

Michigan's jobless rate increased for the third consecutive month in October.

OCTOBER 2017 JOBLESS RATE

MICHIGAN

4.5%

NATIONAL

4.1%

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IT'S BIGGER THAN DATA.

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.

Michigan's labor force expanded for the second consecutive month in October and for the sixth time in 2017. The October jobless rate rose by 0.2 percentage points to 4.5 percent, reflecting an influx of entrants who did not immediately find work during the month. Over the year, however, Michigan's unemployment rate is lower by 0.5 percentage points. Payroll jobs also rose in October, increasing by 3,000 to 4,410,000 and marking the fifth consecutive month of job gains in Michigan. This month, *Government*, *Leisure and Hospitality*, and *Manufacturing* fueled much of the state's job growth. Over the year, payroll jobs are up 45,100 or 1.0 percent.

In our feature story, we note that "nearly one in four jobs are held by workers aged 55 or older." This means that in the not too distant future, almost 25 percent of the current employed workforce will need to be replaced due to retirements and other age-related separations. The article provides insights into Michigan's aging industries by taking a look at industries that have a large *number* of older workers, led by *Educational services*, and those that have a large *share* of older workers, led by *Transit and ground passenger transportation*.

Our Infographic of the Month tackles an important (and related) question: "who is and who is not in the labor force?" In this visualization, we reduce the civilian, noninstitutionalized population 16 and older to 100 people in order to answer this question using pictures. One theme in the infographic is the effect of Michigan's aging population on the labor force, evidenced by the largest group of those not in the labor force being retired. Another theme is Michigan's improved labor market, reflected by lower long-term unemployment, fewer so-called discouraged workers, and fewer of those out of the labor market wanting to work.

We hope you enjoy this issue of *Michigan's Labor Market News*. Let us know if there is something you would like to know more about.



JASON PALMER
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MICHIGAN'S OCTOBER UNEMPLOYMENT RATE MOVES UP

The seasonally adjusted jobless rate in Michigan rose in October by two-tenths of a percentage point to 4.5 percent. The number of unemployed in the state increased by 9,000 over the month while total employment was little changed, declining by a modest 2,000. Michigan's workforce advanced by 8,000 in October, marking the second consecutive month of labor force growth.

Michigan's October unemployment rate increase was the third consecutive monthly advance since the state's July 2017 low of 3.7 percent. October's rate was the highest in the state since April's 4.7 percent. The October rate matched Michigan's 2017 year-to-date average rate, and was similar to the national rate over this period. The state's 2017 average rate thus far remains below the 2016 annual rate of 4.9 percent.

Michigan's October workforce expansion was the state's sixth monthly gain so far in 2017. However overall, the state's labor force advance in 2017 has been well below 2016 trends. Michigan's 2017 ten-month average labor force was nearly 40,000 or 0.8 percent above the 2016 annual level, but only half the 1.7 percent increase during 2016. Michigan's workforce rose 79,000 in 2016, the largest post-recession annual gain. As it stands now, Michigan's 2017 labor force growth rate of 0.8 percent would be the third largest annual expansion since 2010.

Over-the-Year Employment and Unemployment Trends

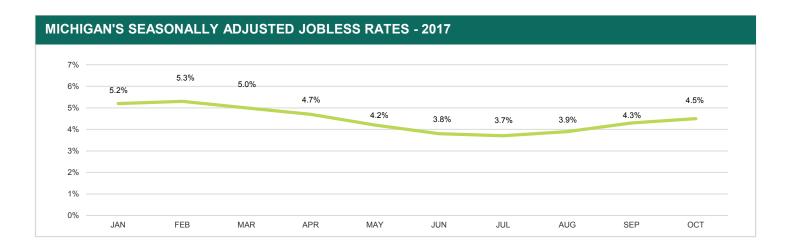
Although minor, the total employment reduction in October was the fifth consecutive monthly decline. However, due to increases over the first half of the year, the 2017 ten-month average total employment level of 4,658,000 was 59,000 or 1.3 percent above the 2016 level. Like the workforce totals, Michigan's total employment gains so far in 2017 were short of the 99,000 or 2.2 percent increase recorded from 2015 to 2016.

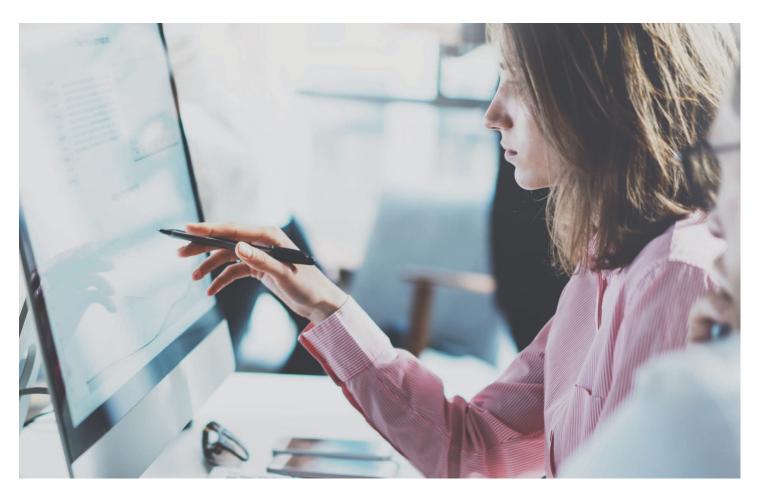
The number of unemployed in the state has tracked upward since the 2017 low of 180,000 recorded in July. Even with monthly increases from August through October, the ten-month average level of 218,000 was 20,000 below the 2016 annual total.

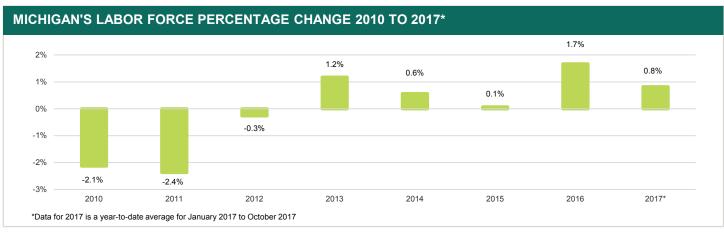
JIM RHEIN

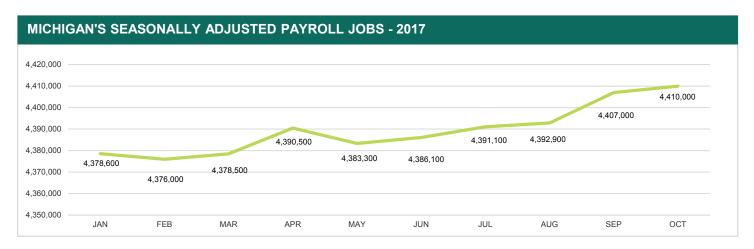
Economic Specialist

MICHIGAN LABOR FOR	MICHIGAN LABOR FORCE ESTIMATES (SEASONALLY ADJUSTED)										
	OCT 2017	SEP 2017	OCT 2016	CHANGE OVER THE MONTH	CHANGE OVER THE YEAR						
Labor Force	4,859,000	4,851,000	4,852,000	+8,000	+7,000						
Employed	4,641,000	4,643,000	4,608,000	-2,000	+33,000						
Unemployed	218,000	209,000	244,000	+9,000	-26,000						
Jobless Rate	4.5	4.3	5.0	+0.2	-0.5						









MICHIGAN JOB TRENDS BY INDUSTRY SECTOR

Monthly Overview

Michigan nonfarm jobs recorded a fifth consecutive month of job additions in October, rising by 3,000 to 4,410,000. The sectors with the largest monthly job gains were Government (+3,500), Leisure and hospitality (+3,200), and Manufacturing (+2,200). A smaller advance of 700 jobs was reported in Financial activities. These job additions were offset by payroll declines in Education and health services (-2,900), Professional and business services (-1,800), Trade, transportation, and utilities and Construction (-800 each). Michigan payrolls in the Transportation equipment manufacturing sector increased by 2,400 over the month, due to recalls of workers on production-adjustment layoffs.

Over the Year Analysis

Between October 2016 and October 2017, total nonfarm jobs rose by 45,100, or 1.0 percent. This was below the 1.4 percent growth rate nationally during this period. The largest private sector over-the-year job gains occurred in *Professional and business services* (+9,700). Major over-the-year job advances were also reported in *Financial activities* (+5,000), *Education and health services* (+4,600), *Leisure and hospitality* (+4,200), *Other services* (+4,000), and *Construction* (+3,300). The exception was *Trade, transportation, and utilities* (-2,000), which lost payroll jobs over the year.

2017 Job Growth: Michigan vs. U.S.

In Michigan, growth in total nonfarm payroll employment (+0.9%) has somewhat lagged the U.S. (+1.2%) during the first 10 months of this year. Michigan's growth rate has translated into 41,100 job additions during the January-October period.

Michigan outperformed the U.S. in percent job change in four broad industry sectors during the first ten months of 2017. These included *Construction* (+2.8%), *Government* (+2.0%), *Other services* (+2.0%), and *Information* (+1.4%).

Michigan sectors with similar job trends to the

nation were *Financial activities* (+1.2%) and *Trade, transportation, and utilities* (+0.0%).

The major industry groups in which Michigan has lagged the U.S. in job change over this period included *Mining and logging* (+5.8%), *Professional and business services* (+1.1%), *Leisure and hospitality* (+0.8%), *Education and health services* (+0.6%), and *Manufacturing* (+0.3%).

Significant Industry Employment Developments

LEISURE AND HOSPITALITY

Payrolls in this broad sector expanded by 3,200 in October with all of this increase located in the Accommodation and food services (+3,400) subsector. Part of this seasonally adjusted job gain reflected a smaller-thantypical seasonal decline in Accommodation and an atypical October increase in Limitedservice eating places. The modest job cut in Arts, entertainment, and recreation (-200) was partially due to stronger than typical seasonal job reductions in the Amusement, gambling, and recreational services sector. Between October 2016 and October 2017, job levels in the broad sector have grown by 4,200 or 1.0 percent. This gain was entirely in the Accommodation and food services (+4,800) subsector. Nationally, employment in the broad sector rose by 106,000 over the month and by 1.8 percent over the

TRANSPORTATION EQUIPMENT MANUFACTURING

Job levels in this industry increased by 2,400 in October as some temporary production adjustment layoffs came to an end. Jobs in this industry have a large influence on Michigan's labor market and overall economy. Employment levels reached a recessionary low of 105,700 in June 2009. Since that time, payrolls have advanced by 73,100 or by 69.2 percent. This growth rate was significantly above the 14.9 percent expansion in total nonfarm employment, and accounted for 12.8 percent of the 571,400 industry jobs added in Michigan during this period. During the ten-month period ending in October 2017, however, job levels edged

down by 1,600 or 0.9 percent. This compared to 7,100 jobs added during the same period in 2016. Since October 2016, payrolls have declined by 2,900 or 1.6 percent. Nationally, job levels increased by 3,100 over the month and were essentially unchanged over the year.

EDUCATION AND HEALTH SERVICES

Employers in this sector cut their payrolls by 2,900 workers in October. This reduction occurred in both the *Health care and social assistance* (-2,100) and *Education services* (-800) subsectors. A significant portion of the overall monthly decrease occurred in *Nursing and residential care facilities* and *Social assistance*. So far during 2017, job levels in the broad sector advanced by 4,100. All of this increase was recorded in *Health care and social assistance* (+4,800). Since October 2016, employment levels rose by 4,600 (+0.7 percent). Nationally, jobs were up by 41,000 in October and by 2.0 percent over the year.

METROPOLITAN STATISTICAL AREAS (MSAs)

On a <u>not seasonally adjusted basis</u>, 10 of Michigan's 14 Metropolitan Statistical Areas (MSAs) recorded total nonfarm job growth during October.

Seven of these metro areas reported job expansion above the statewide average of 0.6 percent. These areas were *Lansing* (+1.3 percent), *Ann Arbor* (+1.3 percent), *Monroe* (+1.2 percent), *Flint* (+0.9 percent), and *Kalamazoo*, *Saginaw*, and *Grand Rapids* (+0.8 percent each).

Total nonfarm job levels remained unchanged in the *Bay City* MSA, and declined in *Muskegon* (-0.2 percent), *Benton Harbor* (-0.6 percent), and *Midland* (-0.8 percent).

The metro areas with the largest growth rates, Lansing and Ann Arbor, reported significant job additions in public Education. The Benton Harbor and Midland MSAs recorded notable job cuts in the Private service providing sectors.

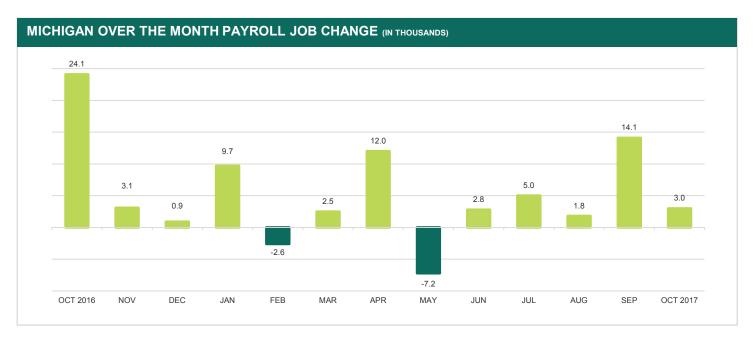
JEFFREY AULA

Economic Analyst

INDUSTRY	OCT	SEP	ОСТ	OVER TH	IE MONTH	OVER THE YEAR		
INDUSTRI	2017	2017	2016	LEVEL	PERCENT	LEVEL	PERCENT	
TOTAL NONFARM	4,410,000	4,407,000	4,364,900	3,000	0.1%	45,100	1.0%	
Total Private	3,787,800	3,788,300	3,756,600	-500	0.0%	31,200	0.8%	
Private Service-Providing	3,014,900	3,016,700	2,988,900	-1,800	-0.1%	26,000	0.9%	
GOODS-PRODUCING	772,900	771,600	767,700	1,300	0.2%	5,200	0.7%	
Mining, Logging, and Construction	169,200	170,100	165,500	-900	-0.5%	3,700	2.20	
Mining and Logging	7,300	7,400	6,900	-100	-1.4%	400	5.89	
Construction	161,900	162,700	158,600	-800	-0.5%	3,300	2.1	
Manufacturing	603,700	601,500	602,200	2,200	0.4%	1,500	0.2	
Durable Goods	457,600	454,200	453,300	3,400	0.7%	4,300	0.9	
Transportation Equipment Manufacturing	178,800	176,400	181,700	2,400	1.4%	-2,900	-1.6	
Nondurable Goods	146,100	147,300	148,900	-1,200	-0.8%	-2,800	-1.9	
SERVICE-PROVIDING	3,637,100	3,635,400	3,597,200	1,700	0.0%	39,900	1.1	
Trade, Transportation, and Utilities	782,700	783,500	784,700	-800	-0.1%	-2,000	-0.3	
Wholesale Trade	172,500	174,100	172,100	-1,600	-0.9%	400	0.2	
Retail Trade	469,200	468,700	473,400	500	0.1%	-4,200	-0.9	
Transportation, Warehousing, and Utilities	141,000	140,700	139,200	300	0.2%	1,800	1.3	
Information	58,300	58,400	57,800	-100	-0.2%	500	0.9	
Financial Activities	219,300	218,600	214,300	700	0.3%	5,000	2.3	
Finance and Insurance	163,500	162,900	160,900	600	0.4%	2,600	1.6	
Real Estate and Rental and Leasing	55,800	55,700	53,400	100	0.2%	2,400	4.5	
Professional and Business Services	669,600	671,400	659,900	-1,800	-0.3%	9,700	1.5	
Professional, Scientific, and Technical Services	307,000	307,500	300,100	-500	-0.2%	6,900	2.3	
Management of Companies and Enterprises	62,100	62,400	61,900	-300	-0.5%	200	0.3	
Administrative and Support and Waste Management and Remediation Services	300,500	301,500	297,900	-1,000	-0.3%	2,600	0.9	
Education and Health Services	671,700	674,600	667,100	-2,900	-0.4%	4,600	0.7	
Educational Services	72,700	73,500	74,200	-800	-1.1%	-1,500	-2.0	
Health Care and Social Assistance	599,000	601,100	592,900	-2,100	-0.3%	6,100	1.0	
Leisure and Hospitality	437,700	434,500	433,500	3,200	0.7%	4,200	1.0	
Arts, Entertainment, and Recreation	51,700	51,900	52,300	-200	-0.4%	-600	-1.1	
Accommodation and Food Services	386,000	382,600	381,200	3,400	0.9%	4,800	1.3	
Other Services	175,600	175,700	171,600	-100	-0.1%	4,000	2.3	
Government	622,200	618,700	608,300	3,500	0.6%	13,900	2.3	
Federal Government	52,500	52,600	52,200	-100	-0.2%	300	0.6	
State Government	202,000	198,000	194,700	4,000	2.0%	7,300	3.7	
Local Government	367,700	368,100	361,400	-400	-0.1%	6,300	1.	

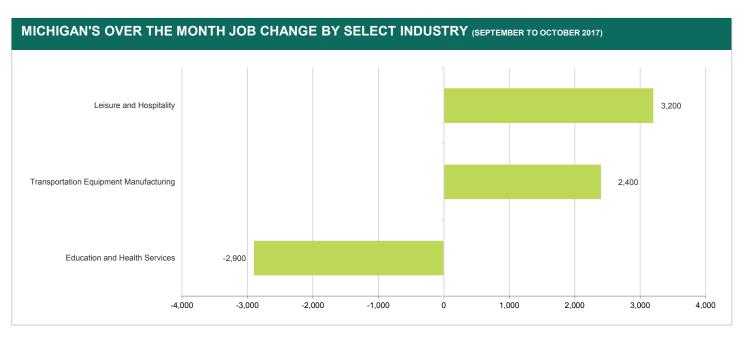
JOB CHANGE BY MAJOR INDUSTRY SECTOR (DEC 2016 TO OCT 2017)						
INDUSTRY	MICHIGAN	U.S.				
TOTAL NONFARM	0.9%	1.2%				
Mining and Logging	5.8%	7.3%				
Construction	2.8%	2.2%				
Manufacturing	0.3%	1.1%				
Trade, Transportation, and Utilities	0.0%	0.2%				
Information	1.4%	-1.7%				
Financial Activities	1.2%	1.4%				
Professional and Business Services	1.1%	2.2%				
Educational and Health Services	0.6%	1.7%				
Leisure and Hospitality	0.8%	1.5%				
Other Services	2.0%	1.5%				
Government	2.0%	0.3%				

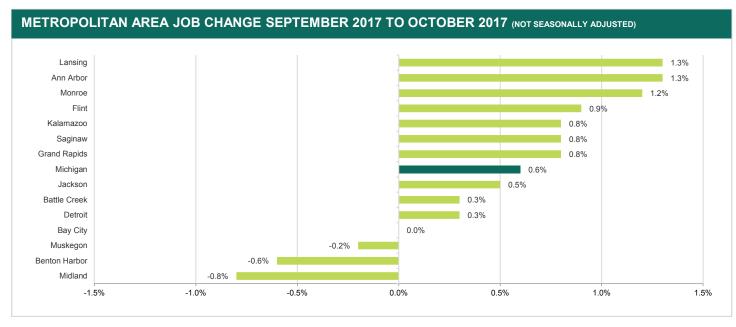












REGIONAL LABOR MARKET ANALYSIS

ANN ARBOR METROPOLITAN AREA

- The unemployment rate in the Ann Arbor region contracted by half a percentage point over the month, down to 3.4 percent in October.
- Ann Arbor tied with Monroe in exhibiting the largest over-the-month jobless rate decline out of all Michigan metro areas.

MONTHLY INDUSTRY DEVELOPMENTS

- Total nonfarm jobs in the Ann Arbor region advanced by 2,900, or 1.3 percent in October.
- Gains in Government (+3,100) and Professional and business services (+400) were partially offset by a 500-job seasonal decline in Leisure and hospitality.

INDUSTRY TRENDS

 Administrative support and waste management in the region has been increasing in employment over the past several months, reaching an all-time high of 12,600 jobs in October. Battle Creek MSA job levels were little changed in October, up just 0.3 percent to 60,100. The area gained 200 jobs each in Manufacturing and Retail trade.

4.6 percent, down slightly by two tenths of a percentage point. Employment declined seasonally by 300 over the month.

· The metro area jobless rate rose 0.3 percentage points since October

BATTLE CREEK METROPOLITAN AREA

• The October jobless rate in the Battle Creek metro area was

MONTHLY INDUSTRY DEVELOPMENTS

 Since October 2016, Manufacturing employment continued to improve by 4.1 percent or 500.

INDUSTRY TRENDS

• Employment in *Financial activities* in the Battle Creek MSA has been stable between 1,200 and 1,500 over the past 10 years. The sector only cut 100 positions during the 2009 recession.

BAY CITY METROPOLITAN AREA

- The jobless rate in Bay City moved down slightly by 0.2 percentage points over the month to 4.7 percent, with a seasonal cut in the labor force.
- The number of unemployed remained unchanged over the year.

MONTHLY INDUSTRY DEVELOPMENTS

- Payroll jobs in Bay City were flat over the month, staying at a level of 36,300 jobs in October 2017.
- Small increases in Government and Manufacturing were offset by minor job declines in Leisure and hospitality and Trade, transportation, and utilities.

INDUSTRY TRENDS

- Bay City was the only region to exhibit no change in total nonfarm employment over the month
- The region's Trade, transportation, and utilities sector reached its alltime low level of 7,300 jobs in October, a level last seen in February 2011.

FLINT METROPOLITAN AREA

- Unemployment in the Flint region inched down by 0.3 percentage points in October to 5.3 percent.
- The number of metro area unemployed fell by 5.9 percent over the month, matching the statewide trend.

MONTHLY INDUSTRY DEVELOPMENTS

 Nonfarm jobs in Flint rose by 1,300 in October, or 0.9 percent, due to seasonal advances in Educational and health services (+500) and Professional and business services (+400).

INDUSTRY TRENDS

- Educational services in Flint reached a new all-time high of 5,000 jobs in October 2017.
- Of Michigan metro areas adding jobs since October 2016, Flint exhibited the smallest increase, up by just 200 jobs, or 0.1 percent.

DETROIT-WARREN-DEARBORN METRO AREA

- Detroit's jobless rate contracted by two-tenths of a percentage point over the month to 4.2 percent, a rate matching that of the state.
- The civilian labor force increased by 0.4 percent over the year.

MONTHLY INDUSTRY DEVELOPMENTS

 Total nonfarm employment rose by 6,800 over the month, or 0.3 percent, primarily due to gains in *Government* (+3,600) and Educational and health services (+2,800).

INDUSTRY TRENDS

 Detroit's Finance and insurance industry reached a ten-year high of 83,900 jobs in October 2017.

GRAND RAPIDS-WYOMING METROPOLITAN AREA

- Joblessness in the Grand Rapids region contracted slightly over the month to 3.4 percent, a decline of 0.1 percentage points.
- Grand Rapids was tied with Ann Arbor in having the lowest unemployment rate out of all Michigan metro areas in October, with a rate eight-tenths of a percentage point below that of the state.

MONTHLY INDUSTRY DEVELOPMENTS

Payroll employment in the Grand Rapids region advanced by 4,500 over the month (+0.8 percent), with large seasonal job gains in
 Government (+1,600), Professional and business services (+1,600),
 and Educational and health services (+900).

INDUSTRY TRENDS

 Grand Rapids exhibited the third largest increase in nonfarm employment on a percentage basis over the year (+2.1%).

		ANN ARBOR	2	BAT	TLE CREE	K		BAY CITY	
	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016
PLACE OF RESIDENCE									
Labor Force	195,900	196,500	195,100	64,000	64,500	64,600	50,800	51,400	51,800
Employment	189,200	188,900	187,900	61,100	61,400	61,800	48,400	48,900	49,500
Unemployment	6,700	7,600	7,100	3,000	3,100	2,800	2,400	2,500	2,400
Rate (percent)	3.4	3.9	3.7	4.6	4.8	4.3	4.7	4.9	4.
PLACE OF WORK									
Total Nonfarm Jobs	228,900	226,000	222,100	60,100	59,900	59,800	36,300	36,300	36,70
Mining, Logging, and Construction	4,400	4,400	4,200	1,600	1,700	1,700	1,100	1,100	1,10
Manufacturing	15,000	15,100	14,600	12,800	12,600	12,300	4,600	4,500	4,40
Trade, Transportation, and Utilities	25,800	25,900	25,800	9,100	9,100	9,300	7,300	7,400	7,80
Wholesale Trade	5,600	5,600	5,600	*	*	*	*	*	
Retail Trade	16,600	16,600	16,500	5,800	5,600	5,600	5,200	5,200	5,20
Information	5,000	5,100	5,100	*	*	*	600	600	60
Financial Activities	7,100	7,100	6,900	1,300	1,300	1,300	1,200	1,200	1,20
Professional and Business Services	32,400	32,000	30,700	6,400	6,300	6,300	3,100	3,100	3,10
Educational and Health Services	27,300	27,100	27,100	11,200	11,100	11,200	6,500	6,500	6,60
Leisure and Hospitality	17,700	18,200	17,400	4,700	4,800	4,700	4,700	4,800	4,60
Other Services	6,500	6,500	6,500	2,100	2,100	2,100	1,400	1,400	1,50
Government	87,700	84,600	83,800	10,800	10,800	10,800	5,800	5,700	5,80
	DETROIT-	WARREN-DI	EARBORN		FLINT		GRAND RAPIDS-WYOMING		
	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OC ²
PLACE OF RESIDENCE									
Labor Force	2.097.200	2,116,400	2,088,600	181,100	182,000	183,600	571,800	573,200	570,80
Employment	2,008,100	2.022.800	1,970,100	171.600	171,800	174,500	552.600	552,800	552,00
Unemployment	89,100	93,600	· · ·	17 1,000		174,000		20,300	18,80
Griempioyment	03,100			9.500	10 100	9 100	10 200		10,00
Poto (poroont)	4.2		118,500	9,500	10,100	9,100	19,200	· · · · · · · · · · · · · · · · · · ·	2
Rate (percent)	4.2	4.4	5.7	9,500	5.6	9,100	19,200	3.5	3
Rate (percent) PLACE OF WORK	4.2		·		•		<u> </u>	· · · · · · · · · · · · · · · · · · ·	3
,	2,029,400		·		•		<u> </u>	· · · · · · · · · · · · · · · · · · ·	
PLACE OF WORK		4.4	5.7	5.3	5.6	5.0	3.4	3.5	553,50
PLACE OF WORK Total Nonfarm Jobs	2,029,400	2,022,600	5.7 2,000,100	5.3	5.6	5.0	3.4 565,100	3.5 560,600	553,50 23,50
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction	2,029,400 78,600	2,022,600 79,200	5.7 2,000,100 72,900	5.3 142,500 5,300	5.6 141,200 5,400	5.0 142,300 5,100	3.4 565,100 24,900	3.5 560,600 24,900	553,50 23,50 111,70
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing	2,029,400 78,600 247,300	2,022,600 79,200 246,000	2,000,100 72,900 243,800	5.3 142,500 5,300 12,400	5.6 141,200 5,400 12,400	5.0 142,300 5,100 12,400	3.4 565,100 24,900 114,900	3.5 560,600 24,900 115,200	553,5 23,5 111,7 95,7
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities	2,029,400 78,600 247,300 367,300	2,022,600 79,200 246,000 364,900	2,000,100 72,900 243,800 365,600	5.3 142,500 5,300 12,400 30,400	5.6 141,200 5,400 12,400 30,200	5.0 142,300 5,100 12,400 30,100	3.4 565,100 24,900 114,900 96,900	3.5 560,600 24,900 115,200 96,300	553,50 23,50 111,70 95,70 30,90
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade	2,029,400 78,600 247,300 367,300 86,500	2,022,600 79,200 246,000 364,900 86,600	2,000,100 72,900 243,800 365,600 86,100	5.3 142,500 5,300 12,400 30,400 5,800	5.6 141,200 5,400 12,400 30,200 5,800	5.0 142,300 5,100 12,400 30,100 5,700	3.4 565,100 24,900 114,900 96,900 31,100	3.5 560,600 24,900 115,200 96,300 31,100	553,56 23,56 111,70 95,70 30,90 49,40
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade	2,029,400 78,600 247,300 367,300 86,500 210,000	2,022,600 79,200 246,000 364,900 86,600 208,500	2,000,100 72,900 243,800 365,600 86,100 211,300	5.3 142,500 5,300 12,400 30,400 5,800 20,800	5.6 141,200 5,400 12,400 30,200 5,800 20,600	5.0 142,300 5,100 12,400 30,100 5,700 20,500	3.4 565,100 24,900 114,900 96,900 31,100 50,000	3.5 560,600 24,900 115,200 96,300 31,100 49,300	553,50 23,50 111,70 95,70 30,90 49,40 5,20
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade Information	2,029,400 78,600 247,300 367,300 86,500 210,000 27,800	2,022,600 79,200 246,000 364,900 86,600 208,500 27,900	2,000,100 72,900 243,800 365,600 86,100 211,300 28,300	5.3 142,500 5,300 12,400 30,400 5,800 20,800 3,900	5.6 141,200 5,400 12,400 30,200 5,800 20,600 3,900	5.0 142,300 5,100 12,400 30,100 5,700 20,500 4,000	3.4 565,100 24,900 114,900 96,900 31,100 50,000 5,100	3.5 560,600 24,900 115,200 96,300 31,100 49,300 5,100	553,50 23,50 111,70 95,70 30,90 49,40 5,20 25,90
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade Information Financial Activities	2,029,400 78,600 247,300 367,300 86,500 210,000 27,800 116,500	2,022,600 79,200 246,000 364,900 86,600 208,500 27,900 115,800	2,000,100 72,900 243,800 365,600 86,100 211,300 28,300 113,200	5.3 142,500 5,300 12,400 30,400 5,800 20,800 3,900 6,000	5.6 141,200 5,400 12,400 30,200 5,800 20,600 3,900 6,000	5.0 142,300 5,100 12,400 30,100 5,700 20,500 4,000 6,000	3.4 565,100 24,900 114,900 96,900 31,100 50,000 5,100 26,800	3.5 560,600 24,900 115,200 96,300 31,100 49,300 5,100 26,600	553,56 23,56 111,70 95,70 30,90 49,40 5,20 25,90 81,00
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade Information Financial Activities Professional and Business Services	2,029,400 78,600 247,300 367,300 86,500 210,000 27,800 116,500 409,300	2,022,600 79,200 246,000 364,900 86,600 208,500 27,900 115,800 408,100	2,000,100 72,900 243,800 365,600 86,100 211,300 28,300 113,200 400,100	5.3 142,500 5,300 12,400 30,400 5,800 20,800 3,900 6,000 15,800	5.6 141,200 5,400 12,400 30,200 5,800 20,600 3,900 6,000 15,400	5.0 142,300 5,100 12,400 30,100 5,700 20,500 4,000 6,000 15,600	3.4 565,100 24,900 114,900 96,900 31,100 50,000 5,100 26,800 81,000	3.5 560,600 24,900 115,200 96,300 31,100 49,300 5,100 26,600 79,400	553,50 23,50 111,70 95,70 30,90 49,40 5,20 25,90 81,00 90,30
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade Information Financial Activities Professional and Business Services Educational and Health Services	2,029,400 78,600 247,300 367,300 86,500 210,000 27,800 116,500 409,300 316,900	2,022,600 79,200 246,000 364,900 86,600 208,500 27,900 115,800 408,100 314,100	2,000,100 72,900 243,800 365,600 86,100 211,300 28,300 113,200 400,100 312,100	5.3 142,500 5,300 12,400 30,400 5,800 20,800 3,900 6,000 15,800 28,400	5.6 141,200 5,400 12,400 30,200 5,800 20,600 3,900 6,000 15,400 27,900	5.0 142,300 5,100 12,400 30,100 5,700 20,500 4,000 6,000 15,600 28,900	3.4 565,100 24,900 114,900 96,900 31,100 50,000 5,100 26,800 81,000 92,100	3.5 560,600 24,900 115,200 96,300 31,100 49,300 5,100 26,600 79,400 91,200	3553,50 23,50 111,70 95,70 30,90 49,40 5,20 25,90 81,00 90,30 49,60 22,40
PLACE OF WORK Total Nonfarm Jobs Mining, Logging, and Construction Manufacturing Trade, Transportation, and Utilities Wholesale Trade Retail Trade Information Financial Activities Professional and Business Services Educational and Health Services Leisure and Hospitality	2,029,400 78,600 247,300 367,300 86,500 210,000 27,800 116,500 409,300 316,900 196,800	2,022,600 79,200 246,000 364,900 86,600 208,500 27,900 115,800 408,100 314,100 201,400	2,000,100 72,900 243,800 365,600 86,100 211,300 28,300 113,200 400,100 312,100 197,300	5.3 142,500 5,300 12,400 30,400 5,800 20,800 3,900 6,000 15,800 28,400 15,900	5.6 141,200 5,400 12,400 30,200 5,800 20,600 3,900 6,000 15,400 27,900 15,900	5.0 142,300 5,100 12,400 30,100 5,700 20,500 4,000 6,000 15,600 28,900 15,300	3.4 565,100 24,900 114,900 96,900 31,100 50,000 5,100 26,800 81,000 92,100 50,700	3.5 560,600 24,900 115,200 96,300 31,100 49,300 5,100 26,600 79,400 91,200 50,900	553,50 23,50 111,70 95,70 30,90 49,40 5,20 25,90 81,00 90,30 49,60

JACKSON METROPOLITAN AREA

- In October, labor force in the Jackson region inched down by 300, resulting in a slight cut in the unemployment rate to 4.3 percent.
- Since October 2016, the area jobless rate was little changed, although employment fell by 700.

MONTHLY INDUSTRY DEVELOPMENTS

- October nonfarm payroll jobs in the Jackson MSA rose by 300 to a total of 58,800, mostly from a job gain of 400 in private Educational and health services.
- Over the past year, the Jackson MSA recorded substantial job growth in Manufacturing (+5.1 percent or +500) and in Leisure and hospitality (+7.5 percent or +400).

INDUSTRY TRENDS

 Jobs in the Mining, logging, and construction sector bottomed out during the recession at 1,400 in 2010, but by 2016, jobs returned to 2007 levels.

KALAMAZOO-PORTAGE METROPOLITAN AREA

- The number of unemployed in the Kalamazoo-Portage MSA inched down seasonally by 400 in October, pushing the jobless rate down to 4.1 percent.
- Since October 2016, labor market conditions remained stable, and the jobless rate remained low.

MONTHLY INDUSTRY DEVELOPMENTS

- In October, State and local education in the Kalamazoo-Portage MSA returned to full staffing, adding 400 jobs each to the area's workforce. Employment in Professional and business services also improved (+500); but Leisure and hospitality cut jobs (-300).
- Over the year, total nonfarm payroll jobs in the Kalamazoo MSA expanded by 2.0 percent or 3,000.

INDUSTRY TRENDS

• *Professional and business services* employment in the Kalamazoo area has increased every year since 2010, adding 3,200 jobs over this period to 17,300 in 2016.

LANSING-EAST LANSING METROPOLITAN AREA

- Lansing's unemployment rate declined by 0.4 percentage points over the month, down to 3.9 percent, the third lowest unemployment rate out of all Michigan metro areas (behind Ann Arbor and Grand Rapids).
- · Total employment fell by 1.1 percent over the year.

MONTHLY INDUSTRY DEVELOPMENTS

Nonfarm jobs in Lansing advanced by 3,100 over the month, or 1.3
percent, primarily due to an education-related seasonal job addition
in Government (+2,100) and a job rebound in Manufacturing (+400).

INDUSTRY TRENDS

 Leisure and hospitality in the Lansing region has consistently added jobs since 2010, adding 2,000 positions to the regional economy from 2010 to 2016.

MIDLAND METROPOLITAN AREA

- Midland's unemployment rate edged down slightly over the month to 4.2 percent in October, a decline of 0.2 percentage points.
- Employment levels in the region moved down by 2.0 percent over the year.

MONTHLY INDUSTRY DEVELOPMENTS

 Nonfarm employment in Midland contracted slightly in October, with a decline of 300 jobs, or 0.8 percent, due to job cuts in the Service providing sector.

INDUSTRY TRENDS

 The Midland metro area exhibited the second largest percent reduction in nonfarm jobs since October 2016 (behind Bay City), with a loss of 0.8 percent over the year.

MONROE METROPOLITAN AREA

- Monroe's jobless rate declined by half a percentage point between September and October to 5.0 percent.
- Total employment in the region remained nearly unchanged over the month, although the number of unemployed fell seasonally.

MONTHLY INDUSTRY DEVELOPMENTS

- · October payroll jobs in Monroe edged up by 500, or 1.2 percent.
- Small job increases in several major industries were slightly offset by a 100-job decline in Leisure and hospitality.

INDUSTRY TRENDS

 For the second consecutive month, Wholesale trade jobs in the Monroe region sat at an all-time high level of 1,900.

MUSKEGON METROPOLITAN AREA

- The Muskegon area jobless rate was little changed in October, down by one-tenth of a percentage point to 5.2 percent.
- Since October 2016, employment fell 500 and the number of unemployed inched up by 100.

MONTHLY INDUSTRY DEVELOPMENTS

 Payroll jobs in the Muskegon region edged down by 100 in October (-0.2 percent), primarily due to a seasonal 400-job cut in *Leisure and hospitality*.

INDUSTRY TRENDS

- Muskegon was one of three regions in Michigan to exhibit a job reduction between September and October (the other two were Midland and Niles-Benton Harbor).
- Muskegon's Other services industry has registered relatively stable annual average job levels since 2011 of 2,300 to 2,500.

		JACKSON		KALAM	KALAMAZOO-PORTAGE			G-EAST LAI	NSING
	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OC ²
PLACE OF RESIDENCE									
Labor Force	73,900	74,200	74,600	169,500	169,900	169,400	247,900	247,400	250,20
Employment	70,700	70,800	71,400	162,600	162,600	162,600	238,200	236,900	240,90
Unemployment	3,200	3,400	3,300	6,900	7,300	6,700	9,800	10,500	9,20
Rate (percent)	4.3	4.6	4.4	4.1	4.3	4.0	3.9	4.3	3
PLACE OF WORK									
Total Nonfarm Jobs	58,800	58,500	58,400	152,800	151,600	149,800	238,900	235,800	237,30
Mining, Logging, and Construction	2,000	2,100	2,000	6,900	6,900	6,500	7,800	7,900	7,60
Manufacturing	10,400	10,400	9,900	21,900	21,900	21,600	20,400	20,000	20,80
Trade, Transportation, and Utilities	12,600	12,500	12,800	26,600	26,600	26,500	37,600	37,400	37,40
Wholesale Trade	*	*	*	7,000	7,000	6,900	5,900	6,000	6,00
Retail Trade	6,600	6,500	6,700	16,100	16,100	16,100	22,100	21,900	22,1
Information	300	300	300	900	900	900	2,800	2,900	2,9
Financial Activities	1,800	1,800	1,800	8,500	8,500	8,300	16,200	16,200	15,9
Professional and Business Services	4,900	4,800	4,900	19,500	19,000	18,400	21,600	21,400	22,5
Educational and Health Services	10,800	10,400	10,900	23,700	23,600	23,500	32,700	32,500	32,5
Leisure and Hospitality	5,700	5,900	5,300	16,400	16,700	16,100	21,300	21,100	19,8
Other Services	2,500	2,500	2,500	5,700	5,600	5,600	10,700	10,700	10,6
Government	7,800	7,800	8,000	22,700	21,900	22,400	67,800	65,700	67,3
		MIDLAND			MONROE		M	USKEGON	
	OCT	SEP		OCT	SEP		OCT	SEP	
	2017	2017	2016	2017	2017	2016	2017	2017	201
PLACE OF RESIDENCE									
Labor Force	40,100	40,700	41,000	77,300	77,900	77,600	76,300	77,000	76,6
Employment	38,400	38,900	39,200	73,500	73,600	73,900	72,300	72,900	72,8
Unemployment	1,700	1,800	1,700	3,900	4,300	3,700	3,900	4,100	3,8
Rate (percent)	4.2	4.4	4.2	5.0	5.5	4.8	5.2	5.3	4
PLACE OF WORK									
Total Nonfarm Jobs	37,600	37,900	37,900	43,700	43,200	42,900	64,100	64,200	63,3
Mining, Logging, and Construction	*	*	*	2,300	2,200	2,200	2,200	2,200	2,1
Manufacturing	*	*	*	5,900	5,800	5,600	14,000	14,000	13,4
Trade, Transportation, and Utilities	*	*	*	11,200	11,100	11,000	13,500	13,400	13,4
Wholesale Trade	*	*	*	1,900	1,900	1,800	*	*	10,0
Retail Trade	*	*	*	5,300		<u> </u>		10,500	11,1
	*	*	*	5,300	5,200	5,200	10,600		
Information Financial Activities	*	*	*				800	800	8
Financial Activities	*	*	*	900	900	900	1,700	1,700	1,7
Professional and Business Services				5,500	5,500	5,400	3,700	3,700	3,7
Educational and Health Services	*	*	*	5,400	5,400	5,400	11,000	10,700	11,1
Leisure and Hospitality	*	*	*	4,900	5,000	4,900	7,500	7,900	7,2
. ,									
· ,	*	*	*	1,600	1,600	1,600	2,200	2,300	2,2
Other Services Government	3,100	3,200	3,100	1,600 5,400	1,600 5,100	1,600 5,300	2,200 7,500	2,300 7,500	7,5

NILES-BENTON HARBOR METROPOLITAN AREA

- An October seasonal labor force reduction in the Niles-Benton Harbor MSA pushed the jobless rate down to 4.4 percent. Both employment and the number of jobseekers declined.
- Since October 2016, employment fell substantially (-1.4 percent) although the jobless rate was flat.

MONTHLY INDUSTRY DEVELOPMENTS

- The Niles-Benton Harbor MSA in October had seasonal job cuts in Leisure and hospitality (-400) and in Professional and business services (-200).
- Over the year, job gains in Manufacturing and Leisure and hospitality were partially offset by reductions in Professional and business services.

INDUSTRY TRENDS

 The Information sector employs less than one percent of the Niles-Benton Harbor MSA's workforce. Jobs in this sector have been stable at around 500 since 2012.

SAGINAW METROPOLITAN AREA

- The unemployment rate in Saginaw contracted by 0.3 percentage points over the month, to 4.8 percent.
- · Total employment declined by 0.2 percent over the year.

MONTHLY INDUSTRY DEVELOPMENTS

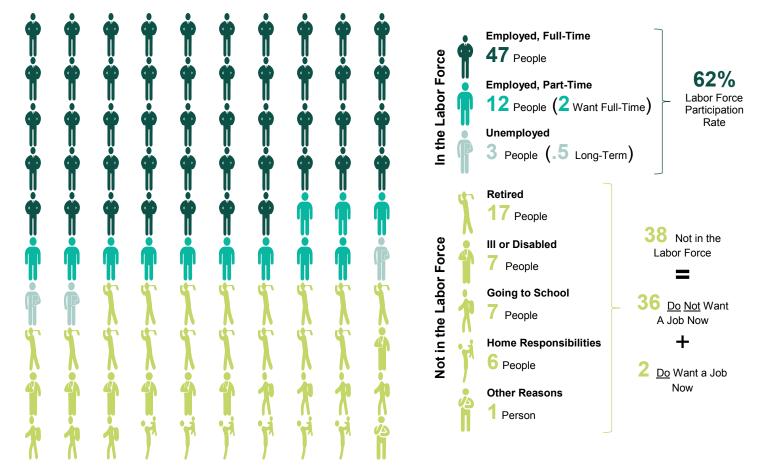
 Payroll jobs in Saginaw advanced by 700, or 0.8 percent, between September and October, partially due to job additions in *Professional* and business services (+300), Trade, transportation, and utilities (+200), and Government (+200).

INDUSTRY TRENDS

 Jobs in the Saginaw metro area in Educational and health services have expanded by 500 since the lows reached in 2010 and 2011, up to 16,200 jobs in 2016.

				NILES-B	ENTON HAI	RBOR	SAGINAW		
				OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016
PLACE OF RESIDENCE									
Labor Force				72,900	73,900	74,000	88,500	89,000	88,50
Employment				69,700	70,500	70,700	84,200	84,500	84,40
Unemployment				3,200	3,400	3,300	4,300	4,500	4,10
Rate (percent)				4.4	4.6	4.4	4.8	5.1	4.6
PLACE OF WORK									
Total Nonfarm Jobs				63,000	63,400	62,700	91,500	90,800	89,30
Mining, Logging, and Construction				2,100	2,100	2,000	3,300	3,300	3,10
Manufacturing				13,700	13,700	13,300	12,900	13,000	12,70
Trade, Transportation, and Utilities				10,500	10,600	10,700	17,900	17,700	17,20
Wholesale Trade				*	*	*	2,200	2,200	2,20
Retail Trade				6,600	6,500	6,600	13,200	13,000	12,500
Information				500	500	500	1,500	1,500	1,400
Financial Activities				2,300	2,300	2,300	3,600	3,600	3,60
Professional and Business Services				5,600	5,800	6,000	11,700	11,400	11,30
Educational and Health Services				9,300	9,200	9,300	16,600	16,400	16,30
Leisure and Hospitality				7,700	8,100	7,400	9,100	9,200	9,200
Other Services				2,400	2,300	2,400	3,300	3,300	3,20
Government				8,900	8,800	8,800	11,600	11,400	11,300
	UPPE	R PENINSI	JLA	NORTH	EAST MICH	IGAN	NORTHWEST MICHIGAN		IIGAN
	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016	OCT 2017	SEP 2017	OCT 2016
PLACE OF RESIDENCE									
Labor Force	138,000	139,600	140,200	82,000	84,000	82,500	148,000	151,000	148,300
Employment	131,200	132,400	132,900	77,300	79,100	77,800	141,500	144,200	141,80
Unemployment	6,800	7,200	7,300	4,700	4,900	4,700	6,500	6,800	6,40
Rate (percent)	4.9	5.1	5.2	5.8	5.8	5.7	4.4	4.5	4.3

WHO IS AND WHO IS NOT IN THE LABOR FORCE



Source: Current Population Survey (CPS)

About the Infographic

Michigan's labor force participation rate remains around 62 percent based on data from the Current Population Survey (CPS). The inforgrahic above is aimed to help those interested in gaining a better understanding of the components of the labor force. It contains 100 figures, with each figure representing approximately 79,200 individuals or one percent of Michigan's non-institutionalized, civilian population aged 16 and over. Each figure is depicted by a unique visualization to distinguish each from the other portions of the population. Keep in mind that due to methodology and rounding, some of the figures are approximations.

In a hypothetical room that contained 100 people:

- Sixty-two of the people are currently in the labor force. Among them, 59 are employed and three are unemployed. Among the employed, 47 hold full time jobs and 12 are working part-time. Of the part-time workers, two want a full-time job. Among the three unemployed, less than one has been out of work for 27 or more weeks.
- The 38 people remaining in the room are not in the labor force. Of the 38 people not in the labor force, 36 do not want to work right now, while the remaining two people want a job now. The greatest portion of those not in the labor force are those who

are retired, represented by 17 people.

 Other groups not in the labor force include: those who are either ill or disabled (seven people), those currently attending school (seven people), and those with home responsibilities (six people). The remaining person is not in the labor force due to "other reasons," which includes unspecified or other reasons, including a small share who have quit looking for work.

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INSIGHTS INTO MICHIGAN'S AGING INDUSTRIES

In the Michigan labor market, nearly one in four jobs are held by workers aged 55 or older. This means that, starting now and continuing for ten or more years, 25 percent of the current Michigan employed workforce will need to be replaced due to retirements and other age related separations. But, not all industries are equal when it comes to older workers. This article will highlight some Michigan industries and occupations that rank high in terms of an aging workforce. Equipped with this

information, our partners and customers can identify potential future labor shortages and build a pipeline of replacement workers with the right education, training, and skills.

Longitudinal Employer-Household Dynamics and Aging Industries

This article uses information from the Longitudinal Employer - Household Dynamics

(LEHD) program, a federal-state partnership between our bureau and the U.S. Census Bureau. The LEHD program combines administrative data from Michigan with data from Census Bureau surveys to provide information on employment, earnings, and job flows for different demographic groups, like older workers.

One important use of the LEHD data is identifying industries with a large number or a

TABLE 1: LARGEST NUMBER OF WORKERS AGED 55 AND OLDER									
INDUSTRY	TOTAL EMPLOYMENT	OLDER WORKERS	SHARE OF INDUSTRY EMPLOYMENT GOING TO OLDER WORKERS	INDUSTRY SHARE OF ALL OLDER WORKERS					
Total, All Industries	3,648,588	839,302	23.0%						
Educational Services	305,339	82,908	27.2%	9.9%					
Professional, Scientific, and Technical Services	265,037	60,895	23.0%	7.3%					
Hospitals	208,929	50,443	24.1%	6.0%					
Ambulatory Health Care Services	191,753	47,329	24.7%	5.6%					
Administrative and Support Services	207,753	45,926	22.1%	5.5%					
Transportation Equipment Manufacturing	164,392	37,292	22.7%	4.4%					
Executive, Legislative, & Other General Government Support	94,642	26,479	28.0%	3.2%					
Food Services and Drinking Places	257,757	25,675	10.0%	3.1%					
Merchant Wholesalers, Durable Goods	89,088	22,344	25.1%	2.7%					
General Merchandise Stores	87,987	20,813	23.7%	2.5%					
Nursing and Residential Care Facilities	96,523	19,864	20.6%	2.4%					
Fabricated Metal Product Manufacturing	76,222	19,272	25.3%	2.3%					
Machinery Manufacturing	68,112	18,548	27.2%	2.2%					
Specialty Trade Contractors	86,690	16,852	19.4%	2.0%					
Management of Companies and Enterprises	69,853	16,720	23.9%	2.0%					

Source: Longitudinal Employer-Household Dynamics (LEHD)



high share of older workers. In this article, we identify aging industries in two ways:

- A large <u>number</u> of older workers an industry has a large number of older workers if the industry employs two percent or more of all older workers in the state.
 For example, *Educational services* leads the list, employing 82,900 older workers, or 10 percent of all older workers.
- A large **share** of older workers an industry

has a large share of older workers if the industry's share of older workers is above 23 percent, the all-industry average. For example, *Transit and ground passenger transportation* tops the list, employing 4,700 older workers or 42 percent of total jobs (11,400) in this industry.

Tables 1 and 2 highlight aging industries in Michigan according to both calculations.

Several of these industries will be discussed in

detail later.

Priority Industries: Industries with Many Older Workers

The fifteen industries listed in Table 1 employ more than 511,000 older workers, representing over 60 percent of all older workers in Michigan. The list includes several industries from the critical goods-producing sectors of *Construction*

TABLE 2: HIGHEST SHARE OF WORKERS AGED 55 AND OLDER

INDUSTRY	TOTAL EMPLOYMENT	OLDER WORKERS	SHARE OF INDUSTRY EMPLOYMENT GOING TO OLDER WORKERS	INDUSTRY SHARE OF ALL OLDER WORKERS
Total, All Industries	3,648,588	839,302	23.0%	
Transit and Ground Passenger Transportation	11,391	4,736	41.6%	0.6%
Air Transportation	10,641	3,427	32.2%	0.4%
Religious, Grantmaking, Civic, and Professional Organizations	38,715	12,308	31.8%	1.5%
Museums, Historical Sites, and Similar Institutions	3,970	1,200	30.2%	0.1%
Administration of Economic Programs	8,138	2,427	29.8%	0.3%
Private Households	8,398	2,469	29.4%	0.3%
Wholesale Electronic Markets and Agents and Brokers	22,026	6,453	29.3%	0.8%
Utilities	20,800	6,083	29.2%	0.7%
Crop Production	10,626	3,090	29.1%	0.4%
Administration of Environmental Quality Programs	4,299	1,246	29.0%	0.1%
Furniture and Home Furnishings Stores	11,393	3,278	28.8%	0.4%
Furniture and Related Product Manufacturing	20,858	5,966	28.6%	0.7%
Real Estate	34,181	9,663	28.3%	1.2%
Other Information Services	8,268	2,334	28.2%	0.3%
Performing Arts, Spectator Sports, and Related Industries	7,716	2,167	28.1%	0.3%

Source: Longitudinal Employer-Household Dynamics (LEHD)



and *Manufacturing*, others from the knowledgebased *Professional and business services*, and a handful from the high-demand *Education and* health services.

The descriptions below of Michigan industries characterized by a current older workforce make several important points. For example, these "aging" industries include some of the largest employers in Michigan, and are industries that are vital to the health of the overall Michigan economy. Most of these industries supply above-average wages, contributing a significant share of Michigan income. And the occupations employed by these "aging" sectors are very diverse, including many skilled and knowledge-based job titles. This means as these workers retire, a younger skilled workforce will be needed to replace them.

In many important Michigan industries, the number of workers aged 55 and older has increased over the last decade at a much faster pace than total jobs in those sectors. This does not indicate that hiring has accelerated for older workers, it instead just illustrates the ongoing aging of the workforce as more existing employees reach age 55.

EDUCATIONAL SERVICES

Employers in this sector provide instruction and training in a wide variety of subjects.

These services are supplied by specialized establishments such as schools, colleges, universities and training centers. Therefore, employees in this sector are critical to preparing

the skilled workforce that Michigan needs.

As previously noted, the largest number of Michigan older workers (82,900) was in this sector in 2016, representing 10 percent of all older workers statewide. Over the past decade (2007-2016), the number of older workers in this sector grew by 7.8 percent while all workers aged 14 and over dropped by 7.6 percent. The 2016 average weekly wage in this industry was \$930.67, marking a seven percent increase since 2007. Within the industry, some of the target occupations include: Elementary and middle school teachers, Postsecondary teachers, and Teacher assistants.

In Michigan, nearly one in four industry jobs are held by workers aged 55 or older.

PROFESSIONAL, SCIENTIFIC, AND TECHNICIAL SERVICES

Work activities in this sector require a high degree of expertise and training. The distinguishing feature of this subsector is that most of the industries grouped within it have processes that are wholly dependent on worker skills and knowledge. Many jobs require employees with college degrees. Examples of activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services etc. Therefore, this sector is knowledge and skill-based and is projected to add jobs at a faster pace than any other Michigan industry sector over our 10-year projection period.

However, a younger workforce will be needed to fill these future skilled jobs. In 2016, there were 60,900 older workers in this sector, representing 7.3 percent of all older workers in Michigan. Over the past decade, the workforce in this important industry has aged considerably. The 55 and older cohort expanded faster than the growth rate for all workers (+20 percent). Average weekly wages rose by 15.3 percent, with 2016 average weekly earnings of \$1,582.21. Some target occupations include: Lawyers, judges, magistrates, Accountants and auditors, and Management analysts.

HOSPITALS

Hospitals provide medical, diagnostic, and treatment services that include physician, nursing, and other health services to inpatients and the specialized accommodation services required by inpatients.

There were 50,443 older workers employed in this sector in 2016, accounting for six percent of total older workers statewide.

Over the past decade, this cohort grew by 50 percent, while employment overall moved up by about 10 percent. Employees in this sector experienced a 30 percent increase in average weekly earnings over the decade, with earnings of \$1,139.19 in 2016.

This sector is also expected to have a high rate of future job expansion due to the health needs of an aging population. Some target occupations in the industry include: Registered nurses, Medical and health services managers, and Janitors and building cleaners.

AMBULATORY HEALTH CARE SERVICES

Establishments in this industry provide outpatient services, with the facilities and equipment not usually being the most significant part of the production process. They do not usually provide inpatient care. Included in this industry are urgent care clinics, which are experiencing rapid growth.

In 2016, the industry had 47,300 older workers, making up six percent of Michigan's older worker employment. Over the past decade the number of workers aged 55 and older in this sector rose by almost 40 percent, while all workers were little changed, up by just 3.2 percent. Workers in this sector earned an average weekly wage of \$1,117.67, which marked an increase of 15.8 percent from a decade ago. Target occupations in this industry include: *Registered nurses*, *Physicians and surgeons*, and *Nursing*, *psychiatric and home help aides*.

ADMINISTRATIVE AND SUPPORT SERVICES

This industry includes establishments engaged in activities that support the day-to-day operations of other organizations. The processes employed in this sector (e.g., general management, personnel administration, clerical activities, cleaning activities) are often integral parts of the activities of establishments found in all sectors of the economy. The establishments classified in this subsector have specialization in one or more of these activities and can, therefore, provide services to clients in a variety of industries. An important industry in this subsector is *Temporary help*, which contracts employees of different specializations to businesses.

There were 46,000 older workers employed in this sector in 2016, representing 5.5 percent of total older worker employment. The 55 and older worker cohort grew by 53 percent over the decade while all employment advanced by just over nine percent. Average weekly earnings moved up by 12.3 percent in 2016 to \$648.77. Priority occupations include: *Janitors, maids and housekeeping cleaners, Grounds maintenance workers*, and Security guards and gaming surveillance.

TRANSPORTATION EQUIPMENT MANUFACTURING

Establishments in this industry produce equipment for transporting people and goods, including autos and auto parts. This industry is very important in Michigan and nationwide.

There are 37,000 older workers in this industry in Michigan, accounting for 4.4 percent of total statewide older workers. This cohort rose by 8.7 percent from 2007 to 2016, while total jobs in the industry fell as jobs have still not rebounded to pre-recessionary levels. Average weekly wage for this sector actually dropped by 2.7 percent from 2007 to 2016 to \$1,427.37. Priority occupations in this industry include: Assemblers and fabricators, Mechanical engineers, and Supervisors of production and operating workers.

Priority Industries: Industries with a High Share of Older Workers

The industries listed in Table 2 are smaller than the industries discussed above, but are priority industries because a large share of all current industry jobs are held by older workers.

TRANSIT AND GROUND PASSENGER TRANSPORTATION

This subsector includes a variety of passenger transportation activities, such as urban transit systems, chartered bus, school bus, and interurban bus transportation, and taxis. This sector had 4,700 older workers or 42 percent of total industry employment. Older worker jobs doubled in this sector between 2007 and 2016 while growth of all workers was 38 percent. This sector would be attractive to retirees as there would be greater flexibility in working hours and part-time work.

TABLE 3: OCCUPATIONS LINKED TO INDUSTRIES WITH AN AGING WORKFORCE							
OCCUPATION	TOTAL ANNUAL OPENINGS	MEDIAN ANNUAL INCOME	EDUCATION				
Postsecondary Teachers	1,851	\$ 70,350	Doctoral or Professional Degree				
Lawyers, Judges, Magistrates and other Judicial Workers	650	\$ 95,860	Doctoral or Professional Degree				
Physicians and Surgeons	439	\$ 181,450	Doctoral or Professional Degree				
Registered Nurses	3,372	\$ 67,450	Bachelor's Degree				
Mechanical Engineers	1,994	\$ 86,550	Bachelor's Degree				
Accountants and Auditors	1,190	\$ 64,790	Bachelor's Degree				
Elementary and Middle School Teachers	1,174	\$ 62,460	Bachelor's Degree				
Management Analysts	484	\$ 73,050	Bachelor's Degree				
Medical and Health Services Managers	440	\$ 92,470	Bachelor's Degree				
Nursing Assistants	1,637	\$25,750	Post Secondary, Non Degree				
Teacher Assistants	989	\$ 24,780	Some College, No Degree				
Assemblers and Fabricators	3,675	\$ 31,810	High School Diploma or Equivalent				
Supervisors of Production and Operating Workers	605	\$ 59,550	High School Diploma or Equivalent				
Security Guards and Gaming Surveillance	466	\$ 24,370	High School Diploma or Equivalent				
Janitors and Cleaners	1,732	\$ 23,390	No Formal Education				
Maids and Housekeeping Cleaners	888	\$ 21,980	No Formal Education				
Landscaping and Grounds Maintenance	797	\$ 25,250	No Formal Education				
Home Health Aides	1,852	\$ 21,230	No Formal Education				

AIR TRANSPORTATION

The *Air transportation* industry transports passengers and/or cargo using aircraft, such as airplanes and helicopters. In 2016, this sector had 3,400 older workers, representing 32 percent of total jobs in the industry. Older workers in this sector advanced by 63 percent while all workers declined by nearly 25 percent. A target occupation in this sector is *Aircraft pilots and flight engineers*.

RELIGIOUS, GRANTMAKING, CIVIC, PROFESSIONAL AND SIMILAR ORGANIZATIONS

Establishments in this industry organize and promote religious activities; support various causes through grantmaking; advocate various social and political causes; and promote and defend the interests of their members.

This sector had 12,300 older workers representing one-third of total industry employment. Older workers in this sector moved up by eight percent while the all age cohort actually decreased by seven percent. Some target occupations in this sector are: Clergy, Social and community service managers, Musicians, singers and related workers, Secretaries and administrative assistants, and Janitors and building cleaners.

UTILITIES

Establishments in this subsector provide electric power, natural gas, steam supply, water supply and sewage removal through a permanent infrastructure of lines, mains and pipes. This sector employed 6,083 older workers, making up one-third of total jobs in the industry.

Older workers in this sector expanded at the high rate of 65 percent since 2007, while total jobs rose 13 percent. The principal occupations in this industry are *Power plant operators*, *Distributors and dispatchers*, and *Water and waste water treatment plant and system operators*.

FURNITURE MANUFACTURING

Establishments in this subsector produce household and institutional furniture, mattresses, window blinds, cabinets and fixtures. The processes used in the manufacture of furniture include the cutting, bending, molding, laminating and assembly of such materials as wood, metal, glass, plastics and rattan. Design and fashion trends also play

an important part in the production of furniture.

Establishments in this industry employed 5,966 employees ages 55 and older in 2016, one-third of the total jobs in the industry. This older worker cohort expanded by 63 percent since 2007 in this Michigan sector, while the all age group actually fell by 17 percent.

Many of Michigan's industries with an aging workforce are key state sectors with many jobs, relatively high wages, and skilled occupations.

REAL ESTATE

Industries in this sector include establishments that are primarily engaged in renting or leasing real estate to others; managing real estate for others; selling or buying real estate; and providing other real estate related services, such as appraisal services. Because of the flexible hours involved, this industry is very attractive to retirees and older workers.

Employment of older workers in this industry advanced by 35 percent over a 10-year period to a level of 9,663. Jobs overall in the industry went up by just 3.2 percent. Priority occupations in this industry are Real estate brokers and sales agents and Managers of property, real estate and community organizations.

A Note on Occupations

While the LEHD data allows us to identify aging industries, it does not identify occupations with many older workers. However, using data from the American Community Survey (ACS), we can provide some insights into older occupations that are linked to the industries listed above. Several of these occupations appear in Table 3. The table provides information on the projected number of annual job openings through 2024, the median annual income and the education requirements. A majority of the occupations require a bachelor's degree, but there are also occupations that require a high school diploma with on-the-job training.

Conclusion

The changing demographics of Michigan's workforce will pose challenges in the coming years. Nearly a quarter of the Michigan workforce is currently above the age of 55, and many will soon retire or change jobs. This article has attempted to identify the industries that have the largest number and share of older workers and their related occupations. In all of these Michigan industries, the rate of expansion in the 55-and-older workforce has exceeded the average rate of overall employment growth. With this information, businesses, policymakers and related agencies can develop plans to retain older workforce with the needed skills.

JASON PALMER
Director

ANEESA I. RASHID Economic Specialist

INDUSTRY FOCUS:

EDUCATIONAL SERVICES

As highlighted in this edition's aging worker feature article, the largest number of Michigan older workers are found in the *Educational services* sector, and account for nearly ten percent of all older workers in the state. This sector comprises establishments (schools, colleges, universities, and training centers) that provide instruction and training primarily delivered by teachers or instructors who explain, demonstrate, supervise, and direct learning. Employees in this industry sector are a critical link in the effort to produce skilled individuals to meet statewide labor demand.

It should be noted that, with the exception of employment projections and wage data, the *Educational services* job counts in this month's Industry Focus reflect teachers, instructors, and other staff that are employed by only private schools and learning institutions. In contrast, data in the feature article includes jobs in both private and public educational institutions.

- Between 1990 and 2008, employment consistently increased in Educational services and nearly doubled to reach 80,500 jobs by 2008. However, over the last decade, recessionary downturns and retirements have impacted this sector as employment declined by 6,600 or 13 percent.
- College, universities and professional schools accounted for nearly 40 percent of all jobs in the industry in 2016, while Elementary and secondary schools provided 23,900 jobs or 32 percent of the total.
- The remaining 30 percent of jobs in Educational services includes positions at Junior colleges, Technical and trade schools, Business, computer and management training schools, and Educational support services.

- In 2016, the median occupational wage for Educational services workers in Michigan was estimated at \$45,500, which was slightly below the national average wage of \$46,710 for this industry.
- Between the second quarters of 2016 and 2018, statewide industry employment projections estimate that the Educational services industry sector will remain relatively flat.
- Long-term industry employment projections expect that Educational services will grow by a modest 2.8 percent between 2014 and 2024, although there will still be job demand in this sector due to replacement needs as the workforce continues to age.

JIM ASTALOS Economic Analyst

Educational services will grow by a modest 2.8 percent between 2014 and 2024, although there will still be job demand in this sector due to replacement needs.

PROJECTED MICHIGAN JOB GROWTH 2014 - 2024

EDUCATIONAL SERVICES

+2.8%

TOTAL, ALL INDUSTRIES

+7.4%

MICHIGAN QUICK FACTS: EDUCATIONAL SERVICES

	<u> </u>	
Total, Michigan Payroll Jobs - 2016	4,325,600	
Educational Services Jobs - 2016	73,900	
Colleges, Universities and Professional School Jobs - 2016	27,800	
Elementary and Secondary School Jobs - 2016	23,900	
Educational Services (Balance) Jobs - 2016	22,200	
Educational Services Projected Job Change - 2016 - 2018	-170 (0.0%)	
Educational Services Projected Job Change - 2014 - 2024	+10,860 (+2.8%)	
Educational Services - All Occupations Median Wage - 2016	\$45,500 per year \$21.87 per hour	
Educational Services - All Occupations Wage Range - 2016	\$20,410 - \$95,440 per year \$9.81 - \$45.88 per hour	

OCTOBER ONLINE JOB ADS REBOUND IN MICHIGAN

Michigan's seasonally adjusted job advertisements in October were up 2.1 percent from the previous month, according to the Conference Board's Help Wanted Online Data Series. Advertised jobs rose by 2,800 over the month, ending a string of four consecutive months of losses.

The 2.1 percent monthly increase exceeded the national growth rate of 1.8 percent, and accounted for 3.5 percent of all job advertisement gains nationwide. All of Michigan's neighboring states including Illinois, Indiana, Ohio, and Wisconsin also experienced October growth in job advertisements, with the largest jumps coming from Ohio (+4.4 percent) and Illinois (+3.7 percent).

Rise in Supply/Demand Rate Persists

The ratio of unemployed persons per job advertisement is known as the supply/demand rate. Michigan's supply/demand rate for October reached 1.54, meaning for every 154 available job seekers, only 100 job advertisements were posted. Of course, not all job openings in Michigan are advertised online. The Michigan supply/demand rate rose in October for the 4th consecutive month.

Compared to neighboring states, Michigan's supply/demand rate is the second lowest with Ohio holding the highest rate of 2.02 and Wisconsin exhibiting the lowest rate of 1.08.

The job advertisement rate is a ratio that measures the number of job advertisements per 100 workers in the labor force. An increasing ratio over the short-term can be a sign of improving job demand. Michigan's October job advertisement rate of 2.79 was higher than the previous two month's rates.

Mixed October Trends in Metro Area Job Ads

Michigan's Metropolitan Statistical Areas (MSAs) experienced various changes in job ad growth from September to October, with half experiencing job ad increases and half recording reductions. The Midland MSA registered the largest monthly percent growth in advertisements at +5.7 percent or +52 jobs. Jackson had the second largest percentage job ad advance at +2.9 percent. The largest percent decline in advertisements came from the Bay City region with a -11.8 percent loss (-91 ads). Kalamazoo-Portage had the largest monthly drop in total job ads at -306.

Job Ads by Occupation (Not Seasonally Adjusted)

Information is available on advertised job vacancies by broad occupational group from the Help Wanted Online Data Series, but the data is not seasonally adjusted.

Trends were mixed in October, as some occupational groups posted higher or lower ad counts than during September. Job ads among major occupations registered the greatest monthly gain by far in *Transportation* with 1,450 additional postings, more than double the next two largest job ad increases in *Sales* and *Administrative support* at +650 and +600 positions, respectively.

Job ad reductions in October were led by Professional occupations (-600), Construction and repair (-450), and Service (-400).

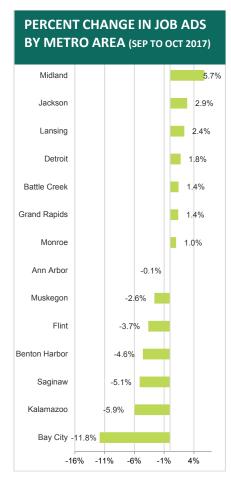
MARCUS REASON Economic Analyst





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





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

TOTAL AVAILABLE ADS (NOT SEASONALLY ADJUSTED)						
OCCUPATION CATEGORIES	ОСТ	SEP	OCT	OVER THE MONTH		
OCCUPATION CATEGORIES	2017	2017	2016	LEVEL	PERCENT	
TOTAL	141,050	140,150	161,900	900	0.6%	
Professional	40,950	41,550	49,650	-600	-1.4%	
Healthcare	22,350	22,650	23,050	-300	-1.3%	
Sales	15,100	14,450	16,900	650	4.5%	
Administrative Support	13,900	13,300	15,700	600	4.5%	
Service	12,200	12,600	15,000	-400	-3.2%	
Transportation	10,450	9,000	11,400	1,450	16.1%	
Management	9,500	9,450	10,750	50	0.5%	
Construction and Repair	9,450	9,900	11,250	-450	-4.5%	
Production	6,850	6,900	7,900	-50	-0.7%	
Farming, Fishing, and Forestry	300	350	300	-50	-14.3%	

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

TOP TAKEAWAYS BY METRO AREA

Flint Metropolitan Area

- The Flint Metropolitan Statistical Area (MSA) jobless rate was 14.9 percent in 2009, nearly three times higher than the 2016 rate of 5.4 percent. Additionally, the total number of unemployed individuals in 2016 fell below 10,000 for the first time in 15 years.
- In 2010, nonfarm payroll jobs totaled 133,600 in the Flint metro area. Since that time, 6,400 jobs (+4.8 percent) have been recovered. However, the 2016 annual average of 140,000 is still slightly below the 2008 level of 142,600.
- Over the last 17 years, total nonfarm payroll jobs in *Manufacturing* declined in both Michigan and the Flint MSA. However, the drop in the metro area was much more severe, with *Manufacturing* jobs falling 18,200 or nearly 60 percent. Statewide, *Manufacturing* jobs decreased by 32 percent over the same period.
- Manufacturing jobs as a percentage of total nonfarm jobs amounted to 18 percent in 2000. Declining to 6.8 percent in 2009, the Manufacturing job share has only been able to recover by two percentage points in the last seven years.
- Jobs in the Transportation equipment manufacturing sector plunged from a high of 9,800 in February 2008 to 3,300 in June 2009, before edging back up to 5,700 in October 2017. The current job total remains nearly 43 percent below the February 2008 level.
- After recovering 3,600 jobs (29 percent) between July 2009 and October 2011, employment in *Professional and business* services has steadied at approximately 15,000 jobs over the last several years.
- Similar to statewide trends, Educational and health services employment in Flint

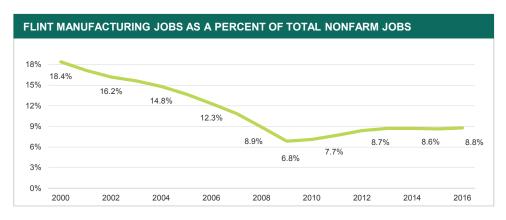
has shown a steady job increase over the years. Nearly 28,300 jobs are in this sector, making it the second highest occupational job category in the area.

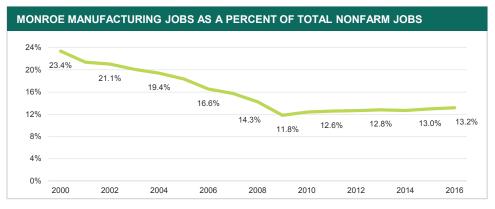
Monroe Metropolitan Area

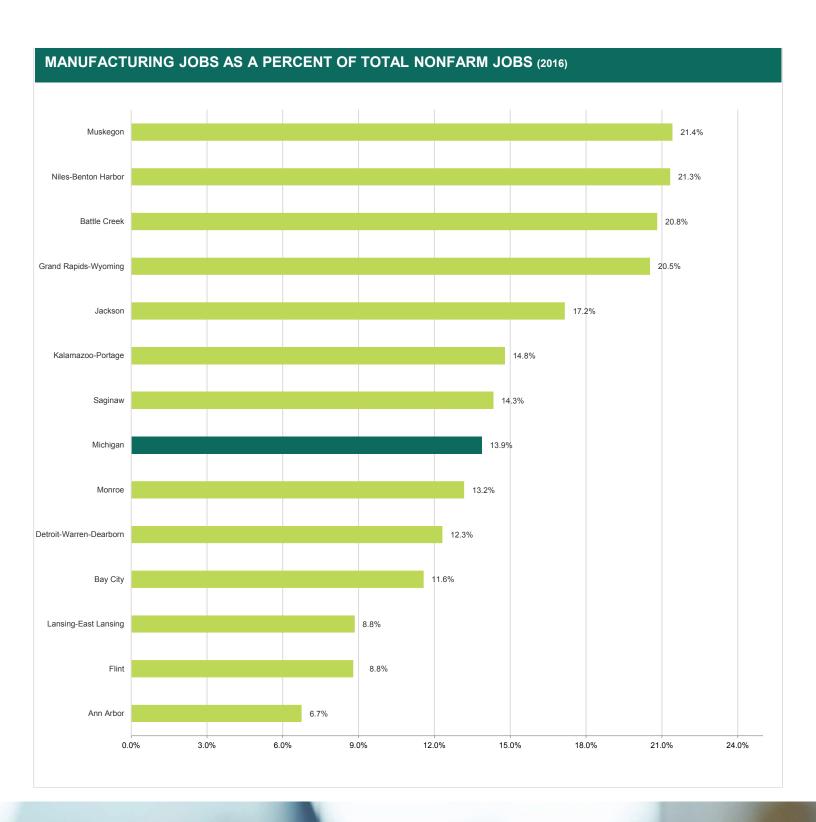
- Nearly 11,000 Monroe MSA residents were unemployed in 2009, amounting to 14.6 percent of the area labor force being out of work. Since then, total employment has jumped by 10,000 and the jobless rate has plunged by ten full percentage points to 4.3 percent.
- The region has recovered 7,100 jobs between February 2010 and October 2017.
 The increase of nearly 20 percent was primarily the result of 4,800 additional jobs in the Service providing category.

- Nearly one-quarter (10,500) of all payroll jobs in the Monroe metro area were in the Manufacturing sector in 2000. Largely as a result of two economic recessions that took place in the 2000s, the Manufacturing share of total nonfarm jobs has decreased to 11.8 percent, and only recently has edged back up to a 13.2 percent share.
- Payroll job gains were realized in Professional and business services (+2,600) and Trade, transportation, and utilities (+1,700) between February 2010 and October 2017. These two industry sectors accounted for nearly 90 percent of total job additions in the Service providing sector.

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A: Yes! The U.S. Census bureau has a website full of tools dedicated to help researchers use these data.

The Local Employment Dynamics Program (LED) is an excellent source of employer and employee-related information that might be difficult to track down using more traditional governmental datasets such as those from the U.S. Bureau of Labor Statistics.

As mentioned, the data in this edition's feature article uses the Longitudinal Employer-Household Dynamics (LEHD) program, which is put together by the Center for Economic Studies (CES) at the U.S. Census Bureau. This program integrates Census data with state-submitted administrative datasets on employment and businesses and survey information to create a longitudinal data system on employment for all states. State of the art methodology is used to protect the confidentiality of businesses and people, allowing LED to publish data for detailed geographic regions.

While data on workforce aging is one popular use of these data, there are a multitude of other variables that researchers can use to filter out specific information for their individual needs. For example, data users can gather and analyze data on gender breakdown and education for

the older workers using the LED tools available from the CES website.

State, local, and regional workforce organizations as well as economic developers in Michigan are recognizing the importance of detailed statistics on the state's jobs, earnings, and job flows at detailed levels of geography and industry for various demographic groups. One of LED's more recent products of interest to such groups is the Job-to-Job Flows Explorer, which provides insights on worker movements. These data help users answer questions such as:

- Are jobs being filled by workers who were in a period of non-employment or are they coming from those who transitioned from another industry?
- How do their earnings compare to their previous job?
- Are more workers migrating into Michigan or moving out of the state?

LED not only provides all kinds of information to those seeking better understanding of workforce and employment dynamics, but it does so in one convenient location that offers many tools to help users find the data that they need. The LEHD data can be accessed at:

https://www.census.gov/ces/dataproducts/ lehddata.html

From here, users can select any of the various tools outlined in the table below. For added convenience, each LED data tool listed contains a brief summary of the data that users can access there, as well as some examples of the types of analysis that can be done with them.

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ONLINE TOOL	DESCRIPTION	EXAMPLE
Job-to-Job Flows Explorer (J2J) Explorer (Beta) https://j2jexplorer.ces.census.gov/	A web-based tool for analyzing new statistics on job flows. Multiple interactive visualizations trace worker movements through industries, geographic labor markets, and to/from employment.	A total of 15,381 jobs flowed to Michigan from out of state (2016 Q1). 11.3 percent were above the age of 55.
Quarterly Workforce Indicators (QWI) Explorer https://qwiexplorer.ces.census.gov/	Provides charts, maps, and interactive tables for users to compare, rank, and aggregate QWI's across time, geography, and/or firm, and worker characteristics.	In the age demographic 55 years and over, there were more working males (457,280) than working females (446,141). There were more females working in the group aged 14-24 years.
OnTheMap LODES https://onthemap.ces.census.gov/	Maps, charts, and reports on demographic characteristics and commute patterns of workers/jobs covering 50 states plus D.C. This tool also provides inflow/outflow data for specific regions. Information can be extracted on the commuting flows of workers to their place of employment.	The Work Area Profile tab of this tool provides detailed statistics of worker demographics. For example, in 2015, 31.6 percent of the 55 plus age cohort had a bachelor's or advanced degree and 50 percent of the age group earned more than \$3,333 per month.
OnTheMap for Emergency Management https://onthemap.ces.census.gov/em/	Shows potential impact on jobs/workers and population for hurricanes, tropical storms, fires, floods, snow and freezing rain probability, and disaster declaration areas. Real-time geographic data of disaster events are automatically updated.	By entering the Federal Disaster declaration number, data on the affected population can be extracted.
LED Extraction Tool https://ledextract.ces.census.gov/	Easy access to raw data extracts from the QWI dataset through a simple query-building interface.	This is an easy to use tool that provides comma separated value (CSV) files for the exact variables and characteristics desired by the user. This database has all 32 QWIs as well as firm age and firm characteristics.



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