



GENESEE COUNTY & SHIAWASSEE COUNTY

WIN Quarterly Report



Introduction: Genesee & Shiawassee Counties

About this report

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

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

Occupational groups include:

- Business & Finance (page 6)
- Engineers & Designers (manufacturing focused) (page 11)
- Health Care (page 16)
- Information Technology (page 21)
- Skilled Trades & Technicians (manufacturing focused) (page 26)

Data analyzed includes:

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



Introduction: Genesee & Shiawassee Counties

Key Findings: State of the Labor Market in Genesee & Shiawassee Counties

1. **Of job postings that specified a required education level for Business and Finance related jobs, 72% require a Bachelor's degree.**
 - a. Of the 134 Business and Finance job postings during Q1 2016, 72% (96) required a Bachelor's degree. See page 7 in the report.
2. **Of job postings that specified a required education level for Engineers and Designers related jobs, 89% require a Bachelor's degree.**
 - a. Of the 100 postings for Engineer and Designers during Q1 2016, 89% (89) required a Bachelor's degree. See page 12 in the report.
3. **Registered Nurses is the top Health Care related job in Genesee and Shiawassee Counties for the sixth year in a row.**
 - a. Registered Nurses far outpaced the second closest in-demand occupation, with 303 job postings. See page 16 in the report.
4. **Of the top-10 IT related occupations in 2015, the highest median-level wage was for Telecommunications Engineering Specialists, making over \$83,000 per year.**
 - a. See page 24 in the report.
5. **Of job postings that specified a required education level for Skilled Trades related jobs, 94% required less than an Associate's degree.**
 - a. Of the 109 Skilled Trades job postings, 103 only required a High school diploma or vocational training. See page 27 in the report.



Executive Summary

Postings Over Time

Online job postings in Q1 2016 for all occupations in Genesee and Shiawassee Counties saw an increase of 21% (990) from the previous quarter. This level of postings is 32.1% higher than the 4,322 postings in Q1 2015, a year ago.

Total Online Job Postings

2008 - March 2016



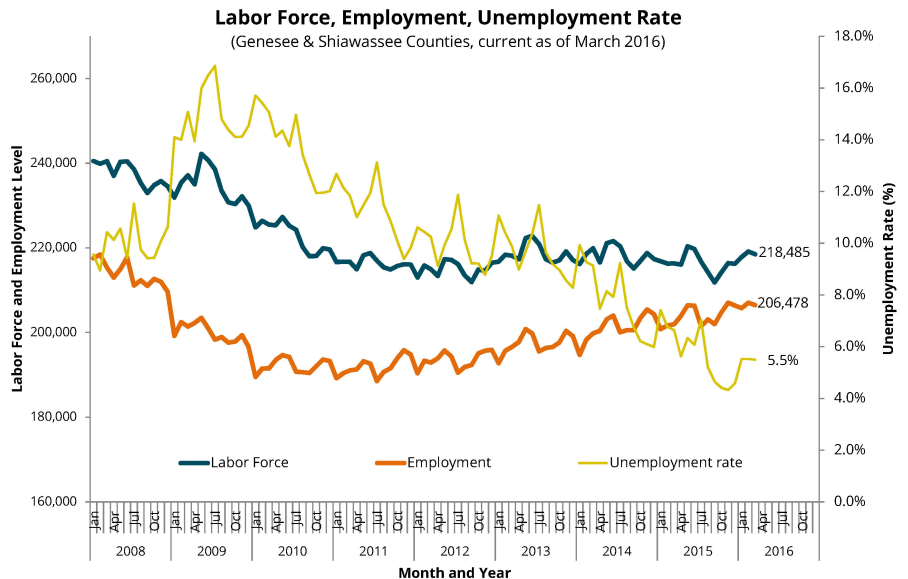
Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Labor Force, Employment, & Unemployment

Compared to the previous quarter, Q1 2016 has seen an increase of 2,849 in the labor force (1.3%), an increase of 375 in employment (0.2%), and an increase of 2,475 in unemployment (25.8%). In terms of annual change, the labor force has grown by 2,205 (1.0%), and unemployment has decreased by 407 (-3.3%). It is important to note that this annual change only compares the year 2015 to 2016 to-date.

Labor Force, Employment, Unemployment Rate

2008 - March 2016



Data: BLS
Analysis: Workforce Intelligence Network



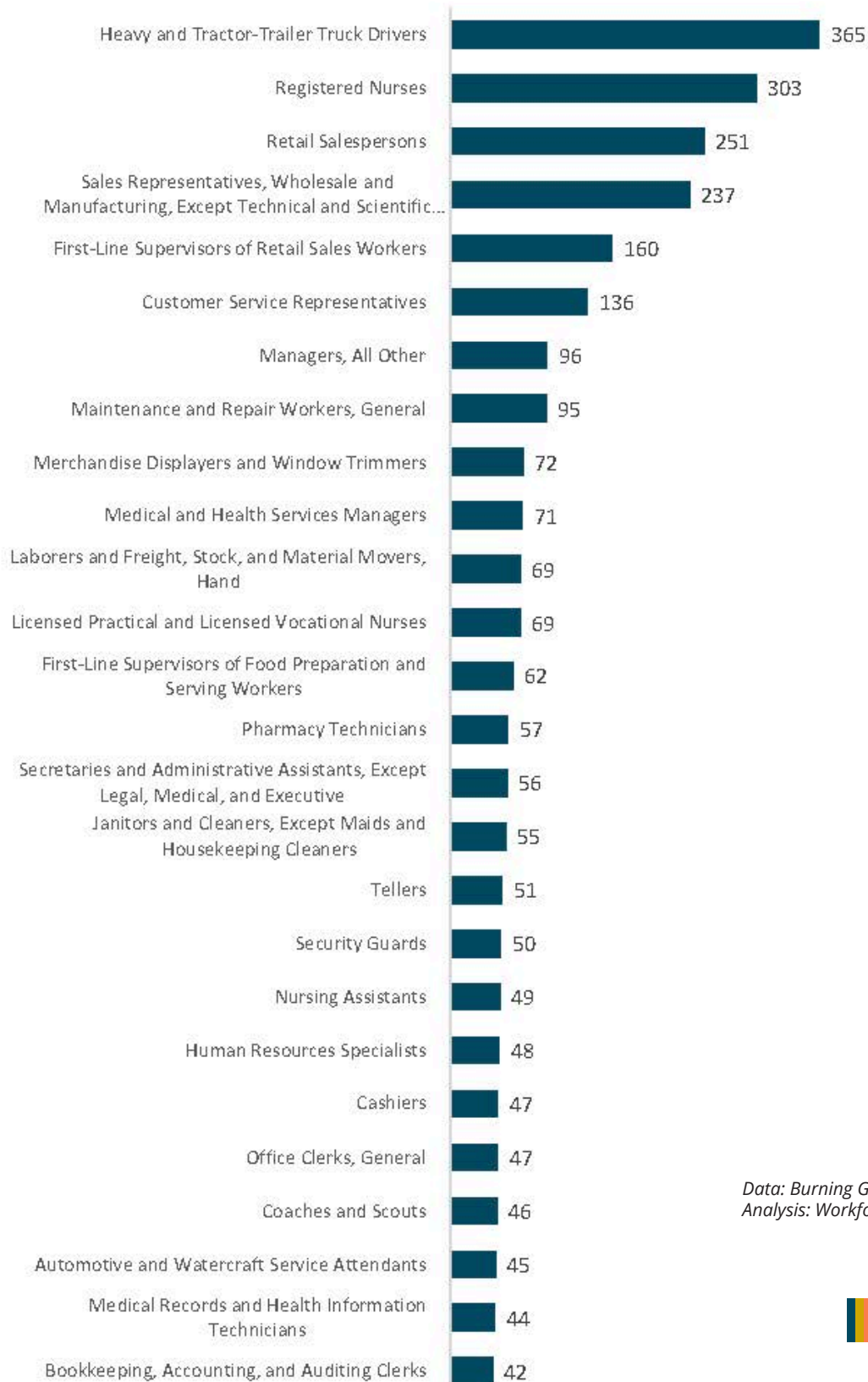
Jobs postings increased 21%
since Q4 2015

1.3%

The labor force has increased
1.3% since Q4 2015

Top Jobs In Demand

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



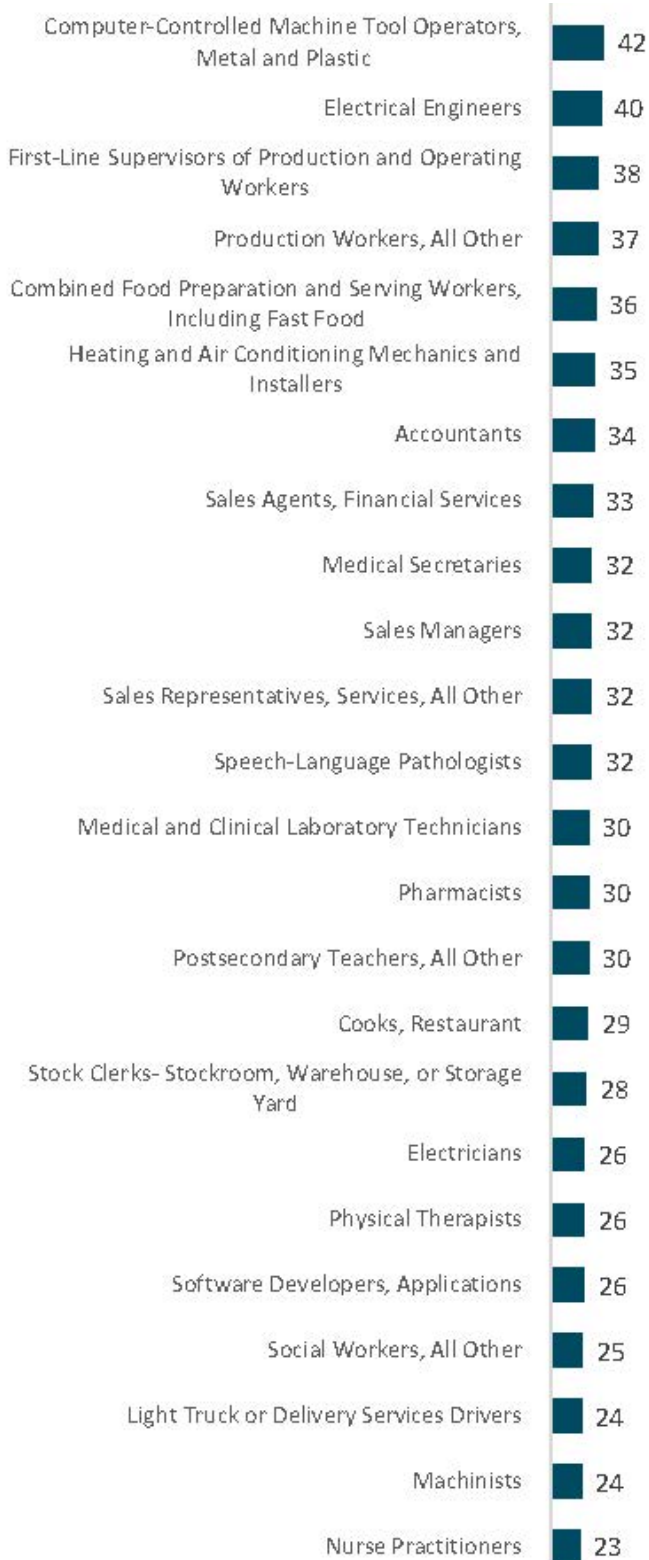
Unemployment increased
25.8% since Q4 2015



Employment has increased
0.2% since Q4 2015

Top Jobs In Demand

Quarter 1 2016



Data: Burning Glass Technologies
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 occupations related to business and finance were up 11.5% to 242 during Q1 2016, compared to 217 during Q4 2015. This level of postings is 36% higher than the 178 online postings for business and finance-related occupations in Q1 2015, a year ago.

Employment Over Time

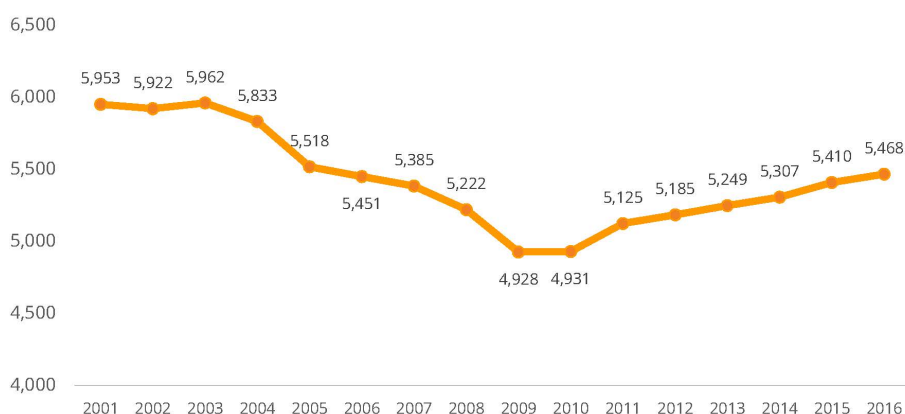
Although only Q1 has passed in 2016, employment in Business and Finance related occupations has continued an upward trajectory for the sixth consecutive year since the depths of the Great Recession in 2009. In 2009, only 4,928 workers were employed in Business and Finance jobs, and in 2016 employment reached 5,468, an 11% increase.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



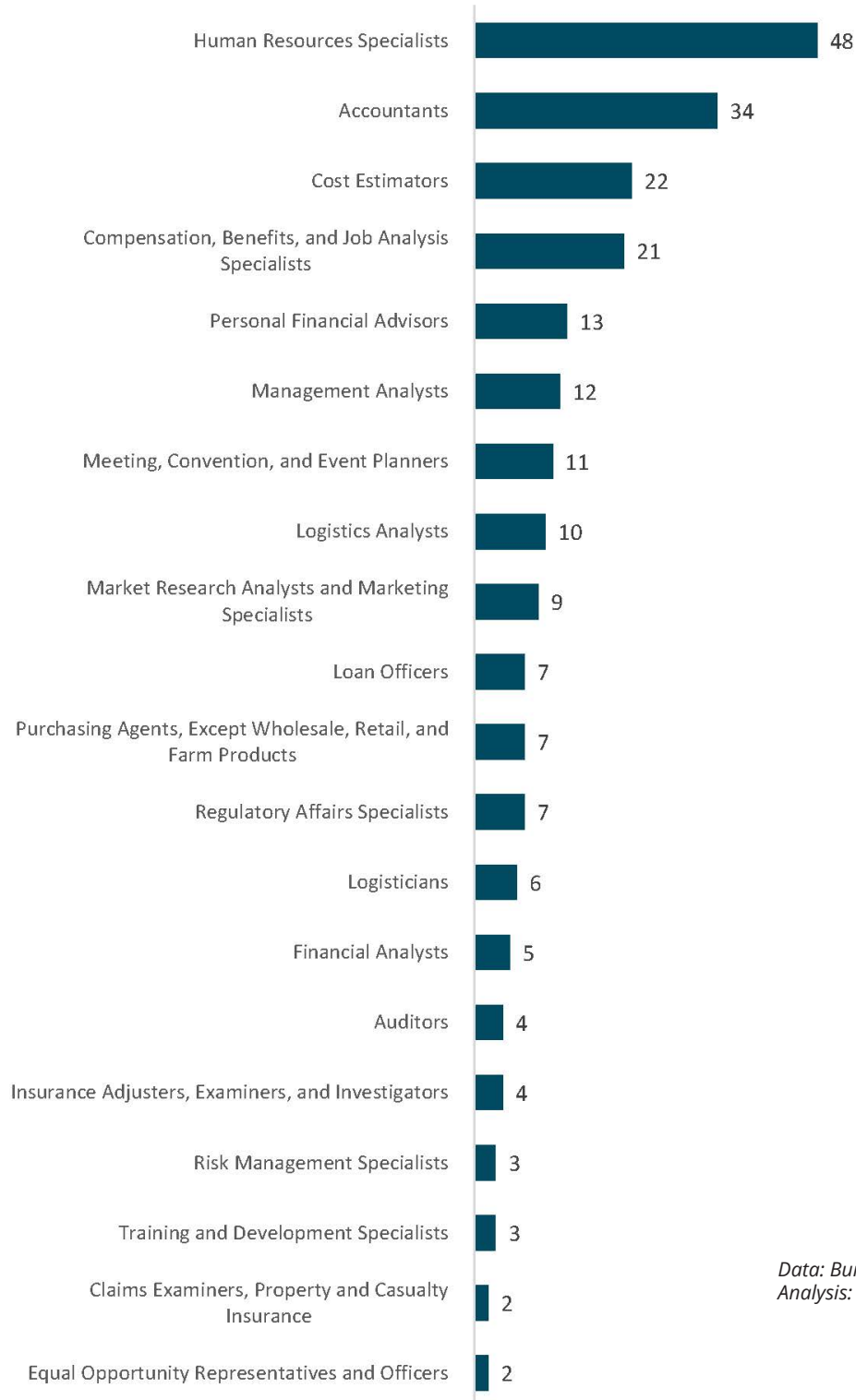
Job postings increased by
11.5% since Q4 2015



Most desired experience: less
than 5 years of experience

Business & Finance Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Education desired: Bachelor's degree

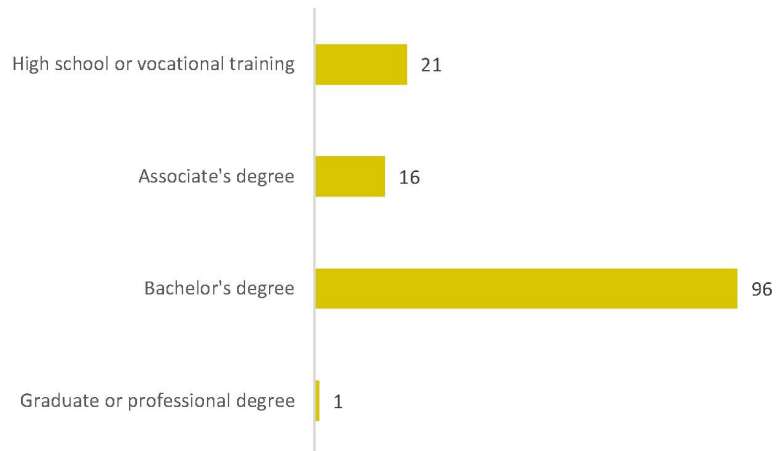
70%

Postings with advertised salaries were below \$50,000 per year

Business & Finance Educational Attainment & Experience Required

Of the 134 business and finance group job postings that specified a desired experience level during Q1 2016, 99% were available to workers with less than 5 years of experience. Entry-level business and finance positions are available to Genesee and Shiawassee County workers that are willing to pursue a bachelor's degree, with 72% of postings that specified educational requirements necessitating a bachelor's degree.

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
- Human resources development
- Finance, general
- Engineering, general

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Skills: accounting, filing,
customer service



Top area of study: Business
administration and management

Business & Finance in-Demand Skills Q1 2016

Occupations in Business and Finance require an array of skills important to managing a business and expanding its customer base. These skills include accounting, filing, customer service, relationship building, and mathematics. Employers hiring Business and Finance workers often post employability skills like communications skills, Microsoft Excel proficiency, computer skills, organizational skills, and being detail oriented.

Technical in-Demand Skills

- Accounting
- Filing
- Customer Service
- Building Relationships
- Mathematics

Foundational In-Demand Skills

- Communication Skills
- Microsoft Excel
- Computer Skills
- Organizational Skills
- Detail-Oriented

Job Type

- Temporary: 7.4%
- Full-time: 42%
- Part-time: 2.9%

Certifications In-Demand

- Certified public accountant (CPA)
- Series 7
- Professional in human resources
- 3m certified
- Certified financial planner



Jobs in management have highest wage growth potential



\$41,324: average advertised salary in postings

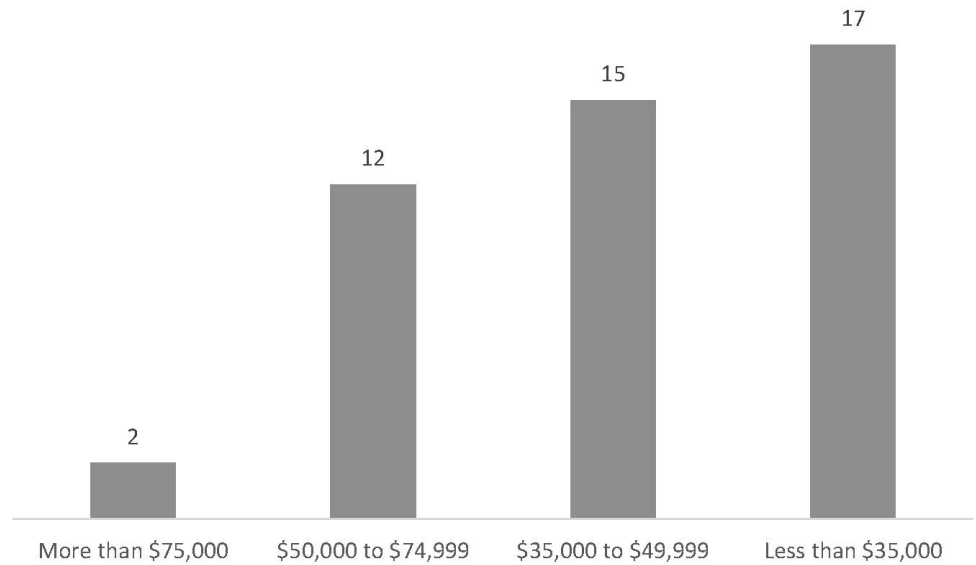
Business & Finance

Wages

Of the postings with advertised salaries in business and finance in Q1 2016, 70% were below \$50,000 per year. Of the 242 postings, 196 did not specify a salary. Salaries for entry-level jobs in business and finance are competitive across all industries throughout Genesee and Shiawassee counties, although the education requirements may be entry-prohibitive.

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	Human Resources Specialists	\$16.35	\$20.10	\$25.39	\$33.43	\$42.40
13-2011	Accountants	\$16.47	\$20.75	\$27.75	\$35.97	\$49.67
13-1051	Cost Estimators	\$17.28	\$20.76	\$26.90	\$33.79	\$41.11
13-1141	Compensation, Benefits, and Job Analysis Specialists	\$15.93	\$18.90	\$23.95	\$30.36	\$36.98
13-2052	Personal Financial Advisors	\$14.04	\$18.02	\$25.15	\$37.45	\$83.75
13-1111	Management Analysts	\$20.70	\$27.13	\$37.18	\$49.37	\$64.38
13-1121	Meeting, Convention, and Event Planners	\$9.64	\$13.17	\$18.19	\$23.71	\$30.22
13-1081	Logistics Analysts	\$21.91	\$29.19	\$35.32	\$41.17	\$44.85
13-1161	Market Research Analysts and Marketing Specialists	\$16.00	\$20.81	\$27.92	\$34.09	\$41.98
13-2072	Loan Officers	\$13.68	\$21.27	\$36.43	\$44.01	\$52.58

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Engineers & Designers (Manufacturing Focused)

Introduction

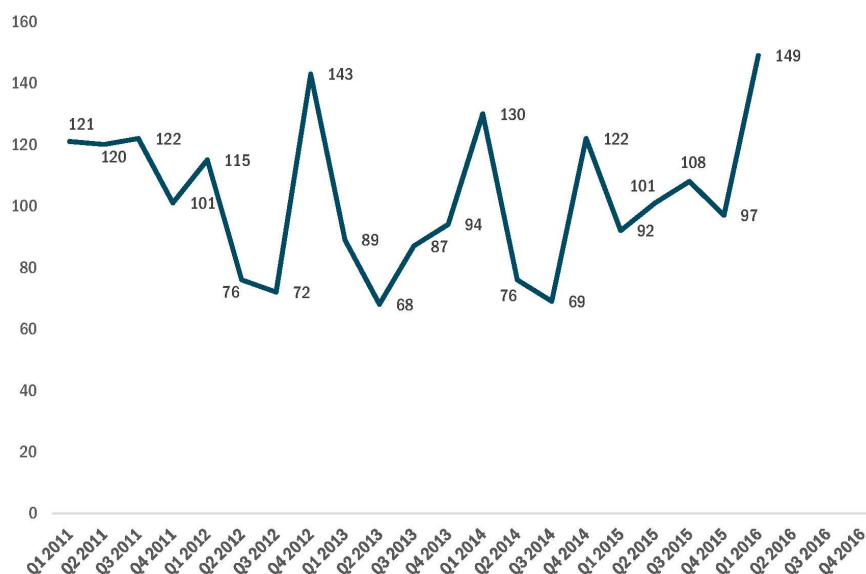
Engineers & Designers

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

Online job ads for Engineers and Designers were up 53.6% to 149 during Q1 2016, compared to 97 during Q4 2015. This level of postings is 62% higher than the 92 online postings for Engineers and Designers in Q1 2015, a year ago.

Online Job Postings

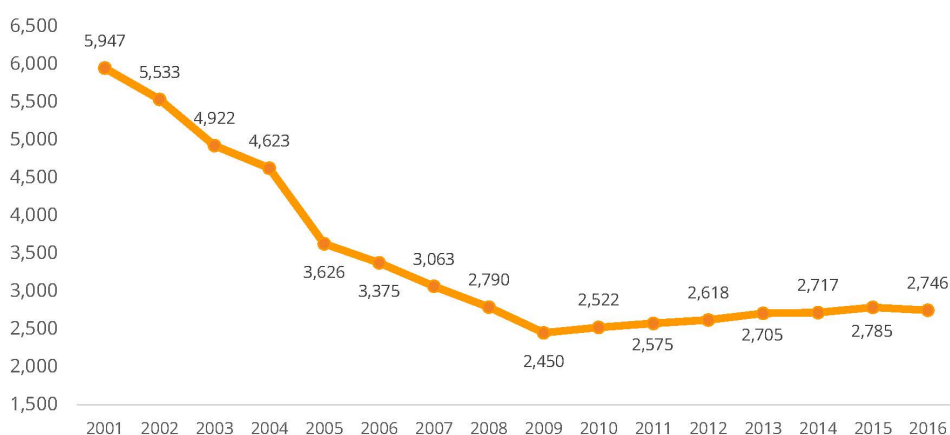


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Employment in occupations related to Engineering and Design fell modestly between 2015 and Q1 2016, with a loss of 39 positions. A downward trend of employment in Genesee and Shiawassee Counties began in 2001 when employment peaked at 5,947 jobs, well before the Great Recession of 2009. The consistently modest employment rates since 2001 reflects the realities associated with losing the region's historically strong manufacturing presence.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



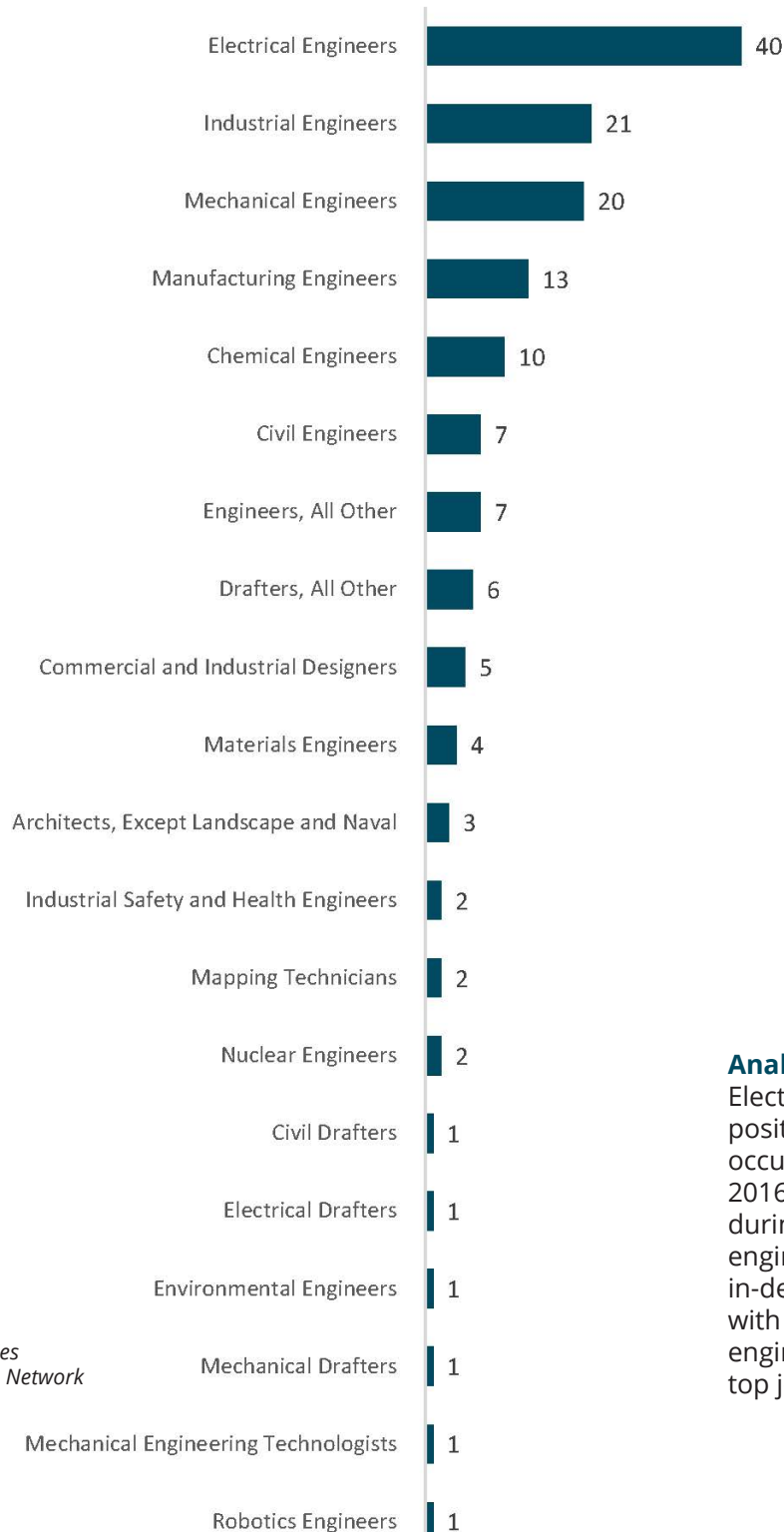
Job postings increased by
53.6% since Q4 2015



Most desired experience: 3 to
5 years

Engineers & Designers Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Analysis

Electrical engineers maintained its position as the top in-demand occupation between Q4 2015 and Q1 2016 with 40 online job postings during Q1 2016. Manufacturing engineers fell from the second top in-demand occupation to fourth, with 13 postings, and industrial engineers increased from the fifth top job to second, with 21 postings.



Education desired: Bachelor's degree

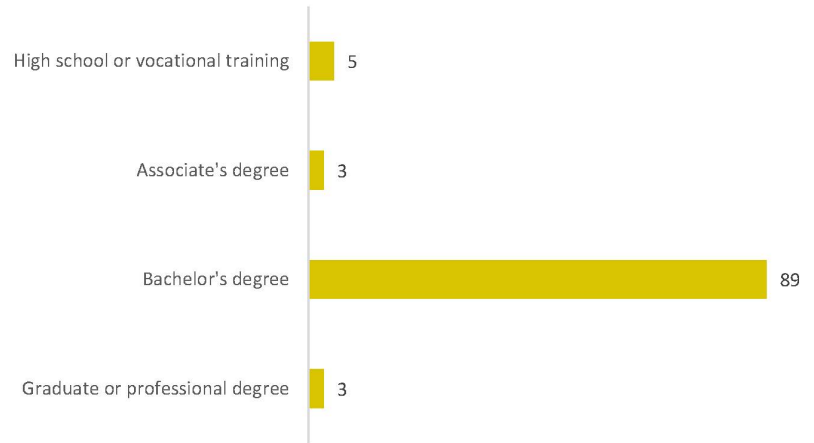
%

83% of postings with advertised salaries were \$50,000 or more per year

Engineers & Designers Educational Attainment & Experience Required

Of the 85 Engineering and Design job postings that specified a desired experience level during Q1 2016, 58% required three to five years of experience. 64 postings did not specify a required level of experience. 89% of job postings required a bachelor's degree, with 89 postings. The near universal requirement for moderate experience and a college education matches industry trends for engineering related occupations.

Minimum Educational Attainment Required Q1 2016

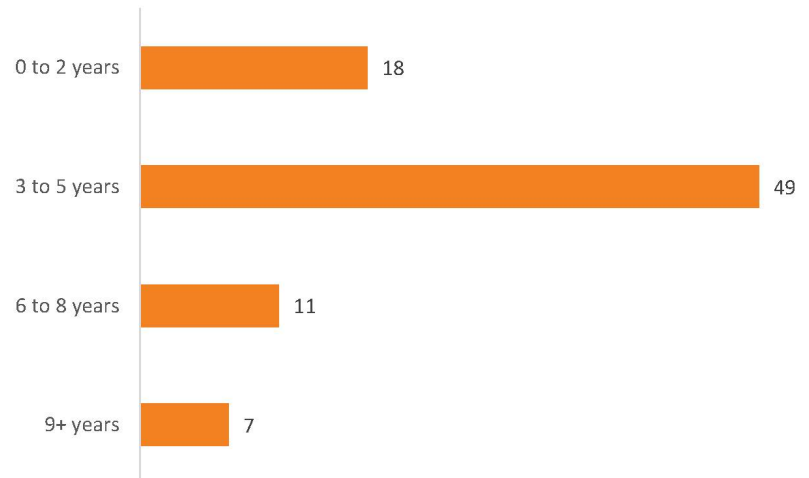


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Engineering, general
- Electrical and electronic engineering technologies/technicians
- Mechanical engineering
- Engineering technology, general
- Computer science

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Top area of study: Engineering, general

%

Skills: Manufacturing processes, Technical support, Programmable logic controller (PLC) programming

Engineers & Designers in-Demand Skills Q1 2016

Engineering and Design occupations require a wide array of high-level technical skills, befitting the educational requirements necessary for entry into the field. Advanced knowledge of Manufacturing Processes, Technical Support, Programming, Electrical Engineering, and use of specialized software underscore the highly technical nature of Engineering and Design occupations. Employers hiring Engineers and Designers often post employability skills like communication, problem solving, research, and planning.

Technical in-Demand Skills

- Manufacturing processes
- Technical support
- Programmable logic controller (PLC) programming
- AutoCAD

Foundational In-Demand Skills

- Communication skills
- Problem solving
- Writing
- Research
- Planning

Job Type

- Temporary: 4.6%
- Full-time: 44.3%
- Part-time: data not available

Certifications In-Demand

- American society for testing and materials (ASTM)
- Certificate in school administration
- American board for engineering and technology (ABET) accredited
- Certified hazardous materials manager



Top certification: American society for testing and materials (ASTM)



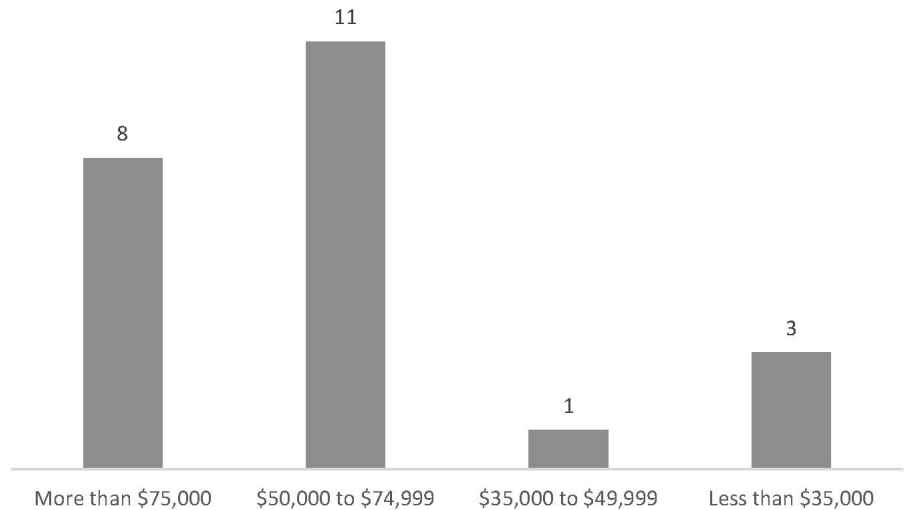
44.3% of jobs were full-time

Engineers & Designers Wages

The majority of advertised salaries for Engineers and Designers in Q1 2016 were \$50,000 or more per year, with 83% of the postings. Of the 149 online job postings, 126 did not specify a salary. With a mean real-time salary for Engineers and Designers of \$64,573, it remains a field well worth the educational investment necessary for entry.

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
17-2071	Electrical Engineers	\$16.56	\$22.59	\$31.22	\$40.18	\$46.29
17-2112	Industrial Engineers	\$21.32	\$31.83	\$39.41	\$45.65	\$53.41
17-2141	Mechanical Engineers	\$20.92	\$27.34	\$35.38	\$42.29	\$47.73
17-2199	Manufacturing Engineers	\$18.42	\$23.79	\$31.65	\$41.60	\$53.76
17-2041	Chemical Engineers	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
17-2051	Civil Engineers	\$25.84	\$29.99	\$35.00	\$40.67	\$45.05
17-2199	Engineers, All Other	\$18.42	\$23.79	\$31.65	\$41.60	\$53.76
17-3019	Drafters, All Other	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
27-1021	Commercial and Industrial Designers	\$16.83	\$22.00	\$28.18	\$31.44	\$32.97
17-2131	Materials Engineers	\$17.03	\$22.17	\$29.37	\$37.91	\$44.58

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.

Postings Over Time

Online job ads for Health Care were up 6.6% to 925 during Q1 2016, compared to 868 during Q4 2015. This level of postings is 41.2% higher than the 655 online postings for Health Care in Q1 2015, a year ago.

Online Job Postings

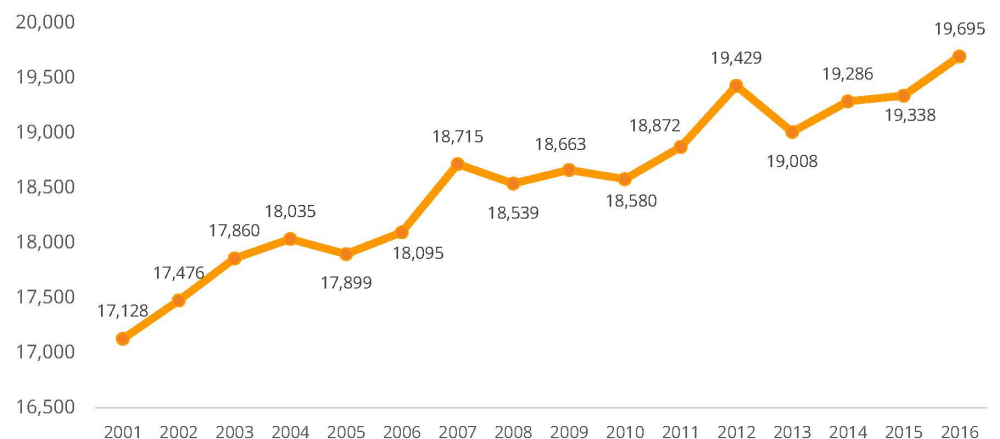


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

With 19,695 jobs, Q1 2016 marked peak employment in Health Care since the Great Recession in 2009, exceeding the previous high of 19,429 jobs in 2012. Employment also saw a 1.8% increase since 2015, with 357 more persons finding employment in Health Care related occupations.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network

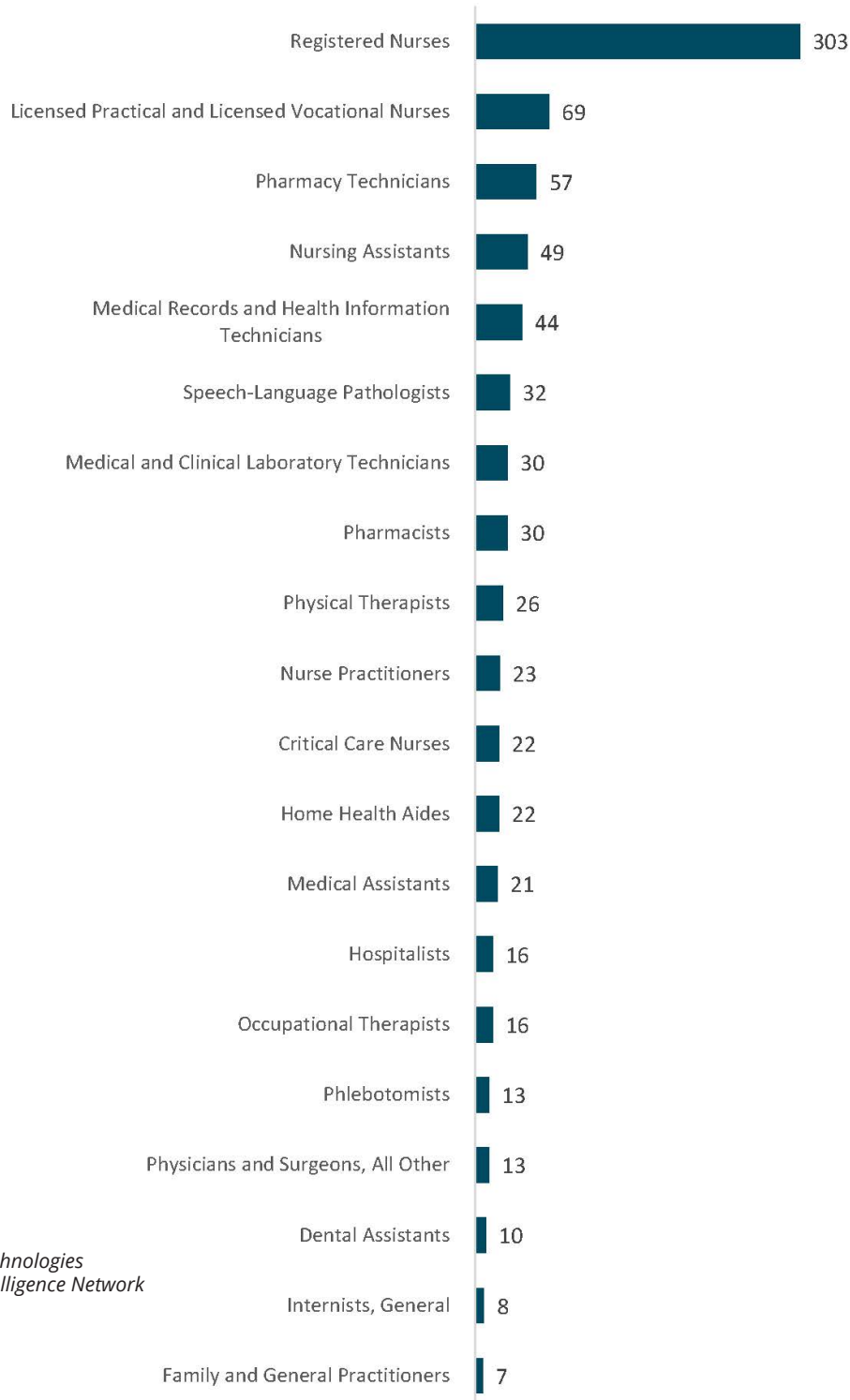


Job postings increased by 6.6%
since Q4 2015



Employment increased 1.5%
since 2015lines

**Health Care
Top Jobs**
Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



98% of jobs were available to workers with less than 5 years of experience

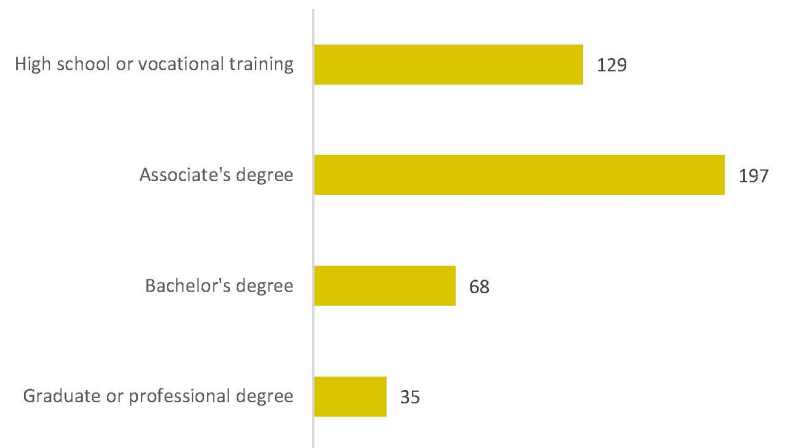
%

76% of jobs required an associate's degree or less

Health Care Educational Attainment & Experience Required

Of the 356 Health Care job postings that specified a desired experience level during Q1 2016, 98% were available to workers with less than 5 years of experience. 76% of postings indicating a desired educational attainment level were open to workers with an associate's degree or less. The high rate of positions requiring minimal education and experience indicates the majority of the job postings were for entry-level positions.

Minimum Educational Attainment Required Q1 2016

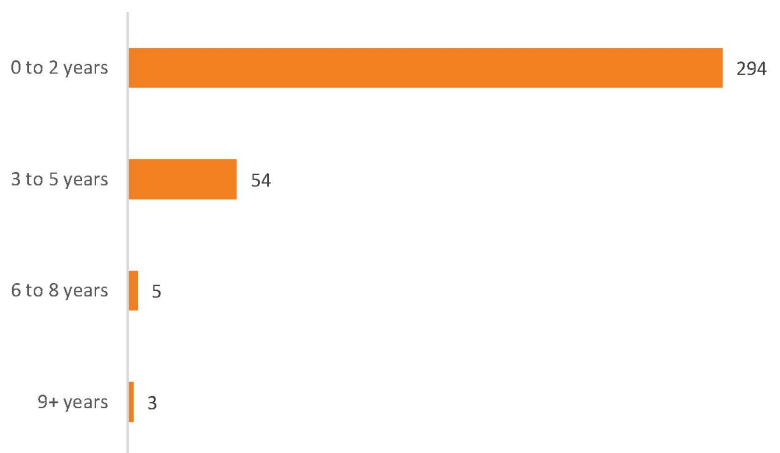


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

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



78% of jobs with advertised salaries were \$35,000 or less per year

%

Top area of study: Nursing Science

Health Care in-Demand Skills Q1 2016

The occupations in the Health Care group require a wide array of high-level technical skills. These skills include cardiopulmonary resuscitation (CPR), patient care, home health, treatment planning, and hospice. Employers hiring health care workers often post employability skills like communication skills, physical demand, computer skills, supervisory skills, and multi-tasking. The blend of technical and employability skills underscores the need for health care workers to be multi-talented and dynamic employees.

Technical in-Demand Skills

- Cardiopulmonary resuscitation (CPR)
- Patient care
- Home health
- Treatment planning
- Hospice

Foundational In-Demand Skills

- Communication skills
- Physical demand
- Computer skills
- Supervisory skills
- Multi-tasking

Job Type

- Temporary: 10.3%
- Full-time: 58.7%
- Part-time: 5.8%

Certifications In-Demand

- Registered nurse
- First aid CPR AED
- Certified nursing assistant
- Certified medical assistant
- Certified pharmacy technician



Top certification: Registered nurse

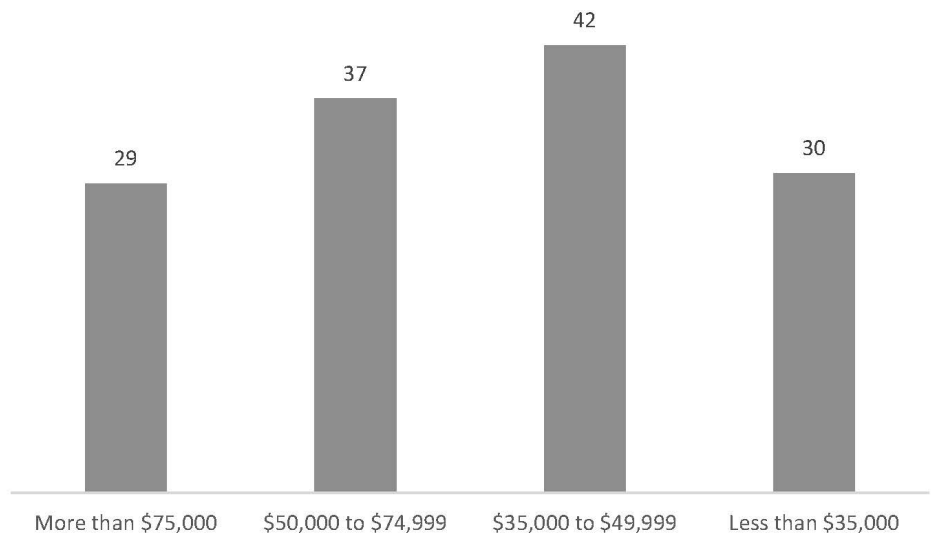


58.7% of jobs were full-time

Health Care Wages

78% of advertised salaries in Health Care in Q1 2016 were above \$35,000 per year, with only 22% \$35,000 or less per year. Of the 925 postings, 787 did not specify a salary. The high wages for minimal education and experience makes health care an extremely lucrative industry for Genesee and Shiawassee county workers.

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	\$24.28	\$27.39	\$31.52	\$34.83	\$37.29
29-2061	Licensed Practical and Licensed Vocational Nurses	\$17.37	\$19.21	\$21.07	\$22.95	\$26.55
29-2052	Pharmacy Technicians	\$9.88	\$11.07	\$13.15	\$15.74	\$18.63
31-1014	Nursing Assistants	\$9.90	\$10.97	\$12.86	\$14.83	\$17.02
29-2071	Medical Records and Health Information Technicians	\$10.75	\$13.03	\$17.01	\$22.08	\$26.01
29-1127	Speech-Language Pathologists	\$24.78	\$29.35	\$34.08	\$39.80	\$45.98
29-2012	Medical and Clinical Laboratory Technicians	\$10.58	\$12.37	\$14.78	\$18.19	\$22.79
29-1051	Pharmacists	\$46.84	\$50.36	\$55.02	\$60.07	\$67.72
29-1123	Physical Therapists	\$29.13	\$33.19	\$38.72	\$43.66	\$47.41
29-1171	Nurse Practitioners	\$35.53	\$39.65	\$44.44	\$52.64	\$68.59

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Information Technology (IT)

Introduction

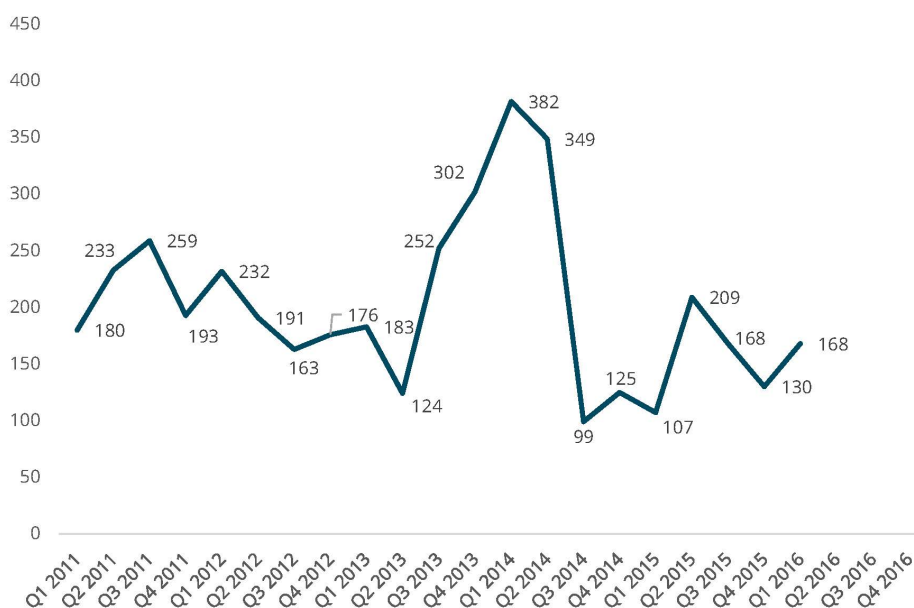
Information Technology (IT)

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.

Postings Over Time

Online job ads for occupations related to IT were up 29.2% to 168 during Q1 2016, compared to 130 during Q4 2015. This level of postings is 57% higher than the 107 online postings for IT related occupations in Q1 2015, a year ago.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Employment in IT related fields has enjoyed general growth since 2012, the lowest point in the previous 15 years. However, despite this upward trajectory, Q1 2016 saw a loss of 5 jobs since 2015, going from 3,066 jobs to 3,061.

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



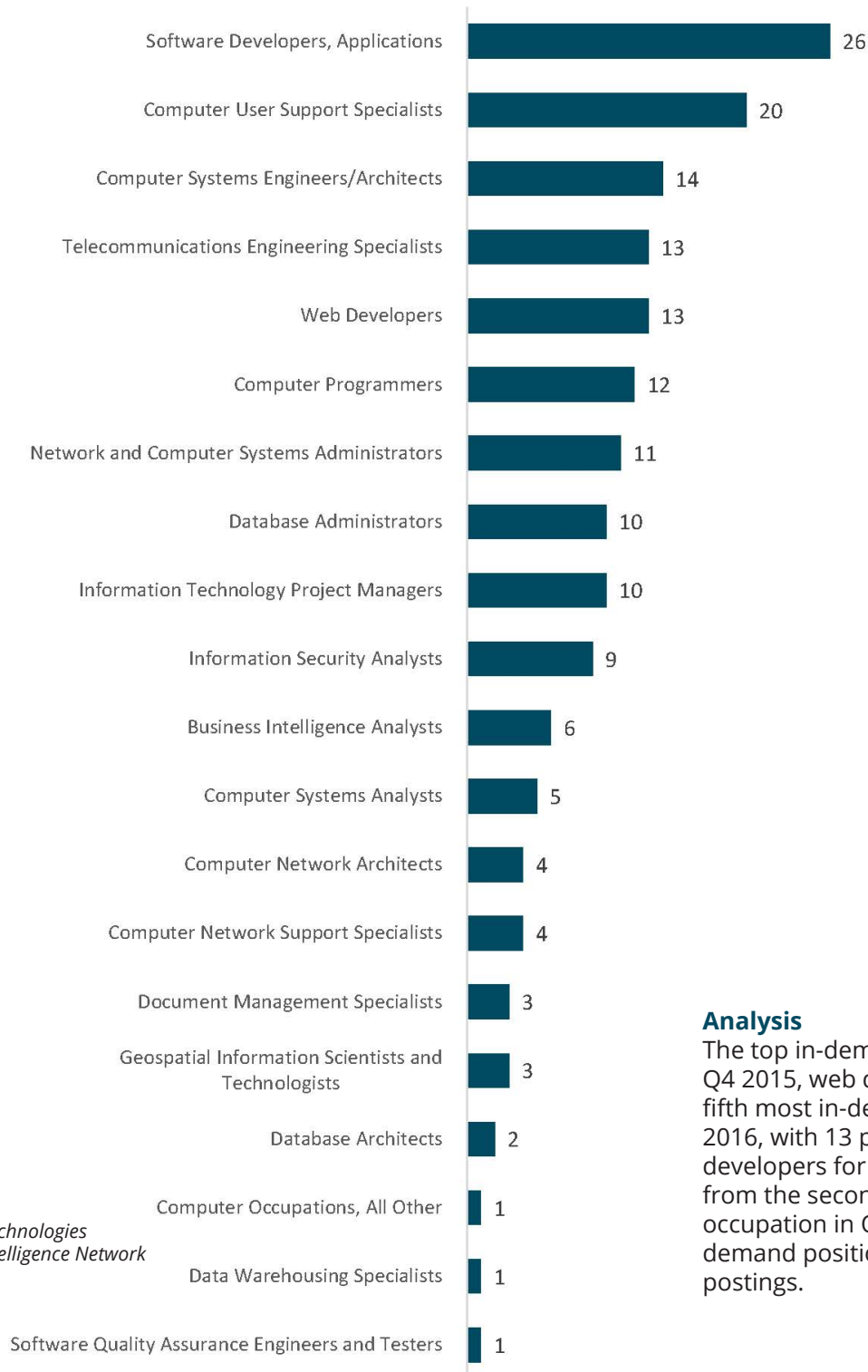
Job postings increased 29.2%
since Q4 2015



Most in-demand occupation:
Software Developer for
Applications

Information Technology (IT) Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Analysis

The top in-demand IT occupation in Q4 2015, web developers, fell to the fifth most in-demand position in Q1 2016, with 13 postings. Software developers for applications rose from the second most in-demand occupation in Q4 2015 to the top in-demand position in Q1 2016, with 26 postings.



Most desired experience: 5 years or less

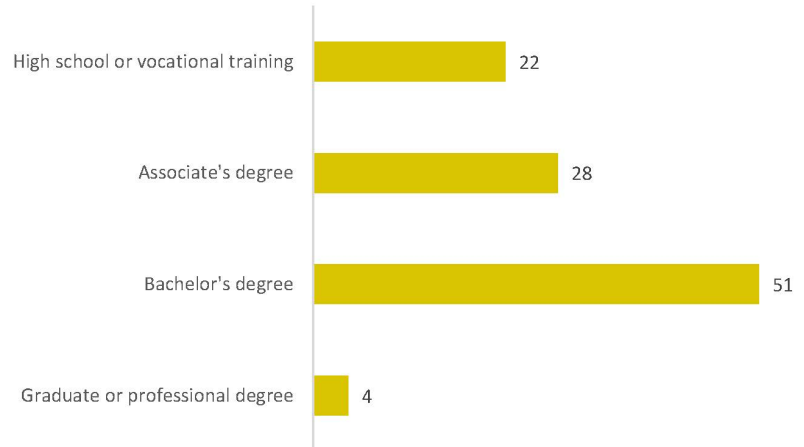
%

49% of jobs specifying desired education level required a bachelor's degree

Information Technology (IT) Educational Attainment & Experience Required

Of the 99 IT job postings that specified a desired experience level during Q1 2016, 86% were available to workers with less than 5 years of experience. 49% of jobs specifying educational attainment levels required a bachelor's degree, 47% required an associate's degree or less. Entry-level positions were nearly equally available to workers regardless of education level, highlighting the industry-wide emphasis on relevant skills, not education.

Minimum Educational Attainment Required Q1 2016

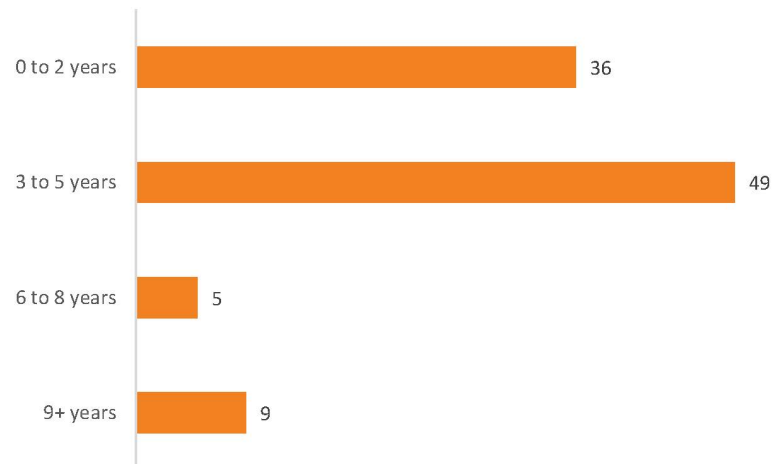


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Computer science
- Engineering, general
- Information technology
- Business administration and management, general
- Management information systems, general

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



55% of jobs with an advertised salary were \$75,000 or more per year

%

Top area of study: Computer Science

Information Technology (IT) in-Demand Skills Q1 2016

IT occupations require a wide range of skills, both those that are specialized to the industry and those generally applicable to other fields. Skills specific to IT were technical support, SQL, and Voice over IP, while the top two desired skills were customer service and project management. Employers hiring IT workers often post employability skills like communication skills, problem solving, customer service, planning, and computer skills.

Technical in-Demand Skills

- Customer service
- Project management
- Technical support
- SQL
- Voice over IP (VoIP)

Foundational In-Demand Skills

- Communication Skills
- Problem Solving
- Customer Service
- Planning
- Computer Skills

Job Type

- Temporary: 5.9%
- Full-time: 53.5%
- Part-time: 4.2%

Certifications In-Demand

- CISCO certified network professional (CCNP)
- CISCO certified internetwork expert (CCIE)
- Microsoft certified professional (MCP)
- Network + certified
- Certified A+ technician



Top Certification: CISCO
certified network professional
(CCNP)

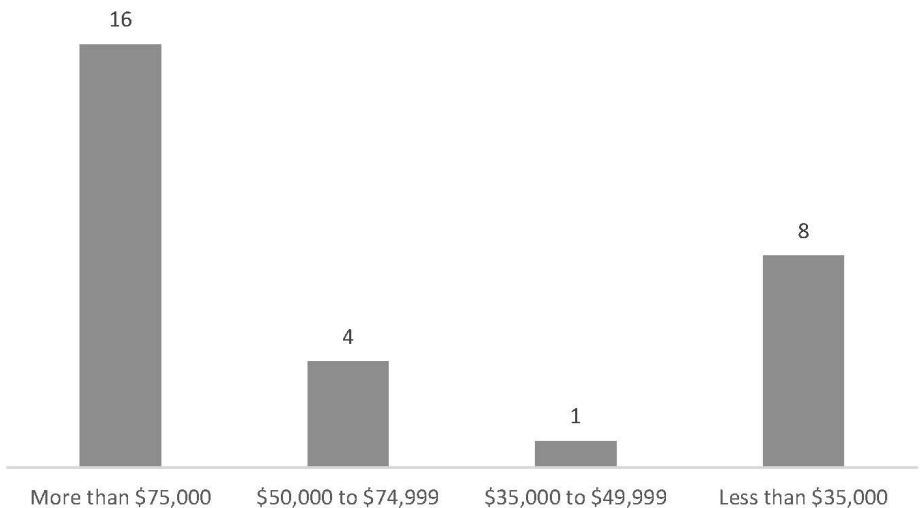


53.5% of jobs were full-time

Information Technology (IT) Wages

55% of advertised salaries for IT occupations were above \$75,000 per year, and only 28% of posted salaries were below \$35,000 per year. The high salaries available despite modest educational requirements makes IT a lucrative field in Genesee and Shiawassee counties.

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	\$18.30	\$25.37	\$34.97	\$44.73	\$53.80
15-1151	Computer User Support Specialists	\$13.17	\$16.25	\$21.32	\$27.88	\$34.59
15-1199	Computer Systems Engineers/Architects	\$22.25	\$26.15	\$31.86	\$40.49	\$48.77
15-1143	Telecommunications Engineering Specialists	\$24.75	\$30.46	\$40.20	\$49.24	\$58.54
15-1134	Web Developers	\$13.26	\$16.83	\$25.10	\$30.84	\$38.88
15-1131	Computer Programmers	\$23.49	\$26.50	\$33.00	\$41.05	\$48.12
15-1142	Network and Computer Systems Administrators	\$21.24	\$25.71	\$30.83	\$35.75	\$42.40
15-1141	Database Administrators	\$20.48	\$26.85	\$34.36	\$41.26	\$45.98
15-1199	Information Technology Project Managers	\$22.25	\$26.15	\$31.86	\$40.49	\$48.77
15-1122	Information Security Analysts	\$22.36	\$25.64	\$34.51	\$43.30	\$51.55

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.

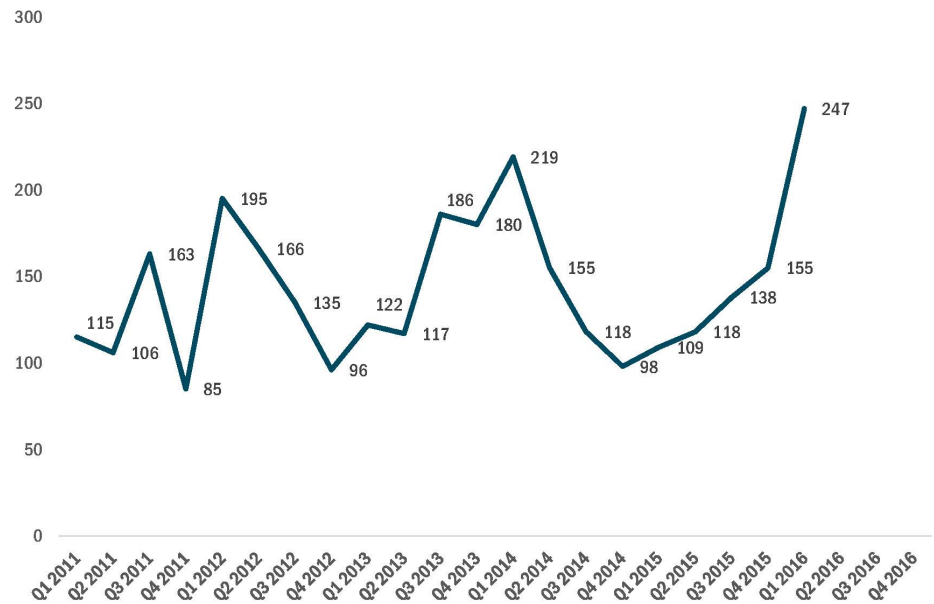
Postings Over Time

Online job ads for occupations related to Skilled Trades were up 59.4% to 247 postings during Q1 2016, compared to 155 during Q4 2015. This level of postings is 109% higher than the 109 online postings for Skilled Trades related occupations in Genesee-Shiawassee Counties in Q1 2015, a year ago.

Employment Over Time

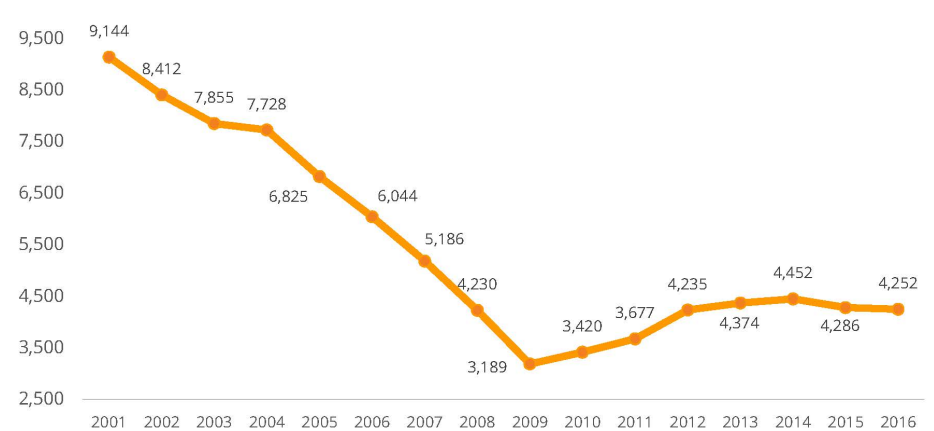
Employment in Skilled Trades declined steeply between 2003 and 2009, but has made modest gains since the Recession low of 3,189 employed workers. However, Q1 2016 saw a loss of 34 jobs since 2015, dropping from 4,286 employed workers in 2015 to 4,252, an 8% loss.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



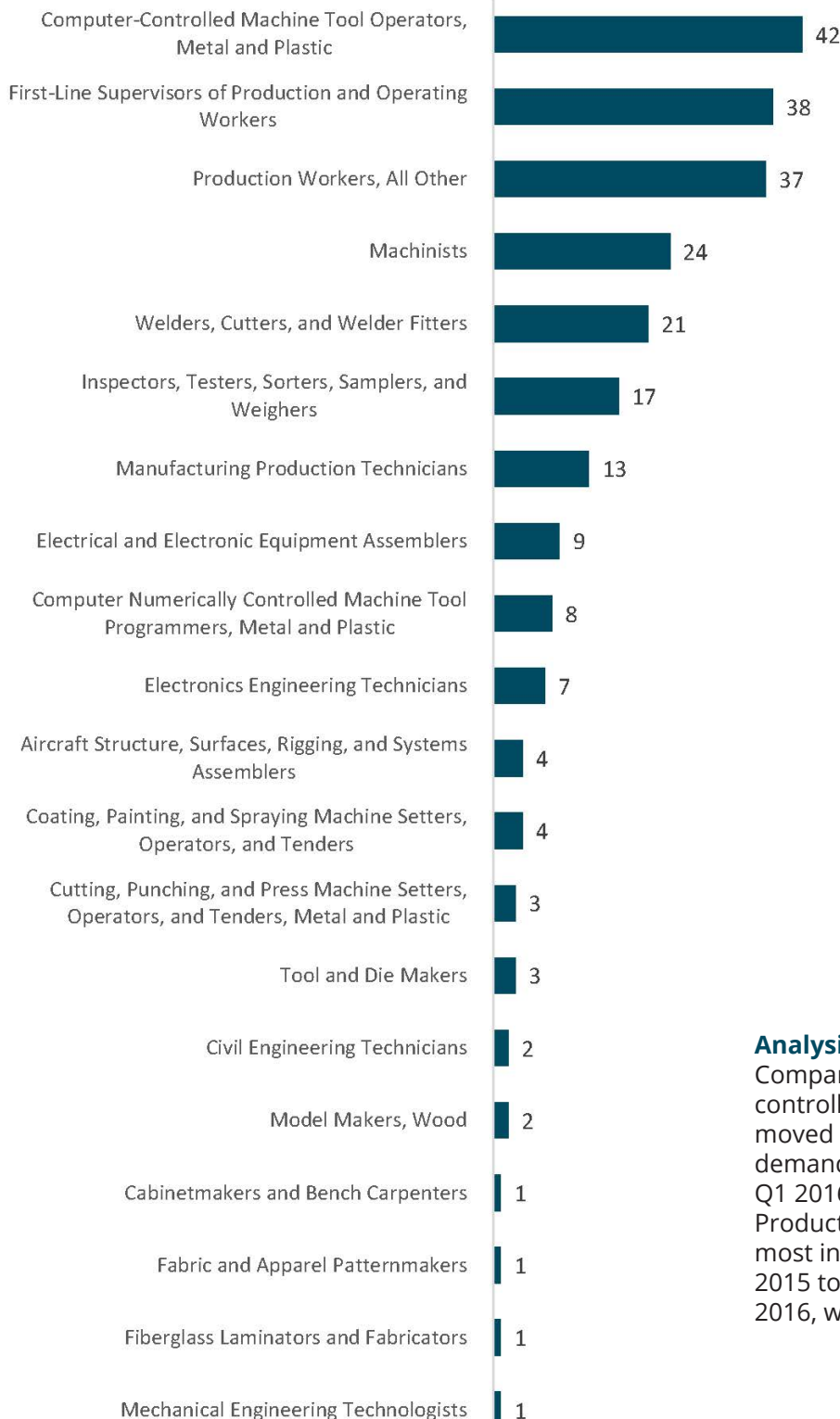
Job postings increased 59.4%
since Q4 2015



Most in-demand occupation:
Computer-Controlled Machine
Tool Operators

Skilled Trades & Technicians Top Jobs

Quarter 1 2016



Data: Burning Glass
Analysis: Workforce

Analysis

Compared to Q4 2015, computer-controlled machine tool operators moved from the third to first most in demand Skilled Trades occupation in Q1 2016, with 42 postings. Production workers fell from the most in-demand occupation in Q4 2015 to third most in-demand in Q1 2016, with 37 postings.



91% of postings required 5 or less years of experience

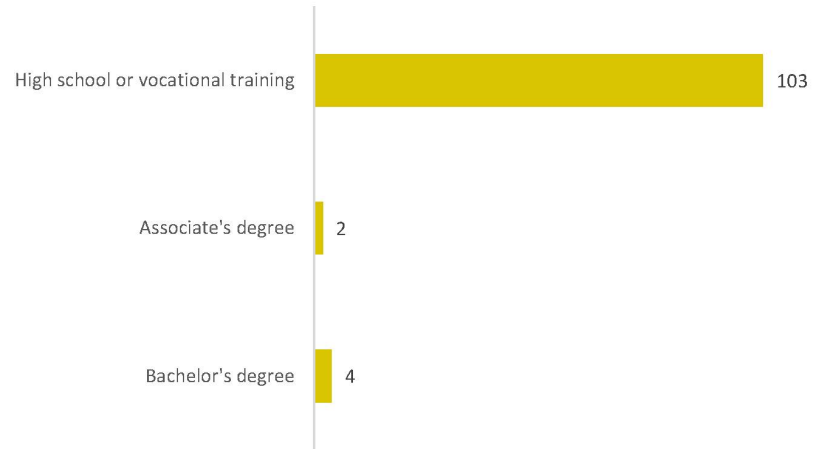
%

79% of advertised salaries were \$35,000 or less per year

Skilled Trades & Technicians Educational Attainment & Experience Required

Of the 89 Skilled Trades job postings that specified a desired experience level during Q1 2016, 91% were available to workers with five years of experience or less. 158 postings did not specify a required level of experience. 94% of job postings required only a high school diploma or vocational training, with 103 postings. 138 postings did not specify a required level of degree attainment. The lack of need for higher education among postings where education was listed indicates the majority of positions are entry level.

Minimum Educational Attainment Required Q1 2016

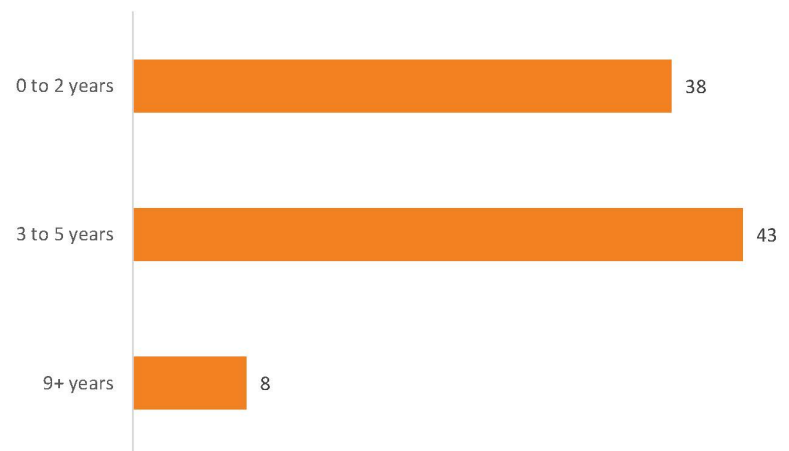


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Mechanical engineering
- Electrical and electronic engineering technologies/technicians, other
- Engineering, general
- Automotive engineering technology/technician
- Logistics, materials, and supply chain management

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Top area of study: Mechanical engineering

%

94% of jobs required only a high school diploma or vocational training

Skilled Trades & Technicians in-Demand Skills Q1 2016

The occupations in the Skilled Trades mainly require entry-level, manufacturing focused skills. The increased demand for entry-level positions in Skilled Trades job postings is demonstrated in the posting for skillsets like CNC, Machining, Micrometers, and Calipers. The demand for Inspection skills may be applicable to either entry-level or advanced positions. Employers hiring Skilled Trades occupations often post employability skills like communication skills, problem solving, writing, mathematics, and quality assurance and control.

Technical in-Demand Skills

- CNC
- Machining
- Inspection
- Micrometers
- Calipers

Foundational In-Demand Skills

- Communication skills
- Problem solving
- Writing
- Mathematics
- Quality assurance and control

Job Type

- Temporary: 8.0%
- Full-time: 50.2%
- Part-time: 0.8%

Certifications In-Demand

- Commercial driver's license
- Tool and die
- Air brake certified
- Auditor certification
- Electrician certification



Top certification: Commercial driver's license

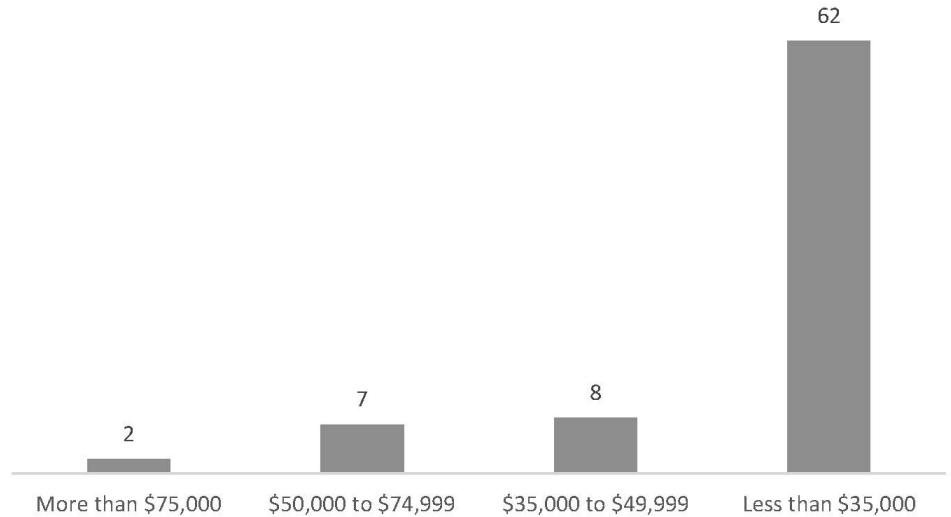


50.2% of jobs were full-time

Skilled Trades & Technicians Wages

The majority of advertised salaries in the Skilled Trades in Q1 2016 were below \$35,000 per year, with only 21% of postings listing a higher salary. Of the 247 postings, 168 did not specify a salary. With the majority of salaries falling below \$35,000, it strengthens the likelihood that the available postings are for entry-level positions.

Advertised Salaries Quarter 1 2016



Wage Data from Bureau of Labor Statistics 2015

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$9.61	\$11.84	\$16.31	\$22.57	\$25.40
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.00	\$22.88	\$29.94	\$39.95	\$47.28
51-9199	Production Workers, All Other	\$8.92	\$9.87	\$11.24	\$14.73	\$27.48
51-4041	Machinists	\$12.53	\$15.73	\$18.96	\$22.21	\$26.30
51-4121	Welders, Cutters, and Welder Fitters	\$11.76	\$13.08	\$15.36	\$17.95	\$20.62
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$8.97	\$10.41	\$13.13	\$19.34	\$26.48
17-3029	Manufacturing Production Technicians	\$12.98	\$15.70	\$22.71	\$31.71	\$40.50
51-2022	Electrical and Electronic Equipment Assemblers	\$10.77	\$12.75	\$14.24	\$17.23	\$26.11
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	\$15.20	\$18.85	\$24.62	\$31.52	\$34.37
17-3023	Electronics Engineering Technicians	\$12.52	\$17.03	\$25.00	\$31.58	\$35.14

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	222,897	216,445	214,929	218,651	218,278	216,278	218,483	2,205	1.0%
Employment	192,152	191,942	193,510	197,422	201,234	203,822	206,434	2,612	1.3%
Unemployment	30,746	24,504	21,419	21,229	17,044	12,456	12,049	-407	-3.3%
Unemployment Rate	13.8%	11.3%	10.0%	9.7%	7.8%	5.8%	5.5%	-0.2%	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	216,487	218,720	214,271	215,633	218,483	2,849	1.3%
Employment	201,466	205,573	202,190	206,059	206,434	375	0.2%
Unemployment	15,021	13,147	12,081	9,574	12,049	2,475	25.8%
Unemployment Rate	6.9%	6.0%	5.6%	4.4%	5.5%	1.1%	na

**Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics








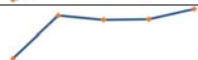
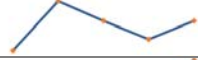


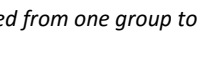
Monthly Labor Market Data

	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	216,840	216,299	216,322	216,054	220,375	219,731	216,723	214,259	211,832	214,219	216,413	216,268	217,804	219,159	218,485
Employment	200,776	201,665	201,958	203,912	206,422	206,384	201,480	203,114	201,976	204,763	207,052	206,362	205,774	207,049	206,478
Unemployment	16,064	14,634	14,364	12,142	13,953	13,347	15,243	11,145	9,856	9,456	9,361	9,906	12,030	12,110	12,007
Unemployment Rate	7.4%	6.8%	6.6%	5.6%	6.3%	6.1%	7.0%	5.2%	4.7%	4.4%	4.3%	4.6%	5.5%	5.5%	5.5%

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



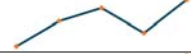
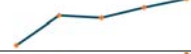

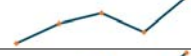











Data: Bureau of Labor Statistics

Genesee & Shiawassee Counties 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	4,322	5,071	5,465	4,721	5,711		32.1%	21.0%
Agriculture	82	90	73	50	75		-8.5%	50.0%
Business & finance	178	193	228	217	242		36.0%	11.5%
Construction	39	37	81	46	64		64.1%	39.1%
Customer service	1,234	1,206	1,570	1,170	1,458		18.2%	24.6%
Education	106	122	231	201	205		93.4%	2.0%
Energy	8	7	3	0	44		450.0%	#DIV/0!
Engineers & designers	92	101	108	97	149		62.0%	53.6%
Health care	655	889	865	868	925		41.2%	6.6%
Information technology	107	209	168	130	168		57.0%	29.2%
Skilled trades & technicians	109	118	138	155	247		126.6%	59.4%
Transportation, distribution, and logistics	531	791	595	537	607		14.3%	13.0%

**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%

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

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