

Marquette ISM® Report on Manufacturing
December 2019- Early Release

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*The Marquette-ISM Report on Manufacturing was prepared by **Katie Ozanich**, a graduate student in Applied Economics at Marquette University, and distributed by **Kelly Wesolowski**, Associate Director of the Center for Supply Chain Management.*

Please direct data questions and requests for media commentary to Bill Lee.

This report should not be confused with the Report On Business®, PMI®, NMI®, published by the Institute of Supply Management® (ISM®). While a reasonable attempt has been made to remain consistent with the national report, the contents of this report reflect only information pertinent to the southeast Wisconsin and northern Illinois region. This report is not used in the calculation of the national report.

Summary

Milwaukee-area PMI	December 2019	November 2019	October 2019
Seasonally adjusted	45.10	42.12	42.54

(Milwaukee, Wisconsin) – December’s Index registered at 45.10, an increase from 42.12 in November. December’s index, while showing some signs of improvement continues to indicate negative territory.

What respondents are saying in December 2019:

- Continued tariffs on goods from China and uncertainty regarding international trade agreements are the biggest concern
- Somewhat reduced order volume and continued demand volatility expected to continue through 2020
- Suppliers are increasing prices due to the need to outsource labor

Important: See explanatory notes on the survey and diffusion index at the end of this report.

MANUFACTURING AT A GLANCE: December 2019*				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Dec-19	Nov-19		
PMI	45.10	42.12	3.0	declining
New Orders	42.63	36.54	6.1	declining
Production	45.34	42.32	3.0	declining
Employment	37.74	31.94	5.8	declining
Supplier Deliveries	46.87	49.80	-2.9	faster
Inventories	52.94	50.00	2.9	growing
Customers' Inventories *	32.14	33.33	-1.2	declining
Prices *	55.88	50.00	5.9	growing
Backlog of Orders *	36.67	19.23	17.4	declining
Exports *	35.00	40.91	-5.9	declining
Imports *	45.00	31.25	13.8	declining

(*) The indices are seasonally adjusted *except for* the Customers' Inventories, Prices, Backlog of Orders, Exports, and Imports Indexes, which do not meet the accepted criteria for seasonal adjustments.

What respondents are saying in December 2019:

- Production levels are starting to rebound from historic lows
- Beginning to see increased orders from Europe on new product designs
- End of the year price adjustments are signaling slightly higher prices

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **December 2019, November 2019, and October 2019.**

	Diffusion Index Dec-19	Diffusion Index Nov-19	Diffusion Index Oct-19	Direction	Comments
Blue Collar	43.6	29.0	38.4	declining	-
White Collar	40.6	37.7	35.6	declining	-

Note: These have been calculated based on the seasonally adjusted (SA) Blue and White Collar indices.

What respondents are saying in December 2019:

- Some are not replacing voluntary blue-collar departures
- Expect future outlook to follow slowing trends

Buying Policy

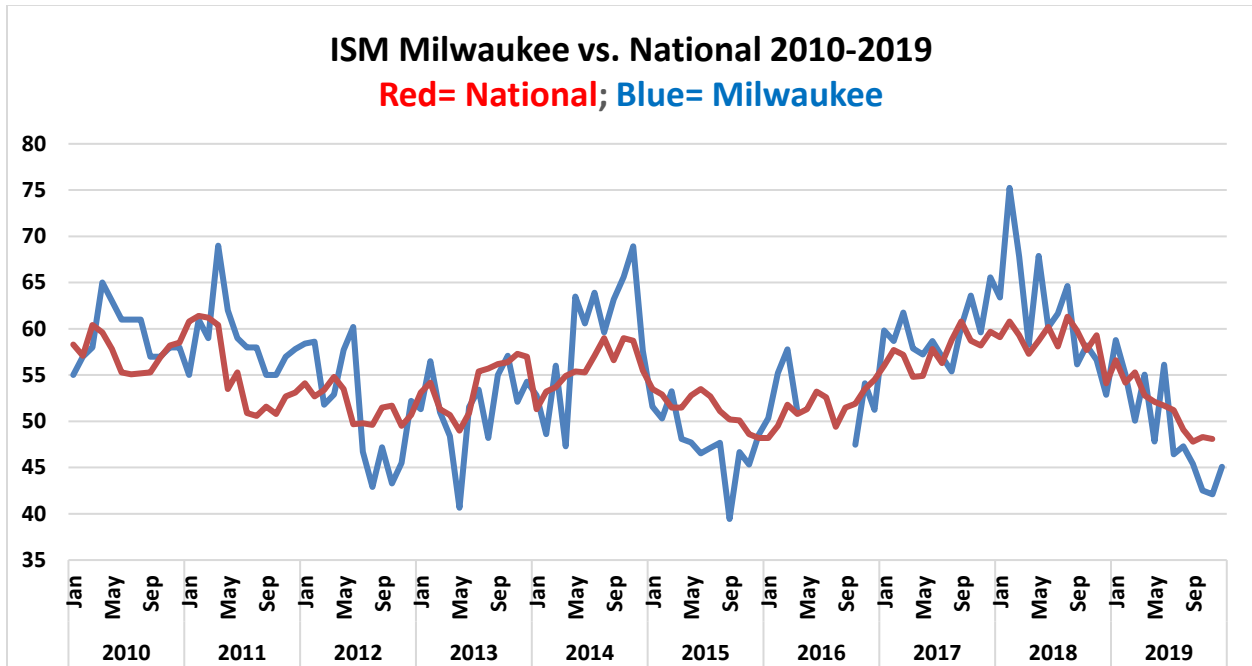
Average commitment lead-time for Capital Expenditures increased from 109 days to 116 days. Average lead-time for Production Materials decreased from 51 to 44 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies increased from 18 to 21 days.

Six- Month Outlook on Business Conditions

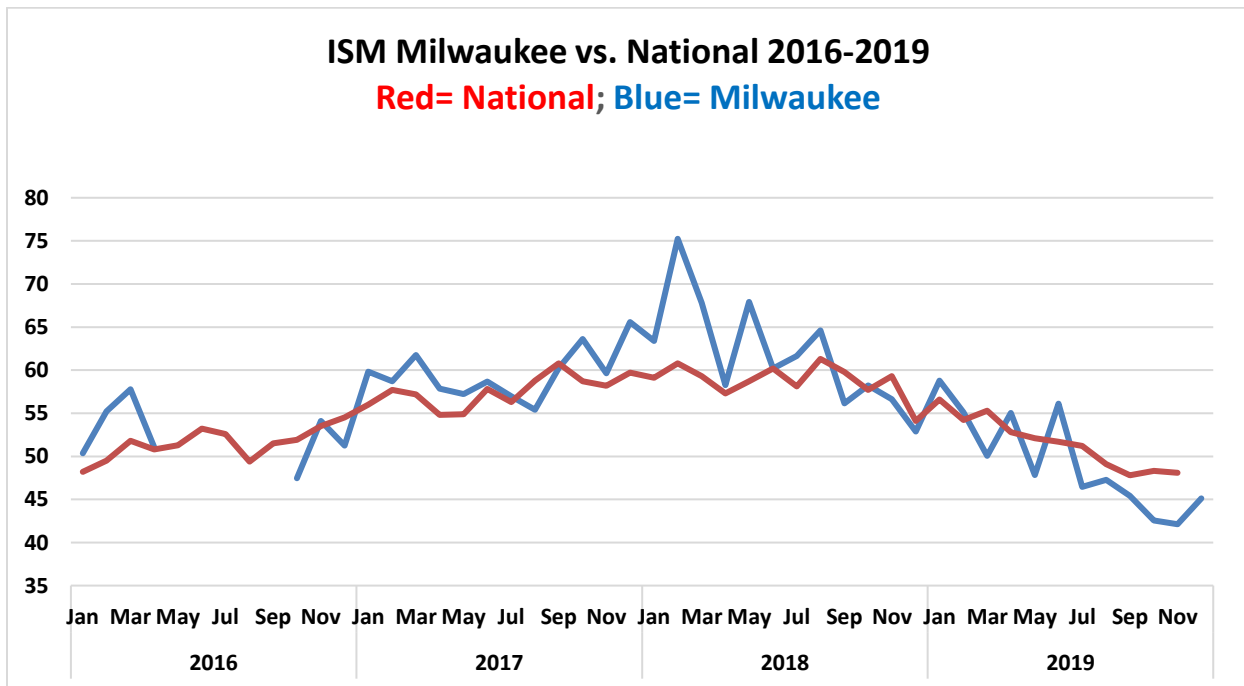
In this outlook, there is an upward shift in positive expectations compared with November in terms of market conditions. This is the highest index value in the last 6 months. Approximately 35% of respondents expect positive conditions, 53% expect conditions to remain the same and 12% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Dec-19	35.29%	52.94%	11.76%	61.76%
Nov-19	31.25%	37.50%	31.25%	50.00%
Oct-19	16.67%	55.56%	27.78%	44.44%

**Milwaukee versus the Nation –
January 2010 – December 2019 Graph**



January 2016- December 2019 Graph



Insights on the ISM® PMI® from Institute for Supply Management®:

ISM® Manufacturing Report On Business® Background

In February 1982, the PMI® was developed by the U.S. Department of Commerce (DOC) and ISM. The index, based on analytical work by the DOC, adjusts five components of the Institute's monthly survey — new orders, production, employment, supplier deliveries and inventories — for normal seasonal variations, applies equal weights to each and then calculates them into a single monthly index number.

An update of research originally done by Theodore S. Torda, the late economist for the DOC, shows a close parallel between growth in real Gross Domestic Product (GDP) and the PMI®. The index can explain about 60 percent of the annual variation in GDP, with a margin of error that averaged $\pm .48$ percent during the last ten years. George McKittrick, an economist at the DOC, said "Not only does the PMI® track well with the overall economy, but the indication provided by ISM data about how widespread changes are, complements analogous government series that show size and direction of change."

In January 1989, the Supplier Deliveries Index from the Report became a standard element of the DOC's Bureau of Economic Analysis Index of Leading Economic Indicators. The data was incorporated into the index from June 1976 forward. In January 1996, The Conference Board began compiling this index.

What Is a Diffusion Index?

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change. The percent response to the "Better," "Same" or "Worse" question is difficult to compare to prior periods. Therefore, the percentages are "diffused" for this purpose. A diffusion index takes those indicating "Better" and half of those indicating "Same" and adds the percentages. This effectively measures the bias toward a positive (above 50 percent) or negative index (below 50 percent). For example, if the response is 20 percent "Better," 70 percent "Same," and 10 percent "Worse," then the diffusion index would be 55 percent ($20\% + [0.50 \times 70\%]$). The data for each question is converted to a diffusion index and then seasonally adjusted.

For each index, a reading above 50 percent indicates expansion of an index, while a reading below 50 percent indicates it is generally declining. And a reading of 50 percent indicates "no change" from the previous month. Supplier Deliveries is an exception. A Supplier Deliveries Index above 50 percent indicates slower deliveries, and below 50 percent indicates faster deliveries.

<https://www.instituteforsupplymanagement.org/files/ISMREPORT/ROBBroch08.pdf>