

# ISM-Houston Business Report

## September 2019



ISM—Houston, Inc.

Analysis and report by **Ross Harvison, CPSM**  
Chair of the ISM-Houston Business Survey Committee

(Houston, Texas) – According to Houston supply chain executives, manufacturing activity in Houston expanded in September for the 25th consecutive month and overall economic activity expanded for the 38th month. The near-term forecast continues to point to overall economic growth. The overall rate of growth is anticipated to moderate to close to neutral at the 3-month forecast horizon.

The September Houston Purchasing Managers Index registered **53.5**, up 1.9 points from its August reading of 51.6. The three underlying indicators that have the strongest direct correlation with economic activity (sales/new orders, employment, and lead times) continue to point to near term expansion. The sales/new orders index rose 4.3 points to 55.6. The employment index rose 3.7 points to 54.4. The lead times index fell 2.8 points to remain above neutral at 51.1. The underlying indicator that has the largest inverse correlation, finished goods inventory, rose 3.0 points to return above neutral at 51.8.

The three-month forecast for the Houston PMI was relatively unchanged at 50.8, up 0.1 points from its August reading. Strengthening of the sales/new orders index was offset by weaker lead times and prices paid indices. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis, both Service Producing and Goods Producing industries improved in overall performance. Professional services, health care, transportation and utilities, and EPC firms reported expansion. All other sectors reported near neutral. From a three month forecast standpoint, construction, transportation and utilities, and health care are expected to continue expansion.

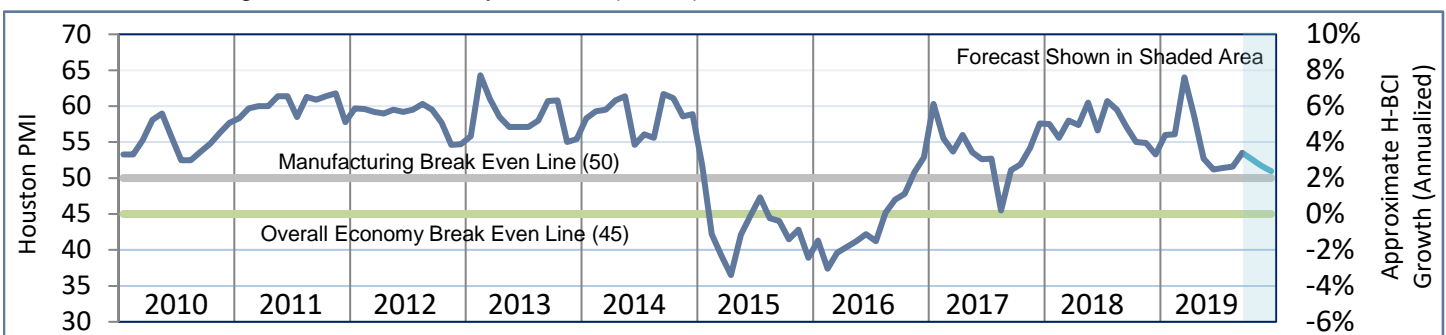
### Indices at a Glance

Index	Sep	Aug	Change	Track	Rate	Trend*
Houston PMI - Current	53.5	51.6	1.9	Expanding	Faster	25
Houston PMI - 3 Month Forecast	50.8	50.7	0.1	Expanding	Faster	2
Sales/New Orders	55.6	51.3	4.3	Rising	Faster	2
Production	50.8	51.1	-0.3	Rising	Slower	25
Employment	54.4	50.7	3.7	Rising	Faster	25
Purchases	52.1	50.7	1.4	Rising	Faster	7
Prices Paid	45.9	47.3	-1.4	Falling	Faster	5
Lead Times	51.1	53.9	-2.8	Rising	Slower	34
Purchased Inventory	50.0	48.0	2.0	Neutral	Fr. Falling	1
Finished Goods Inventory	51.8	48.8	3.0	Rising	Fr. Falling	1
Overall Houston Economy				Expanding	Faster	38

\* Number of months on current track

### Houston PMI Trend

With the Houston PMI registering 53.5 in September, manufacturing activity in Houston has expanded for over two years and overall economic activity has grown for more than three years. Readings over 50 generally indicate manufacturing expansion; readings below 50 show contraction. An HPMI above 45 generally correlates with expansion of the Houston-The Woodlands-Sugar Land Business Cycle Index (H-BCI).



### Commodities Reported to have Notable Price Changes or to be in Short Supply

**Up in Price:** Alloy pipe, heat exchangers, fabricated structural steel; electrical equipment; natural gas liquids, propane, normal butane, isobutane, ethylene, ethanol; palladium, rhodium

**Down in Price:** Carbon steel; ocean freight

**In Short Supply:** Flu vaccines, some clinical supplies; skilled craft and trade labor, CDL drivers; skilled artificial intelligence and robotic process automation programmers

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### Sector Summaries

#### Oil and Gas Exploration, and Key Support Services:

- Texas rig counts continue to fall at a slow pace
- *This sector stayed neutral overall; the sales index rose to just above neutral; the production, employment, and prices indices are tracking as falling at a moderate pace; lead times continue to increase*

#### Engineering and Construction:

- New capital projects are getting final funding approval, many after months and years of delays
- *Respondents in this sector reported continued strength with the employment, purchases, and lead times indices reported as rising; prices paid registered as falling*

#### Manufacturing - Durable Goods:

- *This sector reported moderately below neutral again this month; production is slowing and finished goods inventories are rising; all other indicators reported near neutral*

#### Manufacturing - Non-Durable Goods:

- Markets were flat except for a few days around the Saudi oil facility bombings
- Cracker feedstock pricing rose marginally; polymer prices remained relatively stable
- *This sector weakened to neutral; production rose modestly; all other indicators came in flat month over month*

#### Transportation and Utilities (including mid-stream operations):

- *This sector continues to report expansion; the employment index joined the sales/new orders and purchases indices reporting expansion; the prices paid index registered as falling again this month*

#### Professional Services:

- Saw slight increase in project spending and hiring (both employee and non-employee labor) as Energy Industry companies take action to spend available 2019 budget funds before year end
- *This sector reported further improvement this month with the sales/new orders and employment indices indicating strong growth; all other indices reported near neutral*

#### Health Care:

- Working on changes in Supply Chain structure
  - Purchases for clinical supplies tend to increase around this time of the year; hospital census trends upward causing greater consumption
  - *This sector continues to report strength with the sales, employment, and purchases indices all reporting above neutral; lead times joined all other indicators near neutral*
- 

### Trend of Underlying Indicators

The Houston PMI is based on diffusion indices for eight underlying indicators. The net value of each indicator is simply the percentage of respondents who cite a positive shift from the previous month minus the percentage who cite a negative shift. The diffusion index is calculated based on the percent of respondents reporting higher results plus one-half of those responding the same with a seasonal adjustment based on an X13 ARIMA forecast. Values above 50 for Sales/New Orders, Production, Employment, Prices Paid, and Lead Times generally point towards expansion and values below 50 signal contraction. Note that the Prices Paid Index may not follow this trend late in an economic expansion. The Inventory measures have an inverse correlation at most forecast horizons, meaning that values below 50 point to expansion and values above point to contraction. The Purchases index is inversely correlated with economic activity at the three-month forecast horizon.

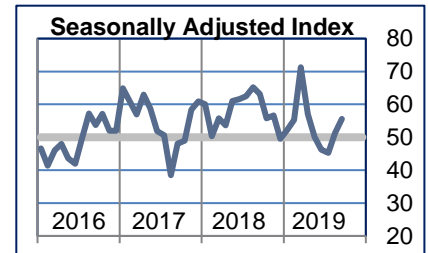
# ISM-Houston Business Report

## September 2019

### Sales/New Orders Index

The sales/new orders index rose more than 4 points. Most of this gain resulted from improvements in Services Producing industries. Construction improved modestly. All other Goods Producing sectors were flat month to month.

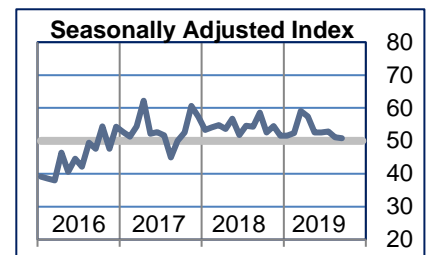
	Higher	Same	Lower	Net	Index
Apr/19	22%	75%	3%	19%	57.1
May/19	9%	85%	6%	3%	50.2
Jun/19	13%	68%	19%	-6%	46.2
Jul/19	14%	67%	19%	-5%	45.2
Aug/19	7%	90%	3%	4%	51.3
Sep/19	14%	84%	2%	12%	55.6



### Production Index

The production index was flat month to month. Goods Producing industries improved modestly. Non-durable goods manufacturing output rose while O&G and durable goods production slowed.

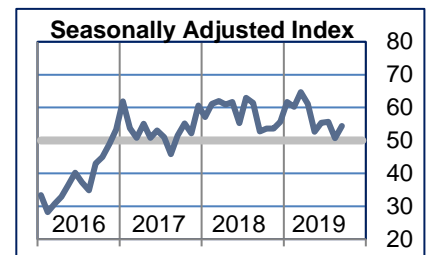
	Higher	Same	Lower	Net	Index
Apr/19	19%	78%	3%	16%	57.4
May/19	9%	89%	2%	7%	52.6
Jun/19	6%	93%	1%	5%	52.6
Jul/19	7%	91%	2%	5%	52.9
Aug/19	4%	95%	1%	3%	51.1
Sep/19	6%	90%	4%	2%	50.8



### Employment Index

The employment index recovered after falling to its lowest level in 2 years during the previous month. Most of this gain came from Services Producing industries. Goods Producing industries improved to near neutral.

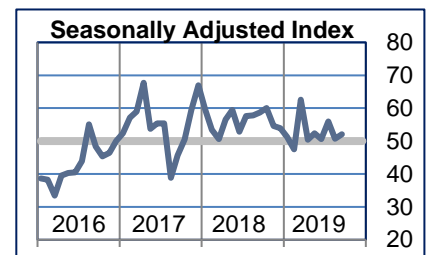
	Higher	Same	Lower	Net	Index
Apr/19	32%	61%	7%	25%	61.1
May/19	14%	80%	6%	8%	52.6
Jun/19	22%	72%	6%	16%	55.4
Jul/19	18%	74%	8%	10%	55.6
Aug/19	7%	86%	7%	0%	50.7
Sep/19	13%	84%	3%	10%	54.4



### Purchases Index

The purchases index rose modestly led by Goods Producing industries. Construction and non-durable goods manufacturing showed considerable strength. Services Producing sectors improved modestly.

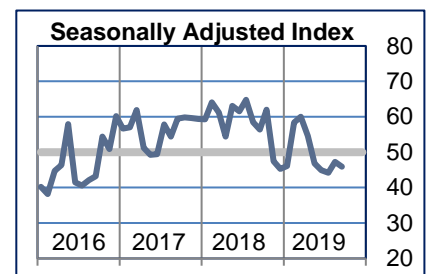
	Higher	Same	Lower	Net	Index
Apr/19	13%	78%	9%	4%	50.4
May/19	6%	92%	2%	4%	52.3
Jun/19	7%	90%	3%	4%	50.6
Jul/19	12%	86%	2%	10%	56.0
Aug/19	8%	89%	3%	5%	50.7
Sep/19	13%	84%	3%	10%	52.1



### Prices Paid Index

The prices paid index fell modestly. Both Goods Producing and Services Producing areas reported this index as falling. Mid-stream operations reported this index as falling at a rapid pace.

	Higher	Same	Lower	Net	Index
Apr/19	13%	86%	1%	12%	54.6
May/19	8%	82%	10%	-2%	46.8
Jun/19	8%	76%	16%	-8%	44.9
Jul/19	6%	75%	19%	-13%	44.2
Aug/19	3%	89%	8%	-5%	47.3
Sep/19	1%	92%	7%	-6%	45.9



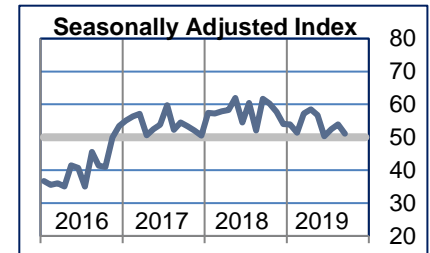
# ISM-Houston Business Report

## September 2019

### Lead Times Index

The lead times index fell 3.8 points with both Goods and Services Producing industries reporting lower numbers. While O&G and construction reported further increases in this index, all other sectors reported near neutral.

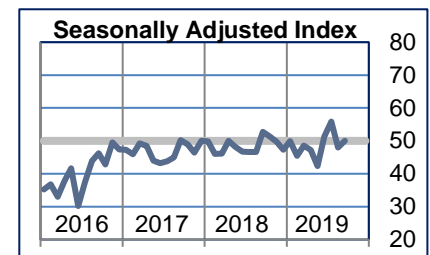
	Higher	Same	Lower	Net	Index
Apr/19	19%	80%	1%	18%	58.4
May/19	15%	84%	1%	14%	56.7
Jun/19	2%	97%	1%	1%	50.3
Jul/19	6%	93%	1%	5%	52.5
Aug/19	15%	81%	4%	11%	53.9
Sep/19	5%	94%	1%	4%	51.1



### Purchased Inventory Index

The purchased inventory index rose to neutral. O&G and durable goods manufacturing continue to report falling inventories. All other sectors, including non-durable goods manufacturing, came in near neutral.

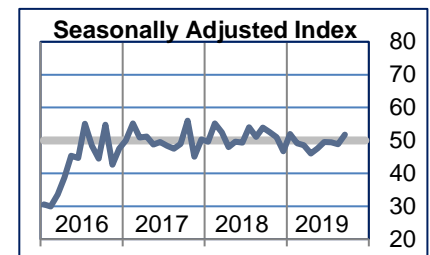
	Higher	Same	Lower	Net	Index
Apr/19	1%	93%	6%	-5%	47.2
May/19	3%	84%	13%	-10%	42.4
Jun/19	5%	93%	2%	3%	51.3
Jul/19	14%	85%	1%	13%	55.9
Aug/19	5%	87%	8%	-3%	48.0
Sep/19	1%	95%	4%	-3%	50.0



### Finished Goods Inventory Index

The finished goods inventory index rose above neutral. Durable goods manufacturing reported a significant increase in this index. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
Apr/19	1%	91%	8%	-7%	46.0
May/19	6%	83%	11%	-5%	47.6
Jun/19	2%	96%	2%	0%	49.6
Jul/19	1%	97%	2%	-1%	49.4
Aug/19	4%	91%	5%	-1%	48.8
Sep/19	2%	97%	1%	1%	51.8



## Houston PMI Calculation Methods

The Houston Purchasing Managers Index provides a measure of current economic activity in the greater Houston area and a forecast of likely shifts in activity over a three-month forecast horizon. The current and forecast HPMI indices are based on diffusion indices for the eight underlying indicators noted in this report. The respondents to the survey report the direction of each these activities as up, the same, or down in comparison to the previous month. An index for each area is calculated by subtracting the percentage of respondents that sight a negative shift from the percentage that sight a positive shift. The HPMI is calculated by applying optimal regression factors to each of these underlying indicators with the result being converted to a 0 to 100 scale. Readings over 50 generally indicate manufacturing expansion; readings below 50 show contraction. An HPMI above 45 generally correlates with expansion of the Houston-The Woodlands-Sugar Land Business Cycle Index (H-BCI).

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