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# February 2017 Manufacturing ISM® Report On Business® 

DO NOT CONFUSE THIS NATIONAL REPORT with the various regional purchasing reports released across the country. The national report's information reflects the entire United States, 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 February 2017.

PMI® at 57.7\%
New Orders, Production and Employment Growing
Supplier Deliveries Slowing Inventories Growing
(Tempe, Arizona) - Economic activity in the manufacturing sector expanded in February, and the overall economy grew for the 93rd consecutive month, say the nation's supply executives in the latest Manufacturing ISM ${ }^{\star}$ Report On Business ${ }^{\bullet}$.

The report was issued today by Bradley J. Holcomb, CPSM, CPSD, chair of the Institute for Supply Management (ISM ${ }^{\ominus}$ ) Manufacturing Business Survey Committee: "The February PMI® registered 57.7 percent, an increase of 1.7 percentage points from the January reading of 56 percent. The New Orders Index registered 65.1 percent, an increase of 4.7 percentage points from the January reading of 60.4 percent. The Production Index registered 62.9 percent, 1.5 percentage points higher than the January reading of 61.4 percent. The Employment Index registered 54.2 percent, a decrease of 1.9 percentage
points from the January reading of 56.1 percent. Inventories of raw materials registered 51.5 percent, an increase of 3 percentage points from the January reading of 48.5 percent. The Prices Index registered 68 percent in February, a decrease of 1 percentage point from the January reading of 69 percent, indicating higher raw materials prices for the 12th consecutive month. Comments from the panel largely indicate strong sales and demand, and reflect a positive view of business conditions with a watchful eye on commodities and the potential for inflation."

Of the 18 manufacturing industries, 17 reported growth in February in the following order: Textile Mills; Apparel, Leather \& Allied Products; Machinery; Computer \& Electronic Products; Primary Metals; Plastics \& Rubber Products; Nonmetallic Mineral Products; Chemical Products; Paper Products; Fabricated Metal Products; Transportation Equipment; Food, Beverage \& Tobacco Products; Wood Products; Electrical Equipment, Appliances \& Components; Printing \& Related Support Activities; Petroleum \& Coal Products; and Miscellaneous Manufacturing. The only industry reporting contraction in February is Furniture \& Related Products.

## WHAT RESPONDENTS ARE SAYING ...

- "Business [is] improving and lead times are extending by two or more weeks." (Chemical Products)
- "Very positive outlook for this quarter. Production goals have been adjusted multiple times and increased each time due to demand." (Computer \& Electronic Products)
- "Product demand continues to be solid." (Plastics \& Rubber Products)
- "Bookings are heavy early in the season. Expect robust first half of the year." (Primary Metals)
- "Demand still outstrips capacity. Competitors have announced heavy capital investments to increase capacity." (Food, Beverage \& Tobacco Products)
" "Sales and business continue to be strong and increasing." (Machinery)
- "Business holding steady in Q1." (Transportation Equipment)
- "Medical device manufacturing is still strong." (Miscellaneous Manufacturing)
- "Even though oil and gas prices are on the upswing, we still face a tough 2017 and will continue to save on costs." (Petroleum \& Coal Products)
- "Major focus on commodities and potential [for] further inflation." (Electrical Equipment, Appliances \& Components)

| MANUFACTURING AT A GLANCE <br> February 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index | Series <br> Index <br> Feb | Series <br> Index <br> Jan | Percentage <br> Point <br> Change | Direction | Rate of Change | Trend* (Months) |
| PMII | 57.7 | 56.0 | +1.7 | Growing | Faster | 6 |
| New Orders | 65.1 | 60.4 | +4.7 | Growing | Faster | 6 |
| Production | 62.9 | 61.4 | +1.5 | Growing | Faster | 6 |
| Employment | 54.2 | 56.1 | -1.9 | Growing | Slower | 5 |
| Supplier Deliveries | 54.8 | 53.6 | +1.2 | Slowing | Faster | 10 |
| Inventories | 51.5 | 48.5 | +3.0 | Growing | From <br> Contracting | 1 |
| Customers' Inventories | 47.5 | 48.5 | -1.0 | Too Low | Faster | 5 |
| Prices | 68.0 | 69.0 | -1.0 | Increasing | Slower | 12 |
| Backlog of Orders | 57.0 | 49.5 | +7.5 | Growing | From <br> Contracting | 1 |
| New Export Orders | 55.0 | 54.5 | +0.5 | Growing | Faster | 12 |
| Imports | 54.0 | 50.0 | +4.0 | Growing | From Unchanged | 1 |
| OVERALL ECONOMY <br> Manufacturing Sector |  |  |  | Growing | Faster | 93 |
|  |  |  |  | Growing | Faster | 6 |

Manufacturing ISM ${ }^{\circledR}$ Report On Business ${ }^{\circledR}$ 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 (4); Butadiene (2); Caustic Soda; Copper (4); Copper Based Products; Corn (2);
Corrugate (5); Diesel; Ethylene; HDPE Resin; Isopropyl Alcohol; LDPE Resin; Oil;
Polypropylene; Rubber - Natural; Rubber - Synthetic; Scrap Metal*; Stainless Steel (11);
Steel (14); Steel Tubing; Steel - Carbon (3); Steel - Cold Rolled (4); Steel - Galvanized;
Steel - Hot Rolled (3); Styrene (2); and Titanium Dioxide (3).

## Commodities Down in Price

Scrap Metal*.

## Commodities in Short Supply

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

## FEBRUARY 2017 MANUFACTURING INDEX SUMMARIES

## PMI ${ }^{\circledR}$

Manufacturing expanded in February as the $\mathrm{PMI®}$ registered 57.7 percent, an increase of 1.7 percentage points from the January reading of 56 percent, indicating growth in manufacturing for the sixth consecutive month, and is the highest reading since August 2014, when the PMI registered 57.9 percent. 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 43.3 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the February PMI® indicates growth for the 93rd consecutive month in the overall economy and the sixth straight month of growth in the manufacturing
sector. Holcomb stated, "The past relationship between the $\mathrm{PMI}{ }^{\circledR}$ and the overall economy indicates that the average PMI® for January through February ( 56.9 percent) corresponds to a 4.3 percent increase in real gross domestic product (GDP) on an annualized basis. In addition, if the PMI ® for February ( 57.7 percent) is annualized, it corresponds to a 4.5 percent increase in real GDP annually."

THE LAST 12 MONTHS

| Month | PM/ | Month | PM |
| :---: | :---: | :---: | :---: |
| Feb 2017 | 57.7 | Aug 2016 |  |
| Jan 2017 | 56.0 | Jul 2016 |  |
| Dec 2016 | 54.5 | Jun 201 |  |
| Nov 2016 | 53.5 | May |  |
| Oct 2016 | 52.0 | Apr 2016 |  |
| Sep 201 | 51.7 | Mar 2016 | 51.7 |
| $\begin{aligned} & \text { Average fo } \\ & \text { High - } 57 . \\ & \text { Low }-49.4 \end{aligned}$ | or 12 .7 4 | months - | 52.8 |

## New Orders

ISM ${ }^{\text {'s }}$ New Orders Index registered 65.1 percent in February, which is an increase of 4.7 percentage points when compared to the 60.4 percent reported for January, indicating growth in new orders for the sixth consecutive month. It is the highest reading since December 2013, when the New Orders Index also registered 65.1 percent. A New Orders Index above 52.3 percent, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars).

The 16 industries reporting growth in new orders in February — listed in order - are: Apparel, Leather \& Allied Products; Primary Metals; Machinery; Wood Products; Chemical Products; Computer \& Electronic Products; Plastics \& Rubber Products; Nonmetallic Mineral Products; Paper Products; Transportation Equipment; Furniture \& Related Products; Fabricated Metal Products; Miscellaneous Manufacturing; Food, Beverage \& Tobacco Products; Electrical Equipment, Appliances \& Components; and Petroleum \& Coal Products. No industry reported a decrease in new orders during February.

| New Orders | \%Better | \%Same | \%Worse | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| Feb 2017 | 42 | 48 | 10 | +32 | 65.1 |
| Jan 2017 | 32 | 52 | 16 | +16 | 60.4 |
| Dec 2016 | 32 | 48 | 20 | +12 | 60.3 |
| Nov 2016 | 27 | 51 | 22 | +5 | 54.8 |

## Production

ISM ${ }^{\text {'s }}$ P Production Index registered 62.9 percent in February, which is an increase of 1.5 percentage points when compared to the 61.4 percent reported for January, indicating growth in production for the sixth consecutive month. It is the highest reading since March 2011, when the Production Index registered 64.2 percent. An index above 51.4 percent, over time, is generally consistent with an increase in the Federal Reserve Board's Industrial Production figures.

The 14 industries reporting growth in production during the month of February - listed in order — are: Plastics \& Rubber Products; Machinery; Primary Metals; Textile Mills; Apparel, Leather \& Allied Products; Nonmetallic Mineral Products; Chemical Products; Transportation Equipment; Paper Products; Fabricated Metal Products; Food, Beverage \& Tobacco Products; Computer \& Electronic Products; Miscellaneous Manufacturing; and Petroleum \& Coal Products. The three industries reporting a decrease in production during February are: Printing \& Related Support Activities; Furniture \& Related Products; and Electrical Equipment, Appliances \& Components.

| Production | \%Better | $\%$ Same | \%Worse | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 37 | 53 | 10 | +27 | 62.9 |
| Jan 2017 | 32 | 50 | 18 | +14 | 61.4 |
| Dec 2016 | 28 | 55 | 17 | +11 | 59.4 |
| Nov 2016 | 26 | 57 | 17 | +9 | 55.6 |

## Employment

ISM ${ }^{\oplus}$ 's Employment Index registered 54.2 percent in February, a decrease of 1.9 percentage points when compared to the January reading of 56.1 percent, indicating growth
in employment in February for the fifth consecutive month. An Employment Index above 50.5 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 February listed in order — are: Textile Mills; Printing \& Related Support Activities; Machinery; Computer \& Electronic Products; Paper Products; Nonmetallic Mineral Products; Chemical Products; Food, Beverage \& Tobacco Products; Petroleum \& Coal Products; and Electrical Equipment, Appliances \& Components. The five industries reporting a decrease in employment in February are: Furniture \& Related Products; Plastics \& Rubber Products; Miscellaneous Manufacturing; Transportation Equipment; and Primary Metals.

| Employment | \%Higher | \%Same | \%Lower | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 21 | 66 | 13 | +8 | 54.2 |
| Jan 2017 | 21 | 66 | 13 | +8 | 56.1 |
| Dec 2016 | 15 | 73 | 12 | +3 | 52.8 |
| Nov 2016 | 15 | 72 | 13 | +2 | 52.5 |

## Supplier Deliveries

The delivery performance of suppliers to manufacturing organizations was slower in February as the Supplier Deliveries Index registered 54.8 percent, which is 1.2 percentage points higher than the 53.6 percent reported for January. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The 13 industries reporting slower supplier deliveries in February — listed in order - are: Textile Mills; Machinery; Fabricated Metal Products; Nonmetallic Mineral Products; Chemical Products; Paper Products; Electrical Equipment, Appliances \& Components; Computer \& Electronic Products; Petroleum \& Coal Products; Plastics \& Rubber Products; Miscellaneous Manufacturing; Transportation Equipment; and Food, Beverage \& Tobacco Products. The only industry reporting faster supplier deliveries in February is Primary Metals.

| Supplier Deliveries | \%Slower | \%Same | \%Faster | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 16 | 79 | 5 | +11 | 54.8 |
| Jan 2017 | 12 | 84 | 4 | +8 | 53.6 |
| Dec 2016 | 9 | 86 | 5 | +4 | 53.0 |
| Nov 2016 | 11 | 86 | 3 | +8 | 55.5 |

## Inventories*

The Inventories Index registered 51.5 percent in February, which is an increase of 3 percentage points when compared to the 48.5 percent reported for January, indicating raw materials inventories are growing in February for the first time following 19 consecutive months of contraction. An Inventories Index greater than 42.9 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 nine industries reporting higher inventories in February - listed in order - are: Textile Mills; Apparel, Leather \& Allied Products; Computer \& Electronic Products; Electrical Equipment, Appliances \& Components; Food, Beverage \& Tobacco Products; Fabricated Metal Products; Machinery; Transportation Equipment; and Petroleum \& Coal Products. The five industries reporting lower inventories in February are: Nonmetallic Mineral Products; Paper Products; Miscellaneous Manufacturing; Chemical Products; and Printing \& Related Support Activities.

| Inventories | \%Higher | \%Same | \%Lower | Net Index |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 19 | 65 | 16 | +3 | 51.5 |
| Jan 2017 | 18 | 61 | 21 | -3 | 48.5 |
| Dec 2016 | 17 | 60 | 23 | -6 | 47.0 |
| Nov 2016 | 15 | 68 | 17 | -2 | 49.0 |

## Customers' Inventories*

ISM®'s Customers' Inventories Index registered 47.5 percent in February, which is 1 percentage point lower than the 48.5 percent reported for January, indicating that customers' inventory levels are considered too low in February for the fifth consecutive month.

The three manufacturing industries reporting customers' inventories as being too high during the month of February are: Nonmetallic Mineral Products; Transportation Equipment; and Computer \& Electronic Products. The eight industries reporting customers' inventories as too low during February — listed in order — are: Apparel, Leather \& Allied Products; Primary Metals; Miscellaneous Manufacturing; Plastics \& Rubber Products; Paper Products; Chemical Products; Food, Beverage \& Tobacco Products; and Machinery. Six industries reported no change in customer inventories in February compared to January.

| Customers' Inventories | \% Reporting | \%Too High | \%About Right | $\%$ Too Low | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 53 | 15 | 65 | 20 | -5 | 47.5 |
| Jan 2017 | 58 | 13 | 71 | 16 | -3 | 48.5 |
| Dec 2016 | 54 | 12 | 74 | 14 | -2 | 49.0 |
| Nov 2016 | 52 | 15 | 68 | 17 | -2 | 49.0 |

## Prices*

The ISM ${ }^{*}$ Prices Index registered 68 percent in February, a decrease of 1 percentage point when compared to the January reading of 69 percent, indicating an increase in raw materials prices for the 12th consecutive month. In February, 41 percent of respondents reported paying higher prices, 5 percent reported paying lower prices, and 54 percent of supply executives reported paying the same prices as in January. 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.

Of the 18 manufacturing industries, the 16 that reported paying increased prices for its raw materials in February — listed in order - are: Plastics \& Rubber Products; Fabricated Metal Products; Electrical Equipment, Appliances \& Components; Chemical Products; Textile Mills; Apparel, Leather \& Allied Products; Nonmetallic Mineral Products; Machinery; Primary Metals; Transportation Equipment; Food, Beverage \& Tobacco Products; Petroleum \& Coal Products; Furniture \& Related Products; Paper Products; Computer \& Electronic Products; and Miscellaneous Manufacturing. No industry reported paying lower prices during the month of February.

| Prices | \%Higher | \%Same | \%Lower | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 41 | 54 | 5 | +36 | 68.0 |
| Jan 2017 | 44 | 50 | 6 | +38 | 69.0 |
| Dec 2016 | 38 | 55 | 7 | +31 | 65.5 |
| Nov 2016 | 21 | 67 | 12 | +9 | 54.5 |

## Backlog of Orders*

ISM ${ }^{\oplus}$ 's Backlog of Orders Index registered 57 percent in February, an increase of 7.5 percentage points from the 49.5 percent reported for January, indicating growth in order backlogs for the first month following seven consecutive months of contraction. It is the highest reading since March 2014, when the Backlog of Orders Index registered 57.5 percent. Of the 88 percent of respondents who reported their backlog of orders, 26 percent reported greater backlogs, 12 percent reported smaller backlogs, and 62 percent reported no change from January.

The 12 industries reporting growth in order backlogs in February — listed in order - are: Textile Mills; Apparel, Leather \& Allied Products; Nonmetallic Mineral Products; Paper Products; Primary Metals; Transportation Equipment; Miscellaneous Manufacturing; Food, Beverage \& Tobacco Products; Plastics \& Rubber Products; Computer \& Electronic Products; Chemical Products; and Machinery. The two industries reporting a decrease in order backlogs during February are: Wood Products; and Electrical Equipment, Appliances \& Components.

| Backlog of Orders | \% Reporting | \%Greater | \%Same | \%Less | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 88 | 26 | 62 | 12 | +14 | 57.0 |
| Jan 2017 | 89 | 21 | 57 | 22 | -1 | 49.5 |
| Dec 2016 | 88 | 21 | 56 | 23 | -2 | 49.0 |
| Nov 2016 | 87 | 21 | 56 | 23 | -2 | 49.0 |

## New Export Orders*

ISM ${ }^{\circledR}$ 's New Export Orders Index registered 55 percent in February, an increase of 0.5 percentage point when compared to the 54.5 percent reported for January, indicating growth in new export orders for the 12th consecutive month.

The six industries reporting growth in new export orders in February — listed in order are: Food, Beverage \& Tobacco Products; Computer \& Electronic Products; Transportation Equipment; Paper Products; Chemical Products; and Machinery. The only industry reporting a decrease in new export orders during February is Fabricated Metal Products. Eleven industries reported no change in new export orders in February compared to January.

| New Export Orders | \% Reporting | \%Higher | \%Same | \%Lower | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 80 | 16 | 78 | 6 | +10 | 55.0 |
| Jan 2017 | 80 | 15 | 79 | 6 | +9 | 54.5 |
| Dec 2016 | 80 | 17 | 78 | 5 | +12 | 56.0 |
| Nov 2016 | 82 | 13 | 78 | 9 | +4 | 52.0 |

## Imports*

ISM ${ }^{\text {® }}$ 's Imports Index registered 54 percent in February, an increase of 4 percentage points when compared to the 50 percent reported for January, indicating that imports are growing in February relative to January.

The nine industries reporting growth in imports during the month of February — listed in order - are: Apparel, Leather \& Allied Products; Primary Metals; Electrical Equipment, Appliances \& Components; Transportation Equipment; Computer \& Electronic Products;

Petroleum \& Coal Products; Chemical Products; Fabricated Metal Products; and Food, Beverage \& Tobacco Products. The two industries reporting a decrease in imports during February are: Machinery; and Plastics \& Rubber Products. Six industries reported no change in imports in February compared to January.

| Imports | \% Reporting | \%Higher | $\%$ Same | \%Lower | Net | Index |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Feb 2017 | 83 | 14 | 80 | 6 | +8 | 54.0 |
| Jan 2017 | 81 | 11 | 78 | 11 | 0 | 50.0 |
| Dec 2016 | 83 | 10 | 81 | 9 | +1 | 50.5 |
| Nov 2016 | 82 | 11 | 79 | 10 | +1 | 50.5 |

* 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 in February by 1 day to 141 days. Average lead time for Production Materials decreased by 4 days to 61 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by 2 days to 33 days.

| Percent Reporting |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital Expenditures | Hand-toMouth | $\begin{aligned} & 30 \\ & \text { Days } \end{aligned}$ | $\begin{aligned} & 60 \\ & \text { Days } \end{aligned}$ | $\begin{aligned} & 90 \\ & \text { Days } \end{aligned}$ | 6 <br> Months | $\begin{aligned} & \hline 1 \\ & \text { Year+ } \end{aligned}$ | Average Days |
| Feb 2017 | 19 | 7 | 11 | 18 | 26 | 19 | 141 |
| Jan 2017 | 19 | 8 | 12 | 16 | 26 | 19 | 140 |
| Dec 2016 | 19 | 9 | 11 | 18 | 24 | 19 | 138 |
| Nov 2016 | 20 | 10 | 12 | 17 | 23 | 18 | 133 |
| Production Materials | Hand-toMouth | $30$ | $\begin{aligned} & \hline 60 \\ & \text { Days } \end{aligned}$ | $\begin{aligned} & \hline 90 \\ & \text { Days } \end{aligned}$ | $6$ <br> Months | Year+ | Average Days |
| Feb 2017 | 16 | 34 | 27 | 15 | 5 | 3 | 61 |
| Jan 2017 | 14 | 33 | 26 | 17 | 7 | 3 | 65 |
| Dec 2016 | 14 | 40 | 19 | 17 | 6 | 4 | 65 |


| Nov 2016 | 17 | 35 | 25 | 14 | 7 | 2 | 59 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| MRO Supplies | Hand-to- <br> Mouth | 30 <br> Days | 60 <br> Days | 90 <br> Days | 6 <br> Months | 1 <br> Year+ | Average <br> Days |
| Feb 2017 | 36 | 39 | 17 | 6 | 2 | 0 | 33 |
| Jan 2017 | 34 | 43 | 16 | 6 | 1 | 0 | 31 |
| Dec 2016 | 39 | 37 | 16 | 6 | 1 | 1 | 33 |
| Nov 2016 | 40 | 34 | 18 | 7 | 1 | 0 | 31 |

## About This Report

The data presented herein is obtained from a survey of manufacturing supply executives based on information they have collected within their respective organizations. ISM ${ }^{\ominus}$ 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 ${ }^{\circledR}$ Report On Business ${ }^{\circledR}$ is based on data compiled from purchasing and supply executives nationwide. Membership of the Manufacturing Business Survey Committee is diversified by NAICS, based on each industry's contribution to gross domestic product (GDP). Manufacturing Business Survey Committee responses are divided into the following NAICS code categories: 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).

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 43.3 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 43.3 percent, it is generally declining. The distance from 50 percent or 43.3 percent is indicative of the strength of the expansion or decline. With some of the indicators within this report, ISM ${ }^{\oplus}$ has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis.

The Manufacturing ISM ${ }^{\circledR}$ Report On Business ${ }^{\circledR}$ 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 ${ }^{\oplus}$ 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 ${ }^{\oplus}$ 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 ${ }^{\circledR}$ Report On Business ${ }^{\circledR}$ 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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Institute for Supply Managemente (ISM ${ }^{*}$ ) serves supply management professionals in more than 90 countries. Its 48,000 members around the world manage about $\$ 1$ 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 newly launched ISM Mastery Model ${ }^{\oplus}$. 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 ${ }^{\star}$ Report On Business ${ }^{\star}$ is posted on ISM ${ }^{\star}$ 's website at www.ismrob.org on the first business day* of every month after 10:00 a.m. (ET).

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