

Marquette-ISM Report on Manufacturing January 2016- Final Release

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Released: January 29th, 2016

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

*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	January 2016	December 2015	November 2015
Seasonally adjusted	50.36	48.53	45.34

(Milwaukee, Wisconsin) –January’s Index registered at 50.36, which is above the 50-level indicating positive territory for the first month of the new year. This places the index at or above 50 for eighteen of the past twenty nine months.

What respondents are saying in January 2016:

- Customer orders have been filling in late and there have been many schedule changes. The changes have resulted primarily in reductions.
- At this time we do not have any major issues with supply chain that are impacting our industry.
- U.S. steel is down in price.

- Some are forecasting an upward trend in the future with the usual seasonal changes in demand and business conditions.

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

MANUFACTURING AT A GLANCE: January 2016*				
Index	Series Index Jan-2016	Series Index Dec-2015	Percentage Point Change	Direction
PMI	50.36	48.53	1.8	growing
New Orders	49.41	50.25	-0.8	declining
Production	51.87	50.25	1.6	growing
Employment	47.86	51.76	-3.9	declining
Supplier Deliveries	45.52	43.96	1.6	faster
Inventories	57.14	46.43	10.7	growing
Customers' Inventories *	46.15	46.43	-0.3	declining
Prices *	25.00	25.00	0.0	declining
Backlog of Orders *	30.77	32.14	-1.4	declining
Exports *	30.00	45.00	-15.0	declining
Imports *	50.00	50.00	0.0	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 January 2016:

- There has been a 15 year low in order backlog.
- There have been 3 months straight of lower than average orders.

Blue and White Collar Employment:

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

	Diffusion Index Nov-2015	Diffusion Index Dec-2015	Diffusion Index Jan-2016	Direction	Comments
Blue Collar	44.5	55.5	47.9	declining	-
White Collar	51.9	55.5	47.9	declining	-

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

What respondents are saying in December 2015:

- N/A

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 **November 2015, December 2015, and January 2016.**

Category	November 2015 Diffusion index	December 2015 Diffusion index	January 2016 Diffusion index	change in percentage point
Aluminum	25.00%	22.22%	15.00%	-7.2
Brass	12.50%	16.67%	25.00%	8.3
Caustic Soda	50.00%	16.67%	25.00%	8.3
Chemicals	43.75%	16.67%	12.50%	-4.2
Copper	20.00%	25.00%	25.00%	0.0
Copper Based Products	8.33%	50.00%	20.00%	-30.0
Cocoa Powder	-	-	-	-
Corn	0.00%	0.00%	50.00%	50.0
Corrugated Containers	50.00%	50.00%	50.00%	0.0
Diesel	20.00%	14.29%	0.00%	-14.3
Electronic Components	50.00%	50.00%	50.00%	0.0
Gasoline	14.29%	14.29%	0.00%	-14.3
High Density Polyethylene	50.00%	50.00%	50.00%	0.0
Natural Gas	35.71%	12.50%	12.50%	0.0

Nickel	50.00%	0.00%	25.00%	25.0
PET	50.00%	50.00%	50.00%	0.0
Plastic Resins	50.00%	33.33%	37.50%	4.2
Polyester	50.00%	50.00%	50.00%	0.0
Polyethylene	33.33%	16.67%	50.00%	33.3
Resins	50.00%	50.00%	50.00%	0.0
Soybean Oil	-	-	-	-
Stainless Steel	33.33%	30.00%	28.57%	-1.4
Starch	-	-	-	-
Steel	18.75%	35.00%	22.22%	-12.8
Steel Products	33.33%	16.67%	33.33%	16.7
Sulfur	-	-	-	-
Tin Plate	50.00%	50.00%	50.00%	0.0
Titanium Dioxide	25.00%	33.33%	50.00%	16.7
Wheat	0.00%	-	-	-
Beef/Pork	75.00%	0.00%	0.00%	0.0

Buying Policy

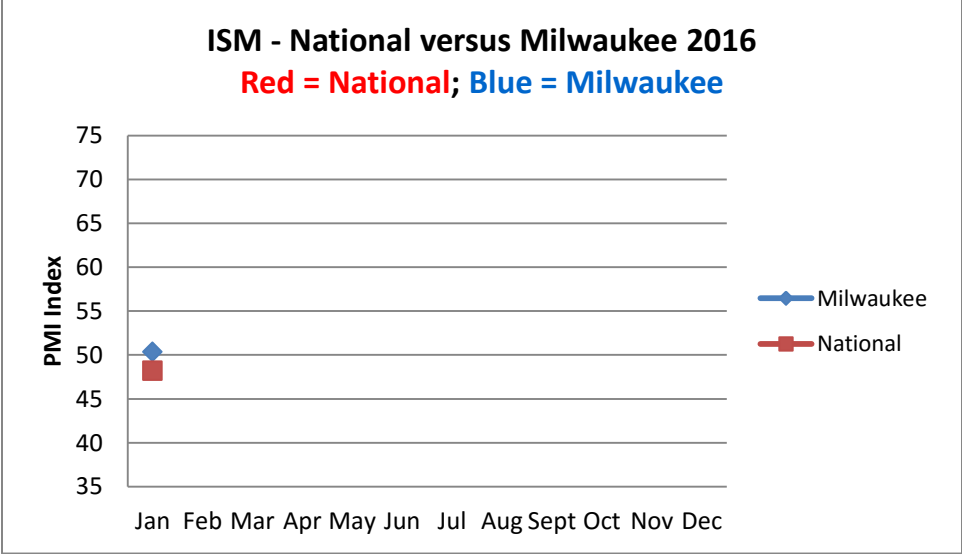
Average commitment lead time for Capital Expenditures decreased by 18 days to 100 days. Average lead time for Production Materials decreased by 6 days to 34 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by 3 days to 14 days.

Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with December in terms of market conditions. Approximately 46.2% of respondents expect positive conditions, 46.2% expect conditions to remain the same and 7.7% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Jan-16	46.2%	46.2%	7.7%	69.2%
Dec-15	41.7%	50.0%	8.3%	66.7%
Nov-15	25.0%	58.3%	16.7%	54.2%

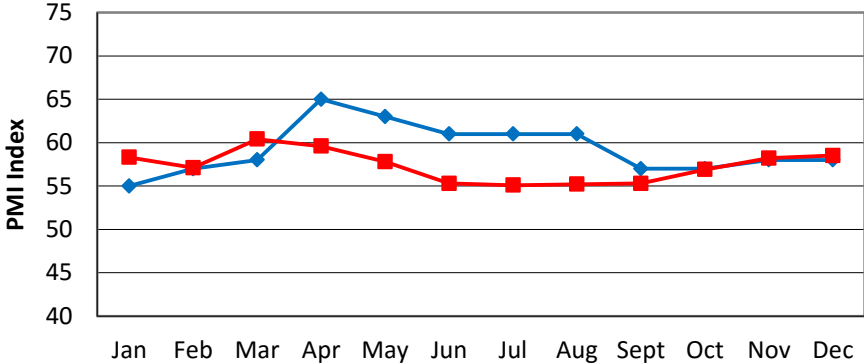
Milwaukee versus the Nation (as a one-time reference, we have included historical trends for 2010, 2011, 2012, 2013, 2014, and 2015).



Historical Data: Milwaukee versus the Nation

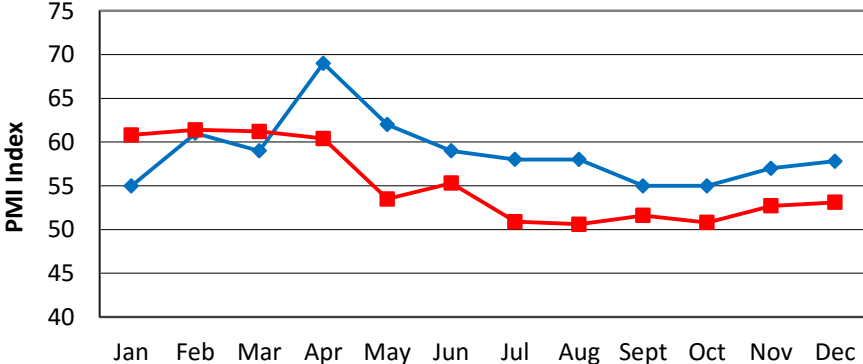
ISM - National versus Milwaukee 2010

Red = National; Blue = Milwaukee



ISM - National versus Milwaukee 2011

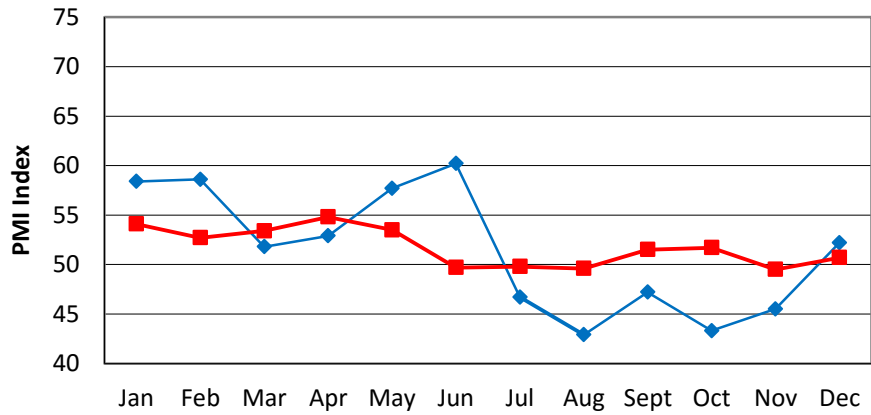
Red = National; Blue = Milwaukee



Historical Data: Milwaukee versus the Nation

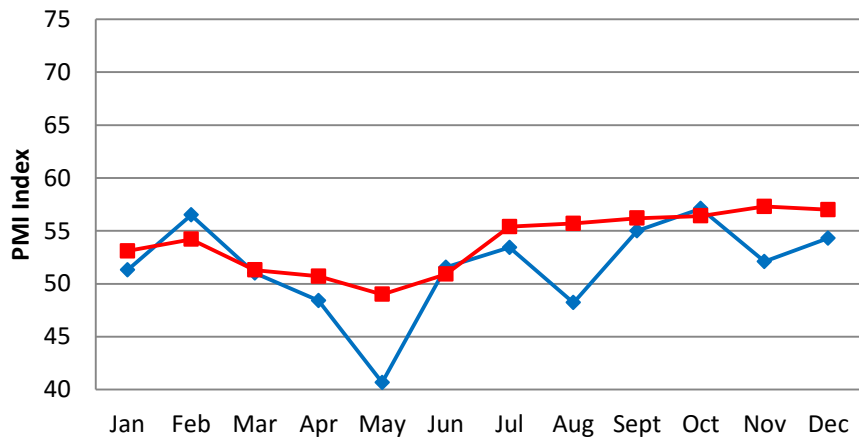
ISM - National versus Milwaukee 2012

Red = National; Blue - Milwaukee



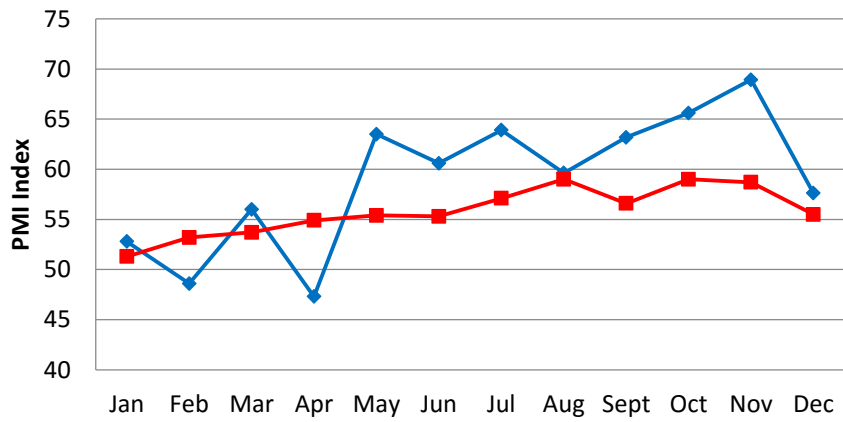
ISM - National versus Milwaukee 2013

Red = National; Blue = Milwaukee

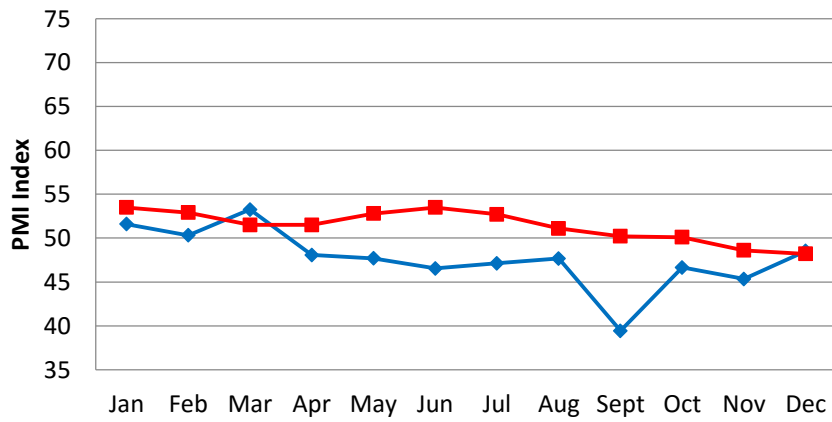


Historical Data: Milwaukee versus the Nation

ISM - National versus Milwaukee 2014
Red = National; Blue = Milwaukee



ISM - National versus Milwaukee 2015
Red = National; Blue = Milwaukee



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>)