

**Marquette-ISM Report on Manufacturing
October 2018- Early Release**

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

Please direct data questions and requests for media commentary to Dr. Fisher.

This report should not be confused with the ISM National Report published by the Institute of Supply Management. 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	October 2018	September 2018	August 2018
Seasonally adjusted	58.21	56.16	64.63

(Milwaukee, Wisconsin) – October's Index registered at 58.21, an increase from 56.16 in September. October's Index continues to indicate positive territory.

What respondents are saying in October 2018:

- Tariffs are negatively impacting profitability
- High costs, inflation, and reduced supplier inventory are affecting the supply chain
- Hurricane Michael delayed order shipments
- Seems as though the economy is cooling some.

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

(*) 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.

MANUFACTURING AT A GLANCE: October 2018				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Oct-18	Sep-18		
PMI	58.21	56.16	2.0	growing
New Orders	52.69	56.98	-4.3	growing
Production	47.77	51.49	-3.7	declining
Employment	50.66	51.07	-0.4	growing
Supplier Deliveries	73.26	74.04	-0.8	slower
Inventories	66.67	47.22	19.4	growing
Customers' Inventories *	37.50	34.62	2.9	declining
Prices *	80.00	88.89	-8.9	growing
Backlog of Orders *	50.00	56.67	-6.7	neutral
Exports *	31.25	45.83	-14.6	declining
Imports *	62.50	65.00	-2.5	growing

What respondents are saying in October 2018:

- Tariffs are driving significant product re-sourcing
- Export demands are slowing
- The mining market is slowing after some pickup

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **August 2018, September 2018, and October 2018.**

	Diffusion Index Aug-18	Diffusion Index Sep-18	Diffusion Index Oct-18	Direction	Comments
Blue Collar	64.4	54.3	50.7	growing	-
White Collar	56.7	54.3	47.3	declining	-

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

What respondents are saying in October 2018:

- Slowing demand is allowing suppliers to catch up with orders
- Customers will adjust prices in December, causing uncertainty in demand planning
- Reduced quality of supplier inputs

Buying Policy

Average commitment lead-time for Capital Expenditures decreased from 112 days to 82 days. Average lead-time for Production Materials decreased from 61 days to 53 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies remained constant at 24 days.

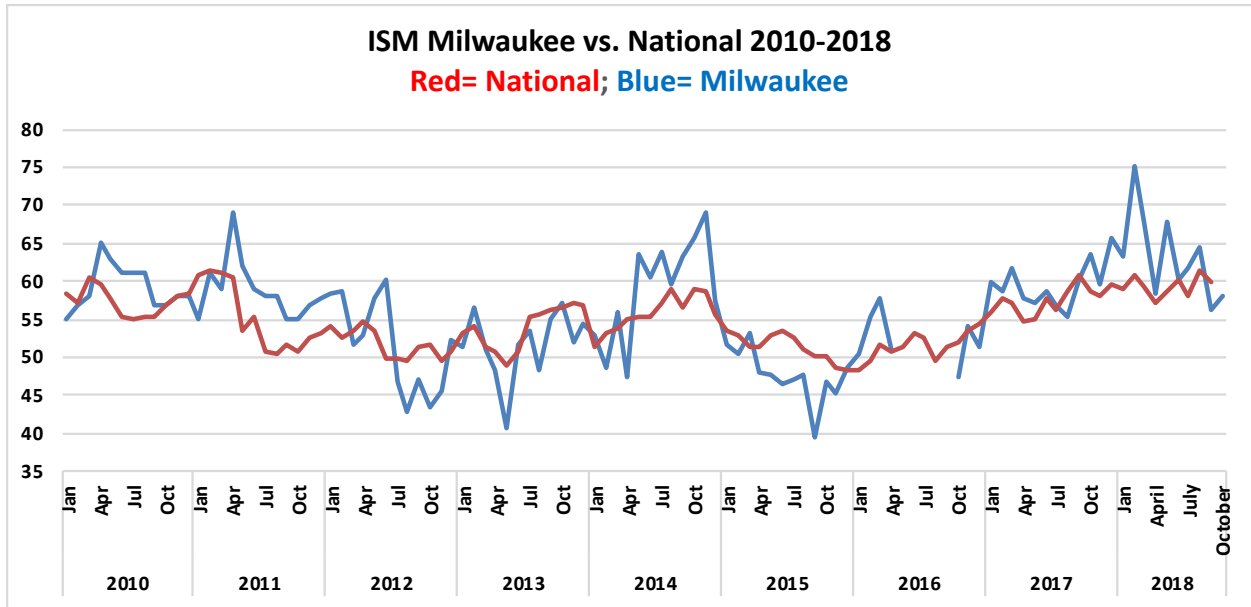
Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with September in terms of market conditions. Approximately 33% of respondents expect positive conditions, 33% expect conditions to remain the same and 33% of the respondents expect conditions to worsen within the next six months.

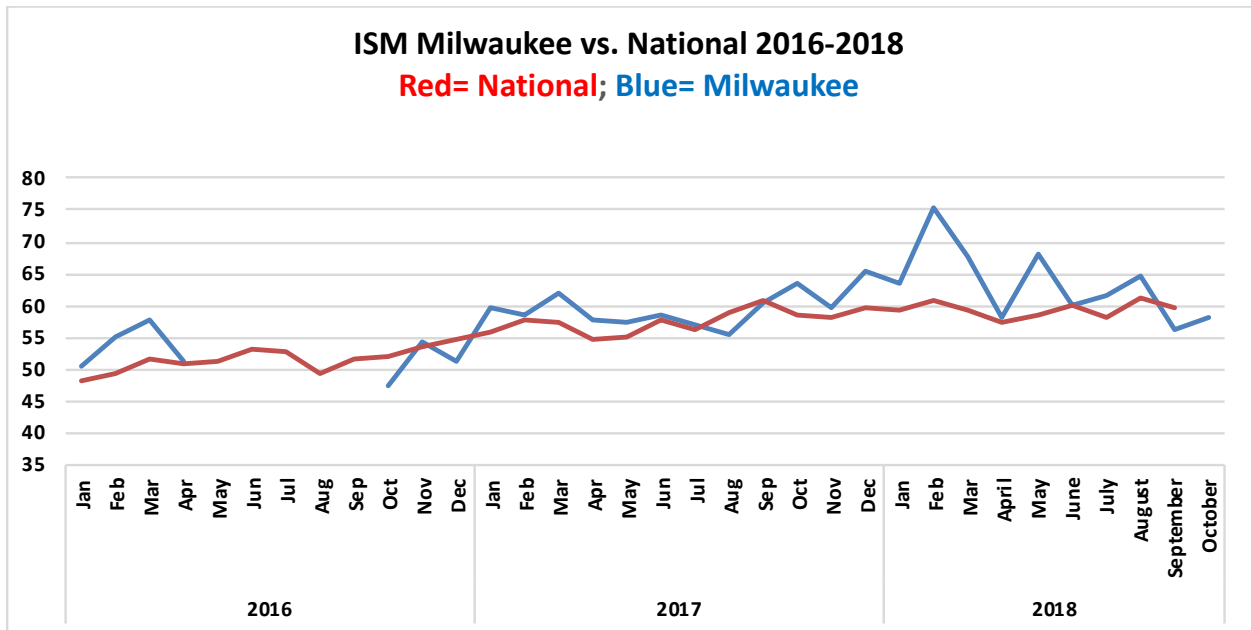
	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Oct-18	33.33%	33.33%	33.33%	50.00%
Sep-18	22.22%	55.56%	22.22%	50.00%
Aug-18	46.67%	40.00%	13.33%	66.67%

Milwaukee versus the Nation –

January 2010 – October 2018 Graph



January 2016- October 2018 Graph



Insights on the ISM PMI from the National Organization:

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>)