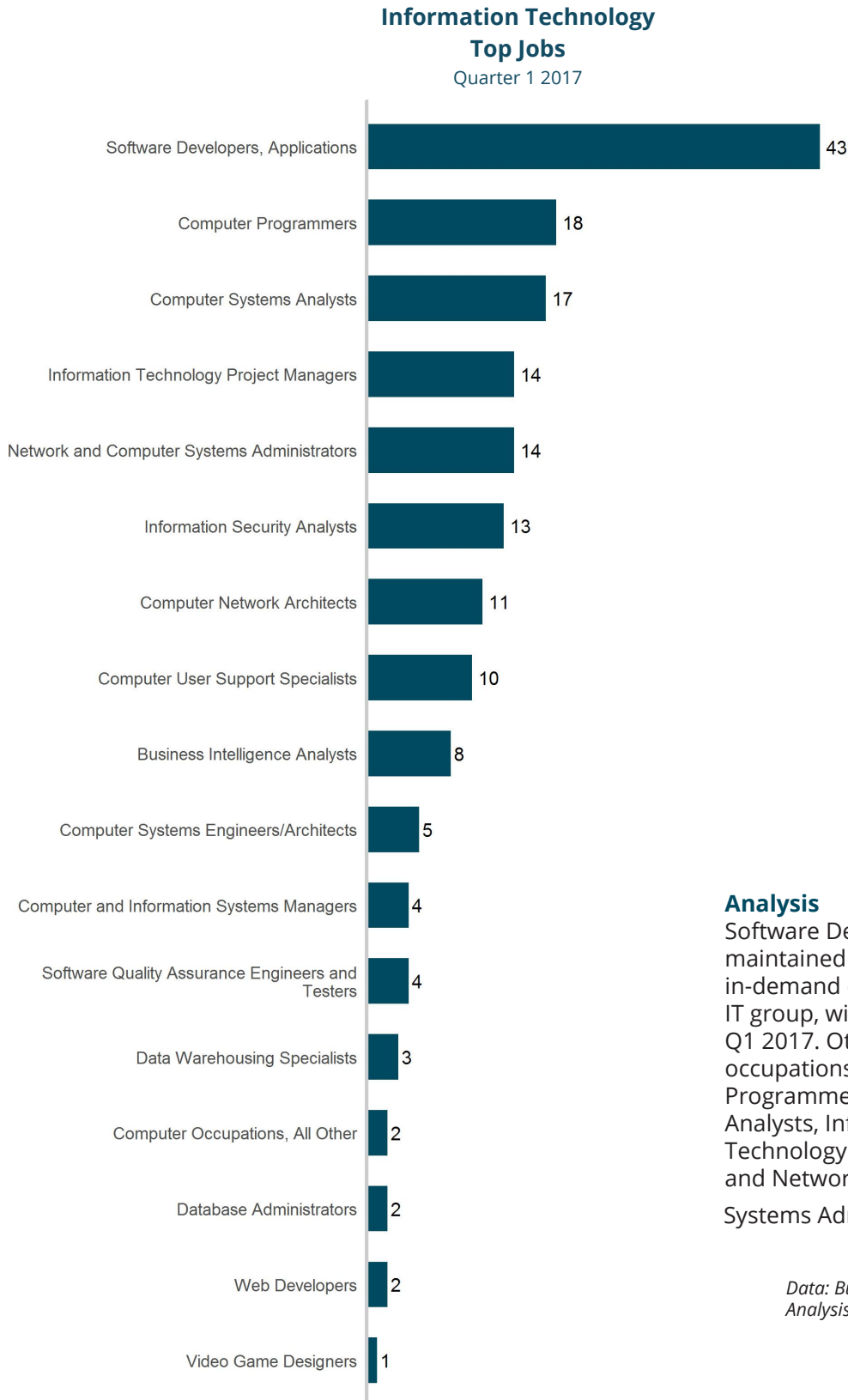




Now hiring: 171 online job
postings for IT workers



799 IT workers in Jackson
County



Analysis

Software Developers maintained its spot as the top in-demand occupation for the IT group, with 43 postings in Q1 2017. Other top occupations include Computer Programmers and System Analysts, Information Technology Project Managers, and Network and Computer Systems Administrators.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Knowledge areas: engineering, computer science, business



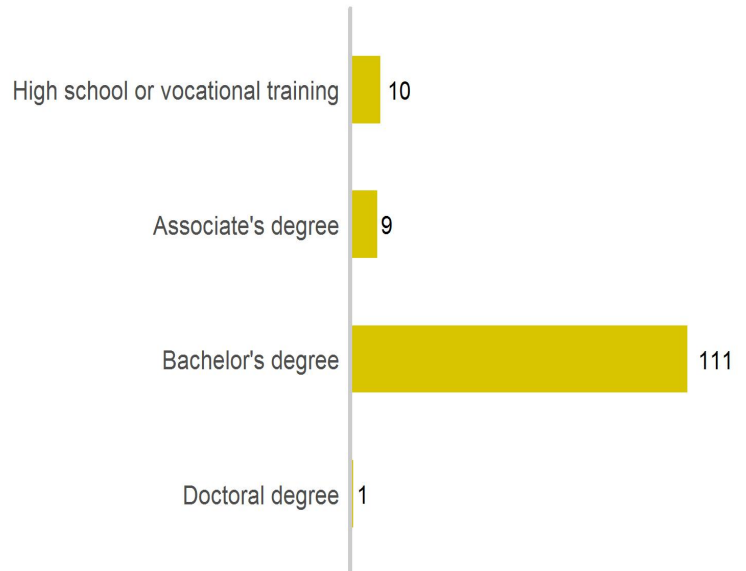
\$30.00 per hour
median hourly IT wage

Information Technology Educational Attainment Required

Of the 84 IT occupation group job postings that specified a desired experience level in Q1 2017, 57 percent required three to five years of experience. There was a strong desire for entry level workers too with 23 percent of these postings searching for candidates with zero to two years of experience.

Of the 171 online job ads posted for information technology occupations in Jackson County, 131 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. One hundred and eleven of the Q1 2017 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 (19 postings).

Educational Attainment

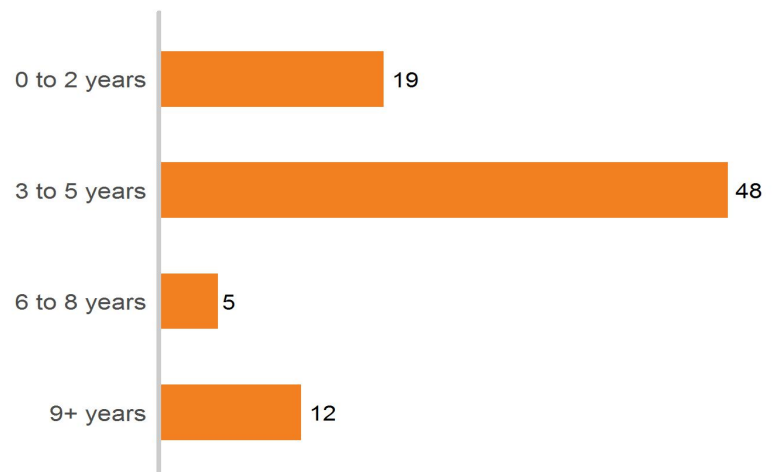


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

In-Demand Areas of Study

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

Experience Required



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



In-demand skills: Technical support and SAP



Average advertised salary: \$50,732 per year

Information Technology In-Demand Skills

The job postings in the IT group indicated a need for candidates with a variety of high-level technical skills. Traditional skills like technical support and information systems were present in this occupation group, and so were various computer skills. Leadership and management skills, also highly sought after, indicate an increasing demand for supervisory positions in the IT field. The postings also listed some non-technical skills such as communication and organizational skills.

Technical In-Demand Skills

- Budgeting and Scheduling
- Customer Service
- SAP and SQL
- Information Systems
- Technical Support

Foundational In-Demand Skills

- Communication Skills and Teamwork-Collaboration
- Planning and Organizational Skills
- Troubleshooting/Problem Solving
- Writing
- Leadership/Mentoring

Job Type

- Temporary: 1.8%
- Full-time: 56.7%
- Part-time: 0.6%

Certifications Required

- Project Management Certification (e.g. PMP)
- Cisco Certified Network Associate
- Microsoft Certified Solutions Expert (MCSE)
- American Board for Engineering and Technology (ABET) Accredited
- Certified Information Systems Auditor (CISA)



Certifications in-demand: PMP and Cisco Certified Network Associate



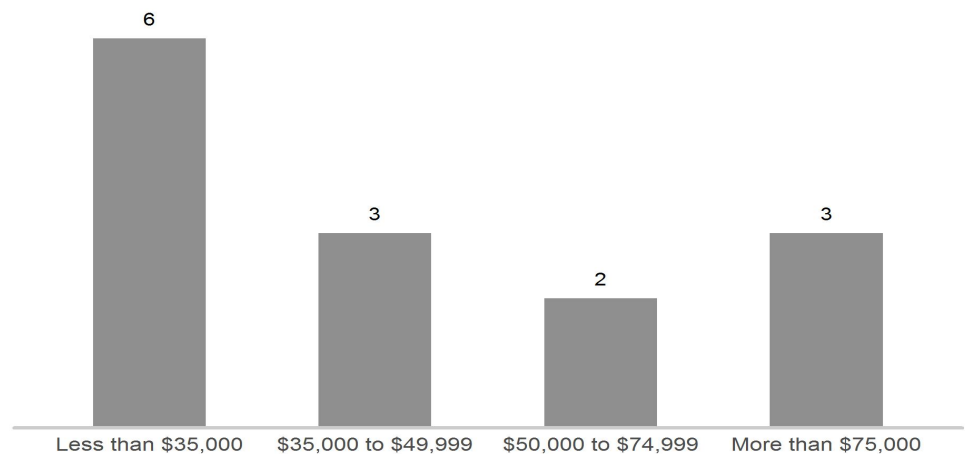
Baseline skills: Communication, Troubleshooting

Information Technology Wages

It is important to note that 92 percent of the postings within the IT group did not include salary information. Of the 14 IT occupation group job postings that included salary information in Q1 2017, 21 percent (3 postings) indicated the advertised salary to be more than \$75,000 per year. Since this was based on eight percent of the IT group job postings, the salary is not indicative of the salaries of all workers in IT occupations in Jackson.

Advertised Wages in Job Postings

Quarter 1 2017



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
15-1132	Software Developers, Applications	\$24.49	\$31.41	\$41.29	\$52.84	\$62.33
15-1131	Computer Programmers	\$21.82	\$26.55	\$33.45	\$41.75	\$48.88
15-1121	Computer Systems Analysts	\$24.90	\$32.41	\$42.22	\$52.19	\$61.08
15-1199	Information Technology Project Managers	\$19.41	\$26.22	\$35.31	\$46.22	\$55.56
15-1142	Network and Computer Systems Administrators	\$22.44	\$28.27	\$36.76	\$44.60	\$52.88
15-1122	Information Security Analysts	\$24.92	\$29.70	\$41.41	\$50.49	\$59.52
15-1143	Computer Network Architects	\$35.87	\$42.58	\$51.30	\$59.64	\$70.77
15-1151	Computer User Support Specialists	\$12.93	\$16.14	\$21.67	\$29.23	\$37.27
15-1199	Business Intelligence Analysts	\$19.41	\$26.22	\$35.31	\$46.22	\$55.56
15-1199	Computer Systems Engineers/Architects	\$19.41	\$26.22	\$35.31	\$46.22	\$55.56

Data: EMSI, BLS

Analysis: Workforce Intelligence Network



Skilled Trades & Technicians (Manufacturing Focused)

Introduction

WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country.

NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.

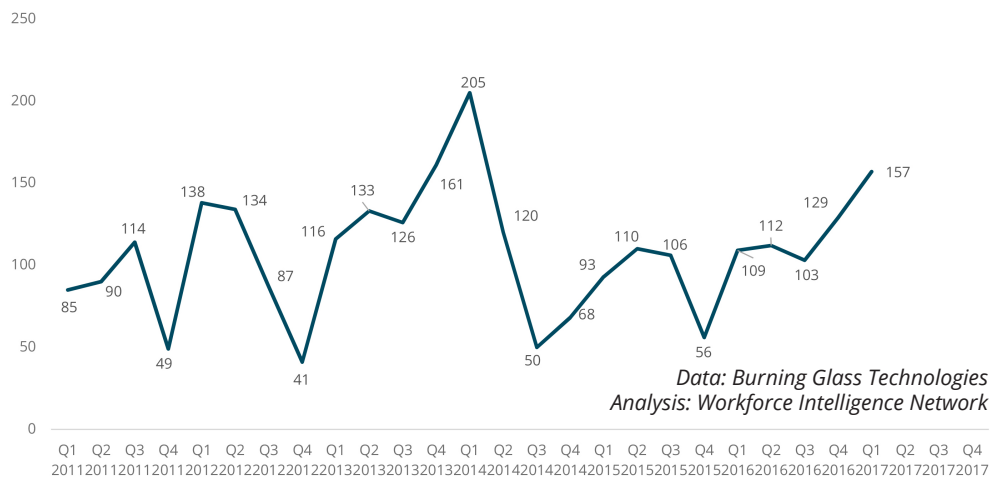
Job Posting Analysis

Jackson County advanced manufacturing employers looking to hire skilled trades workers posted 157 online job ads during Q1 2017. This is a 22 percent increase from the 129 job postings in Jackson County for this occupation group during Q4 2016. Generally, employer demand for skilled trades workers in Jackson County has leveled off between 50 and 150 postings per quarter after a spike in postings during Q1 2014 (205 job postings).

Employment Analysis

As job postings for skilled trades occupations in Jackson County tend to be quite volatile quarter-to-quarter, employment has steadily grown each year since the low of 3,373 employees in 2009. In 2017, 4,550 Jackson County workers were employed in skilled trades jobs, a 35 percent increase over the 2009 recession low and a 1.9 percent increase over 2016's employment numbers.

Online Job Postings



Employment Over Time

Quarter 1 2017





Education required: high school diploma and technical training

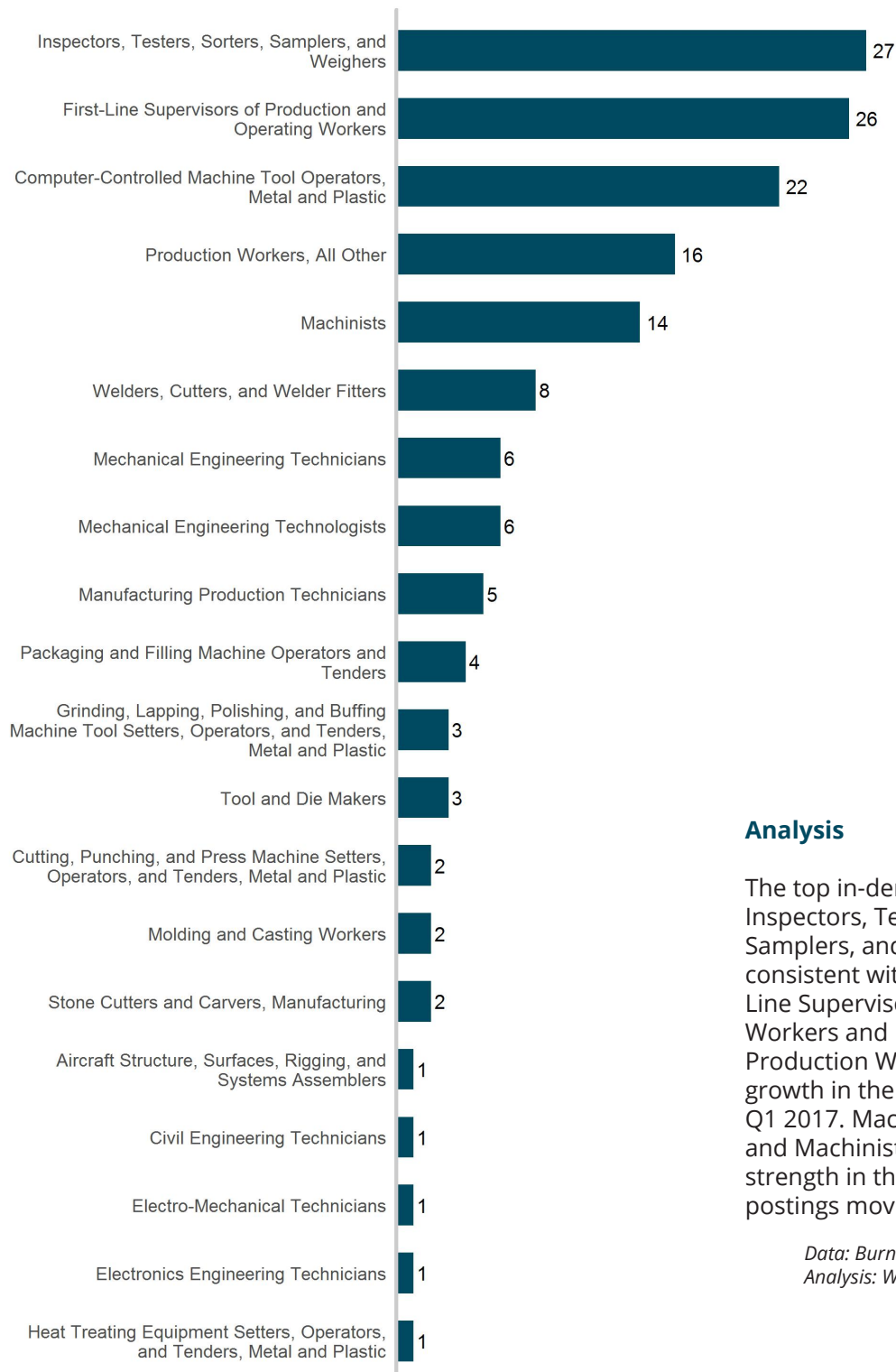


Now hiring: 157 online job postings for skilled trades workers

Skilled Trades & Technicians

Top Jobs

Quarter 1 2017



Analysis

The top in-demand occupation Inspectors, Testers, Sorters, Samplers, and Weighers remained consistent with last quarter. First-Line Supervisors of Production Workers and Non-Supervisor Production Worker both experienced growth in the number of postings in Q1 2017. Machine Tool Operators and Machinists have consistent strength in the number of job postings moving into 2017.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Experience required:
less than 5 years

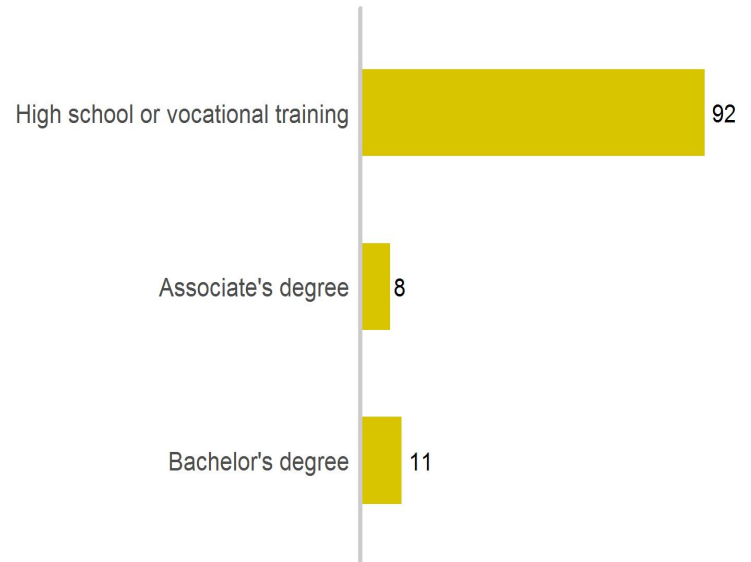
80%
of skilled trades ads were for
full-time positions

Skilled Trades & Technicians Educational Attainment Required

Only 111 of the 157 Q1 2017 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 11 postings explicitly requested that applicants hold a bachelor's degree – these postings tend to be for management roles 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 Jackson County are within reach for workers with less than five years of experience (79 postings during Q1). Again, those jobs requiring more experience, six years and beyond, are likely for management occupations included in this group.

Educational Attainment

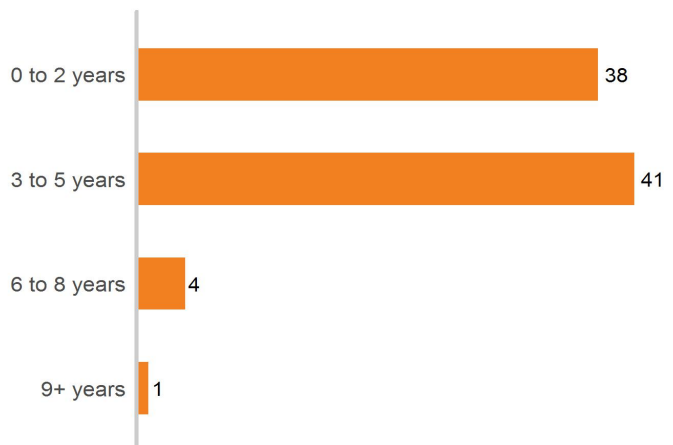


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

In-Demand Areas of Study

- Mechanical Engineering
- Engineering, General
- Logistics, materials, and Supply Chain Management
- Business Administration and Management, General
- Construction Management

Experience Required



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Employment growth every
year since 2009



Mean advertised salary:
\$34,595 per year

Skilled Trades & Technicians In-Demand Skills

The occupations in the skilled trades group require a wide array of high-level technical skills. Machinery, welding, repair, inspection, and other traditional skills remain the most common in skilled trades job postings. Language skills such as CNC and PLC programming were also highly sought. Management skills were also present in many of the skilled labor postings such as production management and purchasing. 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 communication, 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

- Machine Inspection and Repair
- Computer Numerical Control (CNC)
- Scheduling
- Microsoft Office
- Programmable Logic Controller (PLC) Programming

Foundational In-Demand Skills

- Problem Solving, Detail-Oriented/Troubleshooting
- Writing
- Communication and Teamwork-Collaboration
- Ability to Perform Physical Labor
- Mathematics

Job Type

- Temporary: 14.0%
- Full-time: 79.6%
- Part-time: 1.9%

Certifications Required

- Forklift Operator Certification
- CNC Machinist Certificate
- CDL Class A
- Certified Teacher
- Environmental Protection Agency Certification



Knowledge Areas: Mechanical Engineering



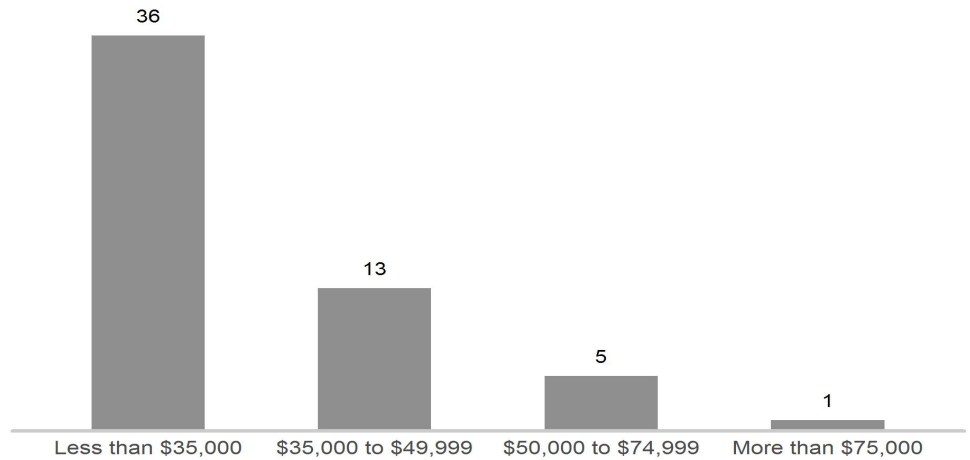
In-Demand Certification: Forklift Operator License

Skilled Trades & Technicians Wages

Fifty-five of the 157 skilled trades job postings in Jackson County during Q1 2017 specified a wage or salary range. The majority of those (36 postings) offered wages that amount to less than \$35,000 per year, or less than \$17 per hour.

Advertised Wages in Job Postings

Quarter 1 2017



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
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.81	\$11.55	\$15.46	\$21.68	\$28.32
51-1011	First-Line Supervisors of Production and Operating Workers	\$17.40	\$22.18	\$29.48	\$38.86	\$47.50
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$11.38	\$13.62	\$18.70	\$23.08	\$28.44
51-9199	Production Workers, All Other	\$10.77	\$13.64	\$16.54	\$18.93	\$24.89
51-4041	Machinists	\$12.71	\$15.79	\$19.49	\$24.55	\$29.91
51-4121	Welders, Cutters, and Welder Fitters	\$12.73	\$15.15	\$17.87	\$22.25	\$28.27
17-3027	Mechanical Engineering Technicians	\$18.44	\$22.91	\$29.19	\$35.53	\$41.63
17-3029	Mechanical Engineering Technologists	\$20.49	\$26.65	\$31.91	\$36.96	\$44.69
17-3029	Manufacturing Production Technicians	\$20.49	\$26.65	\$31.91	\$36.96	\$44.69
51-9111	Packaging and Filling Machine Operators and Tenders	\$8.86	\$9.91	\$12.78	\$16.97	\$21.72

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Annual Labor Market Data

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual (Thru 1st Quarter)	Change from 2016	Percent Change from 2016
Labor Force	74,672	72,614	71,562	72,368	72,937	73,007	74,431	74,236	-195	-0.3%
Employment	65,564	65,424	65,453	66,332	68,043	69,164	70,937	70,759	-178	-0.3%
Unemployment	9,109	7,190	6,109	6,036	4,894	3,842	3,495	3,477	-18	-0.5%
Unemployment Rate	12.2%	9.9%	8.5%	8.3%	6.7%	5.3%	4.7%	4.7%	0.0%	na

**Note: Monthly data averaged by year*

Data: Bureau of Labor Statistics

Quarterly Labor Market Data

	1st Quarter 2016	2nd Quarter 2016	3rd Quarter 2016	4th Quarter 2016	1st Quarter 2017	Change from 4th Quarter 2016	Percent Change from 4th Quarter 2016	One-Year Change from 1st Quarter 2016	One-Year Percent Change from 1st Quarter 2016
Labor Force	74,199	75,065	74,117	74,344	74,236	-108	-0.1%	37	0.1%
Employment	70,525	71,544	70,422	71,255	70,492	-763	-1.1%	-33	0.0%
Unemployment	3,674	3,520	3,695	3,089	3,744	655	21.2%	70	1.9%
Unemployment Rate	5.0%	4.7%	5.0%	4.2%	5.0%	0.9%	na	0.1%	na

**Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics













Monthly Labor Market Data

	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017
Labor Force	73,499	74,232	74,865	74,561	75,045	75,588	74,398	74,166	73,788	74,629	74,749	73,654	73,914	74,595	74,199
Employment	69,933	70,561	71,080	71,130	71,674	71,829	70,173	70,547	70,547	71,353	71,849	70,562	69,958	70,547	70,971
Unemployment	3,566	3,671	3,785	3,431	3,371	3,759	4,225	3,619	3,241	3,276	2,900	3,092	3,956	4,048	3,228
Unemployment Rate	4.9%	4.9%	5.1%	4.6%	4.5%	5.0%	5.7%	4.9%	4.4%	4.4%	3.9%	4.2%	5.4%	5.4%	4.4%

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

Data: Bureau of Labor Statistics

Jackson County Job Posting Data by Occupation Group* Over Time

	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Change Over Time	Annual Change Q1 2016-Q1 2017	Quarter Growth Q4 2016-Q1 2017
Total Postings	2,557	2,181	2,618	2,634	3,432		34.2%	57.4%
Agriculture	47	33	19	27	48		2.1%	45.5%
Business & finance	139	133	155	196	200		43.9%	50.4%
Construction	50	29	43	23	33		-34.0%	13.8%
Customer service	492	465	560	572	767		55.9%	64.9%
Education	40	45	80	60	59		47.5%	31.1%
Energy	11	12	21	31	16		45.5%	33.3%
Engineers & designers	130	135	142	162	129		-0.8%	-4.4%
Health care	405	242	305	269	488		20.5%	101.7%
Information technology	145	124	154	178	171		17.9%	37.9%
Skilled trades & technicians	109	112	103	129	157		44.0%	40.2%
Transportation, distribution, and logistics	325	340	456	227	239		-26.5%	-29.7%

**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.*

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