

# MICHIGAN'S JOB VACANCY SURVEY 2015



PREPARED BY:

STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

BUREAU OF LABOR MARKET INFORMATION AND STRATEGIC INITIATIVES



## MICHIGAN'S JOB VACANCY SURVEY 2015

November 2015

Dear Colleagues:

The best data we can get on the Michigan workforce is obtained directly from employers, and one way to do that is through surveys. That is why we decided to conduct the *Michigan Job Vacancy Survey*. Thanks to the great response from surveyed employers, we can better understand and analyze the demand side of our labor market. Whether you believe there is a “skills gap” or other things at work, we cannot put a solution in place without drilling down into this data to better understand the “why.”

This survey will also allow us to begin to evaluate the other “real time” tools we have been using to collect data on vacancies and adjust our approaches in the future. Next year, we plan on following up this survey with more pointed questions that will help in the delivery of talent solutions.

I cannot stress enough the importance of employer participation in these surveys and encourage you to be a part of our continuous process improvement when it comes to talent in Michigan.

Respectfully,

A handwritten signature in purple ink, appearing to read 'Christine Quinn', with a stylized flourish extending to the right.

Christine Quinn, Director

Workforce Development Agency

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State of Michigan

Department of Technology, Management and Budget

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We would especially like to thank all of the Michigan employers who took the time to fill out and return our survey. We hope this study can assist employers and those looking for work to find the greatest fit for every job vacancy.

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## About the Survey

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The 2015 Michigan Job Vacancy Survey (JVS) was conducted through a partnership with the Bureau of Labor Market Information and Strategic Initiatives and the Workforce Development Agency (WDA). The goal of the JVS was to analyze the demand side of the state's labor market by looking at the number and characteristics of current job vacancies. The information collected in this report could improve the workforce knowledge and decision-making of employers, policymakers, educators, and jobseekers. The results of this survey will also provide a benchmark to compare with sources of real-time labor market data, and help assess what training or education programs are needed and where these could have the most impact.

The JVS was designed to estimate the number of job vacancies in Michigan during the second quarter of 2015. Between April 1<sup>st</sup> and June 30<sup>th</sup>, surveys were sent to a sample of 11,515 establishments throughout the state. The sample was stratified by region, by industries, and by establishment size. An overall response rate of 62 percent was achieved.

Employers were asked to supply information about job vacancies, including the current number of job openings, future employment expectations, wages and benefits offered, education and work experience required, length of time vacancies were open, whether the positions were full-time or part-time, and whether the positions were permanent or temporary. Establishments without job vacancies were also asked to return the survey indicating that no openings were available.

The results were analyzed for the state, industries, occupations, and Prosperity Regions. Descriptions of industries, occupations, and regions can be found in the appendices of this report.

## Executive Summary

- The state of Michigan had an estimated 145,000 job vacancies during the second quarter of 2015. Openings were found in over 500 different detailed occupations.
- Nearly two thirds of all vacancies had no educational requirement or required only a high school diploma. Less than one year of experience was required for 2 out of 5 vacancies.
- Michigan had at least two unemployed persons per job vacancy representing a potential pool of individuals that could fill these positions if qualified.
- The median wage offered for all job vacancies was \$14.00 per hour. As education and experience requirements increased, so did the wage rates offered, on average.
- The majority of job vacancies offered some type of benefit: 67 percent offered health insurance, 63 percent offered retirement/pension, and 61 percent offered paid leave.
- One of every four vacancies had been posted for longer than 90 days. This could indicate that an employer had difficulty finding applicants with the proper requirements or may not have been offering what jobseekers were demanding.
- Nearly two thirds of vacancies were for full-time positions and 90 percent were for permanent positions. Nevertheless, part-time and temporary vacancies were available for works interested in those opportunities.
- Firms were asked about their expected future employment levels. Seventy percent of employers expected employment to remain the same, 14 percent were uncertain, 13 percent anticipated staffing levels to increase, and only three percent predicted a decrease.

<b>Key Findings</b>	
<b>Sample and Response Rate</b>	
Sample Size	11,515
Responses	7,164
Response Rate	62%
<b>Job Vacancies</b>	
Total Vacancies	145,000
Job Vacancy Rate	3.5
Jobseekers per Vacancy	2.4
<b>Growth / Replacement</b>	
Replacement	56%
Growth	44%
<b>Recruitment Period</b>	
< 90 Days	76%
> 90 Days	24%
<b>Full-Time / Part-Time</b>	
Full-Time Vacancies	63%
Part-Time Vacancies	37%
<b>Permanent / Temporary</b>	
Permanent	87%
Temporary / Seasonal	13%
<b>Benefits Offered</b>	
Health Insurance	67%
Retirement / Pension	63%
Paid Leave	61%
<b>Wage Offered (Hourly)</b>	
Median	\$14.00
<b>Experience Required</b>	
Less than 1 Year	41%
1 to 3 Years	43%
4 or More Years	16%
<b>Education Required</b>	
None	22%
High School / GED	40%
Vocational Training	8%
Associate's Degree	7%
Bachelor's Degree	20%
Advanced Degree	4%

## I. Michigan Job Vacancies in 2015

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The Michigan Job Vacancy Survey (JVS) estimated 145,000 job vacancies in the state of Michigan. While the number of vacancies provides an idea of the magnitude of jobs employers needed filled, the JVS also asked employers some details about the characteristics of those vacancies. Being aware of the education and experience required as well as the wages and benefits offered can help candidates realize what to expect when applying for jobs. Understanding how long openings have been unfilled, what size firms have vacancies, and whether these were due to the need to replace workers or growth in an occupation can all assist in matching labor supply with job demand.

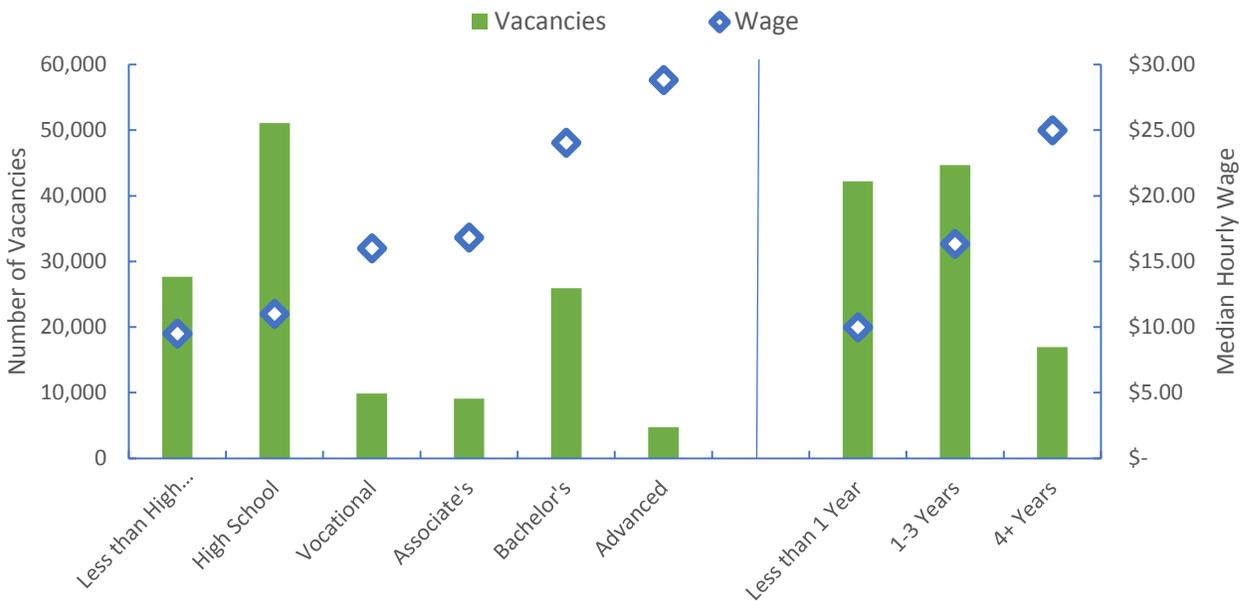
### **Michigan Vacancies, Employed, and Unemployed**

- By comparing the estimated 145,000 vacancies to the nearly 4 million employed in Michigan, a Job Vacancy Rate was created showing 3.5 openings for every 100 positions filled. This report will compare the statewide rate to other categories such as occupational groups or Prosperity Regions. A high Job Vacancy Rate may indicate that an occupation or region had a greater need for workers. Knowing where there are shortages can help those with resources allocate their talent development efforts more efficiently.
- The number of unemployed people in Michigan stands at about 350,000, showing there are about 2.4 unemployed persons for every vacancy. Matching out-of-work individuals with the required skills and experience to these vacant positions is one way of meeting the needs of jobseekers and employers.

### **Wages, Education, and Experience**

- Estimates from the JVS showed a clear correlation between higher levels of education and higher wage offers. Vacancies that required an advanced degree, which is defined as a master's, doctoral, or professional degree, offered the highest median hourly wage of \$28.83. These represented, however, just 4,700 vacancies or four percent of the total.
- In contrast, the number of vacancies that required a high school diploma or less made up nearly two thirds of all job openings. These two educational categories earn the lowest wages with vacancies requiring a high school diploma offering a median hourly wage of \$11.00, and those requiring less than a high school diploma offered \$9.50. (Figure 1.1 )
- Figure 1.1 also shows that when comparing the median wage for a vacancy requiring an associate's (\$16.83) to a vacancy requiring a bachelor's (\$24.04), there was an over \$7.00 difference. The wage gap between vacancies that required a bachelor's to those that required an advanced degree (\$28.83), was perhaps less pronounced, but still very significant at nearly \$5.00.

**Figure 1.1: Vacancies and Wages by Education and Experience**



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- There was a substantial difference in the number of vacancies for each of the three highest educational levels. Vacancy totals were relatively modest for jobs requiring an advanced degree (nearly 5,000), and an associate's degree (9,000), while vacancies requiring a bachelor's degree were much higher at nearly 26,000.
- Higher levels of experience were also correlated with higher wage offers. Vacancies that required four or more years of experience had a median wage of around \$25.00, while those that required less than one year of experience offer \$10.00 an hour. The key difference between the highest and lowest levels of experience is that nearly 41 percent of vacancies required less than one year of experience, while those that required four or more years make up only 16 percent of vacancies.

### **Benefits**

- The JVS asked employers if their vacancies offered three key benefits: health insurance, retirement savings, and paid leave. Estimates showed that of all vacancies 67 percent offered health insurance, 63 percent offered retirement savings and 61 percent offered paid time off.
- As might be expected, part-time opportunities were less likely to offer benefits. According to JVS estimates, 2 in 3 part-time job vacancies offered benefits as a part of the compensation package, compared to more than 90 percent of full-time vacancies.
- Full-time position offers included health insurance in 81 percent of cases, paid time off in 78 percent of openings and a retirement/pension plan in 76 percent of vacancies. Part-time positions offered health insurance, retirement/pensions, and paid time off to 38 percent, 34 percent, and 26 percent of openings respectively.

## Vacancy Duration

- The length of time a vacancy is open may be one indication that the position is difficult to fill. An estimated 24 percent of all job vacancies had been available for 90 or more days. Among the reasons that a vacancy may remain open for an extended period of time are unique education or experience requirements, low pay or lack of benefits, or perceived or actual undesirable working conditions, and employers indefinitely looking to hire for certain positions.
- Industries with the greatest number of vacancies that had been available for 90 or more days include: *Manufacturing* (3,600); *Accommodation and Food Services* (3,200); and *Professional, Scientific, and Technical Services* (2,800).

*"All vacancies are open for ninety or more days since our recruiting effort is always ongoing."*  
- Accommodations and Food Services Employer

## Size of Establishments

- Establishments were classified into three size categories based on their number of employees: small establishments with less than 50 employees, medium establishments with between 50 and 499 employees, and large establishments with 500 or more employees.
- Job vacancy estimates underscore the importance of small establishments to the state's economy. In Michigan, small businesses accounted for 60 percent of all vacancies. The next category, medium-size businesses, were responsible for 30 percent of all openings, while the largest establishments listed the fewest openings, totaling just 1 in 10 vacancies.
- While small and medium size establishments together employ roughly 2.6 million people in Michigan's economy, small establishments have about twice as many vacancies as their medium-sized counterparts. Having so many openings concentrated in establishments with few staff emphasizes the importance of Michigan's smallest businesses.

## Replacement or Growth

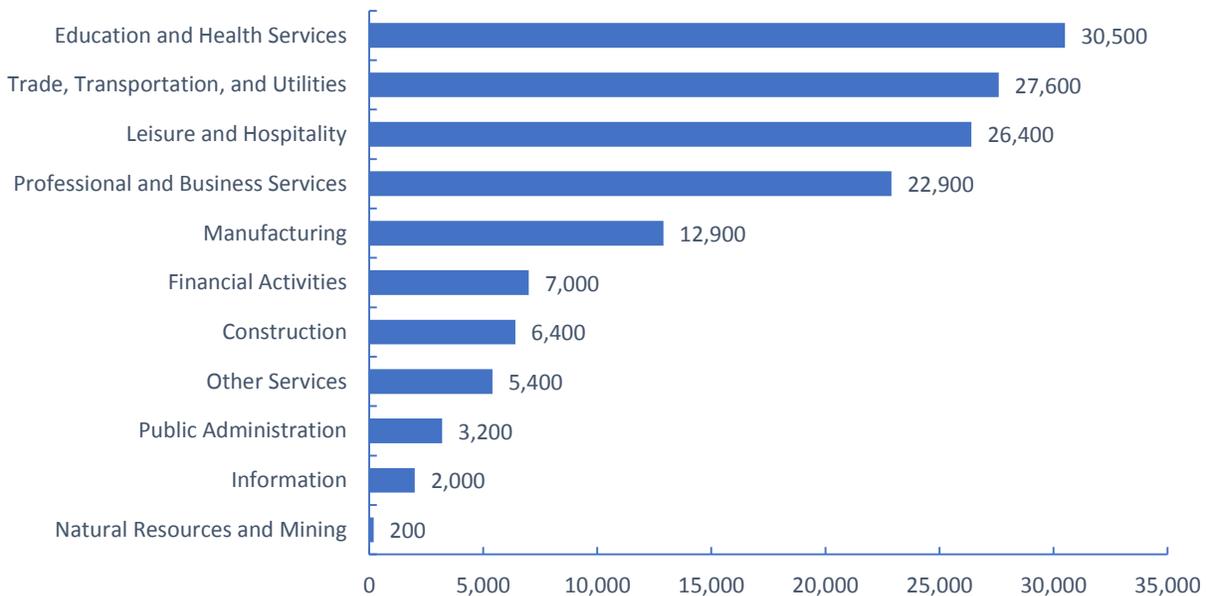
- The JVS asked employers whether their vacancies were due to replacing existing workers or growing their business. Results show that worker replacements accounted for 56 percent of job openings, while employment growth was credited with 44 percent. Industries with the greatest number of vacancies attributed to growth were *Manufacturing* (5,400) and *Accommodations and Food Services* (4,600). Conversely, industries that had a high number of vacancies due to replacement needs included both *Accommodation and Food Services* (7,200) and *Health Care and Social Assistance* (6,600).

*"The economy is improving and our employees are working forty or more hours. Some small growth, which is expected, would mean immediate hiring."*  
- Wholesale Trade Employer

## II. Vacancies by Industry

The survey data highlighted even more patterns and proposed very interesting questions when viewed by industry. Organizing the data by industry supersector provided valuable information showing each sector's number of openings and hiring expectations. Delving further into each individual industry, useful connections were established by analyzing the education and experience needs of their respective vacancies.

**Figure 2.1: Total Vacancies by Industry Supersector**



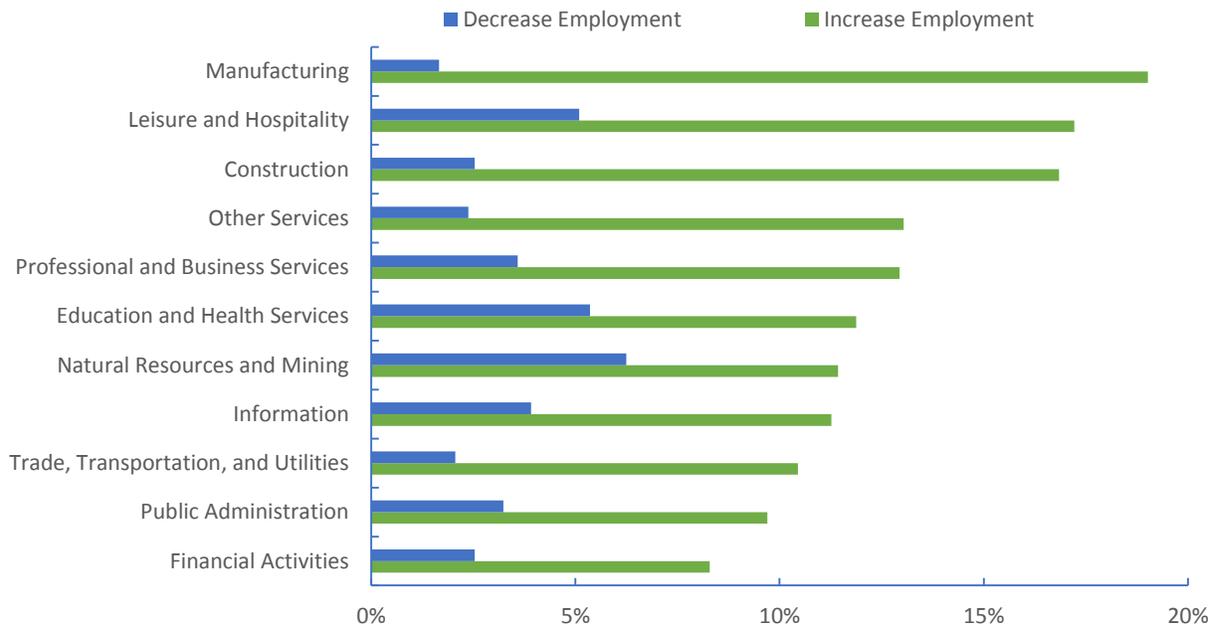
Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- Over half of total vacancies were in three supersectors: *Education and Health Services*; *Trade, Transportation and Utilities*; and *Leisure and Hospitality*. The large concentration of vacancies in *Education and Health Services* and *Trade, Transportation, and Utilities* is expected because these are among the largest industries in Michigan by total employment. (Figure 2.1)
- *Leisure and Hospitality* had the third most vacancies despite being the sixth largest in total employment. This is possibly due to the high turnover in this sector, or it may be a factor of seasonal influence, considering that the data was collected in April, May, and June, months associated with increased hiring in seasonal industries.

### **Hiring Expectations/Optimism by Industry**

- The JVS also gauged employer optimism by asking if they expected to increase, decrease, or have no change to employment levels over the next six months. Almost 70 percent of establishments expected employment levels to remain the same. Thirteen percent of employers expected to increase employment, 14 percent were uncertain, and only three percent predicted a decrease.

**Figure 2.2:** Employers' Expected Change in Employment by Industry Supersector



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

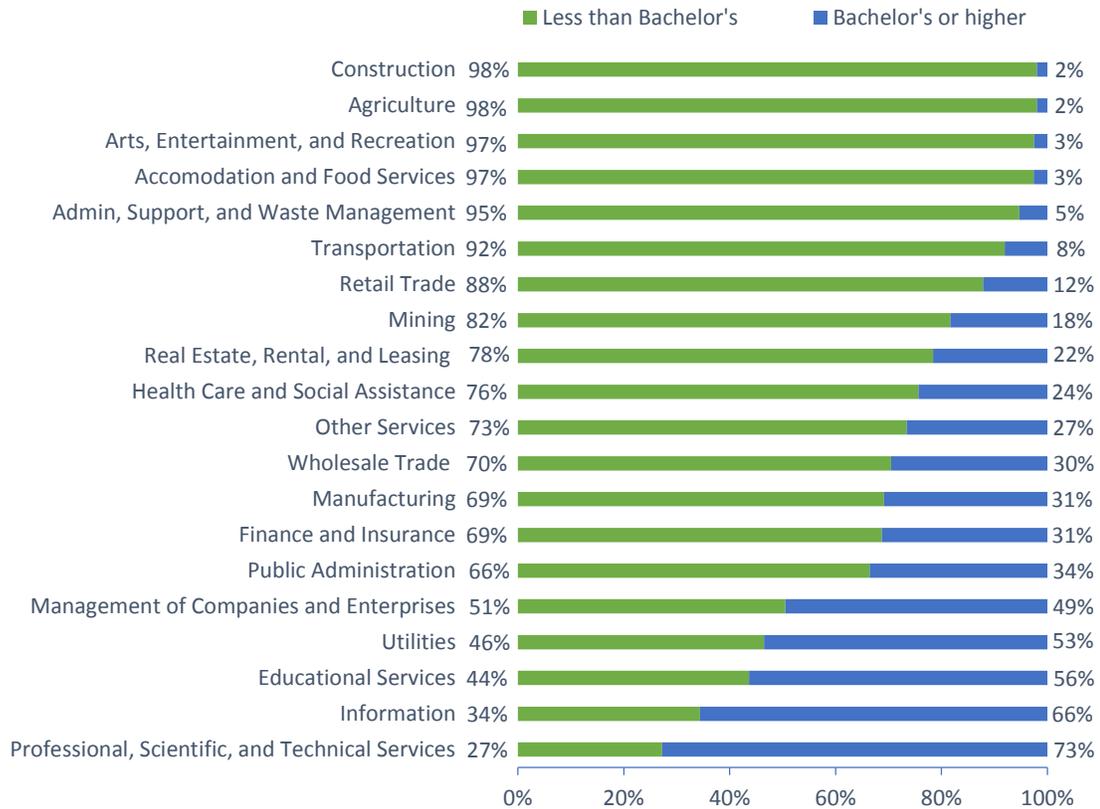
- The *Manufacturing* supersector appears more optimistic than other industries with a 17 percentage point differential between respondents expecting to increase employment versus those expecting a decrease in employment.
- The *Natural Resources and Mining* supersector may have less optimism than other sectors, with a five percentage point differential, followed by *Financial Activities* and *Public Administration* tied at a six percentage point differential.
- It is certainly worth mentioning that no industry had a negative percentage point differential in regards to future hiring.

**Education Needs by Industry**

- Only 1 out of every 5 vacancies statewide required a bachelor's degree or higher. Unsurprisingly, the industries with the highest share of vacancies requiring a bachelor's degree or more were *Professional, Scientific, and Technical Services; Information; Educational Services; Utilities; and Management of Companies and Enterprises*. About 50-70 percent of job vacancies in these high-skill sectors require at least a bachelor's degree (Figure 2.3). The industries with the lowest share were *Construction; Agriculture; Arts, Entertainment, and Recreation; and Accommodation and Food Service*, each requiring bachelor's degrees in less than five percent of vacancies.
- While a small share of openings in *Construction* and *Agriculture* require a bachelor's degree (Figure 2.3), these two industries differ in experience requirements. Jobs in the *Agriculture* industry required less than a year of experience in 59 percent of vacancies while the *Construction* industry required less than a year of experience in

32 percent of job openings. This is likely due to the many skilled trades occupations in the *Construction* industry such as *Electricians, Plumbers, Cement Masons and Concrete Finishers, Painters, etc.*

**Figure 2.3:** Required Education for Job Vacancies by Industry



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

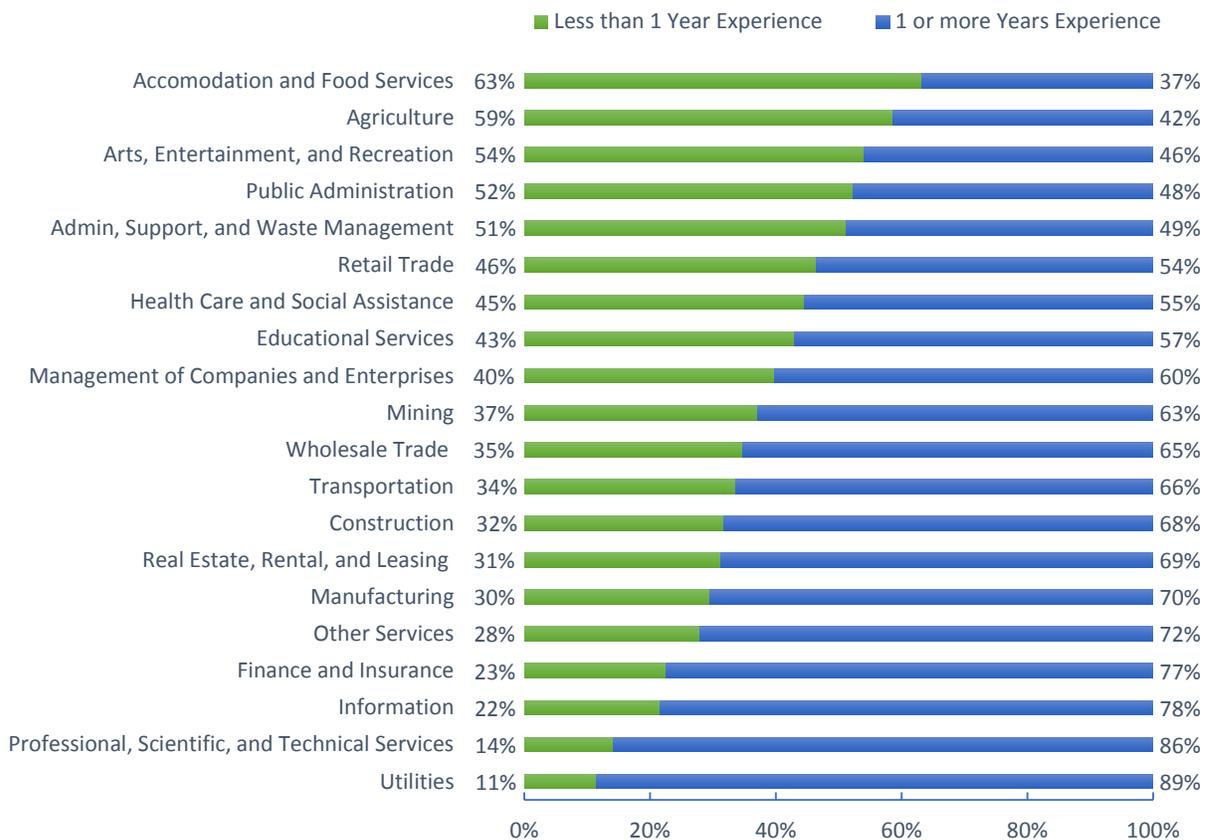
- Importantly, structural changes in the *Manufacturing* industry were reflected in the nearly one third of vacancies in that industry requiring at least a bachelor's degree. Occupations like *Mechanical Engineers, Industrial Engineers, and Electrical Engineers* were among those requiring high levels of education. Additionally, several skilled trades occupations like *Machinists, Tool and Die Makers, and Welders, Cutters, and Welder Fitters* reported vacancies in the industry.

**Experience Needs by Industry**

- Experience estimates show nearly 6 out of every 10 job vacancies required one year or more of related work experience. Only 5 of the 20 industries had a majority of vacancies that required less than one year of experience. These included *Accommodation and Food Services; Agriculture; and Arts, Entertainment, and Recreation*. The industries that have the greatest share of openings requiring experience over one year were *Utilities; Professional, Scientific, and Technical Services; and Information*.

- Industries that required higher levels of education, a bachelor's degree for instance, also tended to have more vacancies that required over a year of related work experience. Examples of this include industries such as: *Utilities; Information; and Professional, Scientific, and Technical Services*. The combination of higher experience and education requirements for vacancies in these industries suggest a high barrier to entry for jobseekers.
- *Educational Services, Public Administration, and Management of Companies and Enterprises* stood out as sectors with a higher than average share of vacancies requiring a bachelor's degree, but a lower than average share requiring a year or more of experience. As such, these industries may present excellent opportunities for recent college graduates or those with the required education looking for a career change.

**Figure 2.4:** Required Experience for Job Vacancies by Industry



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- The *Accommodation and Food Services* industry was unique in not only having the largest number of vacancies, but also having the greatest percentage of vacancies requiring less than one year of related work experience and less than a bachelor's degree. These observations suggest that this industry has the highest concentration of walk-in-ready jobs, and may be a good place for youth and other new entrants into the labor market to gain valuable work experience. In addition, this industry may have opportunities for the long-term unemployed who are seeking reemployment.

### III. Vacancies by Occupation

When focusing on occupations, this report will show which occupational groups have the greatest number of vacancies, as well a list of the top ten detailed occupations within the state of Michigan. Vacancies by occupation can also be examined by education requirements. By combining the findings of the JVS data with the occupational employment for Michigan, this study produced a Job Vacancy Rate for each occupational group. Additional analysis is provided showing requirements for experience and licensure for different occupational groups.

**Figure 3.1:** Vacancies by Major Occupational Group

SOC	Occupation Title	Number of Vacancies	% Total Vacancies	Employed (2014)	Job Vacancy Rate
<b>00-0000</b>	<b>All Occupations</b>	<b>145,000</b>	<b>100%</b>	<b>4,073,740</b>	<b>3.5</b>
11-0000	Management	4,000	3%	200,090	2.0
13-0000	Business and Financial Operations	7,500	5%	182,640	4.1
15-0000	Computer and Mathematical	4,500	3%	101,050	4.4
17-0000	Architecture and Engineering	7,300	5%	125,610	5.8
19-0000	Life, Physical, and Social Science	1,200	1%	30,010	4.0
21-0000	Community and Social Service	2,100	1%	56,950	3.6
23-0000	Legal	300	< 1%	24,800	1.1
25-0000	Education, Training, and Library	5,100	4%	232,450	2.2
27-0000	Arts, Design, Entertainment, Sports, and Media	3,600	2%	48,060	7.4
29-0000	Healthcare Practitioners and Technical	11,100	8%	257,300	4.3
31-0000	Healthcare Support	7,500	5%	142,250	5.3
33-0000	Protective Service	2,600	2%	72,840	3.5
35-0000	Food Preparation and Serving Related	19,400	13%	363,130	5.3
37-0000	Building and Grounds Cleaning and Maintenance	8,300	6%	121,720	6.8
39-0000	Personal Care and Service	4,800	3%	105,680	4.5
41-0000	Sales and Related	14,400	10%	418,870	3.4
43-0000	Office and Administrative Support	14,700	10%	617,770	2.4
45-0000	Farming, Fishing, and Forestry	100	< 1%	4,440	2.2
47-0000	Construction and Extraction	5,200	4%	119,030	4.4
49-0000	Installation, Maintenance, and Repair	6,200	4%	155,770	4.0
51-0000	Production	7,300	5%	432,800	1.7
53-0000	Transportation and Material Moving	7,500	5%	260,480	2.9

Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives: Occupational Employment Statistics and Michigan Job Vacancy Survey 2015

- The Job Vacancy Rate is a standardized measure of job vacancies, allowing for a better evaluation of labor demand across occupational groups. The rate was calculated by dividing the total vacancies in each occupational group by the number of individuals employed in the respective group.
- The overall Job Vacancy Rate was 3.5 vacancies for every 100 filled jobs. The occupational groups *Arts, Design, Entertainment, Sports, and Media* (7.4); and *Building and Grounds Cleaning and Maintenance* (6.8), led with the highest Job Vacancy Rate.

- In contrast, the occupational groups that had the lowest vacancy rates were *Legal* (1.1) and *Production* (1.7) occupations. *Legal* occupations made up less than one percent of the total number of job vacancies, while *Production* occupations comprised around five percent.
- The greatest share of all job openings came from the *Food Preparation and Serving; Sales; and Office and Administrative Support* occupational groups. Combined, these three occupational groups accounted for more than 1 in 3 of all job vacancies.
- The positions that made up the greatest number of vacancies within these occupation groups were *Combined Food Preparation and Serving Workers, Retail Salespersons, and Customer Service Representatives*. The reason for so many vacancies within these occupations was their high employment levels in the state’s labor market. Additionally, these detailed occupations typically have high seasonal hiring demand and a high turnover rate.
- Many *Production* and *Construction* skilled trades jobs require less education but more experience. These occupations made up nearly 8,000 vacancies in this study. Examples of these jobs include *General Maintenance and Repair Workers; Industrial Machinery Mechanics; and Heating, Air Conditioning, and Refrigeration Mechanics and Installers*.

### **Detailed Occupations**

The JVS estimates also provided in-depth statistics for some detailed occupations. The following analysis focuses on the education and benefit characteristics of the top 10 occupations with the most vacancies in Figure 3.2. It also highlights some of the findings for vacancies that required a license or offered an apprenticeship.

**Figure 3.2:** Top 10 Detailed Occupations with the Most Vacancies

SOC	Occupation	Total Vacancies	Less than Bachelor’s	No Key Benefits	All Key Benefits
35-3021	Combined Food Prep. and Serving Workers	7,400	100%	8%	10%
41-2031	Retail Salespersons	6,100	100%	6%	20%
29-1141	Registered Nurses	5,400	56%	3%	44%
31-1014	Nursing Assistants	4,100	98%	8%	28%
43-4051	Customer Service Representatives	3,900	90%	15%	37%
35-3031	Waiters and Waitresses	3,800	100%	46%	0%
41-2011	Cashiers	3,300	100%	28%	15%
17-2141	Mechanical Engineers	2,700	23%	0%	86%
37-3011	Landscaping and Grounds Keeping Workers	2,700	100%	39%	9%
53-3032	Heavy and Tractor-Trailer Truck Drivers	2,600	99%	8%	42%

Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- The ten occupations in Figure 3.2 together made up 29 percent of the total number of reported vacancies throughout Michigan. The occupation that had the greatest number of openings was *Combined Food Preparation and Serving Workers*, which made up 7,400 of the estimated vacancies. *Retail Salespersons* followed shortly behind, having over 6,000 of the estimated vacancies. The *Food Preparation and Serving Related* major occupational group had two jobs in the top 10 occupations with the most vacancies (Figure 3.2), totaling 11,200

job openings. The *Sales and Related* major occupational group also had two jobs on this list totaling 9,400 vacancies.

- Some of the positions with significant demand in the JVS are also included in *Michigan's Hot 50*, a publication that lists occupations showing a favorable mix of projected long-term job growth, projected annual job openings, and median wages. The jobs included in the top ten occupations from Figure 3.2 and in *Michigan's Hot 50* include, *Registered Nurses*, *Heavy and Tractor-Trailer Truck Drivers*, and *Mechanical Engineers*. These three occupations made up 7.5 percent of the total reported vacancies found within the JVS study.

### **Education by Top Occupations**

- Of the top ten occupations listed, all vacancies for *Combined Food Preparation and Serving Workers*, *Retail Salespersons*, *Waiters and Waitresses*, *Cashiers*, and *Landscaping and Grounds Keeping Workers* required less than a bachelor's degree. Combined, these five occupations made up 16 percent of the 145,000 estimated vacancies reported.
- Occupations with a large percentage of vacancies where employers were searching for candidates with a bachelor's degree or higher included 44 percent of *Registered Nurses* and 77 percent of *Mechanical Engineers*.
- While the entry level requirement for *Mechanical Engineers* is a bachelor's degree, a small percentage of vacancies for these positions did not require this level of education. This could be a result of openings for students seeking an internship or other work experience while pursuing a degree in engineering.

### **Benefits by Top Occupations**

- The JVS asked employers whether their vacancies offered key benefits including health insurance, paid time off, retirement savings, or no benefits at all. Of the occupations in Figure 3.2 with the greatest number of vacancies, *Mechanical Engineers* had the highest share of vacancies that offered all three key benefits, totaling 86 percent of vacancies. Over 40 percent of openings for *Registered Nurses* and *Heavy and Tractor-Trailer Truck Drivers* also offered all three key benefits.
- Top occupations with the greatest percentage of vacancies that offered no benefits included *Waiters and Waitresses* (46 percent) and *Landscaping and Grounds Keeping Workers* (39 percent).

### **Licensure Requirements**

- An estimated 27,500 vacancies, or nearly 1 in 5 total vacancies, required a license. Not surprisingly, licenses were most prevalent in *Healthcare Practitioner and Technical* occupations, followed by *Transportation* occupations. Health-related occupations requiring licensure include high-demand occupations like *Registered Nurses* and *Physicians* while *Truck Drivers* dominated transportation-related job titles. (Figure 3.3)
- Rounding out the top five occupational categories demanding licensure were *Healthcare Support; Building and Grounds Cleaning and Maintenance; and Installation, Maintenance, and Repair* occupations. Not only did these

categories report a large number of vacancies that required a license, they also registered a higher-than-average share of vacancies that needed a license.

**Figure 3.3: Top 10 Occupational Categories Requiring Licensure**

Occupation Category	Number of Vacancies Requiring Licensure	Share of Vacancies Requiring Licensure
<b>Total, All Occupations</b>	<b>27,500</b>	<b>19%</b>
Healthcare Practitioners and Technical	7,800	70%
Transportation and Material Moving	4,100	55%
Healthcare Support	2,300	31%
Building and Grounds Cleaning and Maintenance	1,900	23%
Installation, Maintenance, and Repair	1,500	25%
Personal Care and Service	1,200	25%
Construction and Extraction	1,100	21%
Sales and Related	1,100	7%
Office and Administrative Support	1,100	7%
Community and Social Services	900	45%

Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- Interestingly, many job titles in the *Installation Maintenance, and Repair* and *Construction and Extraction* categories were classified as skilled trades occupations. Indeed, several skilled trades occupations require licensure including *Carpenters, Plumbers, Electricians, Operating Engineers, Automotive Service Technicians, and Maintenance and Repair Workers*.

*"We are having a hard time finding qualified candidates, in particular: Bus Drivers, Licensed Social Workers, and Registered Nurses."*

*- Health Care and Social Assistance Employer*

- One concerning omission from the licensure list is *Architecture and Engineering* occupations. The JVS survey showed that only six percent of vacancies in this category required licensure. Because licenses are required in Michigan for many job titles in this category, employers indicating that licensure is not needed may lead to some confusion for some jobseekers and employers and potential mismatches during the recruitment process.

### **Apprenticeship**

- The Job Vacancy Survey asked employers to indicate whether an apprenticeship was required or offered for job vacancies. Interestingly, responses to the survey suggest that apprenticeships are not common among vacancies in the state’s labor market. In all, an estimated 1,500 vacancies, representing just one percent of the total, required or offered an apprenticeship.

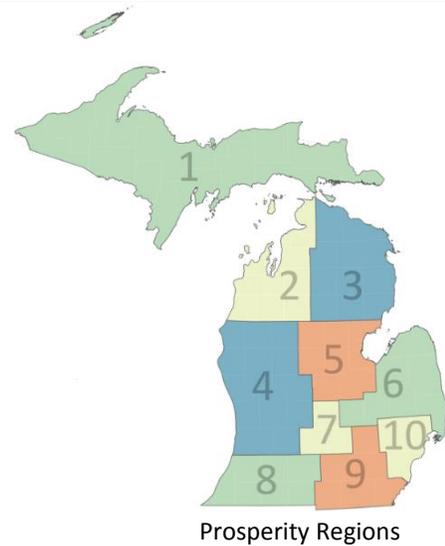
*"We use seasonal help sometimes, but we can't find good long term help, I would love to offer an apprenticeship."*

*- Construction Employer*

- As expected, skilled trades occupations led the way in apprenticeships. Job titles like *Tool and Die Makers; Plumbers; Electricians; and Heating, Air Conditioning, and Refrigeration Mechanics and Installers* were among the occupations most associated with apprenticeships.

## IV. Prosperity Regions

Information about job vacancies statewide can be very helpful to key users of labor market data. To increase its value, the JVS also produced vacancy estimates for each of Michigan’s 10 Prosperity Regions. While the Job Vacancy Rate for the state was 3.5 job vacancies for every 100 people employed, each of the prosperity regions also showed at least 2.5 openings for every 100 persons employed. Some regions required a higher than average educational attainment, while other regions paid more on average for open positions. The number of unemployed people by region also exhibits a potential population of applicants that could fill these openings if qualified.



**Figure 4.1:** Detailed Data by Prosperity Region

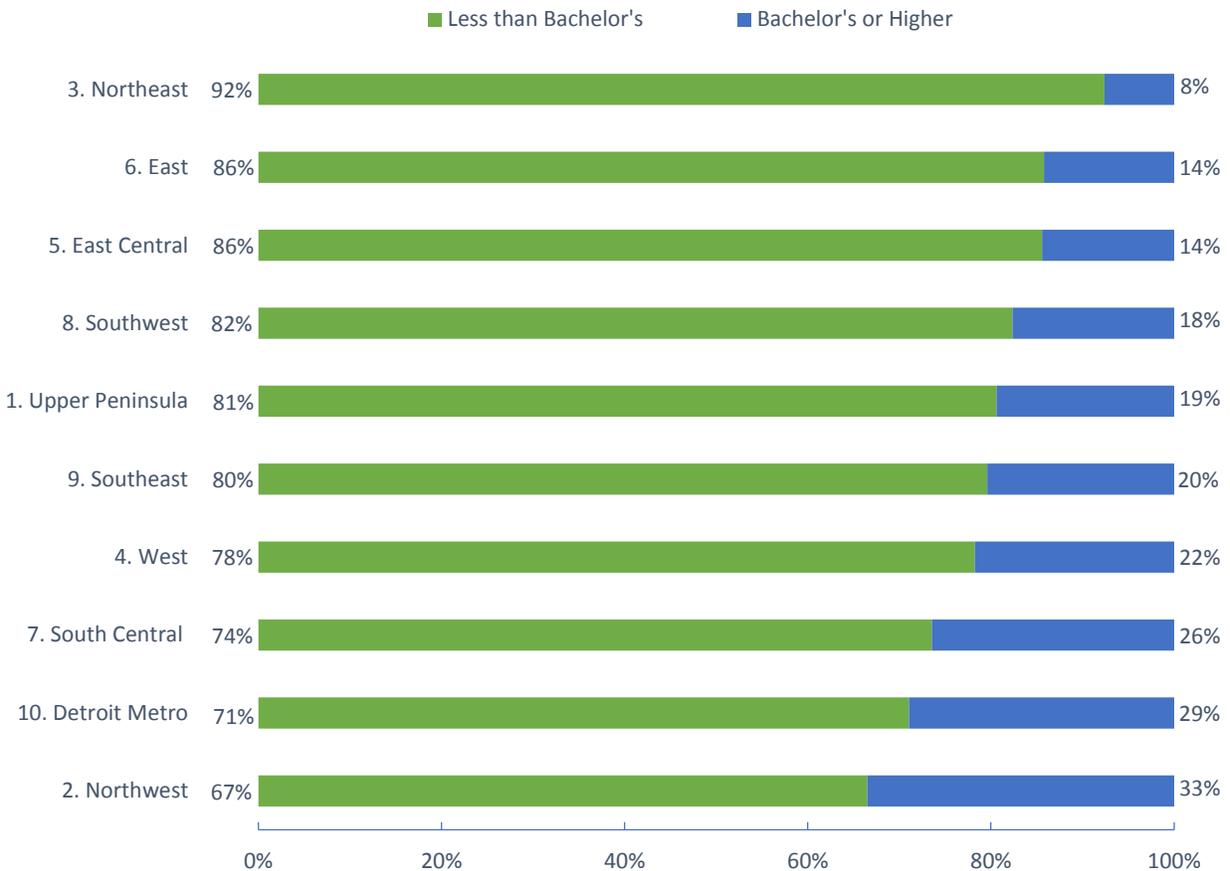
Prosperity Region	Vacancies	Employed (2014)	Job Vacancy Rate	Unemployed (2014)	Median Wage
<b>Statewide</b>	<b>145,000</b>	<b>4,073,740</b>	<b>3.5</b>	<b>348,000</b>	<b>\$14.00</b>
1. Upper Peninsula	4,300	115,000	3.7	11,600	\$12.00
2. Northwest	8,800	116,500	7.6	11,300	\$11.52
3. Northeast	3,300	58,700	5.5	8,200	\$12.00
4. West	18,900	670,800	2.8	44,500	\$15.00
5. East Central	5,800	211,700	2.7	19,000	\$11.00
6. East	7,200	262,700	2.7	32,900	\$14.00
7. South Central	6,900	200,100	3.4	13,900	\$15.80
8. Southwest	10,300	284,700	3.6	23,300	\$14.42
9. Southeast	14,100	388,400	3.6	29,300	\$13.00
10. Detroit Metro	60,000	1,741,000	3.4	153,900	\$14.50

**Source:** DTMB, Bureau of Labor Market Information and Strategic Initiatives: Occupational Employment Statistics, Local Area Unemployment Statistics, and Michigan Job Vacancy Survey 2015

- The top three industry supersectors with the most vacancies in Michigan were *Education and Health Services*; *Trade, Transportation and Utilities*; and *Leisure and Hospitality*. This was also true in most of the Prosperity Regions. However, in the South Central and Detroit Metro regions, *Professional and Business Services* was the supersector with the greatest number of vacancies. This is most likely due to the high occurrence of occupations such as *Office Clerks*, *Mechanical Engineers*, and *Janitors and Cleaners* in this sector.
- A majority of Prosperity Regions have a Job Vacancy Rate very similar to the statewide rate. The notable exceptions were the Northwest region with a rate of 7.6 and the Northeast region with a rate of 5.5. The Upper Peninsula had a rate of 3.7 percent, so the state’s three most northern regions had the highest vacancy rates in Michigan.

- Higher regional vacancy rates may reflect higher than average demand in these regions. However, because the JVS was conducted during the second quarter, regional vacancy rates may have been influenced by seasonal factors, especially in areas with significant spring and summer hiring demand.

**Education by Prosperity Region**



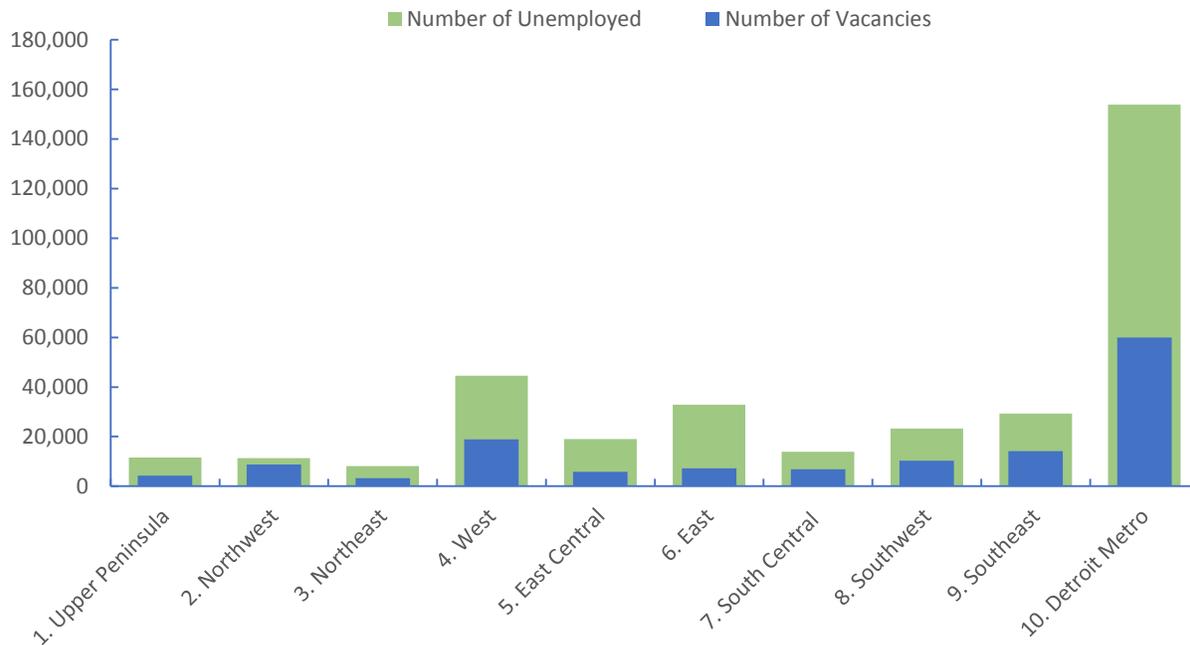
**Figure 4.2:** Required Education for Job Vacancies by Prosperity Region

Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- Of the 145,000 vacancies listed in Michigan, about 76 percent required less than a bachelor’s degree. Only 3 of the 10 regions reported vacancies with higher educational requirements than the statewide average.
- Interestingly, while the Northeast and Northwest regions are similar geographically, the estimates revealed a large variance in their educational requirements for vacancies. This is likely due to the differences in their economies or could be the result of a few establishments that were heavily recruiting during the time of this survey.

### Unemployed by Prosperity Region

**Figure 4.3:** Vacancies Compared to Unemployed Workers by Prosperity Region



**Source:** DTMB, Bureau of Labor Market Information and Strategic Initiatives: Local Area Unemployment Statistics and Michigan Job Vacancy Survey 2015

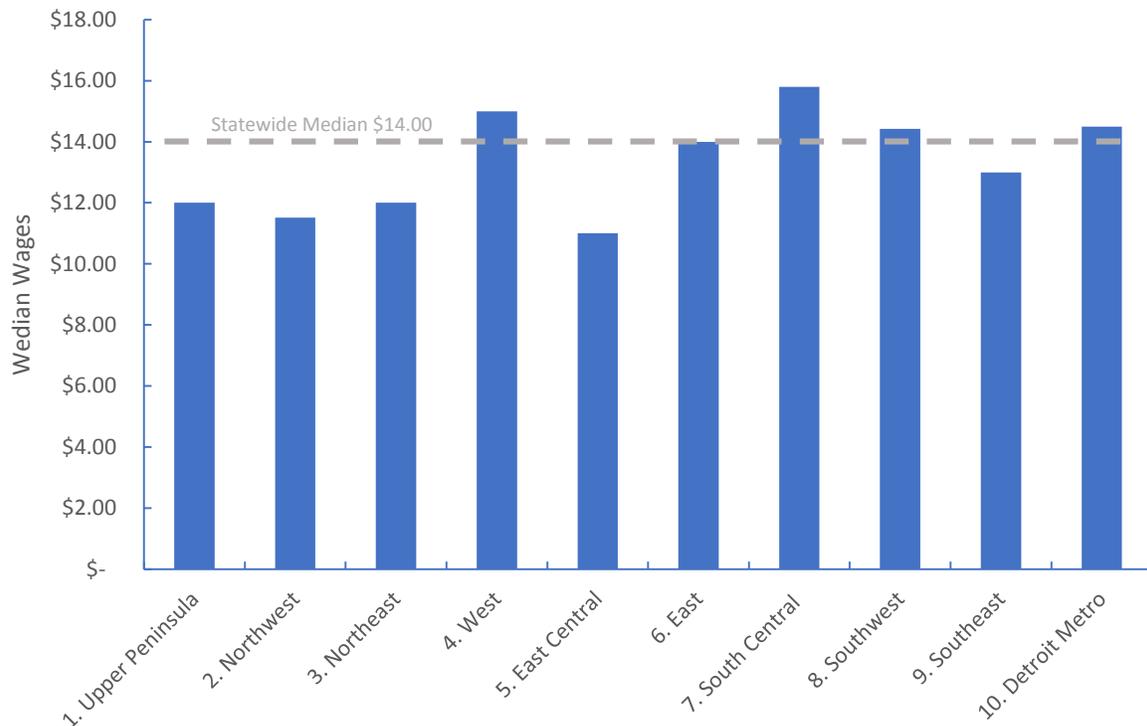
- There were more unemployed workers than job vacancies in every Prosperity Region. In fact, 9 out of 10 regions showed at least two times the number of unemployed people to open positions.
- Some of this is due to normal job churn in a healthy labor market. Larger gaps, like the one seen in the East Michigan Prosperity Region, signify a potential host of unemployed individuals that could be ready to work. Smaller gaps such as in the Northwest region could indicate an increased demand for workers beyond the current labor pool. Of course, some of the unemployed may not have the qualifications that establishments are demanding, or jobseekers may have barriers to a successful job search.

### Wages by Prosperity Region

- All but two regions had a median wage that is within \$2.00 of the statewide median of \$14.00 per hour. One notable observation showed that the northernmost areas including the Upper Peninsula, Northwest, Northeast, and East Central regions had the lowest median wage while the more populous regions generally offered starting wages higher than the statewide median. This could be due to the greater number of options job seekers had or the differences in cost of living in each Prosperity Region.

*“Our main office is at a disadvantage in hiring competent, qualified staff due to such a small population base. I would say our most current issue is hiring people who understand our industry and actually want to work.”*  
 - Finance and Insurance Employer

**Figure 4.4: Median Hourly Wage Offered for Vacancies by Prosperity Region**



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives  
Michigan Job Vacancy Survey 2015

- These wages represent what the typical vacancy was offering to new hires in each region. As workers gain experience their wages likely grow. Occupational wage data produced for the Prosperity Regions by the Bureau of Labor Market Information and Strategic Initiatives show that average experienced wages generally follow a similar trend. The Northern regions including the Upper Peninsula, Northwest, and Northeast have the lowest average experienced wage ranging from \$20-\$24 while the South Central, Southeast, and Detroit Metro regions have the highest average experienced wage ranging from \$27-\$31.

## Conclusion

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The Michigan Job Vacancy Survey estimated that there were 145,000 job openings in the second quarter of 2015. With at least two jobseekers per vacancy, filling these positions with the optimal candidate is ideal for employers and applicants. While a majority of these vacancies will get filled in less than three months, others stay vacant for longer periods of time. Understanding what these jobs offered for wages and benefits, as well as the education and experience businesses required, can help the workforce system plan talent development efforts more efficiently.

The Job Vacancy Survey found:

- Michigan had an estimated 145,000 job vacancies and also had 350,000 unemployed individuals. With two jobseekers for every vacancy, the potential labor pool was there to fill these openings quickly. Employers needed to find the candidates with the proper qualifications, while applicants sought an offer with the package they desired.
- Individuals with minimal education and experience have the potential to find many openings for which they could apply. Employers were recruiting for vacancies with no educational requirement or a high school education in 62 percent of openings and only required work experience in 41 percent of open positions.
- The median wage offered for vacancies in Michigan was \$14.00 per hour. This wage offer was typically higher or lower with some correlation to the experience and education employers required.
- Employers were optimistic about their future hiring expectations. Thirteen percent of them anticipated a job increase in the next six months, while only three percent predicted a decrease. The rest expected staffing levels to remain the same or were uncertain.
- Three of every four vacancies had been open for less than 90 days. The other vacancies may remain open due to unique requirements, unfavorable compensation packages or difficult working conditions. This may also simply be employers indefinitely looking to hire for certain positions.
- The top ten occupations with the most vacancies were *Combined Food Preparation and Serving Workers; Retail Salespersons; Registered Nurses; Nursing Assistants; Customer Service Representatives; Waiters and Waitresses; Cashiers; Mechanical Engineers; Landscaping and Grounds Keeping Workers; and Heavy and Tractor-Trailer Truck Drivers.*

## Survey Methodology

## Appendix 1

### Sample Design

Information on job vacancies for 2015 comes from a survey of 11,515 Michigan establishments. Surveyed employers were randomly selected from our Michigan Quarterly Census of Employment and Wages (QCEW) program. These establishments were selected from a universe of 192,000 establishments throughout Michigan that were identified by applying an Occupational Employment Statistics (OES) defined scope. The selected establishments were based on a sampling procedure that stratified by ten prosperity regions, 20 North American Industry Classification System (NAICS) industry sectors and three employment-size classes. The sampling process excluded private households, personnel service industries and establishments with no reported employees. Out of business, out of state and establishments that could not be located were removed from the sample through data processing.

### Survey Instrument and Results

Employers were asked to supply information on current job vacancies including the current number of job openings, future employment expectations, wage, education and work experience requirements, benefits, length of time job is vacant, and whether the position is part-time/full-time, permanent or temporary/seasonal. Establishments without job vacancies were also asked to return the survey reporting that information.

Survey questionnaires were mailed in succession in April 2015. Contact information, establishment size information, and industry classification for establishments were drawn from QCEW. Additional contact information was obtained through telephone calls and internet telephone directories. Survey mailing, online collection and follow-up telephone calls were used to solicit survey responses through June 2015 to achieve an overall response rate of 62 percent.

Following a review of the survey results, the data was weighted to produce estimates representative of Michigan's labor market in ten prosperity regions and statewide. The weighting procedure accounts for job vacancy distribution, industry employment by region and industry size by region.

### Matching Job Titles to the Standard Occupational Classification (SOC) System

Employers provided numerous specific open-for-hire job titles. Analysts reviewed these job titles and matched them to appropriate Standard Occupational Classification titles. Some employer job titles are not easily linked to a SOC group, so to clarify, the Job Vacancy Survey staff called the employers to obtain a position description of the vacant position in question. Along with the job title, additional information on the position such as wage, education and work experience are used to link the employer job title with an occupation title from the 2010 SOC title structures, which is a six-digit occupational code that is currently used by a number of different agencies, including the Bureau of Labor Statistics and the Census Bureau.

The 2010 SOC structure is a four-tiered structure with 840 detailed occupations that can be summarized into 461 broad occupations, 97 minor occupational groups, and 23 major occupational groups. This study contains major occupational groups and a group of related occupations at the two-digit occupational or major group level.

### Additional Note

Some of the comments from survey respondents shown throughout this report were changed slightly to correct for grammar.

**Industry NAICS Codes**

**Appendix 2**

Supersector	Industry	Description
Natural Resources and Mining	Agriculture, Forestry, Fishing, and Hunting	Establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats.
	Mining, Quarrying, and Oil and Gas Extraction	Establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas.
Construction	Construction	Establishments primarily engaged in the construction of buildings or engineering projects, in the preparation of sites for new construction, and in subdividing land for sales as building sites.
Manufacturing	Manufacturing	Establishments engaged in the mechanical, physical or chemical transformation of materials, substances, or components into new products.
Trade, Transportation & Utilities	Wholesale Trade	Establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.
	Retail Trade	Establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.
	Transportation and Warehousing	Establishments that provide transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation.
	Utilities	Establishments engaged in the provision of electric power, natural gas, steam supply, water supply, and sewage removal.
Information	Information	Establishments engaged in producing and distributing information and cultural products, processing data, and providing the means to transmit or distribute data, communications, information, and cultural products.
Financial Activities	Finance and Insurance	Establishments primarily engaged in financial transactions and/or facilitation financial transactions. Financial transactions are further defined as transactions involving the creation, liquidation, or change in ownership of financial assets.
	Real Estate and Rental and Leasing	Establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services.
Professional & Business Services	Professional, Scientific, and Technical Services	Establishments that specialize in performing professional, scientific, and technical activities for others.
	Management of Companies and Enterprises	Establishments that hold the securities (or other equity investors) of companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision making role of the company or enterprise.
	Administrative and Support and Waste Management and Remediation Services	Establishments performing routine support activities for the day-to-day operations of other organizations.
Education & Health Services	Educational Services	Establishments that provide instruction and training in a wide variety of subjects.
	Health Care and Social Assistance	Establishments providing health care and social assistance for individuals.
Leisure & Hospitality	Arts, Entertainment, and Recreation	Establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons.
	Accommodation and Food Services	Establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.
Other Services	Other Services	Establishments engaged in providing services not specifically provided for elsewhere in the classification system including equipment and machinery repairing, promoting or administering religious activities, grant making, advocacy, and providing dry cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.
Public Administration	Public Administration	Establishments of federal, state, and local government’s agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions in a given area.

**Occupational Group SOC Codes****Appendix 3**

SOC	Occupational Group	Sample Occupations
00-0000	All Occupations	
11-0000	Management Occupations	Medical and Health Services Administration, Director of Sales, Construction Manager, Information Systems Manager, Superintendent of Schools
13-0000	Business and Financial Operations Occupations	Accountant, Auditor, Financial Adviser, Human Resource Specialist, Mortgage Loan Officer
15-0000	Computer and Mathematical Occupations	Computer Analyst, Programmer, Software Developer, Systems Analyst, Web Developer
17-0000	Architecture and Engineering Occupations	Architectural Designer, Civil Engineer, Computer Designer, Electrical Engineer, Automotive Engineer
19-0000	Life, Physical, and Social Science Occupations	Behavioral Scientist, Chemists, Geneticist, Physiologist, Psychologist
21-0000	Community and Social Service Occupations	Case Manager, Counselor, Probation and Parole Officer, Social Worker, Youth Director
23-0000	Legal Occupations	Lawyers, Legal Assistant, Paralegal, Title Clerk, Title Examiner
25-0000	Education, Training, and Library Occupations	Adjunct Faculty, Librarians, Nursing Instructor, Paraprofessional, Teacher Assistants
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	Art Director, Athletic Coach, Designer, Journalist, News Reporter
29-0000	Healthcare Practitioners and Technical Occupations	Dentist, Lab Technician, Licensed Practical Nurse, Pharmacist, Registered Nurses
31-0000	Healthcare Support Occupations	Certified Nursing Assistant, Home Health Aides, Medical Assistants, Nursing Aides, Orderlies, and Attendants, Veterinary Technician
33-0000	Protective Service Occupations	Correction Officer, Firefighter, Police Officer, Security Officer, Warden
35-0000	Food Preparation and Serving Related Occupations	Bartender, Chef, Fast Food Worker, Host/Hostess, Servers (Waiters and Waitresses)
37-0000	Building and Grounds Cleaning and Maintenance Occupations	Building Superintendent, Cleaning Person, Housekeeper, Janitor Custodian, Landscaper
39-0000	Personal Care and Service Occupations	Camp Counselor, Flight Attendants, Hairstylist, Personal Trainer, Valet
41-0000	Sales and Related Occupations	Advertising Sales Agents, Cashiers, Retail Salespersons, Sales Clerk, Telemarketer
43-0000	Office and Administrative Support Occupations	Administrative Assistant, Bookkeeper, Customer Service Representatives, Receptionist, Secretary
45-0000	Farming, Fishing, and Forestry Occupations	Farm Worker (Crop, Nursery, and Greenhouse), Laborer, Picker, Seaman, Tree Cutter
47-0000	Construction and Extraction Occupations	Building Inspector, Driller, Drywall Finisher, Molder, Pipe Layer
49-0000	Installation, Maintenance, and Repair Occupations	Auto Technician, HVAC Installer, Locksmith, Tire Worker, Utility
51-0000	Production Occupations	Assembler, Dry Cleaner, Grinders, Sewing, Welder
53-0000	Transportation and Material Moving Occupations	School Bus Drivers, Commercial Pilots, Taxi Drivers and Chauffeurs, Industrial Truck and Tractor Ship Loaders, Parking Lot Attendants

**Prosperity Regions****Appendix 4**

Region	Region Name	Counties
1	Upper Peninsula Prosperity Alliance	Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft
2	Northwest Prosperity Region	Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, Wexford
3	Northeast Prosperity Region	Alcona, Alpena, Cheboygan, Crawford, Iosco, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon
4	West Michigan Prosperity Alliance	Allegan, Barry, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa
5	East Central Michigan Prosperity Region	Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Midland, Saginaw
6	East Michigan Prosperity Region	Genesee, Huron, Lapeer, St. Clair, Sanilac, Shiawassee, Tuscola
7	South Central Prosperity Region	Clinton, Eaton, Ingham
8	Southwest Prosperity Region	Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, Van Buren
9	Southeast Michigan Prosperity Region	Hillsdale, Jackson, Lenawee, Livingston, Monroe, Washtenaw
10	Detroit Metro Prosperity Region	Macomb, Oakland, Wayne

