



WASHTENAW COUNTY

WIN Quarterly Report



Introduction: Washtenaw County

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. Prosperity Region 9 includes: Hillsdale, Jackson, Lenawee, Livingston, Monroe, and Washtenaw counties.

This report highlights labor market information and real-time job posting data for Washtenaw County 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:

- Skilled trades (manufacturing focused) (page 7)
- Engineers & designers (manufacturing focused) (page 12)
- Business & finance (page 17)
- Health care (page 22)
- Information technology (page 27)

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: Washtenaw County

Key Findings

1. Washtenaw County workers are joining the labor force and finding jobs.

The labor force in Washtenaw County grew 1.5% between Q4 2015 and Q1 2016. Employment grew at a similar pace between quarters. The county saw 2,505 new jobs in Q1 2016, or 1.3% more than in Q4 2015. (See page 4 for details).

2. Washtenaw County's annual unemployment rate for 2016, to-date, is 2.9%.

The unemployment rate in the county has dropped every year since it stood at 8.1% in 2010 and the county has added over 22,000 jobs during the same time period. 2016's rate is down 0.6 percentage points from 2015's rate of 3.5%. (See page 4 for details).

3. Business & Finance workers are in increasingly high demand in Washtenaw County.

Employer demand for these occupations has been trending upward. There were 31% more Business & Finance job postings in Washtenaw County during Q1 2016 compared to Q4 2015. The increased demand is correlated with employment growth in this occupation group. (See page 17 for details).

4. Employer demand for Health Care workers in Washtenaw County began to level off in Q1 2016.

Almost 30,000 Washtenaw County workers, however, are employed in Health Care occupations. Several of the most in-demand Health Care occupations offer workers in the county the opportunity to earn high wages after short-term training or a two-year degree program. (See page 22 for details).

5. Employment in Information Technology occupations in Washtenaw County has surpassed pre-recession levels.

Almost 9,000 Washtenaw County workers are employed in Information Technology occupations. Increased demand has the potential to further increase employment in these high paying jobs as long as Washtenaw County employers are able to find the qualified candidates they seek. (See page 27 for details).



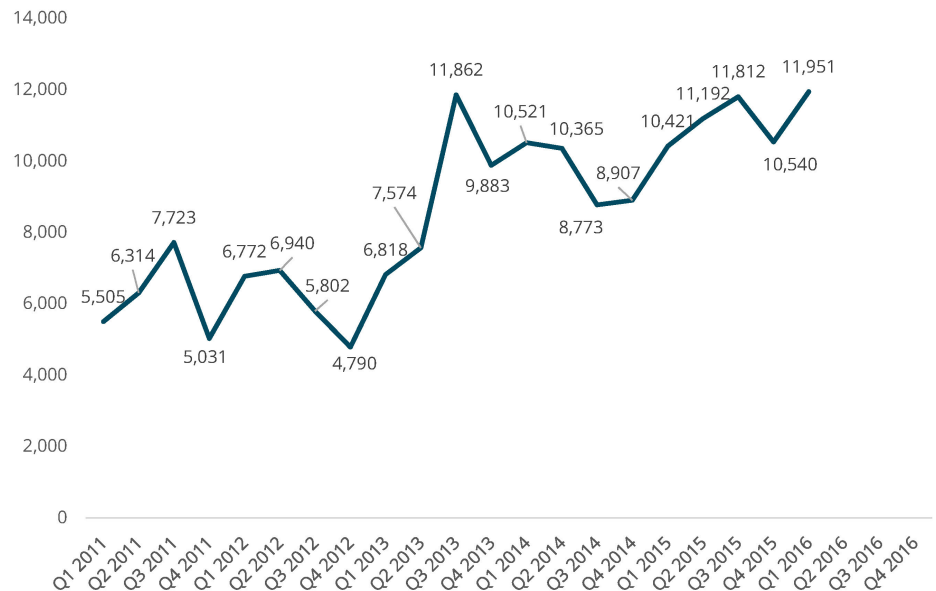
Executive Summary

Postings Over Time

Total online job postings by employers in Washtenaw during Q1 2016 were up 14% over Q4 2015 numbers. Employers in the region posted 11,951 online job ads between January and March 2016. This number is also 15% higher than the number of postings seen in the region during Q1 2015, a year ago. Employer demand in Washtenaw County is on a general upward trend.

Total Online Job Postings

Q1 2011 - Q1 2016



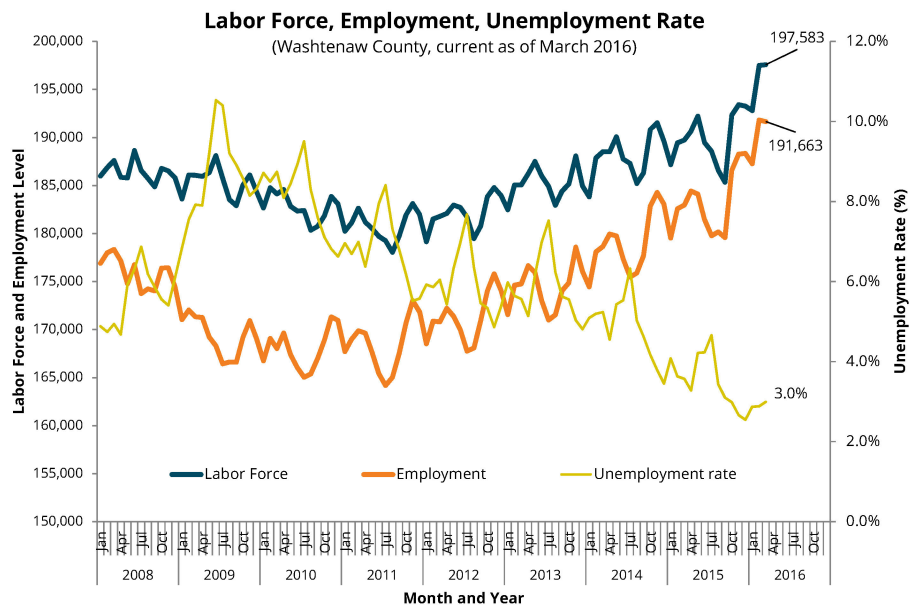
Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Labor Force, Employment, & Unemployment

The Washtenaw County labor force grew by 2,950 workers from Q4 2015 to Q1 2016, a 1.5% increase to 195,964 workers in the market during Q1. Employment grew almost as fast (1.3%), adding 2,505 jobs in the county during Q1. Because the labor market grew slightly more than employment, the unemployment rate went up from 2.7% in Q4 2015 to 2.9% in Q1. The annual unemployment rate in the county for 2016 to-date is also 2.9%, down 0.6 percentage points from 3.5% in 2015. The unemployment rate in Washtenaw County has dropped every year since it stood at 8.1% in 2010 and the economy has added over 22,000 jobs during the same time period.

Labor Force, Employment, Unemployment Rate

January 2011 - March 2016



Data: BLS
Analysis: Workforce Intelligence Network

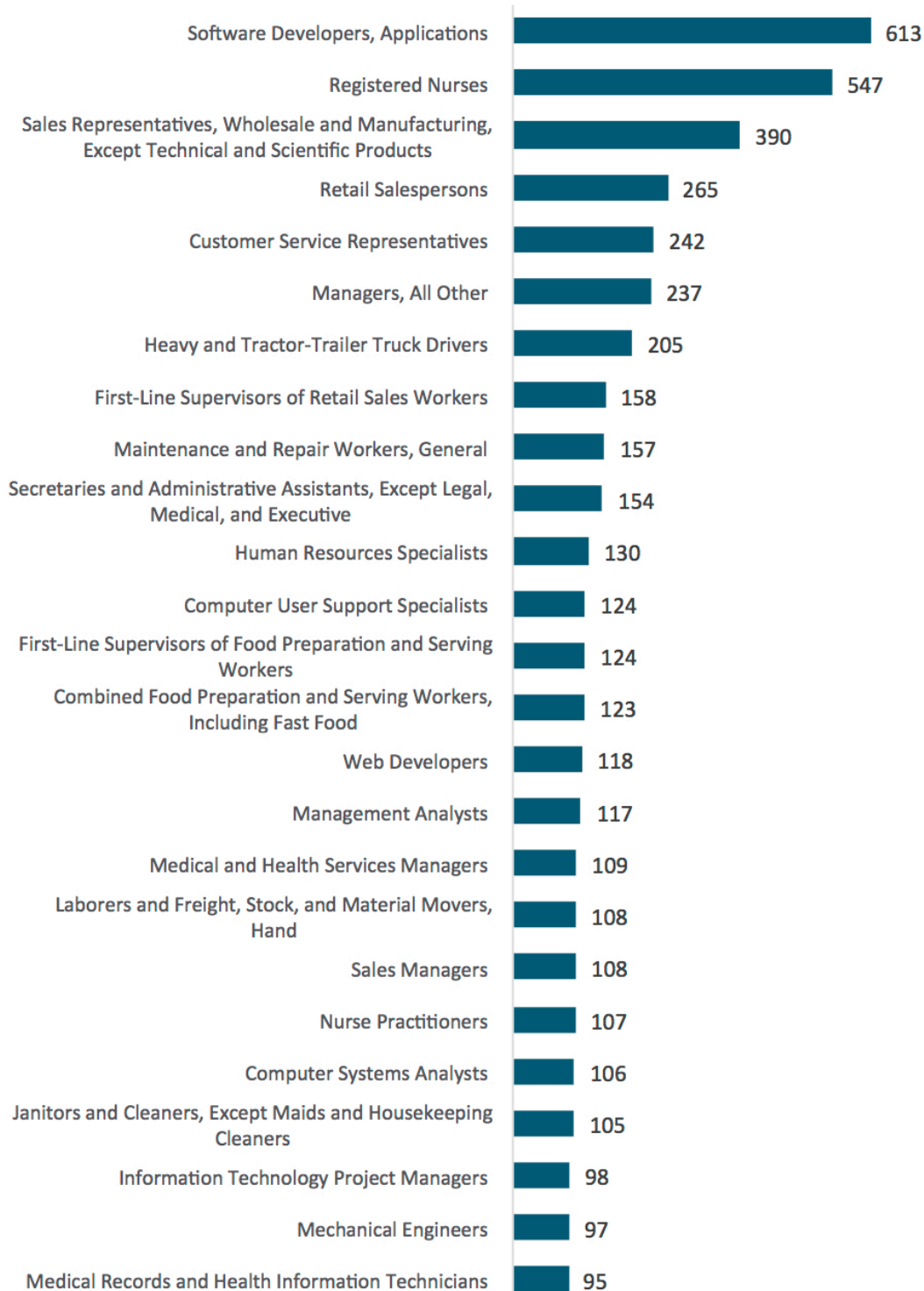


Most in-demand: software
developers, registered nurses

2.9%
unemployment rate

Top Jobs In Demand

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



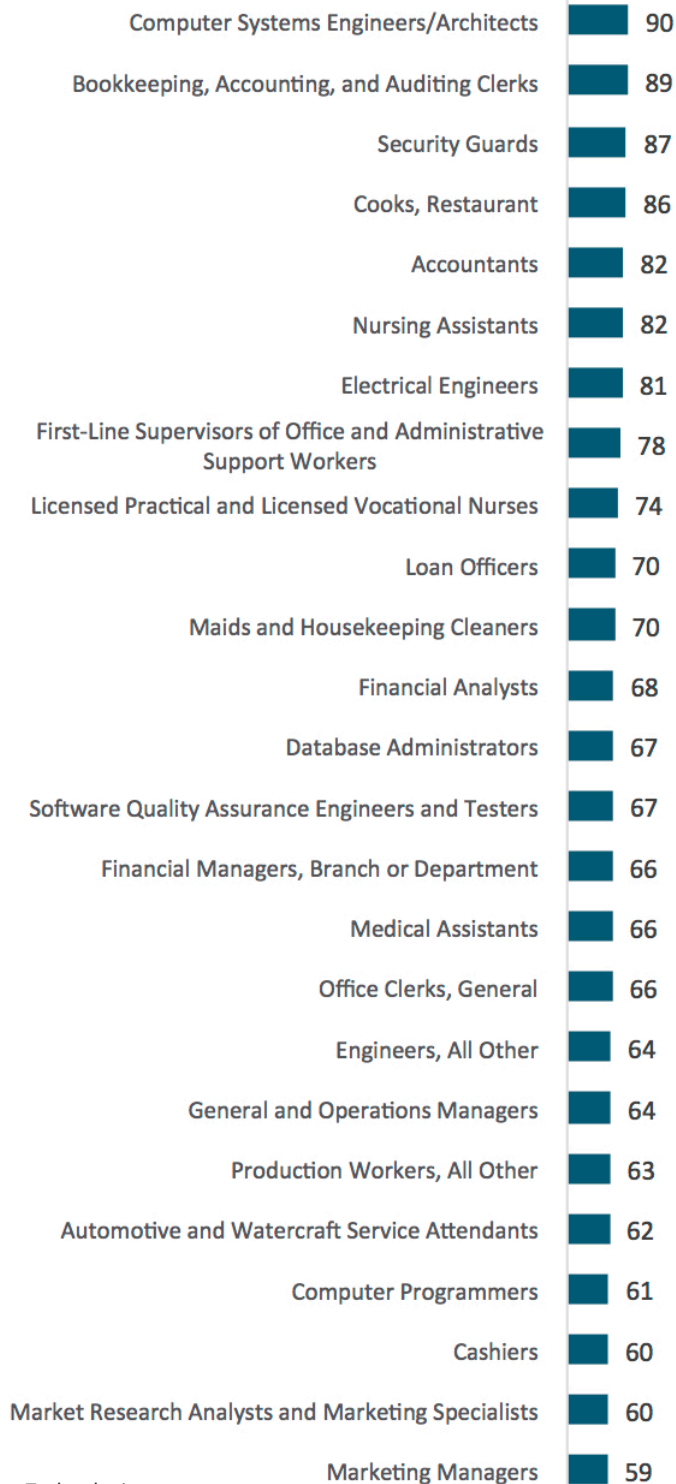
Now hiring:
12,000 job postings



14% increase in
employer demand

Top Jobs In Demand

Quarter 1 2016





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.

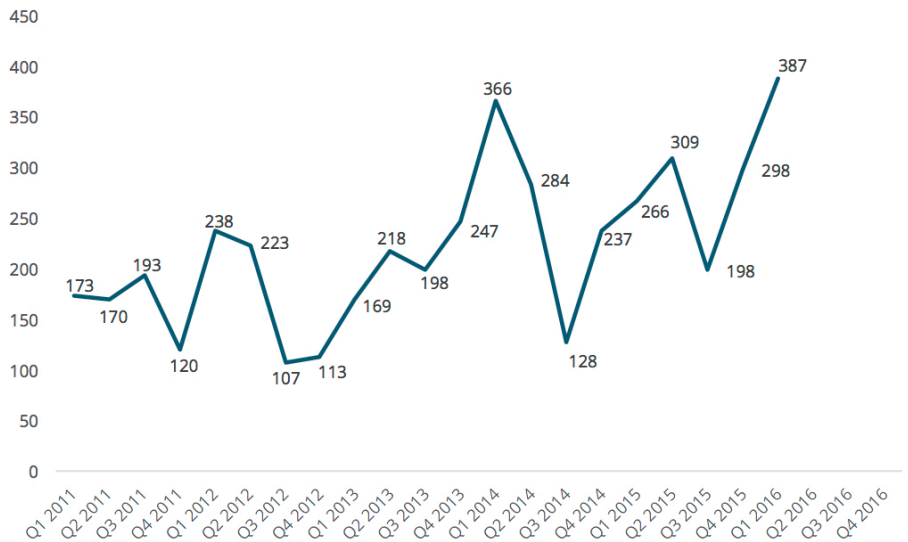
Postings Over Time

Washtenaw County advanced manufacturing employers looking to hire Skilled Trades workers posted 387 online job ads during Q1 2016. This is a 30% increase over the 298 job postings in the county for this occupation group during Q4 2015. These 387 online job ads mark the highest point of employer demand for Skilled Trades workers in Washtenaw County since WIN analysis began in Q1 2011. Continued growth in demand has the potential to drive employment growth if employers are able to find the qualified candidates they seek.

Employment Over Time

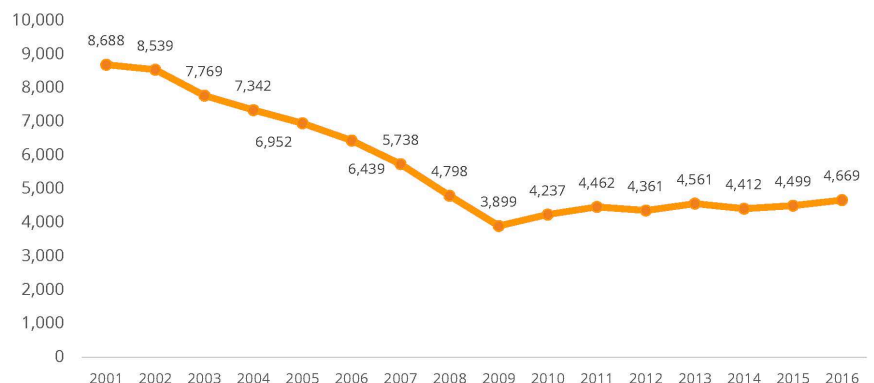
In 2016, 4,669 Washtenaw County workers are employed in the Skilled Trades occupations. Despite the growing demand for Skilled Trades workers in the county, employment numbers have stayed relatively flat over the past few years, hovering just above 4,500 employees since 2013.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



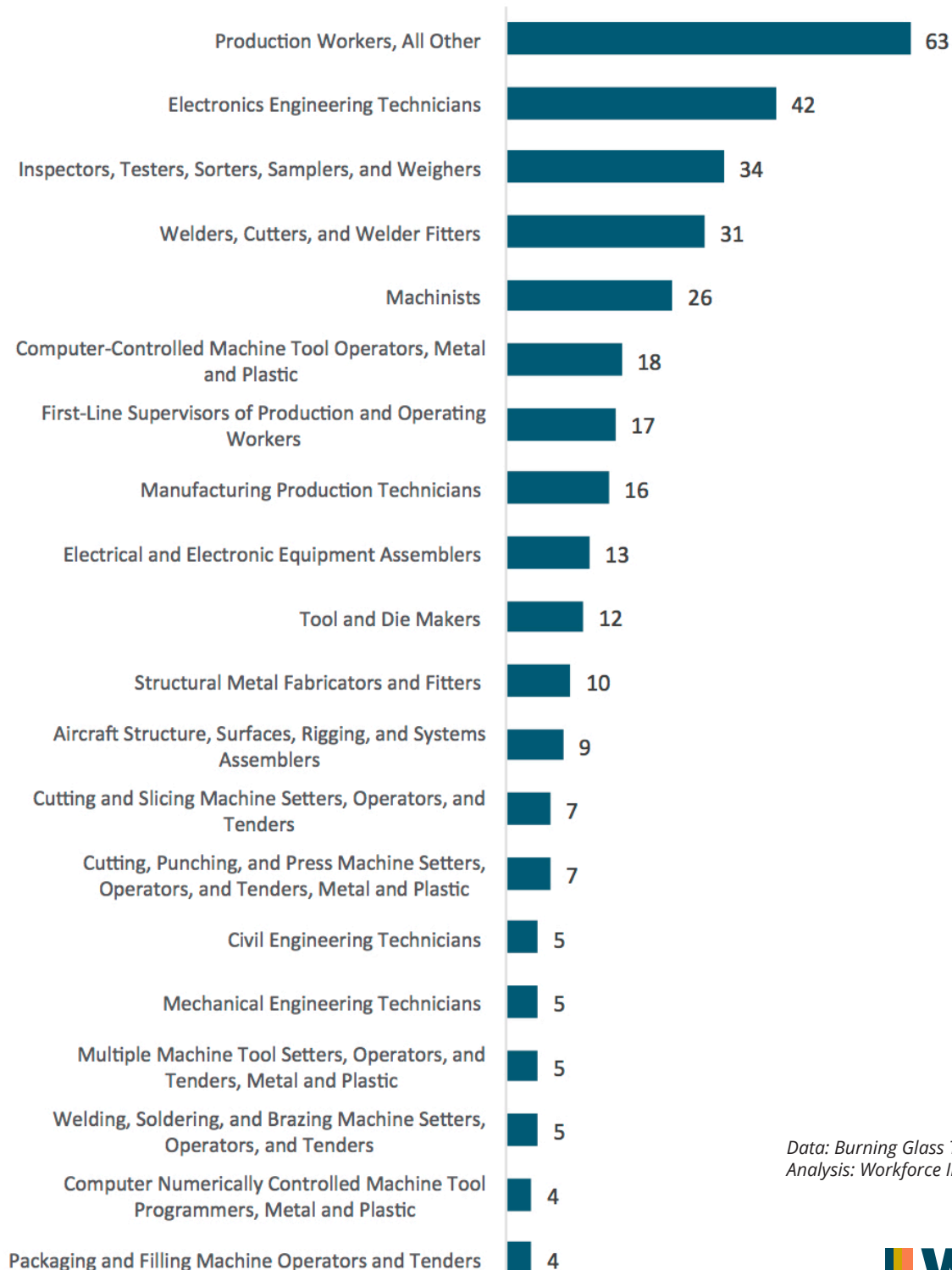
Now hiring: 387 online
job postings



Education required:
HS diploma & training

Skilled Trades & Technicians Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



4,700 Skilled Trades employees
in Washtenaw County

30%

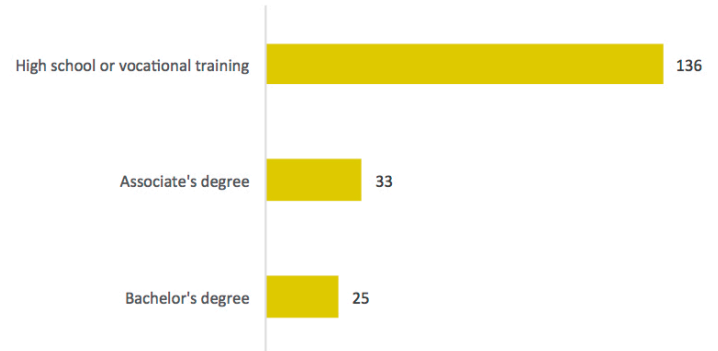
increase in employer demand
between Q4 and Q1

Skilled Trades & Technicians Educational Attainment & Experience Required

Just 194 of the 387 Q1 Skilled Trades job postings specified a desired level of educational attainment. The distribution of these requirements can be seen in the graph to the right: almost all jobs are attainable with a high school diploma and/or some vocational training. Most employers require training outside of high school but not all training results in a formal credential. Thirty-three postings required an associate's degree and 25 postings explicitly requested that applicants hold a bachelor's degree – these postings tend to be for management roles within the Skilled Trades occupations.

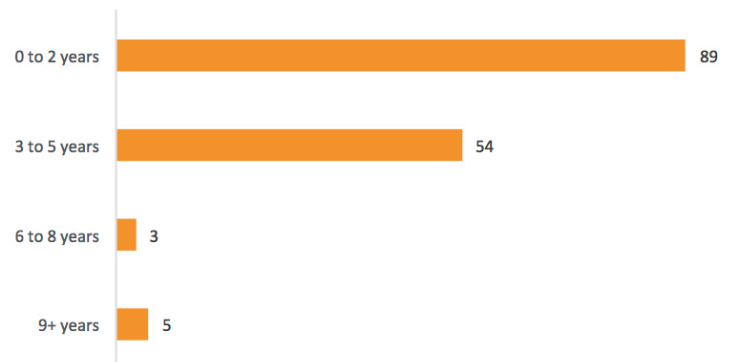
A similar number of job ads specified a desired experience level for Skilled Trades workers. The data show that most Skilled Trades jobs available in Washtenaw County are within reach for workers with less than 5 years of experience (143 postings during Q1). Again, those jobs requiring more experience, 6 years and beyond, are likely for some management occupations included in this group.

Minimum Educational Attainment Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Electrical and electronic engineering
- Mechanical engineering
- Computer engineering
- Business administration and management
- Chemistry



Experience required:
less than 5 years

48%

ads for full-time positions

Skilled Trades & Technicians in-Demand Skills Q1 2016

The occupations in the Skilled Trades group require a wide array of technical skills, like computer numerical control (CNC), machining, and welding, along with more foundational skills. Job postings in the Skilled Trades occupation group for Q1 2016 listed required experience with inspection and repair and hand tools. Employers are also seeking foundational skills like communication and organizational skills in their candidates. Many Skilled Trades jobs also require some degree of physical demand.

In-Demand Technical Skills

- Computer numerical control (CNC)
- Inspection and repair
- Hand tools
- Welding
- Mathematics

In-Demand Foundational Skills

- Communication skills
- Organizational skills
- Problem solving and troubleshooting
- Physical demand
- Quality assurance and control

Job Type

- Temporary: 11.1%
- Full-Time: 47.8%
- Part-Time: 2.3%

Certifications In-Demand

- Commercial driver's license (CDL) Class A
- First Aid CPR AED
- American Board for Engineering & Technology (ABET)
- Forklift operator certification
- Welding certification (e.g. AWS Certified Welder)



Mean advertised salary:
\$37,928

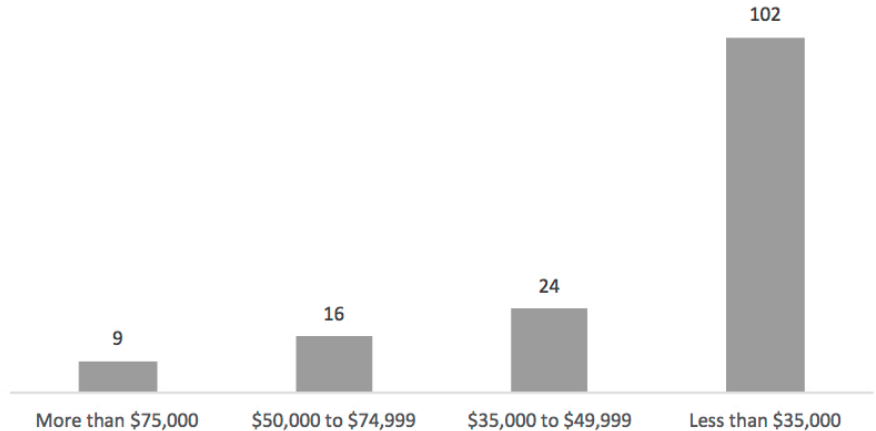


In-demand skills:
CNC, hand tools, welding

Skilled Trades & Technicians Wages

Thirty-nine percent (151 postings) of Skilled Trades job postings in Washtenaw County during Q1 2016 specified a wage or salary range. The majority of those (102 postings) offered wages that amount to less than \$35,000 a year, or less than \$17 per hour. The Skilled Trades occupations tend to be some of the lowest paying in southeast Michigan and across the country. Wage data from the Bureau of Labor Statistics show that the highest paid occupations in the group are in management, like first-line supervisors of production 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
51-9199	Production Workers, All Other	\$9.52	\$10.57	\$12.49	\$16.85	\$18.63
17-3023	Electronics Engineering Technicians	\$14.96	\$17.88	\$25.41	\$32.68	\$37.44
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$9.77	\$11.52	\$14.77	\$22.84	\$29.40
51-4121	Welders, Cutters, and Welder Fitters	\$12.55	\$14.87	\$19.22	\$22.93	\$33.07
51-4041	Machinists	\$13.44	\$18.63	\$24.42	\$27.69	\$29.67
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$10.70	\$12.83	\$15.77	\$20.52	\$24.96
51-1011	First-Line Supervisors of Production and Operating Workers	\$19.51	\$24.06	\$29.66	\$36.72	\$43.37
17-3029	Manufacturing Production Technicians	\$13.48	\$18.22	\$26.65	\$35.02	\$38.36
51-2022	Electrical and Electronic Equipment Assemblers	\$9.30	\$12.46	\$17.21	\$22.43	\$27.54
51-4111	Tool and Die Makers	\$17.40	\$22.86	\$31.99	\$34.72	\$36.35

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.

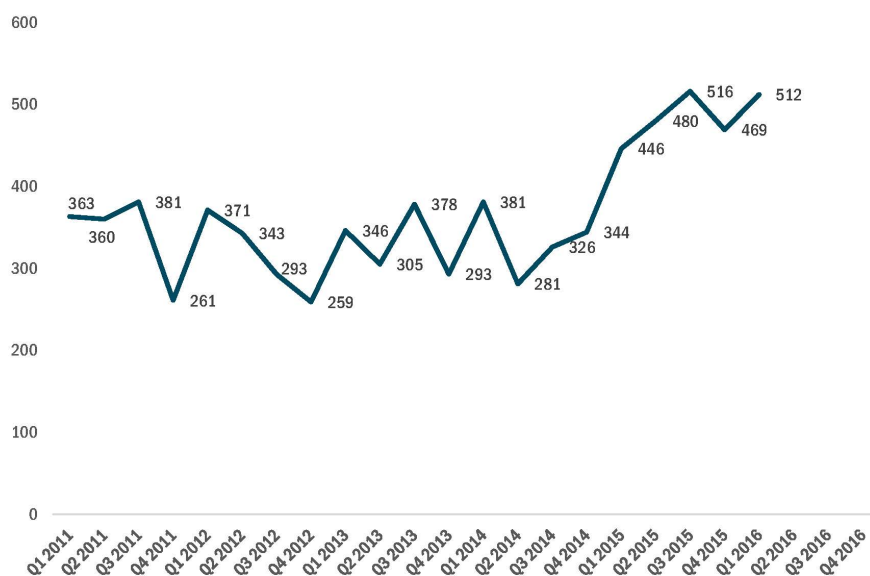
Postings Over Time

Online job postings for Engineering & Design occupations in Washtenaw County increased 9% between Q4 2015 and Q1 2016, from 469 to 512 postings. Employer demand for advanced manufacturing Engineering & Design workers has been trending upward in Washtenaw County since Q2 2014. Increased demand has the potential to drive employment growth in these occupations if Washtenaw County employers are able to find the qualified workers they seek.

Employment Over Time

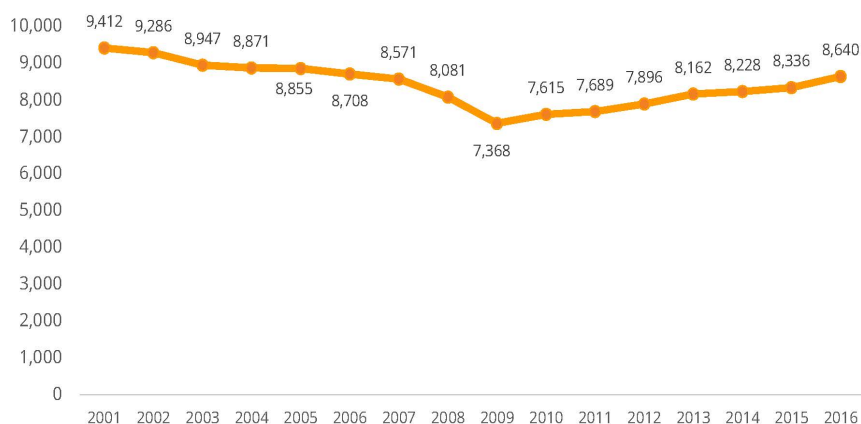
Employment in Washtenaw County's Engineering & Design occupations has been growing slowly and steadily each year since 2009. In 2016, 8,640 Washtenaw County workers are employed in these occupations, 1,272, or 17%, more than in 2009.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



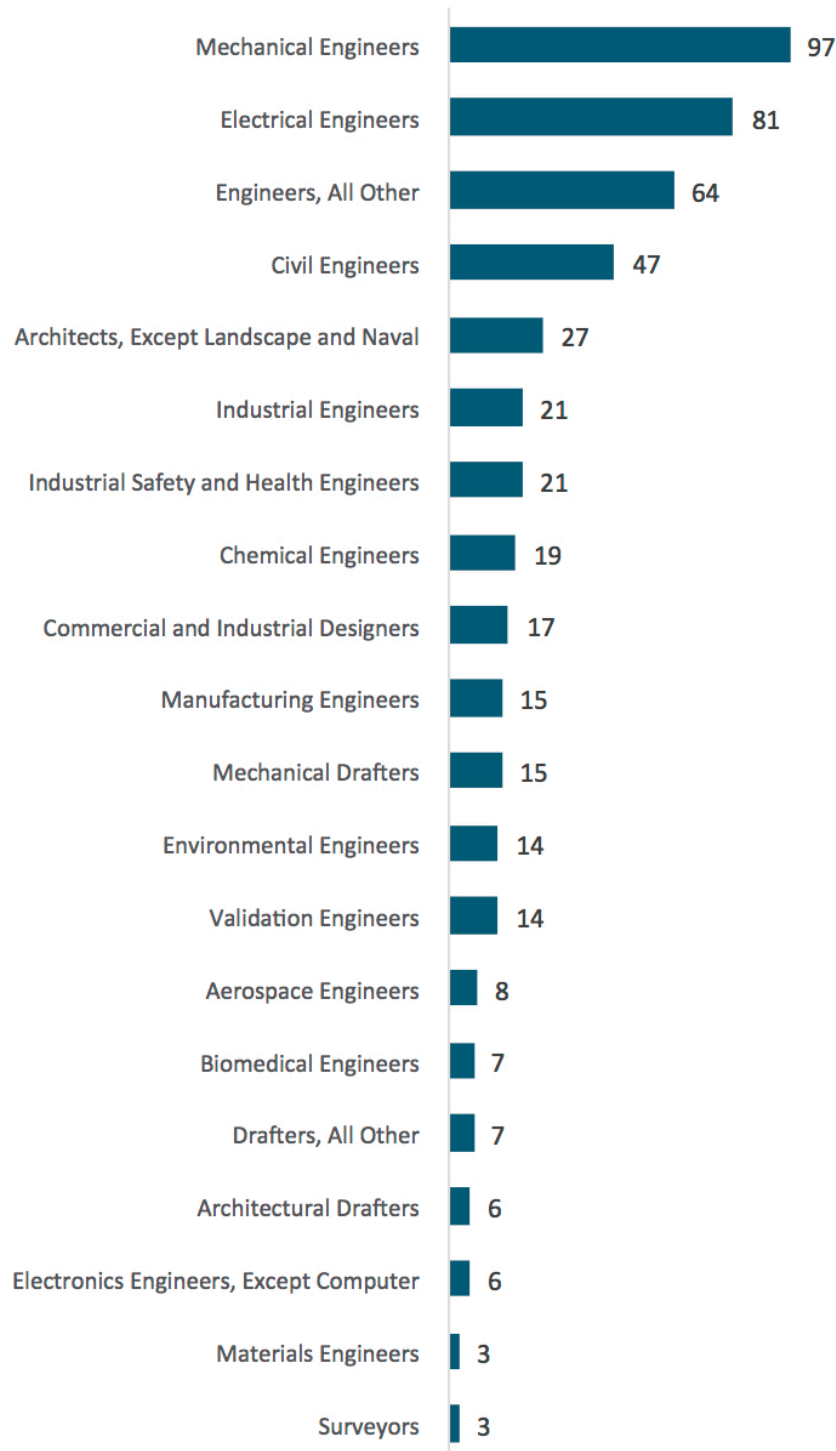
Now hiring: 512 Engineering & Design job postings



Education required:
bachelor's degree

Engineers & Designers Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Experience required:
less than 5 years

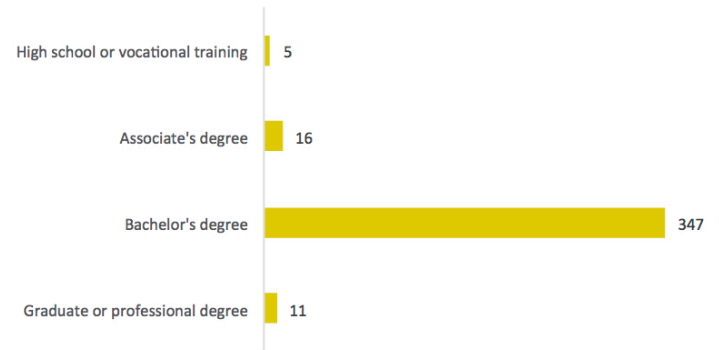
17%

Engineering & Design
employment growth since 2009

Engineers & Designers Educational Attainment & Experience Required

Workers in Engineering & Design occupations are generally required to hold bachelor's degrees. Job postings data from Q1 2016 show that 347 ads for Washtenaw County jobs required candidate's to have a bachelor's degree. Some Engineering & Design jobs, like drafters, are available to jobseekers with an associate's degree (11 postings). The majority of Engineering & Design job postings in Washtenaw County during Q1 2016 were targeting workers with less than 5 years of experience.

Minimum Educational Attainment Required Q1 2016

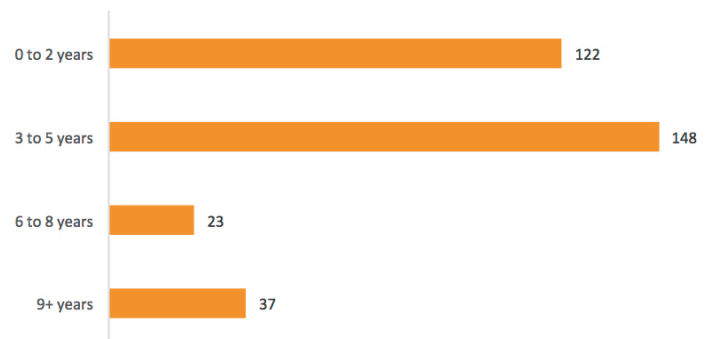


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Mechanical engineering
- Electrical and electronic engineering
- Computer science
- Aerospace, aeronautical, and astronautical engineering
- Business administration and management

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Certifications in-demand:
PE, EIT, LEED

\$76,167

mean advertised salary

Engineers & Designers in-Demand Skills Q1 2016

Washtenaw County employers looking to hire workers for Engineering & Design occupations specified basic skills like communication, writing and research, and computer skills as prerequisites for employment in Q1 2016 job postings. Employers are also looking for more technical skills from Engineers & Designers like AutoCAD, and experience with project management, budgeting, and product development.

In-Demand Technical Skills

- Project management
- AutoCAD
- Product development
- Budgeting
- Engineering design

In-Demand Foundational Skills

- Communication skills
- Writing and research
- Problem solving, troubleshooting
- Computer skills: Microsoft Office
- Planning

Job Type

- Temporary: 3.9%
- Full-Time: 45.9%
- Part-Time: 0.2%

Certifications In-Demand

- American Board for Engineering and Technology (ABET)
- Professional Engineer (PE)
- Leadership in Energy and Environmental Design (LEED)
- Engineer in Training (EIT) certificate
- Certified quality auditor/engineer



9,000 Engineering & Design employees



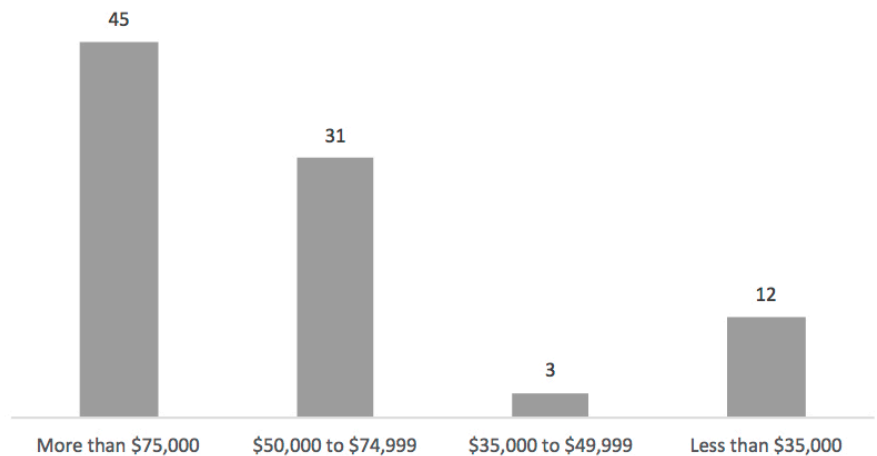
Skills: project management, product development

Engineers & Designers Wages

Advanced manufacturing Engineering & Design occupations are some of the highest paying in Washtenaw County and throughout southeast Michigan. Ninety-one Q1 job postings specified a wage or salary range, and of those that did, 45 advertised annual earnings over \$75,000. The top ten in-demand Engineering & Design jobs can earn over \$33 per hour at the median, or over \$68,000 a year, according to wage data from the Bureau of Labor Statistics.

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	\$26.79	\$34.70	\$43.15	\$52.23	\$57.96
17-2071	Electrical Engineers	\$32.25	\$37.55	\$46.01	\$54.82	\$61.86
17-2199	Engineers, All Other	\$16.88	\$27.52	\$40.84	\$47.54	\$56.72
17-2051	Civil Engineers	\$18.63	\$23.97	\$32.78	\$42.52	\$49.82
17-1011	Architects, Except Landscape and Naval	\$25.27	\$27.70	\$33.37	\$45.19	\$58.32
17-2112	Industrial Engineers	\$25.88	\$30.76	\$35.20	\$41.65	\$51.04
17-2111	Industrial Safety and Health Engineers	\$28.12	\$36.39	\$45.09	\$56.81	\$66.13
17-2041	Chemical Engineers	\$31.51	\$36.93	\$45.01	\$56.15	\$76.34
27-1021	Commercial and Industrial Designers	\$24.33	\$29.46	\$32.35	\$35.25	\$40.87
17-2199	Manufacturing Engineers	\$16.88	\$27.52	\$40.84	\$47.54	\$56.72

Data: EMSI, BLS
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.

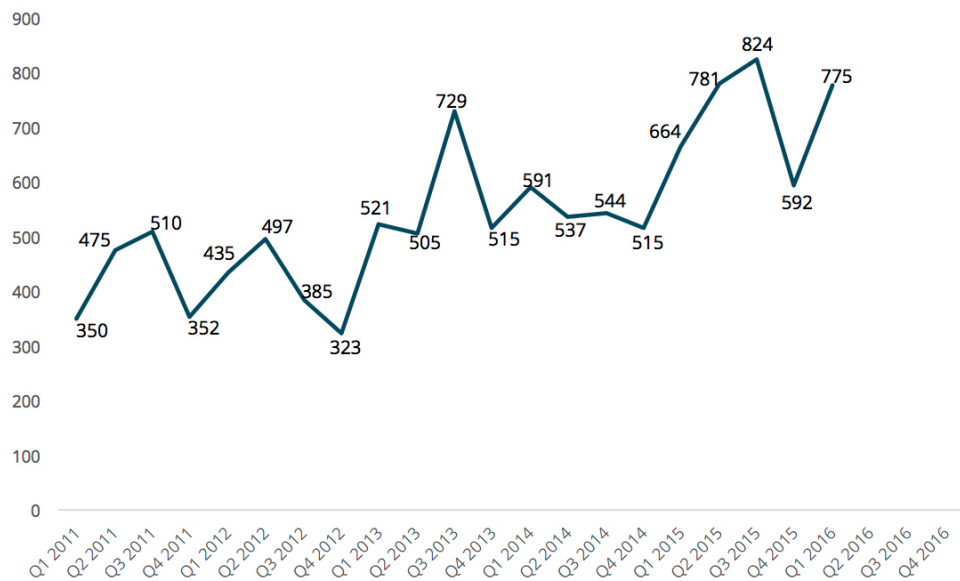
Postings Over Time

Washtenaw County employers posted 775 online job ads for Business & Finance occupations during Q1 2016. This is a 31% increase over the 592 job ads posted for these types of workers during Q4 2015. Employer demand for Business & Finance occupations has been trending upward, quarter-to-quarter. Increased demand is correlated with growth in employment for these occupations in Washtenaw County.

Employment Over Time

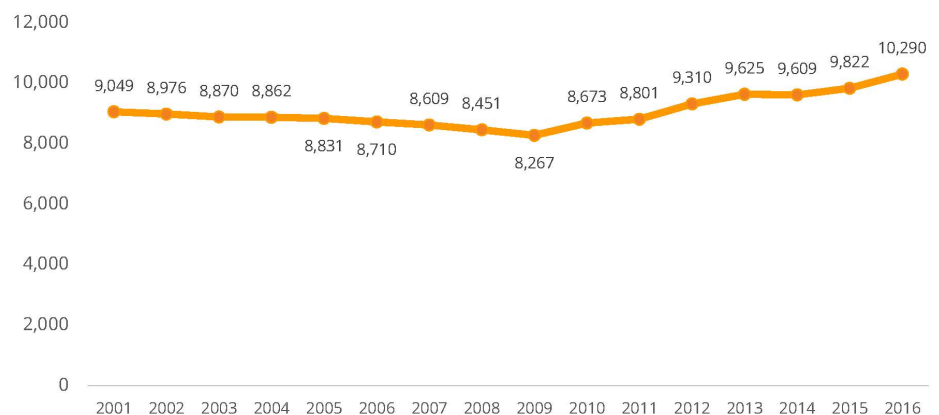
With the overall increase in demand for Business & Finance workers in Washtenaw County, employment has risen for this set of occupations. In 2016, 10,290 Washtenaw County workers are employed in a Business & Finance occupation. This occupation group has added 2,000 new jobs since the end of the recession in 2009.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



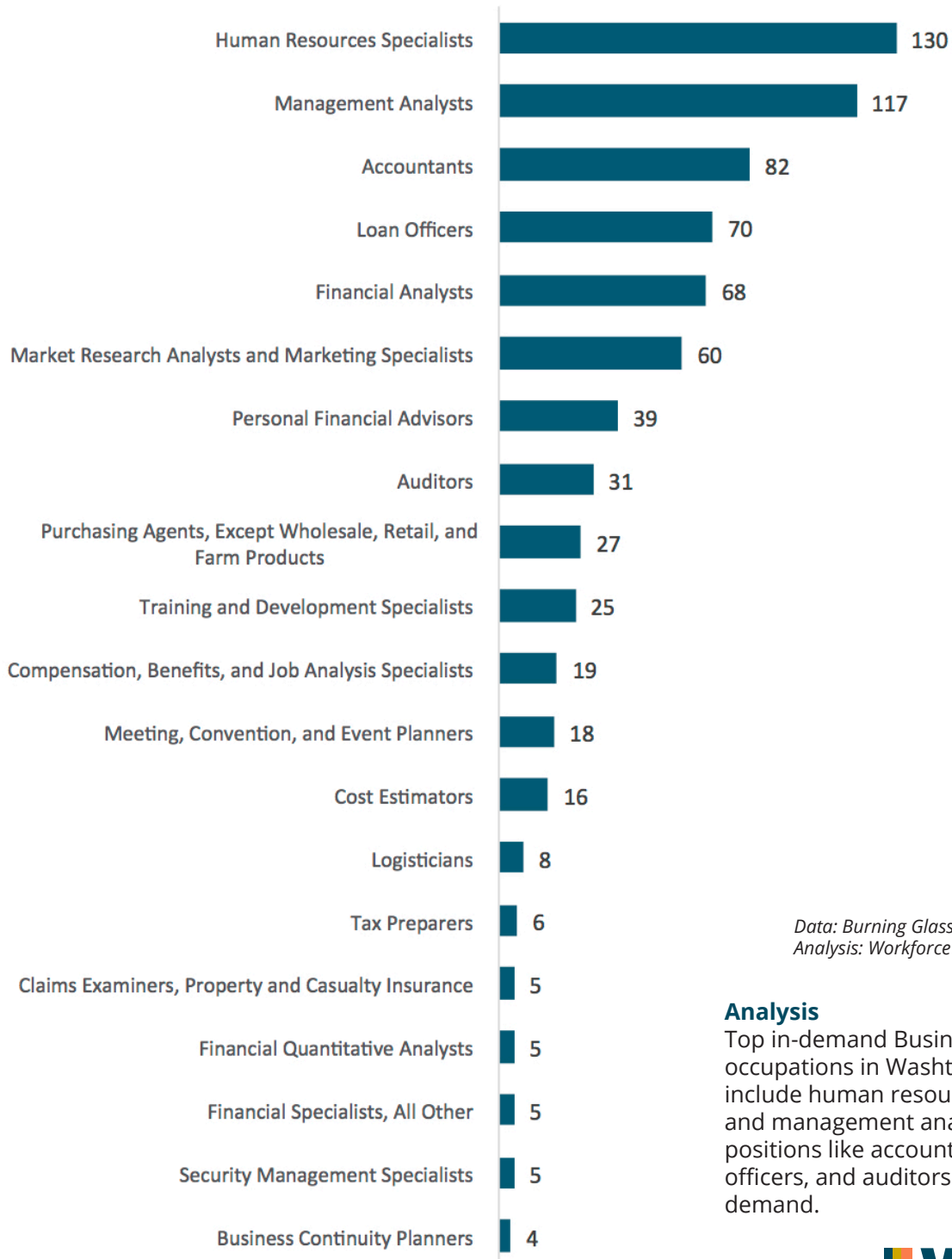
Now hiring: 775 Business & Finance job postings



10,000 Business & Finance employees

Business & Finance Top Jobs

Quarter 1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Analysis

Top in-demand Business & Finance occupations in Washtenaw County include human resources specialists and management analysts. Finance positions like accountants, loan officers, and auditors are also in high demand.



Education required:
bachelor's degree

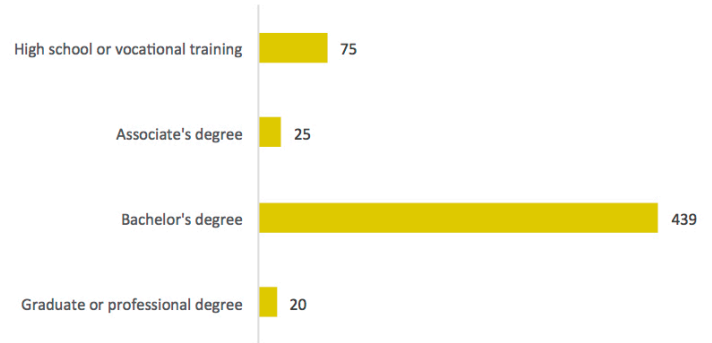
31%

increase in employer demand
between Q4 and Q1

Business & Finance Educational Attainment & Experience Required

Seventy-two percent (559 postings) of Q1 Business & Finance job postings specified a desired level of educational attainment. Of those, the majority (439 postings) required job candidates to hold a bachelor's degree. Another sizeable share of job postings targeted jobseekers with just a high school diploma. Most Business & Finance job postings (440 postings) in Washtenaw County were aimed at jobseekers with fewer than five years of experience.

Minimum Educational Attainment Required Q1 2016

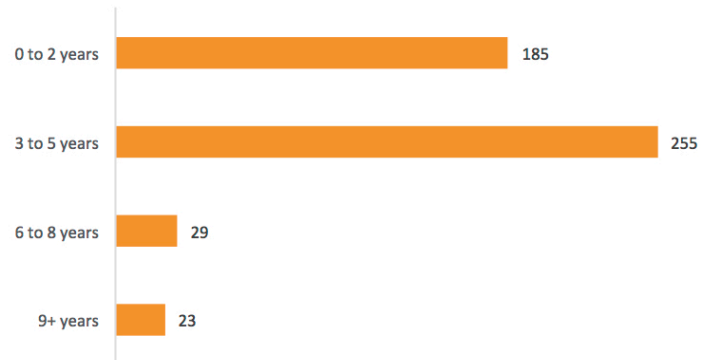


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Business administration and management
- Accounting
- Finance
- Economics
- Human resources development

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



In-demand skills:
accounting, budgeting

60%
full time job ads

Business & Finance in-Demand Skills Q1 2016

Basic, employability skills important to Business & Finance occupations in Washtenaw County include communication skills, writing, and basic computer skills. Washtenaw County employers also sought more technical skills in accounting and budgeting, and experience in customer service and project management in Q1 Business & Finance job postings.

In-Demand Technical Skills

- Accounting
- Budgeting
- Filing
- Customer service
- Project management

In-Demand Foundational Skills

- Communication skills
- Writing
- Computer skills: Microsoft Office
- Organizational skills
- Problem solving

Job Type

- Temporary: 4.8%
- Full-Time: 60.0%
- Part-Time: 2.1%

Certifications In-Demand

- Certified Public Accountant (CPA)
- Series 7
- Human resources (e.g. GPHR)
- Insurance license
- Project management (e.g. PMP)



In-demand certifications:
CPA, PMP



Mean advertised salary:
\$52,035

Business & Finance

Wages

Business & Finance occupations offer Washtenaw County workers a wide range of salaries. Just 137 of the 775 Business & Finance postings in the county during Q1 specified a wage or salary range – the distribution of those earnings can be seen in the chart to the right. Wage data from the Bureau of Labor Statistics show that nine of the top ten in-demand Business & Finance jobs in the county make over \$25 an hour at the median, or over \$52,000 a year.

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	\$19.29	\$23.71	\$31.15	\$39.38	\$49.43
13-1111	Management Analysts	\$23.10	\$29.96	\$38.73	\$48.63	\$68.23
13-2011	Accountants	\$16.31	\$21.94	\$27.36	\$35.22	\$45.64
13-2072	Loan Officers	\$21.72	\$24.71	\$28.42	\$34.27	\$55.12
13-2051	Financial Analysts	\$20.22	\$24.67	\$30.57	\$36.92	\$47.67
13-1161	Market Research Analysts and Marketing Specialists	\$17.66	\$22.39	\$29.91	\$41.99	\$56.60
13-2052	Personal Financial Advisors	\$19.97	\$22.33	\$31.84	\$40.36	\$55.25
13-2011	Auditors	\$16.31	\$21.94	\$27.36	\$35.22	\$45.64
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$20.30	\$23.43	\$28.27	\$36.05	\$45.02
13-1151	Training and Development Specialists	\$8.52	\$12.45	\$22.86	\$31.88	\$40.55

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

Employer demand for Health Care occupations has trended upward in Washtenaw County since the beginning of WIN's analysis period in Q1 2011. Postings for these occupations seem to be leveling off, however; Washtenaw County employers posted 1,696 online ads for Health Care workers in Q1, just 4 more than in Q4 2015. The upward trajectory of employer demand has driven growth in employment for these occupations in Washtenaw County.

Employment Over Time

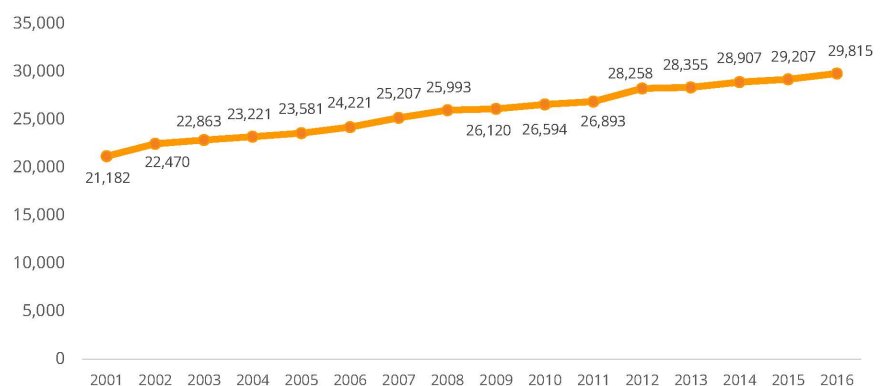
In 2016, 29,815 Washtenaw County workers are employed in Health Care occupations. Health Care employment was largely unaffected by the Great Recession and this occupation group adds a couple hundred jobs each year.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



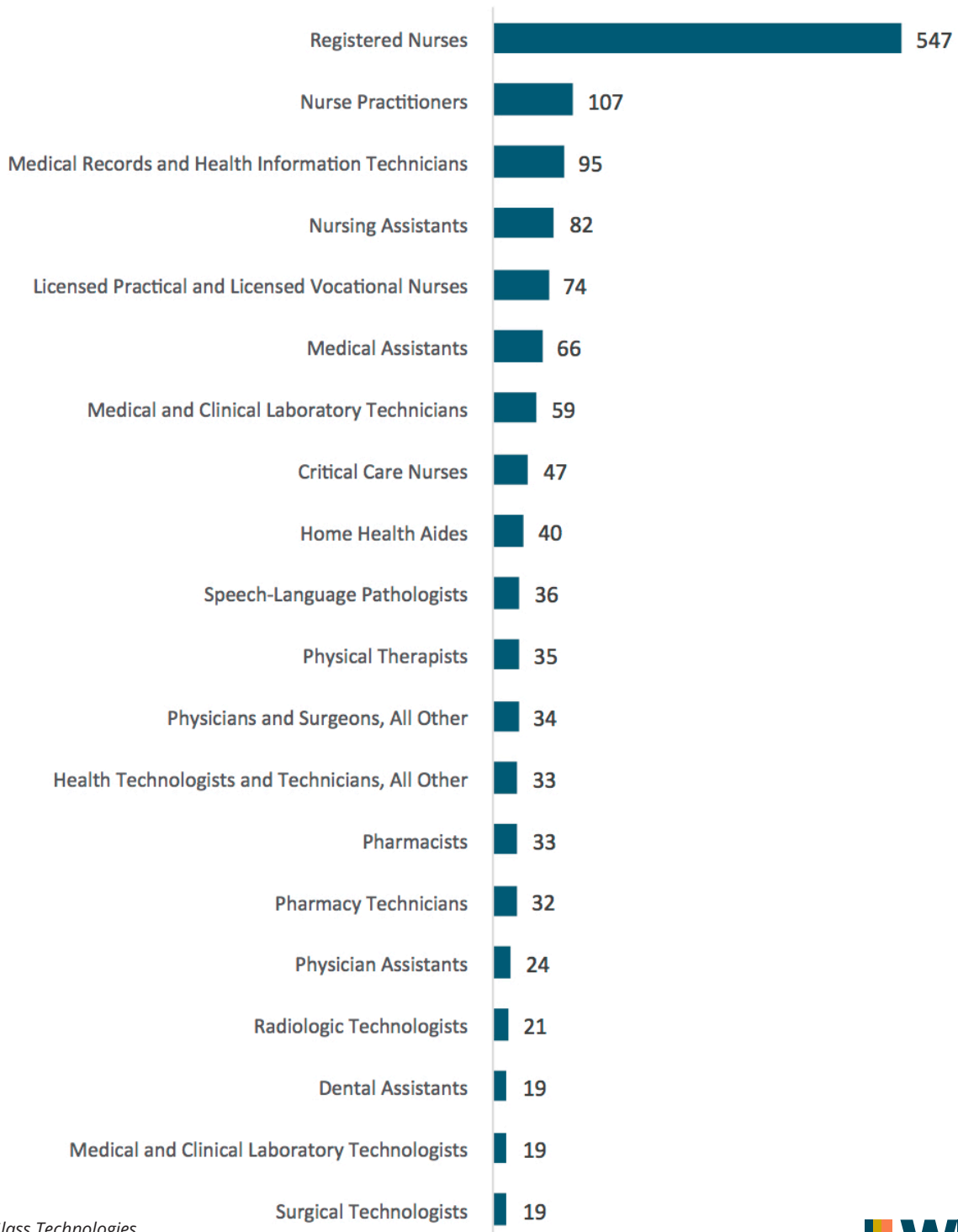
30,000 Health Care
employees



Now hiring: 1,700 online
job postings

Health Care Top Jobs

Quarter 1 2016





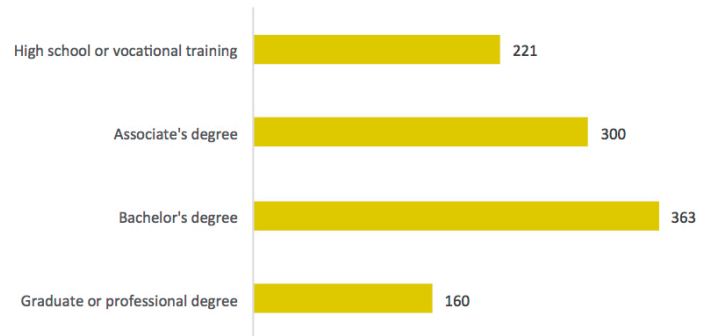
Education in-demand:
nursing, physical therapy

10%
ads for temporary positions

Health Care Educational Attainment & Experience Required

Because occupations like registered nurses and medical assistants are some of the most in-demand Health Care jobs in Washtenaw County, many Q1 job postings required a high school diploma and some training or an associate's degree. Many employers, however, prefer nurses with bachelor's degrees (363 postings) and high demand occupations like nurse practitioners, speech-language pathologists, and physician assistants require higher educational attainment (160 postings for workers with graduate degrees). Most (921 postings) Health Care positions open in Washtenaw County during Q1 were targeting workers with less than 5 years of experience.

Minimum Educational Attainment Required Q1 2016

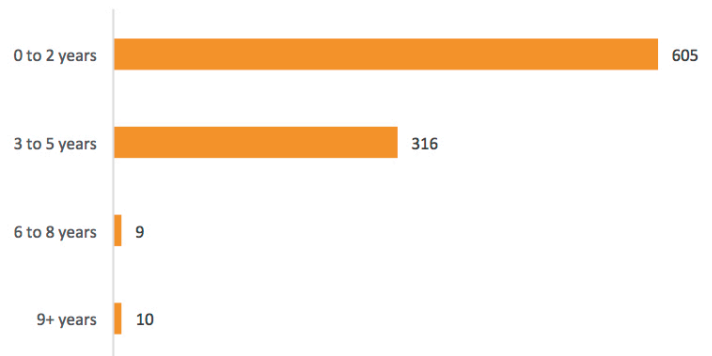


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

- Nursing science
- Physical therapy
- Business administration and management
- Medicine
- Clinical/medical laboratory technician

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Mean advertised salary:
\$65,002

9%

ads for part-time positions

Health Care in-Demand Skills Q1 2016

Washtenaw County employers looking to hire Health Care workers in Q1 2016 sought basic skills like communication, teamwork, and writing and research as prerequisites for employment. Some of the more technical skills in-demand in Q1 job postings included treatment planning, patient care, and scheduling.

In-Demand Technical Skills

- Patient care, education, and instruction
- Treatment planning
- Scheduling
- Cardiopulmonary resuscitation (CPR)
- Clinical experience

In-Demand Foundational Skills

- Communication skills
- Teamwork/collaboration
- Writing and research
- Problem solving
- Organizational skills

Job Type

- Temporary: 10.3%
- Full-Time: 63.2%
- Part-Time: 8.9%

Certifications In-Demand

- Registered nurse (RN)
- Nurse practitioner
- First Aid CPR AED
- Security clearance
- Advanced Cardiac Life Support (ACLS) certification



\$69,000: annual salary for
registered nurses



Skills: clinical experience,
treatment planning

Health Care Wages

Only 212 of the 1,696 Health Care job postings for Q1 advertised a salary range. The distribution of those advertised salaries can be seen in the chart to the right. Data from the Bureau of Labor Statistics show that a job in Health Care, like as a registered nurse, can pay \$33 per hour at the median, almost \$69,000 annually, for a position that typically requires just a two-year degree. The highest paid of the in-demand occupations are jobs that require higher educational attainment like nurse practitioners and speech-language pathologists.

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	\$24.80	\$27.92	\$33.31	\$38.73	\$43.98
29-1171	Nurse Practitioners	\$34.52	\$39.13	\$44.08	\$50.83	\$56.26
29-2071	Medical Records and Health Information Technicians	\$14.71	\$18.05	\$23.38	\$27.68	\$30.55
31-1014	Nursing Assistants	\$10.19	\$12.29	\$14.15	\$16.60	\$18.35
29-2061	Licensed Practical and Licensed Vocational Nurses	\$17.67	\$20.03	\$22.45	\$25.51	\$28.29
31-9092	Medical Assistants	\$11.76	\$12.98	\$15.08	\$18.28	\$22.11
29-2012	Medical and Clinical Laboratory Technicians	\$9.02	\$10.72	\$14.18	\$18.91	\$30.41
29-1141	Critical Care Nurses	\$24.80	\$27.92	\$33.31	\$38.73	\$43.98
31-1011	Home Health Aides	\$8.33	\$9.55	\$10.56	\$11.57	\$13.84
29-1127	Speech-Language Pathologists	\$29.13	\$33.74	\$39.96	\$45.08	\$52.72

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.

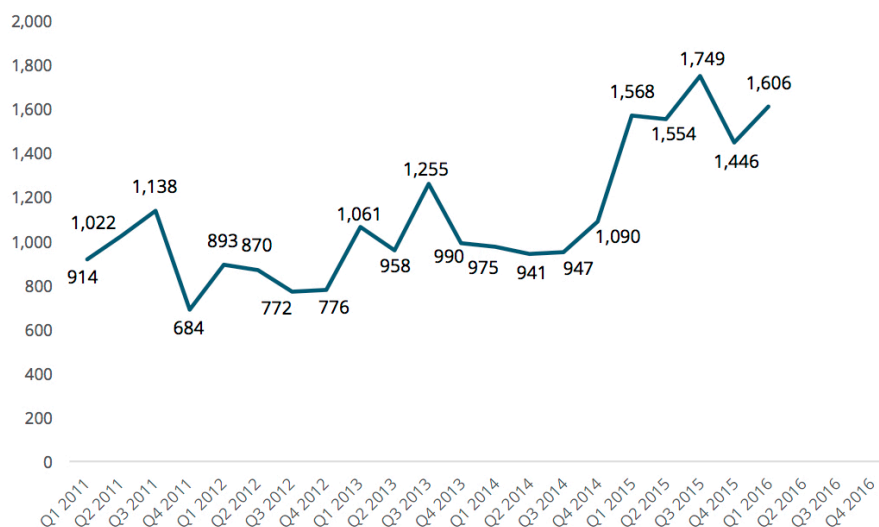
Postings Over Time

Employer demand for workers in Information Technology (IT) occupations has generally grown in Washtenaw County over the analysis period from Q1 2011 to present. In Q1 2016 employers posted 1,606 online job ads for IT workers, up 11% from the 1,446 ads seen in Q4 2016. The general growth in employer demand for IT workers in Washtenaw County has driven employment growth.

Employment Over Time

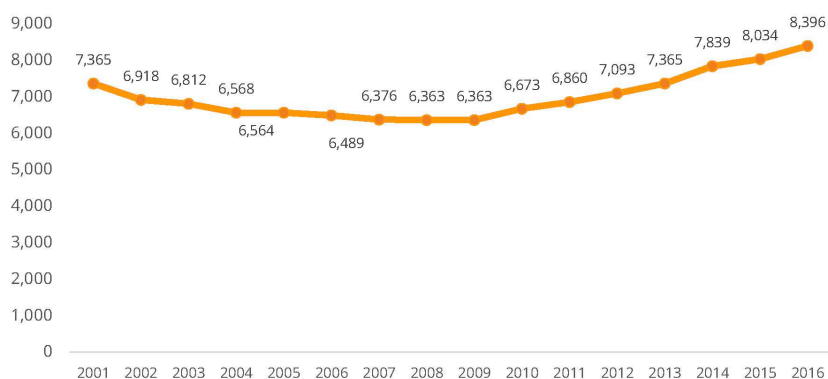
Increased employer demand in Information Technology occupations in Washtenaw County has driven growth in employment. In 2016, 8,936 Washtenaw County workers are employed in IT occupations. 2013 employment surpassed pre-recession employment numbers from 2001 when 7,365 workers held IT jobs.

Online Job Postings



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Employment Over Time



Data: EMSI, BLS
Analysis: Workforce Intelligence Network



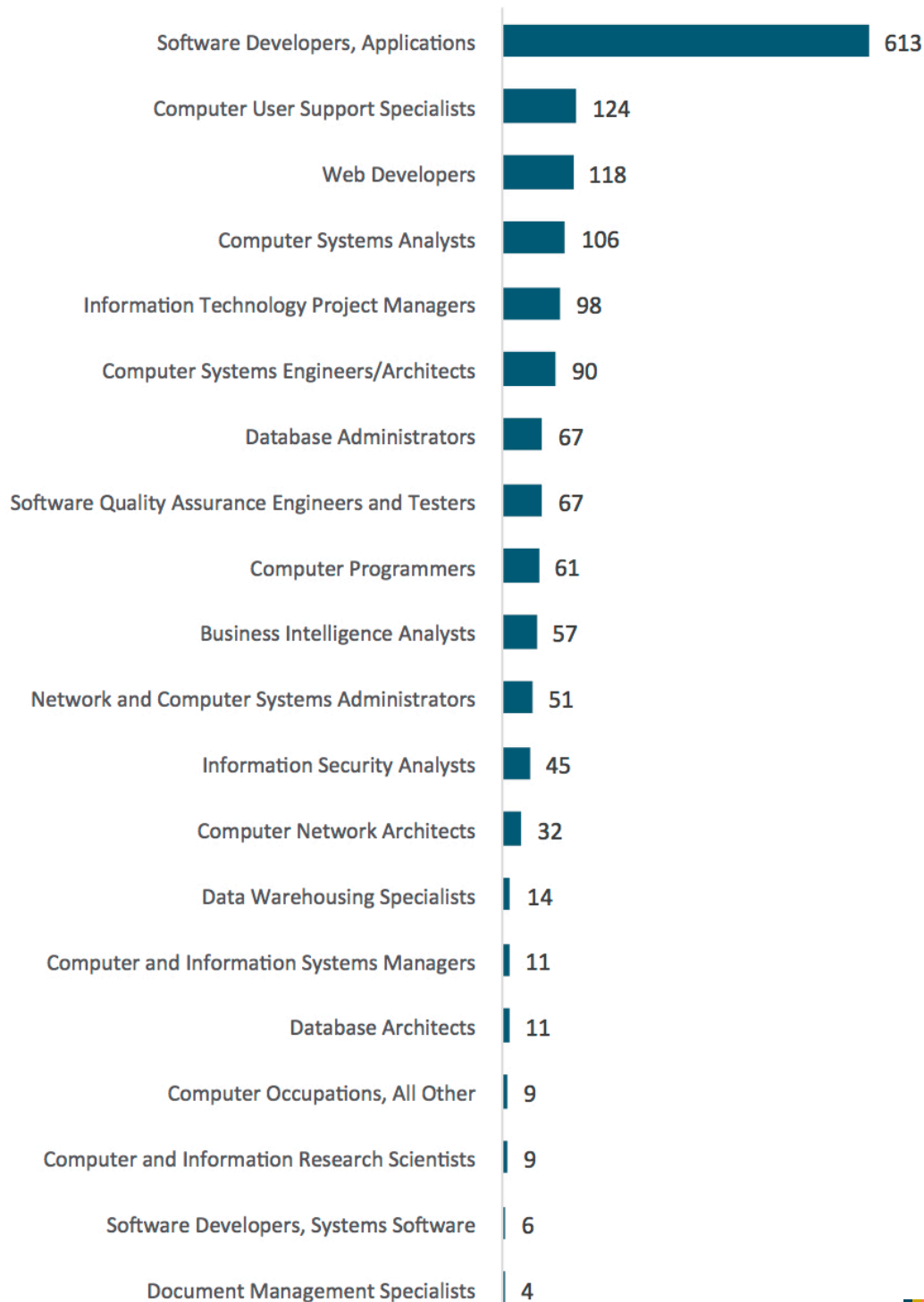
Now hiring: 1,600 Information
Technology job ads



9,000 Information
Technology employees

Information Technology (IT) Top Jobs

Quarter 1 2016





Employment surpassed
2001 levels

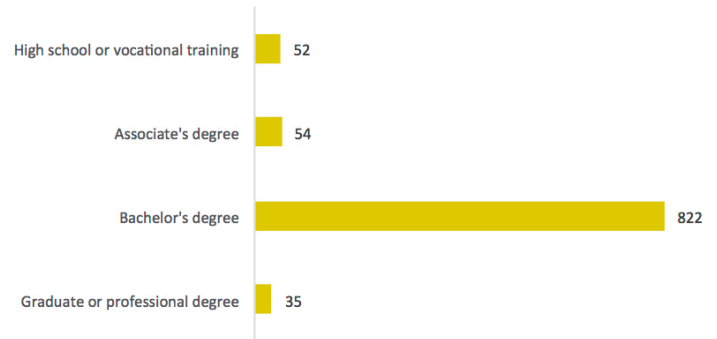
11%

increase in employer demand
between Q4 and Q1

Information Technology (IT) Educational Attainment & Experience Required

Data from Q1 2016 online job postings show that most Information Technology positions in Washtenaw County require a bachelor's degree (822 postings). During Q1 there were still many IT positions open to workers with an associate's degree (54 postings) or who had undertaken some short-term training (52 postings). The majority of postings (775 postings) during Q1 2016 targeted Washtenaw County workers with fewer than 5 years of experience.

Minimum Educational Attainment Required Q1 2016

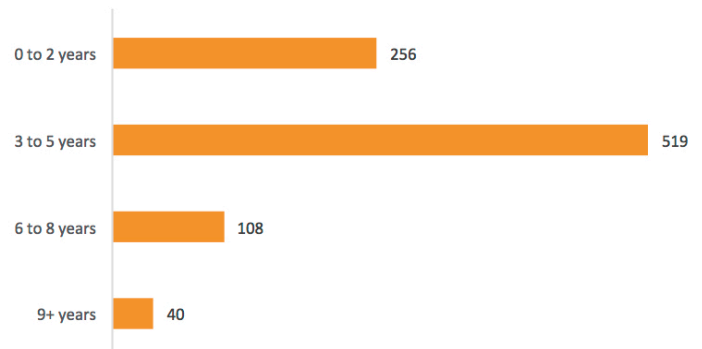


Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network

Areas of Study in-Demand Q1 2016

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

Experience Required Q1 2016



Data: Burning Glass Technologies
Analysis: Workforce Intelligence Network



Certifications in-demand:
PMP, CISSP

\$85,691
mean advertised salary

Information Technology (IT) in-Demand Skills Q1 2016

Good communication skills and the ability to collaborate and work on a team are foundational skills for employment in Information Technology occupations in Washtenaw County. During Q1 2016, Washtenaw County employers were seeking job candidates with technical skills in SQL, Java, Python, and other programming languages. Job postings also indicate that experience in customer service, technical support, and project management are important for Washtenaw County jobseekers interested in IT positions.

In-Demand Technical Skills

- Software development
- Programming: SQL, Java, Python, C++
- Project management
- Technical support
- Customer service

In-Demand Foundational Skills

- Communication skills
- Writing and research
- Problem solving, troubleshooting
- Teamwork/collaboration
- Planning

Job Type

- Temporary: 5.4%
- Full-Time: 53.9%
- Part-Time: 0.9%

Certifications In-Demand

- Project management (e.g. PMP)
- Security clearance
- Certified Information Systems Security Professional (CISSP)
- Microsoft Certified Solutions Expert (MCSE)
- CISCO Certified Internetwork Expert (CCIE)



Education required:
bachelor's degree

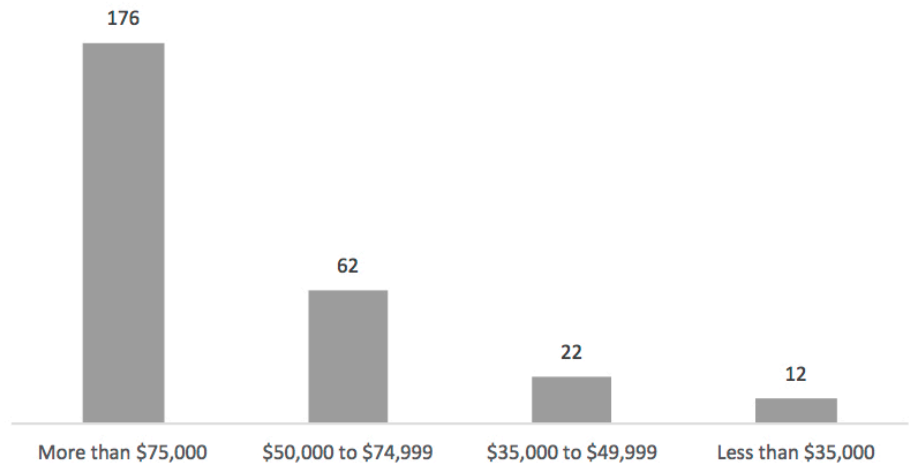


In-demand skills:
SQL, Java, Python, C++

Information Technology (IT) Wages

Information Technology occupations are some of the highest paying for Washtenaw County workers. Of the 271 Q1 job postings that advertised a wage or salary, 176 offer annual earnings greater than \$75,000. Wage data from the Bureau of Labor Statistics show that median wages for many in-demand IT jobs in Washtenaw County top \$30 an hour, or over \$62,000 annually.

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	\$25.51	\$31.17	\$36.52	\$45.14	\$54.14
15-1151	Computer User Support Specialists	\$10.05	\$12.82	\$18.80	\$25.36	\$32.69
15-1134	Web Developers	\$14.63	\$20.50	\$27.37	\$35.16	\$42.67
15-1121	Computer Systems Analysts	\$18.78	\$28.85	\$40.25	\$49.81	\$56.17
15-1199	Information Technology Project Managers	\$20.29	\$26.86	\$35.38	\$44.42	\$51.48
15-1199	Computer Systems Engineers/Architects	\$20.29	\$26.86	\$35.38	\$44.42	\$51.48
15-1141	Database Administrators	\$26.78	\$31.86	\$39.58	\$45.96	\$53.87
15-1199	Software Quality Assurance Engineers and Testers	\$20.29	\$26.86	\$35.38	\$44.42	\$51.48
15-1131	Computer Programmers	\$19.57	\$24.05	\$33.60	\$42.02	\$47.48
15-1199	Business Intelligence Analysts	\$20.29	\$26.86	\$35.38	\$44.42	\$51.48

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	182,801	180,796	182,072	185,236	188,116	189,852	195,964	6,111	3.2%
Employment	167,969	168,467	171,208	174,393	178,965	183,151	190,249	7,097	3.9%
Unemployment	14,832	12,330	10,863	10,843	9,152	6,701	5,715	-986	-14.7%
Unemployment Rate	8.1%	6.8%	6.0%	5.9%	4.9%	3.5%	2.9%	-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	188,787	190,783	186,826	193,014	195,964	2,950	1.5%
Employment	181,691	183,322	179,849	187,743	190,249	2,505	1.3%
Unemployment	7,096	7,461	6,977	5,271	5,715	444	8.4%
Unemployment Rate	3.8%	3.9%	3.7%	2.7%	2.9%	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	187,165	189,459	189,736	190,682	192,223	189,444	188,567	186,573	185,338	192,346	193,420	193,276	192,793	197,515	197,583
Employment	179,527	182,581	182,965	184,429	184,114	181,423	179,781	180,173	179,592	186,605	188,272	188,353	187,258	191,825	191,663
Unemployment	7,638	6,878	6,771	6,253	8,109	8,021	8,786	6,400	5,746	5,741	5,148	4,923	5,535	5,690	5,920
Unemployment Rate	4.1%	3.6%	3.6%	3.3%	4.2%	4.2%	4.7%	3.4%	3.1%	3.0%	2.7%	2.5%	2.9%	2.9%	3.0%

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



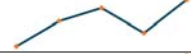
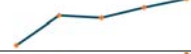

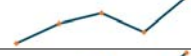











Data: Bureau of Labor Statistics

Washtenaw County 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	10,421	11,192	11,812	10,540	11,951		14.7%	13.4%
Agriculture	174	183	186	163	223		28.2%	36.8%
Business & finance	664	781	824	592	775		16.7%	30.9%
Construction	71	80	111	80	146		105.6%	82.5%
Customer service	2,030	2,101	2,361	2,057	2,577		26.9%	25.3%
Education	225	327	255	259	194		-13.8%	-25.1%
Energy	7	3	5	5	4		-42.9%	-20.0%
Engineers & designers	446	480	516	469	512		14.8%	9.2%
Health care	1,583	1,692	1,737	1,692	1,696		7.1%	0.2%
Information technology	1,568	1,554	1,749	1,446	1,606		2.4%	11.1%
Skilled trades & technicians	266	309	198	298	387		45.5%	29.9%
Transportation, distribution, and logistics	546	691	515	477	491		-10.1%	2.9%

**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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