MICHIGAN'S LABOR MARKET NEWS

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Five Key Questions about Michigan Jobs by Occupation Feature Story | pg. 16

Michigan Jobless Rate Down, Payroll Jobs Advance

Occupational Focus: Commercial and Industrial Designers

pg. 21

From February-April 2017, Michigan's iobless rate fell sharply by 0.6 percentage points.

APRIL 2017 JOBLESS RATES

MICHIGAN 4.7%

NATIONAL 4.4%

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The Bureau of Labor Market Information and Strategic Initiatives is the official source for high quality demographic and labor market information for the state of Michigan and its regions.

We administer the state's federal-state cooperative programs with the Bureau of Labor Statistics (BLS) and the Census Bureau and produce high-quality information and analysis through grants from the U.S. Department of Labor and from partner agencies in the state of Michigan.

We provide our national, state, and local partners and customers with accurate, objective, reliable, timely, accessible, and transparent information and insights



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In Michigan, our team works on the state's federal-state cooperative programs with the Bureau of Labor Statistics (BLS) and the U.S. Census Bureau. These programs allow us to produce and present the high-quality labor market and demographic information that helps you make smarter decisions. Two of these programs (the Current Employment Statistics (CES) and the Local Area Unemployment Statistics (LAUS) programs) provide the monthly information on labor force, employment, unemployment and industry jobs that we always feature in the opening pages of this publication.

In this issue of *Michigan's Labor Market News*, we highlight another one of these programs: the Occupational Employment Statistics (OES) program. This program is a semi-annual survey of Michigan establishments, with approximately 12,000 businesses sampled annually. Information gleaned from this survey includes employment and wage estimates for nearly 800 occupations in Michigan, our fourteen Metropolitan Statistical Areas (MSAs), and our ten Prosperity Regions.

Using recently released OES data, the team in this issue addresses *Five Key Questions about Jobs by Occupation in Michigan* (page 16), highlights *Commercial and Industrial Designers*, which is a highly-concentrated, highlycompensated occupation in Michigan (page 21), and discusses the many potential uses of occupational information (page 26).

Is there something you would like to know more about? Please let us know.

JASON PALMER

DIRECTOR Bureau of Labor Market Information and Strategic Initiatives

MICHIGAN'S APRIL UNEMPLOYMENT RATE DROPS

The Michigan April 2017 seasonally adjusted jobless rate fell over the month by three-tenths of a percentage point to 4.7 percent. Over the two-month period from February to April, Michigan's jobless rate declined sharply by sixtenths of a percentage point. In April, Michigan's total employment level jumped by 18,000 while the number of unemployed dropped by 17,000. The state's workforce was little changed over the month.

Seasonally adjusted Michigan payroll jobs rose by 11,000 in April.

Steady Employment Gains So Far During 2017

Total employment in Michigan has risen every month so far in 2017, with an average gain of 17,000 per month. The average monthly total employment increase in 2016 was a little over 8,000 per month. Like total employment, the state's workforce growth in early 2017 has outpaced the gains posted in 2016. Labor force levels in the first four months of 2017 were up by 53,000 or 1.1 percent, while Michigan's workforce grew by 79,000 or 1.7 percent for the entire year in 2016. As job creation in the state continued to advance in 2016 and 2017, Michigan residents that were previously on the sidelines of the job market may have entered or re-entered the labor force.

Very Low Levels of Michigan Unemployed

The number of Michigan unemployed in April at 231,000 was similar to the monthly levels recorded in the first half of 2016. For the two years since April 2015, the number of unemployed in Michigan has mostly remained below the 250,000 level. The state's average unemployment rate over this period was 5.1 percent. This relatively low level of unemployment in Michigan has not occurred since the mid-1990s into early 2001, when jobless levels in the state were the lowest since at least 1976. From January 1996 through April 2001, the average number of unemployed in Michigan was 207,000 with an average jobless rate of 4.1 percent. It is also true that despite the current low jobless rates in Michigan, the level of employment in the state remains about 170,000 below 2001 levels.

MICHIGAN LABOR FORCE ESTIMATES (SEASONALLY ADJUSTED)									
	APR 2016	MAR 2017	APR 2017	CHANGE OVER THE MONTH	CHANGE OVER THE YEAR				
Labor Force	4,808,000	4,914,000	4,915,000	+1,000	+107,000				
Employed	4,575,000	4,666,000	4,684,000	+18,000	+109,000				
Unemployed	233,000	248,000	231,000	-17,000	-2,000				
Jobless Rate	4.9	5.0	4.7	-0.3	-0.2				

MICHIGAN'S SEASONALLY ADJUSTED PAYROLL JOBS (2012 TO 2016 ANNUAL AND APRIL 2017)







MICHIGAN'S SEASONALLY ADJUSTED JOBLESS RATES (2012 TO 2016 ANNUAL AND APRIL 2017)

MICHIGAN JOB TRENDS BY INDUSTRY SECTOR

Monthly Overview

Total Michigan nonfarm jobs moved higher by 10,900 in April to 4,389,400. This was one of the largest monthly job advances in Michigan so far this year. Job additions were led by *Manufacturing* (+7,900), *Leisure and hospitality* (+3,800), *Professional and business services* (+3,400), and *Other services* (+2,700). These gains were countered somewhat by employment losses in *Trade, transportation, and utilities* (-3,200), *Education* and *health services* (-1,600), and *Government* (-1,000).

Over the Year Analysis

Between April 2016 and April 2017, Michigan nonfarm employment increased by 73,600, or 1.7 percent. This roughly matched the 1.6 percent growth rate nationally during this period. In Michigan, every major industry sector except Trade, transportation, and utilities (-1,200) contributed to the over the year job advance. The majority of this over the year growth occurred in Professional and business services (+18,100), Leisure and hospitality (+15,000), and Government (+11,000). Other broad sectors with notable over the year job gains included Construction (+8,200), Manufacturing (+6,800), Education and health services (+5,500), Financial activities (+5,100), and Other services (+4,100). The state's large Transportation equipment manufacturing industry added only 1,200 jobs since April 2016. On a percentage basis, the Construction sector led the way with a 5.3 percent job advance.

Nearly Continuous Job Gains Since September 2015

Michigan payroll jobs have registered very steady gains since September 2015. In fact, jobs have grown in 17 of the past 19 months and were up a strong 139,400 (+3.3 percent) over this period. This recent job expansion was notably above the 2.7 percent growth nationally during this period.

Job gains have taken place in all of the major industry sectors since September 2015 with over one-third of these additions recorded in *Professional and business services* (+25,900) and *Leisure and hospitality* (+22,900). Significant employment growth also took place during this time-period in *Education and health services* (+17,300), *Manufacturing* (+17,200), *Government* (+17,100), *Construction* (+15,200), *Financial activities* (+8,400), *Trade, transportation, and utilities* (+7,700), and *Other services* (+5,900).

The state's key *Transportation equipment manufacturing* industry added 4,400 jobs since September 2015.

Significant Industry Employment Developments

MANUFACTURING

Employment in the *Manufacturing* sector increased by 7,900 during April. Both the *Durable goods* (+6,800) and *Nondurable goods* (+1,100) subsectors contributed to this gain. Part of the *Durable goods* addition reflected a job increase in *Machinery manufacturing*. The *Nondurable goods* advance was the product of modest job additions by employers across numerous component industries. Job levels in *Transportation equipment manufacturing* were essentially flat in April. Since April 2016, *Manufacturing* payrolls have grown by 6,800. Nationally, job levels rose by 6,000 over the month and by a modest 40,000 over the year.

LEISURE AND HOSPITALITY

Employers in this sector added 3,800 workers in April. This increase was somewhat large for this month, but partially reflected a rebound from an atypically large job reduction in March. The majority of the April job additions took place in the Accommodation and food services (+3,600) subsector. This monthly subsector gain brought job levels to a series high of 386,600, and was mainly due to strong hiring among Limited-service eating places. Payrolls in the Arts, entertainment, and recreation subsector notched higher by 200 over the month. Since April 2016, Leisure and hospitality payrolls have grown by 15,000 or 3.5 percent. The majority of this increase was recorded in Accommodation and food services (+13,300). Nationally, employment rose by 55,000 over the month and by 2.0 percent since April 2016.

RETAIL TRADE

Retail trade jobs contracted by 3,200 in April after rising by 4,200 in March. The April decrease marked the fifth time in the past seven months that employment levels have declined in this sector. A portion of this downward trend in jobs over the past several months can be attributed to retail store closings taking place in this sector. However, part of the reason for fewer job additions in April involved the timing of spring hiring, which was higher in March 2016 than usual in industries such as Grocery stores and Building material and garden equipment and supplies dealers. Since April 2016, Retail trade employment levels were down by -2,600 or -0.5 percent. Nationally, job levels rose by 6,300 over the month and by 0.5 percent over the year.

ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES

Payrolls in this sector rose by 2,500 in April. This increase was the result of a combination of significantly stronger seasonal employment gains in *Services to buildings and dwellings* and smaller than typical April payroll declines in *Employment services*. Payrolls have increased by 9,600 (+3.3 percent) over the year, as this sector has accounted for over half of the job gains since April 2016 in the broad sector of *Professional and business services* (+18,100). Nationally, employment increased by 14,500 over the month and by 3.0 percent over the year.

METROPOLITAN STATISTICAL AREAS (MSAS)

Thirteen of the state's 14 metro areas reported payroll job additions during April, *on a not seasonally adjusted basis*.

These payroll increases ranged from +1.4 percent in the Jackson MSA to +0.2 percent in the Benton Harbor metro area. The Detroit (+1.2 percent) and Midland (+1.1 percent) metro areas also reported job advances above the statewide average of +0.9 percent.

MICHIGAN PAYROLL JOBS (SEASONALLY ADJU	STED)						
	APR	MAR	APR	OVER TI	HE MONTH	OVEF	THE YEAR
INDUSTRY	2017	2017	2016	LEVEL	PERCENT	LEVEL	PERCENT
TOTAL NONFARM	4,389,400	4,378,500	4,315,800	10,900	0.2%	73,600	1.7%
Total Private	3,782,000	3,770,100	3,719,400	11,900	0.3%	62,600	1.7%
Private Service-Providing	3,002,200	2,998,300	2,954,700	3,900	0.1%	47,500	1.6%
GOODS-PRODUCING	779,800	771,800	764,700	8,000	1.0%	15,100	2.0%
Mining, Logging and Construction	171,300	171,200	163,000	100	0.1%	8,300	5.1%
Mining and Logging	7,500	7,300	7,400	200	2.7%	100	1.4%
Construction	163,800	163,900	155,600	-100	-0.1%	8,200	5.3%
Manufacturing	608,500	600,600	601,700	7,900	1.3%	6,800	1.1%
Durable Goods	459,500	452,700	453,800	6,800	1.5%	5,700	1.3%
Transportation Equipment Manufacturing	181,600	181,200	180,400	400	0.2%	1,200	0.7%
Nondurable Goods	149,000	147,900	147,900	1,100	0.7%	1,100	0.7%
SERVICE-PROVIDING	3,609,600	3,606,700	3,551,100	2,900	0.1%	58,500	1.6%
Trade, Transportation, and Utilities	780,900	784,100	782,100	-3,200	-0.4%	-1,200	-0.2%
Wholesale Trade	171,600	171,700	172,000	-100	-0.1%	-400	-0.2%
Retail Trade	470,900	474,100	473,500	-3,200	-0.7%	-2,600	-0.5%
Transportation, Warehousing, and Utilities	138,400	138,300	136,600	100	0.1%	1,800	1.3%
Information	58,200	58,800	57,300	-600	-1.0%	900	1.6%
Financial Activities	216,700	217,300	211,600	-600	-0.3%	5,100	2.4%
Finance and Insurance	162,600	162,600	159,200	0	0.0%	3,400	2.1%
Real Estate and Rental and Leasing	54,100	54,700	52,400	-600	-1.1%	1,700	3.2%
Professional and Business Services	663,900	660,500	645,800	3,400	0.5%	18,100	2.8%
Professional, Scientific, and Technical Services	300,400	299,500	294,100	900	0.3%	6,300	2.1%
Management of Companies and Enterprises	62,400	62,400	60,200	0	0.0%	2,200	3.7%
Administration and Support and Waste Management and Remediation Services	301,100	298,600	291,500	2,500	0.8%	9,600	3.3%
Education and Health Services	669,600	671,200	664,100	-1,600	-0.2%	5,500	0.8%
Educational Services	71,400	72,900	73,800	-1,500	-2.1%	-2,400	-3.3%
Health Care and Social Assistance	598,200	598,300	590,300	-100	0.0%	7,900	1.3%
Leisure and Hospitality	439,600	435,800	424,600	3,800	0.9%	15,000	3.5%
Arts, Entertainment, and Recreation	53,000	52,800	51,300	200	0.4%	1,700	3.3%
Accommodation and Food Services	386,600	383,000	373,300	3,600	0.9%	13,300	3.6%
Other Services	173,300	170,600	169,200	2,700	1.6%	4,100	2.4%
Government	607,400	608,400	596,400	-1,000	-0.2%	11,000	1.8%
Federal Government	52,000	52,400	51,600	-400	-0.8%	400	0.8%
State Government	194,200	194,100	187,100	100	0.1%	7,100	3.8%
Local Government	361,200	361,900	357,700	-700	-0.2%	3,500	1.0%

TOTAL NONFARM PAYROLL JOB GROWTH (MICHIGAN: SEPTEMBER 2015 - APRIL 2017)

INDUSTRY	JOB CHANGE
Total Nonfarm	139,400
Mining and Logging	100
Construction	15,200
Manufacturing	17,200
Transportation Equipment Manufacturing	4,400
Trade, Transportation, and Utilities	7,700
Information	1,700
Financial Activities	8,400
Professional and Business Services	25,900
Educational and Health Services	17,300
Leisure and Hospitality	22,900
Other Services	5,900
Government	17,100



MICHIGAN OVER THE MONTH PAYROLL JOB CHANGE (IN THOUSANDS)







MICHIGAN'S OVER THE MONTH JOB CHANGE BY SELECT INDUSTRY (MARCH 2017 - APRIL 2017)



METRO AREA JOB CHANGE MARCH 2017 - APRIL 2017 (NOT SEASONALLY ADJUSTED)



REGIONAL LABOR MARKET ANALYSIS

ANN ARBOR METROPOLITAN AREA

- The Ann Arbor metro area unemployment rate fell by 0.6 percentage points between March 2017 and April 2017.
- The region's unemployment rate has continuously been the lowest among all Michigan metropolitan areas since the beginning of the year.

MONTHLY INDUSTRY DEVELOPMENTS

- Payroll jobs in the Ann Arbor metro area increased by 1,300 (+0.6 percent) during April.
- Industries with the largest over-the-month job advances on a percentage basis included Administrative and support and waste management and remediation services and Leisure and hospitality.

INDUSTRY TRENDS

 The area's *Professional, scientific, and technical services* industry has been steadily adding jobs in recent years, culminating in a new record high of 17,700 jobs for April.

BAY CITY METROPOLITAN AREA

- April 2017 in the Bay City metro area was characterized by a labor force reduction of 1.2 percent, and no gains in employment.
- Despite this, the April jobless rate fell significantly to 4.4 percent, as the number of job seekers declined over the month. The jobless rate is now nearly a full percentage point below the April 2016 level.

MONTHLY INDUSTRY DEVELOPMENTS

 Payroll jobs edged down slightly in April, driven by reductions in a number of industries, including *Professional and business services* and *Other services*.

INDUSTRY TRENDS

• *Manufacturing* employment in the Bay City metro area continues to display the gradual but steady recovery that began in 2014. Employment in April measured 4,200, the highest April job level recorded in over 10 years.

FLINT METROPOLITAN AREA

- The Flint MSA jobless rate fell again in April, down by -1.1 percentage points to 4.3 percent. This was the second consecutive month with a sharp seasonal rate decline.
- Although the Flint MSA jobless rate stood at its lowest April level since 2000, current labor force and employment counts remain well below peak levels. This reflects long-term reductions in both population and labor force participation in the area.

MONTHLY INDUSTRY DEVELOPMENTS

• April payroll jobs rose by 0.7 percent in the Flint region, led by *Construction*, up 400 jobs or 9.1 percent, and *Professional and business services*, up 600 jobs or 3.9 percent.

INDUSTRY TRENDS

• The monthly advance in *Construction* jobs reflects the upward momentum in job creation in the sector. Jobs in 2016 had increased for five consecutive years to match 2008 levels.

BATTLE CREEK METROPOLITAN AREA

- In April, the Battle Creek jobless rate fell by 0.8 percentage points to 3.6 percent. Employment edged up, while unemployment dropped by 600.
- Over the past year, employment and labor force were up (+700 and +200), but the number of unemployed fell 600; and the jobless rate declined.

MONTHLY INDUSTRY DEVELOPMENTS

- Jobs inched up 200 in April, mostly from seasonal hiring in *Construction and mining*, and *Leisure and hospitality*.
- Since April 2016, the Battle Creek MSA added 500 payroll jobs, with small gains in several sectors.

INDUSTRY TRENDS

• *Retail jobs* in the Battle Creek metro area have stagnated, averaging 5,700 for each year from 2013-2016.

DETROIT-WARREN-DEARBORN METRO AREA

- Joblessness in the Detroit metro area fell in April for the third consecutive month, down a full percentage point to 4.0 percent.
- Labor force expansion over the past year (+2.4 percent) has exceeded statewide gains.

MONTHLY INDUSTRY DEVELOPMENTS

 Regional payroll jobs jumped by 24,400 (+1.2 percent) during April, with large seasonal over-the-month percent employment gains in Arts, entertainment, and recreation, Services to buildings and dwellings, and Specialty trade contractors.

INDUSTRY TRENDS

• *Clothing and clothing accessories stores* employment in the Detroit metro area is at an all-time low. Jobs fell to 18,400 in 2016, down by 800 since 2012.

GRAND RAPIDS-WYOMING METROPOLITAN AREA

- Joblessness in the Grand Rapids metro area fell by 0.7 percentage points in April 2017, down to 2.4 percent.
- The Grand Rapids MSA had the second lowest unemployment rate among all Michigan metropolitan areas in April.

MONTHLY INDUSTRY DEVELOPMENTS

- Payroll jobs in the region increased by 3,800, or 0.7 percent during the month of April.
- Large seasonal industry job gains were seen in *Mining, logging, and construction*, and *Leisure and hospitality*.

INDUSTRY TRENDS

• The Grand Rapids regional *Manufacturing* sector has been steadily adding jobs since 2009. It is currently at a ten-year industry high of 114,000 jobs.

CIVILIAN LABOR FORCE AND NONFARM PAYROLL JOBS										
	ANN ARBOR			BAT	BATTLE CREEK			BAY CITY		
	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	
PLACE OF RESIDENCE										
Labor Force	194,300	194,600	193,200	64,400	64,700	64,200	51,200	51,800	52,100	
Employment	190,000	189,000	187,300	62,100	61,800	61,400	49,000	49,000	49,300	
Unemployment	4,300	5,500	5,900	2,300	2,900	2,900	2,300	2,800	2,800	
Rate (percent)	2.2	2.8	3.0	3.6	4.4	4.5	4.4	5.5	5.3	
PLACE OF WORK										
Total Nonfarm Jobs	222,300	221,000	219,700	59,300	59,100	58,800	35,500	35,800	36,300	
Mining, Logging & Construction	3,900	3,800	3,900	1,300	1,200	1,400	900	800	1,000	
Manufacturing	14,900	14,700	14,500	12,400	12,600	12,200	4,200	4,300	4,100	
Trade, Transportation & Utilities	25,200	25,200	25,800	9,100	9,000	9,200	7,500	7,600	7,600	
Wholesale Trade	5,500	5,500	5,600	*	*	*	*	*	*	
Retail Trade	16,200	16,200	16,700	5,500	5,500	5,600	5,000	5,100	5,100	
Information	5,100	5,100	5,100	*	*	*	600	600	600	
Financial Activities	7,000	7,000	7,100	1,300	1,300	1,300	1,200	1,200	1,300	
Professional & Business Services	30,700	30,100	29,300	6,200	6,100	6,100	2,800	3,100	3,300	
Educational & Health Services	27,400	27,200	27,300	11,200	11,200	10,900	6,600	6,600	6,700	
Leisure & Hospitality	17,300	16,800	17,300	4,700	4,500	4,700	4,600	4,500	4,600	
Other Services	6,400	6,300	6,600	2,100	2,000	2,100	1,300	1,400	1,500	
Government	84,400	84,800	82,800	10,900	10,900	10,800	5,800	5,700	5,600	

		WARREN-DI		FLINT			GRAND RAPIDS-WYOMING			
	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	
PLACE OF RESIDENCE										
Labor Force	2,078,000	2,089,600	2,029,700	181,500	182,300	182,200	572,200	573,800	563,800	
Employment	1,995,500	1,984,200	1,935,800	173,800	172,400	172,600	558,700	556,000	545,800	
Unemployment	82,500	105,500	93,900	7,700	9,900	9,600	13,600	17,800	18,000	
Rate (percent)	4.0	5.0	4.6	4.3	5.4	5.3	2.4	3.1	3.2	
PLACE OF WORK										
Total Nonfarm Jobs	2,003,200	1,978,800	1,965,100	139,600	138,600	139,600	553,900	550,100	542,000	
Mining, Logging & Construction	73,900	68,100	65,600	4,800	4,400	4,500	23,400	22,400	21,800	
Manufacturing	246,600	244,500	244,100	11,900	12,000	12,300	114,000	113,600	110,900	
Trade, Transportation & Utilities	362,200	360,200	360,600	29,700	29,700	29,200	95,000	94,800	95,500	
Wholesale Trade	86,600	85,900	85,900	5,600	5,800	5,500	30,900	30,700	31,000	
Retail Trade	207,300	206,000	207,900	20,400	20,200	20,300	48,800	48,900	49,500	
Information	27,900	27,900	28,000	3,900	3,900	4,000	5,100	5,100	5,200	
Financial Activities	114,200	114,000	110,500	6,000	6,000	6,200	26,200	26,100	25,500	
Professional & Business Services	401,000	393,200	390,800	15,800	15,200	15,300	78,900	78,200	78,600	
Educational & Health Services	313,500	313,300	309,700	28,100	28,200	28,200	91,600	91,900	87,900	
Leisure & Hospitality	196,900	190,800	192,400	15,300	15,100	15,400	49,300	47,600	46,900	
Other Services	75,700	75,400	76,000	5,500	5,400	5,400	22,300	22,200	22,100	
Government	191,300	191,400	187,400	18,600	18,700	19,100	48,100	48,200	47,600	
* Data Not Available										

JACKSON METROPOLITAN AREA

- Employment rose in April in the Jackson MSA (+800), while unemployment dropped (-700), resulting in a monthly jobless rate decline of a full percentage point to 3.4 percent.
- Over the year, metro area employment expanded, and Jackson's number of resident unemployed plunged by over 26 percent.

MONTHLY INDUSTRY DEVELOPMENTS

- Jobs in the Jackson MSA advanced by 800 or 1.4 percent in April. Jobs edged up across multiple industries led by *Educational and health services* (+200).
- Since April 2016, jobs in *Service-providing* industries were essentially flat while *Manufacturing* employment advanced (+400).

INDUSTRY TRENDS

• Since 2010, payroll jobs in the Jackson area have grown by 4,800 or +8.9 percent, with 71 percent of the growth in *Goods-producing* industries (mostly *Manufacturing*).

LANSING-EAST LANSING METROPOLITAN AREA

- The Lansing metro area jobless rate declined by 0.8 percentage points over the month to 2.9 percent.
- This was the first time since 2000 that the regional jobless rate was below 3.0 percent.

MONTHLY INDUSTRY DEVELOPMENTS

- Total nonfarm employment advanced in the region by 1,700, or 0.7 percent.
- Local industry sectors with large April job gains included *Mining*, *logging*, *and construction*, *Leisure and hospitality*, and *Government*.

INDUSTRY TRENDS

 Lansing's *Leisure and hospitality* industry has been adding jobs at a typical seasonal pace since January, and has now reached a new record high of 20,700 jobs.

MONROE METROPOLITAN AREA

- The Monroe metro area jobless rate declined by 0.9 percentage points over the month to 3.7 percent, matching the statewide rate.
- The total number of employed in the region remained unchanged over the year.

MONTHLY INDUSTRY DEVELOPMENTS

• Regional payroll jobs edged up slightly over the month by 300 or 0.7 percent, with scattered job gains in the *Mining, logging, and construction, Retail trade,* and *Leisure and hospitality* sectors.

INDUSTRY TRENDS

• Monroe's *Financial activities* sector has been declining in jobs over the past several years. The industry has stayed at a consistent low of 900 jobs since December 2016.

KALAMAZOO-PORTAGE METROPOLITAN AREA

- The Kalamazoo metro area jobless rate dropped again in April, down to 3.1 percent, well below the statewide average.
- Over the year, employment and labor force showed strong growth, while unemployment declined by 1,400.

MONTHLY INDUSTRY DEVELOPMENTS

- The area recorded 1,100 additional nonfarm payroll jobs in April, mostly from employment gains in *Construction and mining*, *Manufacturing*, and *Leisure and hospitality*.
- Since January 2016, the area added 3,100 positions (or +2.1 percent), mostly in *Service-providing* industries.

INDUSTRY TRENDS

• Payroll job levels in the *Professional & business services* sector in Kalamazoo were at 18,900 in April 2017. This was up by 3,000 since April 2014 and near a record high.

MIDLAND METROPOLITAN AREA

- A 400 increase in employment in April pushed the Midland metro area jobless rate to 3.6 percent, down a full percentage point over the month.
- The current jobless rate remains below the April 2016 rate of 4.4 percent. However, total employment was flat over the year, and the rate drop was due to fewer persons active in the workforce

MONTHLY INDUSTRY DEVELOPMENTS

• Payroll job additions were concentrated in the *Service-providing* sector in April, up by 400 or 1.4 percent. This was a typical seasonal job gain for the month of April in the service sector.

INDUSTRY TRENDS

 Nonfarm jobs in the Midland metro area in April totaled 37,700, which was essentially unchanged from job levels in April for the prior three years.

MUSKEGON METROPOLITAN AREA

- The Muskegon unemployment rate fell by 0.9 percentage points over the month, down to 3.9 percent, just above the statewide average.
- The total number of employed in the region has increased one percent over the year.

MONTHLY INDUSTRY DEVELOPMENTS

- Total nonfarm employment rose in April by 500, or 0.8 percent, to 63,300.
- Job gains occurred in *Mining, logging, and construction, Manufacturing, Leisure and hospitality, and Professional and business services.*

INDUSTRY TRENDS

• Payroll jobs in the *Government* sector have shown little change since 2014, but declined by 1,600 from 2009 to 2016.

CIVILIAN LABOR FORCE	AND NON	FARM PA	YROLL JC	BS					
	c.	ACKSON		KALAM.	AZOO-POR	TAGE	LANSING	G-EAST LAI	NSING
	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016
PLACE OF RESIDENCE									
Labor Force	74,300	74,200	74,600	169,000	170,000	167,000	249,300	249,900	248,000
Employment	71,800	71,000	71,100	163,700	163,300	160,400	242,200	240,700	239,100
Unemployment	2,500	3,200	3,400	5,300	6,700	6,700	7,100	9,200	8,900
Rate (percent)	3.4	4.4	4.6	3.1	3.9	4.0	2.9	3.7	3.6
PLACE OF WORK									
Total Nonfarm Jobs	58,100	57,300	57,700	149,100	148,000	146,000	236,000	234,300	233,200
Mining, Logging & Construction	1,800	1,700	1,700	6,200	5,900	6,200	7,100	6,700	7,000
Manufacturing	10,300	10,200	9,900	21,500	21,200	21,400	20,500	20,400	20,800
Trade, Transportation & Utilities	12,700	12,500	12,700	26,600	26,500	25,800	36,700	36,800	36,400
Wholesale Trade	*	*	*	7,000	6,900	6,700	5,900	5,900	6,100
Retail Trade	6,600	6,500	6,700	16,200	16,200	15,800	21,500	21,600	21,400
Information	300	300	300	900	900	900	2,900	2,900	3,000
Financial Activities	1,800	1,800	1,800	8,400	8,300	8,400	15,900	15,900	15,400
Professional & Business Services	4,900	4,800	4,900	18,900	19,000	17,200	22,100	21,900	22,900
Educational & Health Services	10,500	10,300	10,500	23,400	23,400	23,100	32,500	32,500	31,900
Leisure & Hospitality	5,500	5,400	5,300	15,800	15,500	15,500	20,700	20,300	19,200
Other Services	2,500	2,500	2,600	5,500	5,400	5,600	10,400	10,400	10,200
Government	7,800	7,800	8,000	21,900	21,900	21,900	67,200	66,500	66,400
	I	MIDLAND		MONROE			М	USKEGON	
	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016
PLACE OF RESIDENCE									
Labor Force	40,800	40,800	41,200	77,000	77,200	77,200	76,600	76,900	76,800
Employment	39,400	39,000	39,400	74,100	73,700	74,100	73,600	73,200	72,900
Unemployment	1,500	1,900	1,800	2,900	3,500	3,100	3,000	3,700	3,900
Rate (percent)	3.6	4.6	4.4	3.7	4.6	4.0	3.9	4.8	5.1
PLACE OF WORK									
Total Nonfarm Jobs	37,700	37,300	37,800	42,400	42,100	43,000	63,300	62,800	63,100
Mining, Logging & Construction	*	*	*	2,200	2,100	2,200	2,100	1,900	2,100
Manufacturing		*				5 000	13,800	13,600	13,500
Manulacturing	*	~	*	5,600	5,600	5,600	15,000	13,000	10,000
Trade, Transportation & Utilities	*	*	*	5,600 10,800	5,600 10,700	10,900	13,400	13,400	13,300
Trade, Transportation & Utilities	*	*	*	10,800	10,700	10,900	13,400	13,400	13,300
Trade, Transportation & Utilities Wholesale Trade	*	*	*	10,800	10,700 1,800	10,900 1,800	13,400	13,400	13,300
Trade, Transportation & Utilities Wholesale Trade Retail Trade	*	* * *	* * *	10,800 1,800 5,100	10,700 1,800 5,000	10,900 1,800 5,200	13,400 * 10,600	13,400 * 10,600	13,300 * 10,800
Trade, Transportation & Utilities Wholesale Trade Retail Trade Information	* * *	* * * *	* * * * *	10,800 1,800 5,100 *	10,700 1,800 5,000 *	10,900 1,800 5,200 *	13,400 * 10,600 800	13,400 * 10,600 800	13,300 * 10,800 800
Trade, Transportation & Utilities Wholesale Trade Retail Trade Information Financial Activities	* * * * * *	* * * * *	* * * * * *	10,800 1,800 5,100 * 900	10,700 1,800 5,000 * 900	10,900 1,800 5,200 * 1,000	13,400 * 10,600 800 1,700	13,400 * 10,600 800 1,700	13,300 * 10,800 800 1,800
Trade, Transportation & Utilities Wholesale Trade Retail Trade Information Financial Activities Professional & Business Services	* * * * *	* * * * * * * *	* * * * * * * *	10,800 1,800 5,100 * 900 5,300	10,700 1,800 5,000 * 900 5,200	10,900 1,800 5,200 * 1,000 5,400	13,400 * 10,600 800 1,700 3,800	13,400 * 10,600 800 1,700 3,700	13,300 * 10,800 800 1,800 3,700
Trade, Transportation & Utilities Wholesale Trade Retail Trade Information Financial Activities Professional & Business Services Educational & Health Services	* * * * * *	* * * * * * * * * * * *	* * * * * * * * * * * * *	10,800 1,800 5,100 * 900 5,300 5,300	10,700 1,800 5,000 * 900 5,200 5,300	10,900 1,800 5,200 * 1,000 5,400 5,500	13,400 * 10,600 800 1,700 3,800 10,800	13,400 * 10,600 800 1,700 3,700 10,900	13,300 * 10,800 800 1,800 3,700 11,400
Trade, Transportation & Utilities Wholesale Trade Retail Trade Information Financial Activities Professional & Business Services Educational & Health Services Leisure & Hospitality	* * * * * *	* * * * * *	* * * * * * * * * * * * * * * * * * *	10,800 1,800 5,100 * 900 5,300 5,300 4,800	10,700 1,800 5,000 * 900 5,200 5,300 4,700	10,900 1,800 5,200 * 1,000 5,400 5,500 4,700	13,400 * 10,600 800 1,700 3,800 10,800 7,300	13,400 * 10,600 800 1,700 3,700 10,900 7,200	13,300 * 10,800 800 1,800 3,700 11,400 6,900

* Data Not Available

NILES-BENTON HARBOR METROPOLITAN AREA

- The Niles-Benton Harbor unemployment rate declined a full percentage point in April to 3.6 percent, close to the statewide average.
- Unlike most metro areas in Southwest Michigan, labor force declined in Niles-Benton Harbor over the year and employment gains were modest.

MONTHLY INDUSTRY DEVELOPMENTS

• In April, payroll jobs were virtually flat. Seasonal job gains in *Leisure* and hospitality were offset by minor employment reductions in several other sectors.

INDUSTRY TRENDS

• April payroll employment reached a low point in 2010 and 2011. Since then, the area has added only 2,600 jobs or 4.4 percent, well below the statewide rate of expansion of 13.3 percent.

SAGINAW METROPOLITAN AREA

- The Saginaw metro area unemployment rate was 4.1 percent in April 2017, falling by 1.1 percentage points. The rate remained above the Michigan rate of 3.7 percent.
- Total employment advanced 700 since April 2016, leading to an overthe-year jobless rate reduction of nearly a full percentage point. Like other metro areas in the region, the Saginaw MSA jobless rate in April 2017 reached its lowest April rate since 2000.

MONTHLY INDUSTRY DEVELOPMENTS

• April gains in payroll jobs were largely concentrated in *Mining, logging, and construction* (+300) and *Trade, transportation, and utilities* (+300).

INDUSTRY TRENDS

• *Manufacturing* jobs in the Saginaw MSA are at the highest level since 2006. The region added 1,000 jobs in this key sector from 2014 to 2016.

				NILES-B	ENTON HAP	RBOR	S		
				APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016
PLACE OF RESIDENCE									
Labor Force				72,700	73,400	73,300	88,300	88,600	88,400
Employment				70,200	70,000	70,000	84,700	83,900	84,000
Unemployment				2,600	3,400	3,300	3,700	4,600	4,400
Rate (percent)				3.6	4.6	4.5	4.1	5.2	5.0
PLACE OF WORK									
Total Nonfarm Jobs				61,400	61,300	61,600	88,700	87,900	88,200
Mining, Logging & Construction				1,900	1,800	1,900	2,900	2,600	2,700
Manufacturing				13,300	13,200	13,000	12,800	12,800	12,500
Trade, Transportation & Utilities				10,700	10,800	10,600	16,800	16,500	16,800
Wholesale Trade				*	*	*	2,200	2,200	2,300
Retail Trade				6,400	6,400	6,500	12,200	11,900	12,100
Information				500	500	500	1,400	1,400	1,500
Financial Activities				2,300	2,300	2,300	3,600	3,600	3,700
Professional & Business Services				5,400	5,600	5,800	11,200	11,200	11,200
Educational & Health Services				9,000	9,100	9,300	16,300	16,100	16,200
Leisure & Hospitality				7,300	6,800	7,200	8,900	8,800	9,100
Other Services				2,300	2,400	2,300	3,300	3,300	3,300
Government				8,700	8,800	8,700	11,500	11,600	11,200
	UPPE	R PENINSU	LA	NORTH	EAST MICH	IGAN	NORTHWEST MICHIGAN		
	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016	APR 2017	MAR 2017	APR 2016

PLACE OF RESIDENCE									
Labor Force	137,300	139,600	138,800	81,000	82,100	81,300	145,600	146,300	145,300
Employment	129,300	129,300	129,000	75,500	74,400	74,700	138,900	137,000	136,600
Unemployment	8,000	10,200	9,800	5,400	7,700	6,600	6,700	9,300	8,700
Rate (percent)	5.8	7.3	7.1	6.7	9.3	8.1	4.6	6.4	6.0

MAP OF THE MONTH:

AGE AND LABOR FORCE PARTICIPATION IN MICHIGAN



This map displays the share of the population 65+ years of age and the overall labor force participation rate by Michigan county.

Source: U.S. Census Bureau, 2015 ACS 5-year estimates

Older Workers and Labor Participation

Michigan's population will continue to age. Older workers have recently recorded increased participation in the Michigan job market. This map shows the diversity of Michigan counties based on the share of the workforce age 65+ and overall participation in the labor market.

Southern Michigan – Generally Younger with Higher Labor Force Shares

A wide swath of counties from Ottawa and Allegan, down through Southwest Michigan, and east to Macomb and St. Clair counties display lower shares of an aging population and higher labor force participation rates.

Northern Michigan - An Aging Population; Some Counties with Low Workforce Participation

The aging of the state workforce is most evident in counties in Northeast and Central Michigan and the Upper Peninsula. Some of these counties also show evidence of reduced rates of labor force participation.



FIVE KEY QUESTIONS ABOUT JOBS BY OCCUPATION IN MICHIGAN

The 2016 Occupational Employment Statistics (OES) estimates were recently released by the Bureau of Labor Statistics and the Michigan Bureau of Labor Market Information and Strategic Initiatives. The OES program conducts the most extensive regular employer survey on job levels and wages for detailed occupations for the nation, all states, and metro areas. This article will focus on five key questions that can be addressed about the distribution and characteristics of jobs in Michigan, and what makes Michigan unique.

What is Michigan's distribution of jobs by major occupational group?

Michigan's occupational job count in 2016 totaled 4,212,090. About 45 percent of Michigan jobs were provided by just four occupational categories; *Office and administrative*, *Production, Sales*, and *Food preparation and serving*. The detailed occupations with the largest job count in 2016 were *Retail salespersons* and *Combined food preparation and serving workers, including fast food*. These two occupations made up 6 percent of all jobs in the state and are expected to combine for over 10,000 job openings annually through 2024. Of the 10 largest occupations in Michigan, *Registered nurses* are projected to have the highest long-term growth rate of 12.4 percent.

What is a Location Quotient? How can it be used to show what is unique about jobs by occupation in Michigan?

Location quotients are useful to compare the concentration of jobs by occupation in Michigan with the share of jobs in the U.S. Identifying Michigan job titles with high location quotients is important; as these are occupations in Michigan that produce a greater share of jobs and income locally than is true nationally. A location quotient above 1.0 indicates a higher-than-average concentration of jobs in an occupation. Job categories with a location quotient well below 1.0 are less prevalent in Michigan.

The Architecture and engineering and Production major occupational groups stand out with the highest location quotients in Michigan. Architecture and engineering jobs totaled 135,060 in Michigan, accounting for 3.0 percent of jobs statewide in May 2016. This may not sound like much, but it is a significantly higher share of jobs than nationally, generating the state's highest location quotient of 1.80. Two occupations accounted for more than half of the jobs in this group; Mechanical engineers with 42,000 jobs, and *Industrial engineers* with 27,000 jobs.

The annual median wage across all *Architecture and engineering* occupations was \$77,530; more than double the Michigan median wage of \$36,030 for all occupations combined.

Michigan also had a higher concentration than the U.S. in *Production* occupations as well, with a location quotient of 1.63.

The presence of the automotive industry in Michigan and the many jobs it creates for engineers and production workers, and related jobs throughout the manufacturing sector, is

MICHIGAN VS. U.S. MICHIGAN LOCATION OCCUPATIONAL QUOTIENT GROUP MOST CONCENTRATED VS. U.S. Architecture and 1.80 Engineering Production 1.63 LEAST CONCENTRATED VS. U.S. Construction 0.78 **Protective Services** 0.72



largely the reason for the concentration of jobs in these two occupational categories.

What about relative wage rates by occupation in Michigan?

Michigan's 2016 median hourly wage was \$17.32, which was slightly less than the median U.S. wage of \$17.81. The occupational groups with the largest difference between the Michigan and national median hourly wage were *Computer and mathematical* occupations (\$35.38 in Michigan vs. \$39.82 in the U.S.), *Legal* occupations (\$34.48 in Michigan vs. \$38.30 in the U.S.), and *Life, physical, and social science* occupations (\$26.81 in Michigan vs. \$30.45 in the U.S.). Michigan employment and wage information for all occupations is available on the Bureau of Labor Market Information and Strategic Initiatives website (www.michigan.gov/lmi).

MICHIGAN'S 5 MOST CONCENTRATED JOBS - MEDIAN 2016 SALARY HIGHER THAN U.S. AVERAGE



What are examples of detailed occupations with a concentration of jobs in Michigan?

Michigan's continued reliance on the *Manufacturing* industry is demonstrated by the list of occupations with high concentrations. The detailed job title with the highest location quotient in Michigan was *Commercial and industrial designers*. Workers in this occupation develop and design manufactured products like cars and appliances. The next fourteen occupations with a higher job concentration in Michigan were from either the *Production or Architecture and Engineering* job groups. The top 5 occupations with the highest location quotients in Michigan are shown in the chart on page 17.

Wages in these occupations were typically higher than the national wage, which is significant because Michigan wages for most occupations typically were less than the U.S. This reflects the concentration of these jobs in the relatively high-wage auto industry, and the experience and skill required for these jobs by Michigan firms.

What about Michigan regions? How do occupational employment shares differ across Michigan's Prosperity Regions?

Each of Michigan's ten prosperity regions have their own unique occupational pattern when compared to the state. Reviewing the top five jobs (with over 500 employment) by location quotient in each region helps to highlight this mixture of occupations in each region.

The Northwest and Northeast regions have diversified, but remain more closely tied to the tourism industry for jobs. As a result, the list of high location quotient positions in these regions were led by relatively low-skill/low-wage jobs, with none of the top five occupations in either region requiring education beyond a high school diploma for typical entry-level employment. Seven of the most concentrated ten jobs in these two regions had a median hourly wage below \$11.00, and all ten had a median hourly wage below \$17.00.

West Michigan's top five highly concentrated jobs were all *Production* occupations, which typically require less than a bachelor's degree. While the region only had one high location quotient occupation with a median hourly wage above \$17.00, none was below \$11.00. In contrast, the Detroit and Southeast Regions each had three highly concentrated occupations in the top five that require at least a Bachelor's degree, with only one occupation between the two regions having a median hourly wage under \$20.00.

Beyond the top 5 occupations, there were a few clear trends in some of the regions. In the Southeast Region, all of the post-secondary teacher professions had location quotients over 1.0, likely due to the presence of several universities in the region, including the largest university in the state. The Northwest region's highly concentrated occupations confirmed its reliance on the tourism industry supporting many recreation and hotel positions. The Detroit Region has strong location quotients for *Engineers*, with most engineering occupations having location quotients over 1.0.

WAYNE ROURKE ECONOMIC MANAGER

GEOFFREY OKOROM

ECONOMIC ANALYST

ROB WALKOWICZ

ECONOMIC ANALYST

MICHIGAN'S PROSPERITY REGIONS - TOP 5 DETAILED OCCUPATIONS BY LOCATION QUOTIENT (JOBS 500 OR MORE)

JOB TITLE	JOBS	LQ	MEDIAN HOURLY WAGE	TYPICAL EDUCATION REQUIREMENT
UPPER PENINSULA				
Correctional Officers and Jailers	1,510	5.77	\$26.00	High School
Operating Engineers	680	3.62	\$22.39	High School
EMTs and Paramedics	530	3.03	\$13.49	Postsecondary award
Licensed Practical and Vocational Nurses	1,020	2.56	\$18.11	Postsecondary award
Carpenters	1,200	2.49	\$19.57	High School
NORTHWEST				
Hotel, Motel, and Resort Desk Clerks	510	3.40	\$10.13	High School
Amusement and Recreation Attendants	550	2.49	\$10.00	No formal education
Maids and Housekeeping Cleaners	1,590	2.45	\$9.86	No formal education
Bartenders	1,210	2.41	\$9.63	No formal education
Landscaping Workers	1,890	2.15	\$14.26	No formal education

MICHIGAN'S PROSPERITY REGIONS	SPERITY REGIONS - TOP 5 DETAILED OCCUPATIONS BY LOCATION QUOTIENT (JOBS 500 OR MORE)						
JOB TITLE	JOBS	LQ	MEDIAN HOURLY WAGE	TYPICAL EDUCATION REQUIREMENT			
NORTHEAST							
Dishwashers	510	2.42	\$9.05	No formal education			
Cooks, Restaurant	1,020	2.42	\$9.05	No formal education			
Personal Care Aides		1.98	\$9.65	No formal education			
Construction Laborers	1,040	1.98	\$10.11	No formal education			
Supervisors of Retail Sales Workers	900	1.92	\$16.95	High School			
•	900	1.07	\$10. 3 5				
WEST							
Cleaning and Washing Equipment Operators	550	3.66	\$16.43	No formal education			
Food Batchmakers	1,850	2.58	\$16.40	High School			
Cabinetmakers and Bench Carpenters	700	2.44	\$17.54	High School			
Electrical Equipment Assemblers	4,050	2.37	\$13.64	High School			
Woodworking Machine Operators	1,060	2.35	\$11.99	High School			
EAST CENTRAL							
Telecommunications Equipment Installers	830	2.76	\$26.49	Postsecondary award			
Education Administrators, Postsecondary	530	2.10	\$39.62	Master's			
Operating Engineers	690	1.94	\$23.91	High School			
Welders, Cutters, Solderers, and Brazers	1,070	1.76	\$16.28	High School			
Counter and Rental Clerks	1,040	1.75	\$9.26	No formal education			
EAST							
Vocational Educ Teachers, Postsecondary	510	2.64	\$25.31	Bachelor's			
Multiple Machine Tool Operators	1,200	2.41	N/A	High School			
EMTs and Paramedics	960	2.37	\$14.83	Postsecondary award			
Bus Drivers, Transit and Intercity	500	2.25	\$14.62	High School			
Dental Assistants	1,230	2.11	\$16.60	Postsecondary award			
SOUTH CENTRAL							
Public Relations Specialists	820	3.17	\$28.53	Bachelor's			
Administrative Services Managers	840	2.81	\$46.70	Bachelor's			
Data Entry Keyers	660	2.68	\$13.76	High School			
Claims Adjusters, Examiners, and Investigators	720	2.61	\$31.72	High School			
Cooks, Short Order	520	2.42	\$9.55	No formal education			
SOUTHWEST							
Paper Goods Machine Operators	900	3.81	\$17.53	High School			
Psychiatric Aides	540	2.96	\$21.79	High School			
Hotel, Motel, and Resort Desk Clerks	780	2.11	\$9.44	High School			
Computer-Controlled Machine Tool Operators	1,470	2.05	\$17.11	High School			
Molding, Core making, and Casting Operators	1,990	2.01	\$13.21	High School			
SOUTHEAST							
Medical Scientists, Except Epidemiologists	1,800	6.69	\$26.21	Doctoral or prof			
Graduate Teaching Assistants	3,960	4.98	\$46,889.00/yr	Bachelor's			
Library Assistants, Clerical	1,290	3.04	\$10.92	High School			
Correctional Officers and Jailers	2,310	2.43	\$26.00	High School			
Education Administrators, Postsecondary	1,120	2.32	\$54.33	Master's			
DETROIT METRO							
Commercial and Industrial Designers	5,390	1.91	\$40.37	Bachelor's			
Model Makers, Metal and Plastic	940	1.85	\$33.34	High School			
Rolling Machine Operators	2,050	1.78	\$22.59	High School			
Computer Hardware Engineers	1,090	1.74	\$37.52	Bachelor's			
Mechanical Engineers	31,200	1.74	\$43.48	Bachelor's			



OCCUPATIONAL FOCUS: COMMERCIAL AND INDUSTRIAL DESIGNERS

As highlighted in our occupational feature article, *Commercial and industrial designers* produce a greater share of jobs and income locally than nationally. With a location quotient (L.Q.) of 6.9, Michigan has a significantly higher-than-average share of jobs in this occupation, due to a concentration of design jobs in Michigan's auto sector. A person employed as a *Commercial and industrial* designer can be involved in the development and design of a variety of manufactured products. They often combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.

JOB TITLES

- Design Engineer
- · Industrial Designer
- · Mechanical Designer
- Product Design Engineer
- Product Development Engineer
- Product Engineer

EDUCATION

 Most Commercial and industrial designers have a four-year bachelor's degree, however, some do not. Additionally, employees in these occupations usually need several years of work-related experience, onthe-job training, and/or vocational training.

SKILLS

- Complex Problem Solving: Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Critical Thinking: Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Operations Analysis: Analyzing needs and product requirements to create a design.
- Systems Analysis: Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

TASKS

- Prepare sketches of ideas, detailed drawings, illustrations, artwork, or blueprints, using drafting instruments, paints and brushes, or computeraided design equipment.
- Confer with engineering, marketing, production, or sales departments, or with customers, to establish and evaluate design concepts for manufactured products
- Direct and coordinate the fabrication of models or samples and the drafting of working drawings and specification sheets from sketches.

Long-Term Projections - 2014 - 2024

- The total number of jobs for Commercial and industrial designers in Michigan is expected to expand at a faster rate than total statewide occupations. Commercial and industrial designer jobs will advance by 10.2 percent and add 590 jobs by the year 2024, while total state jobs will increase by 7.4 percent over this period.
- Between 2014 and 2024 the number of annual job openings for *Commercial and industrial* designers will total nearly 200. Over twothirds (70 percent) of all annual openings are expected to come from the need to replace workers, while the remaining 30 percent will result from employment expansion.

Short-Term Projections - 2016 - 2018

 Michigan jobs for *Commercial and industrial* designers are projected to rise by 150 or 2.3 percent by the second quarter 2018. This short term growth rate is similar to the rate expected for all Michigan occupations (+2.2 percent).

MICHIGAN QUICK FACTS: COMMERCIAL AND INDUSTRIAL DESIGNERS

Number of Jobs 2016	6,600
Projected Job Change 2016-2018	+150 (+2.3%)
Annual Openings	227
Projected Job Change 2014-2024	+590 (+10.2%)
Annual Openings	196
Median Wage 2016	\$80,740 per year \$38.82 per hour
Wage Range	\$45,980 - \$104,810 per year \$22.11 - \$50.39 per hour
Education Required	Bachelor's Degree
Primary Industries	Professional, Scientific, and Technical Services Transportation Equipment Manufacturing
Real-Time Job Ads May 2017	63

APRIL ONLINE JOB ADS FLAT IN MICHIGAN

The Conference Board's Help Wanted Online Data Series showed essentially no change in Michigan's seasonally adjusted job advertisement count in April. Job ads have either declined or remained flat in Michigan for three consecutive months. The most recent increase in job ads was recorded in January of this year.

Seasonally adjusted job ads nationally edged up by just 0.6 percent in April, similar to the modest changes registered in Michigan and most Midwest states. Wisconsin recorded the highest over-the-month percentage gain in the region at just 1.3 percent. Illinois registered an increase of just under one percent while Indiana and Ohio had dips in their count of job ads of just over one percent.

Michigan Ad Rate Matches U.S.

Michigan's ad rate (the number of job ads per 100 labor force participants), remained at 2.88 in April, unchanged due to the small changes in the rate components. After rising above the Michigan rate in March, the national ad rate fell in April to equal the Michigan rate of 2.88.

Michigan's supply/demand rate, or the number of unemployed persons per job advertisement, edged down to 1.63 in April, due to a drop in both the number of unemployed and job ads over the month. The Michigan supply/demand rate remained above the national rate in April, which also declined to 1.53.

Michigan Job Ads by Education Requirement

As seen in the chart, Michigan's total online job ads are led by positions requiring a Bachelor's degree (36%) or a High school diploma/some college (33%). Another 12 percent of ads require an Associate's degree or vocational training.

Ads by Occupation (Not Seasonally Adjusted)

Not-seasonally adjusted totals only are available by occupational group from the Help Wanted Online Data Series. All ten major occupational groups saw increases in total job ad counts in April, partially due to seasonal hiring in some industries. Job ad gains were led by a 1,900-ad hike in *Healthcare* occupations. Additionally, *Service, Construction & repair*, and *Transportation* occupations each recorded an increase of at least 1,000 ads over the month.

Of Michigan's total job ads in April, 63,950 were newly-posted ads. The most new job ads were posted for *Professional* occupations (+17,000). About 8,500 new ads were posted for *Healthcare* occupations, with about three in four of these for *Healthcare practitioners and technical* jobs.





APRIL RATES OF CHANGE IN JOB ADS - MIDWEST STATES

MICHIGAN JOB ADS BY EDUCATION REQUIREMENT



Source: The Conference Board, Help Wanted $\mbox{Online} \ensuremath{\mathbb{B}}$ (HWOL) and Bureau of Labor Statistics

TOTAL AVAILABLE ADS (NOT SEASONALLY ADJUSTED)					
OCCUPATION CATEGORIES	APR 2017	MAR 2017	APR 2016	# CHANGE MONTH	% CHANGE MONTH
TOTAL	145,300	137,200	172,900	8,100	5.9%
Professional	43,650	43,150	49,650	500	1.2%
Healthcare	22,550	20,650	24,750	1,900	9.2%
Sales	14,050	13,850	17,800	200	1.4%
Administrative Support	13,550	12,750	16,750	800	6.3%
Management	9,850	9,500	12,200	350	3.7%
Service	14,800	13,200	17,650	1,600	12.1%
Construction And Repair	10,650	9,300	12,350	1,350	14.5%
Production	7,050	6,700	8,000	350	5.2%
Transportation	8,800	7,800	13,400	1,000	12.8%
Farming, Fishing, And Forestry	350	300	350	50	16.7%

Source: The Conference Board, Help Wanted Online® (HWOL)

RELEVANT RANKINGS

PERCENT OF JOBS IN OCCUPATIONS REQUIRING A BACHELOR'S DEGREE BY STATE

	TOTAL EMPLOYMENT	TOTAL BACHELOR'S DEGREE EMPLOYMENT	BACHELOR'S DEGREE EMPLOYMENT AS A PERCENT OF TOTAL
1 Massachusetts	3,459,910	926,130	26.8%
2 Maryland	2,640,900	662,390	25.1%
3 Virginia	3,760,550	935,540	24.9%
4 Connecticut	1,666,280	409,770	24.6%
5 Washington	3,067,110	752,930	24.5%
19 Michigan	4,212,090	886,670	21.1%
23 Missouri	2,757,850	558,350	20.2%
24 North Carolina	4,231,020	849,970	20.1%
25 New Mexico	805,440	161,500	20.1%
26 Texas	11,745,250	2,354,830	20.0%
27 Nebraska	968,000	193,350	20.0%
46 Wyoming	276,120	47,570	17.2%
47 Mississippi	1,117,280	188,440	16.9%
48 Louisiana	1,922,170	319,290	16.6%
49 West Virginia	697,440	115,770	16.6%
50 Nevada	1,270,930	196,090	15.4%

Michigan ranks 19th among states in the share of jobs in occupations that typically require a bachelor's degree.

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PERCENT OF JOBS IN OCCUPATIONS REQUIRING A BACHELOR'S DEGREE BY METRO AREA

	TOTAL EMPLOYMENT	TOTAL BACHELOR'S DEGREE EMPLOYMENT	BACHELOR'S DEGREE EMPLOYMENT AS A PERCENT OF TOTAL
Ann Arbor MSA	210,990	58,410	27.7%
Detroit-Warren-Dearborn MSA	1,925,090	452,930	23.5%
Lansing-East Lansing MSA	205,760	48,400	23.5%
Midland MSA	34,300	7,570	22.1%
Battle Creek MSA	54,360	11,900	21.9%
Michigan	4,212,090	886,670	21.1%
Jackson MSA	59,110	12,220	20.7%
Niles-Benton Harbor MSA	61,190	11,770	19.2%
Grand Rapids-Wyoming MSA	552,370	103,040	18.7%
Kalamazoo-Portage MSA	136,650	25,540	18.7%
Bay City, MI	34,730	6,130	17.7%
Flint MSA	134,830	22,950	17.0%
Saginaw MSA	85,720	13,750	16.0%
Monroe MSA	39,220	6,030	15.4%
Muskegon MSA	61,380	9,280	15.1%



ASK THE ECONOMIST

Q: I understand that information on occupational employment and wages is available from the Occupational Employment Statistics survey. How can I can best use this information?

A: There are many ways...

The information produced by the Occupational Employment Statistics (OES) program has many practical uses for business, economic and workforce development, students, and job seekers. OES data is collected from a very large survey of employers, and the survey produces occupational wage and employment estimates for the nation, all states, and all metropolitan areas. Additionally, OES data is an important input into many other research functions, such as the production of occupation employment projections, which provides an outlook of future job demand.

Occupational wage data can be used effectively in secondary schools and colleges, in the workplace, for comparing wage levels and trends across regions and states, and for government use in policy making and other legislative decisions. The OES data is collected from small and large businesses alike as they are the primary and only source of data, making them an essential piece of the puzzle.

In the production of occupational employment projections, the OES program plays a major role in allowing for the identification and analysis of shifts in the staffing patterns of specific industries. Additionally, these projections statistically illustrate the types of occupations that are in demand in particular regions, and how the demand for jobs may change over time.

OES information can be used by students in secondary schools and colleges to find the best career that suits their interests and skill set. Students often use online educational platforms to assist them in finding a college major that is appropriate for them. They may also explore different careers and map out the academic requirements necessary to reach those job goals. Many of these career systems utilize supplemental statistical information about specific job titles such as employment levels and annual wage data; and often this data comes from the OES program.

Many of the labor market information products and publications available from the Bureau of Labor Market Information and Strategic Initiatives such as employment projections and *Michigan's Hot 50 Job Outlook Through 2024* would also not be possible without the use of inputs from the OES program.

As stated above, private and public employers are the source of the survey data on jobs and

OES data on Michigan jobs and wages is collected from a survey of about 12,000 businesses, small and large establishments alike.

wages that produce the OES employment and wage data by detailed occupation. However, once the OES estimates are released, businesses can directly utilize the OES to answer important questions.

It is important for firms to know the wage ranges in specific job titles when hiring new employees, looking to replace an experienced person with an entry level candidate, or looking to add on a more experienced worker to their team. Turnover issues can also be addressed through the use of this data to study employee retention concerns. OES data can show the competitive salaries for an occupation or region by not only providing the average and median wage of an occupation, but also a range of wages from an entry level job to a senior level position. Furthermore, if a company is new to Michigan, OES data can help demonstrate relative occupational wage rates between Michigan and the nation and between different regions within Michigan.

Of course, the OES program also produces information on the number of jobs by detailed occupation in states and metro areas. How can this information be used? Knowledge of the top sources of jobs for a regional economy can help explain that region's sensitivity to economic downturns, and the concentration of local jobs in high or low wage sectors. Location quotient analysis using OES data can reveal concentrations of jobs in a state that go beyond the typical share of jobs in an occupation nationally. This can reveal where a state or region has a competitive advantage in job development in certain occupations, or can identify future high demand occupations in which a region is lagging behind in employment concentration.

In short, from a student conducting career exploration, to an employer effectively combating high labor turnover, to an economic developer examining the competitive advantages of a local economy, data from the Occupational Employment Statistics program can be highly useful.

You can find this data at the following links to the websites of the Bureau of Labor Statistics or the Michigan Department of Technology, Management and Budget.

www.bls.gov/oes/

www.michigan.gov/lmi



STATE OF MICHIGAN

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