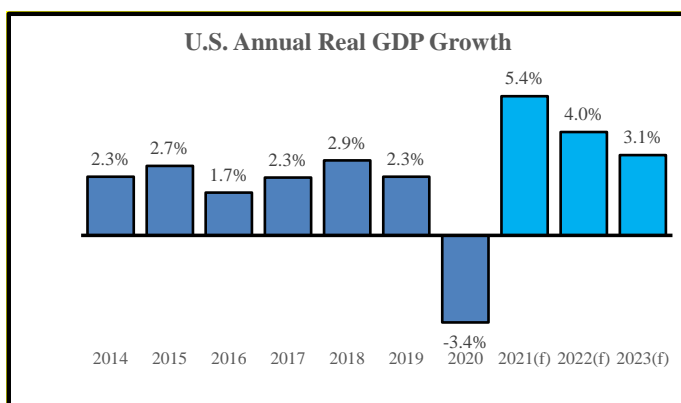


MICHIGAN ECONOMIC UPDATE

Office of Revenue and Tax Analysis
Michigan Department of Treasury
<https://www.michigan.gov/treasury>
Summarizing Economic Data for October 2021
(Published 12/03/2021)

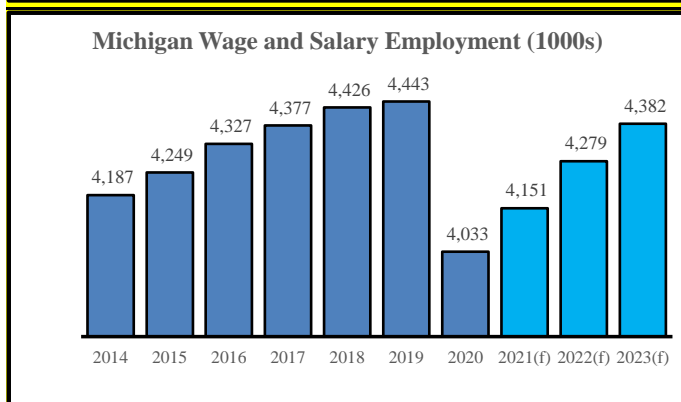
University of Michigan RSQE Economic Forecast

On November 18-19, 2021, the University of Michigan’s Research Seminar in Quantitative Economics released its November 2021 economic forecasts. Below are some highlights from those forecasts. ⁽¹⁾ :



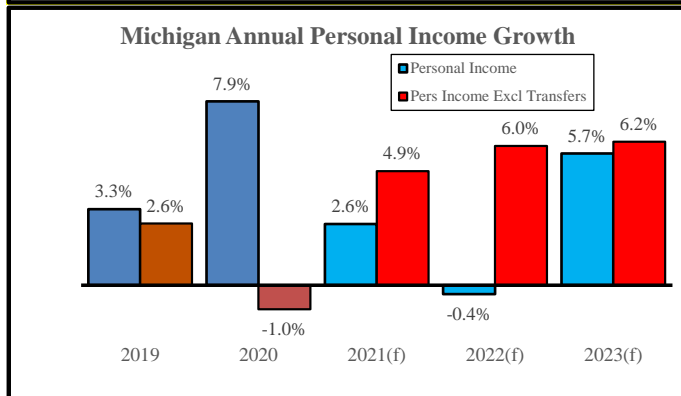
U.S. Economic Outlook

- After falling 3.4% in 2020, U.S. real GDP rose an estimated 5.4% in 2021 to a level 1.8% higher than in 2019. Real GDP is forecast to rise 4.0% in 2022 and to grow 3.1% in 2023.
- After rising slightly to an estimated 15.2 million units in 2021, U.S. light vehicle sales are forecast to rebound to 16.1 million units in 2022 and 17.3 million units in 2023.
- After rising to 8.1% in 2020, the U.S. unemployment rate is forecast to fall to 5.4% in 2021, 4.0% in 2022 and 3.5% in 2023.



Michigan Employment Outlook

- In 2020, the Michigan unemployment rate rose from 4.1% to 9.9% (a nine-year high). After falling to 5.3% in 2021, the State’s unemployment rate is forecast to rise slightly to 5.5% in 2022 before falling to 4.7% in 2023.
- Michigan wage and salary employment is forecast to recover most of jobs lost in 2020 by the end of 2023. Employment is forecast to rise 2.9% in 2021, 3.1% in 2022 and 2.4% in 2023.



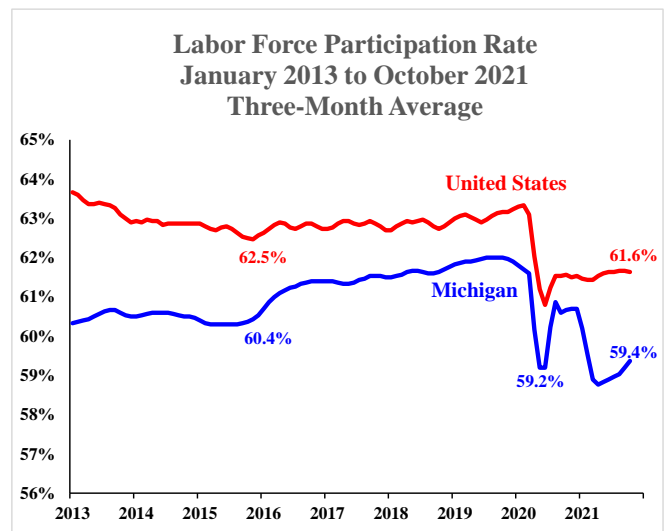
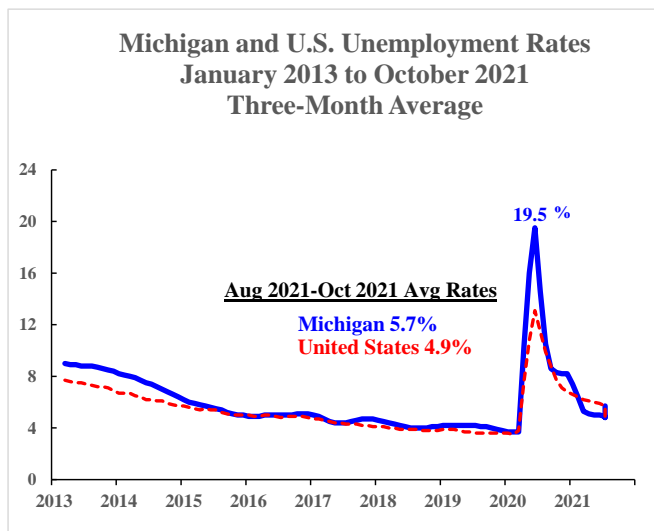
Michigan Personal Income Outlook

- Despite the economic downturn in 2020, total Michigan personal income rose 7.9% as a result of massive government assistance programs. Excluding government transfer payments, Michigan personal income fell 1.0% in 2020.
- In 2021, total Michigan personal income rose an estimated 2.6%. With government assistance declining substantially, personal income is forecast to fall 0.4% in 2022 before rising 5.7% in 2023.
- After falling 1.8% in 2020, Michigan wages and salaries are forecast to rise 6.5% in 2021, 6.8% in 2022 and 6.1% in 2023.

October 2021 Summary

Unemployment Rate Estimates

- Finding distortions in 2021 monthly Michigan unemployment rate estimates, the Bureau of Labor Statistics revised Michigan's September unemployment rate estimate up 1.7 percentage points. BLS will review January-August 2021 monthly Michigan unemployment rate estimates during its usual end-of-year revision process. BLS cautioned that while the revised September 2021 and initial October 2021 Michigan unemployment rate estimates may be fully compared with pre-2021 monthly estimates, the September/October 2021 estimates should not be compared to existing January-August 2021 monthly estimates.
- The Michigan monthly unemployment rate estimate fell from 6.3 percent in September 2021 to 6.1 percent in October 2021. The October 2021 Michigan unemployment rate was down 2.0 percentage points from a year earlier, but up 2.4 percentage points from February 2020 prior to the pandemic.
- The U.S. unemployment rate declined from 4.8 percent in September to 4.6 percent in October. October's national jobless rate was 2.3 percentage points lower than a year ago but up 1.1 percentage points from February 2020.



Employment by Place of Residence (in Thousands)^(a)

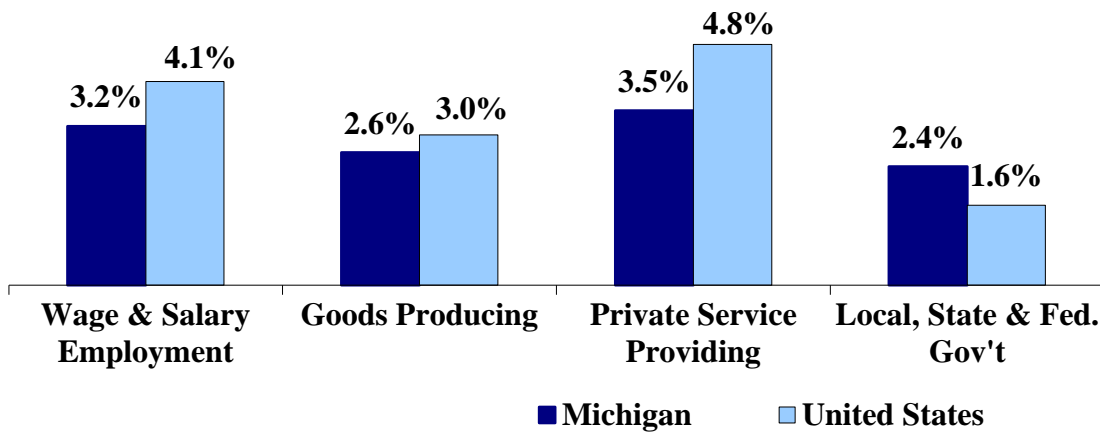
	<u>Annual</u> <u>2020</u>	<u>Aug</u> <u>2021</u>	<u>Sep</u> <u>2021</u>	<u>Oct</u> <u>2021</u>	<u>Chg Fr</u> <u>Mo Ago</u> <u>Level</u>	<u>Chg Fr</u> <u>Mo Ago</u> <u>%</u>	<u>Chg Fr</u> <u>Yr Ago</u> <u>Level</u>	<u>Chg Fr</u> <u>Yr Ago</u> <u>%</u>	<u>Three</u> <u>Month</u> <u>Average</u>
Michigan									
Labor Force	4,841	4,726	4,759	4,759	0	0.0%	-96	-2.0%	4,748
Employed	4,363	4,502	4,461	4,467	6	0.1%	6	0.1%	4,477
Unemployed	478	224	298	291	-7	-2.3%	-102	-25.9%	271
	9.9%	4.7%	6.3%	6.1%	n.a.	-0.2% pts	n.a.	-2.0% pts	5.7%
United States									
Labor Force	160,742	161,537	161,354	161,458	104	0.1%	740	0.5%	161,450
Employed	147,795	153,154	153,680	154,039	359	0.2%	4,370	2.9%	153,624
Unemployed	12,947	8,384	7,674	7,419	-255	-3.3%	-3,630	-32.9%	7,826
Unemployment Rate	8.1%	5.2%	4.8%	4.6%	n.a.	-0.2% pts	n.a.	-2.3% pts	4.9%

Source: Michigan Department of Technology, Management & Budget and Bureau of Labor Statistics, U.S. Department of Labor

Employment by Place of Work (Payroll)

- Compared to October 2020, Michigan payroll employment was up by 129,500 jobs (3.2 percent). State payroll employment rose by 37,500 jobs in October 2021 from September 2021. Nationally, October 2021 payroll employment was up by 5.8 million jobs (4.1 percent) from a year ago. National employment rose 531,000 jobs in October.

Payroll Employment Growth October 2020 to October 2021



- In the goods-producing sector, Michigan payroll employment increased 2.6 percent in October from a year ago; employment in the private service-providing sector rose 3.5 percent. From a year ago, October national payroll employment rose 3.0 percent in the goods-producing sector and increased 4.8 percent in the private service-providing sector.
- At 41.3 hours, manufacturing weekly hours in Michigan were up 1.0 hour from last year.

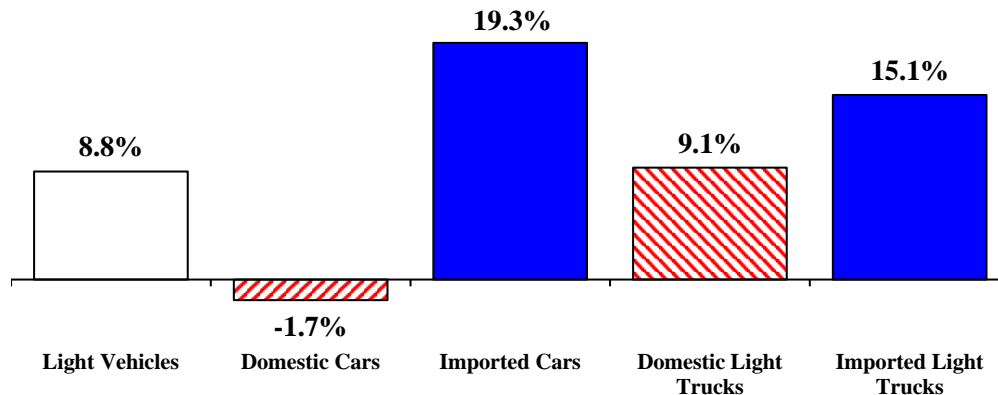
Wage and Salary (Payroll) Employment (in thousands)^(b)

	MI				US			
	2020 <u>Annual</u>	MI Oct <u>2020</u>	MI Oct <u>2021</u>	Percent Change	2020 <u>Annual</u>	US Oct <u>2020</u>	US Oct <u>2021</u>	Percent Change
Wage & Salary Employment	4,032.5	4,094.4	4,223.9	3.2%	142,185	142,545	148,319	4.1%
Goods Producing	728.5	750.0	769.8	2.6%	20,068	20,078	20,678	3.0%
Manufacturing	557.1	570.3	584.1	2.4%	12,179	12,155	12,529	3.1%
Private Service Providing	2,722.5	2,772.1	2,868.3	3.5%	100,209	100,884	105,715	4.8%
Trade, Trans. & Utilities	746.5	762.9	787.2	3.2%	26,590	26,847	27,717	3.2%
Services	1,702.4	1,734.3	1,802.4	3.9%	62,202	62,641	66,324	5.9%
Local, State & Fed. Gov't	581.5	572.3	585.8	2.4%	21,909	21,583	21,926	1.6%
Manufacturing Weekly Hours	40.7	40.3	41.3	1.0 hrs	40.7	41.3	41.3	0.0 hrs

Motor Vehicle Sales Rise Modestly in October

- After five consecutive monthly declines, the U.S. light vehicle sales rate, although constrained by supply chain shortages, rose to a still historically low 13.0 million units. Compared to last October, sales were down substantially (-20.8 percent).
- U.S. sales of domestic light vehicles fell 20.8 percent from last September while foreign sales declined 21.0 percent. The foreign share of U.S. light vehicle sales remained unchanged from a year earlier at 21.9 percent in October 2021.
- Auto sales decreased 32.0 percent compared to last October, while light truck sales declined 17.4 percent from October 2020. Year-over-year (y-o-y), heavy truck sales fell 2.6 percent from last October.
- In September 2021 (the most recent month for which inventory data are available), retail vehicle inventories were down 20.8 percent from last September – the 18th straight year-over-year drop.

Year-to-Date Light Vehicle Sales Still Up from Last Year



Motor Vehicle Sales Statistics

(Millions, Seasonally Adjusted Rates, unless otherwise specified)

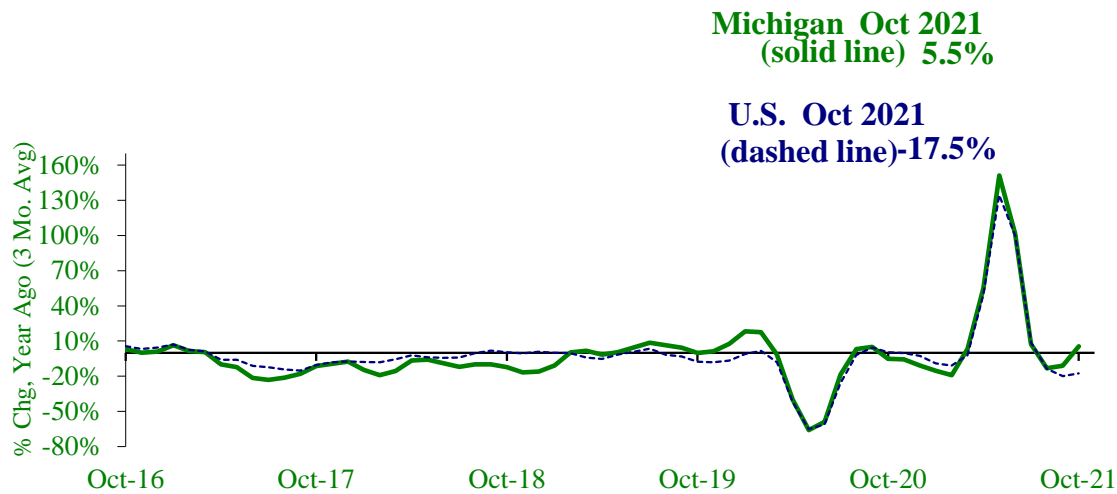
Motor Vehicle Sales ^(c)	2020	Aug	Sep	Oct	3 Month	Oct	Oct
	<u>Total</u>	<u>2021</u>	<u>2021</u>	<u>2021</u>	<u>Average</u>	<u>Chg fr Yr Ago Level</u>	<u>Chg fr Yr Ago %</u>
Autos	3.4	3.1	2.7	2.6	2.8	(1.2)	-32.0%
Domestics	2.6	2.2	1.8	1.9	2.0	(1.0)	-34.4%
Imports	0.8	0.9	0.8	0.7	0.8	(0.2)	-24.3%
Import Share	24.3%	29.5%	31.1%	26.5%	29.1%	2.7% pts	
Light Trucks	11.1	10.0	9.5	10.4	10.0	(2.2)	-17.4%
Domestics	8.6	7.7	7.3	8.2	7.8	(1.7)	-16.8%
Imports	2.4	2.3	2.2	2.2	2.2	(0.5)	-19.8%
Import Share	22.1%	22.8%	23.4%	20.8%	22.3%	-0.6% pts	
Total Light Vehicles	14.5	13.1	12.2	13.0	12.8	(3.4)	-20.8%
Heavy Trucks	0.4	0.4	0.4	0.4	0.4	(0.0)	-2.6%
Total Vehicles	14.9	13.5	12.6	13.4	13.2	(3.4)	-20.3%

Retail Inventories, Motor Vehicle and Parts Dealers (billions of dollars)^(d)

	2020	Jul-21	Aug-21	Sep-21	3 Month	Chg fr	Chg fr
	<u>Average</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Average</u>	<u>Year Ago Level</u>	<u>Year Ago %</u>
Inventories	\$200.9	\$153.2	\$151.4	\$147.1	\$150.6	-\$38.7	-20.8%
Inventory/Sales Ratio	2.01	1.21	1.23	1.18	1.21	-0.44	

- Michigan vehicle production rose 15.9 percent from October 2020 while national vehicle production fell 14.4 percent from last October. In October 2021, Michigan vehicle production totaled 178,614 units.
- The impact of the semi-conductor shortage continues to be evident in the three-month average year-over-year national comparison.
- Comparing the three-month average of vehicle production in August-October 2021 to production in August-October 2020, Michigan's average production was up 5.5 percent but average production was down 17.5 percent nationally.

Three-Month Average of Michigan Vehicle Production Up from Year Ago in October



Motor Vehicle Production Statistics

(Thousands, unless otherwise specified)

	2020					Oct	Oct
	Monthly	Aug	Sep	Oct	3 Month	Level Chg	% Chg
	Average	2021	2021	2021	Average	fr Yr Ago	fr Yr Ago
U.S. Production ^(e)							
Autos	161.9	135.2	97.3	133.6	122.1	(81.6)	-37.9%
Trucks	571.7	683.1	576.6	661.1	640.2	(52.4)	-7.3%
Total	733.6	818.3	673.9	794.7	762.3	(134.0)	-14.4%
Michigan Production ^(f)							
Autos	14.0	12.6	6.3	10.1	9.7	(7.6)	-42.7%
Trucks	236.7	141.5	135.5	168.5	148.5	32.1	23.5%
Total	250.7	154.1	141.8	178.6	158.2	24.5	15.9%
Michigan as % of U.S.	34.2%	18.8%	21.0%	22.5%	20.7%	5.9% pts	

U.S. Economic Conditions

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	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Change from Year Ago</u>
KEY ECONOMIC INDICATORS					
Consumer Sentiment ^(h)	81.2	70.3	72.8	71.7	-10.1 points
ISM Manufacturing Index ⁽ⁱ⁾	59.5	59.9	61.1	60.8	2.0 points
ISM Non Manufacturing Index ⁽ⁱ⁾	64.1	61.7	61.9	66.7	10.5 points
INFLATION ^(k)					
1982-84 = 100 (CPI)	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Change from Year Ago</u>
Nov 2009 = 100 (PPI)					
U.S. Consumer Price Index	273.0	273.6	274.3	276.6	6.2%
Detroit CPI	NA	250.0	NA	253.1	5.5%
U.S. Producer Price Index	127.6	128.3	128.9	129.8	8.6%
INTEREST RATES					
90 Day T-Bill ^(l)	0.05%	0.05%	0.04%	0.05%	-0.05% points
10 Year Treasury Securities ^(l)	1.32%	1.28%	1.37%	1.58%	0.79% points
INDUSTRIAL PRODUCTION ^(l)	101.3	101.3	100.0	101.6	5.1%
CAPACITY UTILIZATION ^(l)	76.2%	76.2%	75.2%	76.4%	3.5% points
RETAIL SALES ^(d)	\$615.3	\$622.4	\$627.5	\$638.2	16.3%
HOUSING STARTS and SALES					
(Millions Annual Rate)	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>% Change From Year Ago</u>
Housing Starts ^(d)	1.562	1.573	1.530	1.520	0.4%
Existing Home Sales ^(m)	6.000	5.880	6.290	6.340	-5.8%
DURABLE GOODS ORDERS ^(d)	\$258.8	\$262.3	\$261.3	\$260.1	13.7%
PERSONAL INCOME ^(c)					
(Billions, Seasonally Adj & Annualized)	<u>2020.3</u>	<u>2020.4</u>	<u>2021.1</u>	<u>2021.2</u>	<u>% Change From Year Ago</u>
Michigan	\$530.8	\$517.8	\$590.0	\$545.8	-5.8%
U.S.	\$19,755.2	\$19,522.9	\$21,849.0	\$20,548.9	1.1%
GROSS DOMESTIC PRODUCT ^(c)					
(Billions of Chained 2012 Dollars, Seasonally Adj & Annualized)	<u>2020.4</u>	<u>2021.1</u>	<u>2021.2</u>	<u>2021.3</u>	<u>Annualized % Chg From Last Qtr</u>
	\$18,767.8	\$19,055.7	\$19,368.3	\$19,469.4	2.1%

SOURCES AND NOTES

- (a) Seasonally adjusted. Sources: Bureau of Labor Statistics, U.S. Department of Labor and Michigan Department of Technology, Management and Budget.
- (b) Bureau of Labor Statistics, U.S. Department of Labor (BLS 790).
- (c) Bureau of Economic Analysis, U.S. Department of Commerce.
- (d) Bureau of the Census, U.S. Department of Commerce. Seasonally adjusted.
- (e) Automotive News.
- (f) Michigan Department of Treasury.
- (g) Michigan Department of Technology, Management and Budget.
- (h) University of Michigan Survey of Consumers.
- (i) Institute for Supply Management (ISM), formerly NAPM.
- (j) The Conference Board.
- (k) Bureau of Labor Statistics, U.S. Department of Labor.
- (l) Seasonally adjusted rates (except interest rates). Federal Reserve System Board of Governors. 2012 equals 100. Treasury bill rate (secondary market).
- (m) National Association of Realtors.
- (n) Research Seminar in Quantitative Economics (RSQE), University of Michigan. Pre-2021 annual data from Bureau of Labor Statistics and Bureau of Economic Analysis.