

## Marquette-ISM Report on Manufacturing August 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	August 2018	July 2018	June 2018
Seasonally adjusted	64.63	61.66	60.18

(Milwaukee, Wisconsin) – August's Index registered at 64.63, an increase from 61.66 in July. August's Index continues to indicate strong positive territory.

### What respondents are saying in August 2018:

- Most orders are holding steady, but few are increasing.
- Several projects have been lost due to tariffs on US imports to China.
- Electronic component shortages and extended lead times creating unplanned costs.
- Inflationary conditions continue.
- Many challenges facing supply chain right now.
- Planning for unplanned costs is an uphill battle.

*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: August 2018*				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Aug-18	Jul-18		
PMI	64.63	61.66	3.0	growing
New Orders	65.84	56.63	9.2	growing
Production	61.10	56.17	4.9	growing
Employment	60.06	62.57	-2.5	growing
Supplier Deliveries	82.81	80.15	2.7	slower
Inventories	53.33	52.78	0.6	growing
Customers' Inventories *	29.17	28.57	0.6	declining
Prices *	86.67	91.67	-5.0	growing
Backlog of Orders *	76.92	63.33	13.6	growing
Exports *	54.17	46.15	8.0	growing
Imports *	70.00	62.50	7.5	growing

**What respondents are saying in August 2018:**

- Rapid increase in material costs and lead times.
- Raw materials continue to see shortages and price increases.
- Shortages of Nylon 66, Lexan Film, stainless steel, and corrugate.

## Blue and White-Collar Employment:

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

	Diffusion Index June-18	Diffusion Index Jul-18	Diffusion Index Aug-18	Direction	Comments
Blue Collar	56.0	49.0	64.4	growing	-
White Collar	58.1	57.1	56.7	growing	-

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

## What respondents are saying in August 2018:

- Necessary to hire additional sales staff.
- Although new orders are strong, there is a decrease in availability of carriers.
- Many challenges are facing the supply chain.

## Buying Policy

Average commitment lead-time for Capital Expenditures decreased from 139 days to 98 days. Average lead-time for Production Materials remained constant at 57 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies decreased from 28 days to 23 days.

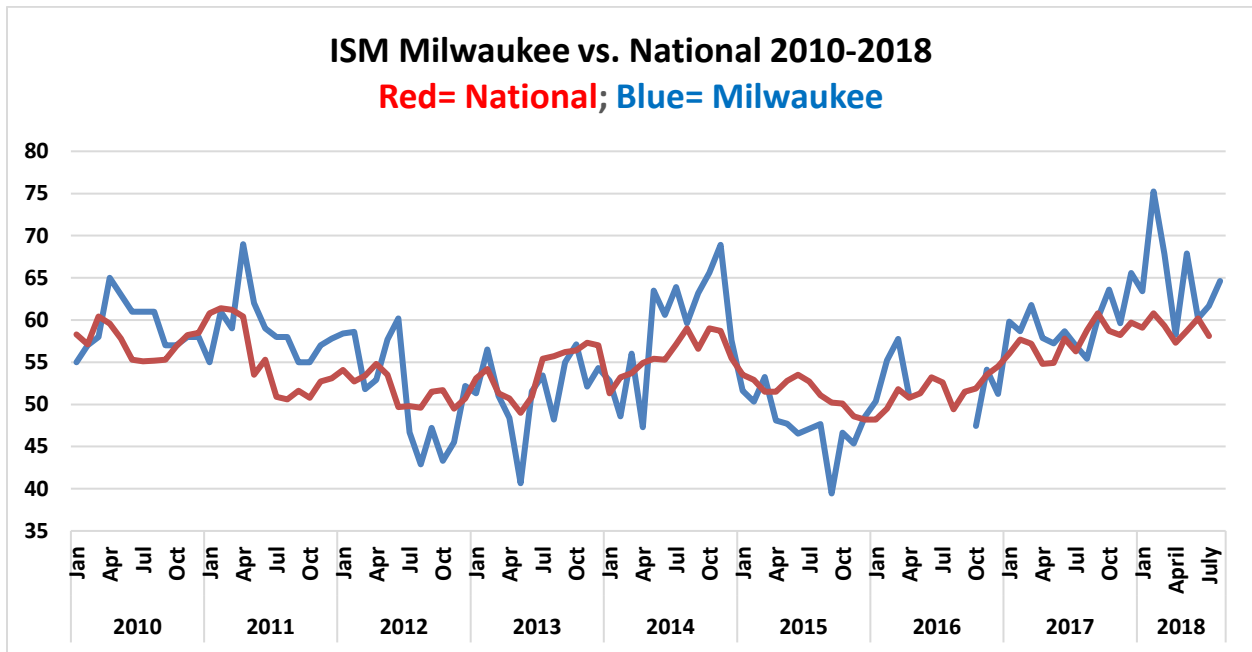
## Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with July in terms of market conditions. Approximately 47% of respondents expect positive conditions, 40% expect conditions to remain the same and 13% of the respondents expect conditions to worsen within the next six months.

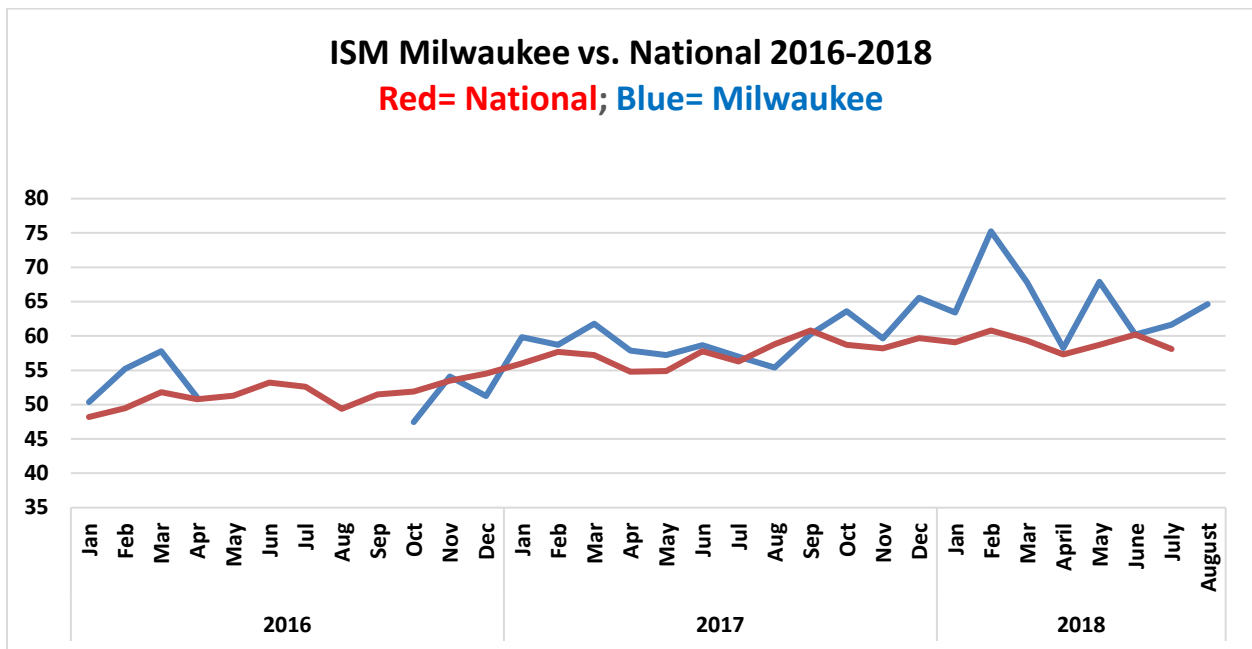
	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Aug-18	46.67%	40.00%	13.33%	66.67%
Jul-18	33.33%	38.89%	27.78%	52.78%
Jun-18	41.18%	29.41%	29.41%	55.88%

**Milwaukee versus the Nation –**

*January 2010 – August 2018 Graph*



*January 2016- August 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>