

PMI® at 55.4%

September 2020 Manufacturing ISM® Report On Business®

(Tempe, Arizona) — Economic activity in the **manufacturing sector grew in September**, with the **overall economy notching a fifth consecutive month of growth**, 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 September PMI® registered 55.4 percent, down 0.6 percentage point from the August reading of 56 percent. This figure indicates expansion in the **overall economy** for the fifth month in a row after a contraction in April, which ended a period of 131 consecutive months of growth. The New Orders Index registered 60.2 percent, a decrease of 7.4 percentage points from the August reading of 67.6 percent. The Production Index registered 61 percent, down 2.3 percentage points compared to the August reading of 63.3 percent. The Backlog of Orders Index registered 55.2 percent, 0.6 percentage point higher compared to the August reading of 54.6 percent. The Employment Index registered 49.6 percent, an increase of 3.2 percentage points from the August reading of 46.4 percent. The Supplier Deliveries Index registered 59 percent, up 0.8 percentage point from the August figure of 58.2 percent.

"The Inventories Index registered 47.1 percent, 2.7 percentage points higher than the August reading of 44.4 percent. The Prices Index registered 62.8 percent, up 3.3 percentage points compared to the August reading of 59.5 percent. The New Export Orders Index registered 54.3 percent, an increase of 1 percentage point compared to the August reading of 53.3 percent. The Imports Index registered 54 percent, a 1.6-percentage point decrease from the August reading of 55.6 percent.

"After the coronavirus (COVID-19) pandemic brought manufacturing activity to historic lows, the sector continued its recovery in September. Survey Committee members reported that their companies and suppliers continue to operate in reconfigured factories and are becoming more proficient at maintaining output. Panel sentiment was optimistic (2.3 positive comments for every cautious comment), an improvement compared to August. **Demand** expanded, with the (1) New Orders Index growing at strong levels, supported by the New Export Orders Index expanding moderately, (2) Customers' Inventories Index at its lowest figure since June 2010, a level considered a positive for future production, and the (3) Backlog of Orders Index expanding at a faster rate compared to the prior two months. **Consumption** (measured by the Production and Employment indexes) contributed positively (a combined 0.9-percentage point increase) to the PMI® calculation, with five of the top six industries continuing to expand output strongly. Employment neared expansion territory for the first time since July 2019. **Inputs** — expressed as supplier deliveries, inventories and imports — continued to indicate input-driven constraints to further production expansion, but at slower rates compared to August. Inventory levels contracted again due to strong production output and supplier delivery difficulties. Overall, inputs improved compared to August and contributed positively to the PMI® calculation. (The Supplier Deliveries and Inventories indexes directly factor into the PMI®; the Imports Index does not.) Prices continued to expand at higher rates, reflecting a continued shift to seller pricing power — a positive for new-order growth.

"Among the six biggest manufacturing industries, Food, Beverage & Tobacco Products remains the best-performing sector, with Fabricated Metal Products and Chemical Products growing strongly. Computer

& Electronic Products and Transportation Equipment expanded moderately. Petroleum & Coal Products remained a headwind to PMI® performance.

“Manufacturing performed well in the month with demand, consumption and inputs registering growth indicative of a normal expansion cycle. While certain industry sectors are experiencing difficulties that will continue in the near term, the manufacturing community as a whole has learned to conduct business effectively and deal with the variables imposed by the COVID-19 pandemic,” says Fiore.

Of the 18 manufacturing industries, 14 reported growth in September, in the following order: Paper Products; Wood Products; Food, Beverage & Tobacco Products; Furniture & Related Products; Electrical Equipment, Appliances & Components; Nonmetallic Mineral Products; Fabricated Metal Products; Chemical Products; Miscellaneous Manufacturing; Plastics & Rubber Products; Machinery; Textile Mills; Computer & Electronic Products; and Transportation Equipment. The four industries reporting contraction in September are: Apparel, Leather & Allied Products; Printing & Related Support Activities; Petroleum & Coal Products; and Primary Metals.

WHAT RESPONDENTS ARE SAYING

- “Still struggling with long lead times for components coming from China [contract manufacturers].” (Computer & Electronic Products)
- “Volume remains lower than one year ago but has steadily improved over the past two periods.” (Chemical Products)
- “Business is booming, and the supply chain has been caught off guard. We are working closely with our suppliers to ensure supply and try to control costs. The resin industry, along with plastics, is driving cost increases and scarce availability.” (Transportation Equipment)
- “Our business has not begun to recover.” (Petroleum & Coal Products)
- “Overall business conditions are improving, but not at the rates we saw them decline.” (Fabricated Metal Products)
- “Our customer order intake is increasing significantly for deliveries in the first half of 2021. Outlook is generally positive.” (Machinery)
- “Retail sales remain strong, but food service is still down about 15 percent year-over-year. All of our factories are still struggling with manning shifts due to positive COVID-19 cases and/or quarantine because employees came in contact with someone who contracted the virus.” (Food, Beverage & Tobacco Products)
- “Demand remains high, strong finish to 2020 projected, with an even stronger 2021 fiscal year. Prices have increased in certain categories, but no major price increases of our own have been implemented yet. We are seeing an uptick in reshoring opportunities in the third quarter across various industries and products.” (Electrical Equipment, Appliances & Components)
- “We are seeing a marked increase in international demand in Q4 compared to Q2 and Q3. Still not at historical levels; however, a positive outlook.” (Paper Products)

- “Raw material shortages, especially of hardwood logs, are starting to impact overall supply. Domestic market demand is fragmented but remains sound. Export demand, especially to China, is robust.” (Wood Products)
- “Business has continued to be strong, with September following August. October is also shaping up to be a good sales month as well.” (Plastics & Rubber Products)

Manufacturing at a Glance

September 2020

Index	Series Index Sep	Series Index Aug	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
Manufacturing PMI®	55.4	56.0	-0.6	Growing	Slower	4
New Orders	60.2	67.6	-7.4	Growing	Slower	4
Production	61.0	63.3	-2.3	Growing	Slower	4
Employment	49.6	46.4	+3.2	Contracting	Slower	14
Supplier Deliveries	59.0	58.2	+0.8	Slowing	Faster	11
Inventories	47.1	44.4	+2.7	Contracting	Slower	3
Customers' Inventories	37.9	38.1	-0.2	Too Low	Faster	48
Prices	62.8	59.5	+3.3	Increasing	Faster	4
Backlog of Orders	55.2	54.6	+0.6	Growing	Faster	3
New Export Orders	54.3	53.3	+1.0	Growing	Faster	3
Imports	54.0	55.6	-1.6	Growing	Slower	3
OVERALL ECONOMY				Growing	Slower	5
Manufacturing Sector				Growing	Slower	4

Manufacturing ISM® Report On Business® data is seasonally adjusted for the New Orders, Production, Employment and Inventories indexes.

*Number of months moving in current direction.

COMMODITIES REPORTED UP/DOWN IN PRICE AND IN SHORT SUPPLY

Commodities Up in Price

Aluminum (4); Aluminum Extrusions; Copper (4); Freight (2); High-Density Polyethylene (HDPE) (3); Lumber (3); Natural Gas (2); Polypropylene (3); Polyvinyl Chloride; Precious Metals (3); Propylene (2); Resins; Sanitizers; Steel (2); Steel — Cold Rolled; Steel — Hot Rolled; Steel — Scrap (2); and Steel Products.

Commodities Down in Price

Oil.

Commodities in Short Supply

Aluminum; Cable Assemblies; Capacitors; Lumber (2); Personal Protective Equipment (PPE); PPE — Gloves (7); PPE — Masks; Polypropylene; Resins; Resistors; and Sanitizers.

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

SEPTEMBER 2020 MANUFACTURING INDEX SUMMARIES

PMI®

Manufacturing grew in September, as the PMI® registered 55.4 percent, 0.6 percentage point lower than the August reading of 56 percent. “The PMI® signaled a continued rebuilding of economic activity in September, with all subindexes either remaining in moderate to strong growth territory or slowing their rate of contraction (Employment and Inventories). Five of the big six industry sectors continue to expand. The New Orders and Production indexes continued at strong expansion levels. The Supplier Deliveries Index continues to reflect supplier difficulties in maintaining delivery rates due to factory labor safety issues and transportation challenges. Eight of the 10 subindexes were positive for the period. A reading of ‘too low’ for Customers’ Inventories is considered a positive for future production,” 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 42.8 percent, over a period of time, generally indicates an expansion of the overall economy. Therefore, the September PMI® indicates the overall economy grew in September for the fifth

consecutive month following contraction in April. “The past relationship between the PMI® and the overall economy indicates that the PMI® for September (55.4 percent) corresponds to a 3.7-percent increase in real gross domestic product (GDP) on an annualized basis,” says Fiore.

THE LAST 12 MONTHS

Month **PMI®**

Sep 2020 55.4

Aug 2020 56.0

Jul 2020 54.2

Jun 2020 52.6

May 2020 43.1

Apr 2020 41.5

Month **PMI®**

Mar 2020 49.1

Feb 2020 50.1

Jan 2020 50.9

Dec 2019 47.8

Nov 2019 48.1

Oct 2019 48.5

Average for 12 months - 49.8

High - 56.0

Low - 41.5

New Orders

ISM®’s New Orders Index registered 60.2 percent in September, a decrease of 7.4 percentage points compared to the 67.6 percent reported in August. This indicates that new orders grew for the fourth consecutive month. “Four of the top six industry sectors (Food, Beverage & Tobacco Products; Fabricated Metal Products; Chemical Products; and Transportation Equipment) expanded,” says Fiore. A New Orders Index above 52.5 percent, over time, is generally consistent with an increase in the Census Bureau’s series on manufacturing orders (in constant 2000 dollars).

Of the 18 manufacturing industries, the 12 that reported growth in new orders in September — in the following order — are: Wood Products; Electrical Equipment, Appliances & Components; Plastics & Rubber Products; Furniture & Related Products; Paper Products; Printing & Related Support Activities; Food, Beverage & Tobacco Products; Fabricated Metal Products; Nonmetallic Mineral Products; Machinery; Chemical Products; and Transportation Equipment. The three industries reporting a decline in new orders in September are: Apparel, Leather & Allied Products; Textile Mills; and Miscellaneous Manufacturing.

New Orders % Higher % Same % Lower Net Index

Sep 2020	35.2	45.9	18.9	+16.3	60.2
Aug 2020	39.7	47.4	12.9	+26.8	67.6
Jul 2020	41.1	40.0	18.8	+22.3	61.5
Jun 2020	37.3	38.9	23.9	+13.4	56.4

Production

The Production Index registered 61 percent in September, 2.3 percentage points lower than the August reading of 63.3 percent, indicating growth for the fourth consecutive month. “Five of the top six industries (Chemical Products; Fabricated Metal Products; Transportation Equipment; Food, Beverage & Tobacco Products; and Computer & Electronic Products) expanded strongly,” says Fiore. An index above 51.7 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 September — listed in order — are: Wood Products; Electrical Equipment, Appliances & Components; Furniture & Related Products; Paper Products; Machinery; Chemical Products; Fabricated Metal Products; Nonmetallic Mineral Products; Transportation Equipment; Primary Metals; Food, Beverage & Tobacco Products; Computer & Electronic Products; Plastics & Rubber Products; and Miscellaneous Manufacturing. The three industries reporting decreased production in September are: Apparel, Leather & Allied Products; Textile Mills; and Petroleum & Coal Products.

Production % Higher % Same % Lower Net Index

Sep 2020	34.3	50.9	14.8	+19.5	61.0
Aug 2020	38.3	48.6	13.2	+25.1	63.3
Jul 2020	41.6	39.9	18.5	+23.1	62.1
Jun 2020	39.2	37.7	23.1	+16.1	57.3

Employment

ISM®’s Employment Index registered 49.6 percent in September, 3.2 percentage points higher than the August reading of 46.4 percent. “This is the 14th consecutive month of employment contraction, at a

slower rate compared to August. This marks the fifth consecutive month of improvement since the index's low of 27.5 percent registered in April. Four of the six big industry sectors, (Computer & Electronic Products; Food, Beverage & Tobacco Products; Chemical Products; and Transportation Equipment) experienced expansion. Slowing inventories contraction typically indicates a need for more labor to maintain production output. Long-term labor market growth remains uncertain, but strong new-order levels and an expanding backlog signify potential employment strength for the fourth quarter. Survey panelists' comments indicate that there are significantly more companies hiring or attempting to hire than those that are reducing labor forces," 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 eight industries to report employment growth in September — in the following order — are: Textile Mills; Furniture & Related Products; Miscellaneous Manufacturing; Computer & Electronic Products; Paper Products; Food, Beverage & Tobacco Products; Chemical Products; and Transportation Equipment. The eight industries reporting a decrease in employment in September, in the following order, are: Printing & Related Support Activities; Petroleum & Coal Products; Apparel, Leather & Allied Products; Primary Metals; Nonmetallic Mineral Products; Plastics & Rubber Products; Machinery; and Fabricated Metal Products.

Employment % Higher % Same % Lower Net Index

	Sep 2020	19.4	58.9	21.7	-2.3	49.6
	Aug 2020	17.1	59.3	23.6	-6.5	46.4
	Jul 2020	15.3	59.9	24.7	-9.4	44.3
	Jun 2020	14.6	58.8	26.6	-12.0	42.1

Supplier Deliveries*

The delivery performance of suppliers to manufacturing organizations was slower in September, as the Supplier Deliveries Index registered 59 percent. This is 0.8 percentage point higher than the 58.2 percent reported in August. "Suppliers continue to struggle to deliver, with deliveries slowing at a faster rate compared to August. Transportation challenges and continuing difficulties in supplier labor markets are still constraints to production growth. The Supplier Deliveries Index reflects the difficulties suppliers continue to experience due to COVID-19 impacts. These issues are not expected to diminish soon and, at this time, represent a continuing hurdle to production output and inventories growth," says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

Sixteen of 18 industries reported slower supplier deliveries in September, listed in the following order: Paper Products; Nonmetallic Mineral Products; Textile Mills; Fabricated Metal Products; Printing & Related Support Activities; Food, Beverage & Tobacco Products; Plastics & Rubber Products; Wood Products; Miscellaneous Manufacturing; Machinery; Computer & Electronic Products; Chemical Products; Furniture & Related Products; Primary Metals; Electrical Equipment, Appliances &

Components; and Transportation Equipment. The only industry reporting faster supplier deliveries in September is Petroleum & Coal Products.

Supplier Deliveries % Slower % Same % Faster Net Index

	Supplier Deliveries % Slower	% Same	% Faster	Net	Index
Sep 2020	24.0	70.0	6.1	+17.9	59.0
Aug 2020	23.4	69.6	7.1	+16.3	58.2
Jul 2020	22.2	67.4	10.5	+11.7	55.8
Jun 2020	22.9	68.1	9.0	+13.9	56.9

Inventories

The Inventories Index registered 47.1 percent in September, 2.7 percentage points higher than the 44.4 percent reported for August. Inventories contracted for the third straight month, but at a slower rate. “Inventory levels remained in contraction due to continued strength in production and ongoing supplier difficulties,” says Fiore. An Inventories Index greater than 44.3 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 four industries reporting higher inventories in September are: Apparel, Leather & Allied Products; Food, Beverage & Tobacco Products; Miscellaneous Manufacturing; and Paper Products. The 12 industries reporting a decrease in inventories in September — listed in order — are: Printing & Related Support Activities; Primary Metals; Wood Products; Plastics & Rubber Products; Fabricated Metal Products; Machinery; Furniture & Related Products; Nonmetallic Mineral Products; Electrical Equipment, Appliances & Components; Transportation Equipment; Chemical Products; and Computer & Electronic Products.

Inventories % Higher % Same % Lower Net Index

Sep 2020	16.9	61.6	21.5	-4.6	47.1
Aug 2020	13.3	65.2	21.5	-8.2	44.4
Jul 2020	21.2	51.6	27.2	-6.0	47.0
Jun 2020	22.9	54.1	23.0	-0.1	50.5

Customers' Inventories*

ISM®’s Customers’ Inventories Index registered 37.9 percent in September, 0.2 percentage point lower than the 38.1 percent reported for August, indicating that customers’ inventory levels were considered too low. “Customers’ inventories are too low for the 48th consecutive month and moved further into ‘too low’ territory in September, a positive for future production growth. It’s been more than a decade (a reading of 35.8 percent in June 2010) since the Customers’ Inventories index has been at this level,” says Fiore.

Of the 18 industries, the two reporting higher customers' inventories in September are: Apparel, Leather & Allied Products; and Printing & Related Support Activities. The 15 industries reporting customers' inventories as too low during September — listed in order — are: Wood Products; Primary Metals; Fabricated Metal Products; Paper Products; Furniture & Related Products; Machinery; Plastics & Rubber Products; Textile Mills; Chemical Products; Transportation Equipment; Food, Beverage & Tobacco Products; Electrical Equipment, Appliances & Components; Nonmetallic Mineral Products; Computer & Electronic Products; and Miscellaneous Manufacturing.

Customers' Inventories % Reporting % Too High % About Right % Too Low Net Index

Sep 2020	76	10.2	55.4	34.5	-24.3	37.9
Aug 2020	75	7.5	61.0	31.4	-23.9	38.1
Jul 2020	74	12.6	58.0	29.4	-16.8	41.6
Jun 2020	74	15.4	58.4	26.1	-10.7	44.6

Prices*

The ISM® Prices Index registered 62.8 percent, an increase of 3.3 percentage points compared the August reading of 59.5 percent, indicating raw materials prices increased for the fourth consecutive month. A Prices Index above 52.5 percent, over time, is generally consistent with an increase in the Bureau of Labor Statistics (BLS) Producer Price Index for Intermediate Materials.

The 15 industries reporting paying increased prices for raw materials in September — listed in order — are: Wood Products; Textile Mills; Furniture & Related Products; Plastics & Rubber Products; Fabricated Metal Products; Machinery; Primary Metals; Electrical Equipment, Appliances & Components; Miscellaneous Manufacturing; Printing & Related Support Activities; Computer & Electronic Products; Chemical Products; Transportation Equipment; Paper Products; and Food, Beverage & Tobacco Products. The two industries reporting decreased prices in September are: Petroleum & Coal Products; and Nonmetallic Mineral Products.

Prices % Higher % Same % Lower Net Index

Sep 2020	32.3	60.9	6.8	+25.5	62.8
Aug 2020	27.4	64.3	8.3	+19.1	59.5
Jul 2020	22.7	61.2	16.2	+6.5	53.2
Jun 2020	18.5	65.6	15.9	+2.6	51.3

Backlog of Orders*

ISM®'s Backlog of Orders Index registered 55.2 percent in September, a 0.6-percentage point increase compared to the 54.6 percent reported in August, indicating order backlogs expanded for the third consecutive month after four straight months of contraction. "Backlogs expanded at faster rates in September, indicating that new-order intakes were sufficient to fully offset production outputs. Four of

the six big industry sectors' backlogs expanded (Fabricated Metal Products; Chemical Products; Food, Beverage & Tobacco Products; and Transportation Equipment). The index achieved its highest level of expansion since November 2018 (56.4 percent)," says Fiore.

The 10 industries reporting growth in order backlogs in September, in the following order, are: Electrical Equipment, Appliances & Components; Wood Products; Plastics & Rubber Products; Fabricated Metal Products; Miscellaneous Manufacturing; Chemical Products; Food, Beverage & Tobacco Products; Transportation Equipment; Furniture & Related Products; and Machinery. In September, four industries reported lower backlog: Apparel, Leather & Allied Products; Textile Mills; Computer & Electronic Products; and Primary Metals.

Backlog of Orders % Reporting % Higher % Same % Lower Net Index

Sep 2020	87	26.1	58.3	15.7	+10.4	55.2
Aug 2020	89	29.0	51.3	19.7	+9.3	54.6
Jul 2020	87	20.3	63.0	16.7	+3.6	51.8
Jun 2020	89	19.4	51.9	28.7	-9.3	45.3

New Export Orders*

ISM®'s New Export Orders Index registered 54.3 percent in September, up 1 percentage point compared to the August reading of 53.3 percent. "The New Export Orders Index grew for the third consecutive month at a faster rate and reached its highest level since September 2018 (56 percent). With five of the six big industry sectors expanding, (Food, Beverage & Tobacco Products; Transportation Equipment; Fabricated Metal Products; Computer & Electronic Products; and Chemical Products), new export orders were a positive factor to the growth in new orders," says Fiore.

The 10 industries reporting growth in new export orders in September — in the following order — are: Furniture & Related Products; Nonmetallic Mineral Products; Electrical Equipment, Appliances & Components; Paper Products; Food, Beverage & Tobacco Products; Transportation Equipment; Fabricated Metal Products; Miscellaneous Manufacturing; Computer & Electronic Products; and Chemical Products. The only industry reporting a decrease in new export orders in September is Machinery. Six industries reported no change in new export orders in September compared to August.

New Export Orders % Reporting % Higher % Same % Lower Net Index

Sep 2020	72	19.7	69.2	11.1	+8.6	54.3
Aug 2020	75	18.4	69.6	11.9	+6.5	53.3
Jul 2020	74	14.8	71.4	13.9	+0.9	50.4
Jun 2020	75	13.8	67.7	18.5	-4.7	47.6

Imports*

ISM®'s Imports Index registered 54 percent in September, down 1.6 percentage points compared to the 55.6 percent reported for August. "Imports expanded for the third consecutive month, reflecting continued increases in U.S. factory demand," says Fiore.

The 10 industries reporting growth in imports in September — in the following order — are: Wood Products; Electrical Equipment, Appliances & Components; Paper Products; Transportation Equipment; Nonmetallic Mineral Products; Furniture & Related Products; Machinery; Computer & Electronic Products; Food, Beverage & Tobacco Products; and Chemical Products. The four industries reporting decreases in imports in September are: Apparel, Leather & Allied Products; Primary Metals; Miscellaneous Manufacturing; and Fabricated Metal Products.

Imports % Reporting % Higher % Same % Lower Net Index

Sep 2020	86	17.1	73.9	9.0	+8.1	54.0
Aug 2020	87	18.2	74.9	6.9	+11.3	55.6
Jul 2020	85	17.4	71.4	11.2	+6.2	53.1
Jun 2020	83	15.3	67.1	17.6	-2.3	48.8

***The Supplier Deliveries, 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 decreased September by one day to 135 days. Average lead time for Production Materials decreased in September by two days to 64 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased in September by five days to 35 days.

Percent Reporting

Capital Expenditures Hand-to-Mouth 30 Days 60 Days 90 Days 6 Months 1 Year + Average Days

Sep 2020	25	6	9	15	27	18	135
Aug 2020	25	6	9	16	25	19	136
Jul 2020	24	7	8	18	24	19	136
Jun 2020	25	7	9	17	24	18	132

Percent Reporting

Production Materials Hand-to-Mouth 30 Days 60 Days 90 Days 6 Months 1 Year + Average Days

Sep 2020	10	36	27	18	7	2	64
Aug 2020	10	33	26	22	7	2	66
Jul 2020	10	35	25	20	8	2	66
Jun 2020	11	37	25	18	7	2	63

Percent Reporting

MRO Supplies Hand-to-Mouth 30 Days 60 Days 90 Days 6 Months 1 Year + Average Days

Sep 2020	35	39	15	8	3	0	35
Aug 2020	36	35	15	9	4	1	40
Jul 2020	38	35	16	8	3	0	35
Jun 2020	38	37	15	7	2	1	36

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 September 2020.

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. According to the BEA estimates for 2018 GDP (released October 29, 2019), the six largest manufacturing sub-sectors are: Computer & Electronic Products; Chemical Products; Transportation Equipment Manufacturing; Food, Beverage & Tobacco Products; Petroleum & Coal Products; and Fabricated Metal Products. Beginning in February 2018 with January 2018 data, 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 Inventories) 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 42.8 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 42.8 percent, it is generally declining. The distance from 50 percent or 42.8 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 report on information for the current month for U.S. operations only. 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 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

The Institute for Supply Management® ("ISM") *Report On Business*® (both Manufacturing and Non-Manufacturing) ("ISM ROB") contains information, text, files, images, video, sounds, musical works, works of authorship, applications, and any other materials or content (collectively, "Content") of ISM ("ISM ROB Content"). ISM ROB Content is protected by copyright, trademark, trade secret, and other laws, and as between you and ISM, ISM owns and retains all rights in the ISM ROB Content. ISM hereby grants you a limited, revocable, nonsublicensable license to access and display on your individual device the ISM ROB Content (excluding any software code) solely for your personal, non-commercial use. The ISM ROB Content shall also contain Content of users and other ISM licensors. Except as provided herein or as explicitly allowed in writing by ISM, you shall not copy, download, stream, capture, reproduce, duplicate, archive, upload, modify, translate, publish, broadcast, transmit, retransmit, distribute, perform, display, sell, or otherwise use any ISM ROB Content.

Except as explicitly and expressly permitted by ISM, you are strictly prohibited from creating works or materials (including but not limited to tables, charts, data streams, time series variables, fonts, icons, link buttons, wallpaper, desktop themes, online postcards, montages, mashups and similar videos, greeting cards, and unlicensed merchandise) that derive from or are based on the ISM ROB Content. This prohibition applies regardless of whether the derivative works or materials are sold, bartered, or given away. You shall not either directly or through the use of any device, software, internet site, web-based service, or other means remove, alter, bypass, avoid, interfere with, or circumvent any copyright, trademark, or other proprietary notices marked on the Content or any digital rights management mechanism, device, or other content protection or access control measure associated with the Content including geo-filtering mechanisms. Without prior written authorization from ISM, you shall not build a business utilizing the Content, whether or not for profit.

You shall not create, recreate, distribute, incorporate in other work, or advertise an index of any portion of the Content unless you receive prior written authorization from ISM. Requests for permission to reproduce or distribute ISM ROB Content can be made by contacting in writing at: ISM Research, Institute for Supply Management, 309 West Elliot Road, Suite 113, Tempe, Arizona 85284-1556, or by emailing kcahill@ismworld.org. Subject: Content Request.

ISM shall not have any liability, duty, or obligation for or relating to the ISM ROB Content or other information contained herein, any errors, inaccuracies, omissions or delays in providing any ISM ROB Content, or for any actions taken in reliance thereon. In no event shall ISM be liable for any special, incidental, or consequential damages, arising out of the use of the ISM ROB. *Report On Business*®, PMI®, and NMI® are registered trademarks of Institute for Supply Management®. Institute for Supply Management® and ISM® are registered trademarks of Institute for Supply Management, Inc.

About Institute for Supply Management®

Institute for Supply Management® (ISM®) serves supply management professionals in more than 90 countries. Its 50,000 members around the world manage about US\$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 ISM Mastery Model®. 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® Report On Business**® is posted on ISM®'s website at www.ismrob.org on the first business day* of every month after 10:00 a.m. ET.

The next **Manufacturing ISM® Report On Business**® featuring **October 2020** data will be released at 10:00 a.m. ET on **Monday, November 2, 2020**.

*Unless the New York Stock Exchange is closed.