



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

Heavy and tractor-trailer truck drivers remain top in-demand job with large jump in postings.

Truck drivers maintained its top in-demand job spot in Genesee and Shiawassee counties for another quarter. Between the second and third quarter of 2016, truck driver postings increased by 30.0% (222 postings).

A majority of occupation groups saw increases in job postings through Q3 2016.

During Q3 2016, the Health Care, Skilled Trades, and IT occupational experienced increases in job postings. While Business and Finance, and Engineers and Designers postings decreased moving through the three quarters of 2016.

The IT occupation group contained the highest mean advertised salary of over \$70,000.

A majority of the postings in the IT occupation group that advertised salaries were over \$75,000. In addition to having high advertised salaries and wages, a large majority of IT postings desire 0 to 5 years of experience. This presents a lucrative opportunity for job seekers who are willing to overcome the educational attainment demanded by employers. See page 25 for more details.

A majority of postings expressing desired experience are searching for applicants with 3 to 5 years of experience.

Most of the occupation groups observed witnessed postings focusing on applicants with 3 to 5 years of experience. The Health Care group did not follow this trend and sought mainly entry level jobseekers (those with 0-2 years of experience) to fill positions.

Candidates with a bachelor's degree are highly sought out within Genesee and Shiawassee Counties.

Business and Finance, Engineer and designers, and IT occupation group postings were searching for applicants with a bachelor's degree. Associate's degrees were in-demand within the Health Care occupation group, while Skilled Trade postings desired those with at least vocational training.

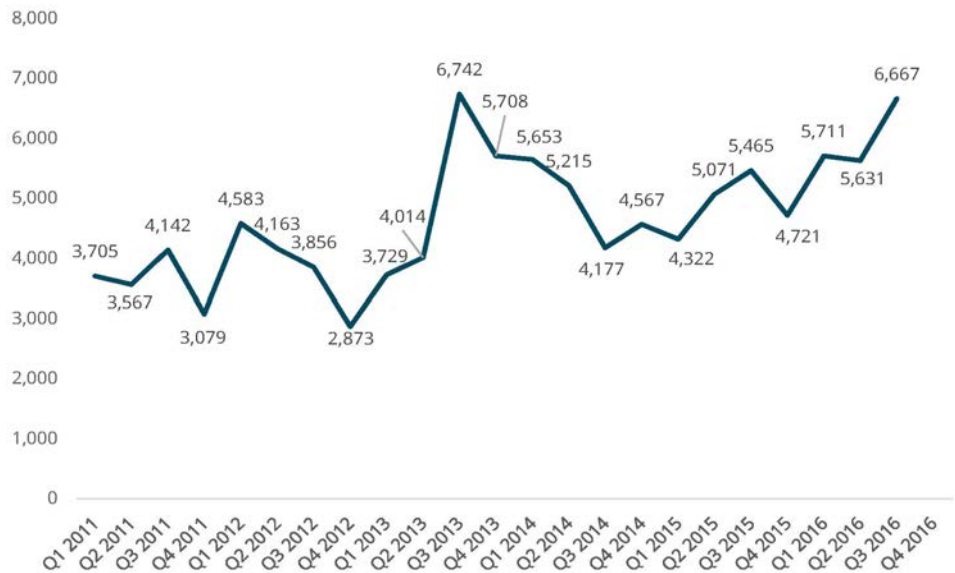


Executive Summary

Postings Over Time

Online job postings in Q3 2016 for all occupations in Genesee and Shiawassee Counties saw an increase of 18% (1,036 postings) from the previous quarter. This level of posting is 22% (1,202 postings) higher than the 5,465 postings in Q3 2015, a year ago. Overall, posting data has been increasing over the past 5 years with numbers fluctuating around 5,500 postings more recently.

Total Online Job Postings Q1 2011 - Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

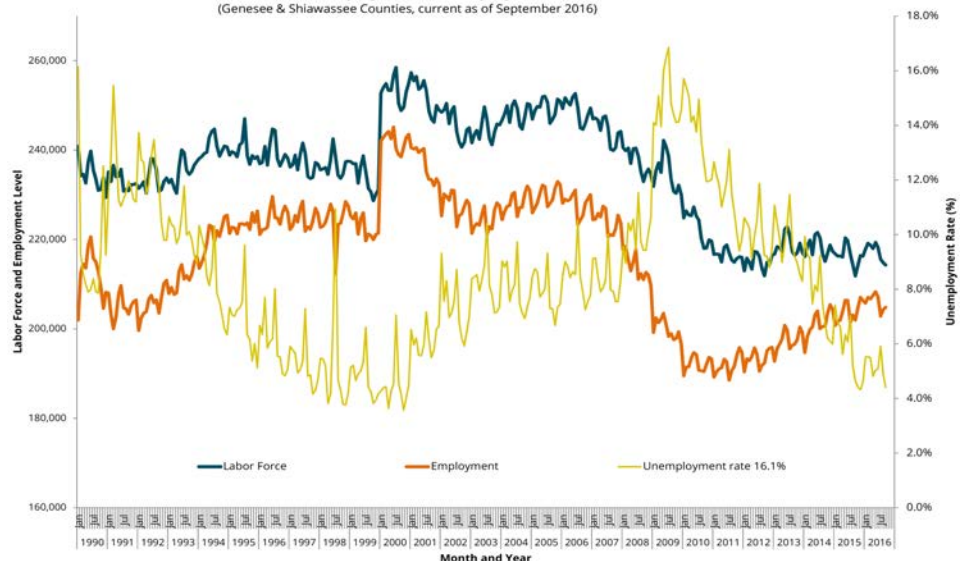
Labor Force, Employment, & Unemployment

The labor force in Genesee and Shiawassee Counties increased by 286 individuals (+0.1%) to 219,713 in Q3 2016. Employment also increased by 0.8% to 208,667. Since employment increased by more than the labor force, unemployment fell 0.6 percentage points to a rate of 4.7%. Labor force growth and employment growth are both encouraging signs pointing to the health of Genesee and Shiawassee's economy.

Labor Force, Employment, Unemployment Rate

January 1990 - September 2016

Labor Force, Employment, Unemployment Rate
(Genesee & Shiawassee Counties, current as of September 2016)



Data: BLS
Analysis: Workforce Intelligence Network



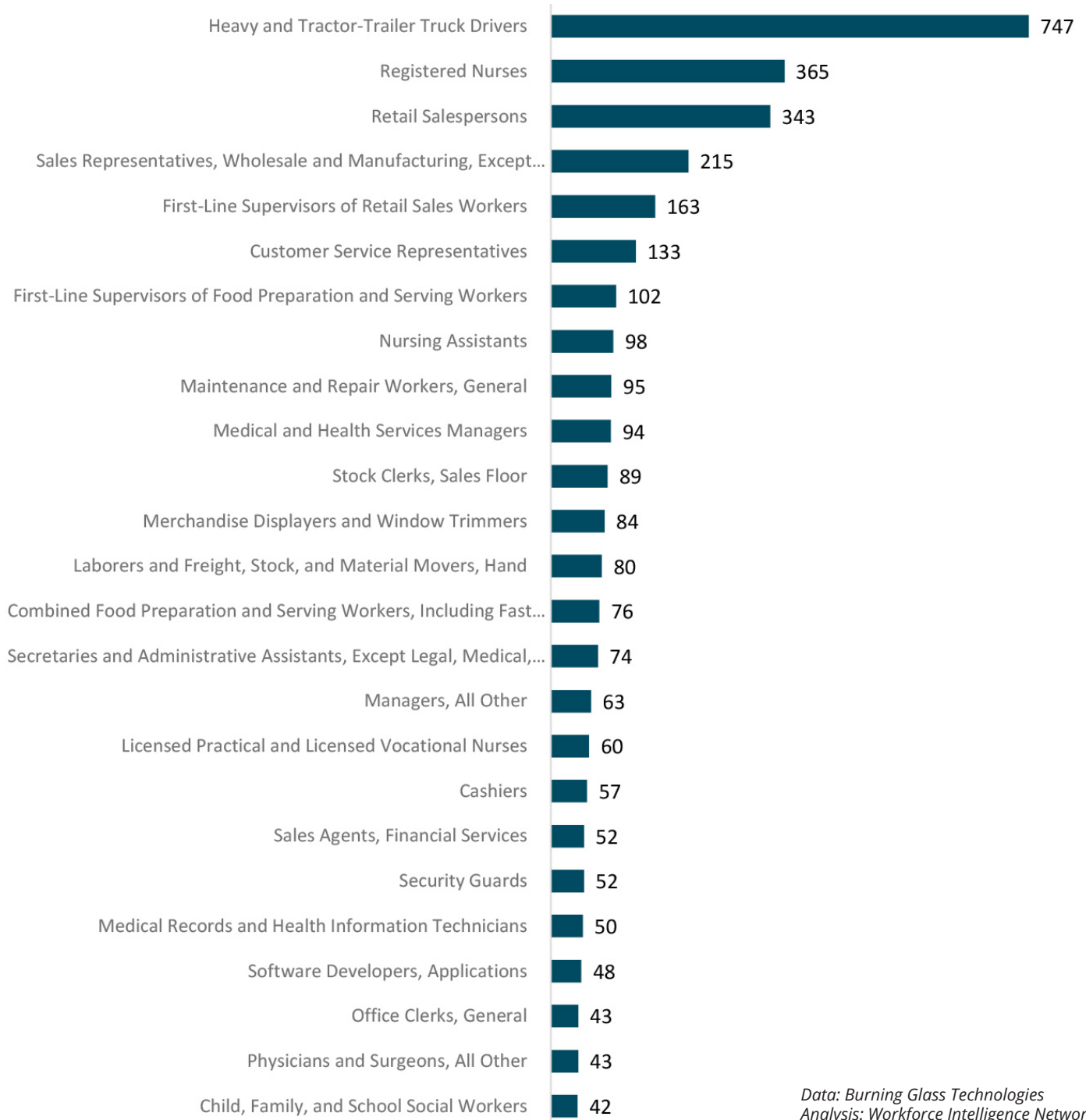
1.4% decline in postings

1.3%

The labor force increased by
286 individuals

Top Jobs In Demand

Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Unemployment
decreased 10.7%



Employment increased by
1,036 workers

Top Jobs In Demand

Quarter 3 2016

Janitors and Cleaners, Except Maids and Housekeeping Cleaners	42
Medical Secretaries	42
Pharmacy Technicians	42
Food Service Managers	41
Bookkeeping, Accounting, and Auditing Clerks	40
Emergency Medical Technicians and Paramedics	39
Insurance Sales Agents	38
Physical Therapists	37
Sales Managers	37
Speech-Language Pathologists	36
Production Workers, All Other	35
Cooks, Restaurant	34
Postsecondary Teachers, All Other	34
Teachers and Instructors, All Other	34
Rough Carpenters	33
Family and General Practitioners	32
Heating and Air Conditioning Mechanics and Installers	32
Coaches and Scouts	31
Driver/Sales Workers	30
Management Analysts	30
Critical Care Nurses	29
Demonstrators and Product Promoters	29
Educational, Guidance, School, and Vocational Counselors	29
First-Line Supervisors of Office and Administrative Support...	29
Information Technology Project Managers	29

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Business & Finance

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 down 8% to 171 during Q3 2016, compared to 185 during Q2 2016. This level of posting is 33% lower than the 228 online postings for Business and Finance-related occupations in Q3 2015, a year ago.

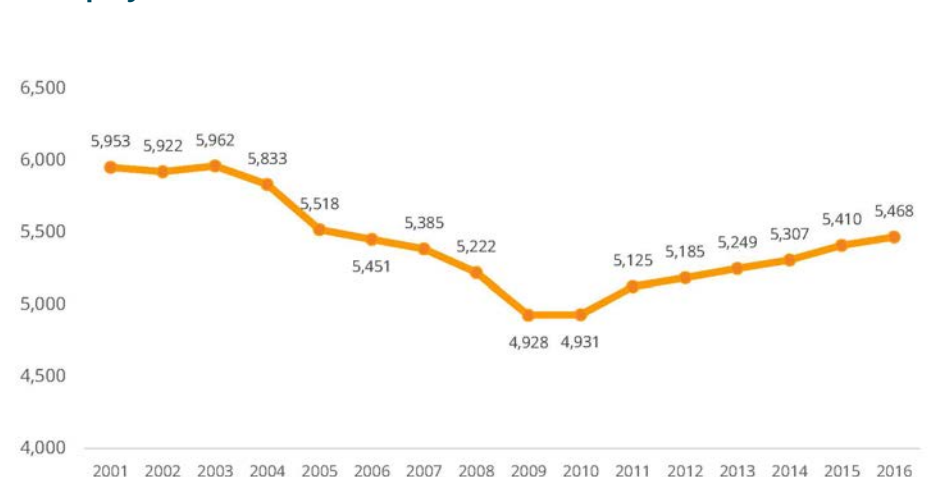
Employment Over Time

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



Employment Over Time





Job postings decreased
8%

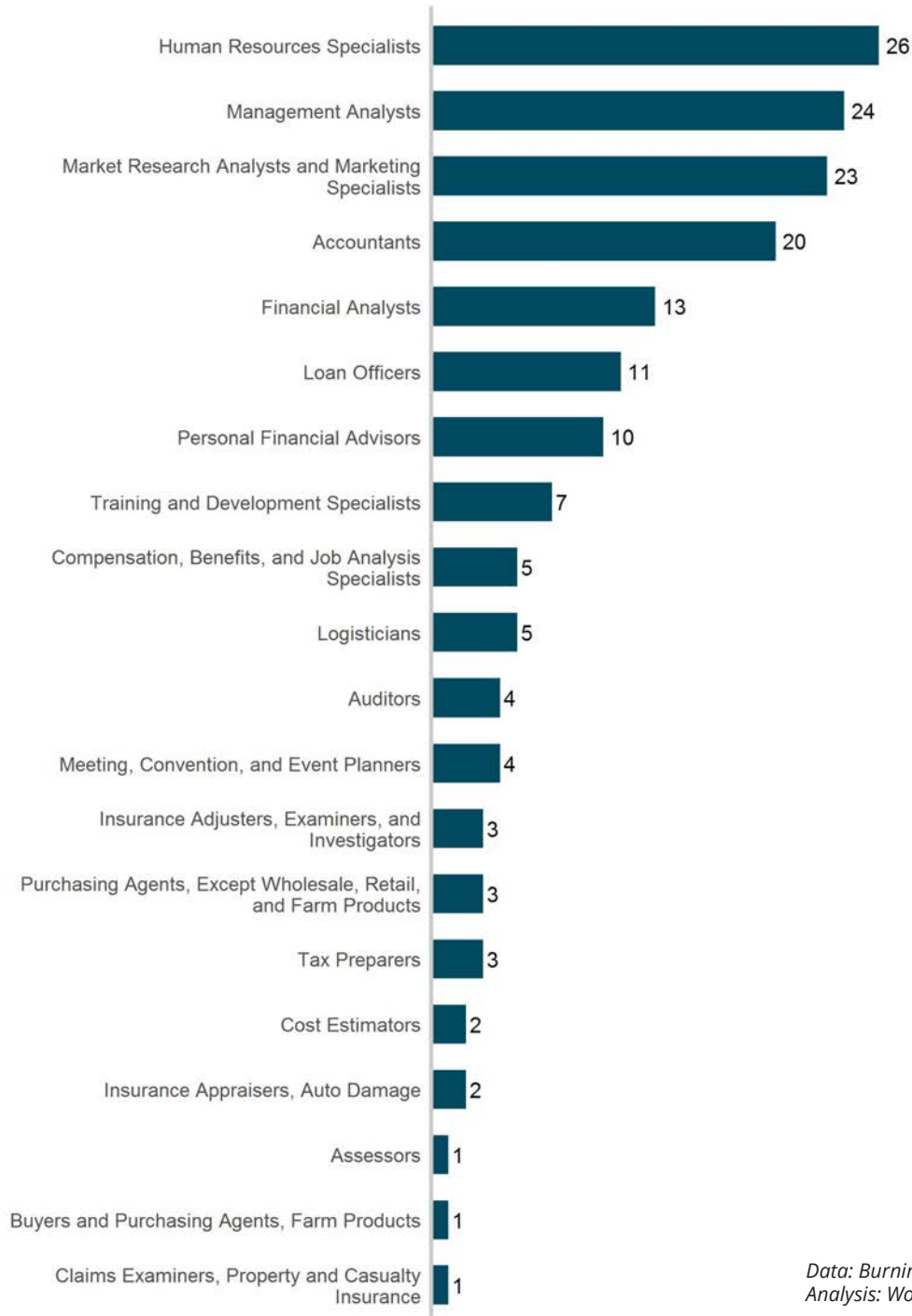


Most desired experience: less
than 5 years

Business & Finance

Top Jobs

Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Education desired: Bachelor's degree

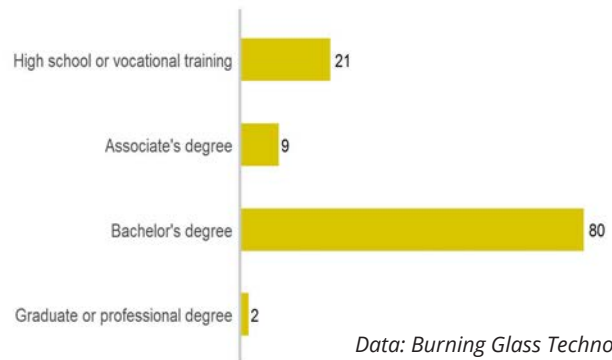
56%

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

Business & Finance Educational Attainment & Experience Required

Of the 92 Business and Finance group job postings that specified a desired experience level during Q3, 2016, 92% 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 who are willing to pursue a bachelor's degree, with 71% of postings that specified educational requirements necessitating a bachelor's degree.

Minimum Educational Attainment Required Q3 2016

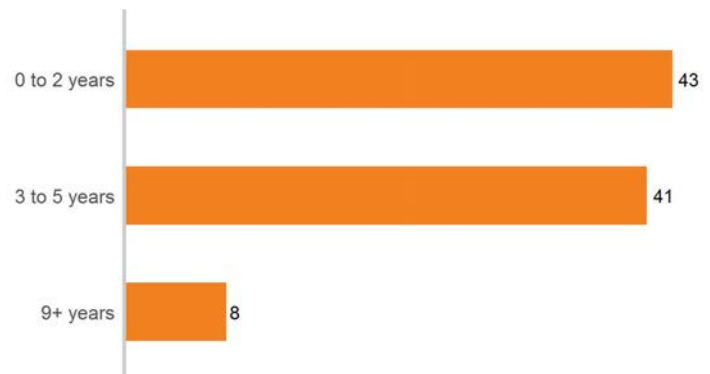


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q3 2016

- Accounting
- Business administration and management, general
- Finance, general
- Computer science
- Human resources

Experience Required Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Skills: accounting, customer service, project management



Top area of study: Accounting

Business & Finance in-Demand Skills Q3 2016

Occupations in Business and Finance require an array of skills important to managing and growing a business efficiently. These skills include accounting, customer service, project management, budgeting, and scheduling. Employers hiring Business and Finance workers often post employability skills like communication skills, Microsoft Office proficiency, writing, being detail oriented, and computer skills.

Technical In-Demand Skills

- Microsoft Office
- Customer service
- Accounting
- Project management
- Budgeting

Foundational In-Demand Skills

- Communication
- Writing
- Detail-Oriented
- Problem solving
- Computer skills

Job Type

- Temporary: 3.5%
- Full-Time: 56.1%
- Part-Time: 3.5%

Certifications In-Demand

- CPA
- Series 6 and 7
- Insurance license
- Mortgage license
- Certified financial planner



Top certification: CPA



56% of postings were for full-time positions

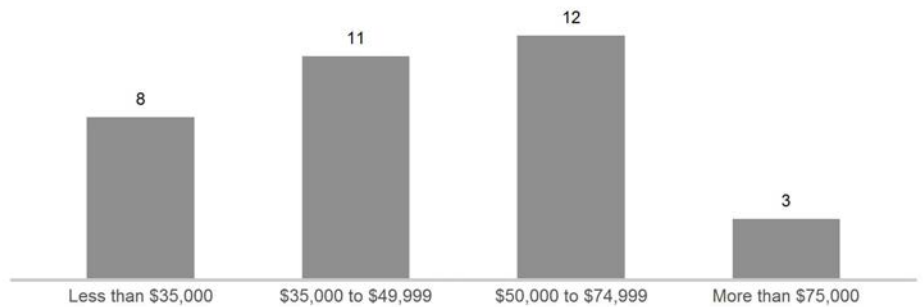
Business & Finance

Advertised Salaries

Quarter 3 2016

Wages

Of the postings with advertised salaries in Business and Finance in Q3 2016, 56% were below \$50,000 per year. Of the 171 postings, 137 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 education requirements may be entry-prohibitive.



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
13-1111	Management Analysts	\$20.70	\$27.13	\$37.18	\$49.37	\$64.38
13-1161	Market Research Analysts and Marketing Specialists	\$16.00	\$20.81	\$27.92	\$34.09	\$41.98
13-2011	Accountants	\$16.47	\$20.75	\$27.75	\$35.97	\$49.67
13-2051	Financial Analysts	\$21.81	\$26.54	\$34.73	\$46.12	\$60.37
13-2072	Loan Officers	\$13.68	\$21.27	\$36.43	\$44.01	\$52.58
13-2052	Personal Financial Advisors	\$14.04	\$18.02	\$25.15	\$37.45	\$83.75
13-1151	Training and Development Specialists	\$14.68	\$17.88	\$24.77	\$34.78	\$44.24
13-1141	Compensation, Benefits, and Job Analysis Specialists	\$15.93	\$18.90	\$23.95	\$30.36	\$36.98
13-1081	Logisticians	\$21.91	\$29.19	\$35.32	\$41.17	\$44.85

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Engineers & Designers (Manufacturing Focused)

Introduction

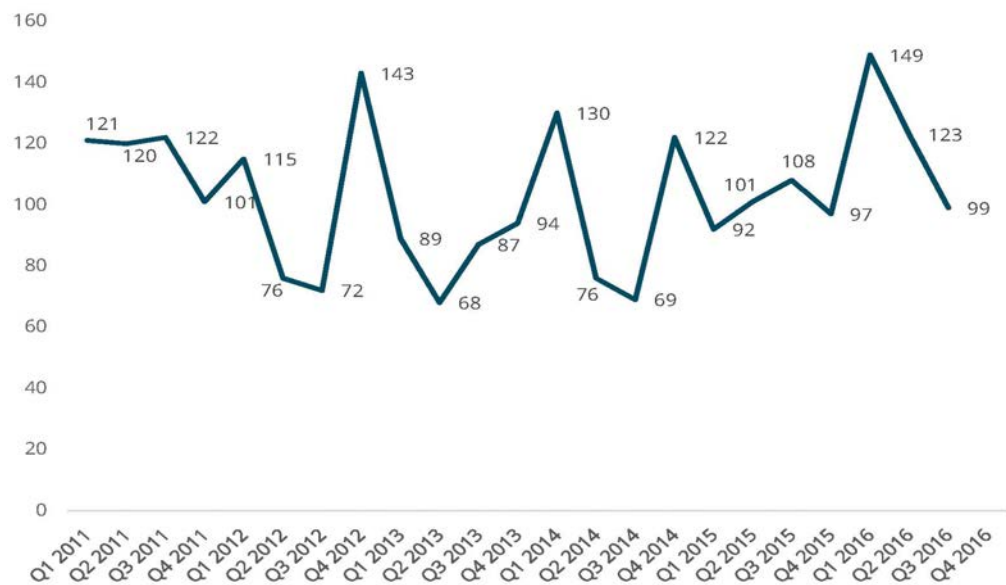
Engineers & Designers

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 down 20% to 99 during Q3 2016, compared to 123 during Q2 2016. This level of posting is 10% lower than the online postings for Engineers and Designers in Q3 2015, a year ago.

Online Job Postings

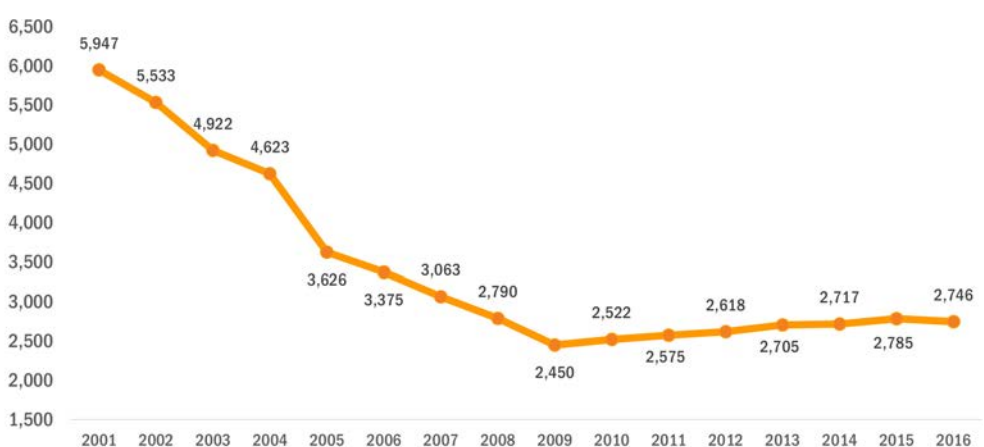


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

Employment in occupations related to Engineering and Design fell modestly between 2015 and Q3 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



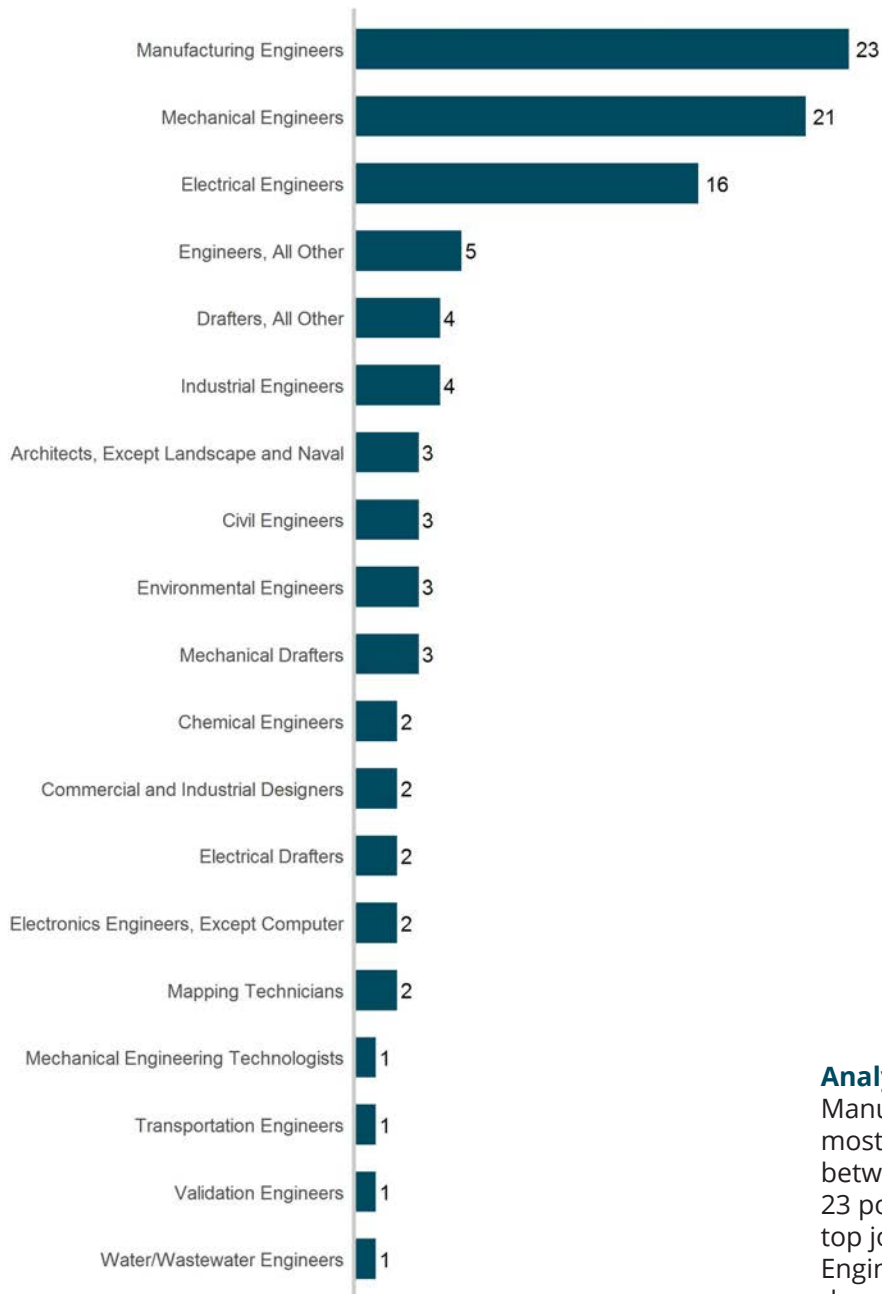
Job postings decreased
20%



Most desired experience: 5
years or less

Engineers & Designers Top Jobs

Quarter 3 2016



Analysis

Manufacturing Engineers was the most in-demand occupation between Q2 2016 and Q3 2016 with 23 postings, moving from the fourth top job to first. Mechanical Engineers fell from the top in-demand occupation in Q2 2016 to second in Q3 2016 with 21 postings.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Education desired: Bachelor's degree

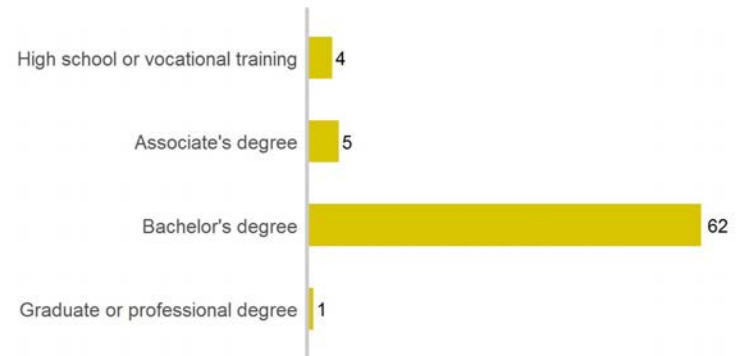
74%

of postings with advertised salaries were \$50,000+ per year

Engineers & Designers Educational Attainment & Experience Required

Of the 44 Engineers and Designer job postings that specified a desired experience level during Q3 2016, 84% required five years of experience or less. 55 postings did not specify a required level of experience. 86% of job postings required a bachelor's degree, with 62 postings. The near universal requirement for moderate experience and a college education matches industry trends for engineering related occupations.

Minimum Educational Attainment Required Q3 2016

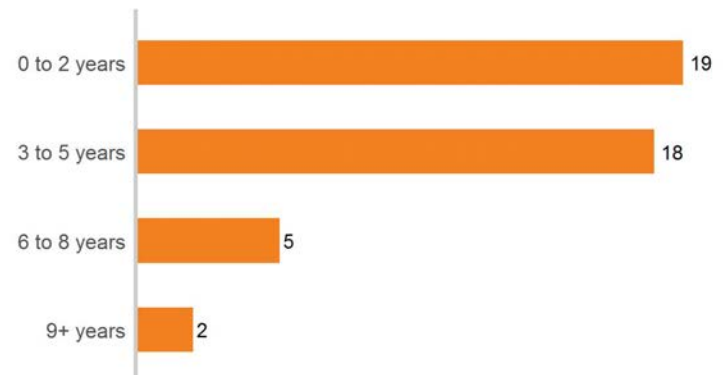


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q3 2016

- Engineering, general
- Mechanical engineering
- Electrical and electronic engineering technologies/technicians, other
- Mechatronics and robotics
- Chemistry

Experience Required Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Top area of study: Engineering,
general

Skills: Technical support,
manufacturing processes, CAD

Engineers & Designers in-Demand Skills Q3 2016

Engineer 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 technical support, manufacturing processes, computer aided drafting/design (CAD), mechanical engineering, and AutoCad underscore the highly technical nature of Engineering and Design occupations. Employers hiring Engineers and Designers often post employability skills like problem solving, communications skills, writing, planning, and Microsoft Office proficiency.

Technical In-Demand Skills

- Microsoft Office
- Manufacturing processes
- AutoCAD
- Scheduling
- Computer aided drafting

Foundational In-Demand Skills

- Communication skills
- Problem solving
- Writing
- Meeting deadlines
- Organizational skills

Job Type

- Temporary: 15.2%
- Full-Time: 69.7%
- Part-Time: 2.0%

Certifications In-Demand

- HVAC technician certification
- CDL class A
- Contractors license
- Environmental protection agency certification
- Microsoft certified professional



Top certification: HVAC
Technician Certification



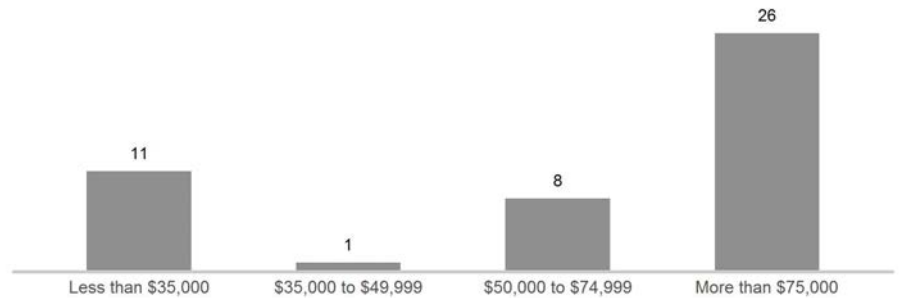
69.7% of job ads for full-time
employment

Engineers & Designers Wages

The majority of advertised salaries for Engineers and Designers in Q3 2016 were \$50,000 or more per year, with 74% of the postings. Of the 99 online job postings, 53 did not specify a salary. With a mean real-time salary for Engineers and Designers of \$67,209, it remains a field well worth the educational investment necessary for entry.

Advertised Salaries

Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2199	Manufacturing Engineers	\$18.42	\$23.79	\$31.65	\$41.60	\$53.76
17-2141	Mechanical Engineers	\$20.92	\$27.34	\$35.38	\$42.29	\$47.73
17-2071	Electrical Engineers	\$16.56	\$22.59	\$31.22	\$40.18	\$46.29
17-2199	Engineers, All Other	\$18.42	\$23.79	\$31.65	\$41.60	\$53.76
17-3019	Drafters, All Other	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
17-2112	Industrial Engineers	\$21.32	\$31.83	\$39.41	\$45.65	\$53.41
17-1011	Architects, Except Landscape and Naval	\$14.07	\$19.49	\$28.14	\$37.37	\$44.75
17-2051	Civil Engineers	\$25.84	\$29.99	\$35.00	\$40.67	\$45.05
17-2081	Environmental Engineers	\$16.26	\$22.05	\$30.66	\$39.29	\$44.76
17-3013	Mechanical Drafters	\$11.11	\$14.47	\$20.07	\$26.24	\$31.04

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Introduction

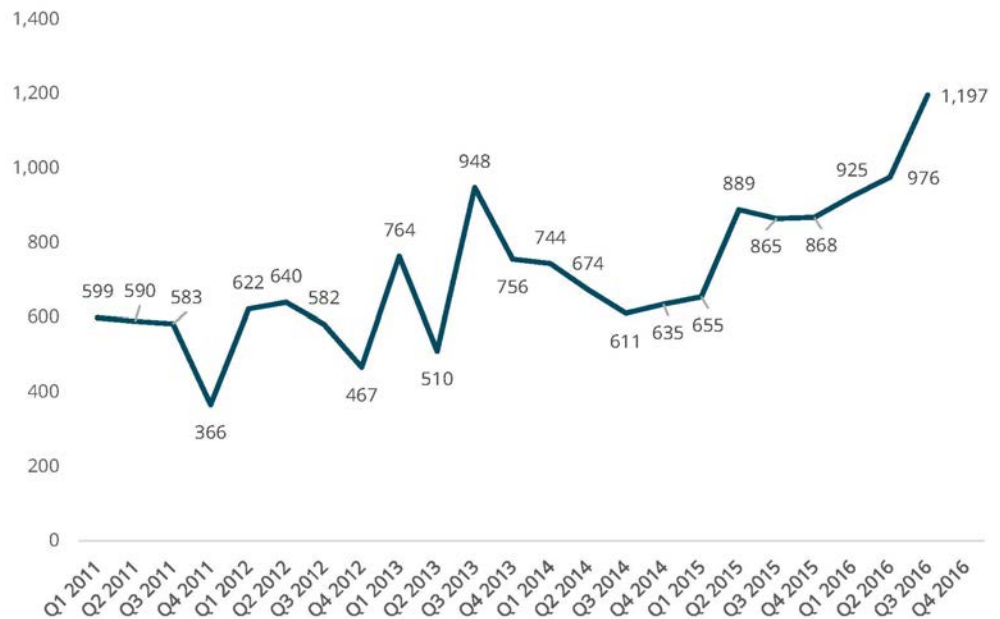
Health Care

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 23% to 1,197 during Q3 2016, compared to 976 during Q2 2016. This level of posting is 38% higher than the 865 online postings for Health Care in Q3 2015, a year ago.

Online Job Postings

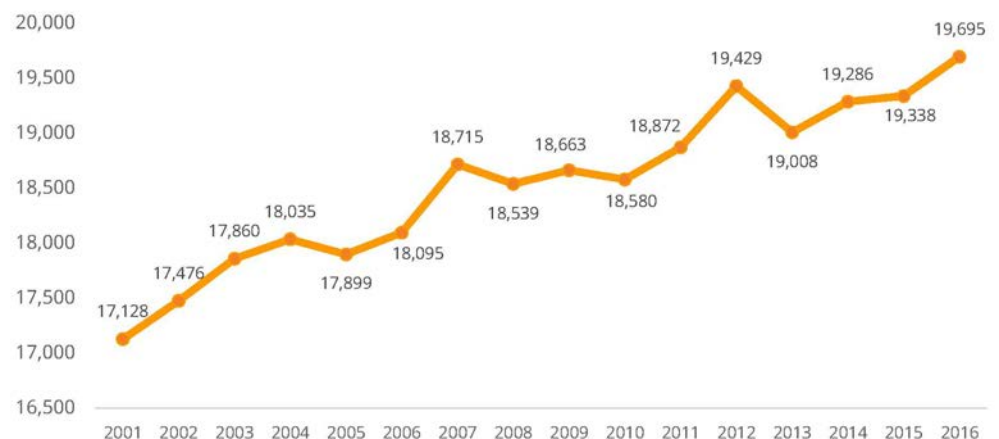


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time

With 19,695 jobs, 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

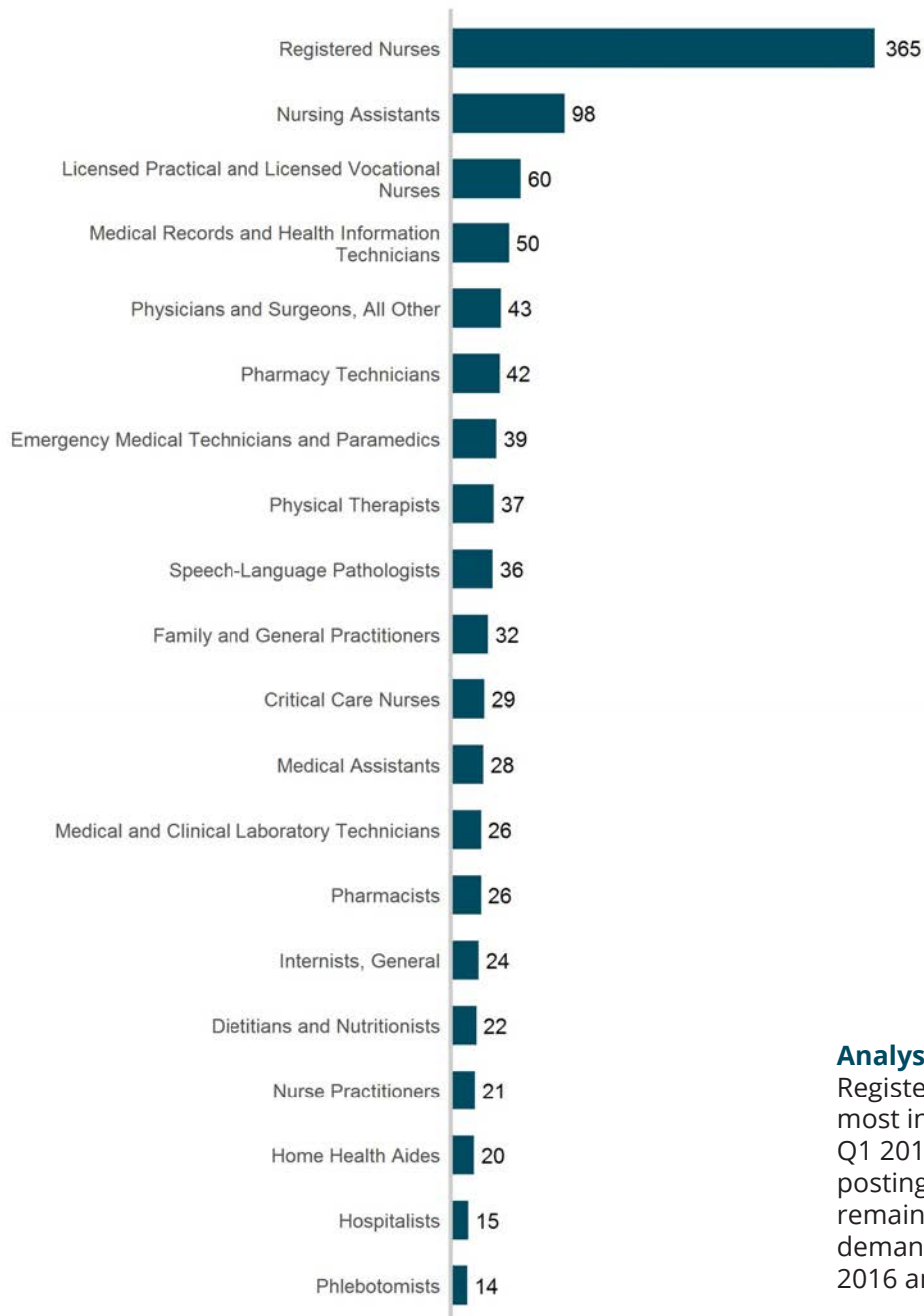


Job postings increased 23%



Top in-demand occupation:
Registered Nurses

Health Care Top Jobs Quarter 3 2016



Analysis

Registered Nurses remained the most in-demand occupation between Q1 2016 and Q3 2016 with 365 postings. Nursing Assistants remained the second most in-demand occupation between Q2 2016 and Q3 2016, with 98 postings.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Most desired experience
level: 0 to 2 years

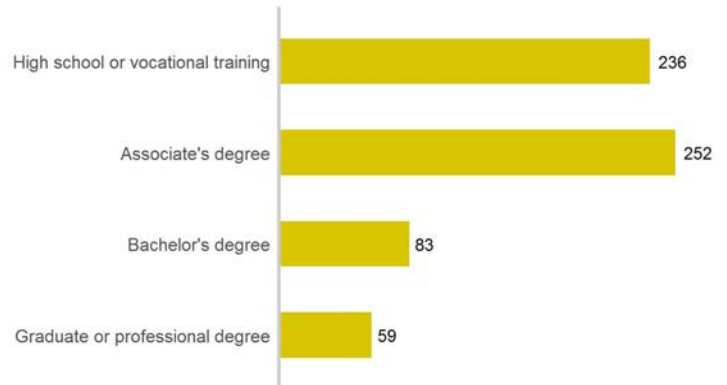
78%

of jobs required an
associate's degree or less

Health Care Educational Attainment & Experience Required

Of the 448 Health Care job postings that specified a desired experience level during Q3 2016, 80% were available to workers with 0 to 2 years of experience. 78% 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 non-technical, entry-level positions.

Minimum Educational Attainment Required Q3 2016

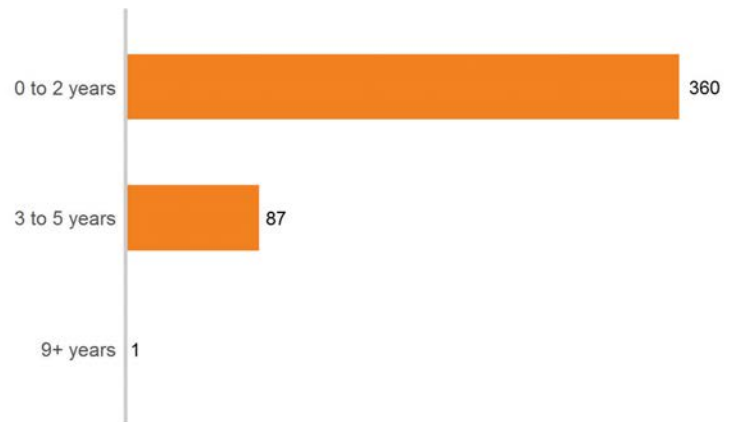


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q3 2016

- Nursing science
- Physical therapy/therapist
- Health/health care administration/management
- Health professions
- Biology/biological science

Experience Required Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



47% of advertised salaries
were \$50,000+ per year

Top area of study: Nursing
Science

Health Care in-Demand Skills Q3 2016

The occupations in the Health Care group require a wide array of high-level technical skills. These skills include patient care, treatment planning, supervisory skills, home health, and CPR. Employers hiring Health Care workers often post employability skills like communication skills, supervisory skills, planning, being detail-oriented, and physical demand. The high-demand for supervisory skills, found both in technical and employability skills desired by employers, underscores the need for workers capable of overseeing the varied and complicated operations required in Health Care work.

Technical in-Demand Skills

- Patient Care
- Treatment planning
- Cardiopulmonary resuscitation
- Communicable Disease knowledge
- Supervisory skills

Foundational In-Demand Skills

- Communication skills
- Organization skills
- Physical demand
- Detail-oriented
- Planning

Job Type

- Temporary: 12.5%
- Full-Time: 45.8%
- Part-Time: 8.4%

Certifications In-Demand

- Registered Nurse
- AED/CPR
- Certified nursing assistant
- Certified pharmacy technician
- Critical care registered nurse



Top certification: Registered nurse



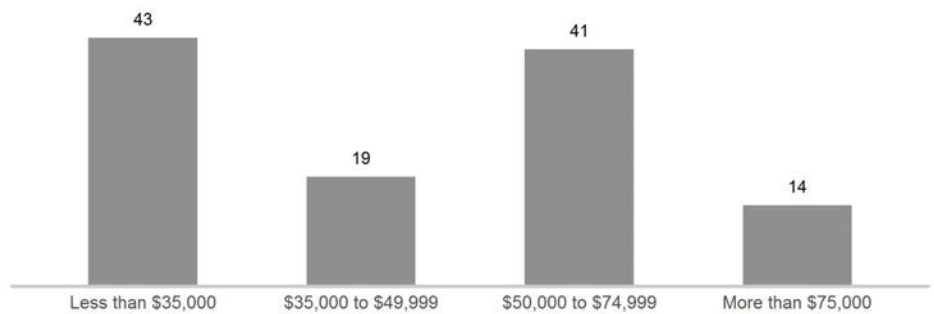
46% of jobs were full-time

Health Care Wages

47% of advertised salaries in Health Care in Q3 2016 were \$50,000 or more per year, with 53% falling below \$50,000 a year. Of the 1,197 postings, 1,080 did not specify a salary. The near equal grouping of salary levels above and below \$50,000 per year shows that despite low education and experience requirements for entry into Health Care occupations, there is plenty of room for advancement in the field.

Advertised Salaries

Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	\$24.28	\$27.39	\$31.52	\$34.83	\$37.29
31-1014	Nursing Assistants	\$9.90	\$10.97	\$12.86	\$14.83	\$17.02
29-2061	Licensed Practical and Licensed Vocational Nurses	\$17.37	\$19.21	\$21.07	\$22.95	\$26.55
29-2071	Medical Records and Health Information Technicians	\$10.75	\$13.03	\$17.01	\$22.08	\$26.01
29-1069	Physicians and Surgeons, All Other	\$55.67	\$75.41	\$101.95	\$104.74	\$177.89
29-2052	Pharmacy Technicians	\$9.88	\$11.07	\$13.15	\$15.74	\$18.63
29-2041	Emergency Medical Technicians and Paramedics	\$8.35	\$9.76	\$12.13	\$16.83	\$19.90
29-1123	Physical Therapists	\$29.13	\$33.19	\$38.72	\$43.66	\$47.41
29-1127	Speech-Language Pathologists	\$24.78	\$29.35	\$34.08	\$39.80	\$45.98
29-1062	Family and General Practitioners	\$59.93	\$69.44	\$98.25	\$101.59	\$172.80

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.

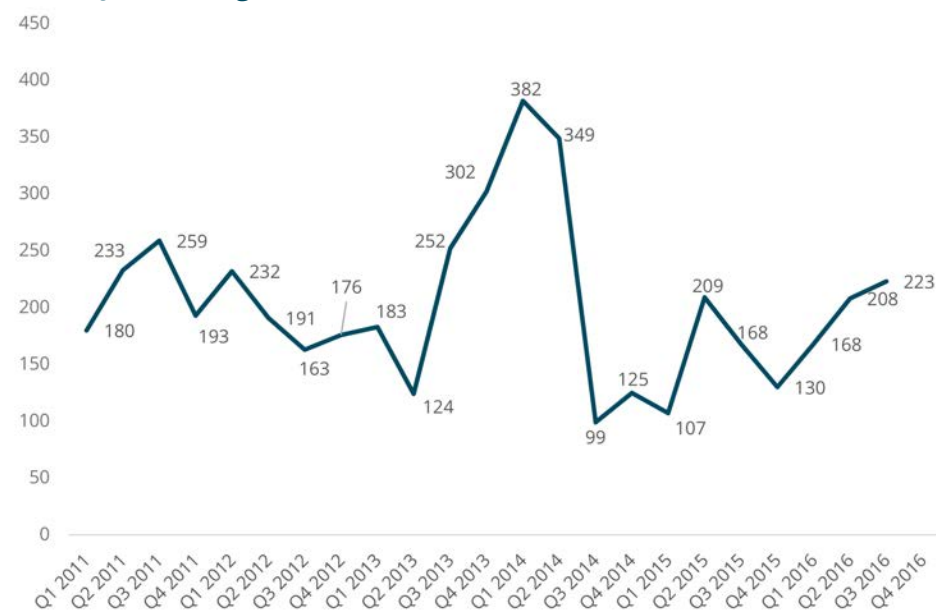
Postings Over Time

Online job ads for occupations related to IT were up 7% to 223 during Q3 2016, compared to 208 during Q2 2016. This level of posting is 33% higher than the 168 online postings for IT in Q3 2015, a year ago.

Employment Over Time

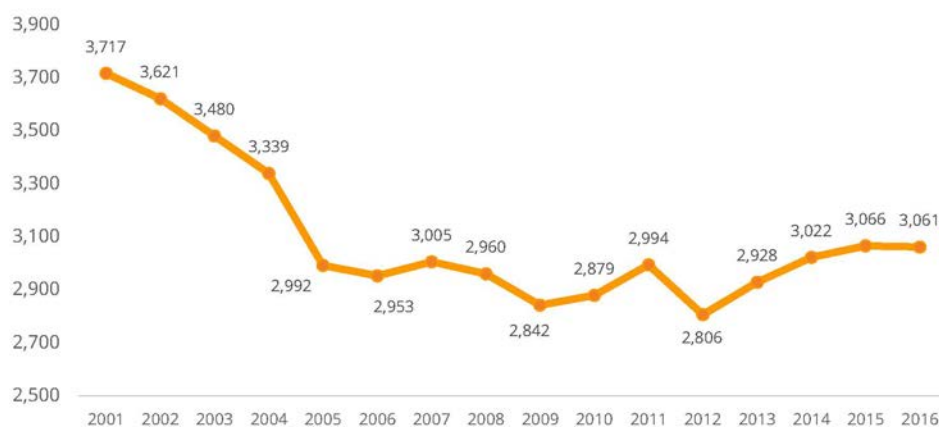
Employment in IT related fields has enjoyed general growth since 2012, the lowest point in the previous 15 years. However, despite this upward trajectory, Q3 2016 saw a loss of 5 jobs since 2015, going from 3,066 jobs to 3,061.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



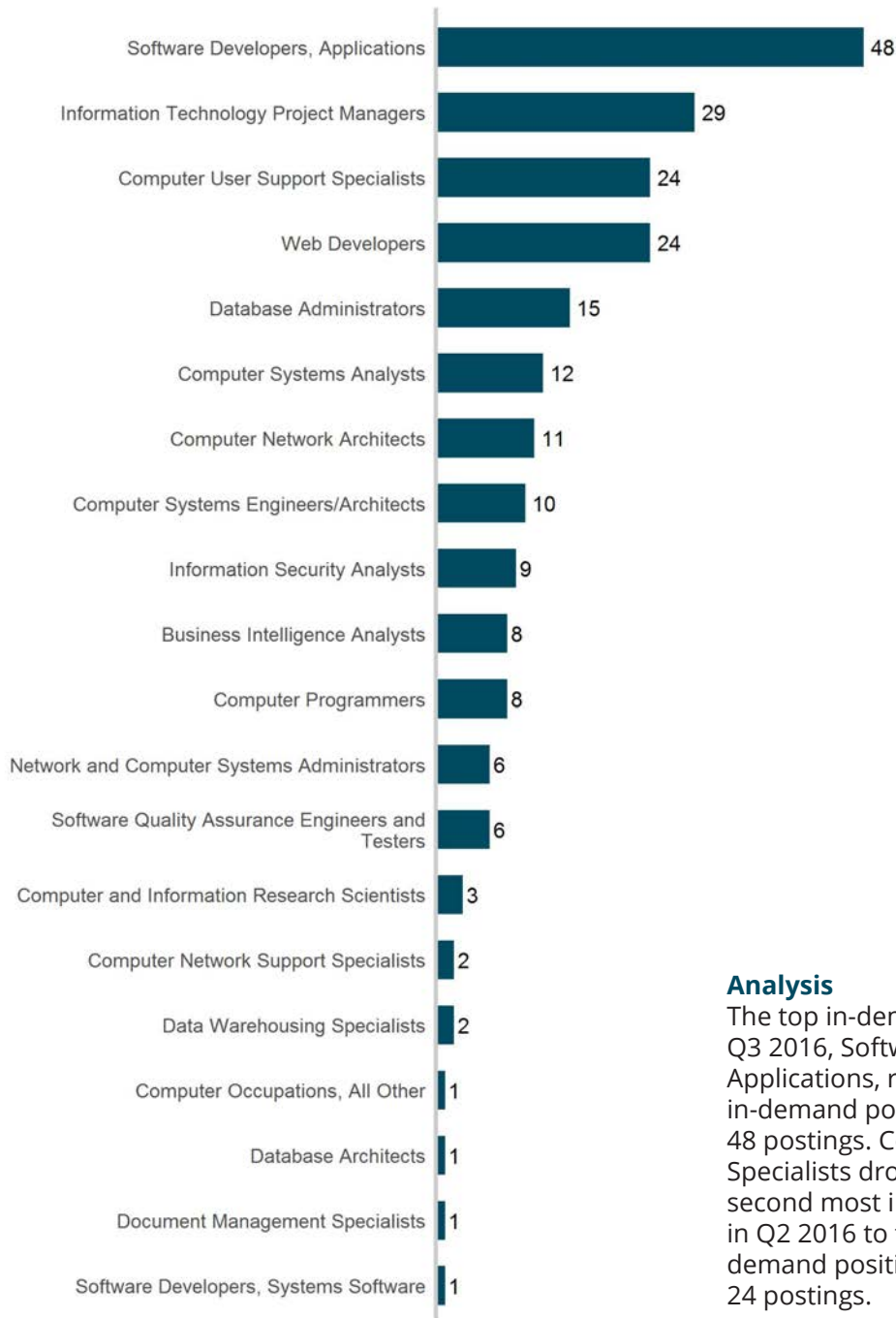
Job postings increased 33%



Most in-demand occupation:
Computer User Support
Specialists

Information Technology (IT) Top Jobs

Quarter 3 2016



Analysis

The top in-demand IT occupation in Q3 2016, Software Developers, Applications, rose to the top most in-demand position in Q3 2016, with 48 postings. Computer User Support Specialists dropped from the second most in-demand occupation in Q2 2016 to the third top in-demand position in Q3 2016, with 24 postings.

Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Most desired experience: 5 years or less

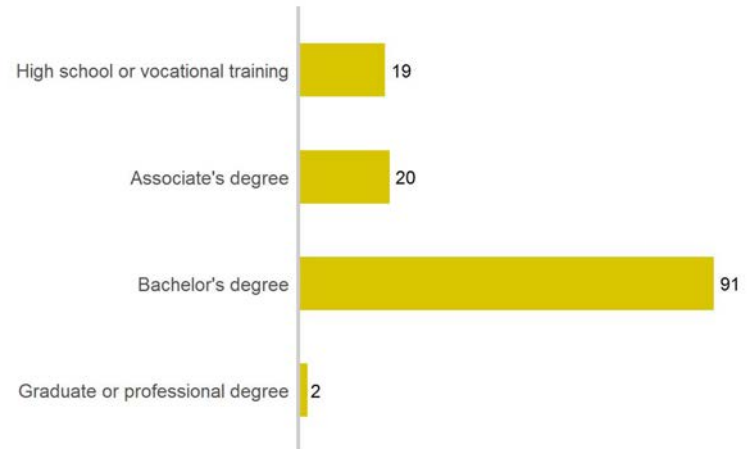
70%

required attainment of a bachelor's degree

Information Technology (IT) Educational Attainment & Experience Required

Of the 127 IT job postings that specified a desired experience level during Q2 2016, 93% were available to workers with less than 5 years of experience. 70% of jobs specifying educational attainment levels required a bachelor's degree. The premium put on education over experience illustrates that if workers are willing to pursue the necessary education, there is little difficulty in finding employment in IT-related fields.

Minimum Educational Attainment Required Q3 2016

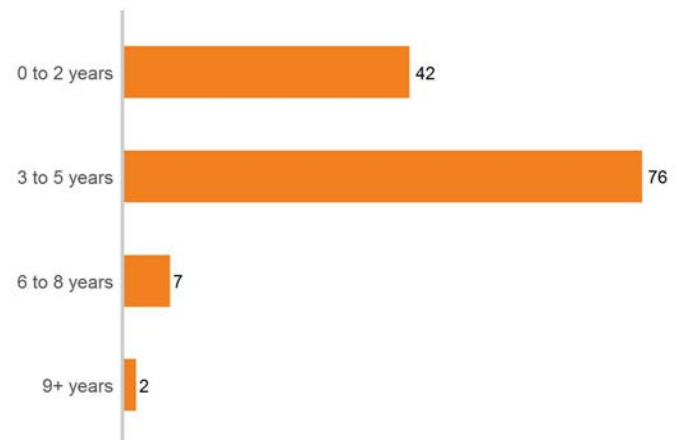


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q3 2016

- Computer science
- Business administration and management, general
- Engineering, general
- Information technology
- Computer engineering

Experience Required Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



60% of jobs advertising salary
were \$75,000+ per year

Top area of study: Computer
Science

Information Technology (IT) in-Demand Skills Q3 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

- SQL
- Software development
- SQL server
- Microsoft C#
- Microsoft Office

Foundational In-Demand Skills

- Communication skills
- Planning
- Writing
- Problem Solving
- Troubleshooting

Job Type

- Temporary: 4.9%
- Full-Time: 51.1%
- Part-Time: 4.5%

Certifications In-Demand

- Microsoft certified professional
- Microsoft certified systems administrator
- Microsoft certified IT professional
- Microsoft certified solution developer
- Microsoft certified technology specialist



Top Certification: Help Desk Certification

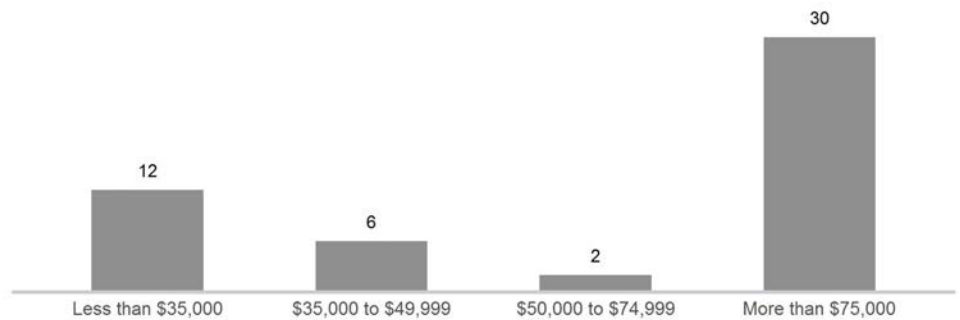


51% of jobs ads for were full-time

Information Technology (IT) Wages

60% of advertised salaries for IT occupations were above \$75,000 per year. The high salaries despite modest experience requirements makes IT a lucrative field in Genesee and Shiawassee counties for those willing to pursue the necessary training desired by employers.

Advertised Salaries Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1132	Software Developers, Applications	\$18.30	\$25.37	\$34.97	\$44.73	\$53.80
15-1199	Information Technology Project Managers	\$22.25	\$26.15	\$31.86	\$40.49	\$48.77
15-1151	Computer User Support Specialists	\$13.17	\$16.25	\$21.32	\$27.88	\$34.59
15-1134	Web Developers	\$13.26	\$16.83	\$25.10	\$30.84	\$38.88
15-1141	Database Administrators	\$20.48	\$26.85	\$34.36	\$41.26	\$45.98
15-1121	Computer Systems Analysts	\$27.62	\$31.69	\$36.67	\$44.41	\$55.40
15-1143	Computer Network Architects	\$24.75	\$30.46	\$40.20	\$49.24	\$58.54
15-1199	Computer Systems Engineers/Architects	\$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
15-1199	Business Intelligence Analysts	\$22.25	\$26.15	\$31.86	\$40.49	\$48.77

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.

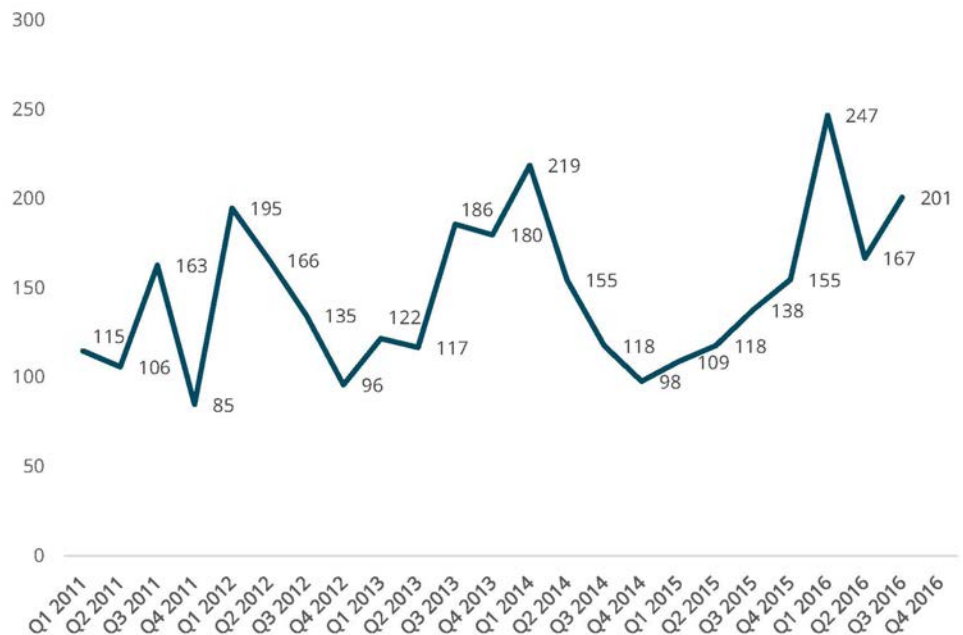
Postings Over Time

Online job ads for occupations related to Skilled Trades were up 20% to 201 postings during Q3 2016, compared to 167 during Q2 2016. This level of posting is 46% higher than the 138 online postings for skilled trades related occupations in Q3 2015, a year ago.

Employment Over Time

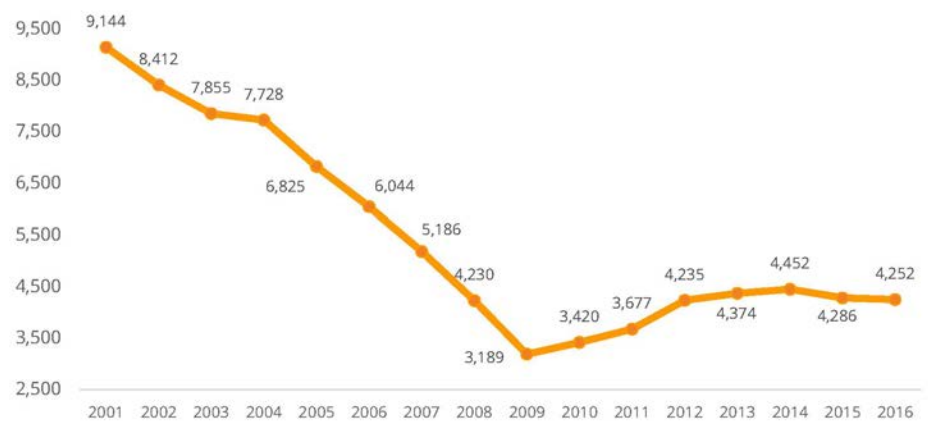
Employment in Skilled Trades declined steeply between 2003 and 2009, but has made modest gains since the Recession low of 3,189 employed workers. However, Q3 2016 saw a loss of 34 jobs since 2015, dropping from 4,286 employed workers in 2015 to 4,252, an 8% loss.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



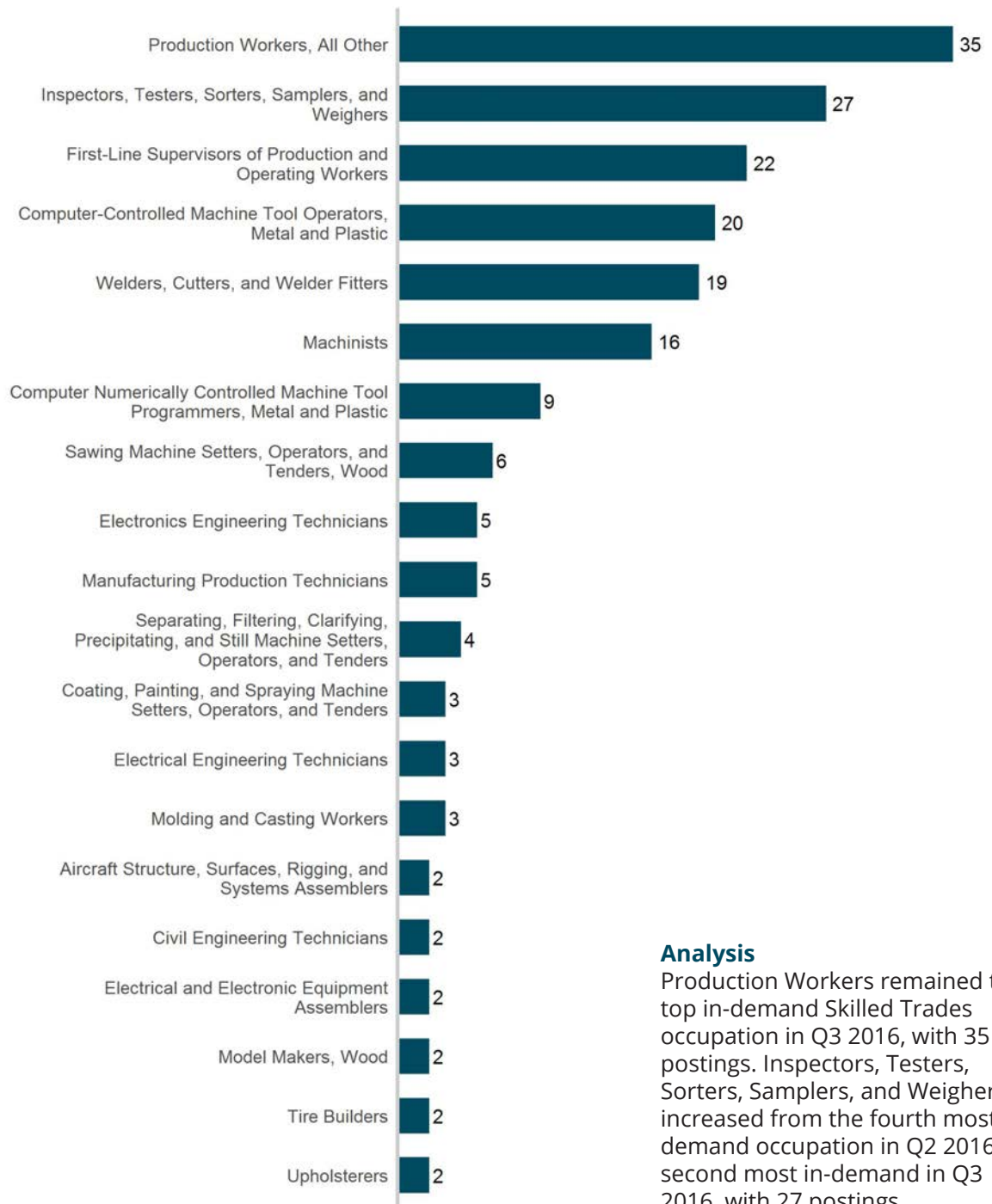
Job postings increased 20%



Most in-demand occupation:
Production Workers

Skilled Trades & Technicians Top Jobs

Quarter 3 2016



Analysis

Production Workers remained the top in-demand Skilled Trades occupation in Q3 2016, with 35 postings. Inspectors, Testers, Sorters, Samplers, and Weighers increased from the fourth most in-demand occupation in Q2 2016 to second most in-demand in Q3 2016, with 27 postings.



90% of postings required 5 years or less of experience

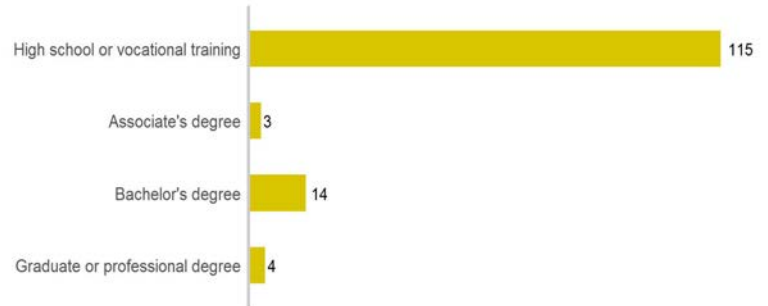
91%

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

Skilled Trades & Technicians Educational Attainment & Experience Required

Of the 82 Skilled Trades job postings that specified a desired experience level during Q3 2016, 90% were available to workers with five years of experience or less. 119 postings did not specify a required level of experience. 85% of job postings required only a high school diploma or vocational training, with 115 postings. 65 postings did not specify a required level of degree attainment. The lack of need for high education among postings where education was listed indicates the majority of positions are non-technical or entry-level.

Minimum Educational Attainment Required Q3 2016

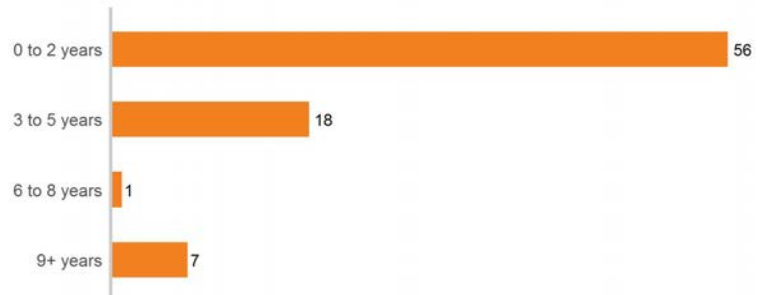


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q3 2016

- Engineering, general
- Electrical and electronic engineering technologies/technicians, other
- Business administration
- Physics
- Surveying technology

Experience Required Q3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Top area of study:
Engineering, general

85%

of jobs required only a high school diploma or vocational training

Skilled Trades & Technicians In-Demand Skills Q3 2016

The occupations in the Skilled Trades mainly require entry-level, manufacturing focused skills. The demand for entry-level positions in Skilled Trades job postings is demonstrated in the posting for skillsets like CNC, inspection, machining, repair, and micrometers. Employers hiring Skilled Trades occupations often post employability skills like communication skills, writing, being detail-oriented, organizational skills, and proficiency in mathematics.

Technical In-Demand Skills

- Computer numerical control
- Machining
- Scheduling
- Inspection
- Repair

Foundational In-Demand Skills

- Writing
- Communication skills
- Detail-oriented
- Quality assurance and control
- Organizational skills

Job Type

- Temporary: 12.4%
- Full-Time: 58.2%
- Part-Time: 3.0%

Certifications In-Demand

- CDL
- Security clearance
- Six Sigma certification
- Electrician certification
- Electronic technician certification



Top certification: CDL

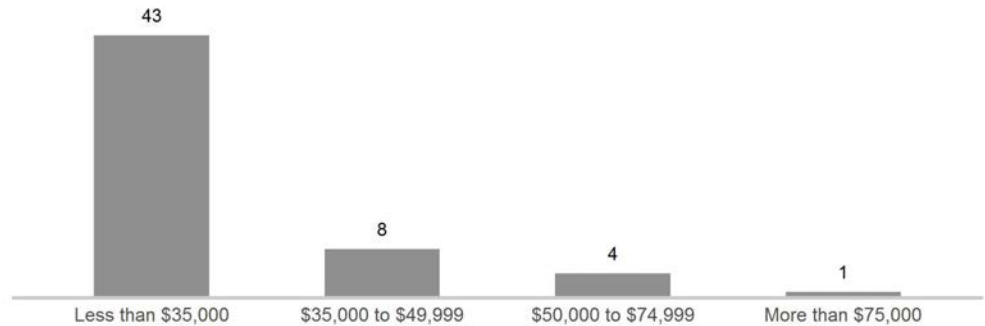


58% of jobs were full-time

Skilled Trades & Technicians Wages

The majority of advertised salaries in the Skilled Trades in Q3 2016 were below \$35,000 per year, with 91% of the postings. Of the 201 postings, 145 did not specify a salary. With the majority of salaries falling below \$35,000, it strengthens the likelihood that the available postings are for non-technical or entry-level positions.

Advertised Salaries Quarter 3 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Wage Data from Bureau of Labor Statistics 2015

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
51-9199	Production Workers, All Other	\$8.92	\$9.87	\$11.24	\$14.73	\$27.48
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$8.97	\$10.41	\$13.13	\$19.34	\$26.48
51-1011	First-Line Supervisors of Production and Operating Workers	\$18.00	\$22.88	\$29.94	\$39.95	\$47.28
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$9.61	\$11.84	\$16.31	\$22.57	\$25.40
51-4121	Welders, Cutters, and Welder Fitters	\$11.76	\$13.08	\$15.36	\$17.95	\$20.62
51-4041	Machinists	\$12.53	\$15.73	\$18.96	\$22.21	\$26.30
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	\$15.20	\$18.85	\$24.62	\$31.52	\$34.37
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
17-3023	Electronics Engineering Technicians	\$12.52	\$17.03	\$25.00	\$31.58	\$35.14
17-3029	Manufacturing Production Technicians	\$12.98	\$15.70	\$22.71	\$31.71	\$40.50

Data: EMSI, BLS
Analysis: Workforce Intelligence Network

Annual Labor Market Data

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 to- date (through Sept 2016)	Change from 2015	Percent Change from 2015
Labor Force	222,897	216,445	214,929	218,651	218,278	216,278	217,335	1,057	0.5%
Employment	192,152	191,942	193,510	197,422	201,234	203,822	206,057	2,235	1.1%
Unemployment	30,746	24,504	21,419	21,229	17,044	12,456	11,278	-1,178	-9.5%
Unemployment Rate	13.8%	11.3%	10.0%	9.7%	7.8%	5.8%	5.2%	-0.6%	na

**Note: Monthly data averaged by year*

Data: Bureau of Labor Statistics

Quarterly Labor Market Data

	3rd Quarter 2015	4th Quarter 2015	1st Quarter 2016	2nd Quarter 2016	3rd Quarter 2016	Change from 2nd Quarter 2016	Percent Change from 2nd Quarter 2016	One-Year Change from 3rd Quarter 2015	One-Year Percent Change from 3rd Quarter 2015
Labor Force	214,271	215,633	218,566	218,531	214,908	-3,622	-1.7%	637	0.3%
Employment	202,190	206,059	206,513	207,657	204,000	-3,657	-1.8%	1,810	0.9%
Unemployment	12,081	9,574	12,052	10,874	10,908	35	0.3%	-1,173	-9.7%
Unemployment Rate	5.6%	4.4%	5.5%	5.0%	5.1%	0.1%	na	-0.6%	na

**Note: Monthly data averaged by quarter*

Data: Bureau of Labor Statistics












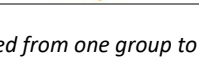
Monthly Labor Market Data

	July 2015	August 2015	September 2015	October 2015	November 2015	December 2015	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016
Labor Force	216,723	214,259	211,832	214,219	216,413	216,268	217,804	219,159	218,734	217,990	219,360	218,242	215,585	214,833	214,307
Employment	201,480	203,114	201,976	204,763	207,052	206,362	205,774	207,049	206,717	207,501	208,312	207,158	202,851	204,289	204,860
Unemployment	15,243	11,145	9,856	9,456	9,361	9,906	12,030	12,110	12,017	10,489	11,048	11,084	12,734	10,544	9,447
Unemployment Rate	7.0%	5.2%	4.7%	4.4%	4.3%	4.6%	5.5%	5.5%	5.5%	4.8%	5.0%	5.1%	5.9%	4.9%	4.4%

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












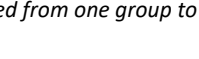
Data: Bureau of Labor Statistics

Genesee & Shiawassee Counties Job Posting Data by Occupation Group* Over Time

	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Change Over Time	Annual Change Q3 2015-Q3 2016	Quarter Growth Q1 2016-Q3 2016
Total Postings	5,071	5,465	4,721	5,631	6,667		31.5%	41.2%
Agriculture	90	73	50	94	86		-4.4%	72.0%
Business & finance	193	228	217	185	171		-11.4%	-21.2%
Construction	37	81	46	87	89		140.5%	93.5%
Customer service	1,206	1,570	1,170	1,417	1,698		40.8%	45.1%
Education	122	231	201	207	257		110.7%	27.9%
Energy	7	3	0	49	0		-100.0%	N/A
Engineers & designers	101	108	97	123	99		-2.0%	2.1%
Health care	889	865	868	976	1,197		34.6%	37.9%
Information technology	209	168	130	208	223		6.7%	71.5%
Skilled trades & technicians	118	138	155	167	201		70.3%	29.7%
Transportation, distribution, and logistics	791	595	537	732	930		17.6%	73.2%

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

Job Posting Data by Occupation Group* Over Time

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

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

Website
www.win-semich.org

Email
info@win-semich.org

Phone
313.744.2946

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

Facebook
@workforceintelligencenetwork

Twitter
@winsemich