

**Marquette ISM® Report on Manufacturing
March 2020- Early Release**

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

Please direct data questions and requests for media commentary to Marko Bastl.

This report should not be confused with the Report On Business®, PMI®, NMI®, published by the Institute of Supply Management® (ISM®). 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	March 2020	February 2020	January 2020
Seasonally adjusted	47.86	49.41	52.33

(Milwaukee, Wisconsin) – March's Index registered at 47.86, a decrease from 49.41 in January. March's index indicates negative territory.

What respondents are saying in March 2020:

- Falling oil prices are leading to a loss of business
- Large uncertainty in future customer orders due to COVID-19
- Communication is becoming more crucial as customer service is working from home
- Coronavirus is leading to supply chain interruptions
- Greater delays in quotes and shipments from suppliers due to layoffs and increased remote work
- Current shutdowns may lead to less future competition

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

MANUFACTURING AT A GLANCE: March 2020*				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Mar-20	Feb-20		
PMI	47.86	49.41	-1.6	declining
New Orders	44.00	39.58	4.4	declining
Production	41.11	45.34	-4.2	declining
Employment	41.95	34.84	7.1	declining
Supplier Deliveries	67.23	68.48	-1.2	slower
Inventories	45.00	58.82	-13.8	declining
Customers' Inventories *	37.50	40.00	-2.5	declining
Prices *	52.50	58.82	-6.3	growing
Backlog of Orders *	50.00	36.67	13.3	neutral
Exports *	29.17	36.36	-7.2	declining
Imports *	31.82	45.00	-13.2	declining

(*) 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 March 2020:

- New orders are slowly decreasing due to COVID-19 and decreasing oil prices
- Most suppliers are considered 'essential' but there are still delays due to the coronavirus
- Continue to see increases in distributor and supplier prices
- COVID-19 has led to delays in imported products and supplies
- Concerned that when the economy recovers, customers will expect a quicker reaction than possible

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **March 2020, February 2020, and January 2020.**

	Diffusion Index Mar-20	Diffusion Index Feb-20	Diffusion Index Jan-20	Direction	Comments
Blue Collar	41.6	43.2	49.4	declining	-
White Collar	44.2	43.6	49.4	declining	-

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

What respondents are saying in March 2020:

- Hired two new white-collar workers March 1st to assist with overdue projects
- Cut hours of blue-collar workers as a way to maintain employment
- Cancelled overtime due to COVID-19

Buying Policy

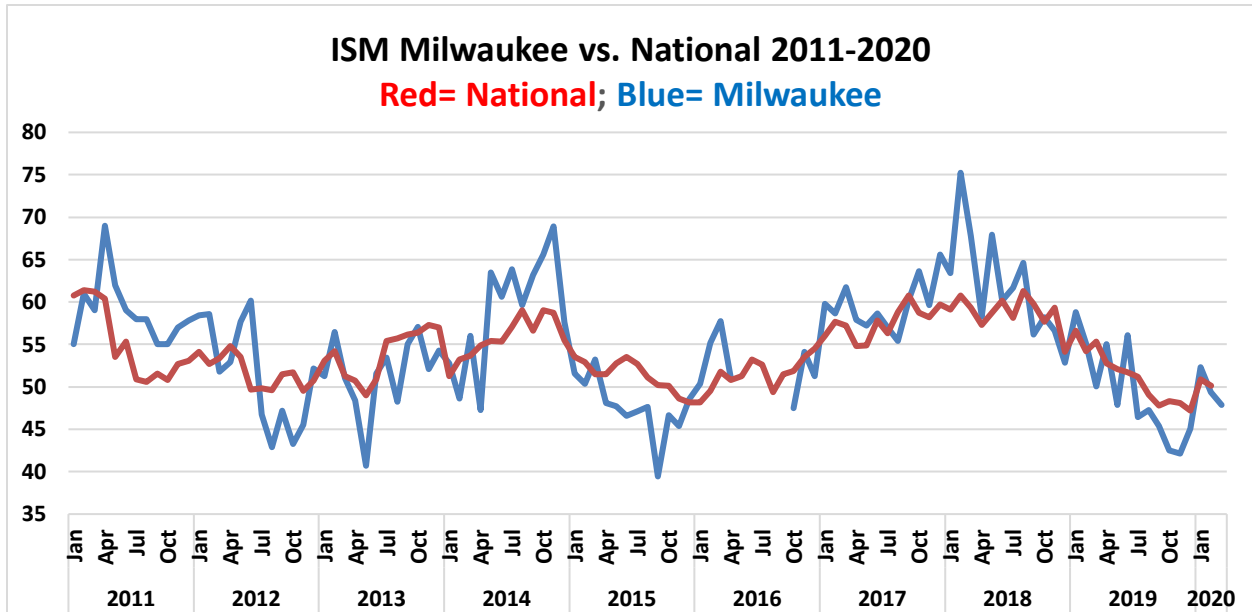
Average commitment lead-time for Capital Expenditures increased from 106 to 116 days. Average lead-time for Production Materials decreased from 54 to 53 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies increased from 17 to 18 days.

Six- Month Outlook on Business Conditions

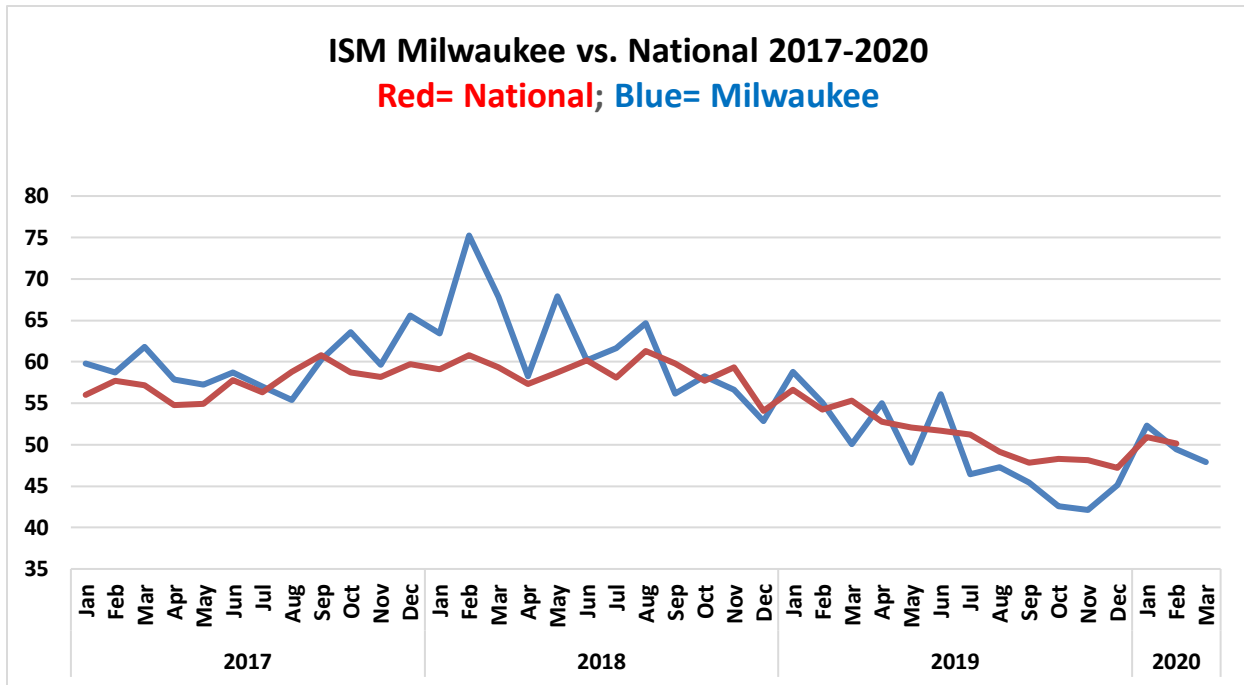
In this outlook, there is an upward shift in positive expectations compared with November in terms of market conditions. Approximately 22% of respondents expect positive conditions, 44% expect conditions to remain the same and 33% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Mar-20	22.22%	44.44%	33.33%	44.44%
Feb-20	41.18%	41.18%	17.65%	61.76%
Jan-20	37.50%	50.00%	12.50%	62.50%

**Milwaukee versus the Nation –
January 2011 – March 2020 Graph**



January 2017 – March 2020 Graph



Insights on the ISM® PMI® from Institute for Supply Management®:

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>