

Marquette ISM® Report on Manufacturing
April 2021- Early Release

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The Marquette-ISM Report on Manufacturing was prepared by Owen Liebelt, 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 Dr. Manoj Babu.

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	April 2021	March 2021	February 2021
Seasonally adjusted	63.69	66.48	61.07

(Milwaukee, Wisconsin) – April Index registered at 63.96, a decrease from 66.48 in March. April's index indicates negative territory.

What respondents are saying in April 2021:

- Shipping delays are causing issues. It is taking way too long to get materials and supplies unloaded and cleared through customs. We have to increase inventory but are still having negative impacts on our production until our inventory is healthy again.
- Strong demand continues to flow in, markets indicate that demand will carry into 2022.
- Supply constraints continue with capacity, workforce availability, and COVID.
- There are NO available materials in the U.S.A, the supply chain is still catching up.
- Supply Chain is gaining momentum and areas are picking up to pre-pandemic numbers.
- Data shows there will be a surge in demand which could leave a gap in supply.

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

MANUFACTURING AT A GLANCE: April 2021*				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Apr-21	Mar-21		
PMI	63.69	66.48	-2.8	growing
New Orders	77.89	87.63	-9.7	growing
Production	49.80	70.71	-20.9	declining
Employment	61.70	64.76	-3.1	growing
Supplier Deliveries	88.57	83.07	5.5	declining
Inventories	40.49	26.25	14.2	declining
Customers' Inventories *	25.00	15.38	9.6	declining
Prices *	97.06	93.33	3.7	growing
Backlog of Orders *	73.53	80.00	-6.5	growing
Exports *	66.67	61.11	5.6	growing
Imports *	70.00	83.33	-13.3	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. **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 respondents are saying in April 2021:

- Mills are not producing enough materials and are late on nearly all orders and shipments.
- Increasing backlog on orders due to delays in inbound materials.
- Higher demand is commanding costs to skyrocket.
- Texas storm is having impact on many items, specifically plastics, which we are now seeing.
- 8 weeks lead time for most customs items, some now pushing 16 plus weeks.
- Lead times, material availability, and pricing remain as the largest problem with delivering on time and with any consistency.
- Customers are dropping in orders, possibly as a hedge to increase their inventories short-term which does not help the situation throughout the supply chain. This may have lasting impacts similar to what we are seeing now until at least Q4.
- Deliveries are about 2 months behind in items such as steel, aluminum, plastics, and rubber.
- Electronic devices are being quoted at + 16 weeks (lead time).
- Semi-Conductors chip shortages are affecting electronic devices assembly and delivery.

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **April 2021**, **March 2021**, and **February 2021**.

	Diffusion Index Apr-21	Diffusion Index Mar-21	Diffusion Index Feb-21	Direction	Comments
Blue Collar	62.4	64.8	53.5	growing	-
White Collar	52.9	57.9	45.8	growing	-

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 respondents are saying in April 2021:

- We are trying to hire more individuals to reduce others OT (which is coasting a lot), but there is no one available to hire.
- We need individuals, but there are none willing to work. Attendance of current employees is picking up, but causing increased OT.
- There is a higher need for new employees causing OT for the organization.

Buying Policy

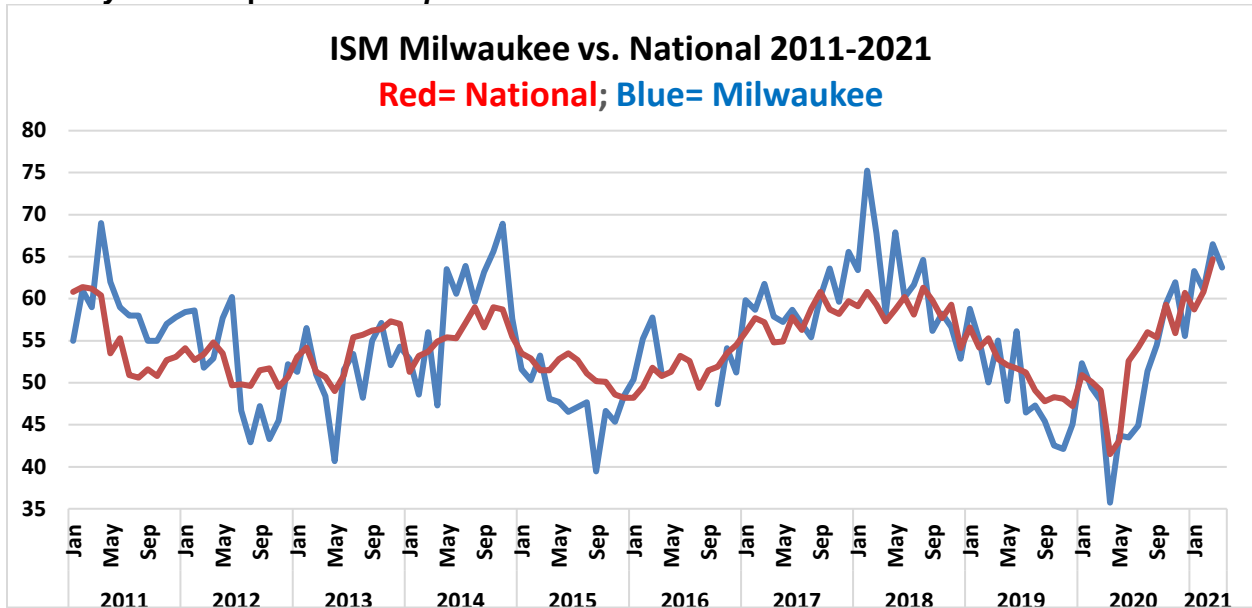
Average commitment lead-time for Capital Expenditures decreases from 129 to 119 days. Average lead-time for Production Materials decreased from 76 to 63 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies increased from 31 to 32 days.

Six- Month Outlook on Business Conditions

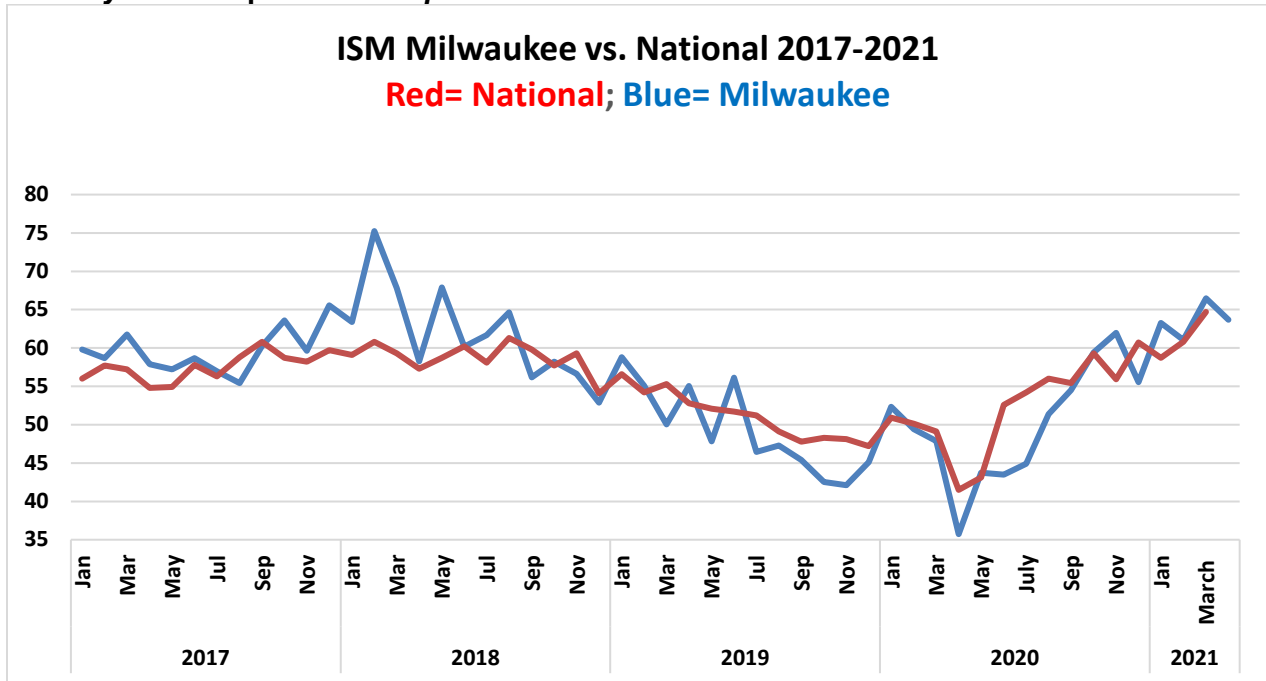
In this outlook, there is a downward shift in negative expectations compared with March and February in terms of market conditions. Approximately 47% of respondents expect positive conditions, 40% expect conditions to remain the same and 13% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
21-Apr	46.67%	40.00%	13.33%	66.67%
21-Mar	46.67%	33.33%	20.00%	63.33%
21-Feb	40.00%	50.00%	10.00%	65.00%

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



January 2017 – April 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/>