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Contact: Kristina Cahill
Report On Business[®] Analyst
ISM[®], ROB/Research Manager
Tempe, Arizona
[480-752-6276](tel:480-752-6276), Ext. 3015
E-mail: kcahill@instituteforsupplymanagement.org

May 2020 Manufacturing ISM[®] *Report On Business*[®]

PMI[®] at 43.1%

Production, New Orders, and Employment Contracting

Supplier Deliveries Slowing at Slower Rate; Backlog Contracting

Raw Materials Inventories Growing; Customers' Inventories Too Low

Prices Decreasing; Exports and Imports Contracting

(Tempe, Arizona) — Economic activity in the **manufacturing sector contracted in May**, and the **overall economy returned to expansion after one month of contraction**, 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 May PMI[®] registered 43.1 percent, up 1.6 percentage points from the April reading of 41.5 percent. This figure indicates expansion in the overall economy after April's contraction, which ended a period of 131 consecutive months of growth. The New Orders Index registered 31.8 percent, an increase of 4.7 percentage points from the April reading of 27.1 percent. The Production Index registered 33.2 percent, up 5.7 percentage points compared to the April reading of 27.5 percent. The Backlog of Orders Index registered 38.2 percent, an increase of 0.4 percentage point compared to the April reading of 37.8 percent. The Employment Index registered 32.1 percent, an increase of 4.6 percentage points from the April reading of 27.5 percent. The Supplier Deliveries Index registered 68 percent; though down 8 percentage points from the April figure of 76 percent, this high reading elevated the composite PMI[®].

"The Inventories Index registered 50.4 percent, 0.7 percentage point higher than the April reading of 49.7 percent. The Prices Index registered 40.8 percent, up 5.5 percentage points compared to the April reading of 35.3 percent. The New Export Orders Index registered 39.5 percent, an increase of 4.2

percentage points compared to the April reading of 35.3 percent. The Imports Index registered 41.3 percent, a 1.4-percentage point decrease from the April reading of 42.7 percent.

“Three months into the manufacturing disruption caused by the coronavirus (COVID-19) pandemic, comments from the panel were cautious (two cautious comments for every one optimistic comment) regarding the near-term outlook. As was the case in April, the PMI® indicates a level of manufacturing-sector contraction not seen since April 2009; however, the trajectory improved. **Demand** contracted heavily again, with the (1) New Orders contracting at a strong level, again pushed by New Export Orders contraction; both indexes contracted at slower rates, (2) Customers’ Inventories Index returning to a level considered a positive for future production, and (3) Backlog of Orders Index remaining in strong contraction territory, in spite of weak production during the period. **Consumption** (measured by the Production and Employment indexes) contributed positively (a combined 10.3-percentage point increase) to the PMI® calculation, with many panelists classified as non-essential beginning to return to work in late May. **Inputs** — expressed as supplier deliveries, inventories and imports — strengthened again due to supplier delivery issues that were partially offset by continuing imports sluggishness. The delivery issues were the result of disruptions in domestic and global supply chains, driven primarily by supplier plant shutdowns. Inventory expanded due to issues with throughput and demand weakness. Inputs contributed negatively (a combined 7.3-percentage point decrease) to the PMI® calculation. (The Supplier Deliveries and Inventories indexes directly factor into the PMI®; the Imports Index does not.) Prices continued to contract (but at a slower rate in May), supporting a negative outlook.

“The coronavirus pandemic impacted all manufacturing sectors for the third straight month. May appears to be a transition month, as many panelists and their suppliers returned to work late in the month. However, demand remains uncertain, likely impacting inventories, customer inventories, employment, imports and backlog of orders. Among the six biggest industry sectors, Food, Beverage & Tobacco Products remains the only industry in expansion. Transportation Equipment; Petroleum & Coal Products; and Fabricated Metal Products continue to contract at strong levels,” says Fiore.

Of the 18 manufacturing industries, the six that reported growth in May — in the following order — are: Nonmetallic Mineral Products; Furniture & Related Products; Apparel, Leather & Allied Products; Food, Beverage & Tobacco Products; Paper Products; and Wood Products. The 11 industries reporting contraction in May, in order, are: Printing & Related Support Activities; Primary Metals; Transportation Equipment; Petroleum & Coal Products; Fabricated Metal Products; Machinery; Miscellaneous Manufacturing; Electrical Equipment, Appliances & Components; Chemical Products; Computer & Electronic Products; and Plastics & Rubber Products.

WHAT RESPONDENTS ARE SAYING

- “Despite the COVID-19 issues, we are seeing an increase of quoting activity. This has not turned into orders yet, but it is a positive sign.” (Computer & Electronic Products)
- “Current conditions in the automotive, construction, oil and gas, agriculture equipment, and tube/pipe markets are all adversely impacting our business results.” (Chemical Products)
- “We see an issue with suppliers that are affecting production. At the same time, social distancing measures in [the] manufacturing plant and customer demand are impacting the rate of production.” (Transportation Equipment)

- "Increased COVID-19 sales in the food business has really stressed our production capabilities." (Food, Beverage & Tobacco Products)
- "Fuel sales demand are beginning to rebound in May as stay-at-home orders are lifted across the country." (Petroleum & Coal Products)
- "Returning to full production for automotive, ramp-up will still depend on speed of automotive start-ups. We have built up inventory to stock. Ready to ship." (Fabricated Metal Products)
- "Business activity remains strong for consumable applications and very weak in durable segments." (Plastics & Rubber Products)
- "We have been fortunate that most of our customer base is considered to be a part of the critical workforce, so we have been running at around 80 percent of our normal production volume." (Primary Metals)
- "Getting out from under several suppliers being closed worldwide. Also, looking at what really needs to be in China." (Machinery)
- "We see a lot of positive signs, despite what's going on. People seem to continue to be building and looking to projects for fall of 2020 and beyond. There is good optimism out there." (Nonmetallic Mineral Products)

Manufacturing at a Glance

May 2020

Index	Series Index May	Series Index Apr	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
PMI®	43.1	41.5	+1.6	Contracting	Slower	3
New Orders	31.8	27.1	+4.7	Contracting	Slower	4
Production	33.2	27.5	+5.7	Contracting	Slower	3
Employment	32.1	27.5	+4.6	Contracting	Slower	10
Supplier Deliveries	68.0	76.0	-8.0	Slowing	Slower	7
Inventories	50.4	49.7	+0.7	Growing	From Contracting	1
Customers' Inventories	46.2	48.8	-2.6	Too Low	Faster	44
Prices	40.8	35.3	+5.5	Decreasing	Slower	4
Backlog of Orders	38.2	37.8	+0.4	Contracting	Slower	3

Index	Series Index May	Series Index Apr	Percentage Point Change	Direction	Rate of Change	Trend* (Months)
New Export Orders	39.5	35.3	+4.2	Contracting	Slower	3
Imports	41.3	42.7	-1.4	Contracting	Faster	4
OVERALL ECONOMY				Growing	From Contracting	1
Manufacturing Sector				Contracting	Slower	3

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

Alcohols; Crude Oil; Freight (2); Personal Protective Equipment (PPE) (2); PPE — Gloves (3); and PPE—Masks (2).

Commodities Down in Price

Acrylate Monomers; Aluminum (4); Base Oils; Copper (4); Corn (2); Diesel Fuel (3); Methanol; Nylon; Oil Based Products; Packaging Materials; Plastic Products; Polypropylene; Solvents; Steel; Steel — Carbon; Steel — Cold Rolled; Steel — Hot Rolled (4); Steel — Stainless (2); and Steel Products (2).

Commodities in Short Supply

Alcohols; Disinfectants & Soaps (2); Disinfectant Wipes; Hand Sanitizer (3); N95 Masks (2); PPE; PPE — Gloves (3); and PPE — Masks (3).

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

MAY 2020 Manufacturing Index Summaries

PMI®

Manufacturing contracted in May, as the PMI® registered 43.1 percent, 1.6 percentage points higher than the April reading of 41.5 percent. “The PMI® contracted strongly in April and May after dropping

below 50 percent in March. The PMI[®] recorded its second-lowest level since April 2009, when it registered 39.9 percent. Among the big six industries, only Food, Beverage & Tobacco Products expanded. Four of the five PMI[®] subindexes continue to be negatively impacted by the COVID-19 pandemic. New Orders, Production and Employment remain in strong contraction territory, and the high Supplier Deliveries reading is primarily a product of coronavirus-related supply problems,” 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 May PMI[®] indicates the overall economy grew very slightly following contraction in April, which ended a 131-month period of growth. The manufacturing sector contracted for the third consecutive month. “The past relationship between the PMI[®] and the overall economy indicates that the PMI[®] for May (43.1 percent) corresponds to a 0.1-percent increase in real gross domestic product (GDP) on an annualized basis,” says Fiore.

The Last 12 Months

Month	PMI[®]
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May 2020	43.1
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Apr 2020	41.5
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Mar 2020	49.1
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Feb 2020	50.1
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Jan 2020	50.9
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Dec 2019	47.8
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Month	PMI
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Nov 2019	48.1
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Oct 2019	48.5
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Sep 2019	48.2
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Aug 2019	48.8
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Jul 2019	51.3
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Jun 2019	51.6
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Average for 12 months - 48.3

High - 51.6

Low - 41.5

New Orders

ISM®'s New Orders Index registered 31.8 percent in May, an increase of 4.7 percentage points compared to the 27.1 percent reported in April. This indicates that new orders contracted for the fourth consecutive month. This is the index's second-lowest reading since December 2008, when it registered 25.9 percent. "Of the top six industry sectors, Food, Beverage & Tobacco Products continued to expand strongly, although not at the same rate as in April. Transportation Equipment; Fabricated Metal Products; Petroleum & Coal Products; Computer & Electronic Products; and Chemical Products all contracted strongly. Weakness in demand continued in May," 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 four that reported growth in new orders in May are: Textile Mills; Nonmetallic Mineral Products; Food, Beverage & Tobacco Products; and Paper Products. The 12 industries reporting a decline in new orders in May — in the following order — are: Printing & Related Support Activities; Transportation Equipment; Primary Metals; Fabricated Metal Products; Miscellaneous Manufacturing; Petroleum & Coal Products; Computer & Electronic Products; Plastics & Rubber Products; Machinery; Chemical Products; Wood Products; and Electrical Equipment, Appliances & Components.

New Orders % Higher % Same % Lower Net Index

May 2020	21.2	26.0	52.9	-31.7	31.8
Apr 2020	17.7	22.7	59.7	-42.0	27.1
Mar 2020	23.5	44.4	32.1	-8.6	42.2
Feb 2020	28.8	49.1	22.0	+6.8	49.8

Production

The Production Index registered 33.2 percent in May, indicating that production contracted for the third straight month. This is the second-lowest figure since January 2009, when the index registered 32.3 percent. "For the second straight month, Food, Beverage & Tobacco Products was the only top-six industry sector that expanded, with the others contracting strongly due to a lack of new orders and labor available to convert material," 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 four industries reporting growth in production during the month of May are: Furniture & Related Products; Wood Products; Food, Beverage & Tobacco Products; and Paper Products. The 11 industries reporting a decrease in production in May — listed in order — are: Printing & Related Support Activities; Miscellaneous Manufacturing; Primary Metals; Petroleum & Coal Products; Machinery; Transportation Equipment; Fabricated Metal Products; Chemical Products; Plastics & Rubber Products; Computer & Electronic Products; and Electrical Equipment, Appliances & Components.

Production % Higher % Same % Lower Net Index

May 2020	20.7	27.8	51.5	-30.8	33.2
Apr 2020	18.6	21.2	60.2	-41.6	27.5
Mar 2020	21.5	53.7	24.8	-3.3	47.7
Feb 2020	26.4	53.5	20.1	+6.3	50.3

Employment

ISM[®]'s Employment Index registered 32.1 percent in May, 4.6 percentage points higher than the April reading of 27.5 percent. This is the index's second-lowest reading since March 2009, when it registered 30.5 percent. "This is the 10th consecutive month of employment contraction, but at a slower rate compared to April. All six big industry sectors experienced strong employment contraction as a result of furloughs and layoffs due to a lack of new orders and stay-at-home directives. Employees returning to work in late May will positively impact the index in June," 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 two industries to report employment growth in May are: Apparel, Leather & Allied Products; and Paper Products. The 16 industries reporting a decrease in employment in May, in the following order, are: Printing & Related Support Activities; Textile Mills; Furniture & Related Products; Transportation Equipment; Primary Metals; Petroleum & Coal Products; Machinery; Electrical Equipment, Appliances & Components; Computer & Electronic Products; Fabricated Metal Products; Wood Products; Food, Beverage & Tobacco Products; Chemical Products; Miscellaneous Manufacturing; Nonmetallic Mineral Products; and Plastics & Rubber Products.

Employment % Higher % Same % Lower Net Index

May 2020	7.6	51.2	41.1	-33.5	32.1
Apr 2020	2.8	50.7	46.6	-43.8	27.5
Mar 2020	8.6	70.1	21.3	-12.7	43.8
Feb 2020	11.7	69.1	19.2	-7.5	46.9

Supplier Deliveries*

The delivery performance of suppliers to manufacturing organizations was slower in May, as the Supplier Deliveries Index registered 68 percent. This is 8 percentage points lower than the 76 percent reported in April. The reading is the index's second-highest since June 2018 (68.2 percent), and the percentage-point decrease is the largest since an 8.2-point drop in October 1981. "Suppliers continue to

struggle to deliver, although at a weaker rate compared to April. Though some dynamics improved as the month closed, suppliers continue to be impacted by plant shutdowns, transportation challenges and the continuing difficulty in importing parts and components. The slowing in the index can also be attributed to demand weakness by panelists' companies; this makes it easier for suppliers to meet those companies' production schedules," says Fiore. A reading below 50 percent indicates faster deliveries, while a reading above 50 percent indicates slower deliveries.

All 18 industries reported slower supplier deliveries in May, in the following order: Miscellaneous Manufacturing; Apparel, Leather & Allied Products; Printing & Related Support Activities; Machinery; Computer & Electronic Products; Food, Beverage & Tobacco Products; Chemical Products; Transportation Equipment; Nonmetallic Mineral Products; Furniture & Related Products; Plastics & Rubber Products; Primary Metals; Textile Mills; Wood Products; Fabricated Metal Products; Petroleum & Coal Products; Electrical Equipment, Appliances & Components; and Paper Products.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Index
May 2020	41.0	54.2	4.9	+36.1	68.0
Apr 2020	55.8	40.3	3.9	+51.9	76.0
Mar 2020	35.7	58.6	5.7	+30.0	65.0
Feb 2020	20.3	74.0	5.7	+14.6	57.3

Inventories

The Inventories Index registered 50.4 percent in May, 0.7 percentage point higher than the 49.7 percent reported for April. Inventories expanded for the first time since May 2019, when the index registered 51.4 percent. "The index grew after 11 straight months of contraction. Given suppliers' difficulty in delivering during May and the weakness in new orders and production, inventories growth is likely attributed to the companies' desire to have inventory on hand to respond to shorter lead time customer demand," 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 seven industries reporting higher inventories in May, in order, are: Nonmetallic Mineral Products; Plastics & Rubber Products; Furniture & Related Products; Primary Metals; Transportation Equipment; Computer & Electronic Products; and Electrical Equipment, Appliances & Components. The seven industries reporting a decrease in inventories in May — listed in order — are: Apparel, Leather & Allied Products; Printing & Related Support Activities; Machinery; Paper Products; Food, Beverage & Tobacco Products; Chemical Products; and Fabricated Metal Products.

Inventories	% Higher	% Same	% Lower	Net	Index
May 2020	29.0	42.0	29.0	0.0	50.4

Inventories % Higher % Same % Lower Net Index

Apr 2020	31.7	37.2	31.2	+0.5	49.7
Mar 2020	20.5	55.0	24.5	-4.0	46.9
Feb 2020	14.9	66.6	18.5	-3.6	46.5

Customers' Inventories*

ISM®'s Customers' Inventories Index registered 46.2 percent in May, 2.6 percentage points lower than the 48.8 percent reported for April, indicating that customers' inventory levels were considered too low. "Customers' inventories are too low for the 44th consecutive month and took a step away from 'about right' territory in May, a potential positive for future production," says Fiore.

Of the 18 industries, the five industries reporting higher customers' inventories in May are: Wood Products; Transportation Equipment; Nonmetallic Mineral Products; Miscellaneous Manufacturing; and Furniture & Related Products. The 10 industries reporting customers' inventories as too low during May — listed in order — are: Apparel, Leather & Allied Products; Textile Mills; Printing & Related Support Activities; Paper Products; Fabricated Metal Products; Chemical Products; Machinery; Electrical Equipment, Appliances & Components; Food, Beverage & Tobacco Products; and Computer & Electronic Products.

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

May 2020	75	21.8	48.7	29.5	-7.7	46.2
Apr 2020	73	21.7	54.2	24.1	-2.4	48.8
Mar 2020	75	11.4	64.0	24.6	-13.2	43.4
Feb 2020	76	6.6	70.4	23.0	-16.4	41.8

Prices*

The ISM® Prices Index registered 40.8 percent, 5.5 percentage points higher than the April reading of 35.3 percent, indicating raw materials prices decreased for the fourth consecutive month, and at a slower rate in May. "Prices contracted in May, driven primarily by chemicals, plastics, steels, aluminum, copper, and distillates. Notwithstanding April and March, prices contracted to their lowest level since February 2016, when the index registered 38.3 percent," says Fiore. 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 three industries reporting paying increased prices for raw materials in May are: Textile Mills; Miscellaneous Manufacturing; and Computer & Electronic Products. The 14 industries reporting a

decrease in prices for raw materials in May — listed in order — are: Plastics & Rubber Products; Wood Products; Printing & Related Support Activities; Nonmetallic Mineral Products; Apparel, Leather & Allied Products; Primary Metals; Transportation Equipment; Electrical Equipment, Appliances & Components; Fabricated Metal Products; Machinery; Paper Products; Furniture & Related Products; Chemical Products; and Food, Beverage & Tobacco Products.

Prices	% Higher	% Same	% Lower	Net	Index
May 2020	13.9	53.8	32.3	-18.4	40.8
Apr 2020	10.0	50.6	39.4	-29.4	35.3
Mar 2020	11.6	51.7	36.7	-25.1	37.4
Feb 2020	16.6	58.6	24.8	-8.2	45.9

Backlog of Orders*

ISM[®]'s Backlog of Orders Index registered 38.2 percent in May, a 0.4-percentage point increase compared to the 37.8 percent reported in April, indicating order backlogs contracted for the third consecutive month. Notwithstanding April's figure, this is the index's lowest reading since March 2009 (37.6 percent). "Despite weak production output, backlogs heavily contracted for the third straight month because of weak levels of new orders and new export orders. There are also indications that order books are being trimmed to coincide with forecasted weaker demand, resulting in cancelations of outstanding orders. None of the six big industry sectors' backlogs expanded during the period," says Fiore.

The two industries reporting growth in order backlogs in May are: Textile Mills; and Paper Products. In May, 14 industries reported lower backlogs, in the following order: Transportation Equipment; Printing & Related Support Activities; Primary Metals; Fabricated Metal Products; Wood Products; Petroleum & Coal Products; Miscellaneous Manufacturing; Furniture & Related Products; Food, Beverage & Tobacco Products; Machinery; Electrical Equipment, Appliances & Components; Plastics & Rubber Products; Chemical Products; and Computer & Electronic Products.

Backlog of Orders	% Reporting	% Higher	% Same	% Lower	Net	Index
May 2020	91	18.2	40.1	41.8	-23.6	38.2
Apr 2020	91	20.9	33.7	45.4	-24.5	37.8
Mar 2020	90	18.1	55.5	26.3	-8.2	45.9
Feb 2020	88	21.8	57.0	21.3	+0.5	50.3

New Export Orders*

ISM[®]'s New Export Orders Index registered 39.5 percent in May, up 4.2 percentage points compared to the April reading of 35.3 percent. This is the index's second-lowest reading since March 2009 (39.4 percent). "The New Export Orders Index again contracted heavily, but at a slower rate compared to April. One of the six big industry sectors, Food, Beverage, Alcohol & Tobacco Products, expanded softly," says Fiore.

The two industries reporting growth in new export orders in May are: Paper Products; and Food, Beverage & Tobacco Products. The 12 industries reporting a decrease in new export orders in May, in the following order, are: Nonmetallic Mineral Products; Transportation Equipment; Printing & Related Support Activities; Miscellaneous Manufacturing; Fabricated Metal Products; Primary Metals; Furniture & Related Products; Plastics & Rubber Products; Electrical Equipment, Appliances & Components; Machinery; Computer & Electronic Products; and Chemical Products.

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

May 2020	77	14.3	50.6	35.2	-20.9	39.5
Apr 2020	79	12.0	46.5	41.5	-29.5	35.3
Mar 2020	76	12.5	68.1	19.4	-6.9	46.6
Feb 2020	78	14.8	72.9	12.3	+2.5	51.2

Imports*

ISM[®]'s Imports Index registered 41.3 percent in May, down 1.4 percentage points compared to the 42.7 percent reported for April. "For the fourth consecutive month, imports were in contraction territory. This is the index's lowest reading since May 2009, when it registered 38.5 percent. Imports contraction continues due to a lack of demand in the U.S. manufacturing economy, as well as suppliers continuing to experience difficulty in refilling the inventory pipeline as a result of the Lunar New Year and COVID-19 impacts," says Fiore.

The three industries reporting growth in imports in May are: Apparel, Leather & Allied Products; Paper Products; and Food, Beverage & Tobacco Products. The 12 industries reporting a decrease in imports in May — in the following order — are: Printing & Related Support Activities; Transportation Equipment; Primary Metals; Furniture & Related Products; Machinery; Miscellaneous Manufacturing; Chemical Products; Nonmetallic Mineral Products; Fabricated Metal Products; Computer & Electronic Products; Plastics & Rubber Products; and Electrical Equipment, Appliances & Components.

Imports % Reporting % Higher % Same % Lower Net Index

May 2020	84	13.6	55.4	31.0	-17.4	41.3
Apr 2020	86	20.4	44.6	35.1	-14.7	42.7
Mar 2020	83	16.5	51.4	32.2	-15.7	42.1

Imports % Reporting % Higher % Same % Lower Net Index

Feb 2020	85	12.2	60.8	27.0	-14.8	42.6
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***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 increased by four days in May to 137 days. Average lead time for Production Materials increased by one day to 65 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by four days to 36 days.

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

May 2020	24	7	10	16	23	20	137
Apr 2020	26	6	11	17	20	20	133
Mar 2020	22	6	9	21	24	18	135
Feb 2020	22	5	7	19	28	19	143

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

May 2020	12	34	28	15	9	2	65
Apr 2020	14	33	23	20	8	2	64
Mar 2020	12	28	31	20	7	2	65
Feb 2020	10	34	28	19	7	2	64

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

May 2020	39	31	17	10	3	0	36
Apr 2020	39	32	14	10	4	1	40
Mar 2020	40	32	16	8	3	1	37
Feb 2020	40	38	14	6	2	0	31

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 May 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 March 2018 with February 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 in order to give the most accurate picture of current business activity. ISM® then compiles the report for release on the first business day of the following month.

The industries reporting growth, as indicated in the **Manufacturing ISM® Report On Business®** monthly report, are listed in the order of most growth to least growth. For the industries reporting contraction or decreases, those are listed in the order of the highest level of contraction/decrease to the least level of contraction/decrease.

Responses to Buying Policy reflect the percent reporting the current month's lead time, the approximate weighted number of days ahead for which commitments are made for Capital Expenditures; Production Materials; and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (five days), 30 days, 60 days, 90 days, six months (180 days), a year or more (360 days), and the weighted average number of days. These responses are raw data, never revised, and not seasonally adjusted since there is no significant seasonal pattern.

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