

WIN PARTNERSHIP

WIN Quarterly Report



Introduction: WIN 16-County Partnership Region

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 full 16-county region as a whole with special sections devoted to 11 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 7)
- Business & Finance (page 12)
- Construction (page 17)
- Customer service (formerly retail & hospitality) (page 22)
- Education (page 27)
- Energy (page 32)
- Engineers & designers (manufacturing focused) (page 37)
- Health care (page 42)
- Information technology (page 47)
- Skilled trades & technicians (manufacturing focused) (page 52)
- Transportation, distribution, and logistics (TDL) (page 57)

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

State of the Labor Market in Q1 2016

Quarter one 2016 (Q1 2016) represents yet another milestone high in employer demand for workers in the region. Q1 postings are typically higher than the previous year's Q4 postings, as the labor market expands after the winter/holiday lull in hiring. While Q1 2016 postings do not represent the largest Q4 to Q1 jump since 2011, the increase is promising and shows continued growth in employer need for workers.

Employment growth continues to surpass labor force growth when comparing 2016 to previous years. This causes the unemployment rate to drop quickly, but presents a challenge for employers as fewer workers are available to fill open jobs. Comparing Q1 2016 to Q4 2015 shows that the labor force gained more workers than workers gained jobs. This increased the unemployment ranks temporarily but is a positive sign as many employers continue to have unfilled positions and small labor pool from which to recruit talent. The average unemployment rate across the WIN-analyzed region rests at 5.3%, up two percentage points from Q4 2015's 5.1%.



Introduction: WIN 16-County Partnership Region

Q1 is often a time of labor market expansion, and 2016 is no different. It is a positive sign that the southeast Michigan region is moving into a steady business cycle of hiring and employer demand. However, current labor force participation is at its lowest levels since the 1980s. This means that fewer individuals are making themselves available for work. As noted by the Federal Reserve in recent months, lower labor force levels may be a new normal as employment continues to grow at a rate close to inflation. A “new normal” of low labor force participation is concerning because employers have extremely high demand for workers and often struggle to find individuals to meet their needs. A growing economy requires a strong labor force to ensure continued prosperity.

Key Findings

- 1. Online job ads reach a new high, increasing to 143,199, which is the highest recorded number of quarterly job ads to-date.**

Postings increased 13%, adding 16,240 postings between Q4 2015 to Q1 2016, which shows growth in employer demand. (See page 4).
- 2. Health care, IT, and customer service remain the highest in-demand occupational groups.**

These three groups are routinely the most in-demand across the region. Health care and customer service also represent the largest share of current employment relative to other groups. IT continues to emerge as the region grows its technology sector. (See pages 42, 47, and 22 for more detail on health care, IT, and customer service, respectively).
- 3. Demand growth from Q4 2015 to Q1 2016 is strongest for construction, agriculture, skilled trades and technicians, and customer service occupations.**

While total postings for construction, agriculture, and skilled trades and technicians occupations are not the highest, growth in demand for each of these between Q4 2015 and Q1 2016 is strong with postings growing 56%, 39%, and 39%, respectively. For many of these occupations, like construction and agriculture, there is a seasonal effect as employers ramp up hiring for the spring and summer. (See pages 7 and 17 for agriculture and construction details).
- 4. Skilled trade and technician demand is the highest recorded in posting data history with over 5,000 job ads in the region during Q1 2016.**

Employers are hiring for skilled trade workers. Postings increased 39% between Q4 2015 and Q1 2016, with employers adding 1,415 job ads. Q1 2016 marks the largest growth in skilled trade and technician demand since Q3 2013's unprecedented peak in postings in the region. Employment in this occupation group has been steadily growing with employers adding roughly 2,000 workers in the region between 2015 and 2016. (See page 52 for more details).
- 5. Job postings increased in every WIN partnership county during Q1 2016. Posting levels and growth in Q1 2016 were led by Wayne and Oakland counties.**

Postings increased the most rapidly for Oakland County, with 6,338 additional ads for 39% growth, and in Wayne County, with 3,893 additional ads for 24% growth. Other communities experienced growth near the regional average of 13%--Macomb County and the City of Detroit, specifically. (See the Appendix for more details on postings by geography).



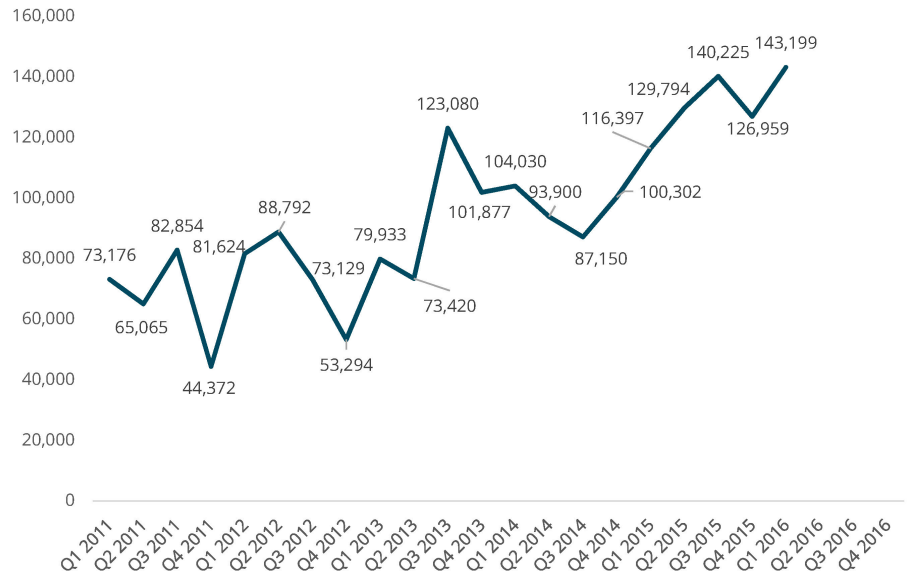
Executive Summary

Postings Over Time

Online job ads increased by 16,240 (13%) from 126,959 in Q4 2015 to 143,199 in Q1 2016. This recent increase in postings continues a growing, business-cycle-driven trend found in postings since a large increase moving into 2013 and in 2015. Compared to Q1 2015, postings have increased 23% with employers adding 26,802 job ads over the year.

Total Online Job Postings

2008 - March 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

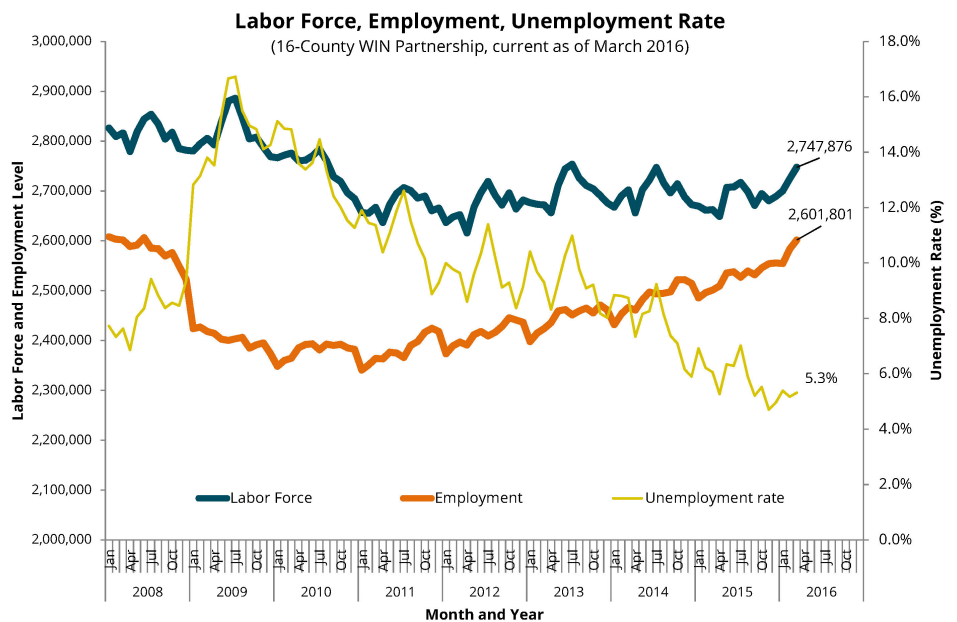
Labor Force, Employment, & Unemployment

The labor market in southeast Michigan is slowly expanding but not by enough to see a marked difference in activity. In annual terms, the labor force is growing more slowly than employment causing an artificially low unemployment rate of just 5.3%.

During Q1 2016, compared to Q4 2015, both the labor force and employment rolls grew at a similar pace with employers adding nearly 28,000 jobs and 36,000 individuals joining the labor force.

Labor Force, Employment, Unemployment Rate

2008 - March 2016



Data: BLS
Analysis: Workforce Intelligence Network



Top Job In-Demand: Registered Nurses

5.3%
Unemployment rate in
Q1 2016

Top Jobs In Demand Quarter 1 2016



Analysis

Employers in the WIN partnership region are consistent and the same top jobs remain in-demand throughout the year with little change.



Four out of the top ten jobs
are in Customer Service



One out of every four postings
is for one of the top ten jobs

Top Jobs In Demand

Quarter 1 2016



Introduction

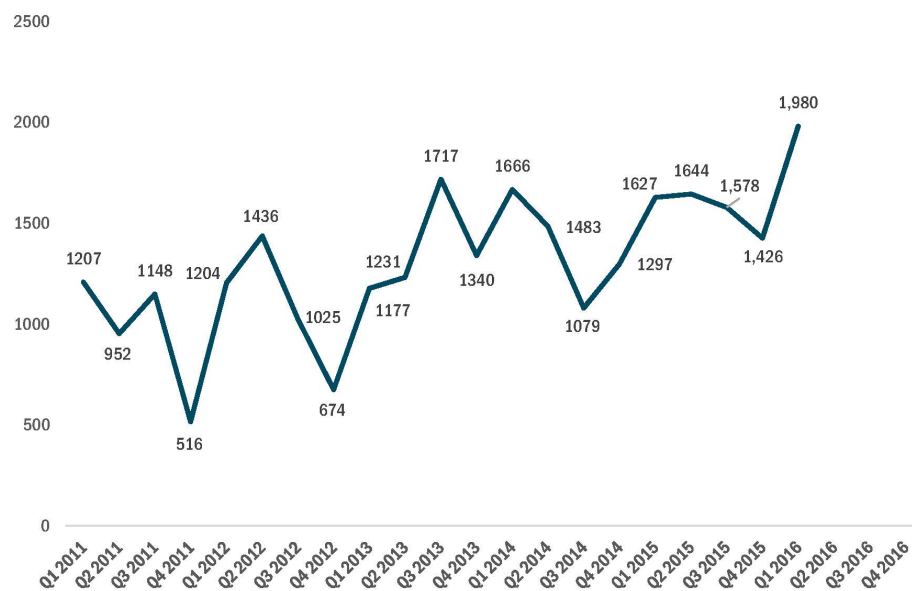
Agriculture

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

Job postings for Agriculture-related occupations increased 39% to a six-year high during Q1 2016 growing to nearly 2,000 postings. Postings typically jump from Q4 to Q1 as employers gear up for spring and summer. Compared to one year prior (Q1 2015) postings are up 22%.

Online Job Postings

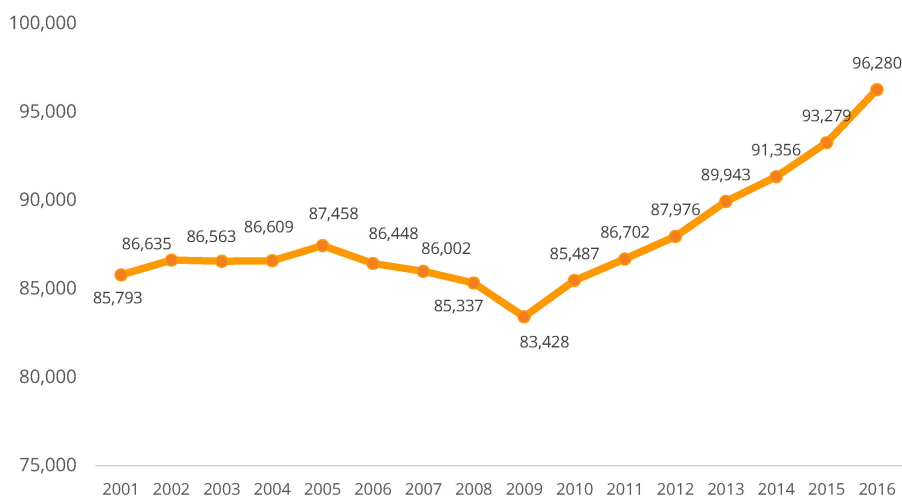


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Agriculture employment is growing rapidly and has surpassed pre-recession job level peaks by nearly 10,000 workers. While the Great Recession hit many industries, Agriculture was able to maintain its employment well and regain jobs to pre-recession employment by 2012.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Technical sales: top in-demand
job

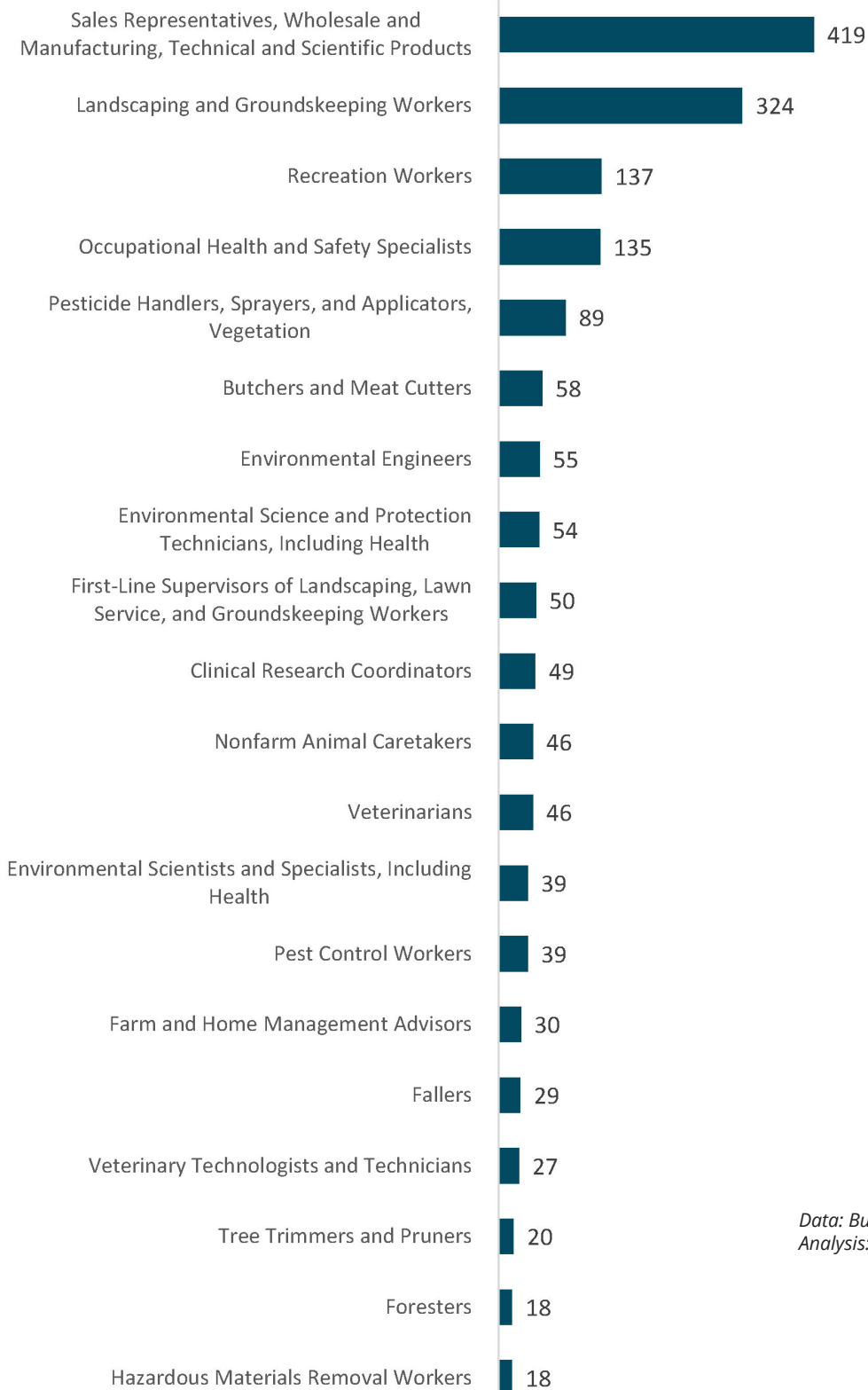


Surpassed pre-recession
employment by 10,000 workers

Agriculture

Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Most jobs require training or a Bachelor's degree

50%+

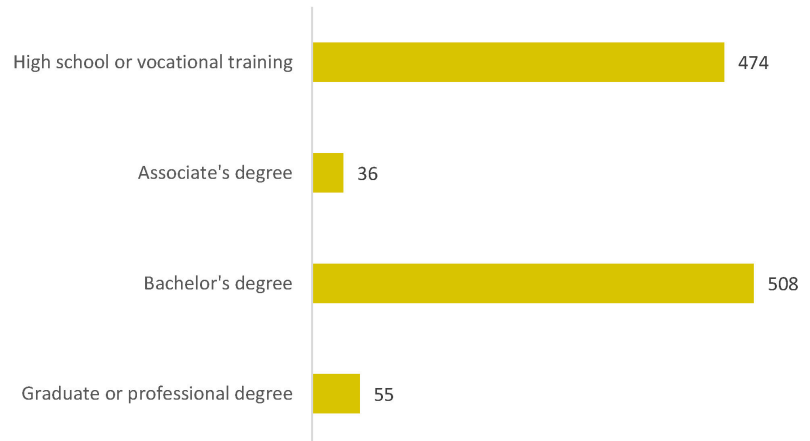
Jobs that require five years or less experience

Agriculture Educational Attainment & Experience Required

Most Agriculture jobs require vocational training or a Bachelor's degree with little in between. This is because most jobs are focused on skilled labor (vocational training) or technical sales and management (Bachelor's degree).

Of the postings that listed required experience, most require five years or less making these great jobs for workers just getting started in the labor market.

Minimum Educational Attainment Required Q1 2016

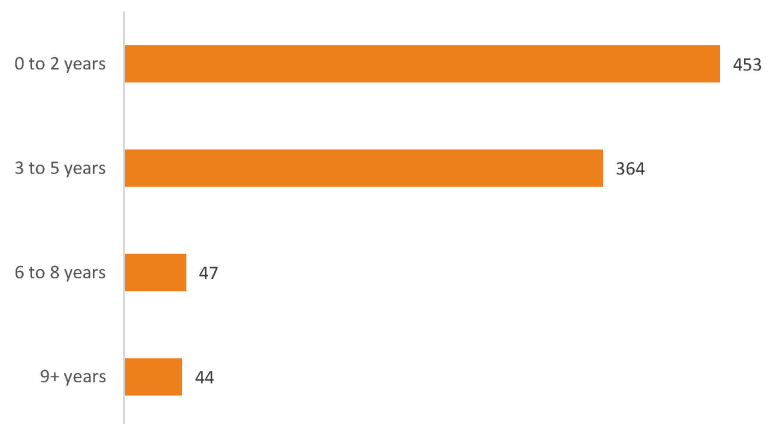


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Business administration and management, general
- Mechanical engineering
- Applied horticulture/horticulture operations, general
- Computer science

Experience Required Q1 2016



In-demand degrees for workers interested in Agriculture range from engineering to business to horticulture. A wide variety of areas of study prepare a person for these careers.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Communications and customer service: essential skills

48%+

At least half of available jobs are full-time

Agriculture in-Demand Skills Q1 2016

Q1 2016 postings require a wide variety of skills ranging from more technical (repair, use of fertilizers, occupational health and safety) to foundational skills that every workers needs such as communications, problem solving, and customer service. Many Agriculture jobs also include an element of physical demand.

Technical in-Demand Skills

- Inspection, repair
- Fertilizer use, application
- Occupational health and safety
- Supervisory skills, management
- Business development, sales

Foundational In-Demand Skills

- Communications skills: writing, building relationships
- Customer Service
- Organization, detail-oriented, planning
- Problem solving
- Physical demand

Job Type

- Temporary: 9.4%
- Full-time: 48.1%
- Part-time: 4.1%

Certifications In-Demand

- Commercial driver's license
- First aid CPR AED
- Certified safety professional
- Veterinary technician
- Certified pest control



\$51,227: Average wage
advertised in postings



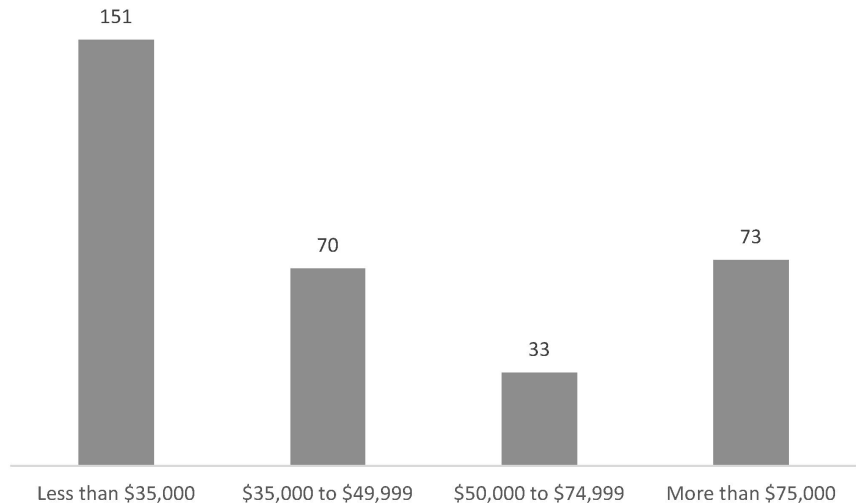
Wage growth potential for
technical sales jobs

Agriculture Wages

Many Agriculture jobs start with wages below \$35,000, especially those that do not require experience or a degree. However, many jobs offer wages much higher. The average wage advertised in postings during Q1 2016 was \$51,227.

Advertised Salaries

Quarter 1 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
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$18.78	\$26.09	\$36.74	\$51.21	\$69.44
37-3011	Landscaping and Groundskeeping Workers	\$8.53	\$9.71	\$11.34	\$14.84	\$19.69
39-9032	Recreation Workers	\$8.22	\$8.89	\$10.16	\$12.51	\$15.67
29-9011	Occupational Health and Safety Specialists	\$20.67	\$24.18	\$32.08	\$37.88	\$45.15
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$11.17	\$12.91	\$15.00	\$17.55	\$21.39
51-3021	Butchers and Meat Cutters	\$9.30	\$11.39	\$14.58	\$18.23	\$22.05
17-2081	Environmental Engineers	\$25.89	\$35.00	\$42.62	\$50.78	\$58.39
19-4091	Environmental Science and Protection Technicians, Including Health	\$14.09	\$16.51	\$20.21	\$24.71	\$29.22
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$11.55	\$13.64	\$18.05	\$24.73	\$34.57
11-9121	Clinical Research Coordinators	\$31.69	\$38.00	\$47.70	\$60.12	\$83.53

Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Introduction

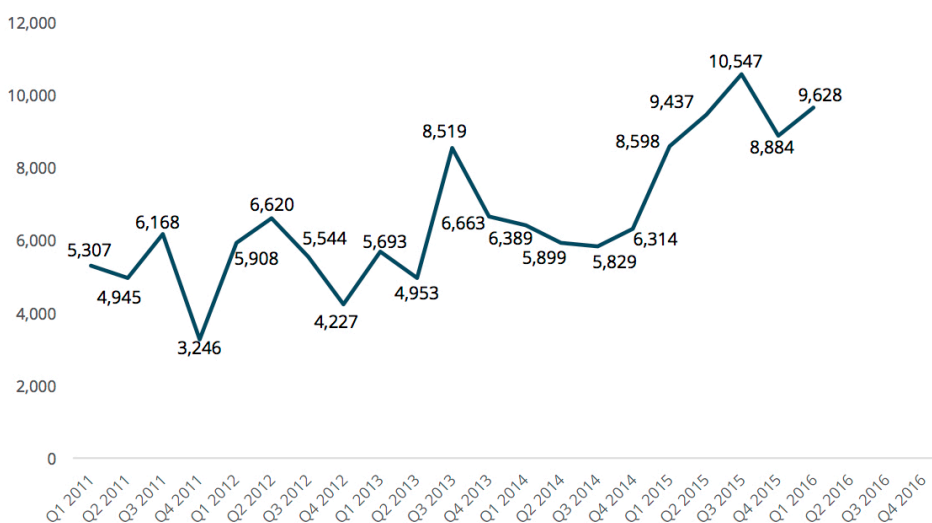
Business & Finance

Jobs in the Business and Finance occupation group can be found in nearly every type of business and industry. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast Michigan.

Postings Over Time

Online job ads for Business and Finance positions grew 8% between Q4 2015 and Q1 2016 with employers adding 744 new job ads. Compared to Q1 2015, one-year prior, postings increased 12% with employers adding 1,030 new ads. Q1 2016 does not mark a peak in online ads for Business and Finance jobs, but postings are on a consistent positive trend.

Online Job Postings

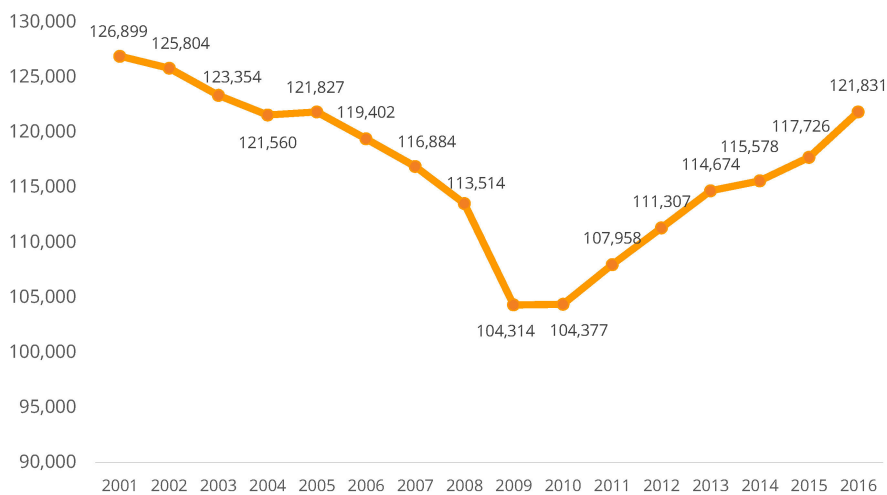


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Employment in Business and Finance positions in the region increased over 120,000 between 2015 and 2016 marking nearly 17% growth since the recession low of 104,314 workers employed in 2009. The region must gain another 5,000 jobs before moving back to the pre-recession high employment level of 126,899 from 2001.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Human Resources: most in-demand occupation

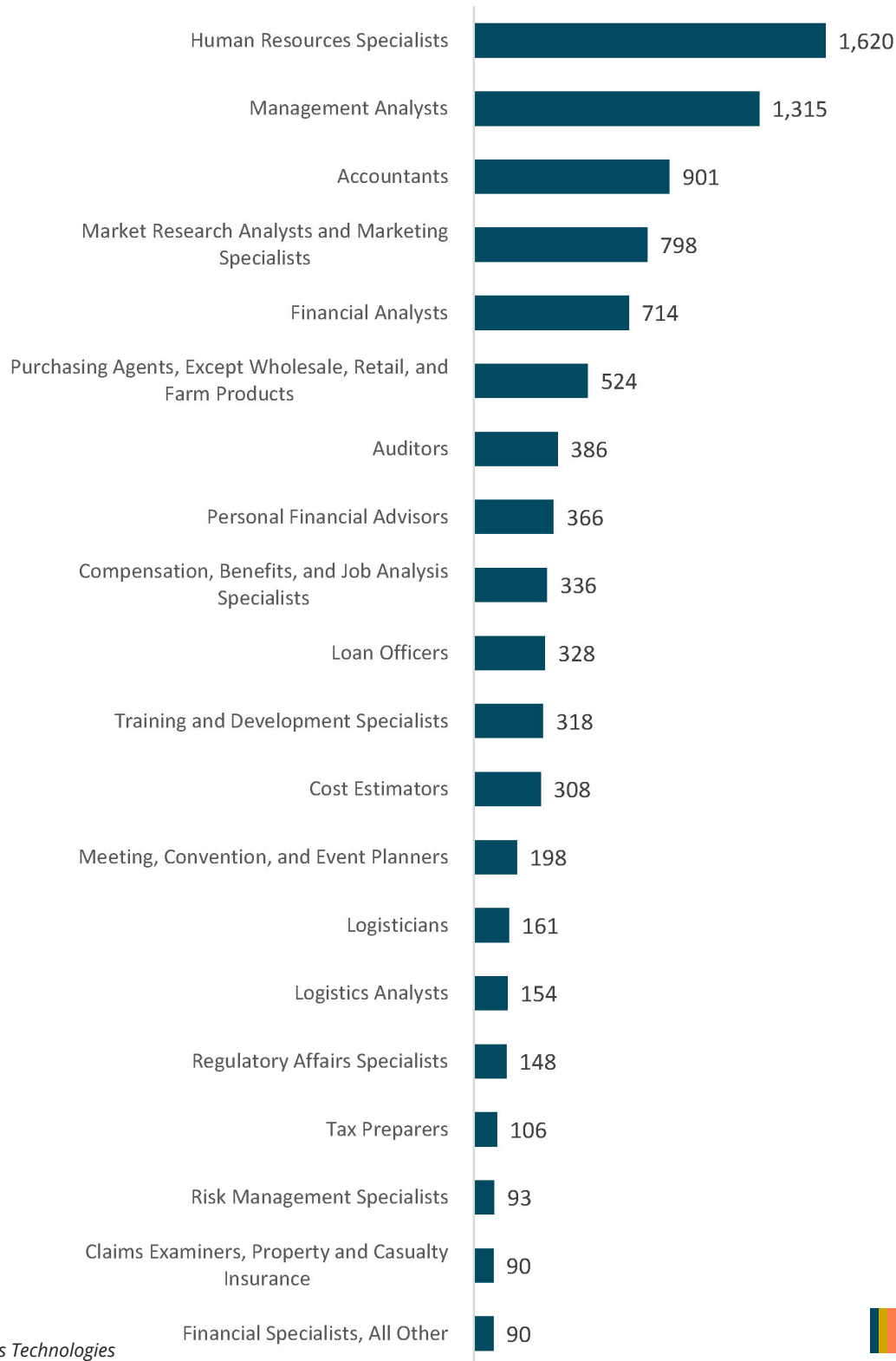


17% employment growth since recession

Business & Finance

Top Jobs

Quarter 1 2016





Bachelor's degree required for most jobs

%

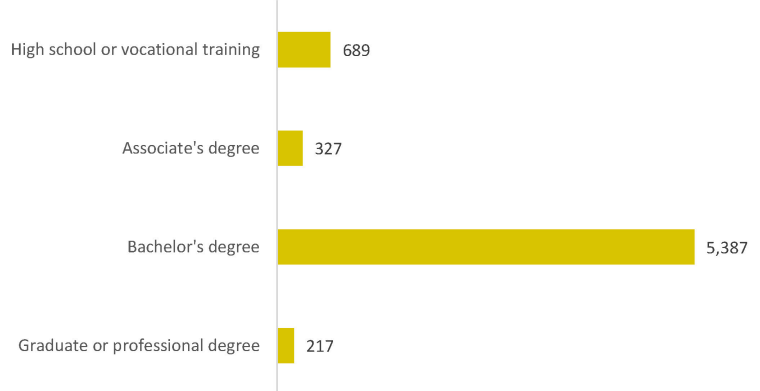
Business and finance degrees in-demand

Business & Finance Educational Attainment & Experience Required

The vast majority of Business and Finance jobs posted require a Bachelor's degree. Due to most jobs requiring high-level mathematics skills and management abilities, a Bachelor's degree is the most common in-demand credential. Because of this, higher wages follow.

Most available jobs are five or fewer years of experience. Most employers want to see three to five years of experience, stressing the importance of internships and other on-the-job work-and-learn experiences. A large proportion of jobs are available to those at the entry-level as well.

Minimum Educational Attainment Required Q1 2016

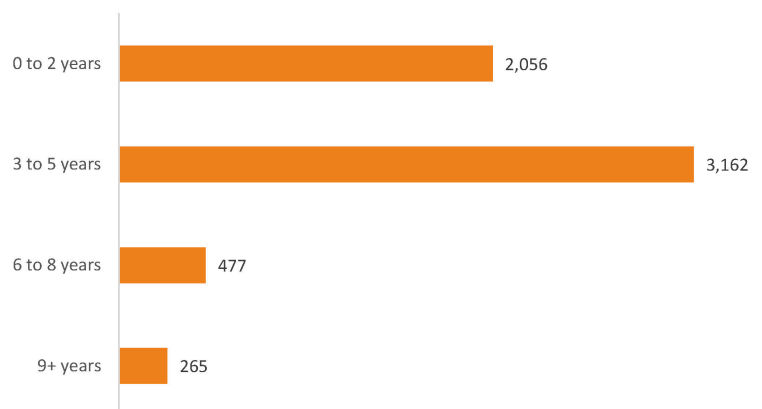


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Business administration and management, general
- Accounting
- Finance, general
- Engineering, general
- Human resources development

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Employers in need of workers
with finance skills

%

In-demand certifications: CPA,
PMP, CISA, PHR

Business & Finance in-Demand Skills Q1 2016

The occupations in the Business and Finance group require a variety of skills. Communication skills tend to represent the highest in-demand skills consisting of customer service, relationship building, and teamwork. Management skills are also highly sought out over a broad area of business disciplines. Advanced technical skills also show up on this list with a focus in data. Data entry, business analysis, and research skill show a spring of demand for analytics in the business environment. Traditional business skills appear as well with emphasis on leadership, self-management, and motivational skills for individuals. These skills reflect a desired business environment with an ample amount of managerial skills, with individuals who are strong in communication, analytical thinking, and self-motivated.

Technical in-Demand Skills

- Financial analysis, reporting
- Project management
- SAP
- Accounting, budgeting
- Business administration

Foundational In-Demand Skills

- Communications skills: writing, collaboration, presentation skills
- Microsoft Excel, Office, PowerPoint
- Problem solving
- Organization, planning, detail-oriented
- Customer service

Job Type

- Temporary: 4.9%
- Full-time: 50.5%
- Part-time: 2.6%

Certifications In-Demand

- Certified public accountant (CPA)
- Series 7
- Certified information systems auditor (CISA)
- Project management certification (e.g. PMP)
- Professional in human resources (PHR)



\$60,116: average advertised salary during Q1 2016



Most available jobs pay \$50,000+

Business & Finance

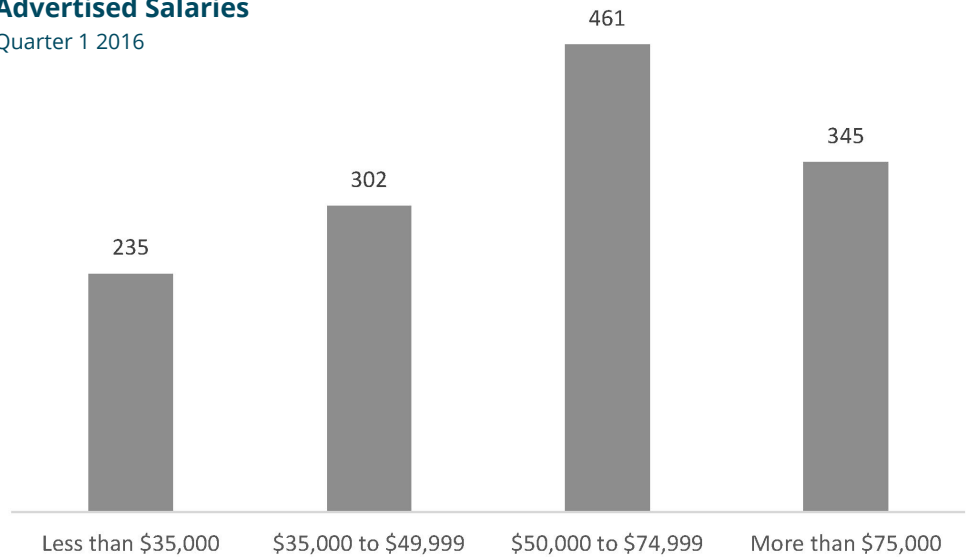
Wages

Most jobs postings that listed a wage highlighted salaries between \$50,000 to \$75,000 a year. Many open positions also offer wages over \$75,00, likely for jobs requiring more experience.

The mean salary for these Business and Finance postings during Q1 2016 was \$60,116.

Advertised Salaries

Quarter 1 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
13-1071	Management Analysts	\$16.76	\$21.08	\$27.22	\$34.67	\$43.98
13-1111	Accountants	\$21.00	\$29.35	\$39.86	\$51.57	\$66.61
13-2011	Market Research Analysts and Marketing Specialists	\$19.28	\$23.73	\$31.10	\$40.29	\$52.77
13-1161	Financial Analysts	\$17.48	\$22.55	\$29.96	\$41.41	\$51.89
13-2051	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$23.39	\$28.10	\$35.93	\$45.34	\$54.76
13-1023	Auditors	\$19.41	\$24.16	\$31.79	\$41.78	\$50.98
13-2011	Personal Financial Advisors	\$19.28	\$23.73	\$31.10	\$40.29	\$52.77
13-2052	Compensation, Benefits, and Job Analysis Specialists	\$18.56	\$23.69	\$31.85	\$53.69	\$87.06
13-1141	Loan Officers	\$20.13	\$24.14	\$29.36	\$37.41	\$45.90
13-2072	Loan Officers	\$13.69	\$18.64	\$25.14	\$34.19	\$47.69

Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Introduction

Construction

Jobs in the WIN Construction occupation group are associated with the skilled trades, engineering, management, and planning. Many construction employers are slowly starting to post jobs online, thus, online job ads are not always a complete picture of demand for these workers. Even so, it is an important and in-demand occupation group for southeast Michigan and posting data provides a glimpse into employer needs.

Postings Over Time

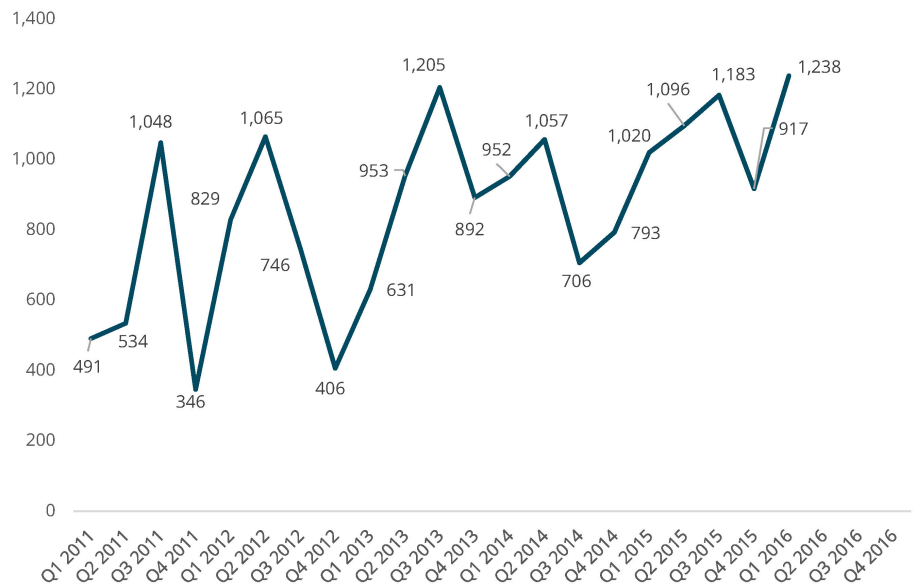
Job postings for Construction-related occupations increased 35% to a six-year high during Q1 2016 growing to over 1,238 postings. Postings typically jump from Q4 to Q1 as employers gear up for the spring and summer construction seasons. Postings tend to peak in quarters two and three. If this trend holds, demand will grow again in Q2 2016.

Construction employers are beginning to post more online but the trend for most construction hiring is more traditional through word-of-mouth, hiring halls, and unions.

Employment Over Time

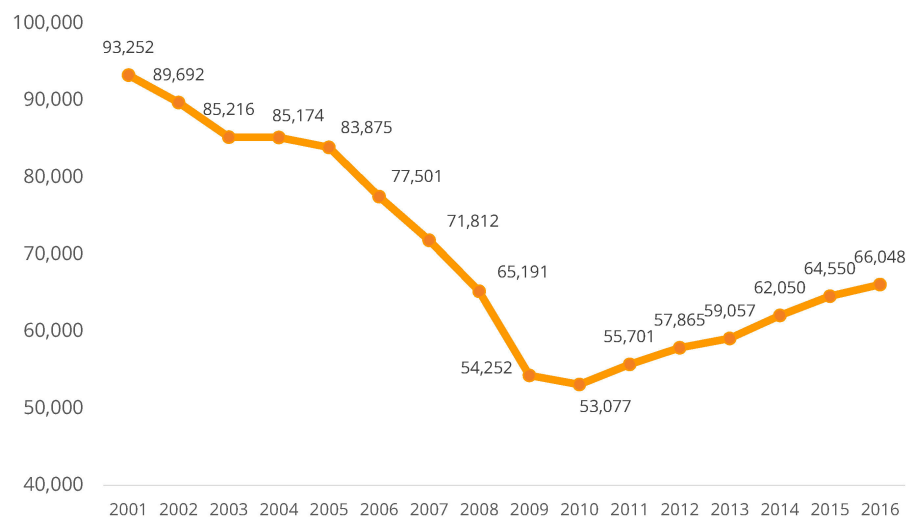
Construction employment has grown nearly 25% since 2010, recovering 13,000 jobs from the depths of the recession in 2010. While employment is steadily growing, employment is still 27,204 individuals below the 2001 pre-recession peak.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



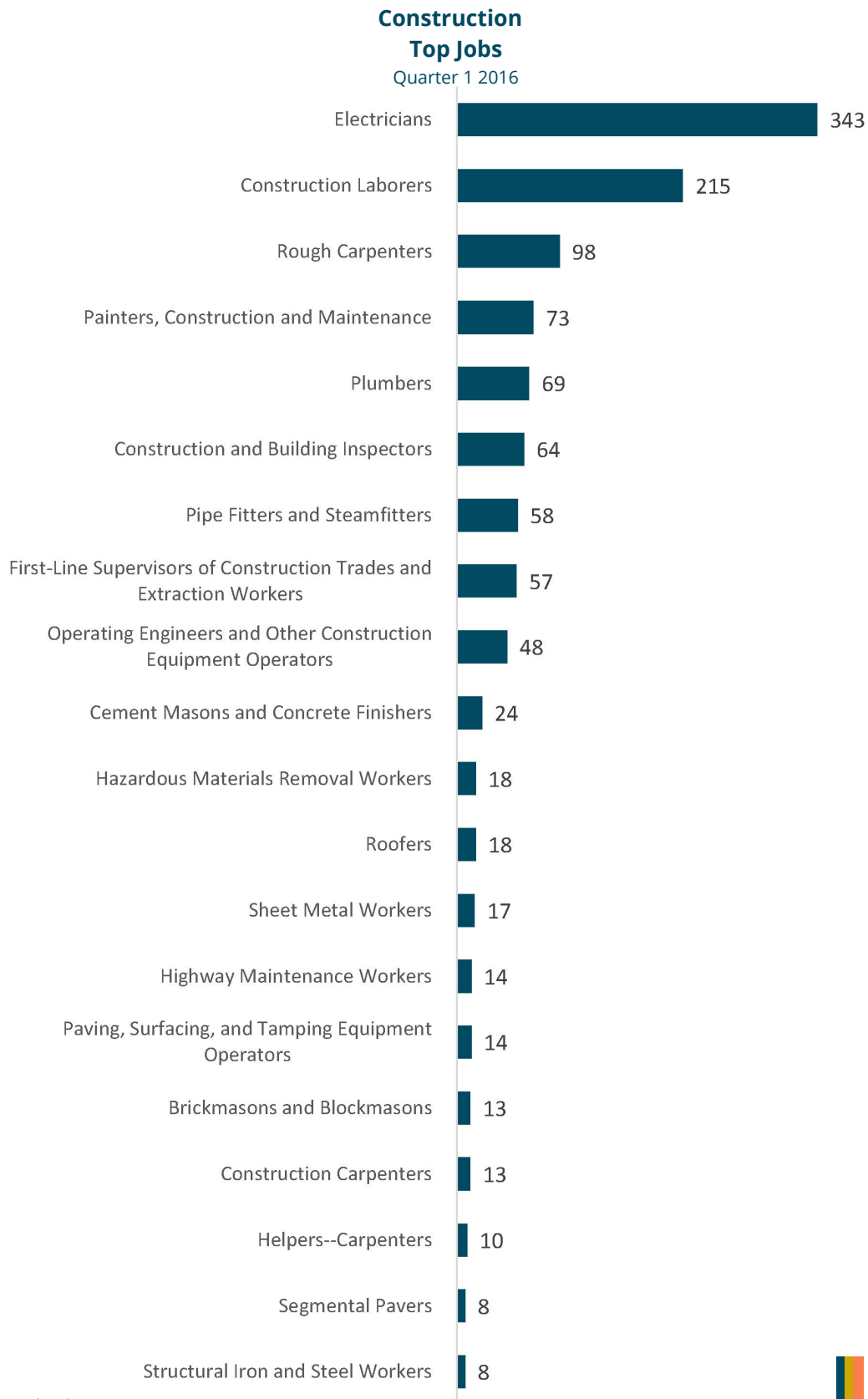
Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Electricians most in-demand



13,000 jobs replaced since recession





Specialized vocational training
is required for most jobs

%

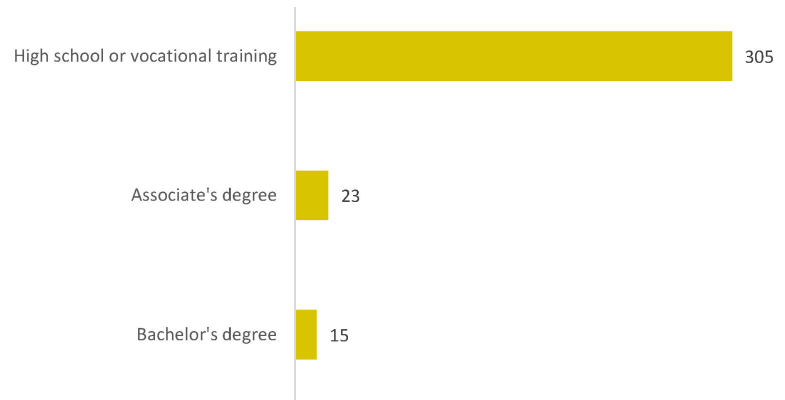
Entry-level opportunities
available

Construction Educational Attainment & Experience Required

Most Construction jobs require a registered apprenticeship or other skilled training. While some postings list high school as the only required credential it is clear from the skills listed in postings that vocational training is a must for Construction jobs.

Many construction jobs require three to five years of experience. Entry-level jobs are available to those who have the requisite skills for employment.

Minimum Educational Attainment Required Q1 2016

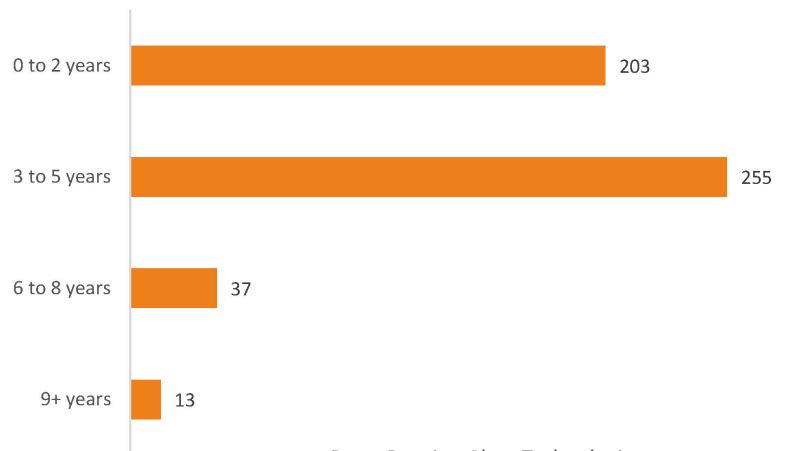


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Construction management
- Mechanical engineering
- Business administration and management, general
- Computer science

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Technical skills: electrical systems, carpentry, plumbing

43.3%+

Most jobs available are full-time

Construction in-Demand Skills Q1 2016

In-demand skills for Construction workers range from the highly technical to overarching foundational skills necessary for many jobs in the 21st century. Technical skills in-demand include carpentry, plumbing, electrical systems, repair, and diagram reading. All of these require specialized training outside of high school or an apprenticeship program included as part of a high school curriculum.

Foundational skills are also high-level. Construction employers want workers to be able to problem solve, manage projects, have strong collaboration skills, and work well with clients. Construction occupations also require physical demand.

Technical in-Demand Skills

- Repair, inspection
- Electrical systems, writing
- Schematic diagram reading, creation
- Carpentry, hand-tools
- Plumbing, pipefitting

Foundational In-Demand Skills

- Troubleshooting, problem solving
- Physical demand
- Communications skills: writing, collaboration
- Customer service
- Project management, organizational skills

Job Type

- Temporary: 7.0%
- Full-time: 43.3%
- Part-time: 1.8%

Certifications In-Demand

- Electrician certification, Master electrician
- Commercial driver's license, CDL class A
- First aid cpr aed
- Occupational safety and health administration certification
- Plumbing certification



\$50,000: average advertized wage during Q1 2016



Electricians, plumbers, pipefitters: most wage growth potential outside of mangaeement

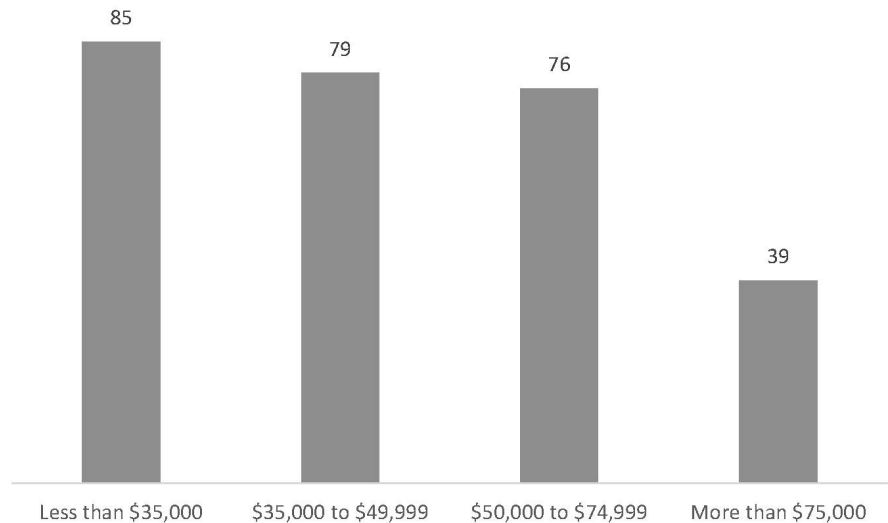
Construction

Wages

Wages for Construction workers have a broad range and grow with experience. Employers advertising wages in postings have equivalent numbers of jobs available for workers at all levels of wages below \$75,000. The average advertised wage in Q1 2016 was \$50,000, a competitive level.

Advertised Salaries

Quarter 1 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
47-2111	Electricians	\$18.06	\$23.94	\$31.09	\$35.32	\$41.37
47-2061	Construction Laborers	\$11.35	\$13.99	\$18.56	\$22.59	\$26.66
47-2031	Rough Carpenters	\$13.97	\$18.22	\$23.85	\$29.03	\$33.29
47-2141	Painters, Construction and Maintenance	\$12.00	\$13.92	\$20.07	\$26.03	\$30.71
47-2152	Plumbers	\$15.69	\$22.35	\$31.21	\$35.49	\$40.14
47-4011	Construction and Building Inspectors	\$15.23	\$20.59	\$26.40	\$30.96	\$35.92
47-2152	Pipe Fitters and Steamfitters	\$15.69	\$22.35	\$31.21	\$35.49	\$40.14
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$20.30	\$24.06	\$29.07	\$37.38	\$45.30
47-2073	Operating Engineers and Other Construction Equipment Operators	\$18.32	\$20.28	\$23.46	\$27.64	\$31.06
47-2051	Cement Masons and Concrete Finishers	\$12.02	\$16.89	\$20.28	\$26.21	\$29.80

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.

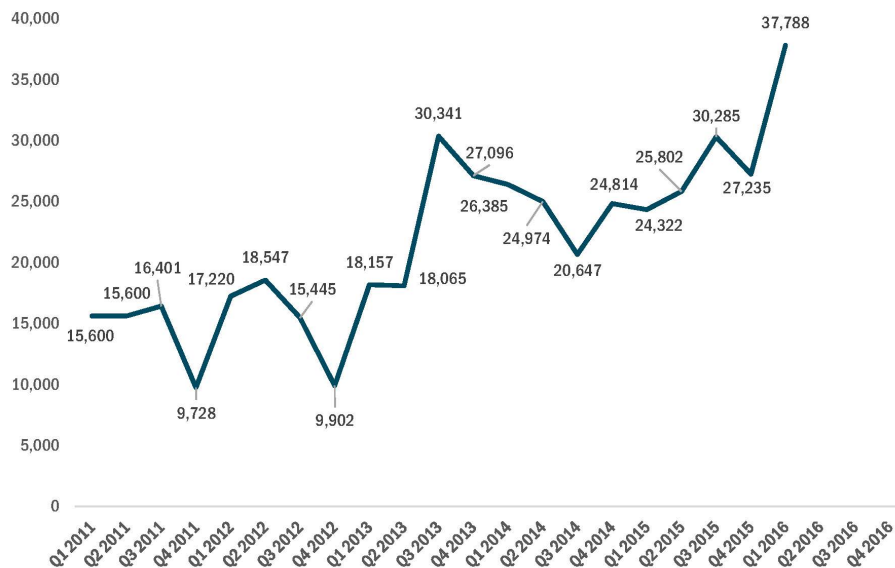
Postings Over Time

Job postings for Customer Service occupations reached a historic high during Q1 2016 with 37,788 online ads. Employers added 10,553 postings between Q4 2015 and Q1 2016 increasing the number by 39%. Compared to Q1 2015, one-year prior, postings have increased 55%, growing by 13,466. Postings in Customer Service have been slow growing in the past year and this jump is welcome as it indicates economic expansion in the region.

Employment Over Time

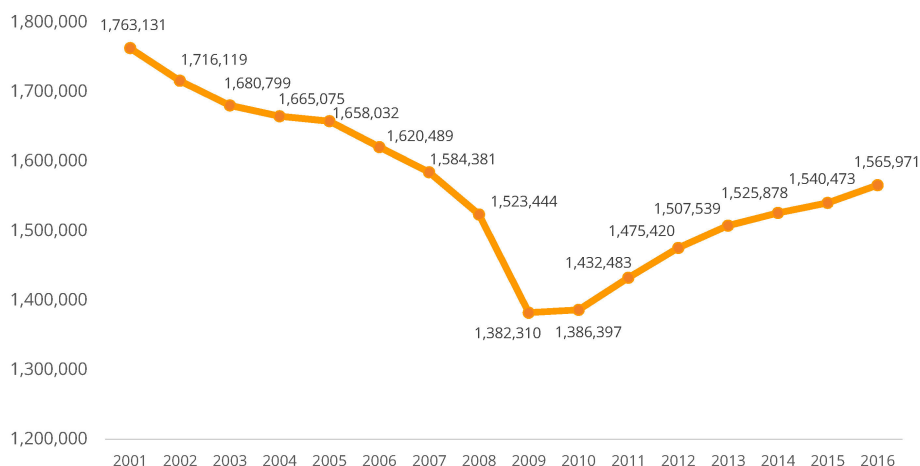
Employment in Customer Service occupations has increased 13% since the 2009 recession low, adding nearly 200,000 jobs. 2016 estimates show that nearly 1.6 million individuals are employed in Customer Service-related jobs making it the largest occupation group in the region. Jobs are growing slowly and employers must add another 200,000 jobs to reach 2001 pre-recession highs.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



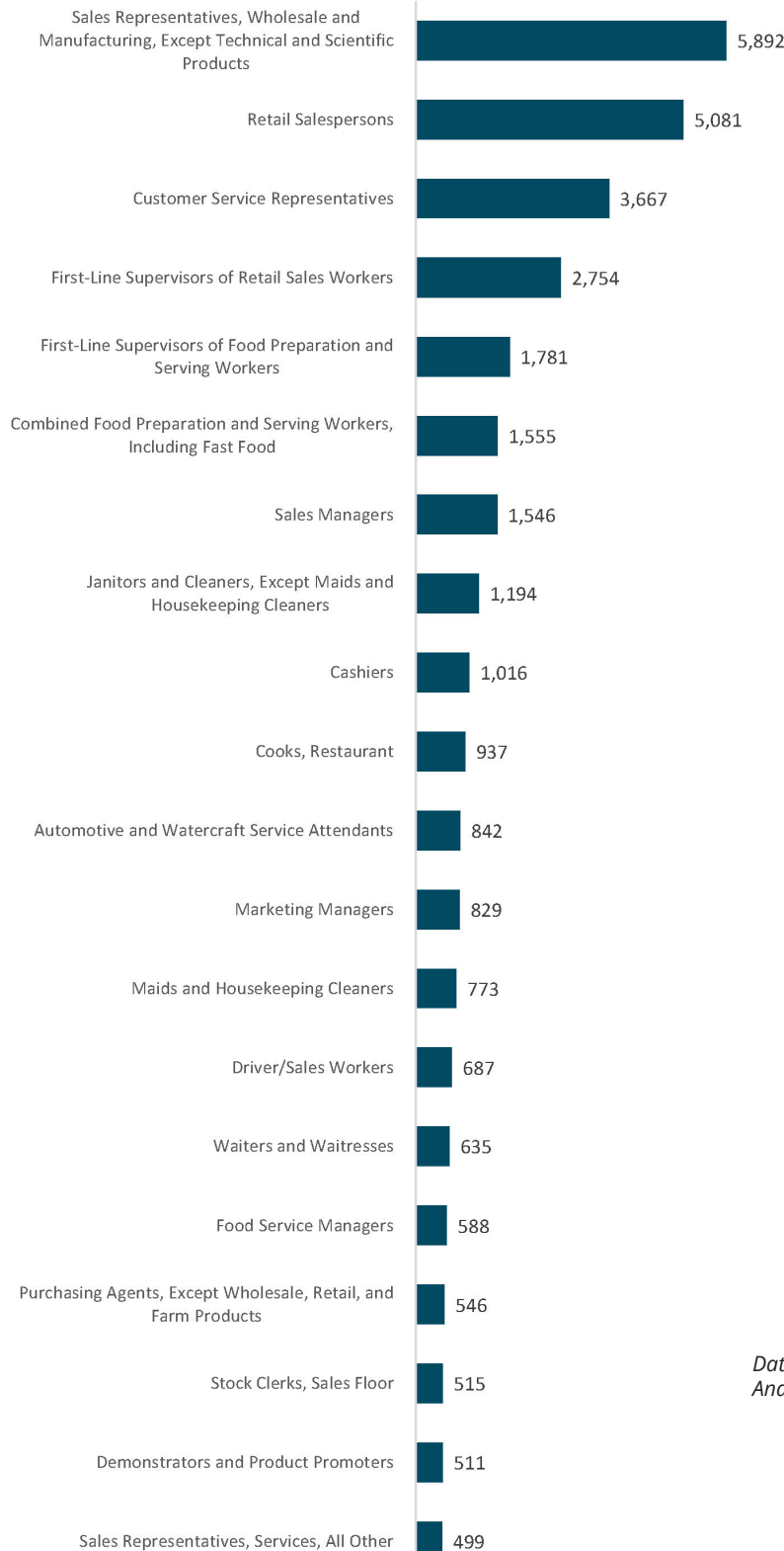
Wholesale and manufacturing
sales: most in-demand



37,788 ads: highest posting
level in data collection history

Customer Service Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Entry-level opportunities
available

%

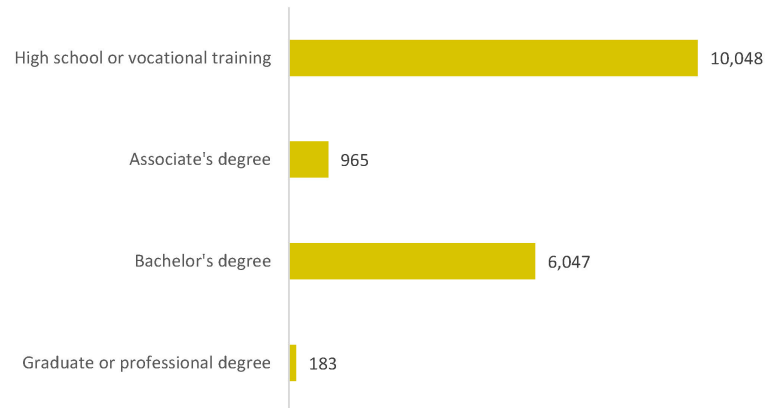
High school diploma required

Customer Service Educational Attainment & Experience Required

Customer Service jobs either require little to no training past a high school education or require a Bachelor's degree. This is because occupations in the group range from retail sales and other lower technical skill jobs to those in technical sales and management.

Because many Customer Service jobs do not require higher levels of education many are open to entry-level workers allowing individuals to gain experience and basic skills before transitioning to another career path.

Minimum Educational Attainment Required Q1 2016

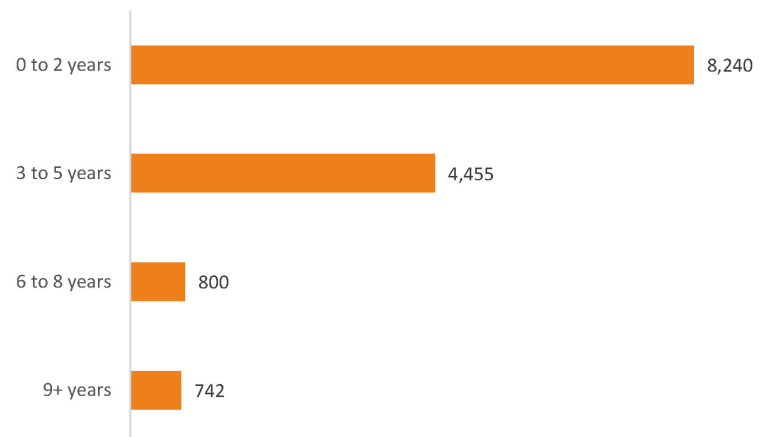


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Business administration and management, general
- Marketing/marketing management, general
- Engineering, general
- Finance, general
- Computer science

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Essential skill: customer service

%

Managers and supervisors in-demand

Customer Service in-Demand Skills Q1 2016

The postings in the Customer Service group required a wide array of high-level communication skills. The most demanding skill in this occupation group was sales and customer service, the skill that links all of the jobs in this occupation group. Management skills, such as scheduling and budgeting, were also present in many of the postings for Customer Service related jobs. The skills listed below are vital for Customer Service to build a relationship with customers and provide them with particular product to meet their needs.

Technical in-Demand Skills

- Sales
- Merchandising
- Cleaning
- Store Management
- Supervisory skills

Foundational In-Demand Skills

- Communications skills: writing, building relationships, listening
- Customer service
- Organization
- Physical demand
- Problem solving

Job Type

- Temporary: 4.6%
- Full-time: 30.5%
- Part-time 10%:

Certifications In-Demand

- Servsafe
- Automotive service excellence (ASE) certification
- Commercial driver's license
- Alcohol server certification
- Mortgage license



\$52,224: average advertized wage



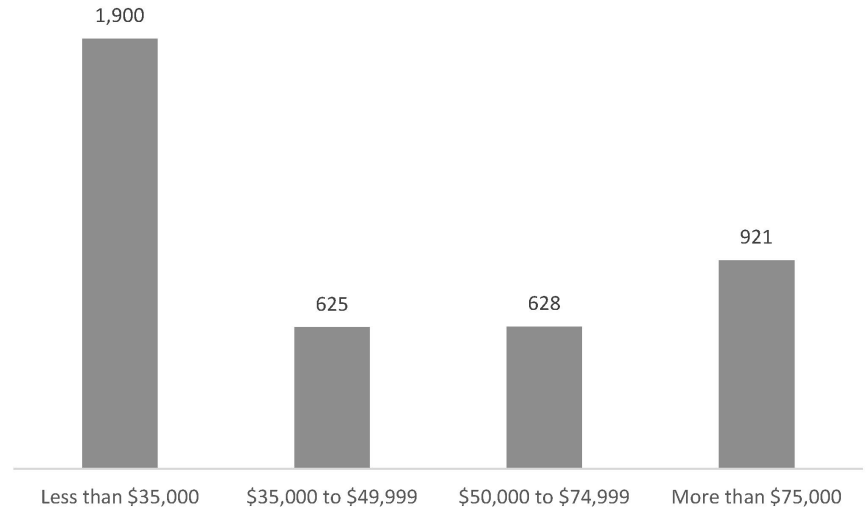
Wholesale and manufacturing sales = most wage potential

Customer Service Wages

Many Customer Service jobs pay lower wages because they require fewer technical skills, less training, and are open to workers with little to no experience. Some occupations offer a great deal of wage potential but also require more education and training. While most postings listed wage below \$35,000 the average advertised wage in Q1 2016 was \$52,224. Higher wages for workers with certain credentials and experiences highlight the opportunity in this career area.

Advertised Salaries

Quarter 1 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
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$12.68	\$18.66	\$27.10	\$39.62	\$55.93
41-2031	Retail Salespersons	\$8.27	\$8.90	\$10.16	\$13.10	\$19.10
43-4051	Customer Service Representatives	\$9.22	\$11.38	\$14.86	\$18.90	\$24.29
41-1011	First-Line Supervisors of Retail Sales Workers	\$11.52	\$14.25	\$18.39	\$23.70	\$30.16
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	\$8.89	\$10.52	\$14.25	\$19.31	\$24.15
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	\$8.15	\$8.52	\$9.14	\$9.92	\$12.12
11-2022	Sales Managers	\$29.05	\$39.39	\$53.42	\$71.56	\$108.82
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$8.30	\$9.38	\$11.71	\$15.15	\$18.64
41-2011	Cashiers	\$8.17	\$8.68	\$9.57	\$11.62	\$15.08
35-2014	Cooks, Restaurant	\$8.31	\$9.14	\$10.68	\$12.74	\$14.33

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Introduction

Education

Education-related jobs can be found both in the private and public sectors with teachers and other education-related workers employed in public schools, private schools, and training institutions. Jobs in the education occupation group require a variety of skills and credentials dependent on the target age group and topic area for the educator. From elementary school teachers to college professors, educators are the backbone of training the future workforce.

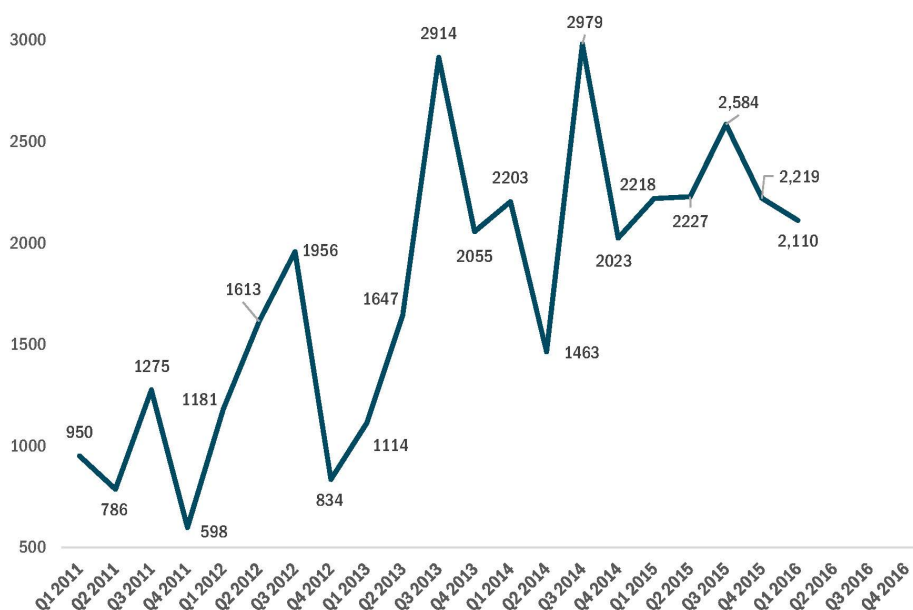
Postings Over Time

Job postings for jobs in Education do not follow a traditional business cycle like many other occupation groups. Instead, postings for Education positions peak during quarter three, particularly in July and August when schools ramp up hiring for the school year. Compared to one year ago, postings have dropped by 108, a modest 5% decline.

Employment Over Time

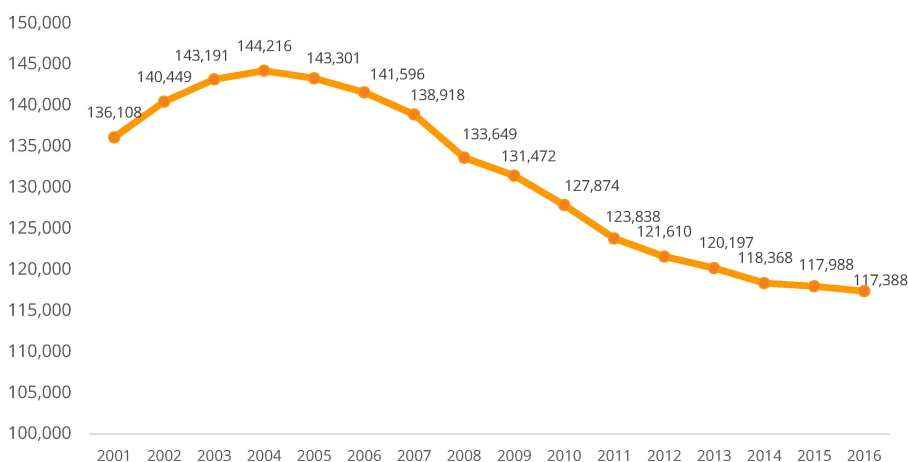
Unlike many other occupation groups that have experienced employment gains since the recession, Education employment has declined. Also, unlike others, there was no precipitous drop in employment during 2009 and 2010 as the economy collapsed. Education positions, many of which are publicly funded, have fallen more in line with government spending on educator positions and universities changing from tenured faculty to adjust and part-time staff that are not counted in full-time employment numbers. Compared to a pre-recession high employment level of 144,216 in 2004, employment has dropped 18.6% with 26,828 fewer individuals employed in Education occupations.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



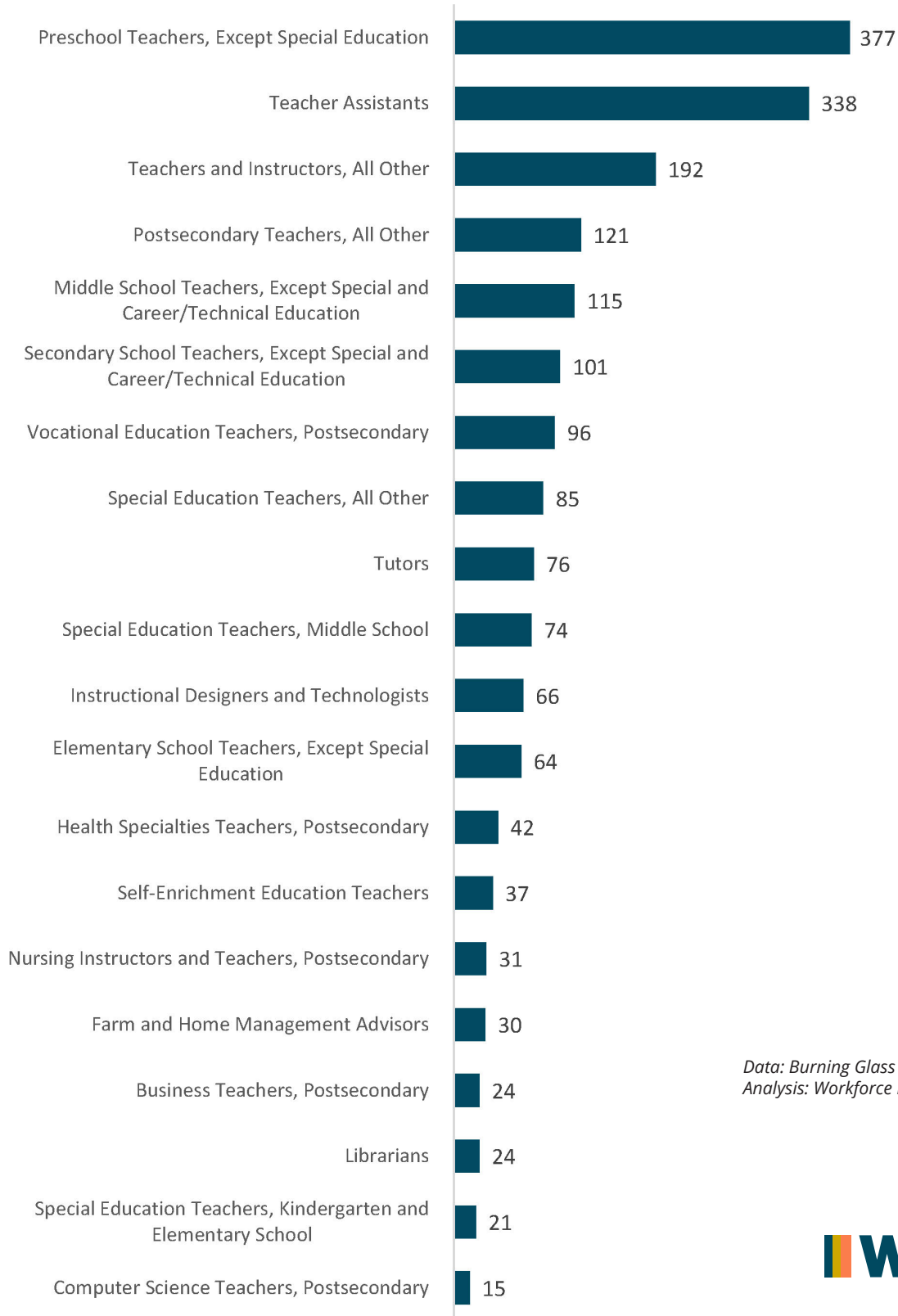
Preschool teachers and teaching assistants: most in-demand



Declining employment: most available jobs are replacement positions

Education Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Bachelor's degree required to teach

%

Entry-level opportunities available

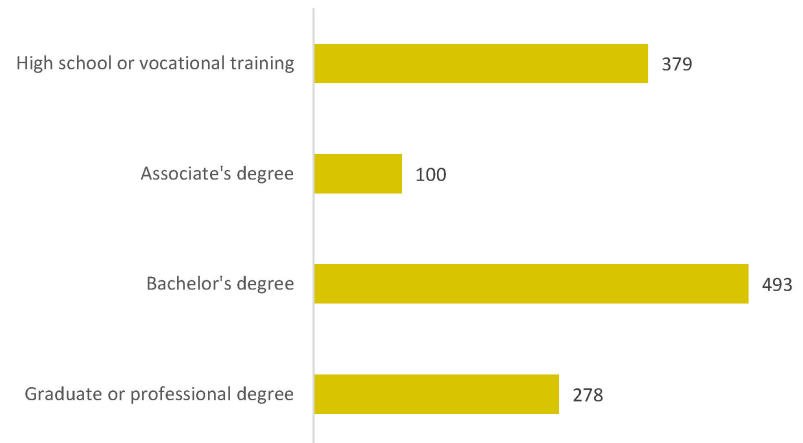
Education

Educational Attainment & Experience Required

Most positions in Education require a Bachelor's or Master's degree as teacher training requirements have increased. Some positions, like those for teacher aids, require vocational training instead of a degree.

Many positions are open to less experienced workers with more than half of postings listing entry-level positions. The next most requested experience is three to five years. Few postings require more than five years of experience.

Minimum Educational Attainment Required Q1 2016

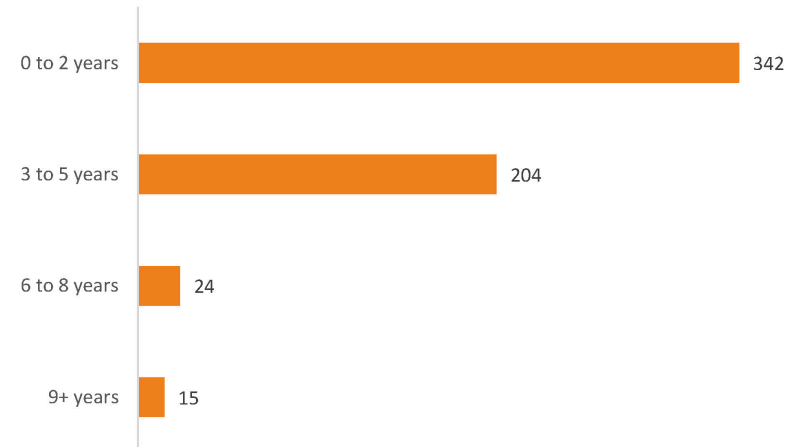


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Early childhood education and teaching
- Child development
- Business administration and management, general
- Educational/instructional technology
- Nursing science

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Special education and early childhood education: in-demand skills

%

Teacher certification required

Education in-Demand Skills Q1 2016

The foundational skills required for Education jobs are similar to those required for many other jobs. Communications, organization, problem solving, and others are all required of most jobs in the 21st century. Technical skills for teachers and other occupations in Education include lesson planning, knowledge of child development, mathematics, special education, and other teaching-specific skills.

Technical in-Demand Skills

- Teaching, lesson planning
- Child development
- Early childhood education
- Mathematics
- Special education

Foundational In-Demand Skills

- Communications skills: writing, building relationships, presentation skills
- Planning, organization
- Research, problem solving
- Physical demand
- Creativity

Job Type

- Temporary: 4.2%
- Full-time: 42.8%
- Part-time: 11.8%

Certifications In-Demand

- Certified teacher
- First aid CPR AED
- Registered nurse
- Special education certification
- Emergency medical technician (EMT)



\$40,183: average advertised wage in Q1 2016



Wage potential increases with age of students taught

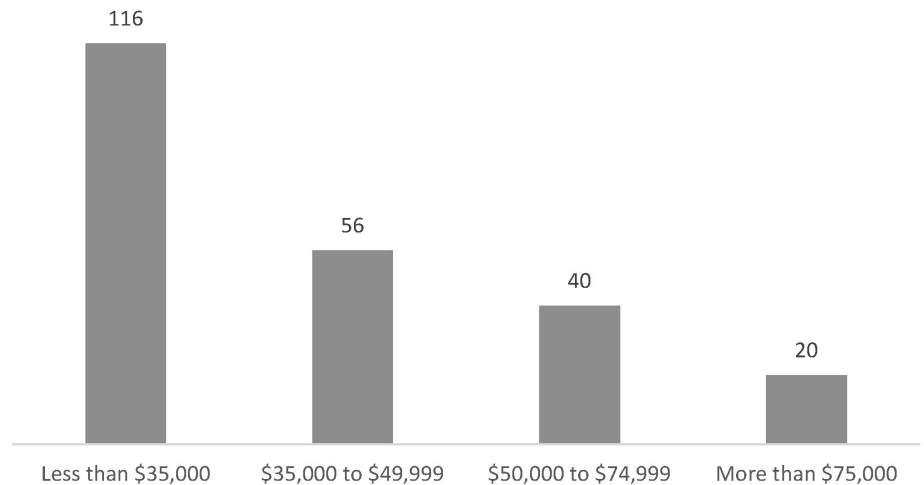
Education

Wages

Starting wages for many teaching positions are not competitive but have the opportunity to grow. For many positions, wages are negotiated by a union and increase over time. The average wage for a teacher, as advertised in postings during Q1 2016, was \$40,183. While half of postings list wages below \$35,000, most open positions require little to no experience so it stands to reason that this is why wages in postings are so low even though most jobs require at least a Bachelor's degree.

Advertised Salaries

Quarter 1 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
25-2011	Preschool Teachers, Except Special Education	\$9.29	\$10.77	\$13.47	\$16.51	\$22.18
25-9041	Teacher Assistants	\$8.67	\$10.04	\$11.95	\$14.88	\$18.42
25-3099	Teachers and Instructors, All Other	\$10.11	\$15.70	\$26.12	\$33.71	\$40.66
25-1199	Postsecondary Teachers, All Other	\$20.52	\$27.32	\$37.84	\$51.09	\$73.72
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$18.38	\$23.85	\$31.86	\$38.46	\$44.02
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$18.43	\$23.15	\$30.87	\$38.63	\$44.48
25-1194	Vocational Education Teachers, Postsecondary	\$19.72	\$23.84	\$30.82	\$35.58	\$40.91
25-2059	Special Education Teachers, All Other	\$16.01	\$20.46	\$25.64	\$35.20	\$44.48
25-3099	Tutors	\$10.11	\$15.70	\$26.12	\$33.71	\$40.66
25-2053	Special Education Teachers, Middle School	\$19.57	\$24.21	\$30.71	\$38.56	\$45.12

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.

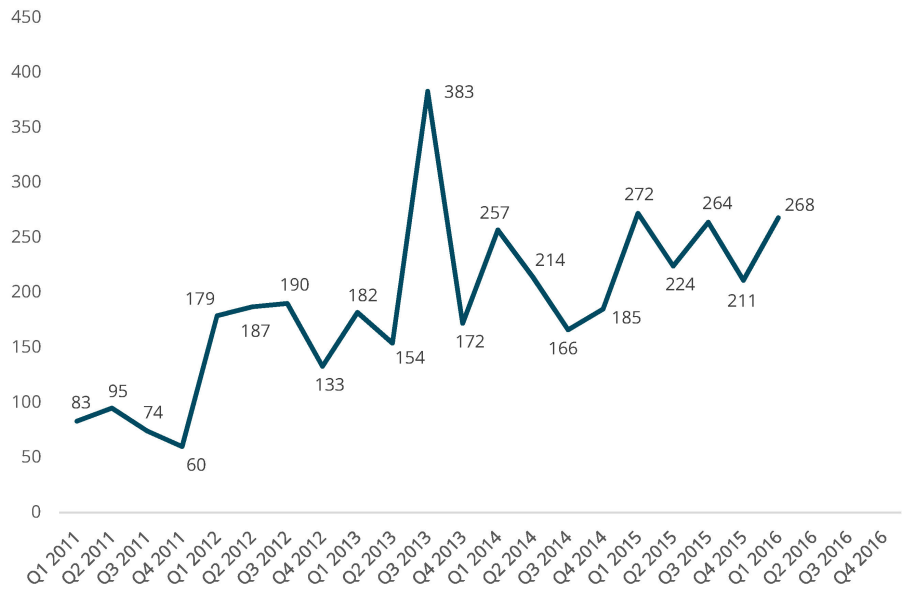
Postings Over Time

Job postings in the Energy group increased between Q4 2015 and Q1 2016 by 27%, gaining 57 postings. This increase is experienced between Q4 and the following Q1 each year. Compared to one-year prior, Q1 2015, postings have not shifted. The overall trend has been modest fluctuation with quarter-by-quarter gains and drops of similar magnitude. Trends indicated that demand for workers in Energy is not increasing but remains stable around 230 postings.

Employment Over Time

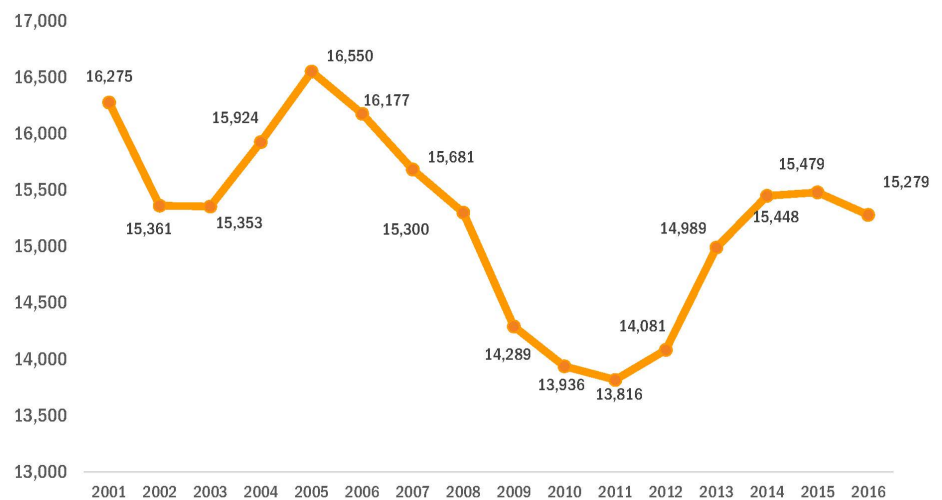
The data presented in the graph to the right represents total employment in the Energy industries (NAICS 2111, 2131, 2211, 2212, 2371), not just WIN-designated Energy occupations. In 2016, 15,448 workers are employed in these Energy industries in southeast Michigan. Employment in these industries dipped in 2011, losing 2,734 jobs. Employment has since recovered to just over 15,000 workers, a 1,663 job gain between 2011 and 2015, but employment looks to be dropping again.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



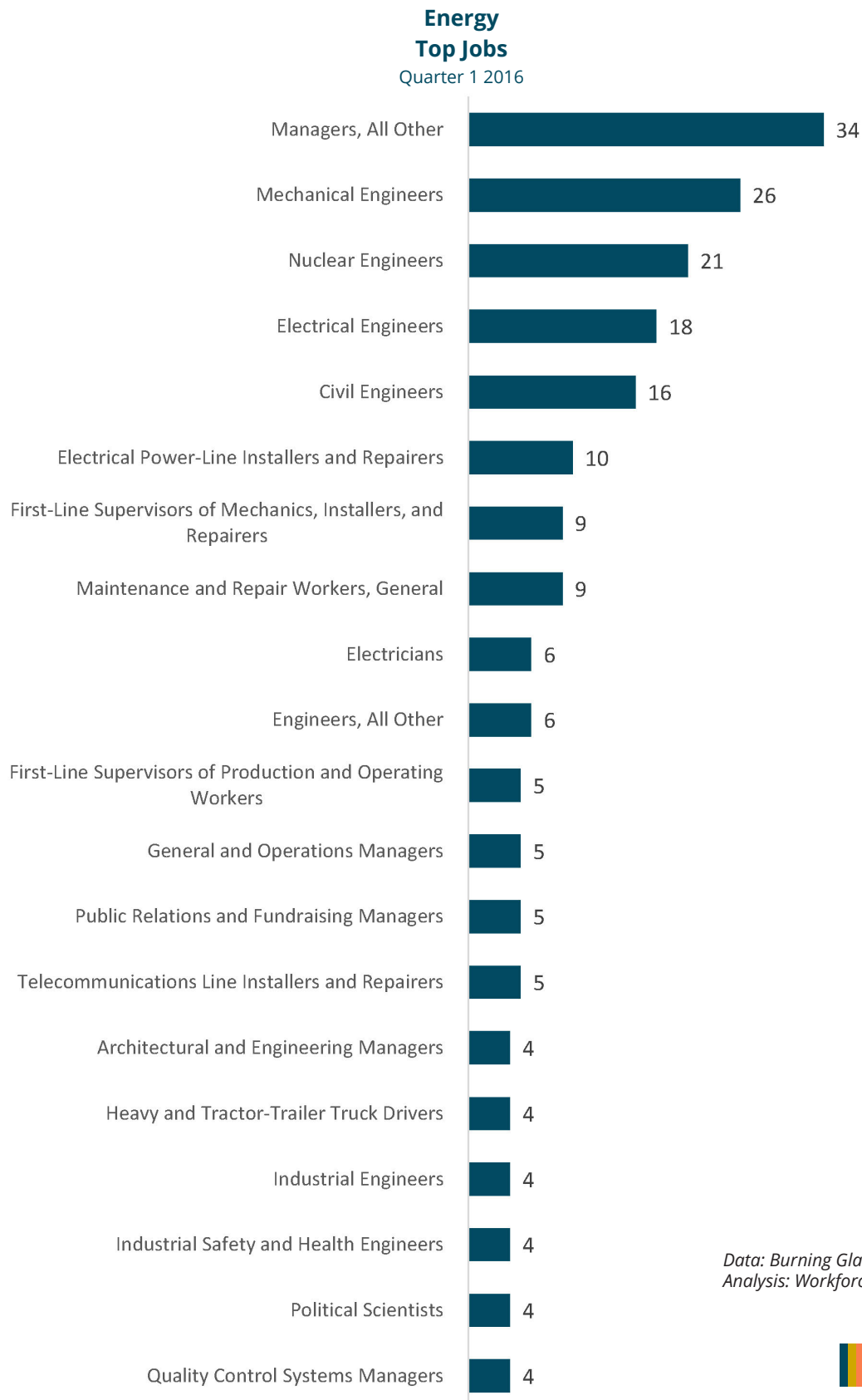
Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Managers and engineers: most
in-demand jobs



Postings holding steady around
230, demand not increasing



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Technical training require for technician positions

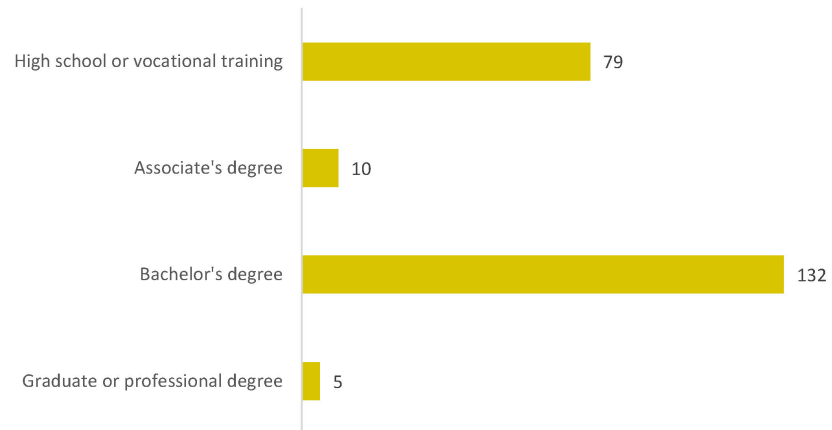
%

3 to 5 years of experience required

Energy Educational Attainment & Experience Required

Jobs in Energy tend to have an engineering focus and thus require at least a Bachelor's degree for employment. Select available jobs at the technician level require vocational training such as an apprenticeship. Energy companies posting in Q1 2016 required three to five years of experience leaving little room for entry-level talent.

Minimum Educational Attainment Required Q1 2016

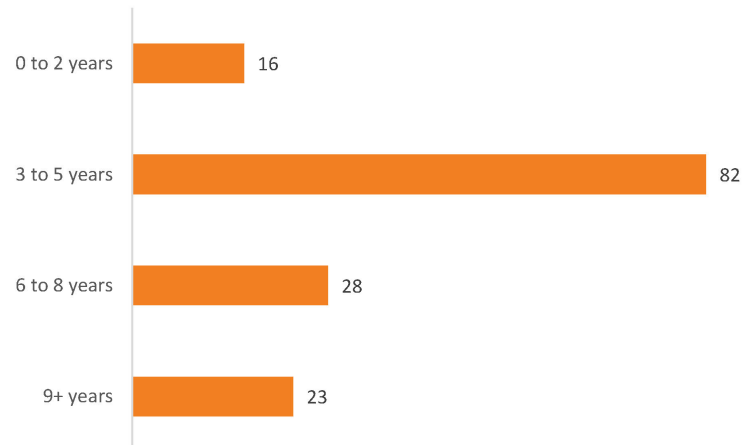


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Engineering technology, general
- Mechanical engineering
- Electrical and electronic engineering technologies/technicians, other
- Business administration and management, general

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Nuclear energy: essential skill/
knowledge

%

ABET and ASME certifications
in-demand

Energy in-Demand Skills Q1 2016

Foundational skills for jobs in Energy fields are similar to those across the WIN-analyzed occupation groups. Planning, customer service, problem solving, and communications skills are necessary for workers. Technical skills in Energy jobs range from budgeting to nuclear energy and repair. A wide variety in these highly skilled jobs.

Technical in-Demand Skills

- Budgeting
- Supervisory skills
- Project Management
- Nuclear energy
- Repair, inspection

Foundational In-Demand Skills

- Planning, project management
- Problem solving
- Communication skills: writing, building relationships
- Supervisory skills, mentoring
- Computer skills: Microsoft Excel, Office

Job Type

- Temporary: 3.0%
- Full-time: 36.2%
- Part-time: data unavailable

Certifications In-Demand

- Commercial driver's license (CDL)
- American board for engineering and technology (ABET) accredited
- Auditor certification
- Air brake certified
- American society of mechanical engineers (ASME) certified



Factoid can go here but should only be two lines



Factoid can go here but should only be two lines

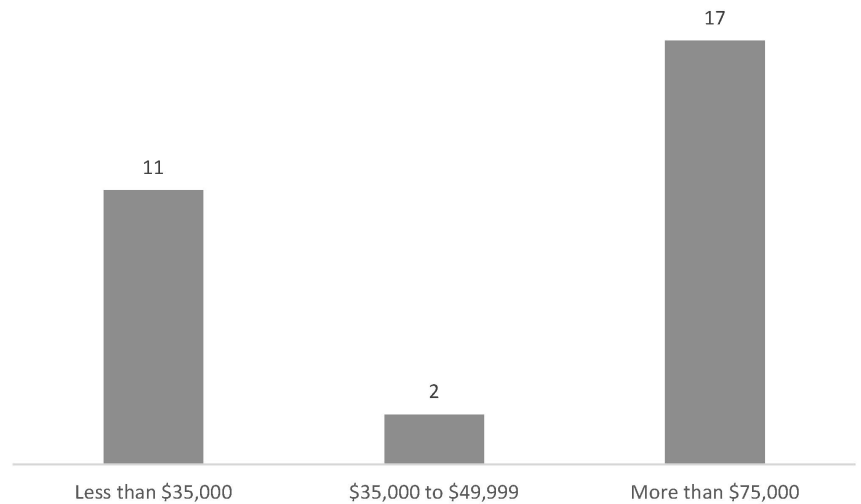
Energy

Wages

Few postings in Energy advertise a salary. Of those that did list a wage, most were above \$75,000 annually. The average advertised wage in a posting during Q1 2016 was \$66,054. According to BLS data, wages for energy workers are high and offer upward growth. With greater education requirements comes higher pay and Energy jobs are a great example of this.

Advertised Salaries

Quarter 1 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
11-9199	Managers, All Other	\$27.60	\$34.55	\$45.50	\$56.62	\$69.64
17-2141	Mechanical Engineers	\$29.71	\$36.70	\$44.39	\$53.14	\$59.51
17-2161	Nuclear Engineers	\$35.80	\$43.46	\$50.81	\$56.88	\$64.21
17-2071	Electrical Engineers	\$28.62	\$34.37	\$41.93	\$49.17	\$57.20
17-2051	Civil Engineers	\$23.15	\$27.80	\$33.73	\$39.42	\$46.77
49-9051	Electrical Power-Line Installers and Repairers	\$19.56	\$26.00	\$33.72	\$38.11	\$43.36
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$16.48	\$22.09	\$29.56	\$38.49	\$46.06
49-9071	Maintenance and Repair Workers, General	\$10.08	\$12.52	\$16.67	\$21.78	\$27.39
47-2111	Electricians	\$18.06	\$23.94	\$31.09	\$35.32	\$41.37
17-2199	Engineers, All Other	\$24.12	\$35.91	\$45.03	\$55.10	\$66.56

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Engineers & Designers (Manufacturing Focused)

Introduction

Engineers & Designers

Jobs in the manufacturing industry can range from assembly and production, to skilled trades and technicians, designers and engineers, and even computer-related occupations such as software development. Demand for engineers in the region has been consistent, and employment has been growing quickly.

Postings Over Time

Job postings for occupations in the Engineering and Design group dropped marginally between Q4 2015 and Q1 2016 falling by 141 postings, a 1% decline. Compared to Q1 2015, one-year prior, postings increased 17% with 1,410 additional job ads. While the immediate trends are negative Q1 2016 are the highest Q1 postings in the six years that data have been collected.

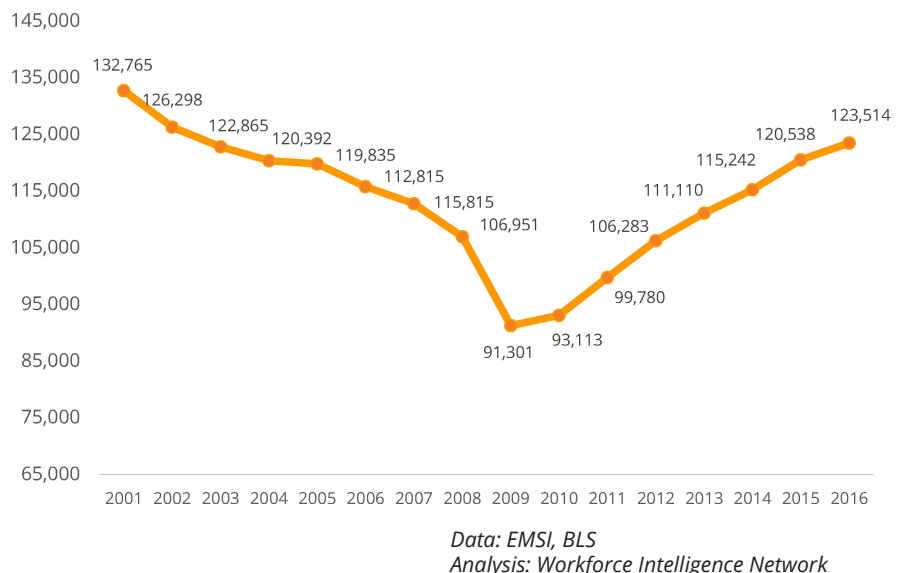
Employment Over Time

Employment in Engineering and Design occupations has increased 35.3% since the lowest point in the recession during 2009 recovering 32,213 jobs over a seven-year period. Postings for these workers are continuously high and hiring has been steady. While growth has been strong, another 9,251 workers need to be employed for job levels to reach 2001 peak pre-recession numbers.

Online Job Postings



Employment Over Time

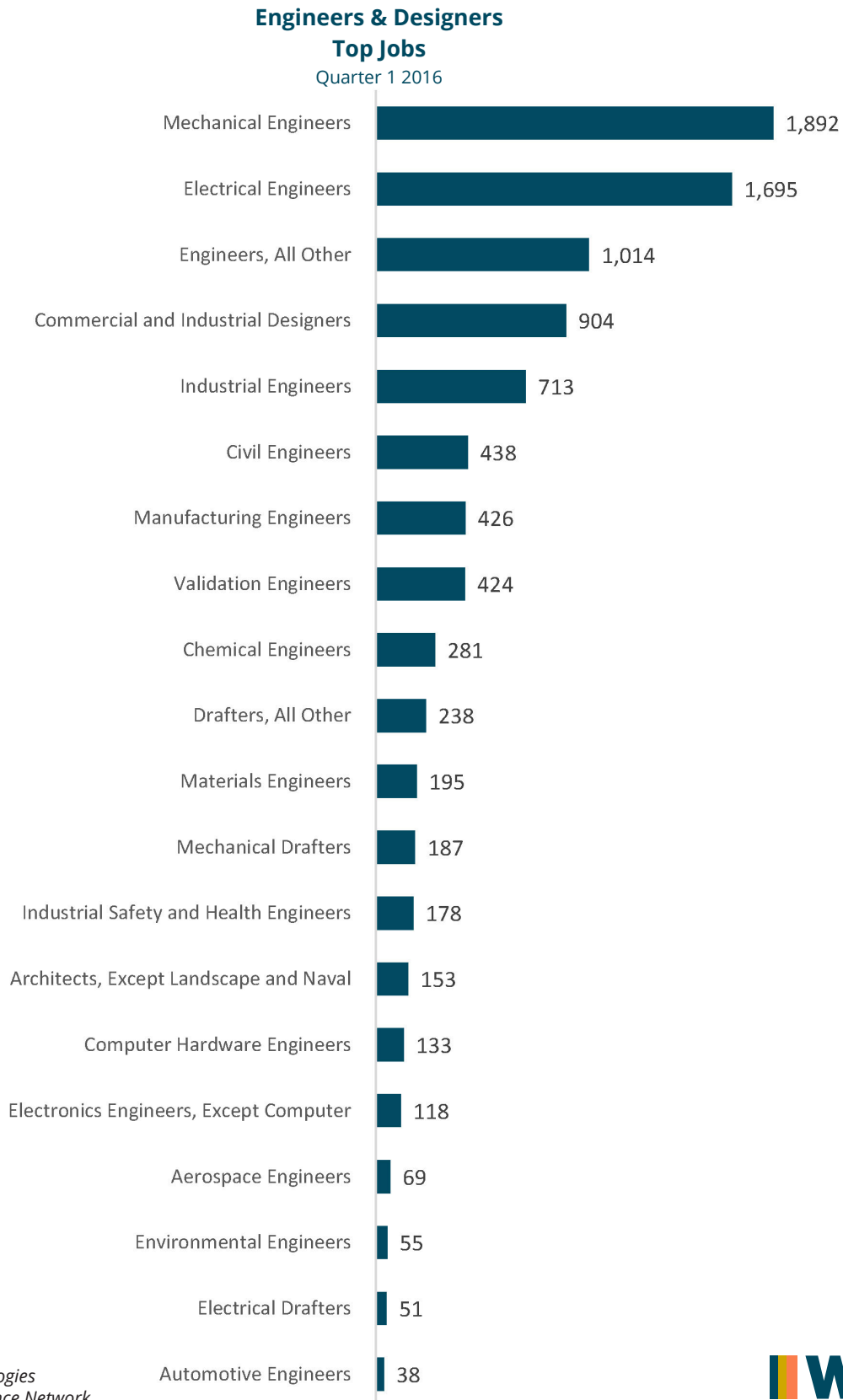




Most in-demand: mechanical
and electrical engineers



32,213 jobs recovered since
the recession





Bachelor's degree required

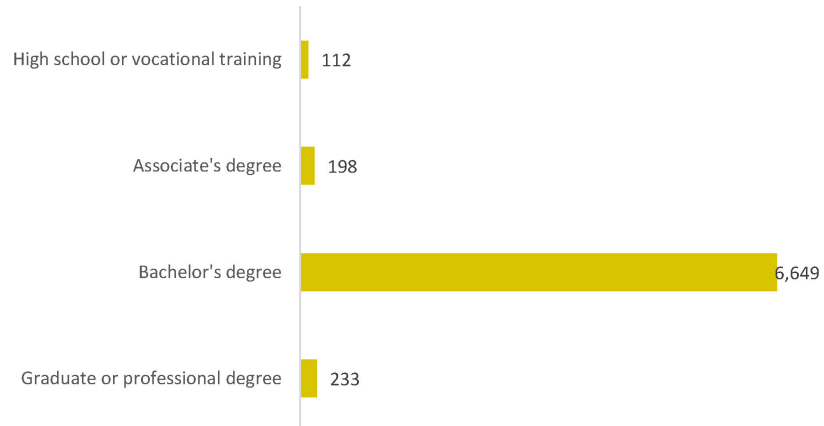
%

Most opportunity for those with 3 to 5 years of experience

Engineers & Designers Educational Attainment & Experience Required

Engineering and Design jobs require a Bachelor's degree or higher for employment. Experience however, is a range. Most available jobs require three to five years of experience. But, there are also many jobs available at the entry-level.

Minimum Educational Attainment Required Q1 2016

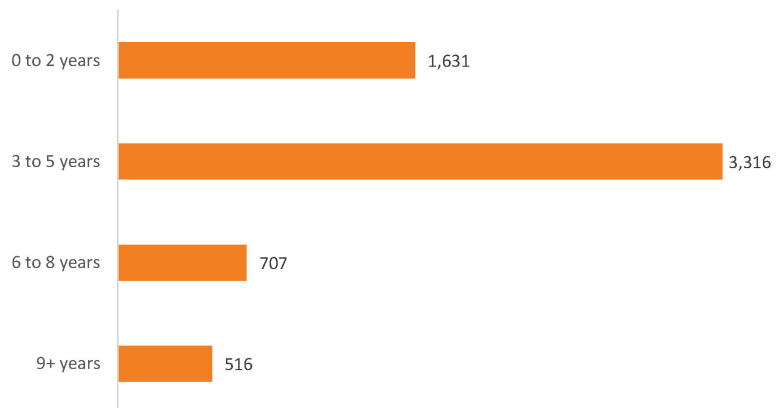


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Mechanical engineering
- Electrical and electronic engineering technologies/technicians, other
- Computer science
- Aerospace, aeronautical and astronautical engineering

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Product development: in-demand skill

%

Engineering certification from ABET required

Engineers & Designers in-Demand Skills Q1 2016

The foundational skills required to be an engineer or designer are similar to those for other occupational groups. Communications, management, problem solving, and computer skills are all important for workers in the current economy. Technical skills for engineers are more specific. Mechanical engineering, the top skill is also the top in-demand job. Many employers also want engineers to be part of the product development and project management processes.

Technical in-Demand Skills

- Mechanical engineering
- Electrical engineering
- Validation
- Product development
- Project management

Foundational In-Demand Skills

- Communication skills: writing, collaboration
- Problem solving, troubleshooting
- Computer skills: Microsoft Office, Excel, Powerpoint
- Planning, project management, organizational skills
- Research

Job Type

- Temporary: 5.2%
- Full-time: 46.4%
- Part-time: 0.9%

Certifications In-Demand

- American board for engineering and technology (ABET) accredited
- Six sigma certification
- Certified quality engineer
- Security clearance
- Project management certification (e.g. PMP)



Average advertized wage in Q1
2016: \$80,620

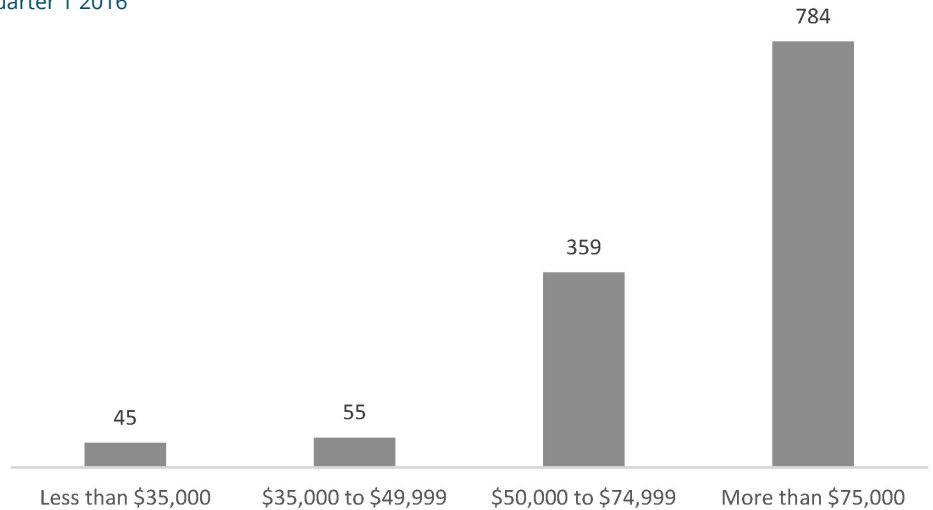


Most positions pay \$75,000+

Engineers & Designers Wages

With such high educational attainment requirements, it follows that most jobs posted for engineers pay more than \$75,000 annually. These are great jobs but require many years of training and a lot of skill. The average posted wage in Q1 2016 was \$80,620.

Advertised Salaries Quarter 1 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
17-2141	Mechanical Engineers	\$29.71	\$36.70	\$44.39	\$53.14	\$59.51
17-2071	Electrical Engineers	\$28.62	\$34.37	\$41.93	\$49.17	\$57.20
17-2199	Engineers, All Other	\$24.12	\$35.91	\$45.03	\$55.10	\$66.56
27-1021	Commercial and Industrial Designers	\$25.92	\$32.08	\$38.07	\$44.01	\$49.28
17-2112	Industrial Engineers	\$27.77	\$33.54	\$40.47	\$47.49	\$55.75
17-2051	Civil Engineers	\$23.15	\$27.80	\$33.73	\$39.42	\$46.77
17-2199	Manufacturing Engineers	\$24.12	\$35.91	\$45.03	\$55.10	\$66.56
17-2199	Validation Engineers	\$24.12	\$35.91	\$45.03	\$55.10	\$66.56
17-2041	Chemical Engineers	\$27.64	\$31.64	\$37.98	\$45.50	\$54.33
17-3019	Drafters, All Other	\$15.43	\$16.99	\$19.38	\$24.99	\$30.81

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.

Online Job Postings



Postings Over Time

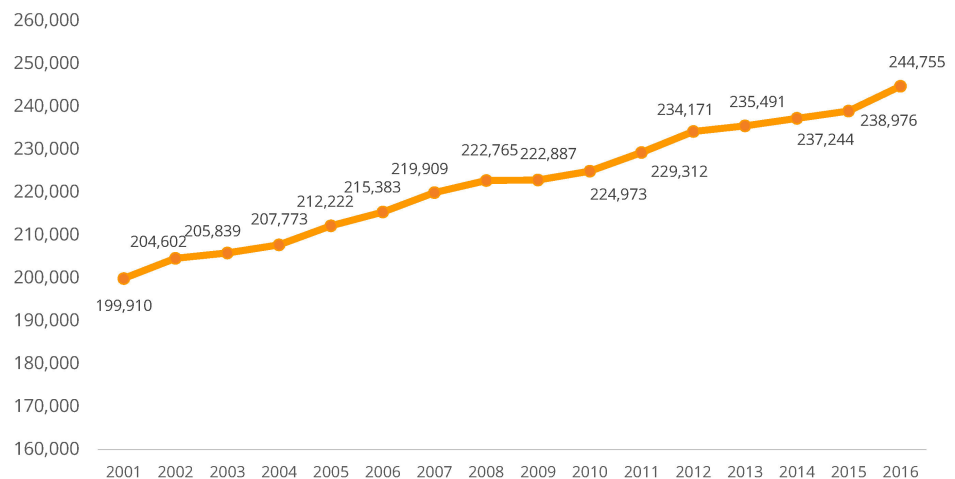
Job postings for occupations in Health Care occupations increased 10% between Q4 2015 and Q1 2016 growing by 1,783 postings. Compared to one-year prior, Q1 2015, postings increased 41% growing 5,686 postings. Q1 2016 marks the highest recorded number of postings in data collection history with 19,449 online ads in the WIN partnership region.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Health Care employment had proven to be one of few "recession-proof" occupation groups. Employment growth slowed modestly during the recession but no jobs were lost. Employment in Health Care jobs grew 2.42% adding 5,779 workers between 2015 and 2016. Growth is likely to continue as demand for services rises.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network

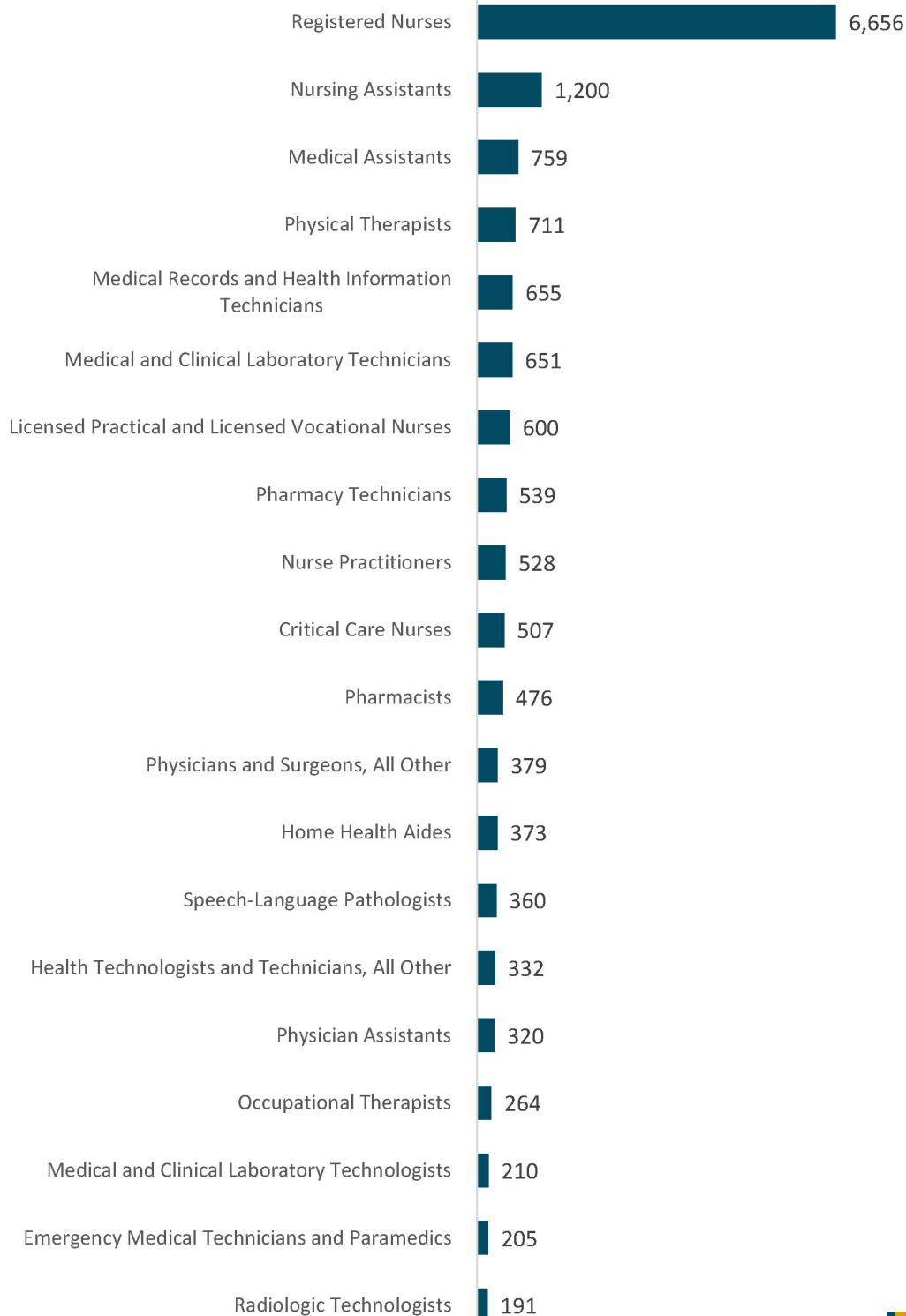


Registered nurses: most in-demand



Recession-proof jobs: continuous employment growth

**Health Care
Top Jobs**
Quarter 1 2016





Opportunities available to all educational attainment levels

%

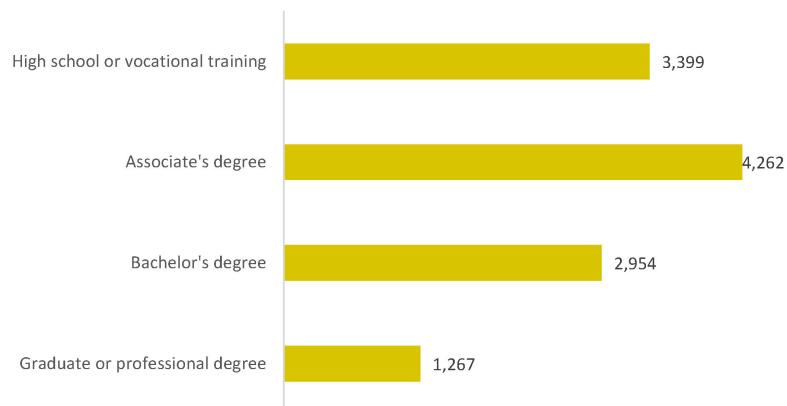
Many entry-level open jobs

Health Care Educational Attainment & Experience Required

Educational attainment for the Health Care group is not uniform across occupations. Health Care careers are open to individuals across the educational attainment spectrum. Of course, higher paying positions such as registered nurses, physicians, and physical therapists require more education.

Many Health Care jobs are open to those at the entry-level. The vast majority of employers that list a desired level of experience are open to hiring workers with two years or fewer years of experience.

Minimum Educational Attainment Required Q1 2016

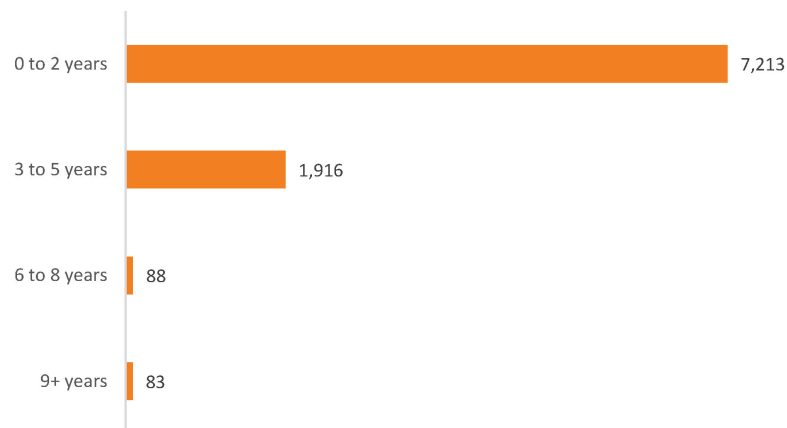


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Nursing science
- Physical therapy/therapist
- Business administration and management, general
- Occupational therapy/therapist
- Clinical/medical laboratory technician

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Patient care: most in-demand skill

53.1%+

More than half of open jobs are full-time positions

Health Care in-Demand Skills Q1 2016

The skills required of Health Care workers are focused on patient care and communication. The most in-demand technical skills outside of patient care include the ability to train patients and families about treatment. Basic skills in planning, computers, and organization are necessary.

Technical in-Demand Skills

- Patient care
- Treatment planning
- Supervisory skills, teaching
- Cardiopulmonary Resuscitation (CPR)
- Patient/Family education and instruction

Foundational In-Demand Skills

- Communications: collaboration, writing, building relationships
- Planning
- Computer skills
- Quality assurance
- Organization

Job Type

- Temporary: 5.8%
- Full-time: 53.1%
- Part-time: 8.9%

Certifications In-Demand

- Registered nurse
- First aid CPR AED
- Basic cardiac life support certification
- American heart association certificate
- Certified nursing assistant



\$62,612: average advertised wage in Q1 2016 postings

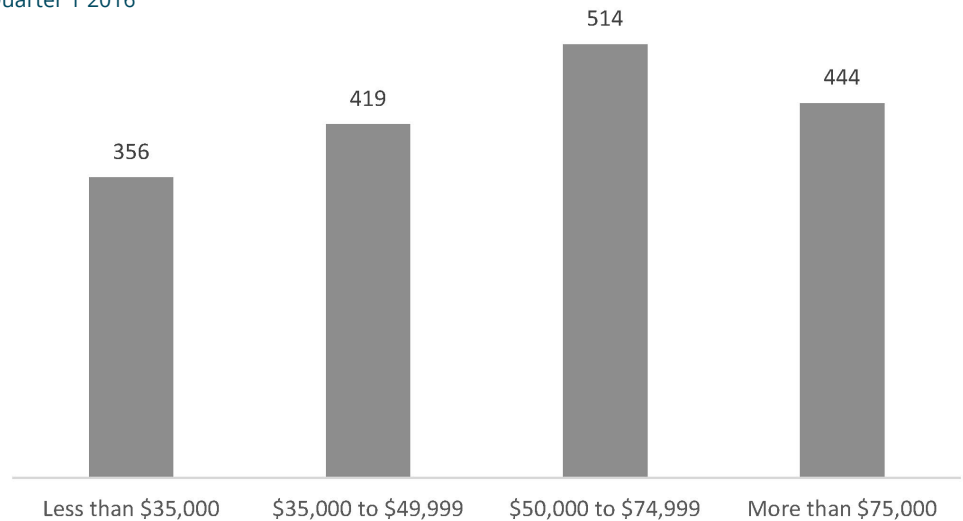


Wages and education follow an increasing trend

Health Care Wages

Like educational attainment, salaries offered to Health Care workers vary. Higher wages are often available to worker with more education. Demand is fairly equivalent across the spectrum as are wages. The average salary advertised in Health Care postings during Q1 2016 was \$61,612.

Advertised Salaries Quarter 1 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	\$25.01	\$28.52	\$32.88	\$37.34	\$46.95
31-1014	Nursing Assistants	\$10.16	\$11.73	\$13.47	\$15.35	\$17.39
31-9092	Medical Assistants	\$10.53	\$12.07	\$13.83	\$16.16	\$18.59
29-1123	Physical Therapists	\$27.22	\$33.08	\$39.56	\$47.90	\$63.98
29-2071	Medical Records and Health Information Technicians	\$11.70	\$14.01	\$17.78	\$21.89	\$25.65
29-2012	Medical and Clinical Laboratory Technicians	\$11.23	\$12.89	\$15.75	\$20.28	\$27.61
29-2061	Licensed Practical and Licensed Vocational Nurses	\$17.66	\$19.98	\$22.80	\$25.84	\$28.22
29-2052	Pharmacy Technicians	\$9.26	\$11.38	\$14.08	\$16.71	\$19.00
29-1171	Nurse Practitioners	\$33.37	\$39.27	\$44.58	\$51.92	\$58.85
29-1141	Critical Care Nurses	\$25.01	\$28.52	\$32.88	\$37.34	\$46.95

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Information Technology (IT)

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.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

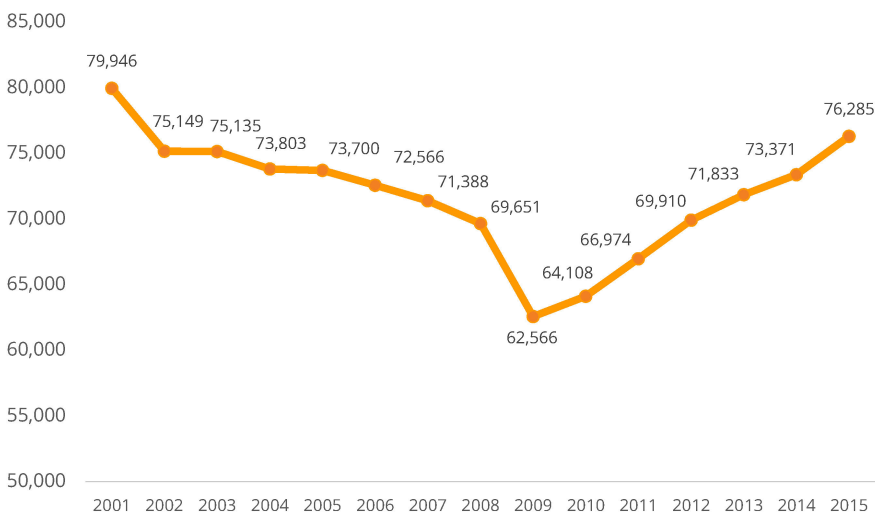
Postings Over Time

Online job postings for IT workers increased modestly between Q4 2015 and Q1 2016 growing 2% with 292 additional postings. Compared to one-year prior, Q1 2015, postings shifted by a similar margin. Job postings remain high and hover close an average of 16,500.

Employment Over Time

IT employment has increased nearly 26% with 16,231 jobs recovered between 2009 and 2016. Employment is growing rapidly and nearing the 2001 pre-recession high. An additional 1,150 workers in IT jobs in the region will push employment above pre-recession peak levels.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Software development: most
in-demand

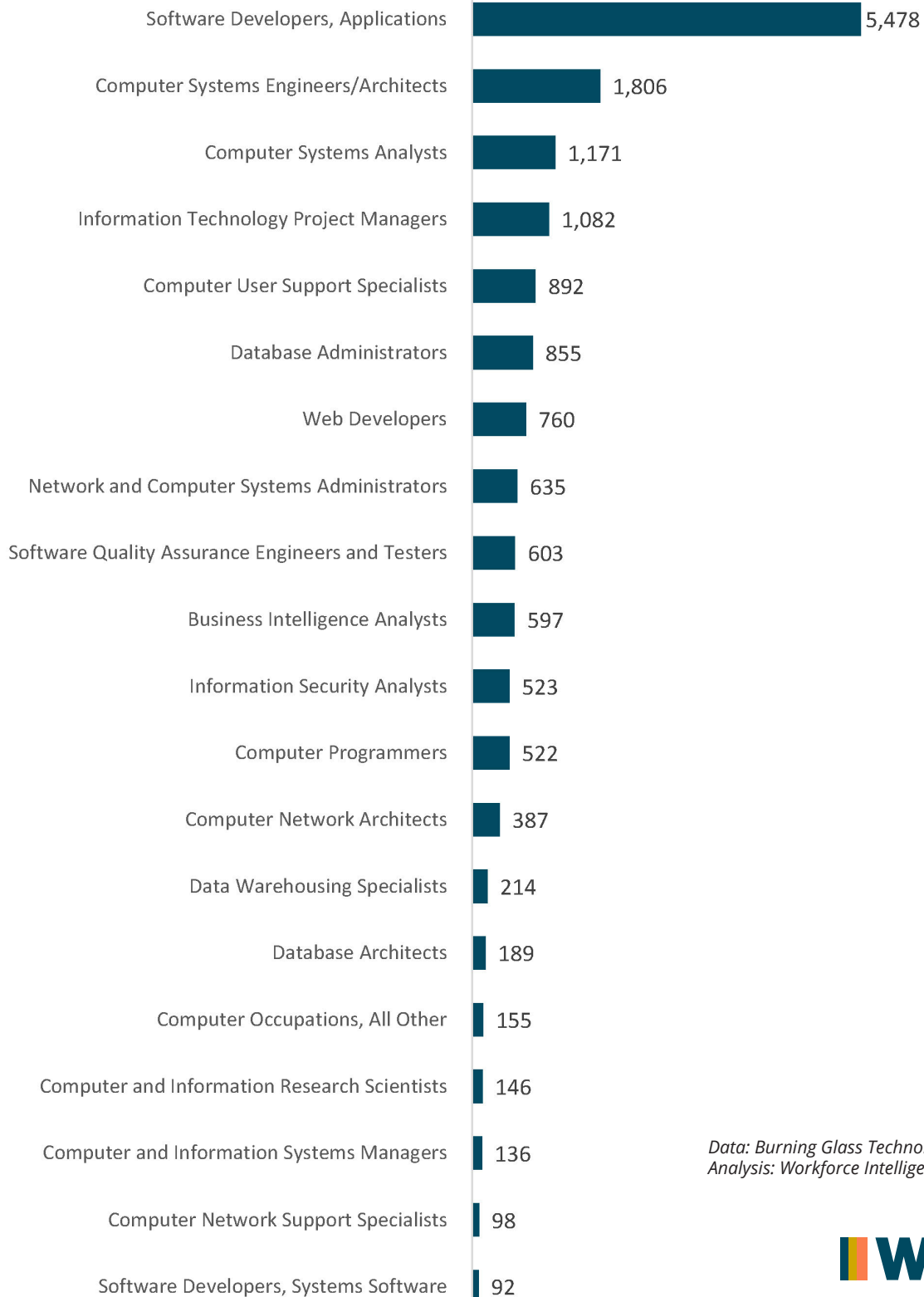


Consistent employment
growth: jobs to soon reach
pre-recession levels

Information Technology (IT)

Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Bachelor's degree required

%

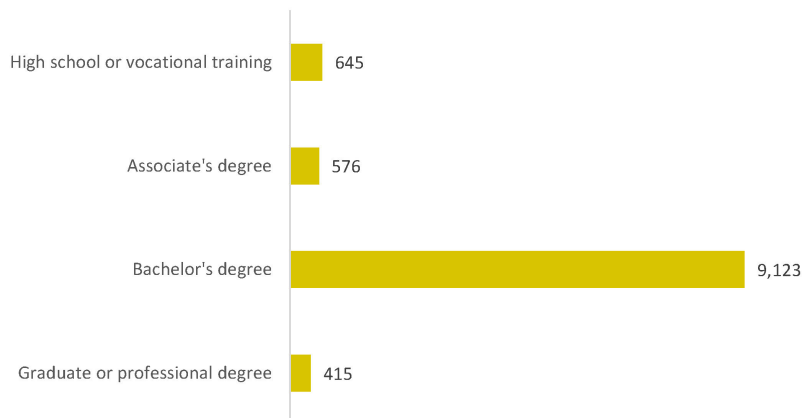
3 to 5 years of experience:
most in-demand

Information Technology (IT) Educational Attainment & Experience Required

Of the employers that posted required educational attainment for IT jobs, a strong majority require workers to have a Bachelor's degree. Some IT positions can be obtained with shorter term training.

Many employers want IT workers with three to five years of experience. Jobs are available at the entry-level but with the rapid pace of technology change and adaption employers are seeking experienced talent.

Minimum Educational Attainment Required Q1 2016

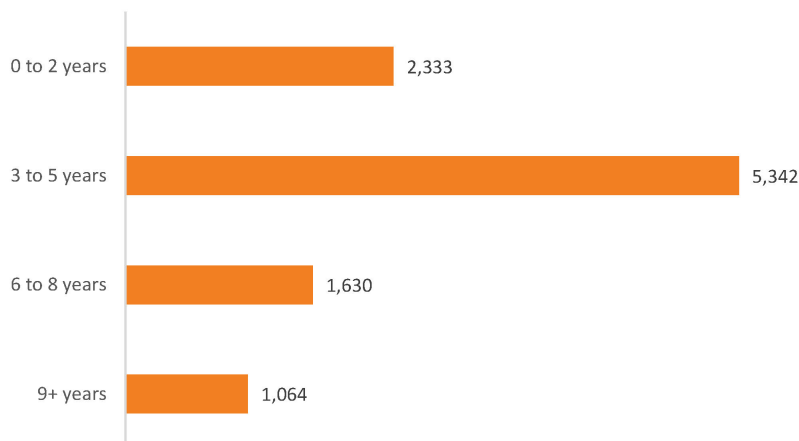


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Computer science
- Engineering, general
- Electrical and electronic engineering technologies/technicians, other
- Mechanical engineering
- Business administration and management, general

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



In-demand coding languages:
SQL, LINUX, JAVA

%

Customer service: in-demand
skill

Information Technology (IT) in-Demand Skills Q1 2016

IT employers are seeking candidates who have a combination of highly technical skills and coding language fluency as well as foundational skills important for any job in the 21st century. Several coding languages are often listed in postings. In-demand foundational skills include communications, project management, and customer service.

Technical in-Demand Skills

- SQL
- Software development
- LINUX
- JAVA
- Oracle

Foundational In-Demand Skills

- Communications skills: writing, collaboration
- Problem solving, troubleshooting
- Project management, planning
- Microsoft Excel, Office
- Customer service

Job Type

- Temporary: 4.6%
- Full-time: 43.7%
- Part-time: 1.7%

Certifications In-Demand

- Project management certification (e.g. PMP)
- Certified information systems security professional (CISSP)
- American board for engineering and technology (ABET) accredited
- Security clearance
- Cisco certified network professional (CCNP)



\$85,457: average advertised salary during Q1 2016

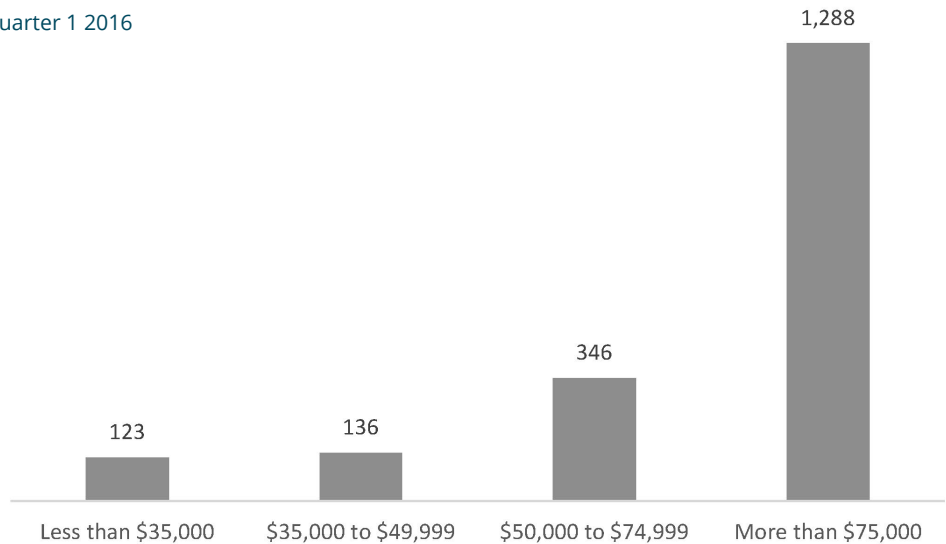


Most jobs pay over \$75,000

Information Technology (IT) Wages

Wages for IT workers are high and growing. With such high demand, employers are increasing wages to attract workers to the field. Of the postings that list wages, most offer workers over \$75,000 per year. The average salary offered in job postings during Q1 2016 was \$85,457.

Advertised Salaries Quarter 1 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	\$25.13	\$31.37	\$39.46	\$49.62	\$59.11
15-1199	Computer Systems Engineers/Architects	\$23.30	\$30.60	\$38.96	\$49.35	\$57.64
15-1121	Computer Systems Analysts	\$25.15	\$32.13	\$40.07	\$49.50	\$58.95
15-1199	Information Technology Project Managers	\$23.30	\$30.60	\$38.96	\$49.35	\$57.64
15-1151	Computer User Support Specialists	\$12.23	\$15.79	\$21.41	\$28.91	\$36.83
15-1141	Database Administrators	\$23.68	\$31.25	\$40.92	\$49.92	\$58.00
15-1134	Web Developers	\$18.26	\$22.41	\$29.30	\$37.46	\$45.63
15-1142	Network and Computer Systems Administrators	\$21.49	\$27.15	\$35.54	\$43.29	\$51.36
15-1199	Software Quality Assurance Engineers and Testers	\$23.30	\$30.60	\$38.96	\$49.35	\$57.64
15-1199	Business Intelligence Analysts	\$23.30	\$30.60	\$38.96	\$49.35	\$57.64

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.

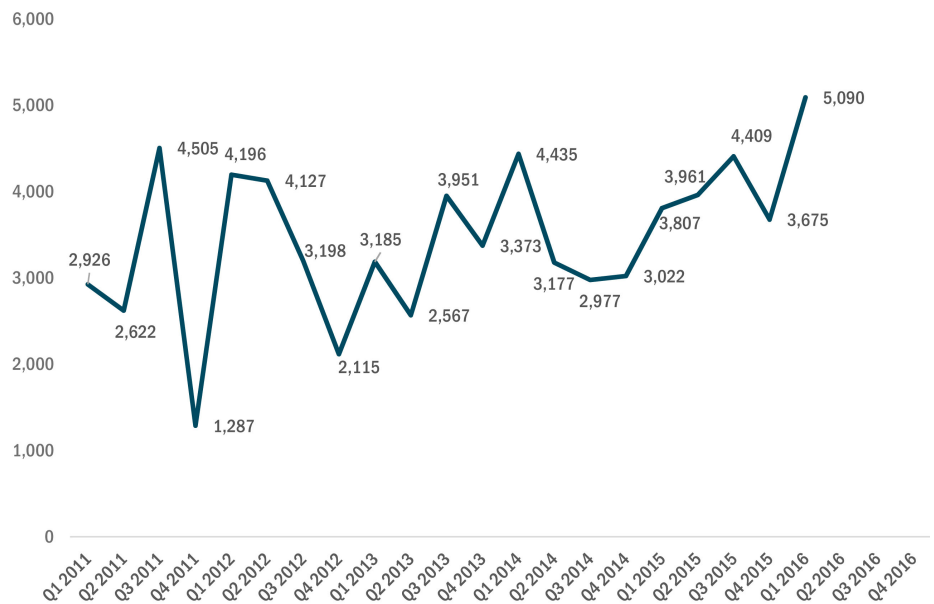
Postings Over Time

Online job ads for Skilled Trade and Technicians workers jumped 39% between Q4 2015 and Q1 2016 growing by 1,415 postings. A similar level of growth occurred between Q1 2015 and Q1 2016. The 5,090 postings for these workers is the highest recorded in posting data history.

Employment Over Time

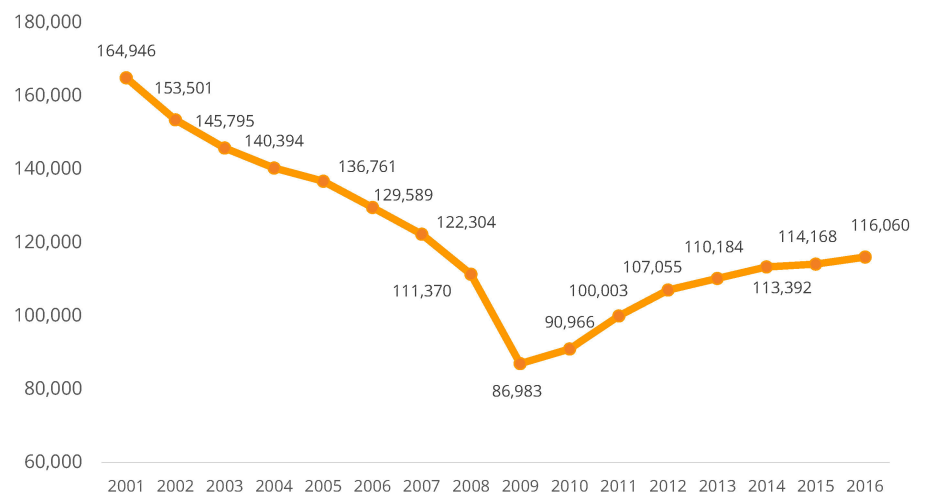
Employment in Skilled Trades and Technician occupations has increased 33.4% since 2009, the lowest employment point during the recession. Since 2009, 29,077 jobs have been recovered. Employment growth has been consistent but not rapid. Another 49,000 workers must be hired for employment to reach pre-recession peaks.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



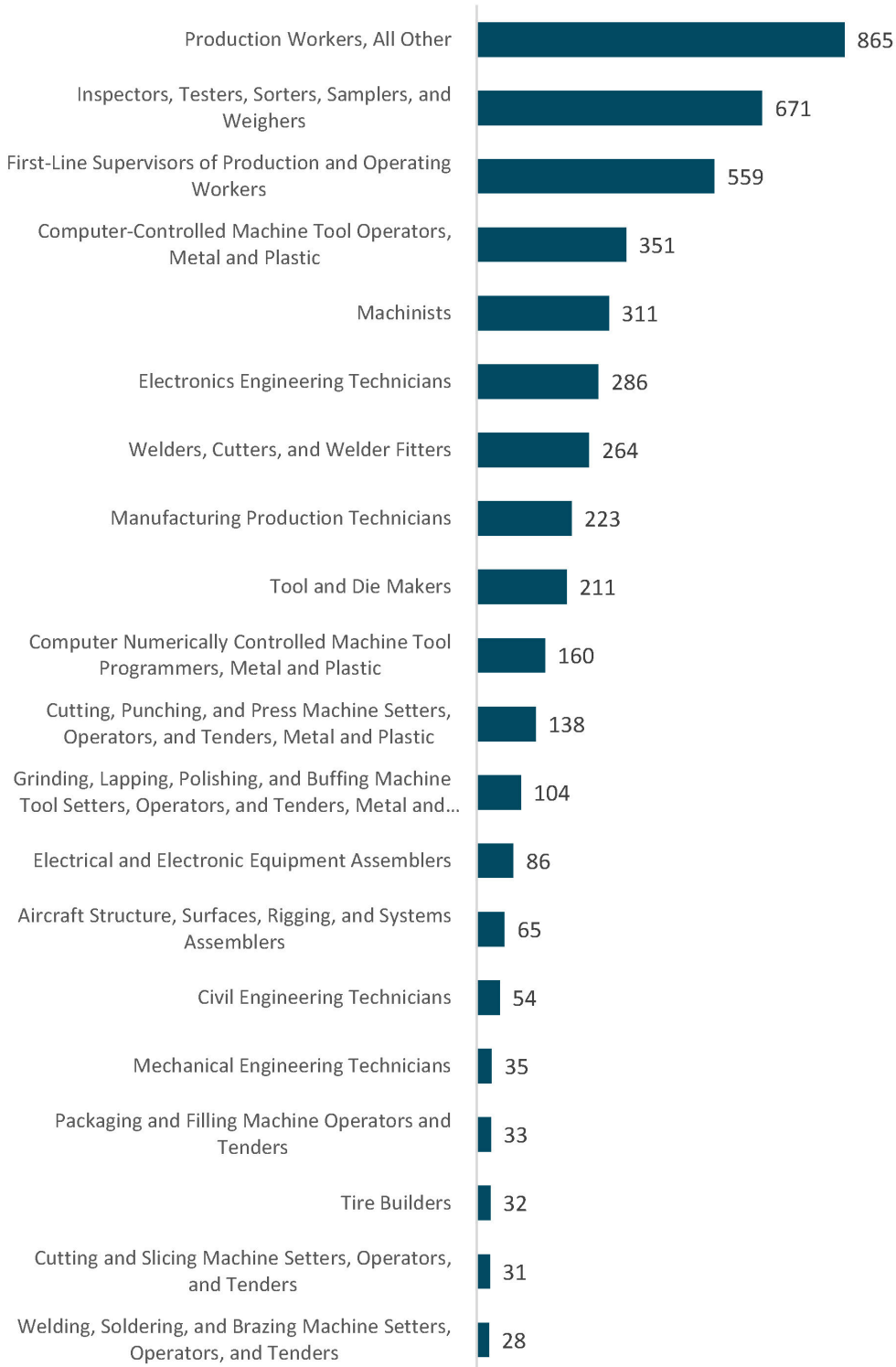
Production workers in-
demand



5,000+ job postings

Skilled Trades & Technicians Top Jobs

Quarter 1 2016





Technical training required

%

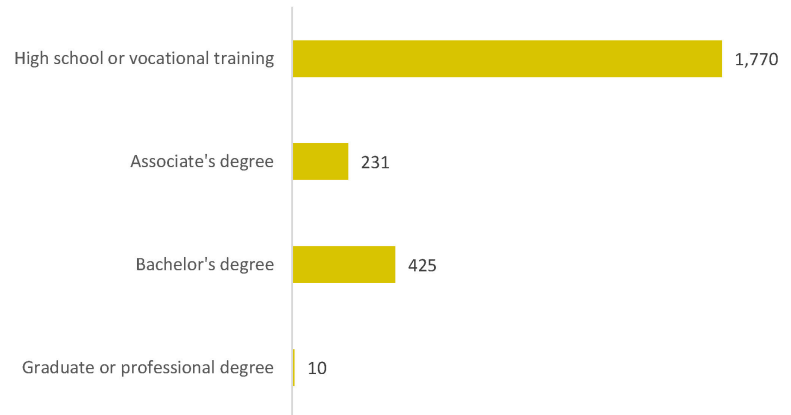
Entry-level opportunities available

Skilled Trades & Technicians Educational Attainment & Experience Required

Most positions in the Skilled Trades and Technicians occupation group require specialized training. While employers do not always require a degree, a certificate, registered apprenticeship, or other specialized training is required for employment.

Jobs are open to those with little experience. Employers are interested in hiring entry-level workers and experienced workers with three to five years of experience.

Minimum Educational Attainment Required Q1 2016

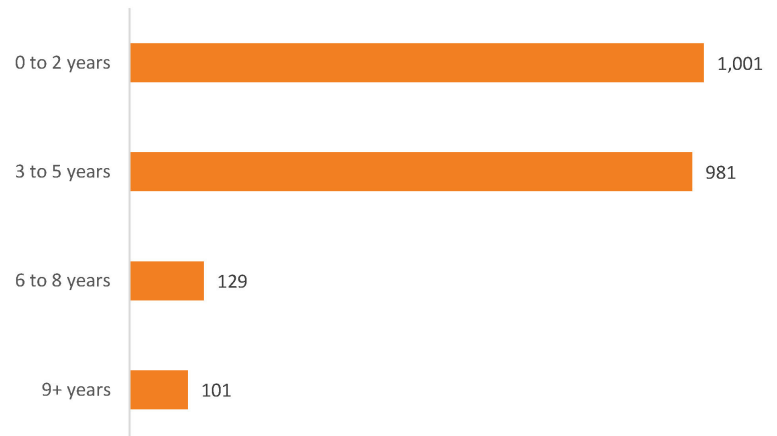


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Mechanical engineering
- Business administration and management, general
- Electrical and electronic engineering technologies/technicians, other
- Automotive engineering technology/technician

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



In-demand technical skill: CNC machining

49.6%+

At least half of jobs are full-time

Skilled Trades & Technicians in-Demand Skills Q1 2016

Workers in Skilled Trade and Technician positions must have a combination of technical and foundational skills. Employers during Q1 2016 were most in-demand of CNC machining, repair, and welding skills along with inspection. Mathematics skills are also sought after. Foundational skills that are important to employers include communication, organizations, attention to detail, and problem solving. These jobs also have a degree of physical demand.

Technical in-Demand Skills

- Inspection
- Computer Numerical Control (CNC)
- Repair
- Mathematics
- Welding

Foundational In-Demand Skills

- Communications skills
- Problem solving, troubleshooting
- Physical demand
- Organizational skills
- Detail-oriented

Job Type

- Temporary: 8.3%
- Full-time: 49.6%
- Part-time: 1.4%

Certifications In-Demand

- Commercial driver's license (CDL)
- Forklift operator certification
- American society for quality (ASQ) certification
- Security clearance
- Boiler operator license



\$38,000: average advertized wage

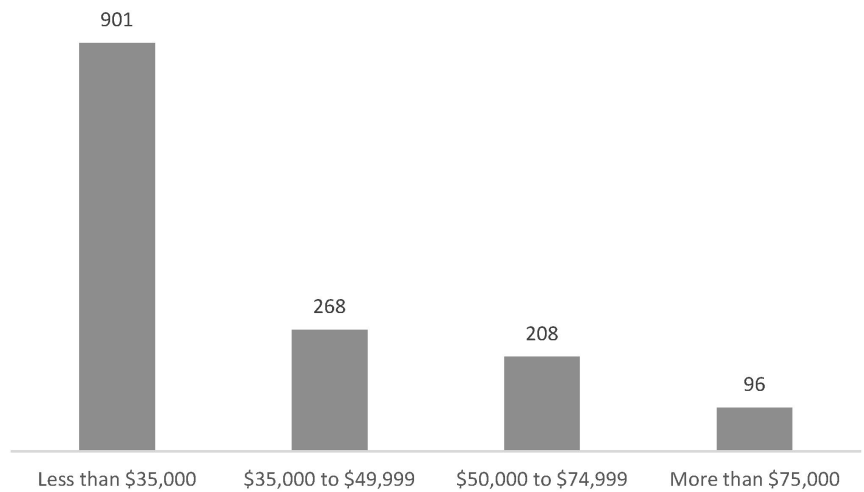


Most wage growth potential in management positions

Skilled Trades & Technicians Wages

Most employers do not post wages or salaries in job postings for Skilled Trade and Technician workers. Of those that do, many are below \$35,000 and the average posted wage in Q1 2016 was \$38,000.

Advertised Salaries Quarter 1 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	\$10.21	\$13.16	\$16.12	\$19.27	\$24.02
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.57	\$11.60	\$15.66	\$22.71	\$28.52
51-1011	First-Line Supervisors of Production and Operating Workers	\$17.30	\$22.00	\$29.37	\$38.40	\$46.29
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$10.62	\$12.77	\$17.85	\$21.97	\$27.34
51-4041	Machinists	\$12.08	\$15.37	\$19.57	\$25.29	\$30.40
17-3023	Electronics Engineering Technicians	\$15.36	\$19.52	\$24.83	\$31.34	\$36.25
51-4121	Welders, Cutters, and Welder Fitters	\$12.30	\$14.76	\$17.69	\$22.44	\$28.18
17-3029	Manufacturing Production Technicians	\$16.09	\$21.56	\$29.59	\$36.19	\$45.70
51-4111	Tool and Die Makers	\$16.67	\$20.89	\$26.80	\$32.55	\$35.51
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	\$16.16	\$18.74	\$23.16	\$27.70	\$31.96

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Transportation, Distribution, and Logistics (TDL)

Introduction

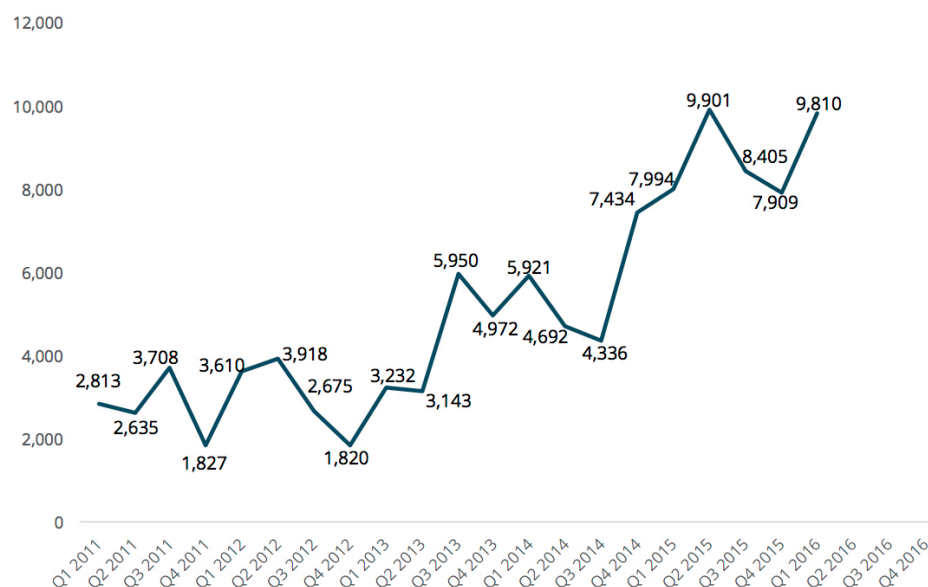
Transportation, Distribution, and Logistics (TDL)

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

Postings for TDL workers continue to rise, driven mostly by demand for truck drivers. Job postings increased 24% with employers adding 1,901 ads between Q4 2015 and Q1 2016. Posting growth was similar over the year between Q1 2015 and Q1 2016.

Online Job Postings

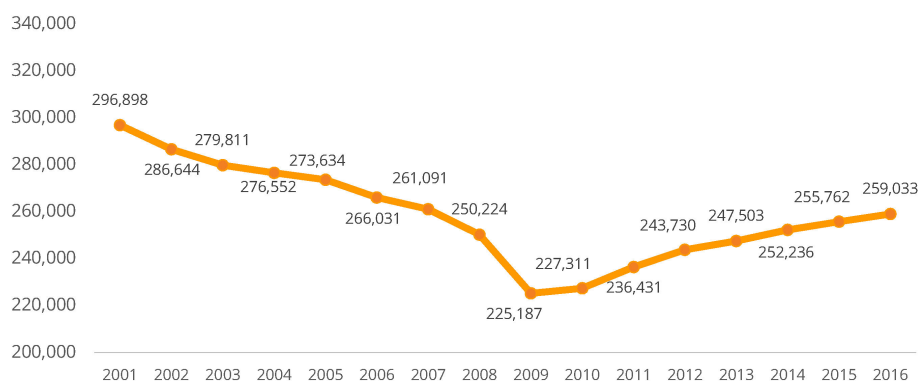


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Employment in TDL jobs has grown 15% since 2009 with 33,846 jobs recovered from the recession drop. While growth is positive, it is not swift and jobs have been added rapidly enough to fill employer needs. An additional 37,865 workers need to be hired for job levels to reach pre-recession peak levels.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



Most in-demand job: heavy
and tractor trailer truck drivers

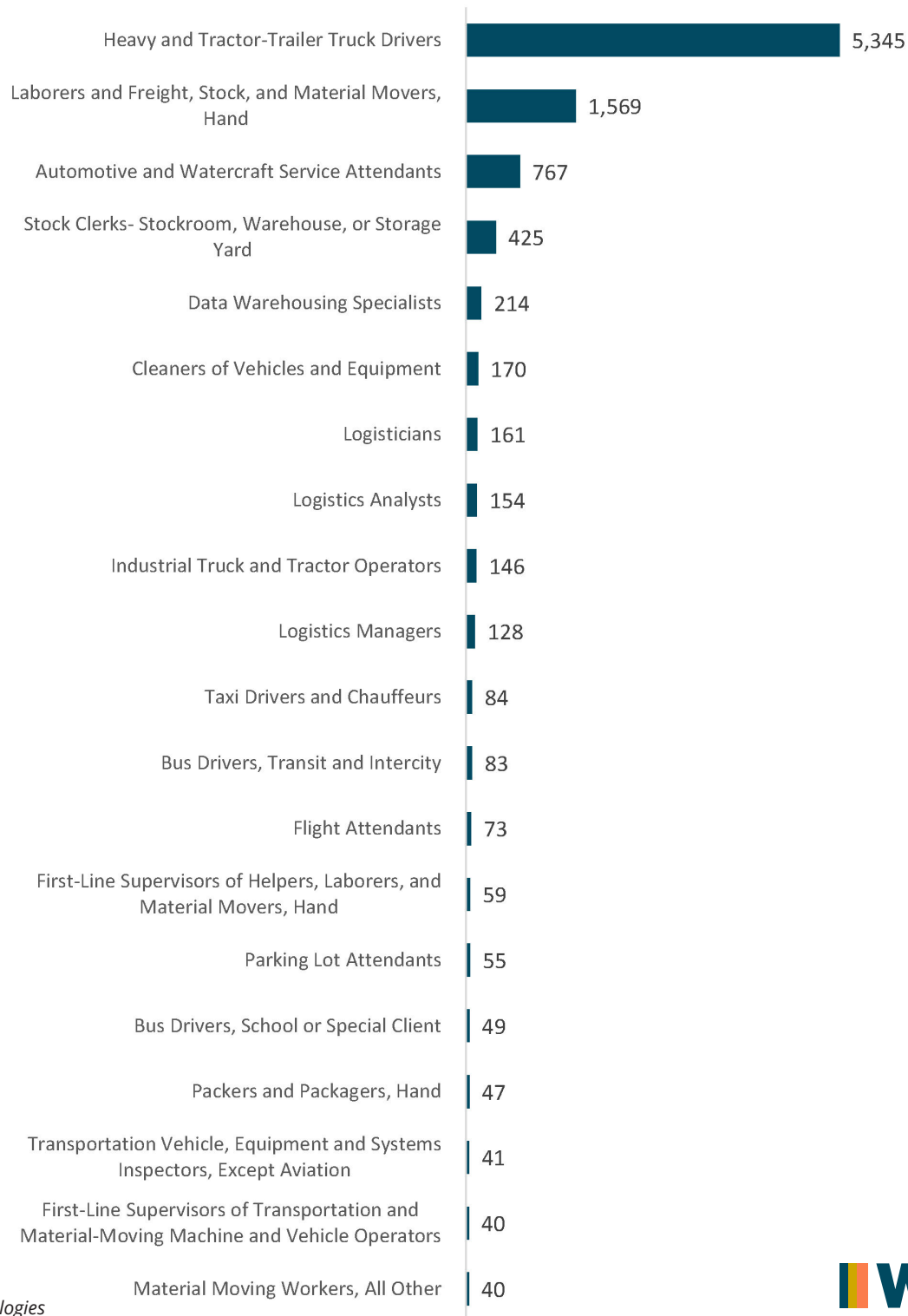


Continuous posting growth

Transportation, Distribution, and Logistics (TDL)

Top Jobs

Quarter 1 2016





Specialized training for drivers required

%

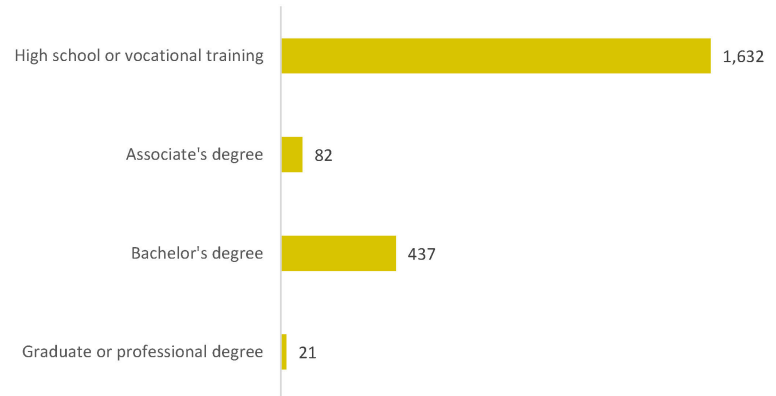
Bachelor's degree necessary for logistics jobs

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

Many TDL jobs require specialized training and certifications for employment. Jobs in management and logistics analytics often require a Bachelor's degree.

TDL employers have many open positions at the entry-level.

Minimum Educational Attainment Required Q1 2016

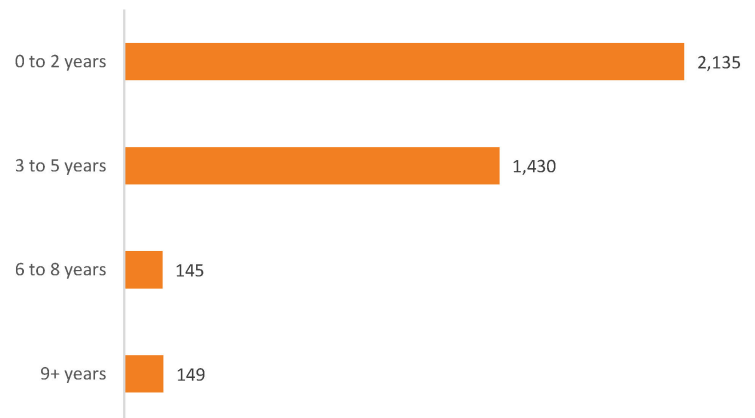


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Business administration and management, general
- Computer science
- Engineering, general
- Logistics, materials, and supply chain management
- Mechanical engineering

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



CDL required for drivers

%

Logistics jobs require mathematics and computer skills

Transportation, Distribution, and Logistics (TDL) in-Demand Skills Q1 2016

TDL workers require a range of skills for employment. Truck drivers must be able to perform repair and maintenance of their vehicles. Driving also requires a degree of physical demand. Jobs in logistics require strong mathematics and computer skills.

Technical in-Demand Skills

- Repair, inspection
- Forklift Operation
- Auto Repair
- Logistics
- Inventory Control

Foundational In-Demand Skills

- Physical demand
- Communications skills: writing
- Detail-oriented, organization
- Computer skills: Microsoft Excel, Office
- Mathematics

Job Type

- Temporary: 4.1%
- Full-time: 29.4%
- Part-time: 3.6%

Certifications In-Demand

- Commercial driver's license (CDL)
- Automotive service excellence (ASE) certification
- Forklift operator certification
- Security clearance
- Road test



\$71,685; average advertised wage during Q1 2016



Strong wage growth for truck drivers

Transportation, Distribution, and Logistics (TDL)

Advertised Salaries Quarter 1 2016

Wages

Wages for TDL workers vary depending on the jobs. Most jobs offer wages above \$75,000 or below \$35,000. Higher paying positions are often those in logistics or truck driving. Lower wage jobs include those in materials movement. The average wage in postings during Q1 2016 was \$71,685.



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	\$12.53	\$15.59	\$19.06	\$23.92	\$29.23
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$8.94	\$10.39	\$12.90	\$16.29	\$20.39
53-6031	Automotive and Watercraft Service Attendants	\$8.19	\$8.80	\$9.84	\$11.68	\$13.74
43-5081	Stock Clerks- Stockroom, Warehouse, or Storage Yard	\$8.29	\$9.11	\$11.00	\$14.40	\$18.58
15-1199	Data Warehousing Specialists	\$23.30	\$30.60	\$38.96	\$49.35	\$57.64
53-7061	Cleaners of Vehicles and Equipment	\$8.17	\$8.69	\$9.58	\$11.55	\$15.25
13-1081	Logisticians	\$24.70	\$31.09	\$39.75	\$47.19	\$54.63
13-1081	Logistics Analysts	\$24.70	\$31.09	\$39.75	\$47.19	\$54.63
53-7051	Industrial Truck and Tractor Operators	\$9.94	\$12.22	\$15.80	\$21.01	\$24.94
11-3071	Logistics Managers	\$28.19	\$35.42	\$46.16	\$58.87	\$72.37

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	Change from 2015	Percent Change from 2015
Labor Force	2,748,569	2,674,603	2,670,319	2,699,858	2,698,088	2,684,188	2,724,172	39,985	1.5%
Employment	2,380,682	2,382,010	2,413,125	2,446,491	2,486,445	2,526,698	2,580,032	53,334	2.1%
Unemployment	367,888	292,593	257,194	253,368	211,643	157,490	144,141	-13,350	-8.5%
Unemployment Rate	13.4%	10.9%	9.6%	9.4%	7.8%	5.9%	5.3%	-0.6%	na

**Note: Monthly data averaged by year*

Data: Bureau of Labor Statistics

Quarterly Labor Market Data

	1st Quarter 2015	2nd Quarter 2015	3rd Quarter 2015	4th Quarter 2015	1st Quarter 2016	Change from 4th Quarter 2015	Percent Change from 4th Quarter 2015
Labor Force	2,664,666	2,688,149	2,695,813	2,688,123	2,724,172	36,049	1.3%
Employment	2,494,245	2,527,654	2,532,827	2,552,065	2,580,032	27,967	1.1%
Unemployment	170,421	160,495	162,986	136,058	144,141	8,082	5.9%
Unemployment Rate	6.4%	6.0%	6.0%	5.1%	5.3%	0.2%	na

**Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics












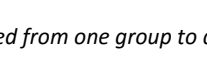
Monthly Labor Market Data

	January 2015	February 2015	March 2015	April 2015	May 2015	June 2015	July 2015	August 2015	September 2015	October 2015	November 2015	December 2015	January 2016	February 2016	March 2016
Labor Force	2,669,939	2,661,451	2,662,607	2,648,996	2,707,271	2,708,180	2,717,572	2,698,715	2,671,153	2,694,917	2,680,443	2,689,010	2,700,085	2,724,556	2,747,876
Employment	2,485,303	2,496,164	2,501,267	2,509,465	2,535,554	2,537,942	2,526,875	2,539,514	2,532,093	2,546,077	2,554,340	2,555,778	2,554,618	2,583,676	2,601,801
Unemployment	184,636	165,287	161,340	139,531	171,717	170,238	190,697	159,201	139,060	148,840	126,103	133,232	145,467	140,880	146,075
Unemployment Rate	6.9%	6.2%	6.1%	5.3%	6.3%	6.3%	7.0%	5.9%	5.2%	5.5%	4.7%	5.0%	5.4%	5.2%	5.3%

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



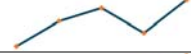
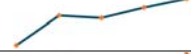

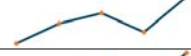











Data: Bureau of Labor Statistics

Job Posting Data by Occupation Group* Over Time



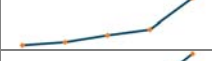


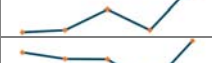







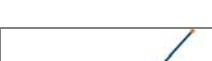

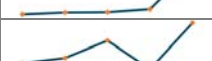

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
Total Postings	116,397	129,794	140,225	126,959	143,199		23.0%	12.8%
Agriculture	1,627	1,644	1,578	1,426	1,980		21.7%	38.8%
Business & finance	8,598	9,437	10,547	8,884	9,628		12.0%	8.4%
Construction	952	1,057	706	793	1,238		30.0%	56.1%
Customer service	24,322	25,802	30,285	27,235	37,788		55.4%	38.7%
Education	2,218	2,227	2,584	2,219	2,110		-4.9%	-4.9%
Energy	272	224	264	211	268		-1.5%	27.0%
Engineers & designers	8,124	9,753	10,433	9,675	9,534		17.4%	-1.5%
Health care	13,763	17,394	17,110	17,666	19,449		41.3%	10.1%
Information technology	16,391	16,922	19,360	16,403	16,695		1.9%	1.8%
Skilled trades & technicians	3,807	3,961	4,409	3,675	5,090		33.7%	38.5%
Transportation, distribution, and logistics	7,994	9,901	8,405	7,909	9,810		22.7%	24.0%

**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.*

Total Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	116,397	129,794	140,225	126,959	143,199	100.0%		23.0%	12.8%
Detroit	27,360	27,742	30,426	27,966	29,296	20.5%		7.1%	4.8%
Genesee & Shiawassee	4,322	5,071	5,465	4,721	5,711	4.0%		32.1%	21.0%
Hillsdale & Lenawee	1,167	1,495	1,467	1,580	1,678	1.2%		43.8%	6.2%
Jackson	2,262	2,415	2,373	2,099	2,557	1.8%		13.0%	21.8%
Livingston	1,912	2,151	2,274	2,048	2,472	1.7%		29.3%	20.7%
Macomb	12,003	13,586	14,136	12,658	14,754	10.3%		22.9%	16.6%
Monroe	1,555	1,871	1,778	1,662	1,841	1.3%		18.4%	10.8%
Oakland	34,691	40,219	44,474	39,030	45,418	31.7%		30.9%	16.4%
St. Clair	1,518	1,807	1,697	1,461	1,730	1.2%		14.0%	18.4%
Thumb Area	1,079	1,208	1,199	1,561	1,673	1.2%		55.1%	7.2%
Washtenaw	10,421	11,192	11,812	10,540	11,951	8.3%		14.7%	13.4%
Wayne	47,379	50,930	55,824	51,993	55,886	39.0%		18.0%	7.5%
Outer Wayne	20,019	23,188	25,398	24,027	26,590	18.6%		32.8%	10.7%
Prosperity Region 6	6,919	8,086	8,361	7,743	9,114	6.4%		31.7%	17.7%
Prosperity Region 9	17,317	19,124	19,704	17,929	20,499	14.3%		18.4%	14.3%
Prosperity Region 10	94,073	104,735	114,434	103,681	116,058	81.0%		23.4%	11.9%

Skilled Trade & Technician Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	3,807	3,961	4,409	3,675	5,090	100.0%		33.7%	38.5%
Detroit	417	419	503	443	439	8.6%		5.3%	-0.9%
Genesee & Shiawassee	109	118	138	155	247	4.9%		126.6%	59.4%
Hillsdale & Lenawee	75	60	92	75	114	2.2%		52.0%	52.0%
Jackson	75	60	92	75	114	2.2%		52.0%	52.0%
Livingston	133	137	177	137	224	4.4%		68.4%	63.5%
Macomb	805	769	767	615	869	17.1%		8.0%	41.3%
Monroe	87	82	91	85	101	2.0%		16.1%	18.8%
Oakland	1,010	978	1,269	1,006	1,429	28.1%		41.5%	42.0%
St. Clair	83	96	75	50	66	1.3%		-20.5%	32.0%
Thumb Area	81	64	82	66	129	2.5%		59.3%	95.5%
Washtenaw	266	309	198	298	387	7.6%		45.5%	29.9%
Wayne	1,065	1,238	1,312	1,132	1,415	27.8%		32.9%	25.0%
Outer Wayne	648	819	809	689	976	19.2%		50.6%	41.7%
Prosperity Region 6	273	278	295	271	442	8.7%		61.9%	63.1%
Prosperity Region 9	636	648	650	670	940	18.5%		47.8%	40.3%
Prosperity Region 10	2,880	2,985	3,348	2,753	3,713	72.9%		28.9%	34.9%







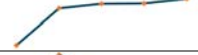





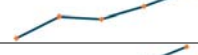
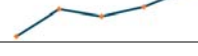

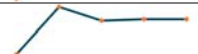

Engineers & Designers Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	8,124	9,753	10,433	9,675	9,534	100.0%		17.4%	-1.5%
Detroit	1,188	1,214	1,378	1,298	1,130	11.9%		-4.9%	-12.9%
Genesee & Shiawassee	92	101	108	97	149	1.6%		62.0%	53.6%
Hillsdale & Lenawee	33	51	43	30	43	0.5%		30.3%	43.3%
Jackson	142	85	109	92	130	1.4%		-8.5%	41.3%
Livingston	64	86	84	76	90	0.9%		40.6%	18.4%
Macomb	1,301	1,584	1,266	1,294	1,311	13.8%		0.8%	1.3%
Monroe	91	107	91	75	107	1.1%		17.6%	42.7%
Oakland	3,153	3,822	4,324	3,941	3,973	41.7%		26.0%	0.8%
St. Clair	50	63	41	50	56	0.6%		12.0%	12.0%
Thumb Area	77	104	72	75	34	0.4%		-55.8%	-54.7%
Washtenaw	446	480	516	469	512	5.4%		14.8%	9.2%
Wayne	2,725	3,333	3,820	3,526	3,129	32.8%		14.8%	-11.3%
Outer Wayne	1,537	2,119	2,442	2,228	1,999	21.0%		30.1%	-10.3%
Prosperity Region 6	219	268	221	222	239	2.5%		9.1%	7.7%
Prosperity Region 9	776	809	843	742	882	9.3%		13.7%	18.9%
Prosperity Region 10	7,179	8,739	9,410	8,761	8,413	88.2%		17.2%	-4.0%







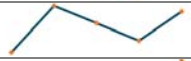
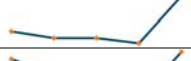
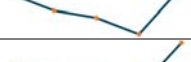








Information Technology Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	16,391	16,922	19,360	16,403	16,695	100.0%		1.9%	1.8%
Detroit	5,234	4,554	5,770	4,459	4,207	25.2%		-19.6%	-5.7%
Genesee & Shiawassee	107	209	168	130	168	1.0%		57.0%	29.2%
Hillsdale & Lenawee	41	31	43	52	40	0.2%		-2.4%	-23.1%
Jackson	221	193	147	143	145	0.9%		-34.4%	1.4%
Livingston	45	46	58	72	84	0.5%		86.7%	16.7%
Macomb	1,000	1,337	1,169	1,039	1,160	6.9%		16.0%	11.6%
Monroe	83	117	97	82	47	0.3%		-43.4%	-42.7%
Oakland	5,548	6,190	6,998	5,824	6,471	38.8%		16.6%	11.1%
St. Clair	39	30	28	21	29	0.2%		-25.6%	38.1%
Thumb Area	7	16	14	20	14	0.1%		100.0%	-30.0%
Washtenaw	1,568	1,554	1,749	1,446	1,606	9.6%		2.4%	11.1%
Wayne	7,732	7,199	8,871	7,588	6,931	41.5%		-10.4%	-8.7%
Outer Wayne	2,498	2,645	3,101	3,129	2,724	16.3%		9.0%	-12.9%
Prosperity Region 6	153	255	210	171	211	1.3%		37.9%	23.4%
Prosperity Region 9	1,958	1,941	2,094	1,795	1,922	11.5%		-1.8%	7.1%
Prosperity Region 10	14,280	14,726	17,038	14,451	14,562	87.2%		2.0%	0.8%

Health Care Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	13,763	17,394	17,110	17,666	19,449	100.0%		41.3%	10.1%
Detroit	4,110	4,467	4,531	4,908	5,228	26.9%		27.2%	6.5%
Genesee & Shiawassee	655	889	865	868	925	4.8%		41.2%	6.6%
Hillsdale & Lenawee	161	308	251	351	279	1.4%		73.3%	-20.5%
Jackson	264	336	293	328	405	2.1%		53.4%	23.5%
Livingston	254	336	296	246	238	1.2%		-6.3%	-3.3%
Macomb	1,404	1,875	1,933	1,936	1,996	10.3%		42.2%	3.1%
Monroe	100	277	200	178	176	0.9%		76.0%	-1.1%
Oakland	3,166	4,146	4,183	3,937	4,777	24.6%		50.9%	21.3%
St. Clair	275	285	299	312	387	2.0%		40.7%	24.0%
Thumb Area	189	266	198	332	413	2.1%		118.5%	24.4%
Washtenaw	1,583	1,692	1,737	1,692	1,696	8.7%		7.1%	0.2%
Wayne	5,896	6,984	6,855	7,486	8,272	42.5%		40.3%	10.5%
Outer Wayne	1,786	2,517	2,324	2,578	3,044	15.7%		70.4%	18.1%
Prosperity Region 6	1,119	1,440	1,362	1,512	1,725	8.9%		54.2%	14.1%
Prosperity Region 9	2,362	2,949	2,777	2,795	2,794	14.4%		18.3%	0.0%
Prosperity Region 10	10,466	13,005	12,971	13,359	15,045	77.4%		43.8%	12.6%

Agriculture Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	1,627	1,644	1,578	1,426	1,980	100.0%		21.7%	38.8%
Detroit	338	353	375	316	353	17.8%		4.4%	11.7%
Genesee & Shiawassee	82	90	73	50	75	3.8%		-8.5%	50.0%
Hillsdale & Lenawee	15	22	15	7	28	1.4%		86.7%	300.0%
Jackson	32	19	21	35	47	2.4%		46.9%	34.3%
Livingston	23	45	34	32	28	1.4%		21.7%	-12.5%
Macomb	176	148	134	119	188	9.5%		6.8%	58.0%
Monroe	18	26	23	20	25	1.3%		38.9%	25.0%
Oakland	467	438	438	415	622	31.4%		33.2%	49.9%
St. Clair	36	27	23	14	40	2.0%		11.1%	185.7%
Thumb Area	28	24	23	15	40	2.0%		42.9%	166.7%
Washtenaw	174	183	186	163	223	11.3%		28.2%	36.8%
Wayne	576	622	608	556	664	33.5%		15.3%	19.4%
Outer Wayne	238	269	233	240	311	15.7%		30.7%	29.6%
Prosperity Region 6	146	141	119	79	155	7.8%		6.2%	96.2%
Prosperity Region 9	262	295	279	257	351	17.7%		34.0%	36.6%
Prosperity Region 10	1,219	1,208	1,180	1,090	1,474	74.4%		20.9%	35.2%



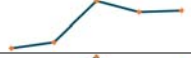













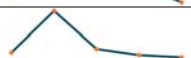
Energy Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	272	224	264	211	268	100.0%		-1.5%	27.0%
Detroit	73	71	157	118	108	40.3%		47.9%	-8.5%
Genesee & Shiawassee	8	7	3	0	44	16.4%		450.0%	na
Hillsdale & Lenawee	6	1	2	0	1	0.4%		-83.3%	na
Jackson	44	11	20	8	11	4.1%		-75.0%	37.5%
Livingston	6	2	1	2	5	1.9%		-16.7%	150.0%
Macomb	19	12	6	10	5	1.9%		-73.7%	-50.0%
Monroe	30	47	19	25	45	16.8%		50.0%	80.0%
Oakland	21	19	5	7	8	3.0%		-61.9%	14.3%
St. Clair	14	8	7	8	12	4.5%		-14.3%	50.0%
Thumb Area	17	9	5	7	2	0.7%		-88.2%	-71.4%
Washtenaw	7	3	5	5	4	1.5%		-42.9%	-20.0%
Wayne	100	101	181	139	131	48.9%		31.0%	-5.8%
Outer Wayne	27	30	24	21	23	8.6%		-14.8%	9.5%
Prosperity Region 6	39	24	15	15	58	21.6%		48.7%	286.7%
Prosperity Region 9	93	64	47	40	66	24.6%		-29.0%	65.0%
Prosperity Region 10	140	132	192	156	144	53.7%		2.9%	-7.7%


















Transportation, Distribution, and Logistics Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	7,994	9,901	8,405	7,909	9,810	100.0%		22.7%	24.0%
Detroit	1,303	1,571	1,622	1,492	1,780	18.1%		36.6%	19.3%
Genesee & Shiawassee	531	791	595	537	607	6.2%		14.3%	13.0%
Hillsdale & Lenawee	204	345	234	270	290	3.0%		42.2%	7.4%
Jackson	276	432	309	275	325	3.3%		17.8%	18.2%
Livingston	183	210	179	161	210	2.1%		14.8%	30.4%
Macomb	949	1,008	976	811	1,195	12.2%		25.9%	47.3%
Monroe	182	276	201	251	249	2.5%		36.8%	-0.8%
Oakland	1,472	1,747	1,573	1,487	1,856	18.9%		26.1%	24.8%
St. Clair	135	238	167	158	212	2.2%		57.0%	34.2%
Thumb Area	100	181	144	199	273	2.8%		173.0%	37.2%
Washtenaw	546	691	515	477	491	5.0%		-10.1%	2.9%
Wayne	3,416	3,982	3,512	4,315	4,102	41.8%		20.1%	-4.9%
Outer Wayne	2,113	2,411	1,890	2,823	2,322	23.7%		9.9%	-17.7%
Prosperity Region 6	766	1,210	906	894	1,092	11.1%		42.6%	22.1%
Prosperity Region 9	1,391	1,954	1,438	1,434	1,565	16.0%		12.5%	9.1%
Prosperity Region 10	5,837	6,737	6,061	6,613	7,153	72.9%		22.5%	8.2%












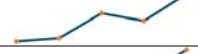
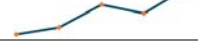




Education Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	2,218	2,227	2,584	2,219	2,110	100.0%		-4.9%	-4.9%
Detroit	517	698	482	404	389	18.4%		-24.8%	-3.7%
Genesee & Shiawassee	106	122	231	201	205	9.7%		93.4%	2.0%
Hillsdale & Lenawee	19	19	30	14	27	1.3%		42.1%	92.9%
Jackson	37	42	45	36	40	1.9%		8.1%	11.1%
Livingston	9	12	15	12	17	0.8%		88.9%	41.7%
Macomb	205	1,875	196	217	182	8.6%		-11.2%	-16.1%
Monroe	22	28	53	24	16	0.8%		-27.3%	-33.3%
Oakland	626	528	728	566	601	28.5%		-4.0%	6.2%
St. Clair	14	22	24	15	22	1.0%		57.1%	46.7%
Thumb Area	40	18	36	15	41	1.9%		2.5%	173.3%
Washtenaw	225	327	255	259	194	9.2%		-13.8%	-25.1%
Wayne	915	1,060	971	860	765	36.3%		-16.4%	-11.0%
Outer Wayne	398	362	489	456	376	17.8%		-5.5%	-17.5%
Prosperity Region 6	160	162	291	231	268	12.7%		67.5%	16.0%
Prosperity Region 9	312	428	398	345	294	13.9%		-5.8%	-14.8%
Prosperity Region 10	1,746	3,463	1,895	1,643	1,548	73.4%		-11.3%	-5.8%


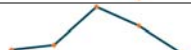





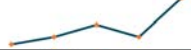









Business and Finance Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	8,598	9,437	10,547	8,884	9,628	100.0%		12.0%	8.4%
Detroit	2,388	2,449	2,843	2,271	2,393	24.9%		0.2%	5.4%
Genesee & Shiawassee	178	193	228	217	242	2.5%		36.0%	11.5%
Hillsdale & Lenawee	35	34	50	42	51	0.5%		45.7%	21.4%
Jackson	151	146	157	123	139	1.4%		-7.9%	13.0%
Livingston	63	65	104	87	111	1.2%		76.2%	27.6%
Macomb	601	664	737	616	734	7.6%		22.1%	19.2%
Monroe	92	119	108	133	141	1.5%		53.3%	6.0%
Oakland	2,962	3,432	3,730	3,165	3,379	35.1%		14.1%	6.8%
St. Clair	80	43	79	45	68	0.7%		-15.0%	51.1%
Thumb Area	31	24	22	36	57	0.6%		83.9%	58.3%
Washtenaw	664	781	824	592	775	8.0%		16.7%	30.9%
Wayne	3,741	3,936	4,508	3,828	3,931	40.8%		5.1%	2.7%
Outer Wayne	1,353	1,487	1,665	1,557	1,538	16.0%		13.7%	-1.2%
Prosperity Region 6	289	260	329	298	367	3.8%		27.0%	23.2%
Prosperity Region 9	1,005	1,145	1,243	977	1,217	12.6%		21.1%	24.6%
Prosperity Region 10	7,304	8,032	8,975	7,609	8,044	83.5%		10.1%	5.7%

Customer Service Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	24,322	25,802	30,285	27,235	37,788	100.0%		55.4%	38.7%
Detroit	4,607	4,485	4,919	4,857	5,283	14.0%		14.7%	8.8%
Genesee & Shiawassee	1,234	1,206	1,570	1,170	1,458	3.9%		18.2%	24.6%
Hillsdale & Lenawee	261	288	372	332	363	1.0%		39.1%	9.3%
Jackson	486	470	534	451	492	1.3%		1.2%	9.1%
Livingston	563	591	699	660	669	1.8%		18.8%	1.4%
Macomb	2,581	2,609	3,171	2,826	3,406	9.0%		32.0%	20.5%
Monroe	381	407	425	355	403	1.1%		5.8%	13.5%
Oakland	7,173	8,277	9,717	8,642	10,030	26.5%		39.8%	16.1%
St. Clair	397	474	543	386	429	1.1%		8.1%	11.1%
Thumb Area	255	239	339	239	278	0.7%		9.0%	16.3%
Washtenaw	2,030	2,101	2,361	2,057	2,577	6.8%		26.9%	25.3%
Wayne	8,961	9,140	10,554	10,117	11,648	30.8%		30.0%	15.1%
Outer Wayne	4,354	4,655	5,635	5,260	6,365	16.8%		46.2%	21.0%
Prosperity Region 6	1,886	1,919	2,452	1,795	2,165	5.7%		14.8%	20.6%
Prosperity Region 9	3,721	3,857	4,391	3,855	4,504	11.9%		21.0%	16.8%
Prosperity Region 10	18,715	20,026	23,442	21,585	25,084	66.4%		34.0%	16.2%

Construction Job Postings: WIN Partnership

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Share of Q1 2016 Total	Change Over Time	Annual Change Q1 2015-Q1 2016	Quarter Growth Q4 2015-Q1 2016
WIN-Region Total	1,020	1,096	1,183	917	1,238	100.0%		21.4%	35.0%
Detroit	200	204	236	220	197	15.9%		-1.5%	-10.5%
Genesee & Shiawassee	39	37	81	46	64	5.2%		64.1%	39.1%
Hillsdale & Lenawee	17	21	17	20	26	2.1%		52.9%	30.0%
Jackson	16	29	34	23	50	4.0%		212.5%	117.4%
Livingston	43	44	40	36	62	5.0%		44.2%	72.2%
Macomb	152	147	162	102	151	12.2%		-0.7%	48.0%
Monroe	11	14	19	14	30	2.4%		172.7%	114.3%
Oakland	276	331	310	228	298	24.1%		8.0%	30.7%
St. Clair	19	22	12	4	8	0.6%		-57.9%	100.0%
Thumb Area	74	78	109	72	104	8.4%		40.5%	44.4%
Washtenaw	71	80	111	80	146	11.8%		105.6%	82.5%
Wayne	360	352	381	342	371	30.0%		3.1%	8.5%
Outer Wayne	160	148	145	122	174	14.1%		8.7%	42.6%
Prosperity Region 6	132	137	202	122	176	14.2%		33.3%	44.3%
Prosperity Region 9	158	188	221	173	314	25.4%		98.7%	81.5%
Prosperity Region 10	788	830	853	672	820	66.2%		4.1%	22.0%

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

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