

ISM-Houston Business Report

June 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 June for the 22nd consecutive month and overall economic activity expanded for the 35th month. The near-term forecast continues to point to overall economic growth near term, but manufacturing activity may weaken. The overall rate of growth is anticipated to slow.

The June Houston Purchasing Managers Index registered **51.2**, down from its May reading of 52.7. The sales/new orders index, one of the three underlying indicators that have the strongest direct correlation with current economic activity, is now pointing to contraction. The other two indicators with the strongest correlation with current economic activity (employment and lead times), continue to indicate expansion. The underlying indicator that has the largest inverse correlation, finished goods inventory, remained just below neutral.

The three-month forecast for the Houston PMI registered 49.4, down 1.7 points from its May reading of 51.1. Weakening of the sales/new orders and lead times indices, and a further drop of the prices paid index were the primary causes of this reduction. These indices are all directly correlated with economic activity at the three-month forecast horizon.

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

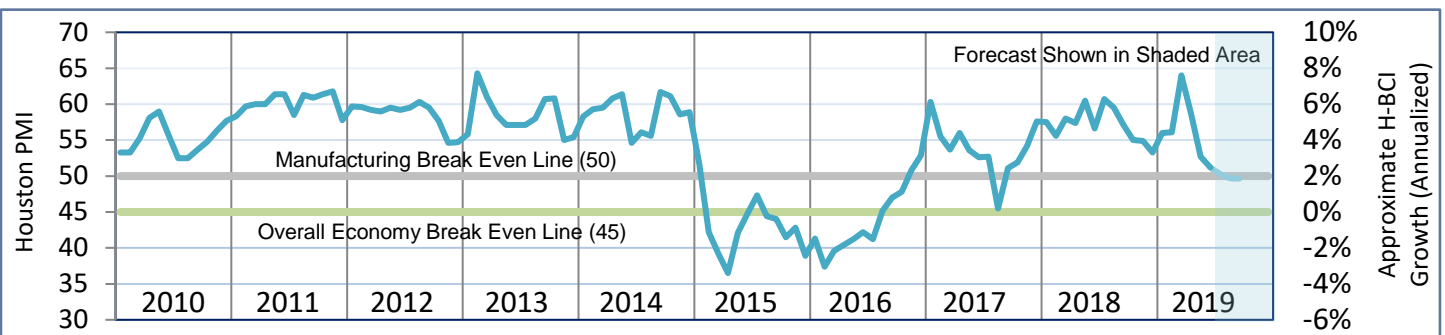
Indices at a Glance

Index	Jun	May	Change	Track	Rate	Trend*
Houston PMI - Current	51.2	52.7	-1.5	Expanding	Slower	22
Houston PMI - 3 Month Forecast	49.4	51.1	-1.7	Contracting	Fr. Expanding	1
Sales/New Orders	46.2	50.2	-4.0	Falling	Fr. Rising	1
Production	52.6	52.6	0.0	Rising	Unchanged	22
Employment	55.4	52.6	2.8	Rising	Faster	22
Purchases	50.6	52.3	-1.7	Rising	Slower	4
Prices Paid	44.9	46.8	-1.9	Falling	Faster	2
Lead Times	50.3	56.7	-6.4	Rising	Slower	31
Purchased Inventory	51.3	42.4	8.9	Rising	Fr. Falling	1
Finished Goods Inventory	49.6	47.6	2.0	Falling	Slower	5
Overall Houston Economy				Expanding	Slower	35

* Number of months on current track

Houston PMI Trend

With the Houston PMI registering 51.2 in June, manufacturing activity in Houston has expanded for nearly two years and overall economic activity has grown for almost three years. Readings over 50 generally indicate manufacturing expansion; readings below 50 show contraction. A PMI 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: Ready-mix concrete; alloy pipe, copper based products, fabricated structural steel; electrical equipment; exchangers; ethanol; gold, platinum, silver, cobalt, palladium, nickel, rhodium, rare earth materials; rubber tyred gantry (RTG) cranes; ocean freight

Down in Price: Pediatric vaccines; high specification drilling rigs, hydraulic fracturing equipment; crude and motor fuels; natural gas and natural gas liquids, ethane, propane, butane; MTBE, butadiene

In Short Supply: Skilled craft labor, construction labor, welders, pipe fitters, electricians, plant operators, CDL drivers; tax and audit professionals, software developers

Sector Summaries

Oil and Gas Exploration, and Key Support Services:

- Supply chain risks caused by tariffs
- *This sector reported close to neutral growth this month with all underlying indices balanced near this level*

Engineering and Construction:

- Hiring and retaining qualified craft labor remains a challenge across our business
- Continue to see capital project delays
- *Respondents in this sector also reported growth near neutral for the month; while the employment, prices paid, and lead times indicators showed continued strong performance, the new orders index is now pointing to contraction*

Manufacturing - Durable Goods:

- Manufacturing for the energy industry is looking a bit brighter
- *This sector reported close to neutral with a sizable increase in the sales/new orders index; the purchases index joined the employment index in pointing to contraction; inventories rose*

Manufacturing - Non-Durable Goods:

- Polymer prices are falling, but not as fast as those of cracking feedstocks
- *This sector weakened further with the overall index now pointing to contraction driven primarily by the employment and prices paid indices falling below neutral; the lead times index fell to neutral to match all other indicators in this sector*

Transportation and Utilities (including mid-stream operations):

- *This sector continues to report expansion with all indicators reported above neutral this month*

Wholesale Trade:

- *Respondents in this area reported growth near neutral again this month with the employment index showing continued strength; the sales and prices paid indices pointed to potential contraction*

Professional Services:

- Prices for professional labor are about the same as previous months; employers are not willing to go out of their "pay ranges" to acquire people; also, they are asking for pricing versus qualification information
- Oil price volatility and geopolitical concerns have slowed hiring of both direct or contingent workers
- *Respondents in this area reported neutral performance in all indices*

Health Care:

- Employment is up for direct patient care, research professionals, and staff that support these areas
 - All appears to be steady
 - *This sector reported continued strong performance with the employment, purchases, and prices paid indices all pointing to expansion*
-

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.

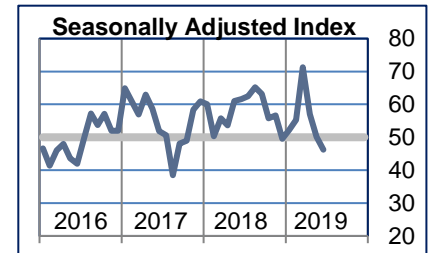
ISM-Houston Business Report

June 2019

Sales/New Orders Index

The sales/new orders index fell below neutral for only the second time since late 2017. Construction and wholesale trade saw the greatest reductions. Durable goods manufacturing, transportation, and health care reported expansion.

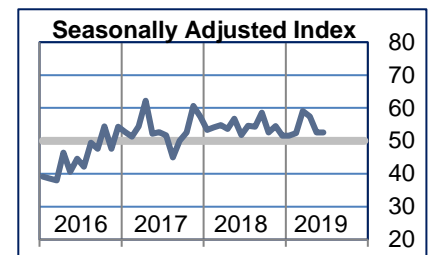
	Higher	Same	Lower	Net	Index
Jan/19	11%	81%	8%	3%	52.2
Feb/19	20%	75%	5%	15%	55.2
Mar/19	42%	57%	1%	41%	71.3
Apr/19	22%	75%	3%	19%	57.1
May/19	9%	85%	6%	3%	50.2
Jun/19	13%	68%	19%	-6%	46.2



Production Index

The production index was flat for the month continuing to indicate moderate expansion. Only transportation and utilities, and health care reported strength. All other sectors were near neutral.

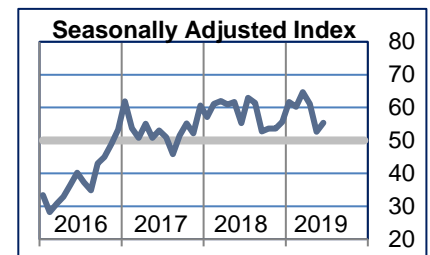
	Higher	Same	Lower	Net	Index
Jan/19	3%	96%	1%	2%	51.5
Feb/19	8%	90%	2%	6%	52.3
Mar/19	21%	77%	2%	19%	59.1
Apr/19	19%	78%	3%	16%	57.4
May/19	9%	89%	2%	7%	52.6
Jun/19	6%	93%	1%	5%	52.6



Employment Index

The employment index improved modestly. Wholesale trade, transportation and utilities, EPC firms, and healthcare reported continued strength. Durable and non-durable goods manufacturing reported employee reductions.

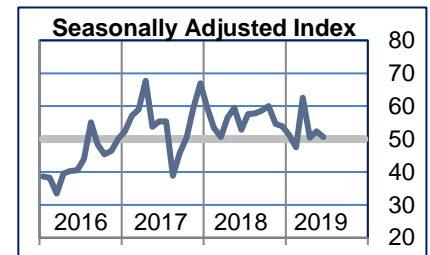
	Higher	Same	Lower	Net	Index
Jan/19	35%	50%	15%	20%	61.7
Feb/19	24%	70%	6%	18%	60.2
Mar/19	27%	72%	1%	26%	64.7
Apr/19	32%	61%	7%	25%	61.1
May/19	14%	80%	6%	8%	52.6
Jun/19	22%	72%	6%	16%	55.4



Purchases Index

The purchases index fell to near neutral with transportation and utilities, and health care reporting additional growth. Durable goods manufacturing noted contraction. All other sectors reported near neutral.

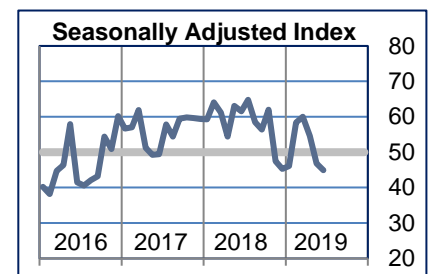
	Higher	Same	Lower	Net	Index
Jan/19	16%	72%	12%	4%	51.3
Feb/19	6%	84%	10%	-4%	47.5
Mar/19	28%	70%	2%	26%	62.6
Apr/19	13%	78%	9%	4%	50.4
May/19	6%	92%	2%	4%	52.3
Jun/19	7%	90%	3%	4%	50.6



Prices Paid Index

The prices paid index came in below neutral for the second month. EPC firms, transportation and utilities, and health care reported increases. Non-durable goods manufacturing and wholesale trade noted decreases.

	Higher	Same	Lower	Net	Index
Jan/19	12%	68%	20%	-8%	46.1
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



ISM-Houston Business Report

June 2019

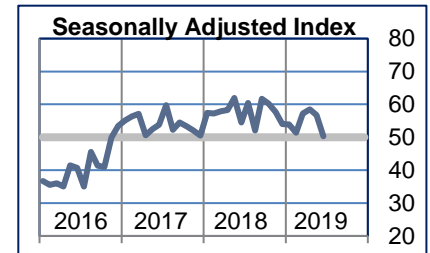


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Lead Times Index

The lead times index fell to just above neutral. Transportation and utilities, and EPC firms reported continued increases in lead times while all other sectors came in near neutral.

	Higher	Same	Lower	Net	Index
Jan/19	10%	85%	5%	5%	53.9
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

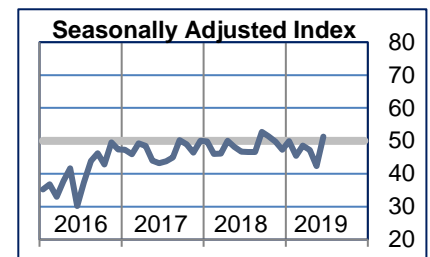


Purchased Inventory Index

The purchased inventory index reported above neutral for the first time since late last year.

Transportation and utilities, and durable goods manufacturing reported expansion. All other sectors reported near neutral.

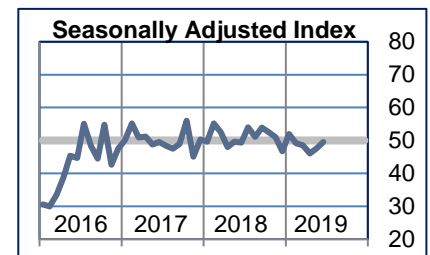
	Higher	Same	Lower	Net	Index
Jan/19	10%	87%	3%	7%	49.9
Feb/19	4%	88%	8%	-4%	45.4
Mar/19	2%	95%	3%	-1%	48.6
Apr/19	1%	93%	6%	-5%	47.2
May/19	3%	84%	13%	-10%	42.4
Jun/19	5%	93%	2%	3%	51.3



Finished Goods Inventory Index

The finished goods inventory index remained just below neutral. Only Durable goods manufacturing reported these inventories as expanding. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
Jan/19	10%	89%	1%	9%	51.9
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



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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