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

$\mathrm{PMI}^{\oplus}$ at $52.6 \%$

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 July 2016.

PMI ${ }^{\ominus}$ at 52.6\%

## New Orders and Production Growing Employment and Inventories Contracting Supplier Deliveries Slowing

(Tempe, Arizona) — Economic activity in the manufacturing sector expanded in July for the fifth consecutive month, while the overall economy grew for the 86th consecutive month, say the nation's supply executives in the latest Manufacturing ISM ${ }^{\otimes}$ Report On Business ${ }^{\circledR}$.

The report was issued today by Bradley J. Holcomb, CPSM, CPSD, chair of the Institute for Supply Management ${ }^{\oplus}\left(\mathrm{ISM}^{\oplus}\right)$ Manufacturing Business Survey Committee. "The July PMI ${ }^{\oplus}$ registered 52.6 percent, a decrease of 0.6 percentage point from the June reading of 53.2 percent. The New Orders Index registered 56.9 percent, a decrease of 0.1 percentage point from the June reading of 57 percent. The Production Index registered 55.4 percent, 0.7 percentage point higher than the June reading of 54.7 percent. The Employment Index registered 49.4 percent, a decrease of 1 percentage point from the June reading of 50.4 percent. Inventories of raw materials registered 49.5 percent, an increase of 1 percentage point from the June reading of 48.5 percent. The Prices Index registered 55 percent, a decrease of 5.5 percentage points from the June reading of 60.5 percent, indicating higher raw materials prices for the fifth consecutive month. Manufacturing registered growth in July for the fifth consecutive month, as 12 of our 18 industries reported an increase in new orders in July (same as in

June), and nine of our 18 industries reported an increase in production in July (down from 12 in June)."

Of the 18 manufacturing industries, 11 are reporting growth in July in the following order: Textile Mills; Printing \& Related Support Activities; Miscellaneous Manufacturing; Wood Products; Furniture \& Related Products; Chemical Products; Food, Beverage \& Tobacco Products; Fabricated Metal Products; Nonmetallic Mineral Products; Petroleum \& Coal Products; and Computer \& Electronic Products. The seven industries reporting contraction in July — listed in order - are: Apparel, Leather \& Allied Products; Electrical Equipment, Appliances \& Components; Plastics \& Rubber Products; Machinery; Primary Metals; Transportation Equipment; and Paper Products. WHAT RESPONDENTS ARE SAYING ...

- "With Brexit, keeping [a] close eye on how this will impact our business." (Chemical Products)
- "Stronger than expected end to Q2 (June) saw us beat our forecast which is the first time in five quarters, though we were still below Annual Operation Plan (AOP)." (Computer \& Electronic Products)
- "Strong demand in our market has business in an upswing." (Nonmetallic Mineral Products)
- "International capital orders are increasing." (Fabricated Metal Products)
- "Brexit has not impacted our business thus far." (Food, Beverage \& Tobacco Products)
- "Retail sales have really slowed in the last 45 days. Our industry is seeing it everywhere. Steel prices are rising." (Machinery)
- "Seems to be a bit more optimism in the markets. But, U.S. Presidential race might dampen the mood." (Plastics \& Rubber Products)
- "Demand and industry production are both slowing down." (Transportation Equipment)
- "Oversupply continues to dominate demand. Poor weather is having a negative impact on building, creating short term slow demand." (Wood Products)
- "Oil and gas industry sector continues to realign staff to reflect \$40-\$50/barrel oil. This price range is seen as the new normal for the foreseeable future." (Petroleum \& Coal Products)

| MANUFACTURING AT A GLANCE JULY 2016 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index | Series <br> Index <br> Jul | Series <br> Index <br> Jun | Percentage <br> Point <br> Change | Direction | Rate <br> of Change | $\begin{array}{\|c\|} \hline \text { Trend* } \\ \text { (Months) } \\ \hline \end{array}$ |
| PMI ${ }^{\text {P }}$ | 52.6 | 53.2 | -0.6 | Growing | Slower | 5 |
| New Orders | 56.9 | 57.0 | -0.1 | Growing | Slower | 7 |
| Production | 55.4 | 54.7 | +0.7 | Growing | Faster | 7 |
| Employment | 49.4 | 50.4 | -1.0 | Contracting | From Growing | 1 |
| Supplier Deliveries | 51.8 | 55.4 | -3.6 | Slowing | Slower | 3 |
| Inventories | 49.5 | 48.5 | +1.0 | Contracting | Slower | 13 |
| Customers' Inventories | 51.0 | 51.0 | 0.0 | Too High | Same | 2 |
| Prices | 55.0 | 60.5 | -5.5 | Increasing | Slower | 5 |
| Backlog of Orders | 48.0 | 52.5 | -4.5 | Contracting | From Growing | 1 |
| New Export Orders | 52.5 | 53.5 | -1.0 | Growing | Slower | 5 |
| Imports | 52.0 | 52.0 | 0.0 | Growing | Same | 2 |
| OVERALL ECONOMY |  |  |  | Growing | Slower | 86 |
| Manufacturing Sector |  |  |  | Growing | Slower | 5 |

Manufacturing ISM ${ }^{\oplus}$ Report On Business ${ }^{\ominus}$ 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
Copper*; Corrugate* (2); Dairy; Diesel (4); Gold; Natural Gas (2); Petroleum Based Products;
Polyethylene Resins; Stainless Steel (4); Steel (7); Steel — Carbon (2); and Steel — Hot Rolled (6).
Commodities Down in Price
Copper*; Corn; Corrugate*; and Steel.
Commodities in Short Supply
None (4).
Note: The number of consecutive months the commodity is listed is indicated after each item.
*Reported as both up and down in price.

## JULY 2016 MANUFACTURING INDEX SUMMARIES

## PMI ${ }^{\oplus}$

Manufacturing expanded in July as the PMI® registered 52.6 percent, a decrease of 0.6 percentage point from the June reading of 53.2 percent, indicating growth in manufacturing for the fifth consecutive month. A reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally contracting.

A PMI ${ }^{\circ}$ above 43.2 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the July PMI ${ }^{\circledR}$ indicates growth for the 86th consecutive month in the overall economy, while indicating growth in the manufacturing sector for the fifth consecutive month. Holcomb stated, "The past relationship between the PMI ${ }^{\ominus}$ and the overall economy indicates that the average PMI ${ }^{\oplus}$ for January through July ( 51.1 percent) corresponds to a 2.5 percent increase in real gross domestic product (GDP) on an annualized basis. In addition, if the PMI ${ }^{\oplus}$ for July ( 52.6 percent) is annualized, it corresponds to a 3 percent increase in real GDP annually."

THE LAST 12 MONTHS

| Month | PMI ${ }^{\text {a }}$ | Month |  |
| :---: | :---: | :---: | :---: |
| Jul 2016 | 52.6 | Jan 2016 | 48 |
| Jun 2016 | 53.2 | Dec 2015 | 48.0 |
| May 2016 | 51.3 | Nov 2015 |  |
| Apr 2016 | 50.8 | Oct 2015 | 49 |
| Mar 2016 | 51.8 | Sep 2015 | 50.0 |
| Feb 2016 | 49.5 | Aug 201 |  |
| Average for 12 months - 50.4$\begin{aligned} & \text { High }-53.2 \\ & \text { Low - } 48.0 \\ & \hline \end{aligned}$ |  |  |  |
|  |  |  |  |
|  |  |  |  |

## New Orders

ISM ${ }^{\oplus}$ 's New Orders Index registered 56.9 percent in July, which is a decrease of 0.1 percentage point when compared to the 57 percent reported for June, indicating growth in new orders for the seventh 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 12 industries reporting growth in new orders in July — listed in order — are: Textile Mills; Miscellaneous Manufacturing; Printing \& Related Support Activities; Furniture \& Related Products; Chemical Products; Food, Beverage \& Tobacco Products; Nonmetallic Mineral Products; Fabricated

Metal Products; Computer \& Electronic Products; Petroleum \& Coal Products; Primary Metals; and Paper Products. The five industries reporting a decrease in new orders during July are: Apparel, Leather \& Allied Products; Electrical Equipment, Appliances \& Components; Machinery; Plastics \& Rubber Products; and Transportation Equipment.

| New <br> Orders | \% <br> Better | \% <br> Same | Worse | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 27 | 58 | 15 | +12 | 56.9 |
| Jun 2016 | 31 | 51 | 18 | +13 | 57.0 |
| May 2016 | 32 | 51 | 17 | +15 | 55.7 |
| Apr 2016 | 38 | 45 | 17 | +21 | 55.8 |

Production
ISM ${ }^{\otimes \text { 's }}$ Production Index registered 55.4 percent in July, which is an increase of 0.7 percentage point when compared to the 54.7 percent reported for June, indicating growth in production in July for the seventh 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 nine industries reporting growth in production during the month of July - listed in order - are: Printing \& Related Support Activities; Miscellaneous Manufacturing; Furniture \& Related Products; Food, Beverage \& Tobacco Products; Chemical Products; Petroleum \& Coal Products; Nonmetallic Mineral Products; Fabricated Metal Products; and Paper Products. The six industries reporting a decrease in production during July — listed in order - are: Apparel, Leather \& Allied Products; Electrical Equipment, Appliances \& Components; Machinery; Transportation Equipment; Plastics \& Rubber Products; and Primary Metals.

| Production | Better | Same | Worse | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 25 | 58 | 17 | +8 | 55.4 |
| Jun 2016 | 28 | 55 | 17 | +11 | 54.7 |
| May 2016 | 29 | 52 | 19 | +10 | 52.6 |
| Apr 2016 | 35 | 52 | 13 | +22 | 54.2 |

Employment
ISM ${ }^{\ominus}$ 's Employment Index registered 49.4 percent in July, a decrease of 1 percentage point when compared to the June reading of 50.4 percent, indicating contraction in employment in July following one month of growth. 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 July, the eight industries reporting employment growth listed in order - are: Textile Mills; Printing \& Related Support Activities; Nonmetallic Mineral Products; Furniture \& Related Products; Miscellaneous Manufacturing; Chemical Products; Food, Beverage \& Tobacco Products; and Fabricated Metal Products. The seven industries reporting a decrease in employment in July — listed in order - are: Apparel, Leather \& Allied Products; Plastics \& Rubber Products; Electrical Equipment, Appliances \& Components; Machinery; Petroleum \& Coal Products; Transportation Equipment; and Computer \& Electronic Products.

| Employment | \% <br> Higher | \% <br> Same | Lower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 17 | 68 | 15 | +2 | 49.4 |
| Jun 2016 | 22 | 58 | 20 | +2 | 50.4 |
| May 2016 | 20 | 62 | 18 | +2 | 49.2 |
| Apr 2016 | 24 | 57 | 19 | +5 | 49.2 |

## Supplier Deliveries

The delivery performance of suppliers to manufacturing organizations was slower in July as the Supplier Deliveries Index registered 51.8 percent, which is 3.6 percentage points lower than the 55.4 percent reported for June. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

The 10 industries reporting slower supplier deliveries in July — listed in order — are: Textile Mills; Fabricated Metal Products; Petroleum \& Coal Products; Miscellaneous Manufacturing; Food, Beverage \& Tobacco Products; Chemical Products; Machinery; Plastics \& Rubber Products; Computer \& Electronic Products; and Transportation Equipment. The only industry reporting faster supplier deliveries in July is Primary Metals. Seven industries reported no change in supplier deliveries in July compared to June.

| Supplier <br> Deliveries | $\%$ <br> Slower | $\%$ <br> Same | \% <br> Faster | NetIIndex |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 10 | 85 | 5 | +5 | 51.8 |
| Jun 2016 | 12 | 84 | 4 | +8 | 55.4 |
| May 2016 | 13 | 82 | 5 | +8 | 54.1 |
| Apr 2016 | 8 | 85 | 7 | +1 | 49.1 |

Inventories*
The Inventories Index registered 49.5 percent in July, which is an increase of 1 percentage point when compared to the 48.5 percent reported for June, indicating raw materials inventories are contracting in July for the 13th consecutive month. 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 eight industries reporting higher inventories in July - listed in order - are: Apparel, Leather \& Allied Products; Wood Products; Chemical Products; Food, Beverage \& Tobacco Products;
Fabricated Metal Products; Machinery; Transportation Equipment; and Furniture \& Related
Products. The eight industries reporting lower inventories in July - listed in order - are: Primary Metals; Printing \& Related Support Activities; Miscellaneous Manufacturing; Nonmetallic Mineral Products; Paper Products; Electrical Equipment, Appliances \& Components; Petroleum \& Coal Products; and Plastics \& Rubber Products.

| Inventories | \% <br> Higher | \% <br> Same | Lower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 19 | 61 | 20 | -1 | 49.5 |
| Jun 2016 | 19 | 59 | 22 | -3 | 48.5 |
| May 2016 | 14 | 62 | 24 | -10 | 45.0 |
| Apr 2016 | 15 | 61 | 24 | -9 | 45.5 |

Customers' Inventories*
ISM ${ }^{\text {®'s }}$ Customers' Inventories Index registered 51 percent in July, which was the same reading reported in June, indicating that customers' inventory levels are still considered too high in July.

The six manufacturing industries reporting customers' inventories as being too high during the month of July — listed in order - are: Nonmetallic Mineral Products; Electrical Equipment, Appliances \& Components; Paper Products; Chemical Products; Fabricated Metal Products; and Transportation Equipment. The six industries reporting customers' inventories as too low during July — listed in order — are: Furniture \& Related Products; Primary Metals; Plastics \& Rubber Products; Food, Beverage \& Tobacco Products; Computer \& Electronic Products; and Machinery. Six industries reported no change in customer inventories in July compared to June.

| Customers Inventories | \% <br> Reporting | \% Too <br> High | $\begin{gathered} \text { \% Albout } \\ \text { Right } \\ \hline \end{gathered}$ | $\begin{aligned} & \% \text { Too } \\ & \text { Low } \end{aligned}$ | Net | Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 59 | 13 | 76 | 11 | +2 | 51.0 |
| Jun 2016 | 57 | 16 | 70 | 14 | +2 | 51.0 |
| May 2016 | 60 | 16 | 68 | 16 | 0 | 50.0 |
| Apr 2016 | 57 | 12 | 68 | 20 | -8 | 46.0 |

## Prices*

The ISM ${ }^{\oplus}$ Prices Index registered 55 percent in July, which is a decrease of 5.5 percentage points when compared to the 60.5 percent reported for June, indicating an increase in raw materials prices for the fifth consecutive month. In July, 22 percent of respondents reported paying higher prices, 12 percent reported paying lower prices, and 66 percent of supply executives reported paying the same prices as in June. 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 July — listed in order - are: Apparel, Leather \& Allied Products; Petroleum \& Coal Products; Plastics \& Rubber Products; Machinery; Nonmetallic Mineral Products; Electrical Equipment, Appliances \& Components; Paper Products; Fabricated Metal Products; Chemical Products; Transportation Equipment; Food, Beverage \& Tobacco Products; and Furniture \& Related Products. The three industries reporting paying lower prices during the month of July are: Textile Mills; Miscellaneous Manufacturing; and Computer \& Electronic Products.

| Prices | \% <br> Higher | \% <br> \% | \% <br> Lower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 22 | 66 | 12 | +10 | 55.0 |
| Jun 2016 | 27 | 67 | 6 | +21 | 60.5 |
| May 2016 | 34 | 59 | 7 | +27 | 63.5 |
| Apr 2016 | 28 | 62 | 10 | +18 | 59.0 |

Backlog of Orders*
ISM ${ }^{\text {}}$ 's Backlog of Orders Index registered 48 percent in July, a decrease of 4.5 percentage points when compared to the June reading of 52.5 percent, indicating contraction in order backlogs. Of the 86 percent of respondents who reported their backlog of orders, 16 percent reported greater backlogs, 20 percent reported smaller backlogs, and 64 percent reported no change from June.

The six industries reporting growth in order backlogs in July - listed in order - are: Textile Mills; Printing \& Related Support Activities; Chemical Products; Paper Products; Miscellaneous Manufacturing; and Fabricated Metal Products. The 10 industries reporting a decrease in order backlogs during July — listed in order — are: Apparel, Leather \& Allied Products; Nonmetallic Mineral Products; Electrical Equipment, Appliances \& Components; Primary Metals; Furniture \& Related Products; Transportation Equipment; Plastics \& Rubber Products; Food, Beverage \& Tobacco Products; Machinery; and Computer \& Electronic Products.

| Backlog of <br> Orders | \% <br> Reporting | \% <br> Greater | $\%$ <br> Same | Less | Net Index |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 86 | 16 | 64 | 20 | -4 | 48.0 |
| Jun 2016 | 89 | 24 | 57 | 19 | +5 | 52.5 |
| May 2016 | 85 | 17 | 60 | 23 | -6 | 47.0 |
| Apr 2016 | 87 | 24 | 53 | 23 | +1 | 50.5 |

New Export Orders*
ISM ${ }^{\oplus}$ 's New Export Orders Index registered 52.5 percent in July, a decrease of 1 percentage point over the June reading of 53.5 percent. This month's reading indicates growth in new export orders for the fifth consecutive month.

The eight industries reporting growth in new export orders in July - listed in order - are: Printing \& Related Support Activities; Miscellaneous Manufacturing; Paper Products; Computer \& Electronic Products; Fabricated Metal Products; Food, Beverage \& Tobacco Products; Transportation Equipment; and Chemical Products. The six industries reporting a decrease in new export orders during July — listed in order - are: Apparel, Leather \& Allied Products; Nonmetallic Mineral Products; Primary Metals; Electrical Equipment, Appliances \& Components; Machinery; and Plastics \& Rubber Products.

| New Export <br> Orders | \% <br> Reporting | \%igher | \% <br> Same | \%ower | Net | Index |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 76 | 14 | 77 | 9 | +5 | 52.5 |
| Jun 2016 | 79 | 14 | 79 | 7 | +7 | 53.5 |
| May 2016 | 75 | 15 | 75 | 10 | +5 | 52.5 |
| Apr 2016 | 78 | 16 | 73 | 11 | +5 | 52.5 |

Imports*
ISM ${ }^{\text {®'s }}$ Imports Index registered 52 percent in July, which was the same reading in June. This month's reading indicates growth in imports for the second consecutive month after two months of no change and two months of contraction.

The six industries reporting growth in imports during the month of July — listed in order - are: Computer \& Electronic Products; Fabricated Metal Products; Machinery; Chemical Products; Food, Beverage \& Tobacco Products; and Furniture \& Related Products. The four industries reporting a decrease in imports during July are: Nonmetallic Mineral Products; Miscellaneous Manufacturing; Plastics \& Rubber Products; and Electrical Equipment, Appliances \& Components. Seven industries reported no change in imports in July compared to June.

| Imports | \% <br> Reporting | \% | $\begin{gathered} \% \\ \hline \text { Same } \\ \hline \end{gathered}$ | \% | Net | Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jul 2016 | 80 | 14 | 76 | 10 | +4 | 52.0 |
| Jun 2016 | 84 | 11 | 82 | 7 | +4 | 52.0 |
| May 2016 | 83 | 14 | 72 | 14 | 0 | 50.0 |
| Apr 2016 | 79 | 14 | 72 | 14 | 0 | 50.0 |

* 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 July by 1 day to 132 days. Average lead time for Production Materials increased by 5 days to 64 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by 1 day to 31 days.

| Percent Reporting |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital <br> Expenditures | Hand- <br> to- <br> Mouth | $\begin{array}{c\|} \hline 30 \\ \text { Days } \\ \hline \end{array}$ | Says | $\begin{gathered} 90 \\ \hline \text { Days } \end{gathered}$ | $\begin{gathered} 6 \\ \text { Months } \end{gathered}$ | $\left\|\begin{array}{c} 1 \\ \text { Sear }+ \end{array}\right\|$ | $\begin{gathered} \text { Average } \\ \text { Days } \end{gathered}$ |
| Jul 2016 | 20 | 8 | 14 | 18 | 22 | 18 | 132 |
| Jun 2016 | 23 | 7 | 11 | 15 | 28 | 16 | 131 |
| May 2016 | 24 | 8 | 12 | 15 | 25 | 16 | 127 |
| Apr 2016 | 23 | 8 | 9 | 23 | 24 | 13 | 120 |
|  |  |  |  |  |  |  |  |
| Production <br> Materials | Hand- <br> to- <br> Mouth | $\begin{array}{\|c\|} \hline 30 \\ \text { Days } \\ \hline \end{array}$ | $\begin{array}{c\|} 60 \\ \text { Days } \\ \hline \end{array}$ | $\begin{gathered} 90 \\ \text { Days } \end{gathered}$ | $\begin{gathered} 6 \\ \hline \text { Months } \\ \hline \end{gathered}$ | $\left\lvert\, \begin{gathered} 1 \\ \text { SYear }+ \end{gathered}\right.$ | $\begin{array}{\|c} \text { Average } \\ +\quad \text { Days } \\ \hline \end{array}$ |
| Jul 2016 | 12 | 37 | 26 | 15 | 7 | 3 | 64 |
| Jun 2016 | 15 | 38 | 23 | 15 | 7 | 2 | 59 |
| May 2016 | 16 | 35 | 24 | 15 | 7 | 3 | 63 |
| Apr 2016 | 15 | 37 | 21 | 18 | 8 | 1 | 59 |
|  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { MRO } \\ & \text { Supplies } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \text { Hand- } \\ \text { to- } \\ \text { Mouth } \end{array}$ | $\begin{array}{\|c\|} \hline 30 \\ \text { Days } \\ \hline \end{array}$ | $\begin{array}{\|c\|} 60 \\ \text { Days } \\ \hline \end{array}$ | $\begin{gathered} 90 \\ \text { Days } \end{gathered}$ | $\begin{gathered} 6 \\ \text { Months } \end{gathered}$ | $\begin{gathered} 1 \\ \text { S Year }+ \\ \hline \end{gathered}$ | $\begin{gathered} \text { Average } \\ \text { Days } \end{gathered}$ |
| Jul 2016 | 38 | 40 | 15 | 5 | 2 | 0 | 31 |
| Jun 2016 | 39 | 37 | 17 | 6 | 1 | 0 | 30 |
| May 2016 | 41 | 37 | 14 | 7 | 1 | 0 | 30 |
| Apr 2016 | 37 | 41 | 15 | 7 | 0 | 0 | 29 |

## 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 decisionmaking.

Data and Method of Presentation
The Manufacturing ISM ${ }^{\ominus}$ Report On Business ${ }^{\oplus}$ 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 ${ }^{\oplus}$, 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 ${ }^{\ominus}$ 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 $^{\ominus}$ has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis.

The Manufacturing ISM ${ }^{\oplus}$ Report On Business ${ }^{\otimes}$ 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 ${ }^{\ominus}$ 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 ${ }^{\oplus}$ 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 Management ${ }^{\oplus}\left(\right.$ ISM $\left.^{\ominus}\right)$ 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 ${ }^{\oplus}$, its highly regarded certification programs and the newly launched ISM Mastery Model ${ }^{\text {™ }}$. 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 ${ }^{\otimes}$ Report On Business ${ }^{\circledR}$ is posted on ISM ${ }^{\ominus}{ }^{\ominus}$ s website at www.ismrob.org on the first business day* of every month after 10:00 a.m. (ET).

The next Manufacturing ISM ${ }^{\otimes}$ Report On Business ${ }^{\circledR}$ featuring the August 2016 data will be released at 10:00 a.m. (ET) on Thursday, September 1, 2016. *Unless the NYSE is closed.

