

Marquette ISM® Report on Manufacturing
December 2021- Early Release

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The Marquette-ISM Report on Manufacturing was prepared by Onamica Dhar, 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 **Dr. 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	December 2021	November 2021	October 2021
Seasonally adjusted	58.28	54.52	55.90

(Milwaukee, Wisconsin) –December’s Index registered at 58.28, an increase from 54.52 in November. December’s index indicates positive territory.

What are respondents saying in December 2021:

- Supply is getting better comparatively.
- Lead time remain a major issue.
- Prices of materials still high and expected to be high in next year too.
- New COVID variants are new threat for business.

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

MANUFACTURING AT A GLANCE: December 2021*				
Index	Series	Series	Percentage	Direction
	Index	Index	Point	
	Dec-21	Nov-21	Change	
PMI	58.28	54.52	3.8	growing
New Orders	56.03	60.65	-4.6	growing
Production	48.63	40.59	8.0	declining
Employment	49.33	44.80	4.5	declining
Supplier Deliveries	82.46	89.42	-7.0	declining
Inventories	54.98	37.15	17.8	growing
Customers' Inventories *	33.33	28.57	4.8	declining
Prices *	91.67	100.00	-8.3	growing
Backlog of Orders *	55.88	64.71	-8.8	growing
Exports *	43.75	50.00	-6.3	declining
Imports *	54.55	55.56	-1.0	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. **Note:** A reading above 50 percent indicates that the manufacturing economy is generally expanding (**growing**); below 50 percent indicates that it is generally contracting (**declining**). Supplier Deliveries is the one exception, where it is the reversed relationship. Above 50 percent indicates declining, below 50 percent indicates growing.

What are respondents saying in December 2021:

- Higher inventories are needed to cover disruptions.
- Higher transportation cost affects export and import.
- Inflation increases the price of goods and services.
- Uncertainty because of new covid variants.

We have collected input on Blue and White Collar Employment. The indices are below for **December 2021, November 2021, and October 2021.**

	Diffusion Index Dce-21	Diffusion Index Nov-21	Diffusion Index Oct-21	Direction	Comments
Blue Collar	58.2	36.4	41.1	growing	-
White Collar	46.2	50.4	38.4	declining	-

Note: These have been calculated based on the seasonally adjusted (SA) Blue and White Collar indices. A reading above 50 percent indicates that the manufacturing economy is generally expanding (**growing**); below 50 percent indicates that it is generally contracting (**declining**).

What are respondents saying in December 2021:

- Labor shortage still a major problem.
- Employers are trying to hire more employees.
- Labor demand increases in local businesses.
- Employers are looking for lower price labor market such as India.

Buying Policy

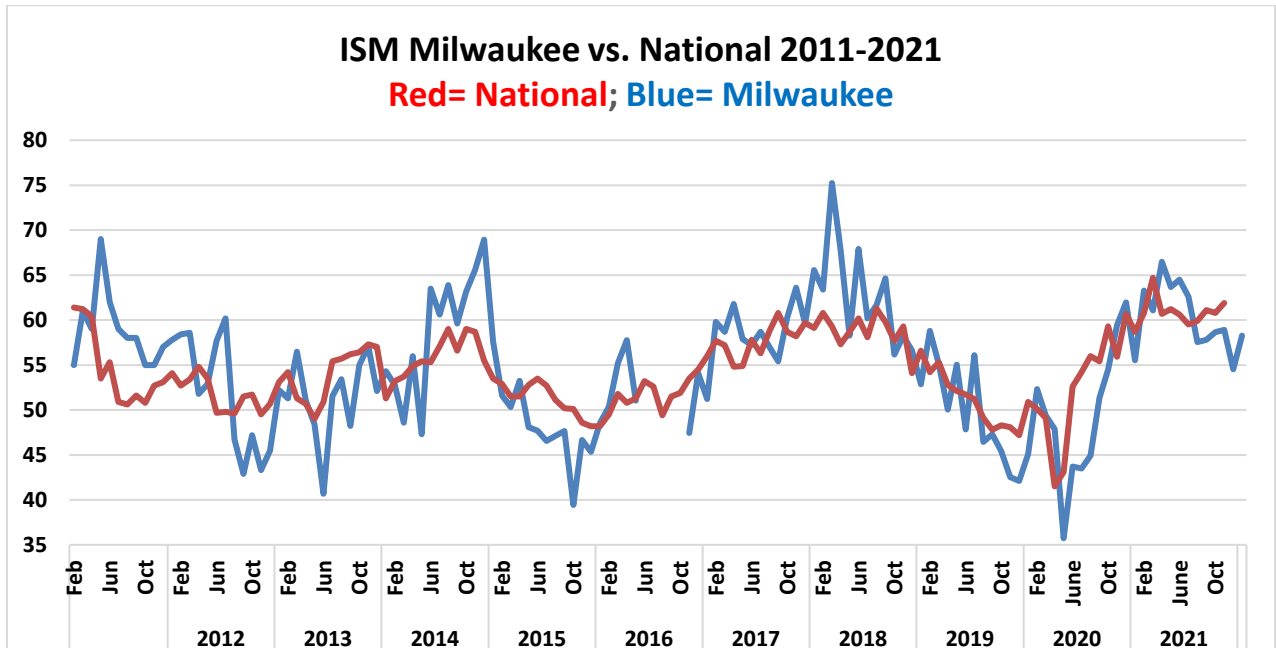
Average commitment lead-time for Capital Expenditures decreased from 163 to 133 days. Average lead-time for Production Materials increased from 83 to 104 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies decreased from 49 to 45 days.

Six- Month Outlook on Business Conditions

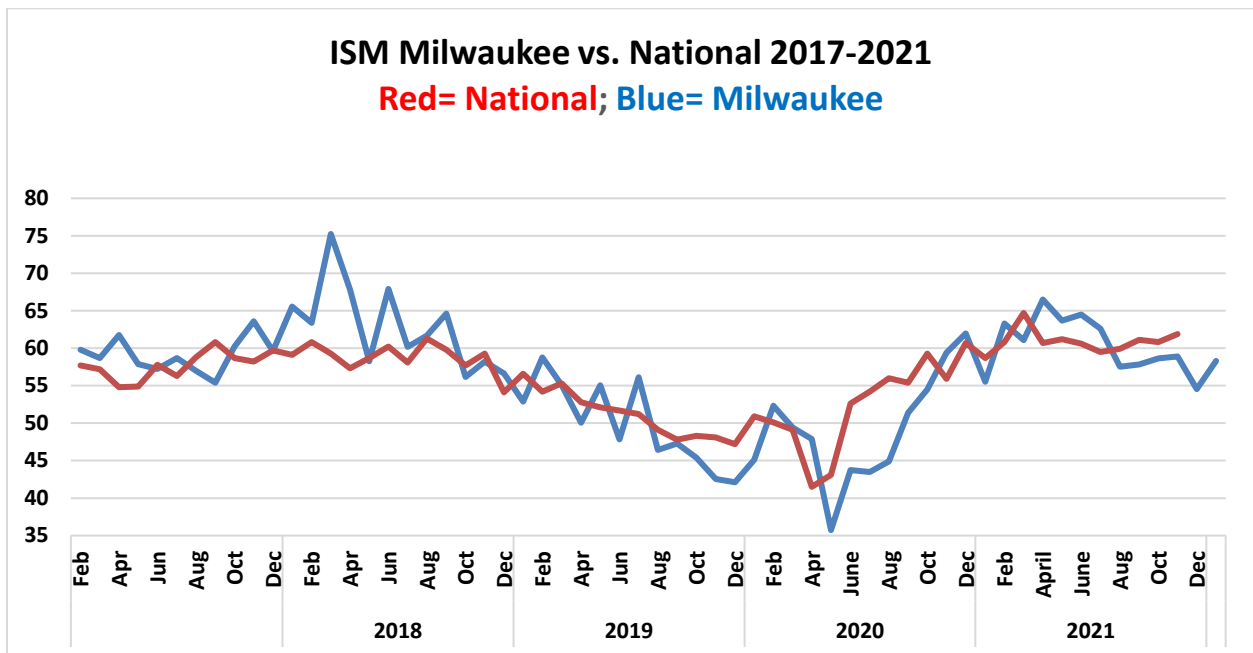
In this outlook, there is an upward shift in positive expectations compared with December and November in terms of market conditions. Approximately 29% of respondents expect positive conditions, 29% expect conditions to remain the same and 41% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
21-Dec	29.41%	29.41%	41.18%	44.12%
21-Nov	11.76%	64.71%	23.53%	44.12%
21-Oct	23.53	47.06%	29.41%	47.06%

**Milwaukee versus the Nation –
January 2011 –December 2021 Graph**



January 2017 – December 2021 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.ismworld.org/supply-management-news-and-reports/reports/ism-report-on-business/>