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August 2018 Manufacturing ISM® Report On Business®

PMI® at 61.3%

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 Slower Rate; Exports and Imports Growing

(Tempe, Arizona) — Economic activity in the manufacturing sector expanded in August, and the overall economy grew for the 112th 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 August PMI® registered 61.3 percent, an increase of 3.2 percentage points from the July reading of 58.1 percent. The New Orders Index registered 65.1 percent, an increase of 4.9 percentage points from the July reading of 60.2 percent. The Production Index registered 63.3 percent, a 4.8-percentage point increase compared to the July reading of 58.5 percent. The Employment Index registered 58.5 percent, an increase of 2 percentage points from the July reading of 56.5 percent. The Supplier Deliveries Index registered 64.5 percent, a 2.4-percentage point increase from the July reading of 62.1 percent. The Inventories Index registered 55.4 percent, an increase of 2.1 percentage points from the July reading of 53.3 percent. The Prices Index registered 72.1 percent in August, a 1.1-percentage point decrease from the July reading of 73.2 percent, indicating higher raw materials prices for the 30th consecutive month.

"Comments from the panel reflect continued expanding business strength. Demand remains strong, with the New Orders Index at 60 percent or above for the 16th straight month, and the Customers' Inventories Index remaining low. The Backlog of Orders Index continued to expand, at higher levels

compared to the previous month. Consumption improved, with production and employment continuing to expand, at higher levels compared to July, despite shortages in labor and materials. Inputs (expressed as supplier deliveries, inventories and imports) expanded strongly due to continuing supply chain inefficiencies, positive increases in inventory levels and a slight easing of imports. Lead-time extensions, steel and aluminum disruptions, supplier labor issues, and transportation difficulties continue, but at more manageable levels.

"Export orders expanded at stable levels. Prices pressure continues, but the index softened for the third straight month and remains above 70. Demand is still robust, but the nation's employment resources and supply chains continue to struggle. Respondents are again overwhelmingly concerned about tariff-related activity, including how reciprocal tariffs will impact company revenue and current manufacturing locations. Panelists are actively evaluating how to respond to these business changes, given the uncertainty," says Fiore.

Of the 18 manufacturing industries, 16 reported growth in August, in the following order: Computer & Electronic Products; Apparel, Leather & Allied Products; Textile Mills; Paper Products; Miscellaneous Manufacturing; Electrical Equipment, Appliances & Components; Furniture & Related Products; Machinery; Nonmetallic Mineral Products; Transportation Equipment; Food, Beverage & Tobacco Products; Petroleum & Coal Products; Plastics & Rubber Products; Fabricated Metal Products; Chemical Products; and Printing & Related Support Activities. The two industries reporting contraction in August are: Wood Products; and Primary Metals.

## WHAT RESPONDENTS ARE SAYING

"Busy for new orders, but the cost of raw material chemicals keeps going up." (Chemical Products)

"We have seen a slight uptick in international business. Suppliers do not seem to know how to handle the recently imposed tariffs. Most are waiting to re-evaluate potential price increases until September." (Computer & Electronic Products)

"Generally high levels of demand continue, and [we are] planning for this elevated rate through the rest of the year." (Transportation Equipment)

"Suppliers appear to be bracing us for cost increases, given increased talk of tariffs and inflation. We are budgeting for 2019 accordingly." (Food, Beverage & Tobacco Products)

"The toughest thing we deal with is the unknown. Dealing with tariffs on steel purchases and not knowing if or when they will end makes planning difficult. We are entering the period when we begin our pricing negotiations for next year and will likely treat the tariffs as if they will be here for the entire year. It's challenging, but not insurmountable." (Fabricated Metal Products)

"Business is positive, new equipment sales and inquiries are strong, and the parts business is strong. Raw material costs, especially steel, appear to be leveling off. Cost of manufactured components has also leveled off. Most suppliers are willing and able to suppress cost increases. Tariff impacts are still a concern." (Machinery)

"Business continues to be strong. We anticipate growth in the next few months." (Plastics & Rubber Products)

"Business conditions are strong. Orders are up. Purchase prices are up. Unemployment is down." (Miscellaneous Manufacturing)

"Continued strong demand has most locations in a sold-out market, putting pressure on our facilities to produce and have strong uptime. Purchasing is under pressure to provide critical parts in a market where lead times have increased." (Nonmetallic Mineral Products)

"Steel tariffs and their threats are putting upward pressure on downstream materials." (Petroleum & Coal Products)

# Manufacturing at a Glance August 2018

Index	Series Index Aug	Series Index Jul	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
PMI®	61.3	58.1	+3.2	Growing	Faster	24
New Orders	65.1	60.2	+4.9	Growing	Faster	32
Production	63.3	58.5	+4.8	Growing	Faster	24
Employment	58.5	56.5	+2.0	Growing	Faster	23
Supplier Deliveries	64.5	62.1	+2.4	Slowing	Faster	23
Inventories	55.4	53.3	+2.1	Growing	Faster	8
Customers' Inventories	41.0	39.4	+1.6	Too Low	Faster	23
Prices	72.1	73.2	-1.1	Increasing	Slower	30
Backlog of Orders	57.5	54.7	+2.8	Growing	Faster	19
New Export Orders	55.2	55.3	-0.1	Growing	Slower	30
Imports	53.9	54.7	-0.8	Growing	Slower	19
OVERALL ECONOM	Υ			Growing	Faster	112
Manufacturing Sect	tor			Growing	Faster	24

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\* (22); Aluminum Based Products (4); Capacitors (3); Caustic Soda (14); Corrugate (23); Electrical Components; Electronic Components; Flour; Freight (7); Lumber (2); Nylon (3); Packaging Materials; Paper (4); Phosphates; Plastics; Resistors (2); Steel — Cold Rolled; Steel — Hot Rolled (21); Steel — Stainless (5); and Steel Based Products (4).

Commodities Down in Price

Aluminum\*; Copper (2); and Corn.

**Commodities in Short Supply** 

Capacitors (14); Electrical Components (5); Electronic Components (4); Freight (4); Labor; and Resistors (10).

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

**Manufacturing Index Summaries** 

### PMI®

Manufacturing expanded in August as the PMI® registered 61.3 percent, an increase of 3.2 percentage points from the July reading of 58.1 percent. "This indicates strong growth in manufacturing for the 24th consecutive month, led by continued expansion in all subindexes that make up the PMI®. The PMI® reached its highest level since May 2004, when it registered 61.4 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 43.2 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the August PMI® indicates growth for the 112th consecutive month in the overall economy and the 24th straight month of growth in the manufacturing sector. "The past relationship

between the PMI® and the overall economy indicates that the PMI® for August (61.3 percent) corresponds to a 5.6-percent increase in real gross domestic product (GDP) on an annualized basis."

## The Last 12 Months

Month	PMI <sup>®</sup>
Aug 2018	61.3
Jul 2018	58.1
Jun 2018	60.2
May 2018	58.7
Apr 2018	57.3
Mar 2018	59.3
Month	PMI <sup>®</sup>
Feb 2018	60.8
Jan 2018	59.1
Dec 2017	59.3
Nov 2017	58.2
Oct 2017	58.5
Sep 2017	60.2
Average for 12 months - 59.3 High - 61.3 Low - 57.3	

## **New Orders**

ISM®'s New Orders Index registered 65.1 percent in August, which is an increase of 4.9 percentage points when compared to the 60.2 percent reported for July, indicating growth in new orders for the 32nd consecutive month. "Customer demand reversed a three-month softening of expansion. New orders continued to expand at high levels, with the index at or above 60 percent for the 16th straight month. The index achieved its highest level since January 2018, when it registered 65.4 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).

Thirteen of 18 industries reported growth in new orders in August, in the following order: Textile Mills; Computer & Electronic Products; Paper Products; Nonmetallic Mineral Products; Food, Beverage & Tobacco Products; Transportation Equipment; Chemical Products; Fabricated Metal Products; Miscellaneous Manufacturing; Electrical Equipment, Appliances & Components; Machinery; Petroleum & Coal Products; and Plastics & Rubber Products. The only industry reporting a decrease in new orders in August is Primary Metals.

New Orders	% Higher	% Same	% Lower	Net	Index
Aug 2018	35.4	54.3	10.3	+25.1	65.1
Jul 2018	29.0	60.1	10.9	+18.1	60.2
Jun 2018	39.7	53.0	7.3	+32.5	63.5
May 2018	37.5	56.3	6.2	+31.3	63.7

#### Production

ISM®'s Production Index registered 63.3 percent in August, which is an increase of 4.8 percentage points when compared to the 58.5 percent reported for July, indicating growth in production for the 24th consecutive month. "Production rebounded in August, with the index reaching the highest level since January 2018 (64.5 percent). However, labor constraints throughout the supply chain 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 16 industries reporting growth in production during the month of August — listed in order — are: Printing & Related Support Activities; Computer & Electronic Products; Apparel, Leather & Allied Products; Miscellaneous Manufacturing; Nonmetallic Mineral Products; Textile Mills; Paper Products; Electrical Equipment, Appliances & Components; Furniture & Related Products; Transportation Equipment; Fabricated Metal Products; Food, Beverage & Tobacco Products; Machinery; Petroleum & Coal Products; Chemical Products; and Plastics & Rubber Products. The only industry reporting a decrease in production in August is Primary Metals.

Production	% Higher	% Same	% Lower	Net	Index
Aug 2018	35.3	53.8	10.9	+24.4	63.3
Jul 2018	31.5	52.6	15.9	+15.6	58.5

Production	% Higher	% Same	% Lower	Net	Index
Jun 2018	38.7	51.0	10.3	+28.4	62.3
May 2018	35.8	55.2	8.9	+26.9	61.5

## **Employment**

ISM®'s Employment Index registered 58.5 percent in August, an increase of 2 percentage points when compared to the July reading of 56.5 percent. This indicates growth in employment in August for the 23rd consecutive month. "Employment continued to expand, supporting production growth during the month. 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 10 reporting employment growth in August — listed in order — are: Miscellaneous Manufacturing; Computer & Electronic Products; Food, Beverage & Tobacco Products; Petroleum & Coal Products; Transportation Equipment; Paper Products; Plastics & Rubber Products; Machinery; Chemical Products; and Fabricated Metal Products. The four industries reporting a decrease in employment in August are: Printing & Related Support Activities; Nonmetallic Mineral Products; Electrical Equipment, Appliances & Components; and Primary Metals.

% Higher	% Same	% Lower	Net	Index
26.6	63.6	9.8	+16.8	58.5
27.1	61.2	11.7	+15.4	56.5
29.0	59.6	11.3	+17.7	56.0
27.6	61.2	11.3	+16.3	56.3
	26.6 27.1 29.0	26.6 63.6 27.1 61.2 29.0 59.6	26.6 63.6 9.8   27.1 61.2 11.7   29.0 59.6 11.3	26.6 63.6 9.8 +16.8 27.1 61.2 11.7 +15.4 29.0 59.6 11.3 +17.7

## **Supplier Deliveries**

The delivery performance of suppliers to manufacturing organizations slowed in August, as the Supplier Deliveries Index registered 64.5 percent. This is 2.4 percentage points higher than the 62.1 percent reported for July. "This is the 23rd straight month of slowing supplier deliveries and indicates the supply chain's difficulty in keeping up with new order and production demand. Lead times continue to extend, supply chain labor issues continue to restrict performance and transportation issues are limiting supplier execution," says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The 17 industries reporting slower supplier deliveries in August — listed in order — are: Apparel, Leather & Allied Products; Nonmetallic Mineral Products; Machinery; Furniture & Related Products; Wood Products; Computer & Electronic Products; Electrical Equipment, Appliances & Components; Plastics & Rubber Products; Textile Mills; Miscellaneous Manufacturing; Paper Products; Transportation Equipment; Food, Beverage & Tobacco Products; Petroleum & Coal Products; Chemical Products; Primary Metals; and Fabricated Metal Products. No manufacturing industries reported faster supplier deliveries during the month of August.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Index
Aug 2018	32.6	62.9	4.5	+28.1	64.5
Jul 2018	28.5	67.8	3.7	+24.8	62.1
Jun 2018	38.7	58.9	2.4	+36.3	68.2
May 2018	29.9	65.7	4.4	+25.5	62.0

#### Inventories\*

The Inventories Index registered 55.4 percent in August, which is an increase of 2.1 percentage points when compared to the 53.3 percent reported for July, indicating growth in raw materials inventories for the eighth consecutive month. "Inventories continued to expand for the eighth consecutive month. Although supplier deliveries were slower compared to the previous month, inventory gains were made, which will support increased production flexibility as manufacturing closes the quarter in September," 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 14 industries reporting higher inventories in August — listed in order — are: Apparel, Leather & Allied Products; Furniture & Related Products; Wood Products; Electrical Equipment, Appliances & Components; Textile Mills; Paper Products; Primary Metals; Transportation Equipment; Machinery; Computer & Electronic Products; Fabricated Metal Products; Miscellaneous Manufacturing; Food, Beverage & Tobacco Products; and Chemical Products. The only industry reporting a decrease in inventories in August is Nonmetallic Mineral Products.

Inventories	% Higher	% Same	% Lower	Net	Index
Aug 2018	25.2	60.4	14.5	+10.7	55.4
Jul 2018	22.3	61.9	15.8	+6.5	53.3
Jun 2018	20.7	60.2	19.1	+1.6	50.8

Inventories	% Higher	% Same	% Lower	Net	Index
May 2018	17.7	65.1	17.3	+0.4	50.2

## Customers' Inventories\*

ISM®'s Customers' Inventories Index registered 41 percent in August, which is 1.6 percentage points higher than the 39.4 percent reported for July, indicating that customers' inventory levels were considered too low. "Customers' inventory levels are too low for the 23rd consecutive month, which represents significant unmet demand in the near term," says Fiore.

The only manufacturing industry that reported customers' inventories as too high during the month of August is Nonmetallic Mineral Products. The 12 industries reporting customers' inventories as too low during August — listed in order — are: Apparel, Leather & Allied Products; Electrical Equipment, Appliances & Components; Machinery; Paper Products; Computer & Electronic Products; Petroleum & Coal Products; Plastics & Rubber Products; Fabricated Metal Products; Transportation Equipment; Primary Metals; Chemical Products; and Food, Beverage & Tobacco Products.

Customers' Inventories	% Reporting	% Too High	% About Right	% Too Low	Net	Index
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
Jun 2018	79	5.3	68.9	25.8	-20.6	39.7
May 2018	80	7.3	64.5	28.2	-20.9	39.6

## Prices\*

The ISM® Prices Index registered 72.1 percent in August, a decrease of 1.1 percentage points from the July reading of 73.2 percent, indicating an increase in raw materials prices for the 30th consecutive month. In August, 51.1 percent of respondents reported paying higher prices, 6.8 percent reported paying lower prices, and 42 percent of supply executives reported paying the same prices as in July. "The price increases across all industry sectors continue. The Business Survey Committee noted price increases softening slightly in metals (all steels, steel components and aluminum). However, increases continue in various chemicals, corrugate and packaging products, freight, labor, electrical and electronic components, wheat and wheat products, products manufactured primarily from steel (hydraulic components), and paper products. 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.

Sixteen of the 18 industries reported paying increased prices for raw materials in August, in the following order: Apparel, Leather & Allied Products; Furniture & Related Products; Textile Mills; Machinery; Petroleum & Coal Products; Computer & Electronic Products; Nonmetallic Mineral Products; Electrical Equipment, Appliances & Components; Miscellaneous Manufacturing; Plastics & Rubber Products; Fabricated Metal Products; Chemical Products; Transportation Equipment; Paper Products; Primary Metals; and Food, Beverage & Tobacco Products. The only industry reporting a decrease in prices in August is Wood Products.

Prices	% Higher	% Same	% Lower	Net	Index
Aug 2018	51.1	42.0	6.8	+44.3	72.1
Jul 2018	54.6	37.3	8.1	+46.5	73.2
Jun 2018	56.9	39.9	3.3	+53.6	76.8
May 2018	62.2	34.7	3.1	+59.1	79.5

## Backlog of Orders\*

ISM®'s Backlog of Orders Index registered 57.5 percent in August, which is 2.8 percentage points higher than the 54.7 percent reported in July, indicating growth in order backlogs for the 19th consecutive month. "Backlogs continued to grow at higher levels. Continued low levels of customer inventory and strong new order expansion support production requirements in the near term," says Fiore.

The 12 industries reporting growth in order backlogs in August — listed in order — are: Textile Mills; Computer & Electronic Products; Apparel, Leather & Allied Products; Printing & Related Support Activities; Electrical Equipment, Appliances & Components; Fabricated Metal Products; Petroleum & Coal Products; Paper Products; Chemical Products; Machinery; Miscellaneous Manufacturing; and Transportation Equipment. The three industries reporting a decrease in order backlogs during August are: Furniture & Related Products; Primary Metals; and Food, Beverage & Tobacco Products.

Backlog of Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
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
Jun 2018	90	32.8	54.6	12.6	+20.2	60.1
May 2018	89	34.8	57.5	7.7	+27.1	63.5

#### New Export Orders\*

ISM®'s New Export Orders Index registered 55.2 percent in August, a decrease of 0.1 percentage point when compared to the 55.3 percent reported for July, indicating growth in new export orders for the 30th consecutive month. "Four of the six big industry sectors continued to expand export activity during the period," says Fiore.

The six industries reporting growth in new export orders in August — listed in order — are: Petroleum & Coal Products; Computer & Electronic Products; Chemical Products; Fabricated Metal Products; Miscellaneous Manufacturing; and Food, Beverage & Tobacco Products. The four industries reporting a decrease in new export orders in August are: Wood Products; Primary Metals; Transportation Equipment; and Machinery. Eight industries reported no change in new export orders in August.

New Export Orders*	% Reporting	% Higher	% Same	% Lower	Net	Index
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
Jun 2018	79	15.8	81.1	3.1	+12.6	56.3
May 2018	79	17.3	76.5	6.2	+11.2	55.6

## Imports\*

ISM®'s Imports Index registered 53.9 percent in August, a decrease of 0.8 percentage point when compared to the 54.7 percent reported for July, indicating that imports grew in August for the 19th consecutive month. "Imports continued to expand, but at a lower level compared to the previous month. The index reflects three straight months of declining import expansion," says Fiore.

The 10 industries reporting growth in imports during the month of August — listed in order — are: Textile Mills; Apparel, Leather & Allied Products; Furniture & Related Products; Fabricated Metal Products; Computer & Electronic Products; Miscellaneous Manufacturing; Food, Beverage & Tobacco Products; Electrical Equipment, Appliances & Components; Machinery; and Transportation Equipment. The two industries reporting a decrease in imports during August are: Primary Metals; and Paper Products.

Imports	% Reporting	% Higher	% Same	% Lower	Net	Index
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

Imports	% Reporting	% Higher	% Same	% Lower	Net	Index
Jun 2018	85	24.3	69.3	6.4	+17.9	59.0
May 2018	85	17.1	74.0	8.9	+8.2	54.1

<sup>\*</sup>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 seven days in August to 144 days. Average lead time for Production Materials was unchanged at 69 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by two days to 33 days.

## Percent Reporting

Capital Expenditures	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Aug 2018	19	8	7	22	23	21	144
Jul 2018	23	7	9	15	28	18	137
Jun 2018	21	7	9	17	26	20	143
May 2018	19	6	10	19	27	19	143
Production Materials	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Aug 2018	11	36	27	14	8	4	69
Jul 2018	11	37	23	18	7	4	69
Jun 2018	11	33	29	16	7	4	69
May 2018	13	30	26	20	7	4	70

MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Aug 2018	41	37	15	4	2	1	33

MRO Supplies	Hand-to-Mouth	30 Days	60 Days	90 Days	6 Months	1 Year +	Average Days
Jul 2018	37	41	13	6	2	1	35
Jun 2018	36	43	14	5	2	0	31
May 2018	32	44	16	7	1	0	33

## 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 August 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®, 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 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 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

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