

# ISM-Houston Business Report

## July 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 July for the 23rd consecutive month and overall economic activity expanded for the 36th month. The near-term forecast continues to point to overall economic growth. Manufacturing activity continues to be a moderate concern. The overall rate of growth is still anticipated to slow.

The July Houston Purchasing Managers Index registered **51.4**, up very modestly from its June reading of 51.2. The sales/new orders index, one of the three underlying indicators that have a strong direct correlation with current economic activity, pointed to contraction for the second month. The other two indicators with a strong correlation with current economic activity (employment and lead times) continue to point expansion. The underlying indicator that has the largest inverse correlation, finished goods inventory, remained just below neutral showing no real impact on the final HPMI figure.

The three-month forecast for the Houston PMI registered 48.7, down 0.7 points from its June reading of 49.4. Continued weakness of the sales/new orders and prices paid indices are the primary drivers for the on-going weakness of the forecast HPMI as these indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis Healthcare, Transportation and Utilities, and EPC firms reported expansion, while non-durable goods manufacturing reported continued contraction. From a three month forecast standpoint Transportation and Utilities, and Health Care are expected to continue expansion. Durable goods manufacturing is expected to join non-durable Goods below neutral.

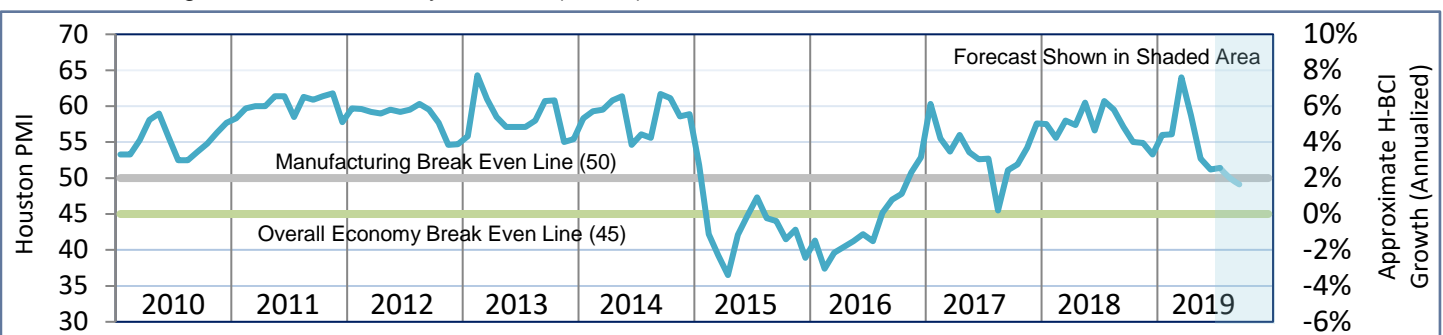
### Indices at a Glance

Index	Jul	Jun	Change	Track	Rate	Trend*
Houston PMI - Current	51.4	51.2	0.2	Expanding	Faster	23
Houston PMI - 3 Month Forecast	48.7	49.4	-0.7	Contracting	Faster	2
Sales/New Orders	45.2	46.2	-1.0	Falling	Faster	2
Production	52.9	52.6	0.3	Rising	Faster	23
Employment	55.6	55.4	0.2	Rising	Faster	23
Purchases	56.0	50.6	5.4	Rising	Faster	5
Prices Paid	44.2	44.9	-0.7	Falling	Faster	3
Lead Times	52.5	50.3	2.2	Rising	Faster	32
Purchased Inventory	55.9	51.3	4.6	Rising	Faster	2
Finished Goods Inventory	49.4	49.6	-0.2	Falling	Faster	6
Overall Houston Economy				Expanding	Faster	36

\* Number of months on current track

### Houston PMI Trend

With the Houston PMI registering 51.4 in July, manufacturing activity in Houston has expanded for nearly two years and overall economic activity has grown for 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; transformers, electrical equipment; butane, isobutane, ethylene, mixed butylenes; platinum, rhodium, silver, nickel; land and ocean freight

**Down in Price:** Bulk gases, MTBE, butadiene; fabrication steel, carbon steel pipe; tin and cobalt

**In Short Supply:** Flu vaccines, clinical supplies; craft labor, skilled construction labor, welders, pipe fitters, plant operators, oilfield services workers, CDL drivers; data science, information technology, and internal audit professionals

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### Sector Summaries

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

- Rig counts continue to fall at a slow pace; the offshore count fell to zero at the end of the month
- *This sector reported close to neutral growth again this month; the sales, production, purchases, and prices paid indices were all reported as expanding, while the employment index was reported as contracting*

#### Engineering and Construction:

- Final investment decisions for many large capital projects have continued to push out into the future
- *Respondents in this sector reported strengthening this month; the new orders, employment, and purchases indices all showed expansion, while the prices paid index is now indicating potential contraction*

#### Manufacturing - Durable Goods:

- *This sector reported at neutral again this month; the sales/new orders, production, and employment indices where all reported near neutral, while the purchases, prices paid, and inventory indices were reported as contracting*

#### Manufacturing - Non-Durable Goods:

- Cracker feedstock pricing was relatively flat during the month; ethylene prices rose modestly
- Butadiene pricing remains flat; MTBE is not seeing its normal summer season demand and price increase
- *This sector remained weak with continued downward pressure on sales and upward movement on finished goods inventories*

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

- *This sector continues to report expansion with most indicators reported above neutral; the sales, production, employment, purchases indices where well above neutral while finished goods inventories are rising*

#### Professional Services:

- Low oil prices and geopolitical uncertainties continue to cause concern
- If the lower oil price trend continues most companies expect to reduce capital project budgets, as well as hiring of both employee and non-employee labor
- Not many companies are hiring permanent staff
- *Respondents in this area reported weakening this month with the sales and employment indicators showing contraction*

#### Health Care:

- There continues to be an increase in activity in the healthcare space, primarily hospitals and outpatient clinics
  - *This sector strengthened further this month with continued expansion noted in the employment, purchases, and prices paid indices*
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### 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.

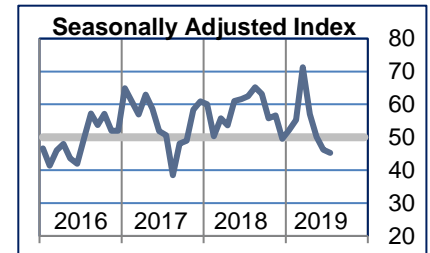
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### Sales/New Orders Index

The sales/new orders index remained below neutral. Health care and transportation/utilities reported continued growth. Oil & gas and EPC firms strengthened moderately. Manufacturing and professional services weakened.

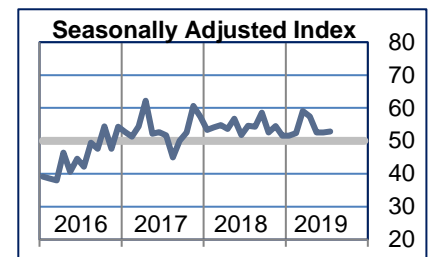
	Higher	Same	Lower	Net	Index
Feb/19	20%	75%	5%	15%	55.2
Mar/19	42%	57%	1%	41%	71.3
Apr/19	22%	75%	3%	19%	57.1
May/19	9%	85%	6%	3%	50.2
Jun/19	13%	68%	19%	-6%	46.2
Jul/19	14%	67%	19%	-5%	45.2



### Production Index

The production index was relatively flat again this month showing moderate expansion. Oil & gas joined midstream operations and transportation/utilities indicating expansion. Manufacturing reported moderate contraction.

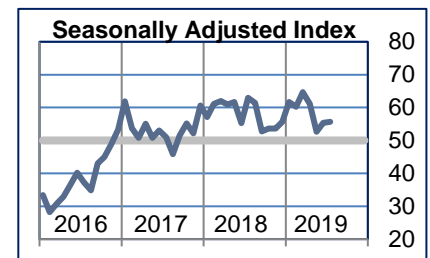
	Higher	Same	Lower	Net	Index
Feb/19	8%	90%	2%	6%	52.3
Mar/19	21%	77%	2%	19%	59.1
Apr/19	19%	78%	3%	16%	57.4
May/19	9%	89%	2%	7%	52.6
Jun/19	6%	93%	1%	5%	52.6
Jul/19	7%	91%	2%	5%	52.9



### Employment Index

The employment index continued to point to moderate expansion with health care, transportation and utilities, and EPC firms showing the greatest strength. Oil & gas and professional services reported this index as contracting.

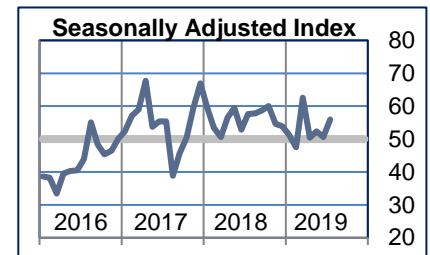
	Higher	Same	Lower	Net	Index
Feb/19	24%	70%	6%	18%	60.2
Mar/19	27%	72%	1%	26%	64.7
Apr/19	32%	61%	7%	25%	61.1
May/19	14%	80%	6%	8%	52.6
Jun/19	22%	72%	6%	16%	55.4
Jul/19	18%	74%	8%	10%	55.6



### Purchases Index

The purchases index recovered modestly. Healthcare, EPC firms, transportation and utilities, and oil & gas all reported this index above neutral. Only manufacturing reported this index as contracting.

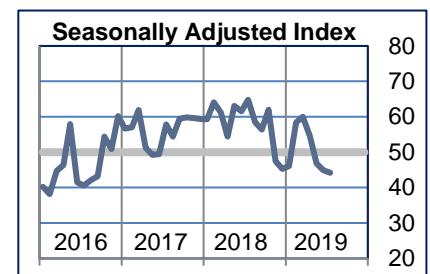
	Higher	Same	Lower	Net	Index
Feb/19	6%	84%	10%	-4%	47.5
Mar/19	28%	70%	2%	26%	62.6
Apr/19	13%	78%	9%	4%	50.4
May/19	6%	92%	2%	4%	52.3
Jun/19	7%	90%	3%	4%	50.6
Jul/19	12%	86%	2%	10%	56.0



### Prices Paid Index

The prices paid index remained below neutral. Oil & gas and health care reported this index as rising. Manufacturing, EPC firms, and transportation and utilities noted it as falling.

	Higher	Same	Lower	Net	Index
Feb/19	19%	78%	3%	16%	58.4
Mar/19	22%	76%	2%	20%	60.0
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



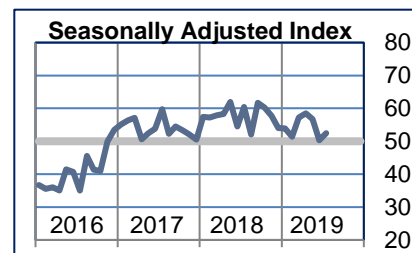
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### Lead Times Index

The lead times index strengthened modestly during the month. Health care joined transportation and utilities in reporting this index as rising. All other sectors came in near neutral.

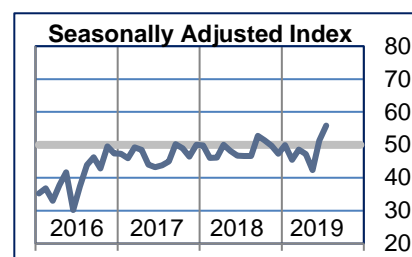
	Higher	Same	Lower	Net	Index
Feb/19	9%	88%	3%	6%	51.4
Mar/19	15%	84%	1%	14%	57.3
Apr/19	19%	80%	1%	18%	58.4
May/19	15%	84%	1%	14%	56.7
Jun/19	2%	97%	1%	1%	50.3
Jul/19	6%	93%	1%	5%	52.5



### Purchased Inventory Index

The purchased inventory index moved further above neutral. Transportation and utilities, health care, and manufacturing reported this index as rising at a faster rate than last month. All other sectors reported near neutral.

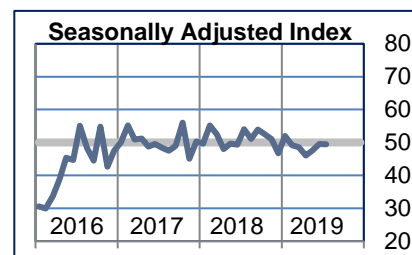
	Higher	Same	Lower	Net	Index
Feb/19	4%	88%	8%	-4%	45.4
Mar/19	2%	95%	3%	-1%	48.6
Apr/19	1%	93%	6%	-5%	47.2
May/19	3%	84%	13%	-10%	42.4
Jun/19	5%	93%	2%	3%	51.3
Jul/19	14%	85%	1%	13%	55.9



### Finished Goods Inventory Index

The finished goods inventory index continued to trend just below neutral. All sectors reported these inventories near this level except durable goods manufacturing which came in below neutral for the first time in three months.

	Higher	Same	Lower	Net	Index
Feb/19	4%	92%	4%	0%	49.2
Mar/19	1%	94%	5%	-4%	48.5
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



### Comments on Houston PMI Calculation Methods

The Houston PMI is calculated by applying optimal regression factors to each of the eight underlying indicators noted above. These regression factors are determined using standard regression techniques comparing these underlying indicators to the Houston-The Woodlands-Sugar Land Business Cycle Index (Houston BCI), which is reported on a monthly basis by the Federal Reserve Bank of Dallas. ISM-Houston periodically reviews the capability of its correlations and adjusts the regression factors when appropriate. The most recent revision occurred as a result of a review undertaken during the third quarter of 2018, which determined that changes in the Houston economy over the last decade have shifted the intercept of the correlation, causing a neutral Houston PMI to no longer align with a neutral Houston BCI. A Houston PMI of 45 points now equates to a neutral Houston BCI. A similar offset between the National PMI and the National economy has existed for some time.

The new regression factors have been utilized for this report. Additionally, the Houston PMI reported from the beginning of 2014 to present has been restated using the revised regression factors.

The ISM-Houston Business Report began in January 1995  
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