

ISM-Houston Business Report

August 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 August for the 24rd consecutive month and overall economic activity expanded for the 37th month. The near-term forecast continues to point to overall economic growth. Concerns about potential near term manufacturing weakness have moderated somewhat. The overall rate of economic growth is now anticipated to be flat for the 3-month forecast horizon.

The August Houston Purchasing Managers Index registered **51.6**, up very modestly from its July reading of 51.4. The three underlying indicators that have the strongest direct correlation with economic activity (sales/new orders, employment, and lead times) are all pointing to near term expansion. The sales/new orders index returned to indicating expansion for the first time in three months coming in at 51.3. The employment index, while continuing to point to expansion, fell to near neutral at 50.7. The lead times index rose modestly to 53.9. The underlying indicator that has the largest inverse correlation, finished goods inventory, fell further below neutral to 48.8.

The three-month forecast for the Houston PMI registered above neutral at 50.7, up 2.0 points from its July reading of 48.7. Strengthening of the sales/new orders, lead times, and prices paid indices were the primary drivers for this forecast HPMI improvement. 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, EPC firms, and non-durable goods manufacturing 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.

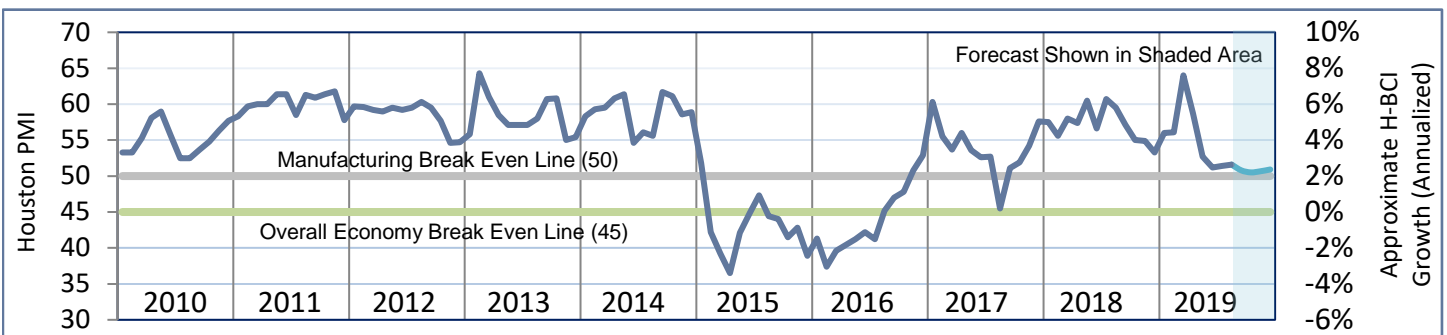
Indices at a Glance

Index	Aug	Jul	Change	Track	Rate	Trend*
Houston PMI - Current	51.6	51.4	0.2	Expanding	Faster	24
Houston PMI - 3 Month Forecast	50.7	48.7	2.0	Expanding	Fr. Contracting	1
Sales/New Orders	51.3	45.2	6.1	Rising	Fr. Falling	1
Production	51.1	52.9	-1.8	Rising	Slower	24
Employment	50.7	55.6	-4.9	Rising	Slower	24
Purchases	50.7	56.0	-5.3	Rising	Slower	6
Prices Paid	47.3	44.2	3.1	Falling	Slower	4
Lead Times	53.9	52.5	1.4	Rising	Faster	33
Purchased Inventory	48.0	55.9	-7.9	Falling	Fr. Rising	1
Finished Goods Inventory	48.8	49.4	-0.6	Falling	Faster	7
Overall Houston Economy				Expanding	Faster	37

* Number of months on current track

Houston PMI Trend

With the Houston PMI registering 51.6 in August, manufacturing activity in Houston has expanded for 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: Copper wire and cable, alloy pipe, heat exchangers, fabricated structural steel; electrical equipment; nickel, cobalt; gold, silver, platinum, rhodium; ocean freight

Down in Price: Crude oil and motor fuels, natural gas and natural gas liquids, propane, normal butane, isobutane, butadiene, ammonia; oil field fractionation horsepower

In Short Supply: Pediatric vaccines; industrial gases; skilled craft and trade labor, light industrial labor, process technicians, CDL drivers; tax and IT security professionals

Sector Summaries

Oil and Gas Exploration, and Key Support Services:

- Increasing lead times for Subsea equipment
- Prices for fractionation horsepower continue to trend down
- *This sector reported near neutral overall; production remained at a similar level to last month; lead times are rising; employment, prices paid, and inventories fell*

Engineering and Construction:

- *Respondents in this sector reported continued strength with the new orders, employment, and purchases indices all reported as rising at a rapid pace; all other indices were near neutral*

Manufacturing - Durable Goods:

- Manufacturing for the energy industry continues to be driven by international orders
- *This sector reported moderately below neutral; while sales grew at a good pace, employment and purchases fell at a high rate; all other indices reported near neutral*

Manufacturing - Non-Durable Goods:

- Business demand feels slower
- Cracker feedstock pricing fell modestly during the month; olefins and polymer prices were flat
- *This sector showed modest recovery with the sales index returning to neutral; the prices paid index remained below neutral; lead times rose at a rapid pace; all other indicators were near neutral*

Transportation and Utilities (including mid-stream operations):

- *This sector reported continued expansion with the sales, production, purchases, and lead times indices reporting expansion at a fast pace; the prices paid index fell to well below neutral; product inventories are rising*

Professional Services:

- Technology advancements and automation continue to disrupt the energy industry requiring constant re-skilling and up-skilling of the current workforce; companies continue to struggle to find the talent to fill roles requiring skills that have not yet been developed
- More people with skills than job openings; price for professional staffing services remains unchanged
- *Respondents in this sector reported improvement to near the mid-point this month with both the sales/new orders and employment indices gaining significantly to end at neutral; all other indices were also at neutral*

Health Care:

- *This sector continues to report strength with the employment, purchases, and lead times indices all reporting well above 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.

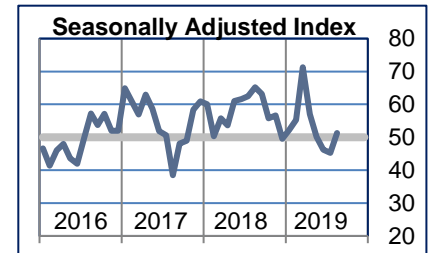
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Sales/New Orders Index

The sales/new orders index returned to above neutral. Durable goods manufacturing joined health care and transportation/utilities in reporting growth. Non-durable goods rose to near neutral while EPC and oil & gas fell to neutral.

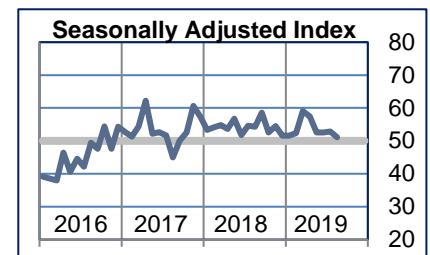
	Higher	Same	Lower	Net	Index
Mar/19	42%	57%	1%	41%	71.3
Apr/19	22%	75%	3%	19%	57.1
May/19	9%	85%	6%	3%	50.2
Jun/19	13%	68%	19%	-6%	46.2
Jul/19	14%	67%	19%	-5%	45.2
Aug/19	7%	90%	3%	4%	51.3



Production Index

The production index fell modestly. Transportation/utilities, including mid-stream operations, maintained strength while oil & gas fell to near neutral on this index. The durable goods manufacturing production index rose to neutral.

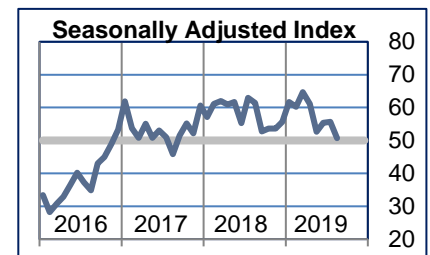
	Higher	Same	Lower	Net	Index
Mar/19	21%	77%	2%	19%	59.1
Apr/19	19%	78%	3%	16%	57.4
May/19	9%	89%	2%	7%	52.6
Jun/19	6%	93%	1%	5%	52.6
Jul/19	7%	91%	2%	5%	52.9
Aug/19	4%	95%	1%	3%	51.1



Employment Index

The employment index fell to its lowest level since 2017. Durable goods manufacturing and oil & gas reported considerable weakening in this index. Only EPC firms and health care are reporting strength in this area.

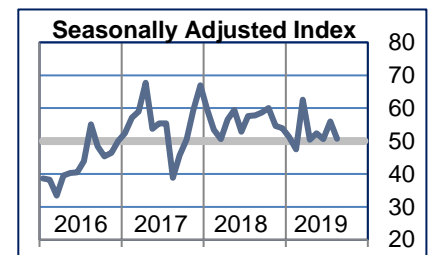
	Higher	Same	Lower	Net	Index
Mar/19	27%	72%	1%	26%	64.7
Apr/19	32%	61%	7%	25%	61.1
May/19	14%	80%	6%	8%	52.6
Jun/19	22%	72%	6%	16%	55.4
Jul/19	18%	74%	8%	10%	55.6
Aug/19	7%	86%	7%	0%	50.7



Purchases Index

The purchases index fell to just above neutral. Health care, EPC firms, and transportation/utilities reported strength while oil & gas returned to neutral. Non-durable goods reported contraction in this index again this month.

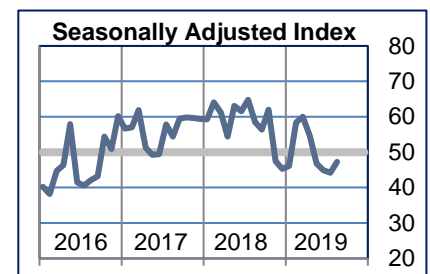
	Higher	Same	Lower	Net	Index
Mar/19	28%	70%	2%	26%	62.6
Apr/19	13%	78%	9%	4%	50.4
May/19	6%	92%	2%	4%	52.3
Jun/19	7%	90%	3%	4%	50.6
Jul/19	12%	86%	2%	10%	56.0
Aug/19	8%	89%	3%	5%	50.7



Prices Paid Index

The prices paid index rose marginally, but remained below neutral. Only EPC firms reported this index as rising. Oil & gas joined transportation/utilities and non-durable goods manufacturing in reporting prices as falling.

	Higher	Same	Lower	Net	Index
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
Aug/19	3%	89%	8%	-5%	47.3



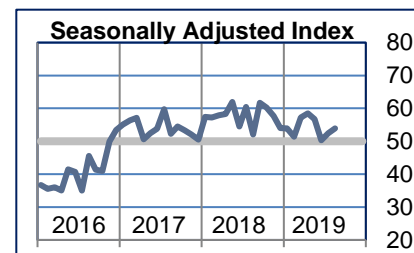
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Lead Times Index

The lead times index strengthened modestly again this month. Oil & gas and non-durable goods manufacturing joined health care and transportation/utilities in reporting this index as rising. All other sectors came in near neutral.

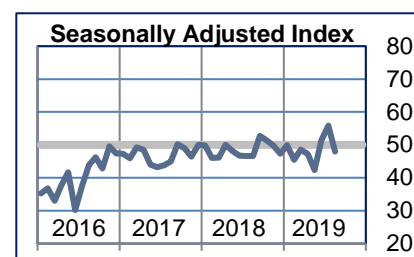
	Higher	Same	Lower	Net	Index
Mar/19	15%	84%	1%	14%	57.3
Apr/19	19%	80%	1%	18%	58.4
May/19	15%	84%	1%	14%	56.7
Jun/19	2%	97%	1%	1%	50.3
Jul/19	6%	93%	1%	5%	52.5
Aug/19	15%	81%	4%	11%	53.9



Purchased Inventory Index

The purchased inventory index fell below neutral led by significant declines in manufacturing and a modest drop in transportation and utilities. Health care continues to report this index as rising. All other sectors came in near neutral.

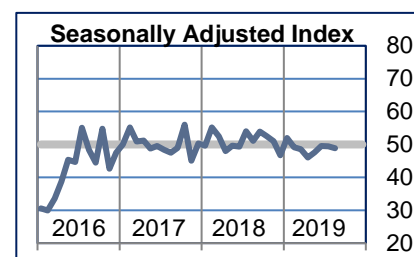
	Higher	Same	Lower	Net	Index
Mar/19	2%	95%	3%	-1%	48.6
Apr/19	1%	93%	6%	-5%	47.2
May/19	3%	84%	13%	-10%	42.4
Jun/19	5%	93%	2%	3%	51.3
Jul/19	14%	85%	1%	13%	55.9
Aug/19	5%	87%	8%	-3%	48.0



Finished Goods Inventory Index

The finished goods inventory index continued to trend just below neutral. Transportation/utilities reported these inventories as rising while oil & gas reported them as falling. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
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
Aug/19	4%	91%	5%	-1%	48.8



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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