

Marquette-ISM Report on Manufacturing February 2016- Final Release

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*The Marquette-ISM Report on Manufacturing was prepared by **Christopher Bango**, a graduate student in Applied Economics at Marquette University, and distributed by **Beth Krey**, 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	February 2016	January 2016	December 2015
Seasonally adjusted	55.22	50.36	48.53

(Milwaukee, Wisconsin) –February’s Index registered at 55.22, which is above the 50-level indicating positive territory for the second straight month. This places the index at or above 50 for nineteen of the past thirty months.

What respondents are saying in February 2016:

- Business seems to be flattening and is much slower when compared to business from the previous year.
- New products are beginning to be unveiled.
- There is not much certainty about what the future will hold beyond the next 60 days.
- Some are forecasting an upward trend in the future.

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

MANUFACTURING AT A GLANCE: February 2016*

Index	Series Index Feb-2016	Series Index Jan-2016	Percentage Point Change	Direction
PMI	55.22	50.36	4.9	growing
New Orders	53.47	49.41	4.1	growing
Production	52.59	51.87	0.7	growing
Employment	62.56	47.86	14.7	growing
Supplier Deliveries	49.16	45.52	3.6	faster
Inventories	58.33	57.14	1.2	growing
Customers' Inventories *	50.00	46.15	3.8	growing
Prices *	33.33	25.00	8.3	declining
Backlog of Orders *	45.45	30.77	14.7	declining
Exports *	50.00	30.00	20.0	growing
Imports *	56.25	50.00	6.3	growing

(*) 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 February 2016:

- There has been an increase in the number of orders.
- Backlog of orders are occurring less with orders only taking between 1- 2 days.

Blue and White Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **December 2015, January 2016, and February 2016.**

	Diffusion Index Dec-2015	Diffusion Index Jan-2016	Diffusion Index Feb-2016	Direction	Comments
Blue Collar	55.5	47.9	66.7	growing	-
White Collar	55.5	47.9	58.4	growing	-

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

What respondents are saying in February 2016:

- Total employment levels have been increasing.

COMMODITIES REPORTED UP/DOWN IN PRICE and IN SHORT SUPPLY

As an addition to the report, we have calculated commodity price indexes. We look forward to continuing to do so going forward. Below we have shown **December 2015, January 2016 and February 2016.**

Category	December 2015 Diffusion index	January 2016 Diffusion index	February 2016 Diffusion index	change in percentage point
Aluminum	22.22%	15.00%	50.00%	35.0
Brass	16.67%	25.00%	50.00%	25.0
Caustic Soda	16.67%	25.00%	0.00%	-25.0
Chemicals	16.67%	12.50%	0.00%	-12.5
Copper	25.00%	25.00%	20.00%	-5.0
Copper Based Products	50.00%	20.00%	12.50%	-7.5
Cocoa Powder	-	-	-	-
Corn	0.00%	50.00%	-	-
Corrugated Containers	50.00%	50.00%	50.00%	0.0
Diesel	14.29%	0.00%	12.50%	12.5
Electronic Components	50.00%	50.00%	25.00%	-25.0
Gasoline	14.29%	0.00%	10.00%	10.0
High Density Polyethylene	50.00%	50.00%	0.00%	-50.0
Natural Gas	12.50%	12.50%	0.00%	-12.5

Nickel	0.00%	25.00%	25.00%	0.0
PET	50.00%	50.00%	50.00%	0.0
Plastic Resins	33.33%	37.50%	33.33%	-4.2
Polyester	50.00%	50.00%	50.00%	0.0
Polyethylene	16.67%	50.00%	50.00%	0.0
Resins	50.00%	50.00%	50.00%	0.0
Soybean Oil	-	-	-	-
Stainless Steel	30.00%	28.57%	50.00%	21.4
Starch	-	-	-	-
Steel	35.00%	22.22%	40.00%	17.8
Steel Products	16.67%	33.33%	50.00%	16.7
Sulfur	-	-	-	-
Tin Plate	50.00%	50.00%	-	-
Titanium Dioxide	33.33%	50.00%	50.00%	0.0
Wheat	-	-	-	-
Beef/Pork	0.00%	0.00%	100.00%	100.0

Buying Policy

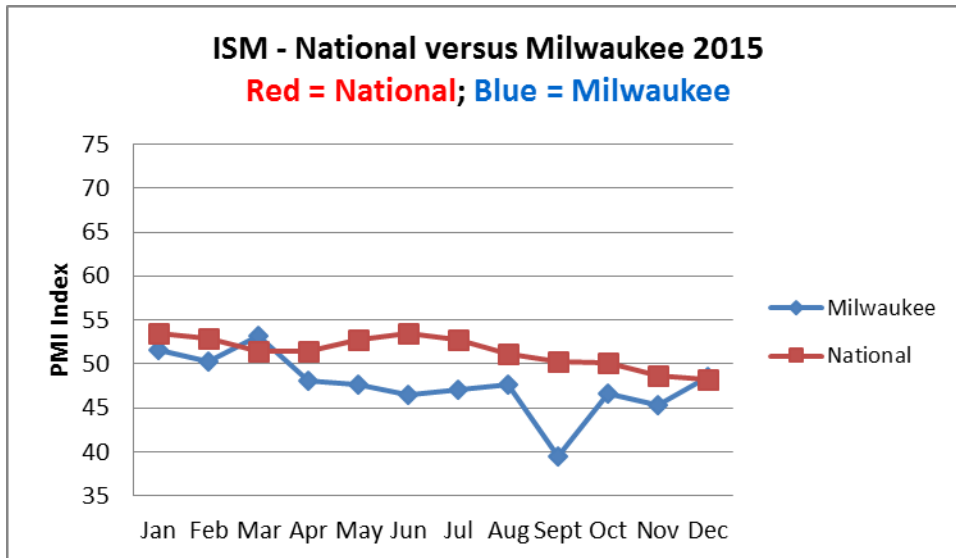
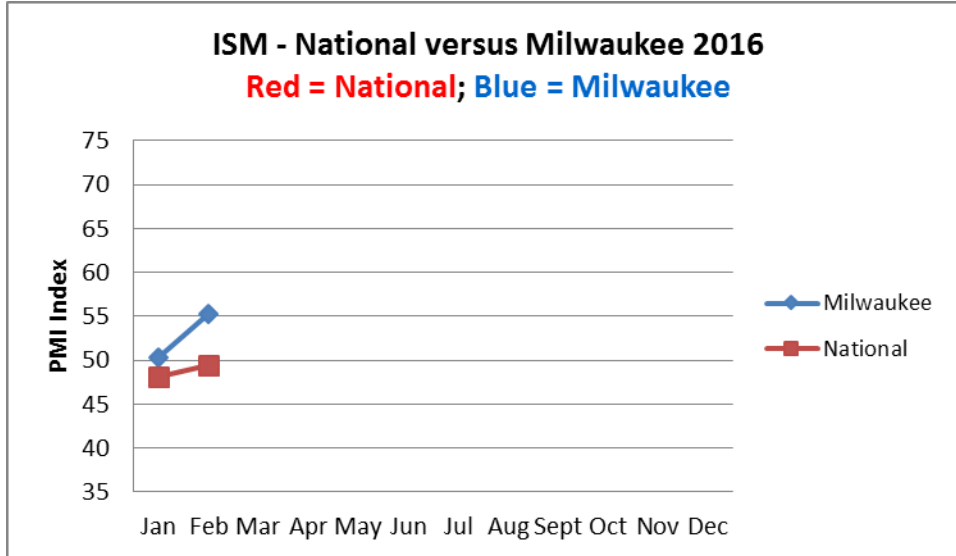
Average commitment lead time for Capital Expenditures decreased by 41 days to 59 days. Average lead time for Production Materials decreased by 2 days to 32 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by 1 day to 15 days.

Six- Month Outlook on Business Conditions

In this outlook, there is a downward shift in positive expectations compared with January in terms of market conditions. Approximately 41.7% of respondents expect positive conditions, 58.3% expect conditions to remain the same and 0% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Feb-16	41.7%	58.3%	0.0%	70.8%
Jan-16	46.2%	46.2%	7.7%	69.2%
Dec-15	41.7%	50.0%	8.3%	66.7%

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 x 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>)