

**Marquette-ISM Report on Manufacturing
October 2016- Early Release**

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Final Version (includes ISM National Results for October, 2016)

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

We are pleased to re-launch the monthly report discontinued in May, 2016. Please direct data questions and requests for media commentary to Dr. Fisher.

Since there is no immediate historical information, comparisons will be unavailable for a couple of months. By re-starting in October, we should be in good shape going in to 2017.

Out of respect for the time of survey participants, we were asked to shorten the survey and have removed commodity-specific information. Participation rates are this level were very small historically.

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 2016	NA	NA
Seasonally adjusted	47.46	NA	NA

(Milwaukee, Wisconsin) – October’s Index registered at 47.46, which is below the 50-level indicating negative territory.

What respondents are saying in October 2016:

- We are projecting November to be light in demand, but December will be a very heavy shipment month for us. We already have several orders booked and we will be rolling out a marketing campaign pushing for end of year shipments. I don't suspect our supply chain will have significant issues in keeping up, though.
- All eyes on the upcoming election, some concern that a new administration could affect trade and/or commodities price increases.
- Continued weakness in demand and order pull-outs in last quarter; Q1 schedules do not show recovery
- Lead times for Stainless Steel have been increasing of late. If we were to have a large increase in customer demand for more than a month, I feel we could be in a pinch for getting raw material in a timely manner.
- The largest issue we face is an increase in lead time caused by decreasing amount of inventory.

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

MANUFACTURING AT A GLANCE: October 2016*				
Index	Series Index Oct-2016	Series Index NA	Percentage Point Change	Direction
PMI	47.46			
New Orders	47.67			
Production	46.59			
Employment	54.34			
Supplier Deliveries	45.83			
Inventories	42.86			
Customers' Inventories *	44.74			
Prices *	42.86			
Backlog of Orders *	42.50			
Exports *	43.33			
Imports *	57.69			

(*) 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 October 2016:

- Stores are stocking up for Black Friday
- We have good visibility a month in advance

Blue and White Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **October 2016**.

	Diffusion Index Oct-2016	Diffusion Index NA	Diffusion Index NA	Direction	Comments
Blue Collar	51.9				
White Collar	59.3				

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

What respondents are saying in October 2016:

- Continue to hire and invest for NPD (New Product Development)

Buying Policy

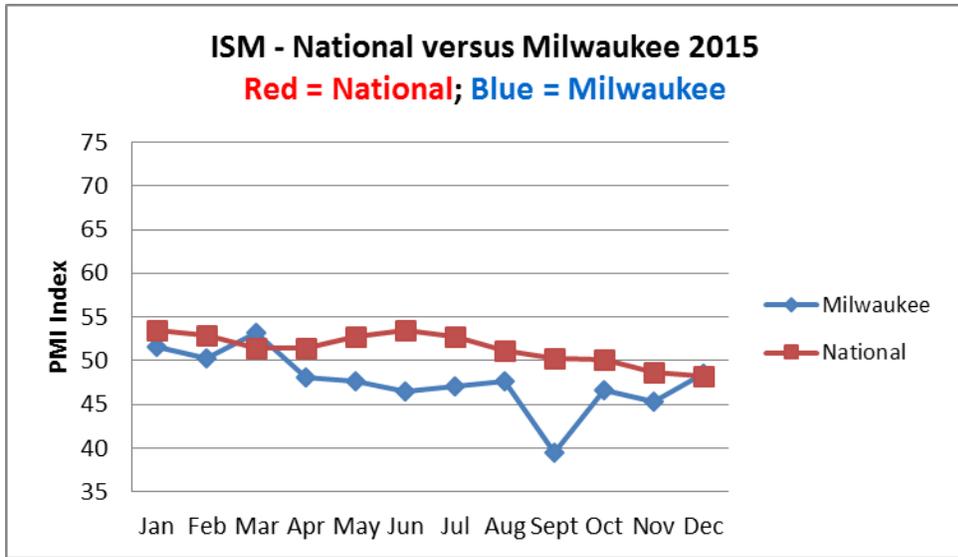
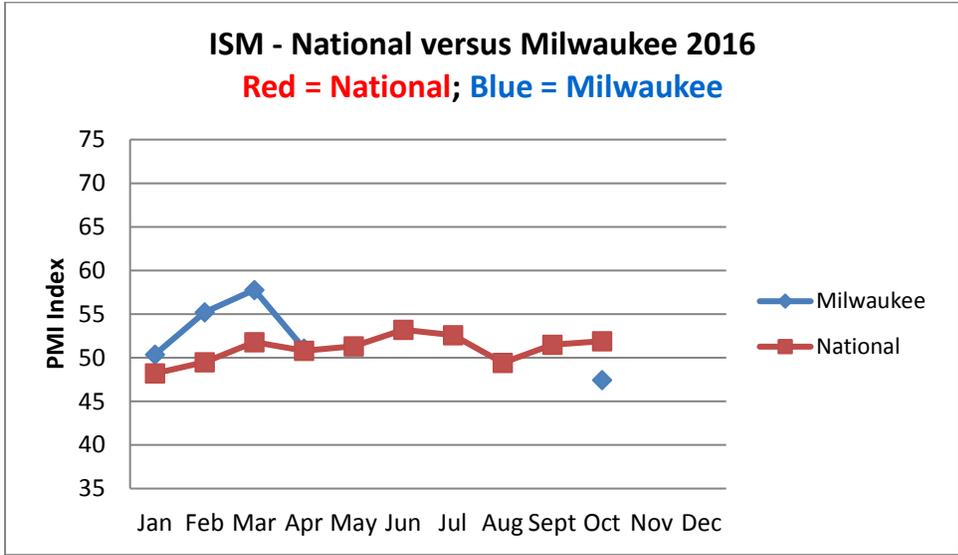
Average commitment lead time for Capital Expenditures increased by 33 days to 133 days. Average lead time for Production Materials increased by 5 days to 49 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by 4 days to 22 days.

Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with March in terms of market conditions. Approximately 42.9% of respondents expect positive conditions, 38.1% expect conditions to remain the same and 19.0% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Oct-16	42.9%	38.1%	19.0%	61.9%
NA				
NA				

Milwaukee versus the Nation – (for graphs of 2010, 2011, 2012, 2013, and 2014 see the January 2016 report)



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>)