

 [Home](#)

FOR RELEASE: **May 1, 2019**

**Contact:** Kristina Cahill  
*Report On Business*<sup>®</sup> Analyst  
 ISM<sup>®</sup>, ROB/Research Manager  
 Tempe, Arizona  
[480-752-6276](tel:480-752-6276), Ext. 3015  
 E-mail: [kcahill@instituteforsupplymanagement.org](mailto:kcahill@instituteforsupplymanagement.org)

## April 2019 Manufacturing ISM<sup>®</sup> *Report On Business*<sup>®</sup>

Choose a Section

**PMI<sup>®</sup> at 52.8%**

### New Orders, Production, and Employment Growing Supplier Deliveries Slowing at Faster Rate; Backlog Growing Raw Materials Inventories Growing; Customers— Inventories Too Low Prices Unchanged; Exports and Imports Contracting

(Tempe, Arizona) - Economic activity in the manufacturing sector expanded in April, and the overall economy grew for the 120th consecutive month, say the nation—s supply executives in the latest **Manufacturing ISM<sup>®</sup> Report On Business<sup>®</sup>**.

The report was issued today by Timothy R. Fiore, CPSM, C.P.M., Chair of the Institute for Supply Management<sup>®</sup> (ISM<sup>®</sup>) Manufacturing Business Survey Committee: "The April PMI<sup>®</sup> registered 52.8 percent, a decrease of 2.5 percentage points from the March reading of 55.3 percent. The New Orders Index registered 51.7 percent, a decrease of 5.7 percentage points from the March reading of 57.4 percent. The Production Index registered 52.3 percent, a 3.5-percentage point decrease compared to the March reading of 55.8 percent. The Employment Index registered 52.4 percent, a decrease of 5.1 percentage points from the March reading of 57.5 percent. The Supplier Deliveries Index registered 54.6 percent, a 0.4-percentage point increase from the March reading of 54.2 percent. The Inventories Index registered 52.9 percent, an increase of 1.1 percentage points from the March reading of 51.8 percent. The Prices Index registered 50 percent, a 4.3-percentage point decrease from the March reading of 54.3 percent.

"Comments from the panel **reflect continued expanding business strength, but at the softest levels since the fourth quarter of 2016.** Demand expansion continued, with the New Orders Index softening to the low 50s, the Customers' Inventories Index remaining at a 'too low' status, and the Backlog of Orders Index improving its prior month performance. **Consumption** (production and employment) continued to expand, but at lower levels, resulting in a combined decrease of 8.6 points. **Inputs** — expressed as supplier deliveries, inventories and imports — were higher this month, primarily due to inventory growth exceeding consumption, resulting in a combined 1.5-percentage point improvement in the Supplier Deliveries and Inventories Indexes. Imports contracted during the period. Overall, inputs reflect a more stable business environment, confirmed by the Prices Index at zero price growth, or unchanged.

"Exports orders contracted for the first time since February 2016. The PMI<sup>®</sup> trade elements are in contraction territory. The PMI<sup>®</sup> has been inching down since November 2018. The manufacturing sector is expanding, but at recent historic lows," says Fiore.

Of the 18 manufacturing industries, **13** reported **growth** in April, in the following order: Textile Mills; Electrical Equipment, Appliances & Components; Miscellaneous Manufacturing; Printing & Related Support Activities; Chemical Products; Nonmetallic Mineral Products; Plastics & Rubber Products; Machinery; Furniture & Related Products; Food, Beverage & Tobacco Products; Computer & Electronic Products; Paper Products; and Fabricated Metal Products. The **five** industries reporting **contraction** in April are: Apparel, Leather & Allied Products; Primary Metals; Wood Products; Petroleum & Coal Products; and Transportation Equipment.

#### WHAT RESPONDENTS ARE SAYING

"Business conditions remain largely unchanged. There is growing concern about supply chain product flow through the

southern U.S. border. Price pressures remain, and inventories continue to grow in preparation for what is expected to be a growth year." (Electrical Equipment, Appliances & Components)

"Mexico/U.S. border crossing delays are slowing supplier deliveries. Tariffs are resulting in increased prices on computer components, as well as manufacturers moving out of China to countries not impacted by the tariffs. Brexit expected to result in delays on moving product through the United Kingdom." (Computer & Electronic Products)

"January and February were strong months. March softened significantly, eroding some of the [previous months'] gains." (Chemical Products)

"[We are] closely watching the Mexico border situation as well as the tariff situation." (Transportation Equipment)

"Economy is holding steady, and so are prices. Supply availability is generally OK, yet risk remains in chemicals and some longer lead-time packaging." (Food, Beverage & Tobacco Products)

"Raw material prices continue to come down, along with logistics costs. Suppliers continue to struggle to get [qualified workers], and the learning curve is leading to quality issues. That is impacting their ability to deliver. Overall, business [is] strong. Monitoring the tariffs and Mexico border issues, which are a potential threat. The China trade agreement getting completed will help with stability with suppliers and costs management." (Machinery)

"Business is steady. We expect business to grow throughout the second quarter, then level in the third and fourth quarter." (Fabricated Metal Products)

"Commodity-price uncertainty — partially driven by concerns of an economic slowdown and trade/tariff policies — has led my company to reduce its capital spend in 2019. Our 2019 capital-spend levels will be similar to 2016 levels." (Petroleum & Coal Products)

"Business seems to keep humming along." (Plastics & Rubber Products)

"Order book remains strong; future outlook is beginning to soften a little." (Primary Metals)

"Orders continue to be strong, especially from the steel industry." (Nonmetallic Mineral Products)

## MANUFACTURING AT A GLANCE

### APRIL 2019

Index	Series Index Apr	Series Index Mar	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
PMI®	52.8	55.3	-2.5	Growing	Slower	32
New Orders	51.7	57.4	-5.7	Growing	Slower	40
Production	52.3	55.8	-3.5	Growing	Slower	32
Employment	52.4	57.5	-5.1	Growing	Slower	31
Supplier Deliveries	54.6	54.2	+0.4	Slowing	Faster	38
Inventories	52.9	51.8	+1.1	Growing	Faster	16
Customers' Inventories	42.6	42.7	-0.1	Too Low	Faster	31
Prices	50.0	54.3	-4.3	Unchanged	From Increasing	1
Backlog of Orders	53.9	50.4	+3.5	Growing	Faster	4

Index	Series Index Apr	Series Index Mar	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
New Export Orders	49.5	51.7	-2.2	Contracting	From Growing	1
Imports	49.8	51.1	-1.3	Contracting	From Growing	1
OVERALL ECONOMY				Growing	Slower	120
Manufacturing Sector				Growing	Slower	32

Manufacturing ISM® *Report On Business*® data is seasonally adjusted for the New Orders, Production, Employment and Supplier Deliveries Indexes.

\*Number of months moving in current direction.

## COMMODITIES REPORTED UP/DOWN IN PRICE AND IN SHORT SUPPLY

### Commodities Up in Price

Copper Products (2); Corrugate\*; Electronic Components (9); Oil (2); and Steel (8).

### Commodities Down in Price

Aluminum; Caustic Soda; Corn; Corrugate\*; Fabricated Metal Products; Memory; Polypropylene (2); Steel — Hot Rolled; and Steel Products (4).

### Commodities in Short Supply

Aluminum Products (2); Capacitors; and Electronic Components (12).

The number of consecutive months the commodity is listed is indicated after each item. \*Indicates both up and down in price.

## APRIL 2019 MANUFACTURING INDEX SUMMARIES

### PMI®

[Top](#)

Manufacturing expanded in April, as the PMI® registered 52.8 percent, a decrease of 2.5 percentage points from the March reading of 55.3 percent. "This indicates growth in manufacturing for the 32nd consecutive month. The PMI® reversed a March expansion improvement, thanks to decreases in new orders, production expansion and employment. The PMI® achieved its lowest level of expansion since October 2016, when the index registered 51.7 percent," says Fiore. A reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally contracting.

A PMI® above 42.9 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the April PMI® indicates growth for the 120th consecutive month in the overall economy and the 32nd straight month of growth in the manufacturing sector. "The past relationship between the PMI® and the overall economy indicates that the PMI® for April (52.8 percent) corresponds to a 2.9-percent increase in real gross domestic product (GDP) on an annualized basis," says Fiore.

## THE LAST 12 MONTHS

Month	PMI®
Apr 2019	52.8
Mar 2019	55.3

Month	PMI®
Oct 2018	57.5
Sep 2018	59.5

Month	PMI®	Month	PMI®
Feb 2019	54.2	Aug 2018	60.8
Jan 2019	56.6	Jul 2018	58.4
Dec 2018	54.3	Jun 2018	60.0
Nov 2018	58.8	May 2018	58.7

Average for 12 months - 57.2

High - 60.8

Low - 52.8

## NEW ORDERS

[Top](#)

ISM®'s New Orders Index registered 51.7 percent in April, which is a decrease of 5.7 percentage points when compared to the 57.4 percent reported for March, indicating growth in new orders for the 40th consecutive month. "Customer demand expansion softened compared to March, with four of the top six industry sectors expanding. The index recorded its lowest level of expansion since December 2018, when it registered 51.3 percent. Prior to that the lowest level was August 2016 when the index registered 50.2 percent," says Fiore. A New Orders Index above 52.5 percent, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars).

Fourteen of 18 industries reported growth in new orders in April, in the following order: Nonmetallic Mineral Products; Wood Products; Electrical Equipment, Appliances & Components; Miscellaneous Manufacturing; Printing & Related Support Activities; Textile Mills; Furniture & Related Products; Paper Products; Chemical Products; Computer & Electronic Products; Fabricated Metal Products; Machinery; Plastics & Rubber Products; and Food, Beverage & Tobacco Products. The three industries reporting a decline in new orders in April are: Primary Metals; Petroleum & Coal Products; and Transportation Equipment.

New Orders	% Higher	% Same	% Lower	Net	Index
Apr 2019	31.0	50.2	18.8	+12.2	51.7
Mar 2019	37.2	49.8	13.0	+24.2	57.4
Feb 2019	28.2	57.8	14.0	+14.2	55.5
Jan 2019	29.8	52.0	18.3	+11.5	58.2

## PRODUCTION

[Top](#)

ISM®'s Production Index registered 52.3 percent in April, which is a decrease of 3.5 percentage points when compared to the 55.8 percent reported for March, indicating growth in production for the 32nd consecutive month. "Production expansion continued in April, but at a slower pace compared to March, recording its lowest level since August 2016, when the index registered 49.6 percent. Production output was not able to improve customer-inventory positions, and the softer expansion contributed to a growth in backlog orders," says Fiore. An index above 51.7 percent, over time, is generally consistent with an increase in the Federal Reserve Board's Industrial Production figures.

The 13 industries reporting growth in production during the month of April — listed in order — are: Electrical Equipment, Appliances & Components; Nonmetallic Mineral Products; Printing & Related Support Activities; Textile Mills; Fabricated Metal Products; Furniture & Related Products; Chemical Products; Machinery; Paper Products; Food, Beverage & Tobacco Products; Miscellaneous Manufacturing; Computer & Electronic Products; and Plastics & Rubber Products. The three industries reporting a decrease in production in April are: Apparel, Leather & Allied Products; Primary Metals; and Transportation Equipment.

Production	% Higher	% Same	% Lower	Net	Index
Apr 2019	30.4	51.5	18.1	+12.3	52.3

Production	% Higher	% Same	% Lower	Net	Index
Mar 2019	30.8	54.8	14.4	+16.4	55.8
Feb 2019	26.0	59.5	14.5	+11.5	54.8
Jan 2019	28.3	56.0	15.7	+12.6	60.5

## EMPLOYMENT

[Top](#)

ISM®'s Employment Index registered 52.4 percent in April, a decrease of 5.1 percentage points when compared to the March reading of 57.5 percent. This indicates growth in employment in April for the 31st consecutive month. "Employment continued to expand, but at lower levels compared to March. Retention issues and sourcing of skilled and professional labor were noted by respondents as continuing drags on production performance," says Fiore. An Employment Index above 50.8 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) data on manufacturing employment.

Nine of 18 manufacturing industries reported employment growth in April, in the following order: Furniture & Related Products; Miscellaneous Manufacturing; Computer & Electronic Products; Food, Beverage & Tobacco Products; Paper Products; Machinery; Chemical Products; Plastics & Rubber Products; and Fabricated Metal Products. The five industries reporting a decrease in employment in April are: Wood Products; Apparel, Leather & Allied Products; Primary Metals; Petroleum & Coal Products; and Transportation Equipment.

Employment	% Higher	% Same	% Lower	Net	Index
Apr 2019	19.6	68.0	12.4	+7.2	52.4
Mar 2019	24.9	63.7	11.5	+13.4	57.5
Feb 2019	18.2	68.7	13.2	+5.0	52.3
Jan 2019	17.6	71.1	11.3	+6.3	55.5

## SUPPLIER DELIVERIES

[Top](#)

The delivery performance of suppliers to manufacturing organizations slowed in April, as the Supplier Deliveries Index registered 54.6 percent. This is 0.4 percentage point higher than the 54.2 percent reported for March. "This is the 38th straight month of slowing supplier deliveries, with the index achieving a stable 54 level over the last three months. Supplier delivery improvement did support inventory expansion during the month. Lead-time extensions and material shortages continue, but at lower levels compared to late 2018," says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The 10 industries reporting slower supplier deliveries in April — listed in order — are: Textile Mills; Computer & Electronic Products; Plastics & Rubber Products; Electrical Equipment, Appliances & Components; Machinery; Food, Beverage & Tobacco Products; Miscellaneous Manufacturing; Transportation Equipment; Chemical Products; and Fabricated Metal Products. The five industries reporting faster supplier deliveries in April are: Wood Products; Furniture & Related Products; Petroleum & Coal Products; Paper Products; and Primary Metals.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Index
Apr 2019	18.0	73.6	8.4	+9.6	54.6
Mar 2019	16.4	76.9	6.7	+9.7	54.2
Feb 2019	16.6	77.3	6.1	+10.5	54.9
Jan 2019	17.7	75.6	6.7	+11.0	56.2

## INVENTORIES\*

[Top](#)

The Inventories Index registered 52.9 percent in April, an increase of 1.1 percentage points from the 51.8 percent reported for March. "Inventories expanded for the 16th consecutive month and at marginally higher rates compared to the previous month. Inventory expansion continues but remains at lower than optimal levels," says Fiore. An Inventories Index greater than 44.3 percent, over time, is generally consistent with expansion in the Bureau of Economic Analysis (BEA) figures on overall manufacturing inventories (in chained 2000 dollars).

The 10 industries reporting higher inventories in April — listed in order — are: Petroleum & Coal Products; Printing & Related Support Activities; Textile Mills; Plastics & Rubber Products; Paper Products; Chemical Products; Machinery; Miscellaneous Manufacturing; Electrical Equipment, Appliances & Components; and Food, Beverage & Tobacco Products. The four industries reporting a decrease in inventories in April are: Apparel, Leather & Allied Products; Nonmetallic Mineral Products; Computer & Electronic Products; and Fabricated Metal Products.

Inventories	% Higher	% Same	% Lower	Net	Index
Apr 2019	20.5	64.8	14.7	+5.8	52.9
Mar 2019	18.4	66.9	14.7	+3.7	51.8
Feb 2019	20.0	66.8	13.2	+6.8	53.4
Jan 2019	21.5	62.5	16.0	+5.5	52.8

## CUSTOMERS' INVENTORIES\*

[Top](#)

ISM®'s Customers' Inventories Index registered 42.6 percent in April, which is 0.1 percentage point lower than the 42.7 percent reported for March, indicating that customers' inventory levels were considered too low. "Customers' inventories are too low for the 31st consecutive month, remaining below preferred levels. The 'too low' status continues to indicate future production growth potential," says Fiore.

The four industries reporting customers' inventories as too high during the month of April are: Apparel, Leather & Allied Products; Wood Products; Primary Metals; and Fabricated Metal Products. The 11 industries reporting customers' inventories as too low during April — listed in order — are: Textile Mills; Paper Products; Nonmetallic Mineral Products; Plastics & Rubber Products; Machinery; Petroleum & Coal Products; Computer & Electronic Products; Food, Beverage & Tobacco Products; Chemical Products; Miscellaneous Manufacturing; and Transportation Equipment.

Customers' Inventories	% Reporting	% Too High	% About Right	% Too Low	Net	Index
Apr 2019	78	10.5	64.2	25.3	-14.8	42.6
Mar 2019	80	6.8	71.7	21.4	-14.6	42.7
Feb 2019	74	4.3	69.4	26.3	-22.0	39.0
Jan 2019	77	9.6	66.4	24.0	-14.4	42.8

## PRICES\*

[Top](#)

The ISM® Prices Index registered 50 percent in April, a decrease of 4.3 percentage points from the March reading of 54.3 percent, indicating stability in raw materials prices after an upward tick last month. "Prices stabilized in April, primarily due to more respondents reporting price declines. Increases were reported in copper, oil, and electronic components. Steel prices remain at stable levels. Shortages continue for passive electronic components," says Fiore. A Prices Index above 52.5 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) Producer Price Index for Intermediate Materials.

Five of the 18 industries reported paying increased prices for raw materials in April: Petroleum & Coal Products; Chemical Products; Miscellaneous Manufacturing; Transportation Equipment; and Machinery. The 10 industries reporting a decrease in prices for raw materials in April — listed in order — are: Wood Products; Textile Mills; Paper Products; Electrical Equipment, Appliances & Components; Food, Beverage & Tobacco Products; Plastics & Rubber Products; Nonmetallic Mineral Products; Primary Metals; Computer & Electronic Products; and Fabricated Metal Products.

Prices	% Higher	% Same	% Lower	Net	Index
--------	----------	--------	---------	-----	-------

Prices	% Higher	% Same	% Lower	Net	Index
Apr 2019	19.0	62.1	19.0	0.0	50.0
Mar 2019	19.1	70.5	10.5	+8.6	54.3
Feb 2019	20.0	58.9	21.1	-1.1	49.4
Jan 2019	20.6	57.6	21.5	-0.9	49.6

## BACKLOG OF ORDERS\*

[Top](#)

ISM®'s Backlog of Orders Index registered 53.9 percent in April, which is 3.5 percentage points higher than the 50.4 percent reported in March, indicating order backlogs grew for the month. "Backlogs expanded during April, and at higher levels compared to March due to declines in production output. Despite new orders softening, backlogs achieved their highest level of performance since November 2018, when the index registered 56.4 percent," says Fiore.

The **13 industries reporting growth** in order backlogs in April — listed in order — are: Nonmetallic Mineral Products; Textile Mills; Electrical Equipment, Appliances & Components; Printing & Related Support Activities; Plastics & Rubber Products; Paper Products; Furniture & Related Products; Miscellaneous Manufacturing; Computer & Electronic Products; Food, Beverage & Tobacco Products; Machinery; Chemical Products; and Fabricated Metal Products. The **three industries reporting a decrease** in order backlogs during April are: Petroleum & Coal Products; Primary Metals; and Transportation Equipment.

Backlog of Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
Apr 2019	89	24.1	59.8	16.2	+7.9	53.9
Mar 2019	86	19.0	62.8	18.2	+0.8	50.4
Feb 2019	88	23.4	57.8	18.8	+4.6	52.3
Jan 2019	88	20.1	60.3	19.6	+0.5	50.3

## NEW EXPORT ORDERS\*

[Top](#)

ISM®'s New Export Orders Index registered 49.5 percent in April, 2.2 percentage points lower compared to the March reading of 51.7 percent, indicating that new export orders contracted after 37 consecutive months of growth. "Export orders contracted for the first time since February 2016, when the index registered 46.4 percent. This is consistent with the prior six-month trend. As was the case in March, two of the six big industry sectors contributed to the expansion. Many respondents reported Europe as a source of lower demand," says Fiore.

The **six industries reporting growth** in new export orders in April — listed in order — are: Miscellaneous Manufacturing; Paper Products; Fabricated Metal Products; Plastics & Rubber Products; Machinery; and Chemical Products. The **five industries reporting a decrease** in new export orders in April are: Apparel, Leather & Allied Products; Primary Metals; Transportation Equipment; Electrical Equipment, Appliances & Components; and Computer & Electronic Products. Seven industries reported no change in new export orders in April as compared to March.

New Export Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
Apr 2019	78	9.1	80.8	10.1	-1.0	49.5
Mar 2019	78	10.7	82.0	7.3	+3.4	51.7
Feb 2019	78	11.8	82.2	6.1	+5.7	52.8
Jan 2019	78	12.8	77.8	9.3	+3.5	51.8

## IMPORTS\*

[Top](#)

ISM®'s Imports Index registered 49.8 percent in April, a decrease of 1.3 percentage points when compared to the 51.1 percent reported for March, indicating that imports contracted in April after 26 consecutive months of growth. "Imports contracted for the first time since January 2017, when the index registered 49.2 percent. Respondents reported using existing Q1 inventory buildup and sourcing more materials domestically as a result of tariff costs and border uncertainty," says Fiore.

The **seven industries reporting growth in imports** during the month of April — listed in order — are: Wood Products; Textile Mills; Nonmetallic Mineral Products; Miscellaneous Manufacturing; Chemical Products; Machinery; and Transportation Equipment. The **five industries reporting a decrease in imports** in April are: Apparel, Leather & Allied Products; Primary Metals; Petroleum & Coal Products; Computer & Electronic Products; and Food, Beverage & Tobacco Products. Six industries reported no change in imports in April as compared to March

Imports	% Reporting	% Higher	% Same	% Lower	Net	Index
Apr 2019	85	12.5	74.4	13.0	-0.5	49.8
Mar 2019	82	12.0	78.2	9.8	+2.2	51.1
Feb 2019	80	16.6	77.5	5.9	+10.7	55.3
Jan 2019	85	17.0	73.6	9.4	+7.6	53.8

\*The Inventories, Customers' Inventories, Prices, Backlog of Orders, New Export Orders and Imports Indexes do not meet the accepted criteria for seasonal adjustments.

## BUYING POLICY

[Top](#)

Average commitment lead time for Capital Expenditures decreased by four days in April to 146 days. Average lead time for Production Materials increased by three days to 71 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by one day to 35 days.

### Percent Reporting

Capital Expenditures	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Apr 2019	22	4	9	20	23	22	146
Mar 2019	20	5	9	18	26	22	150
Feb 2019	18	3	13	20	26	20	146
Jan 2019	20	4	12	18	24	22	148

Production Materials	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Apr 2019	11	31	30	16	8	4	71
Mar 2019	11	33	28	17	8	3	68
Feb 2019	10	37	24	17	9	3	68
Jan 2019	13	30	27	19	8	3	68

MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Apr 2019	38	37	16	6	2	1	35
Mar 2019	35	39	17	7	2	0	34
Feb 2019	34	45	15	4	1	1	33

MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Jan 2019	35	39	17	6	2	1	36

## ABOUT THIS REPORT

[Top](#)

DO NOT CONFUSE THIS NATIONAL REPORT with the various regional purchasing reports released across the country. The national report's information reflects the entire U.S., while the regional reports contain primarily regional data from their local vicinities. Also, the information in the regional reports is not used in calculating the results of the national report. The information compiled in this report is for the month of April 2019.

The data presented herein is obtained from a survey of manufacturing supply executives based on information they have collected within their respective organizations. ISM® makes no representation, other than that stated within this release, regarding the individual company data collection procedures. The data should be compared to all other economic data sources when used in decision-making.

## DATA AND METHOD OF PRESENTATION

The **Manufacturing ISM® Report On Business®** is based on data compiled from purchasing and supply executives nationwide. The composition of the Manufacturing Business Survey Committee is stratified according to the North American Industry Classification System (NAICS) and each of the following NAICS-based industry's contribution to gross domestic product (GDP): Food, Beverage & Tobacco Products; Textile Mills; Apparel, Leather & Allied Products; Wood Products; Paper Products; Printing & Related Support Activities; Petroleum & Coal Products; Chemical Products; Plastics & Rubber Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliances & Components; Transportation Equipment; Furniture & Related Products; and Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies). **The data are weighted based on each industry's contribution to GDP. Beginning in January 2018, computation of the indexes is accomplished utilizing unrounded numbers.**

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, Backlog of Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Customers' Inventories, Employment and Prices), this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries) and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index. Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive).

The resulting single index number for those meeting the criteria for seasonal adjustments (PMI®, New Orders, Production, Employment and Supplier Deliveries) is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements, and differences attributable to non-moveable holidays. All seasonal adjustment factors are subject annually to relatively minor changes when conditions warrant them. The PMI® is a composite index based on the diffusion indexes of five of the indexes with equal weights: New Orders (seasonally adjusted), Production (seasonally adjusted), Employment (seasonally adjusted), Supplier Deliveries (seasonally adjusted), and Inventories.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. A PMI® reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A PMI® above 42.9 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 42.9 percent, it is generally declining. The distance from 50 percent or 42.9 percent is indicative of the extent of the expansion or decline. With some of the indicators within this report, ISM® has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis. The **Manufacturing ISM® Report On Business®** survey is sent out to Manufacturing Business Survey Committee respondents the first part of each month. Respondents are asked to ONLY report on information for the current month. ISM® receives survey responses throughout most of any given month, with the majority of respondents generally waiting until late in the month to submit responses in order to give the most accurate picture of current business activity. ISM® then compiles the report for release on the first business day of the following month.

The industries reporting growth, as indicated in the **Manufacturing ISM® Report On Business®** monthly report, are listed in the order of most growth to least growth. For the industries reporting contraction or decreases, those are listed in the order of the highest level of contraction/decrease to the least level of contraction/decrease.

Responses to Buying Policy reflect the percent reporting the current month's lead time, the approximate weighted number of days ahead for which commitments are made for Capital Expenditures; Production Materials; and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (five days), 30 days, 60 days, 90 days, six months (180 days), a year or more (360 days), and the weighted average number of days. These responses are raw data, never revised, and not seasonally adjusted since there is no significant seasonal pattern.

## ISM ROB CONTENT

The Institute for Supply Management® (ISM) *Report On Business*® (both Manufacturing and Non-Manufacturing) (ISM ROB) contains information, text, files, images, video, sounds, musical works, works of authorship, applications, and any other materials or content (collectively, "Content") of ISM ("ISM ROB Content"). ISM ROB Content is protected by copyright, trademark, trade secret, and other laws, and as between you and ISM, ISM owns and retains all rights in the ISM ROB Content. ISM hereby grants you a limited, revocable, nonsublicensable license to access and display on your individual device the ISM ROB Content (excluding any software code) solely for your personal, non-commercial use. The ISM ROB Content shall also contain Content of users and other ISM licensors. Except as provided herein or as explicitly allowed in writing by ISM, you shall not copy, download, stream, capture, reproduce, duplicate, archive, upload, modify, translate, publish, broadcast, transmit, retransmit, distribute, perform, display, sell, or otherwise use any ISM ROB Content.

Except as explicitly and expressly permitted by ISM, you are strictly prohibited from creating works or materials (including but not limited to tables, charts, data streams, time series variables, fonts, icons, link buttons, wallpaper, desktop themes, online postcards, montages, mashups and similar videos, greeting cards, and unlicensed merchandise) that derive from or are based on the ISM ROB Content. This prohibition applies regardless of whether the derivative works or materials are sold, bartered, or given away. You shall not either directly or through the use of any device, software, internet site, web-based service, or other means remove, alter, bypass, avoid, interfere with, or circumvent any copyright, trademark, or other proprietary notices marked on the Content or any digital rights management mechanism, device, or other content protection or access control measure associated with the Content including geo-filtering mechanisms. Without prior written authorization from ISM, you shall not build a business utilizing the Content, whether or not for profit.

You shall not create, recreate, distribute, incorporate in other work, or advertise an index of any portion of the Content unless you receive prior written authorization from ISM. Requests for permission to reproduce or distribute ISM ROB Content can be made by contacting in writing at: ISM Research, Institute for Supply Management, 309 W. Elliot Road, Suite 113, Tempe, Arizona 85284-1556, or by emailing [kcahill@instituteforsupplymanagement.org](mailto:kcahill@instituteforsupplymanagement.org).

ISM shall not have any liability, duty, or obligation for or relating to the ISM ROB Content or other information contained herein, any errors, inaccuracies, omissions or delays in providing any ISM ROB Content, or for any actions taken in reliance thereon. In no event shall ISM be liable for any special, incidental, or consequential damages, arising out of the use of the ISM ROB. *Report On Business*®, PMI®, and NMI® are registered trademarks of Institute for Supply Management®. Institute for Supply Management® and ISM® are registered trademarks of Institute for Supply Management, Inc.

## **ABOUT INSTITUTE FOR SUPPLY MANAGEMENT®**

Institute for Supply Management® (ISM®) serves supply management professionals in more than 90 countries. Its 50,000 members around the world manage about US\$1 trillion in corporate and government supply chain procurement annually. Founded in 1915 as the first supply management institute in the world, ISM is committed to advancing the practice of supply management to drive value and competitive advantage for its members, contributing to a prosperous and sustainable world. ISM leads the profession through the ISM Report On Business®, its highly regarded certification programs and the ISM Mastery Model®. This report has been issued by the association since 1931, except for a four-year interruption during World War II.

The full text version of the **Manufacturing ISM® Report On Business**® is posted on ISM®—s website at [www.ismrob.org](http://www.ismrob.org) on the first business day\* of every month after 10:00 a.m. ET.

The next **Manufacturing ISM® Report On Business**® featuring **May 2019** data will be released at 10:00 a.m. ET on **Monday, June 3, 2019**.

\*Unless the New York Stock Exchange is closed.

## Contact Us

309 W Elliot Rd, Suite 113, Tempe, AZ 85284  
 Phone: 480.752.6276  
 Fax: 480.752.7890  
[membersvcs@instituteforsupplymanagement.org](mailto:membersvcs@instituteforsupplymanagement.org)

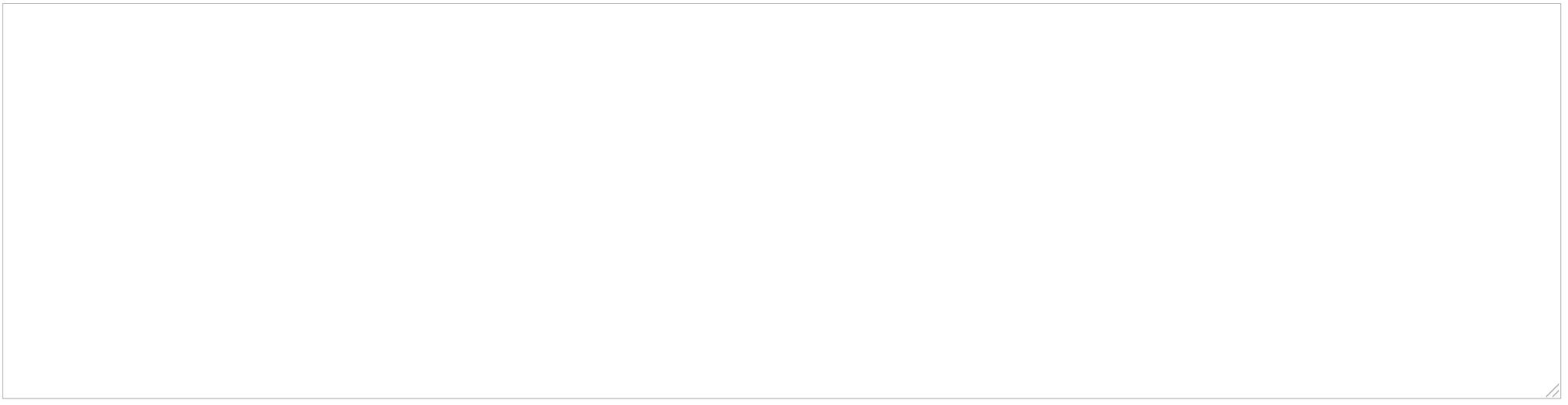
Advertise With Us  
 FAQs  
 Work at ISM  
 Site Map

Terms of Service  
 Privacy Policy  
 Terms & Policies  
 Payment Options

An unexpected error has occurred and technical information regarding this error has been logged. In order to improve the quality of our site, please contribute helpful feedback using the form below; otherwise, [click here to return to the site](#).

### Quality Feedback Agent

Thank you for participating and providing your feedback. Please specify any information useful towards reproducing this error condition.



SKSJJ

Enter the displayed text in this box:

(2000 of 2000 characters remaining)

Error ID: 1094211. 05/03/2019 09:32.