

FOR RELEASE: November 1, 2018

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October 2018 Manufacturing ISM® Report On Business®

PMI® at 57.7%

New Orders, Production, and Employment Growing

Supplier Deliveries Slowing at Faster Rate; Backlog Growing

Raw Materials Inventories Growing; Customers' Inventories Too Low

Prices Increasing at Faster Rate; Exports and Imports Growing

(Tempe, Arizona) — Economic activity in the manufacturing sector expanded in October, and the overall economy grew for the 114th consecutive month, say the nation's supply executives in the latest Manufacturing ISM® Report On Business®.

The report was issued today by Timothy R. Fiore, CPSM, C.P.M., Chair of the Institute for Supply Management® (ISM®) Manufacturing Business Survey Committee: "The October PMI® registered 57.7 percent, a decrease of 2.1 percentage points from the September reading of 59.8 percent. The New Orders Index registered 57.4 percent, a decrease of 4.4 percentage points from the September reading of 61.8 percent. The Production Index registered 59.9 percent, a 4 -percentage point decrease compared to the September reading of 63.9 percent. The Employment Index registered 56.8 percent, a decrease of 2 percentage points from the September reading of 58.8 percent. The Supplier Deliveries Index registered 63.8 percent, a 2.7-percentage point increase from the September reading of 61.1 percent. The Inventories Index registered 50.7 percent, a decrease of 2.6 percentage points from the September reading of 53.3 percent. The Prices Index registered 71.6 percent, a 4.7-percentage point increase from the September reading of 66.9 percent, indicating higher raw materials prices for the 32nd consecutive month.

“Comments from the panel reflect continued expanding business strength. Demand remains moderately strong, with the New Orders Index easing to below 60 percent for the first time since April 2017, the Customers’ Inventories Index remaining low but improving, and the Backlog of Orders Index remaining steady. Consumption softened, with production and employment continuing to expand, but at lower levels compared to September. Inputs — expressed as supplier deliveries (increased), inventories and imports — retained September’s levels. Continued supply chain delivery difficulties led to an increased consumption of inventory, and import expansion was stable. Lead-time extensions continue, while steel and aluminum prices are stabilizing. Supplier labor issues and transportation difficulties continue to disrupt production, but at more manageable levels.

“The expansion of new export orders softened, but five of six major industries contributed, up from two in September. Prices pressure continues, with the index returning above 70 percent. Overall, the manufacturing community continues to expand, but at the lowest level since April 2018,” says Fiore.

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

#### WHAT RESPONDENTS ARE SAYING

“All electronic components are having shortages and much longer lead times that impact our production.” (Computer & Electronic Products)

“Tariffs are causing inflation: increased costs of imports, increased cost of freight and increased domestic costs from suppliers who import.” (Chemical Products)

“Protein prices continue under pressure from heavy U.S. supplies and export concerns related to trade tariffs. Higher costs related to trade tariffs are starting to be passed on to the cost of goods sold.” (Food, Beverage & Tobacco Products)

“While order intake remains steady, the pace has slowed since the first half the year. Instead of growing, the backlog is declining. We were processing orders at a high level; now they are at the point of status quo from late 2017. We are not concerned yet, but there is certainly trepidation about the future.” (Machinery)

“NAFTA 2.0/USMCA does nothing to help our company, as it does not address Section 232 tariffs.” (Plastics & Rubber Products)

“We continue to run at full capacity. I continue to see pricing pressures and longer lead times in most commodities.” (Primary Metals)

“Mounting pressure due to pending tariffs. Bracing for delays in material from China — a rush of orders trying to race tariff implementation is flooding shipping and customs.” (Miscellaneous Manufacturing)

“Demand is high, and the supply chains are stressed.” (Transportation Equipment)

“Orders and shipments are strong right now. Backlog for Q4 and next year are way down. Savvy customers are asking us to hold pricing on blanket orders, but material suppliers will only hold prices for a few days, which puts us in a bad spot. We'll be spending as much as possible on capital improvements before the end of the year.” (Fabricated Metal Products)

“Steel tariffs continue to negatively affect our cost, even though we utilize U.S. sources for steel. Oil prices put meaningful upward pressure on cost. Continued tightness with truck drivers is expected.” (Petroleum & Coal Products)

#### Manufacturing at a Glance

October 2018

Index	Series Index Oct	Series Index Sep	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
PMI®	57.7	59.8	-2.1	Growing	Slower	26
New Orders	57.4	61.8	-4.4	Growing	Slower	34
Production	59.9	63.9	-4.0	Growing	Slower	26
Employment	56.8	58.8	-2.0	Growing	Slower	25
Supplier Deliveries	63.8	61.1	+2.7	Slowing	Faster	25
Inventories	50.7	53.3	-2.6	Growing	Slower	10
Customers' Inventories	43.3	40.5	+2.8	Too Low	Slower	25
Prices	71.6	66.9	+4.7	Increasing	Faster	32
Backlog of Orders	55.8	55.7	+0.1	Growing	Faster	21
New Export Orders	52.2	56.0	-3.8	Growing	Slower	32
Imports	54.3	54.5	-0.2	Growing	Slower	21

Index	Series Index Oct	Series Index Sep	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
OVERALL ECONOMY				Growing	Slower	114
Manufacturing Sector				Growing	Slower	26

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

Aluminum\* (24); Aluminum-Based Products (6); Castings; Chemicals; Copper; Corrugate (25); Diesel; Electronic Components (3); Freight (9); Hydrochloric Acid (2); Metal-Based Products; Methanol; Natural Gas; Nylon (5); Oil-Based Products; Plastic Molded Items; Plastic Resins; Polyethylene Terephthalate (PET) Products; Resistors; Scrap Metal; Steel\* (2); Steel — Stainless (7); Steel-Based Products (6); and Sulfuric Acid (2).

Commodities Down in Price

Aluminum\*; Caustic Soda; Steel\* (2); Steel — Cold Rolled; and Steel — Hot Rolled (2).

Commodities in Short Supply

Aluminum-Based Products; Capacitors (16); Electronic Components (6); Labor (3); Nylon (2); Printed Circuit Board Components; Resistors (12); and Steel-Based Products.

The number of consecutive months the commodity is listed is indicated after each item.

\*Indicates both up and down in price.

## October 2018 Manufacturing Index Summaries

### PMI®

Manufacturing expanded in October as the PMI® registered 57.7 percent, a decrease of 2.1 percentage points from the September reading of 59.8 percent. “This indicates growth in manufacturing for the 26th consecutive month, led by moderately strong production output and continued supplier delivery performance issues,” 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 43.2 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the October PMI® indicates growth for the 114th consecutive month in the overall economy and the 26th straight month of growth in the manufacturing sector. “The past relationship between the PMI® and the overall economy indicates that the PMI® for October (57.7 percent) corresponds to a 4.5-percent increase in real gross domestic product (GDP) on an annualized basis.”

The Last 12 Months

Month	PMI®
Oct 2018	57.7
Sep 2018	59.8
Aug 2018	61.3
Jul 2018	58.1
Jun 2018	60.2
May 2018	58.7
Month	PMI®
Apr 2018	57.3
Mar 2018	59.3
Feb 2018	60.8
Jan 2018	59.1
Dec 2017	59.3
Nov 2017	58.2

Average for 12 months - 59.2  
High - 61.3  
Low - 57.3

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## New Orders

ISM®'s New Orders Index registered 57.4 percent in October, which is a decrease of 4.4 percentage points when compared to the 61.8 percent reported for September, indicating growth in new orders for the 34th consecutive month. "Customer demand expansion softened for the second consecutive month, with the index dropping below 60 percent for the first time since April 2017, when it registered 57.1 percent," says Fiore. A New Orders Index above 52.4 percent, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars).

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

New Orders	% Higher	% Same	% Lower	Net	Index
Oct 2018	27.2	54.5	18.3	+8.9	57.4
Sep 2018	31.4	57.7	10.9	+20.5	61.8
Aug 2018	35.4	54.3	10.3	+25.1	65.1
Jul 2018	29.0	60.1	10.9	+18.1	60.2

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## Production

ISM®'s Production Index registered 59.9 percent in October, which is a decrease of 4 percentage points when compared to the 63.9 percent reported for September, indicating growth in production for the 26th consecutive month. "Production expansion continued in October, but at lower expansion rates compared to September. Labor constraints throughout the supply chain, impacts due to lead-time expansions and transportation difficulties continue to limit full production potential," says Fiore. An index above 51.5 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 October — listed in order — are: Textile Mills; Plastics & Rubber Products; Apparel, Leather & Allied Products; Electrical Equipment, Appliances & Components; Printing & Related Support Activities; Food, Beverage & Tobacco Products; Miscellaneous Manufacturing; Fabricated Metal Products; Machinery; Computer & Electronic Products; Transportation Equipment; Chemical Products; and Paper Products. The three industries reporting a

decrease in production in October are: Wood Products; Nonmetallic Mineral Products; and Primary Metals.

Production	% Higher	% Same	% Lower	Net	Index
Oct 2018	28.2	60.7	11.2	+17.0	59.9
Sep 2018	33.6	56.7	9.6	+24.0	63.9
Aug 2018	35.3	53.8	10.9	+24.4	63.3
Jul 2018	31.5	52.6	15.9	+15.6	58.5

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## Employment

ISM®'s Employment Index registered 56.8 percent in October, a decrease of 2 percentage points when compared to the September reading of 58.8 percent. This indicates growth in employment in October for the 25th consecutive month. "Employment continued to expand, supporting production growth. Respondents continued to note labor-market issues as a constraint to their production and their suppliers' production capability," 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.

Of the 18 manufacturing industries, the 11 reporting employment growth in October — listed in order — are: Miscellaneous Manufacturing; Furniture & Related Products; Food, Beverage & Tobacco Products; Computer & Electronic Products; Paper Products; Plastics & Rubber Products; Chemical Products; Primary Metals; Machinery; Fabricated Metal Products; and Transportation Equipment. The two industries reporting a decrease in employment in October are: Apparel, Leather & Allied Products; and Printing & Related Support Activities.

Employment	% Higher	% Same	% Lower	Net	Index
Oct 2018	22.5	67.2	10.3	+12.2	56.8
Sep 2018	26.1	62.9	11.0	+15.1	58.8
Aug 2018	26.6	63.6	9.8	+16.8	58.5
Jul 2018	27.1	61.2	11.7	+15.4	56.5

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## Supplier Deliveries

The delivery performance of suppliers to manufacturing organizations slowed in October, as the Supplier Deliveries Index registered 63.8 percent. This is 2.7 percentage points higher than the 61.1 percent reported for September. “This is the 25th straight month of slowing supplier deliveries and indicates supply chains’ difficulty in keeping up with production demand. The index reversed an expansion softening from the prior month. Lead times continue to extend, supply chain labor issues continue to restrict performance, and transportation issues are continuing to limit supplier execution,” says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The 14 industries reporting slower supplier deliveries in October — listed in order — are: Apparel, Leather & Allied Products; Furniture & Related Products; Textile Mills; Electrical Equipment, Appliances & Components; Computer & Electronic Products; Machinery; Food, Beverage & Tobacco Products; Nonmetallic Mineral Products; Fabricated Metal Products; Paper Products; Petroleum & Coal Products; Chemical Products; Plastics & Rubber Products; and Transportation Equipment. No manufacturing industries reported faster supplier deliveries during the month of October.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Index
Oct 2018	30.4	66.9	2.7	+27.7	63.8
Sep 2018	28.3	67.1	4.6	+23.7	61.1
Aug 2018	32.6	62.9	4.5	+28.1	64.5
Jul 2018	28.5	67.8	3.7	+24.8	62.1

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## Inventories\*

The Inventories Index registered 50.7 percent in October, which is a decrease of 2.6 percentage points when compared to the 53.3 percent reported for September. “Inventories expanded for the 10th consecutive month, but at a marginal level, barely keeping up with production and reflecting continued difficulties with supplier deliveries,” says Fiore. An Inventories Index greater than 43 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 seven industries reporting higher inventories in October — listed in order — are: Wood Products; Textile Mills; Petroleum & Coal Products; Computer & Electronic Products; Food, Beverage & Tobacco Products; Electrical Equipment, Appliances & Components; and Transportation Equipment. The six industries reporting a decrease in inventories in October — listed in order — are: Fabricated Metal Products; Chemical Products; Primary Metals; Nonmetallic Mineral Products; Paper Products; and Machinery.

Inventories	% Higher	% Same	% Lower	Net	Index
Oct 2018	18.8	63.6	17.5	+1.3	50.7
Sep 2018	20.6	65.4	14.0	+6.6	53.3
Aug 2018	25.2	60.4	14.5	+10.7	55.4
Jul 2018	22.3	61.9	15.8	+6.5	53.3

#### Customers' Inventories\*

ISM®'s Customers' Inventories Index registered 43.3 percent in October, which is 2.8 percentage points higher than the 40.5 percent reported for September, indicating that customers' inventory levels were considered too low. "Customers' inventory levels are too low for the 25th consecutive month; however, inventories recovered to their strongest level since April 2018, when the index recorded 44.3 percent," says Fiore.

The two manufacturing industries reporting customers' inventories as too high during the month of October are: Nonmetallic Mineral Products; and Electrical Equipment, Appliances & Components. The nine industries reporting customers' inventories as too low during October — listed in order — are: Plastics & Rubber Products; Fabricated Metal Products; Machinery; Paper Products; Furniture & Related Products; Chemical Products; Food, Beverage & Tobacco Products; Primary Metals; and Computer & Electronic Products. Six industries reported no change in customers' inventories in October as compared with September.

Customers' Inventories	% Reporting	% Too High	% About Right	% Too Low	Net	Index
Oct 2018	79	10.1	66.4	23.5	-13.4	43.3
Sep 2018	79	6.0	69.0	25.0	-19.0	40.5
Aug 2018	82	7.8	66.5	25.7	-17.9	41.0
Jul 2018	79	4.8	69.2	26.0	-21.2	39.4

#### Prices\*

The ISM® Prices Index registered 71.6 percent in October, an increase of 4.7 percentage points from the September reading of 66.9 percent, indicating an increase in raw materials prices for the 32nd consecutive month. "The price increases across all industry sectors continue and at higher expansion levels than the previous month. The Business Survey Committee noted that price increases are

continuing to soften in metals (all steels, steel components and aluminum). Increases continue in various basic chemicals, corrugate and packaging products, diesel, natural gas, freight, labor, electrical and electronic components, and products manufactured primarily from steel. Shortages continue in electrical and electronic components, labor, and freight,” says Fiore. A Prices Index above 52.4 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) Producer Price Index for Intermediate Materials.

Seventeen of the 18 industries reported paying increased prices for raw materials in October, in the following order: Textile Mills; Petroleum & Coal Products; Furniture & Related Products; Electrical Equipment, Appliances & Components; Paper Products; Printing & Related Support Activities; Plastics & Rubber Products; Apparel, Leather & Allied Products; Transportation Equipment; Primary Metals; Chemical Products; Food, Beverage & Tobacco Products; Computer & Electronic Products; Machinery; Miscellaneous Manufacturing; Fabricated Metal Products; and Nonmetallic Mineral Products. No industries reported a decrease in prices for raw materials in October.

Prices	% Higher	% Same	% Lower	Net	Index
Oct 2018	51.1	41.0	7.9	+43.2	71.6
Sep 2018	42.3	49.1	8.6	+33.7	66.9
Aug 2018	51.1	42.0	6.8	+44.3	72.1
Jul 2018	54.6	37.3	8.1	+46.5	73.2

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#### Backlog of Orders\*

ISM®’s Backlog of Orders Index registered 55.8 percent in October, which is 0.1 percentage point higher than the 55.7 percent reported in September, indicating growth in order backlogs for the 21st consecutive month. “Backlogs continued to grow at levels comparable to September,” says Fiore.

The 12 industries reporting growth in order backlogs in October — listed in order — are: Textile Mills; Apparel, Leather & Allied Products; Nonmetallic Mineral Products; Printing & Related Support Activities; Plastics & Rubber Products; Petroleum & Coal Products; Miscellaneous Manufacturing; Machinery; Transportation Equipment; Computer & Electronic Products; Food, Beverage & Tobacco Products; and Chemical Products. The two industries reporting a decrease in order backlogs during October are: Fabricated Metal Products; and Primary Metals.

Backlog of Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
Oct 2018	89	26.9	57.8	15.3	+11.6	55.8
Sep 2018	89	26.7	57.9	15.4	+11.3	55.7
Aug 2018	87	30.3	54.4	15.3	+15.0	57.5
Jul 2018	87	24.0	61.3	14.7	+9.3	54.7

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#### New Export Orders\*

ISM®'s New Export Orders Index registered 52.2 percent in October, a decrease of 3.8 percentage points when compared to the 56 percent reported for September, indicating growth in new export orders for 32 consecutive months. "The index softened during the period, but five of the six big industry sectors contributed, up from two in September," says Fiore.

The eight industries reporting growth in new export orders in October — listed in order — are: Textile Mills; Miscellaneous Manufacturing; Chemical Products; Computer & Electronic Products; Transportation Equipment; Plastics & Rubber Products; Fabricated Metal Products; and Machinery. The three industries reporting a decrease in new export orders in October are: Wood Products; Electrical Equipment, Appliances & Components; and Primary Metals. Seven industries reported no change in new export orders in October as compared to September.

New Export Orders	% Reporting	% Higher	% Same	% Lower	Net	Index
Oct 2018	80	12.3	79.7	8.0	+4.3	52.2
Sep 2018	80	19.4	73.3	7.3	+12.1	56.0
Aug 2018	79	20.7	69.1	10.2	+10.5	55.2
Jul 2018	78	18.1	74.3	7.6	+10.5	55.3

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#### Imports\*

ISM®'s Imports Index registered 54.3 percent in October, a decrease of 0.2 percentage point when compared to the 54.5 percent reported for September, indicating that imports grew in October for the 21st consecutive month. "Imports expanded at levels similar to the previous month," says Fiore.

The 10 industries reporting growth in imports during the month of October — listed in order — are: Apparel, Leather & Allied Products; Textile Mills; Food, Beverage & Tobacco Products; Furniture & Related Products; Plastics & Rubber Products; Fabricated Metal Products; Computer & Electronic

Products; Electrical Equipment, Appliances & Components; Transportation Equipment; and Miscellaneous Manufacturing. The four industries reporting a decrease in imports during October are: Petroleum & Coal Products; Primary Metals; Nonmetallic Mineral Products; and Chemical Products.

Imports	% Reporting	% Higher	% Same	% Lower	Net	Index
Oct 2018	86	17.6	73.5	8.9	+8.7	54.3
Sep 2018	85	19.4	70.2	10.4	+9.0	54.5
Aug 2018	87	17.2	73.6	9.3	+7.9	53.9
Jul 2018	82	19.4	70.6	10.0	+9.4	54.7

\*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

Average commitment lead time for Capital Expenditures increased by five days in October to 152 days. Average lead time for Production Materials decreased by one day to 67 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
Oct 2018	20	5	8	19	25	23	152
Sep 2018	19	7	10	19	23	22	147
Aug 2018	19	8	7	22	23	21	144
Jul 2018	23	7	9	15	28	18	137

Production Materials	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Oct 2018	13	32	26	18	8	3	67
Sep 2018	12	34	28	15	7	4	68
Aug 2018	11	36	27	14	8	4	69

Production Materials	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Jul 2018	11	37	23	18	7	4	69

MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Oct 2018	37	39	14	7	2	1	35
Sep 2018	38	36	16	7	3	0	34
Aug 2018	41	37	15	4	2	1	33
Jul 2018	37	41	13	6	2	1	35

#### About This Report

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 October 2018.

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<sup>®</sup>, 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<sup>®</sup> 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<sup>®</sup> reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A PMI<sup>®</sup> above 43.2 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 43.2 percent, it is generally declining. The distance from 50 percent or 43.2 percent is indicative of the strength of the expansion or decline. With some of the indicators within this report, ISM<sup>®</sup> has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis. The Manufacturing ISM<sup>®</sup> Report On Business<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Report On Business<sup>®</sup> 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

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