

**Marquette & ISM - Milwaukee Manufacturing Survey
September 2022**

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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.*

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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	September 2022	August 2022	July 2022
Seasonally adjusted	53.04	48.00	49.42

(Milwaukee, Wisconsin) –September’s Index registered at 53.04, an increase from 48.00 in August. September’s index indicates positive territory.

What are respondents saying in September 2022:

- Ukraine war is causing issues
- Interest rates are on the rise
- Chip shortage is still a problem.
- Production cost increases
- Hiring more employees is still an issue

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

MANUFACTURING AT A GLANCE: September 2022*				
Index	Series	Series	Percentage	Direction
	Index	Index	Point	
	Sep-22	Aug-22	Change	
PMI	53.04	48.00	5.0	growing
New Orders	49.70	38.31	11.4	declining
Production	50.86	43.46	7.4	growing
Employment	45.40	54.04	-8.6	declining
Supplier Deliveries	69.23	58.84	10.4	declining
Inventories	50.00	45.35	4.6	growing
Customers' Inventories *	42.31	42.31	0.0	declining
Prices *	77.78	83.33	-5.6	growing
Backlog of Orders *	50.00	53.57	-3.6	growing
Exports *	42.86	66.67	-23.8	declining
Imports *	42.86	50.00	-7.1	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. **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 September 2022

- Overall, production increases
- Lead time remains a major issue
- International transportation is improving
- Still looking for employees

We have collected input on Blue and White Collar Employment. The indices are below for **September 22, August 22, and July 22.**

	Diffusion Index September-22	Diffusion Index August-22	Diffusion Index July-22	Direction	Comments
Blue Collar	45.5	54.0	51.3	Declining	-
White Collar	45.5	54.0	42.2	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 September 2022:

- Labor shortage is still an issue
- Employees change jobs frequently

Buying Policy

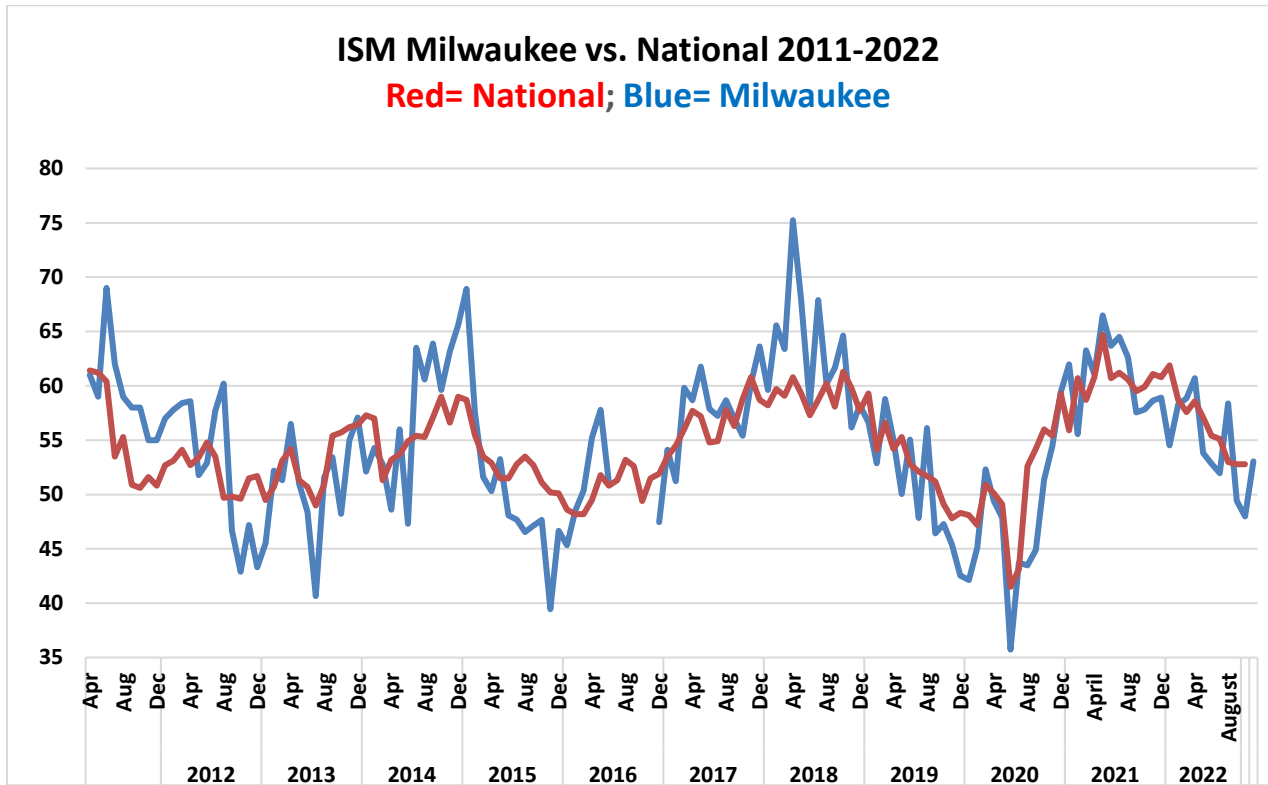
Average commitment lead-time for Capital Expenditures increased from 168 to 195 days. Average lead-time for Production Materials increased from 112 to 114 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies increased from 55 to 61 days.

Six- Month Outlook on Business Conditions

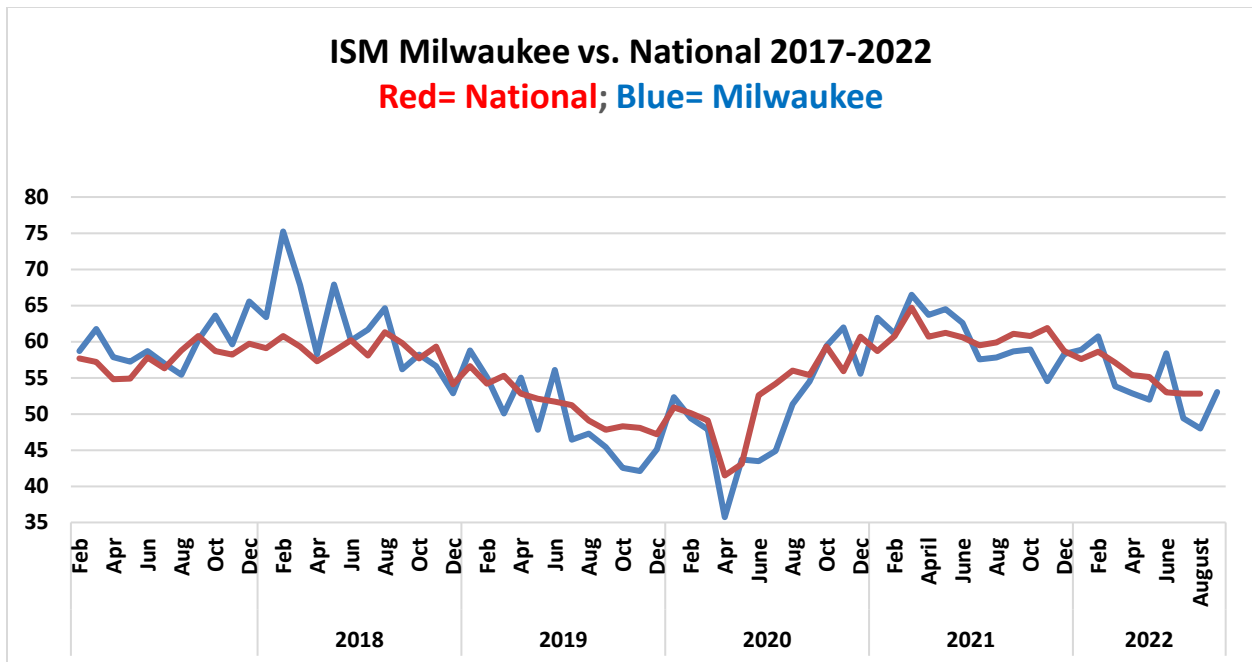
In this outlook, there is a downward shift in positive expectations compared with August and September in terms of market conditions. Approximately 33% of respondents expect positive conditions, 22% expect conditions to remain the same and 44% of the respondents expect conditions to worsen within the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

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
22-Sep	33.33%	22.22%	44.44%	44.44%
22-Aug	7.14%	42.86%	50.00%	28.57%
22-Jul	18.75%	37.50%	43.75%	37.50%

**Milwaukee versus the Nation –
January 2011 – September 2022 Graph**



January 2017 –September 2022 Graph



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

Marquette & ISM—Milwaukee Manufacturing Survey 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/>