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Contact: Kristina Cahill<br>Report On Business ${ }^{\circledR}$ Analyst<br>ISM $^{\oplus}$, ROB/Research Manager<br>Tempe, Arizona<br>800/888-6276, Ext. 3015<br>E-mail: kcahill@instituteforsupplymanagement.org

# April 2016 Manufacturing ISM ${ }^{\oplus}$ Report On Business ${ }^{\circledR}$ 

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 April 2016.
$\mathrm{PMI}^{\oplus}$ at $50.8 \%$

New Orders and Production Growing<br>Employment and Inventories Contracting<br>Supplier Deliveries Faster

(Tempe, Arizona) - Economic activity in the manufacturing sector expanded in April for the second consecutive month, while the overall economy grew for the 83rd consecutive month, say the nation's supply executives in the latest Manufacturing ISM ${ }^{\oplus}$ Report On Business ${ }^{\oplus}$.

The report was issued today by Bradley J. Holcomb, CPSM, CPSD, chair of the Institute for Supply Management ${ }^{\oplus}\left(\right.$ ISM $\left.^{\oplus}\right)$ Manufacturing Business Survey Committee. "The April PMI ${ }^{\oplus}$ registered 50.8 percent, a decrease of 1 percentage point from the March reading of 51.8 percent. The New Orders Index registered 55.8 percent, a decrease of 2.5 percentage points from the March reading of 58.3 percent. The Production Index registered 54.2 percent, 1.1 percentage points lower than the March reading of 55.3 percent. The Employment Index registered 49.2 percent, 1.1 percentage points above the March reading of 48.1 percent. Inventories of raw materials registered 45.5 percent, a decrease of 1.5 percentage points from the March reading of 47 percent. The Prices Index registered 59 percent, an increase of 7.5 percentage points from the March reading of 51.5 percent, indicating higher raw
materials prices for the second consecutive month. Manufacturing registered growth in April for the second consecutive month, as 15 of our 18 industries reported an increase in new orders in April (up from 13 in March), and 15 of our 18 industries reported an increase in production in April (up from 12 in March)."

Of the 18 manufacturing industries, 11 are reporting growth in April in the following order: Wood Products; Printing \& Related Support Activities; Paper Products; Plastics \& Rubber Products; Primary Metals; Fabricated Metal Products; Chemical Products; Machinery; Computer \& Electronic Products; Nonmetallic Mineral Products; and Food, Beverage \& Tobacco Products. The four industries reporting contraction in April are: Petroleum \& Coal Products; Transportation Equipment; Miscellaneous Manufacturing; and Furniture \& Related Products.

## WHAT RESPONDENTS ARE SAYING ...

- "We are still running at capacity. New CapEx for $\$ 30$ million to increase capacity, but will not be online until 2017." (Food, Beverage \& Tobacco Products)
- "Remaining a bit sluggish overall although showing signs of a pickup in some areas." (Chemical Products)
- "While oil prices have recovered slightly, the industry as a whole continues to struggle greatly." (Computer \& Electronic Products)
- "Steel prices are increasing, but it is supply-side driven. General economy is plugging along with no big changes. Kind of lackluster." (Fabricated Metal Products)
- "Auto industry is still going strong." (Machinery)
- "Sales are firming at the reduced levels we've seen this year. We think we have hit a bottom." (Transportation Equipment)
- "Business conditions are stable. Sales and production rates are steady to improving." (Miscellaneous Manufacturing)
- "Activity increasing as we move to our busy season." (Printing \& Related Support Activities)
- "Market is starting to pick up as expected." (Wood Products)

| MANUFACTURING AT A GLANCE APRIL 2016 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index | Series <br> Index <br> Apr | Series <br> Index <br> Mar | Percentage <br> Point <br> Change | Direction | Rate of Change | Trend* <br> (Months) |
| PMI® | 50.8 | 51.8 | -1.0 | Growing | Slower | 2 |
| New Orders | 55.8 | 58.3 | -2.5 | Growing | Slower | 4 |
| Production | 54.2 | 55.3 | -1.1 | Growing | Slower | 4 |
| Employment | 49.2 | 48.1 | +1.1 | Contracting | Slower | 5 |
| Supplier Deliveries | 49.1 | 50.2 | -1.1 | Faster | From <br> Slower | 1 |
| Inventories | 45.5 | 47.0 | -1.5 | Contracting | Faster | 10 |
| Customers' Inventories | 46.0 | 49.0 | -3.0 | Too Low | Faster | 3 |
| Prices | 59.0 | 51.5 | +7.5 | Increasing | Faster | 2 |
| Backlog of Orders | 50.5 | 51.0 | -0.5 | Growing | Slower | 2 |
| Exports | 52.5 | 52.0 | +0.5 | Growing | Faster | 2 |
| Imports | 50.0 | 49.5 | +0.5 | Unchanged | From <br> Contracting | 1 |
| OVERALL ECONOMY |  |  |  | Growing | Slower | 83 |
| Manufacturing Sector |  |  |  | Growing | Slower | 2 |

Manufacturing ISM ${ }^{\oplus}$ Report On Business ${ }^{\oplus}$ data is seasonally adjusted for 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 (3); Aluminum Products; \#1 Bundle Scrap; Carbon Steel Coil; Copper* (2); Diesel;
Ethylene; HDPE Resin; Oil; Palm Oil; Plastic Resins; Polypropylene (3); Propylene; Scrap Steel; Stainless Steel; Steel (4); Steel — Cold Rolled; Steel — Hot Rolled (3); and Titanium Dioxide.

Commodities Down in Price
Copper*

None.
Note: The number of consecutive months the commodity is listed is indicated after each item.
*Reported as both up and down in price.

## APRIL 2016 MANUFACTURING INDEX SUMMARIES

## PMI ${ }^{\circ}$

Manufacturing expanded in April as the $\mathrm{PMI}^{\oplus}$ registered 50.8 percent, a decrease of 1 percentage point from the March reading of 51.8 percent, indicating growth in manufacturing for the second consecutive month, following five consecutive months of contraction in manufacturing. A reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally contracting.

A PMI ${ }^{\circledR}$ above 43.2 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the April PMI ${ }^{\circledR}$ indicates growth for the 83 rd consecutive month in the overall economy, while indicating growth in the manufacturing sector for the second consecutive month. Holcomb stated, "The past relationship between the $\mathrm{PMI}^{\oplus}$ and the overall economy indicates that the average $\mathrm{PMI}^{\circledR}$ for January through April ( 50.1 percent) corresponds to a 2.2 percent increase in real gross domestic product (GDP) on an annualized basis. In addition, if the PMI ${ }^{\circledR}$ for April (50.8 percent) is annualized, it corresponds to a 2.4 percent increase in real GDP annually."

THE LAST 12 MONTHS

| Month | PMI | Month | PMI |
| :--- | :--- | :--- | :--- |
| Apr 2016 | 50.8 | Oct 2015 | 49.4 |
| Mar 2016 | 51.8 | Sep 2015 | 50.0 |
| Feb 2016 | 49.5 | Aug 2015 | 51.0 |
| Jan 2016 | 48.2 | Jul 2015 | 51.9 |
| Dec 2015 | 48.0 | Jun 2015 | 53.1 |
| Nov 2015 | 48.4 | May 2015 53.1 |  |
| Average <br> for 12 months - 50.4 <br> High - 53.1 <br> Low - 48.0 |  |  |  |

New Orders
ISM $^{\circledR}{ }^{\circledR}$ s New Orders Index registered 55.8 percent in April, which is a decrease of 2.5 percentage points when compared to the 58.3 percent reported for March, indicating growth in new orders for the fourth consecutive month. A New Orders Index above 52.2 percent, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars).

The 15 industries reporting growth in new orders in April - listed in order - are: Apparel, Leather \& Allied Products; Printing \& Related Support Activities; Paper Products; Wood Products; Plastics \& Rubber Products; Chemical Products; Fabricated Metal Products; Electrical Equipment, Appliances \& Components; Machinery; Furniture \& Related Products; Primary Metals; Computer \& Electronic Products; Miscellaneous Manufacturing; Food, Beverage \& Tobacco Products; and Transportation Equipment. The only industry reporting a decrease in new orders during April is Textile Mills.

| New <br> Orders | $\%$ <br> Better | $\%$ <br> Same | $\%$ <br> Worse | Net |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Index |  |  |  |  |  |$|$| Apr 2016 | 38 | 45 | 17 |
| :--- | :---: | :---: | :---: |
| +21 | 55.8 |  |  |
| Mar 2016 | 32 | 56 | 12 |
| +20 | 58.3 |  |  |
| Feb 2016 | 25 | 56 | 19 |
| +6 | 51.5 |  |  |
| Jan 2016 | 26 | 49 | 25 |
| +1 | 51.5 |  |  |

## Production

ISM ${ }^{\oplus}{ }^{\prime}$ s Production Index registered 54.2 percent in April, which is a decrease of 1.1 percentage points when compared to the 55.3 percent reported for March, indicating growth in production in April for the fourth consecutive month. An index above 51.3 percent, over time, is generally consistent with an increase in the Federal Reserve Board's Industrial Production figures.

The 15 industries reporting growth in production during the month of April - listed in order — are: Paper Products; Wood Products; Chemical Products; Plastics \& Rubber Products; Fabricated Metal Products; Printing \& Related Support Activities; Primary Metals; Electrical Equipment, Appliances \& Components; Computer \& Electronic Products; Miscellaneous Manufacturing; Nonmetallic Mineral Products; Machinery; Furniture \& Related Products; Transportation Equipment; and Food, Beverage \& Tobacco Products. The two industries reporting a decrease in production during April are: Petroleum \& Coal Products; and Textile Mills.

| Production | \% <br> Better | \% <br> Same | Worse | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 35 | 52 | 13 | +22 | 54.2 |
| Mar 2016 | 28 | 61 | 11 | +17 | 55.3 |
| Feb 2016 | 24 | 59 | 17 | +7 | 52.8 |
| Jan 2016 | 22 | 51 | 27 | -5 | 50.2 |

## Employment

ISM $^{\oplus}{ }^{\text {'s }}$ Employment Index registered 49.2 percent in April, which is an increase of 1.1 percentage points when compared to the 48.1 percent reported for March, indicating contraction in employment for the fifth consecutive month, but at a slower rate of contraction than in March. An Employment Index above 50.6 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, in April, the 11 industries reporting employment growth — listed in order — are: Wood Products; Textile Mills; Printing \& Related Support Activities; Paper Products; Primary Metals; Machinery; Furniture \& Related Products; Nonmetallic Mineral Products; Food, Beverage \& Tobacco Products; Computer \& Electronic Products; and Chemical Products. The five industries reporting a decrease in employment in April are: Apparel, Leather \& Allied Products; Petroleum \& Coal Products; Electrical Equipment, Appliances \& Components; Fabricated Metal Products; and Transportation Equipment.

| Employment | \% <br> Higher | \% <br> \%ame | Lower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 24 | 57 | 19 | +5 | 49.2 |
| Mar 2016 | 15 | 66 | 19 | -4 | 48.1 |
| Feb 2016 | 15 | 67 | 18 | -3 | 48.5 |
| Jan 2016 | 11 | 67 | 22 | -11 | 45.9 |

Supplier Deliveries
The delivery performance of suppliers to manufacturing organizations was faster in April as the Supplier Deliveries Index registered 49.1 percent, which is 1.1 percentage points lower than the 50.2 percent reported for March. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The five industries reporting slower supplier deliveries in April are: Fabricated Metal Products; Plastics \& Rubber Products; Computer \& Electronic Products; Food, Beverage \& Tobacco Products; and Chemical Products. The five industries reporting faster supplier deliveries during April are: Paper Products; Nonmetallic Mineral Products; Machinery; Transportation Equipment; and Primary Metals. Eight industries reported no change in supplier deliveries in April compared to March.

| Supplier <br> Deliveries <br> Slower | \% <br> \% | \% <br> Faster | NetIndex |
| :--- | :---: | :---: | :---: | :---: | :---: |$|$ Ind

Inventories*
The Inventories Index registered 45.5 percent in April, which is a decrease of 1.5 percentage points when compared to the 47 percent reported for March, indicating raw materials inventories are contracting in April for the 10th consecutive month at a faster rate than in March. An Inventories Index greater than 42.8 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 three industries reporting higher inventories in April are: Plastics \& Rubber Products; Fabricated Metal Products; and Primary Metals. The 10 industries reporting lower inventories in April — listed in order - are: Furniture \& Related Products; Textile Mills; Miscellaneous Manufacturing; Chemical Products; Electrical Equipment, Appliances \& Components; Food, Beverage \& Tobacco

Products; Transportation Equipment; Computer \& Electronic Products; Machinery; and Printing \& Related Support Activities.

| Inventories | \% <br> Higher | \% <br> Same | Lower | Net Index |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 15 | 61 | 24 | -9 | 45.5 |
| Mar 2016 | 15 | 64 | 21 | -6 | 47.0 |
| Feb 2016 | 13 | 64 | 23 | -10 | 45.0 |
| Jan 2016 | 13 | 61 | 26 | -13 | 43.5 |

Customers' Inventories*
ISM ${ }^{\ominus}$ 's Customers' Inventories Index registered 46 percent in April, which is a decrease of 3 percentage points when compared to the 49 percent reported for March, indicating that customers' inventories are considered to be too low in April for the third consecutive month.

The four manufacturing industries reporting customers' inventories as being too high during the month of April are: Nonmetallic Mineral Products; Furniture \& Related Products; Fabricated Metal Products; and Chemical Products. The seven industries reporting customers' inventories as too low during April — listed in order - are: Food, Beverage \& Tobacco Products; Miscellaneous Manufacturing; Machinery; Electrical Equipment, Appliances \& Components; Plastics \& Rubber Products; Computer \& Electronic Products; and Transportation Equipment.

| Customers Inventories | \% <br> Reporting | \% Too High | $\begin{gathered} \% \text { About } \\ \text { Right } \\ \hline \end{gathered}$ | $\begin{aligned} & \% \text { Too } \\ & \text { Low } \end{aligned}$ | Net | ndex |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 57 | 12 | 68 | 20 | -8 | 46.0 |
| Mar 2016 | 59 | 15 | 68 | 17 | -2 | 49.0 |
| Feb 2016 | 62 | 11 | 72 | 17 | -6 | 47.0 |
| Jan 2016 | 63 | 17 | 69 | 14 | +3 | 51.5 |

## Prices*

The ISM ${ }^{\oplus}$ Prices Index registered 59 percent in April, which is an increase of 7.5 percentage points when compared to the 51.5 percent reported for March, indicating an increase in raw materials for the second consecutive month and only the second time since October 2014. In April, 28 percent of respondents reported paying higher prices, 10 percent reported paying lower prices, and 62 percent of supply executives reported paying the same prices as in March. 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 12 industries that reported paying increased prices for its raw materials in April — listed in order — are: Apparel, Leather \& Allied Products; Primary Metals; Fabricated Metal Products; Printing \& Related Support Activities; Electrical Equipment, Appliances \& Components; Food, Beverage \& Tobacco Products; Plastics \& Rubber Products; Nonmetallic Mineral Products; Machinery; Transportation Equipment; Chemical Products; and Paper Products. The four industries reporting paying lower prices during the month of April are: Textile Mills; Furniture \& Related Products; Miscellaneous Manufacturing; and Petroleum \& Coal Products.

| Prices | \% <br> Higher | \% <br> Same | Lower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 28 | 62 | 10 | +18 | 59.0 |
| Mar 2016 | 16 | 71 | 13 | +3 | 51.5 |
| Feb 2016 | 9 | 59 | 32 | -23 | 38.5 |
| Jan 2016 | 5 | 57 | 38 | -33 | 33.5 |

Backlog of Orders*
ISM ${ }^{\circledR}$ 's Backlog of Orders Index registered 50.5 percent in April, a decrease of 0.5 percentage point as compared to the March reading of 51 percent, indicating growth in order backlogs for the second consecutive month. Of the 87 percent of respondents who reported their backlog of orders, 24 percent reported greater backlogs, 23 percent reported smaller backlogs, and 53 percent reported no change from March.

The seven industries reporting an increase in order backlogs in April — listed in order — are: Primary Metals; Fabricated Metal Products; Electrical Equipment, Appliances \& Components; Plastics \& Rubber Products; Chemical Products; Machinery; and Paper Products. The eight industries reporting a decrease in order backlogs during April - listed in order - are: Textile Mills; Nonmetallic Mineral Products; Wood Products; Printing \& Related Support Activities; Miscellaneous Manufacturing; Furniture \& Related Products; Computer \& Electronic Products; and Transportation Equipment.

| Backlog of <br> Orders | $\%$ <br> Reporting | $\%$ <br> Greater | $\%$ <br> Same | Less | NetIIndex |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 87 | 24 | 53 | 23 | +1 | 50.5 |
| Mar 2016 | 89 | 21 | 60 | 19 | +2 | 51.0 |
| Feb 2016 | 86 | 19 | 59 | 22 | -3 | 48.5 |
| Jan 2016 | 88 | 17 | 52 | 31 | -14 | 43.0 |

ISM ${ }^{\ominus}$ 's New Export Orders Index registered 52.5 percent in April, which is an increase of 0.5 percentage point when compared to the March reading of 52 percent. This month's reading indicates growth in new export orders for the second consecutive month.

The eight industries reporting growth in new export orders in April — listed in order — are: Wood Products; Printing \& Related Support Activities; Chemical Products; Fabricated Metal Products; Transportation Equipment; Paper Products; Miscellaneous Manufacturing; and Plastics \& Rubber Products. The four industries reporting a decrease in new export orders during April are: Nonmetallic Mineral Products; Primary Metals; Machinery; and Food, Beverage \& Tobacco Products.

| New Export <br> Orders | \% <br> Reporting | \% Higher | \% <br> Same | \% | Lower | Net Index |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 78 | 16 | 73 | 11 | +5 | 52.5 |
| Mar 2016 | 77 | 15 | 74 | 11 | +4 | 52.0 |
| Feb 2016 | 76 | 11 | 71 | 18 | -7 | 46.5 |
| Jan 2016 | 74 | 9 | 76 | 15 | -6 | 47.0 |

Imports*
ISM ${ }^{\oplus}$ 's Imports Index registered 50 percent in April, which is 0.5 percentage point higher than the 49.5 percent reported in March, indicating that imports in April are unchanged from March.

The four industries reporting growth in imports during the month of April are: Nonmetallic Mineral Products; Chemical Products; Fabricated Metal Products; and Paper Products. The six industries reporting a decrease in imports during April - listed in order - are: Textile Mills; Primary Metals; Plastics \& Rubber Products; Transportation Equipment; Computer \& Electronic Products; and Food, Beverage \& Tobacco Products. Seven industries reported no change in imports in April compared to March.

| Imports | \% <br> Reporting | \% <br> Higher | \% <br> Iame | \%ower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Apr 2016 | 79 | 14 | 72 | 14 | 0 | 50.0 |
| Mar 2016 | 81 | 10 | 79 | 11 | -1 | 49.5 |
| Feb 2016 | 81 | 10 | 78 | 12 | -2 | 49.0 |
| Jan 2016 | 82 | 14 | 74 | 12 | +2 | 51.0 |

[^0] Imports Indexes do not meet the accepted criteria for seasonal adjustments.

Buying Policy
Average commitment lead time for Capital Expenditures decreased in April by 1 day to 120 days. Average lead time for Production Materials decreased by 3 days to 59 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies remained unchanged at 29 days.

| Percent Reporting |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital <br> Expenditures | Hand-toMouth | $30$ | $\begin{array}{\|c\|} \hline 60 \\ \text { SDays } \\ \hline \end{array}$ | $\begin{gathered} 90 \\ \hline \text { Days } \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} 6 \\ \hline \end{array}$ | $\left\lvert\, \begin{gathered} 1 \\ \text { Year }+ \end{gathered}\right.$ | $\begin{gathered} \text { Average } \\ \text { Days } \end{gathered}$ |
| Apr 2016 | 23 | 8 | 9 | 23 | 24 | 13 | 120 |
| Mar 2016 | 26 | 5 | 14 | 16 | 25 | 14 | 121 |
| Feb 2016 | 22 | 7 | 12 | 21 | 22 | 16 | 127 |
| Jan 2016 | 24 | 6 | 13 | 20 | 20 | 17 | 126 |
|  |  |  |  |  |  |  |  |
| Production <br> Materials | Hand- <br> to- <br> Mouth | $\begin{array}{\|c\|} \hline 30 \\ \hline \text { Days } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 60 \\ \text { SDays } \\ \hline \end{array}$ | $\begin{array}{\|c} 90 \\ \hline \text { Days } \\ \hline \end{array}$ | $\begin{gathered} 6 \\ \text { Months } \end{gathered}$ | $\left\lvert\, \begin{gathered} 1 \\ \text { Year }+ \end{gathered}\right.$ | $\begin{gathered} \text { Average } \\ \text { Days } \end{gathered}$ |
| Apr 2016 | 15 | 37 | 21 | 18 | 8 | 1 | 59 |
| Mar 2016 | 15 | 34 | 25 | 16 | 8 | 2 | 62 |
| Feb 2016 | 14 | 39 | 25 | 14 | 6 | 2 | 58 |
| Jan 2016 | 14 | 37 | 24 | 15 | 9 | 1 | 60 |
|  |  |  |  |  |  |  |  |
| MRO <br> Supplies | Hand- <br> to- <br> Mouth | $\begin{array}{c\|} 30 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 60 \\ \text { sidays } \\ \hline \end{array}$ | $\begin{array}{\|c\|} 90 \\ \text { sidays } \\ \hline \end{array}$ | Months | $\left\lvert\, \begin{gathered} 1 \\ \text { Year }+ \end{gathered}\right.$ | $\begin{gathered} \text { Average } \\ \text { Days } \end{gathered}$ |
| Apr 2016 | 37 | 41 | 15 | 7 | 0 | 0 | 29 |
| Mar 2016 | 42 | 37 | 15 | 5 | 1 | 0 | 29 |
| Feb 2016 | 43 | 37 | 16 | 3 | 1 | 0 | 27 |
| Jan 2016 | 41 | 37 | 16 | 6 | 0 | 0 | 28 |

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 ${ }^{\oplus}$ 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 decisionmaking.

The Manufacturing ISM ${ }^{\oplus}$ 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 ( $\mathrm{PMI}^{\oplus}$, 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 $\mathrm{PMI}^{\circledR}$ 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 ${ }^{\oplus}$ reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally declining. A PMI ${ }^{\oplus}$ 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 $^{\oplus}$ has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis.

The Manufacturing ISM ${ }^{\otimes}$ Report On Business ${ }^{\oplus}$ 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 ${ }^{\circledR}$ 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 ${ }^{\oplus}$ 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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