

ISM-Houston Business Report

August 2020



ISM—Houston, Inc.

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

(Houston, Texas) – According to Houston area supply chain executives, overall economic activity in Houston expanded in August for the third month in a row led by modest expansion in non-manufacturing activities. Manufacturing activities contracted at a very slow pace during the month.

The Houston Purchasing Managers Index rose 4.7 points to 52.6 during the month. Two of the three underlying indicators that have a strong direct correlation with the economy, sales/new orders and lead times, pointed to stronger expansion this month. The third, employment, is now giving a very weak signal for contraction. The sales/new orders index rose 2.8 points in August to 56.5. The lead times index also rose 2.8 points to 54.5. The employment index rose 8.4 points to 49.7. The underlying indicator that has the strongest inverse correlation with economic activity, finished goods inventory, rose 1.6 points this month to 51.4, giving a modest contraction signal.

The three-month forecast for the Houston PMI rose 2.3 points to 53.5. This was driven by strengthening in the sales/new orders, production, prices paid indices, and lead times indices. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis, real estate joined accommodations and foods services, transportation, utilities, and health care reporting expansion. Oil and Gas joined construction, durable goods manufacturing, and professional services reporting contraction. All other sectors reported near neutral. The three-month forecast for all sectors indicates a belief that the severity of the COVID-19 pandemic will moderate during this time frame.

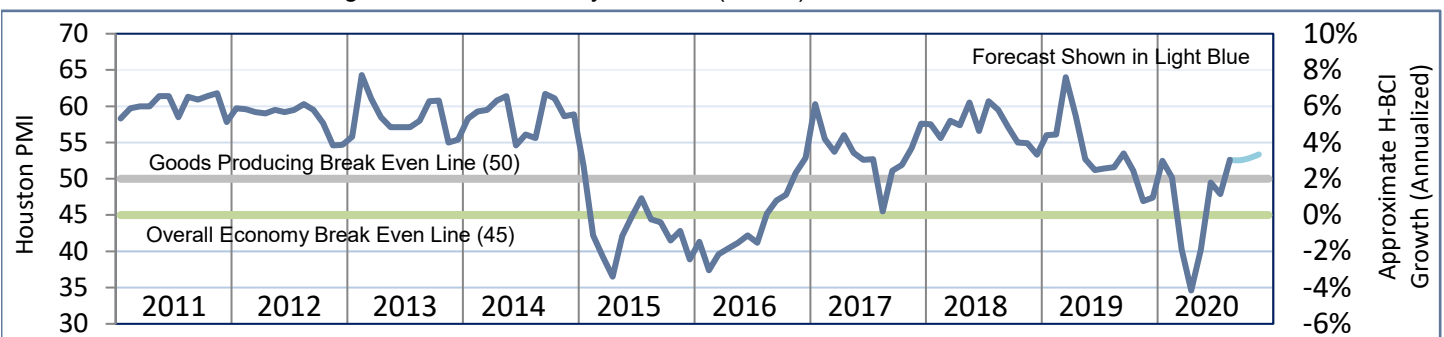
Indices at a Glance

Index	Aug	Jul	Change	Track	Rate	Trend*
Houston PMI - Current	52.6	47.9	4.7	Expanding	Fr. Contracting	1
Houston PMI - 3 Month Forecast	53.5	51.2	2.3	Expanding	Faster	3
Sales/New Orders	56.5	53.7	2.8	Rising	Faster	3
Production	52.8	52.4	0.4	Rising	Faster	3
Employment	49.7	41.3	8.4	Falling	Slower	7
Purchases	46.1	49.4	-3.3	Falling	Faster	2
Prices Paid	49.0	44.0	5.0	Falling	Slower	2
Lead Times	54.5	51.7	2.8	Rising	Faster	5
Purchased Inventory	49.0	46.0	3.0	Falling	Slower	2
Finished Goods Inventory	51.4	49.8	1.6	Rising	Fr. Falling	1
Overall Houston Economy				Expanding	Faster	3

* Number of months on current track

Houston PMI Trend

Overall economic activity in Houston expanded in August. HPMI readings over 50 generally indicate goods producing industry 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: Bulk and containerized ocean freight; COVID-19 related personal protective equipment (PPE); precious metals including gold, silver, platinum, palladium, and rhodium; industrial metals including aluminum, copper, nickel, and zinc; copper wire and cable; crude oil and motor fuels; natural gas and natural gas liquids; ethane, propane, and butanes; ethylene, propylene, and butadiene; glycols and glycol ethers; polyethylene and polypropylene; lumber; software

Down in Price: Contract and direct hire labor rates; fabricated structural steel, carbon and alloy pipe, electrical equipment, turbines, ANSI pumps and compressors; MTBE

In Short Supply: Exam gloves

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- Prices of nearly all energy products rose in August
- Rig counts continue to run at extremely low levels and crude production continues to fall
- Had to revise down the budget
- Continued uncertainty, lower spend, and supplier health is of concern
- *This sector fell further below neutral overall this month; as with last month, the sales and production indices came in near neutral while all other indices showed contraction*

Construction:

- Capital budget cuts will affect projects into 2021
- *This sector reported continued contraction; the sales and lead times indices came in at neutral; all other indices were reported as contracting*

Durable Goods Manufacturing:

- *This sector continued to report contraction; the sales index was reported near neutral; the prices paid index came in well above neutral; all other indices were reported as contracting*

Non-durable Goods Manufacturing:

- The threat of Hurricane Laura slowed activity across the gulf coast as facilities shutdown due to the storm
- Employee illness due to the covid-19 virus has caused some gulf coast petrochemical plants to shutdown
- Hoping that the economy improves by end of 1Q21
- *This sector continued to report near neutral this month; the sales and production indices pointed to expansion; the employment, purchases, and prices paid indices were reported as contracting; lead times increased for a majority of the respondents; all other indices were near neutral*

Transportation and Utilities:

- Air passenger traffic continues to increase
- *These sectors reported continued expansion overall with the sales, employment, and the lead times indices all indicating expansion; all other indices were near neutral*

Financial Services and Real-estate:

- Quoted prices for lumber have doubled since the first quarter low
- New home starts continue to be strong
- *This sector reported just above neutral overall with the sales and lead times indices pointing to expansion*

Professional Services:

- Layoffs have continued in the O&G sector; demand for new employees, consultants, and contingent labor remains low
- Client companies are focused on strengthening their balance sheets by selling off assets and reducing or at least maintaining expenses
- With the exception of highly skilled one of a kind technical labor, there is no shortage of qualified personnel in the market
- Job seekers are looking outside of O&G for work and finding opportunities in the alternative energy and technology sectors
- There has been some demand for light industrial workers but filling those roles has proven difficult as candidates have fears about COVID and are waiting for a second round of government stimulus to help them get through until a vaccine is available
- Candidates are willing to accept a reduced salary compared to their compensation prior to the recent downturn
- The balance of the year should resemble the past several months
- *This sector reported further contraction; while the sales index has flatten out at neutral, the employment and prices paid indices continue to point to significant contraction*

What Our Respondents Are Saying (Continued)

Health Care:

- Exam gloves continue to be in short supply and the prices have increased; with increasing healthcare activity, this shortage will prove to be critical
- *This sector reported strength with sales, employment, purchases, prices paid, and lead times all pointing to expansion*

Accommodations and Food Services:

- Continued uncertainty summarizes our operations; feeling positive about the current slowdown of the virus in Houston
- *This sector continues to report expansion from the very low performance noted earlier in the year*

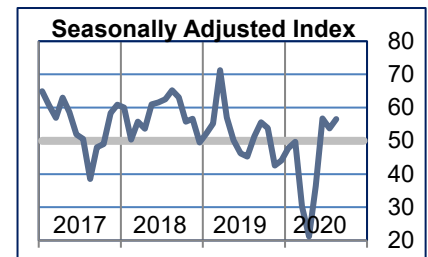
Trend of Underlying Indicators

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.

Sales/New Orders Index

The sales/new orders index rose modestly. Utilities, transportation, non-durable goods manufacturing, real estate, health care, and accommodations and food services all showed expansion. Durable goods improved to neutral.

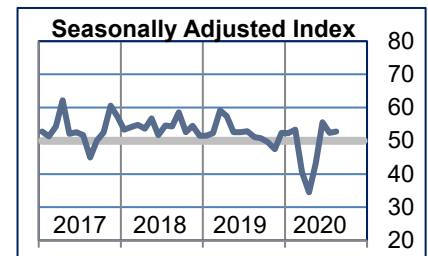
	Higher	Same	Lower	Net	Index
Mar/20	4%	54%	42%	-38%	30.2
Apr/20	5%	34%	61%	-56%	21.2
May/20	18%	40%	42%	-24%	36.4
Jun/20	36%	39%	25%	11%	56.8
Jul/20	18%	72%	10%	8%	53.7
Aug/20	20%	74%	6%	14%	56.5



Production Index

The production index was relatively unchanged. Utilities and non-durable goods manufacturing reported strength again during the month. Durable goods manufacturing reported further weakness.

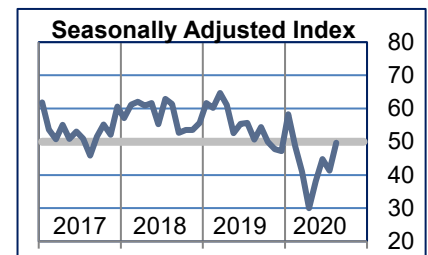
	Higher	Same	Lower	Net	Index
Mar/20	2%	77%	21%	-19%	40.6
Apr/20	1%	70%	29%	-28%	34.5
May/20	6%	75%	19%	-13%	43.2
Jun/20	14%	80%	6%	8%	55.5
Jul/20	9%	88%	3%	6%	52.4
Aug/20	10%	85%	5%	5%	52.8



Employment Index

The employment index improved to near neutral. Transportation, health care, and accommodations and food services reported strength. Professional services, O&G, construction, and manufacturing reported weakness.

	Higher	Same	Lower	Net	Index
Mar/20	1%	80%	19%	-18%	41.0
Apr/20	2%	59%	39%	-37%	30.0
May/20	2%	74%	24%	-22%	38.1
Jun/20	7%	79%	14%	-7%	44.8
Jul/20	2%	78%	20%	-18%	41.3
Aug/20	9%	78%	13%	-4%	49.7



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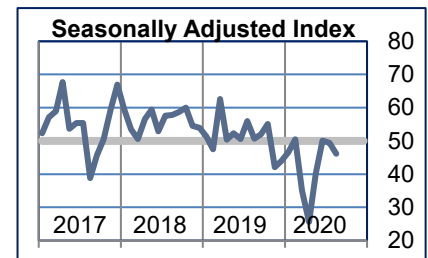


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Purchases Index

The purchases index fell modestly and is now clearly pointing to contraction. Utilities and health care continued to report strength. Construction, O&G, and manufacturing reported weakness.

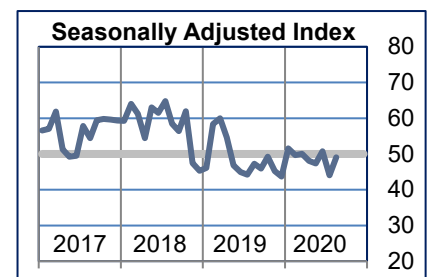
	Higher	Same	Lower	Net	Index
Mar/20	7%	56%	37%	-30%	35.0
Apr/20	1%	51%	48%	-47%	25.6
May/20	13%	53%	34%	-21%	40.2
Jun/20	12%	74%	14%	-2%	50.1
Jul/20	7%	84%	9%	-2%	49.4
Aug/20	6%	83%	11%	-5%	46.1



Prices Paid Index

The prices paid index rose to near neutral. O&G, construction, non-durable goods manufacturing, and professional services reported this index as contracting. Health care, durable goods, and real estate reported it as expanding.

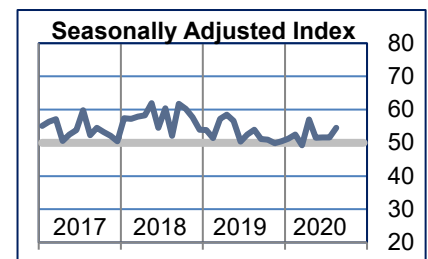
	Higher	Same	Lower	Net	Index
Mar/20	16%	74%	10%	6%	50.1
Apr/20	15%	68%	17%	-2%	48.1
May/20	11%	74%	15%	-4%	47.4
Jun/20	12%	74%	14%	-2%	50.7
Jul/20	8%	72%	20%	-12%	44.0
Aug/20	8%	80%	12%	-4%	49.0



Lead Times Index

The lead times index rose and is showing a stronger rate of expansion. Non-durable goods manufacturing, transportation, health care, and real estate reported this index as expanding. All other sectors came in at neutral.

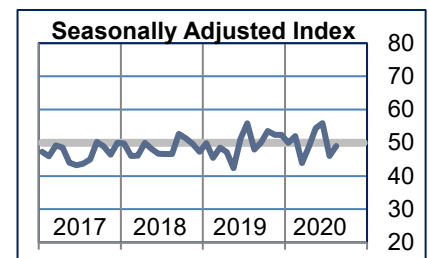
	Higher	Same	Lower	Net	Index
Mar/20	12%	78%	10%	2%	49.3
Apr/20	24%	66%	10%	14%	57.1
May/20	16%	75%	9%	7%	51.5
Jun/20	9%	84%	7%	2%	51.7
Jul/20	4%	94%	2%	2%	51.7
Aug/20	12%	85%	3%	9%	54.5



Purchased Inventory Index

The purchased goods inventory index rose to near neutral. Transportation reported these inventories as expanding. O&G, construction, and durable goods manufacturing reported them as contracting.

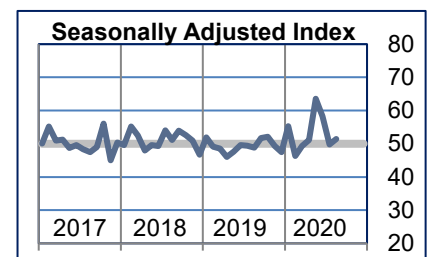
	Higher	Same	Lower	Net	Index
Mar/20	4%	80%	16%	-12%	43.9
Apr/20	15%	69%	16%	-1%	49.0
May/20	20%	71%	9%	11%	54.4
Jun/20	15%	82%	3%	12%	55.9
Jul/20	1%	91%	8%	-7%	46.0
Aug/20	2%	93%	5%	-3%	49.0



Finished Goods Inventory Index

The finished goods inventory index rose to just above neutral. Transportation reported these inventories as expanding. All other sectors reported them near neutral.

	Higher	Same	Lower	Net	Index
Mar/20	8%	81%	11%	-3%	49.3
Apr/20	16%	68%	16%	0%	51.1
May/20	30%	67%	3%	27%	63.6
Jun/20	15%	84%	1%	14%	58.3
Jul/20	5%	90%	5%	0%	49.8
Aug/20	6%	93%	1%	5%	51.4



Houston PMI Calculation Methods

The Houston Purchasing Managers Index has been included as an integral part of the ISM-Houston Business Report since the Houston chapter of the Institute for Supply Management started publication of this document in January 1995. The report and index are published monthly as the primary deliverables from a survey of Houston area Supply Chain leaders regarding the status of key activities believed to provide insight into the strength of the economy. The respondents come from diverse organizations including construction, energy, engineering, health care, durable and non-durable goods manufacturing, financial and business services, wholesale and retail trade, and utilities related companies.

The Houston Purchasing Managers Index is determined from diffusion indices of the eight indicators of economic activity covered by the ISM-Houston Business Survey and Report. These underlying indicators are sales or new orders, production, employment, purchases, prices paid for major purchases, lead times from sellers, purchased materials inventory (raw materials and supplies), and finished goods inventories. The respondents to the survey report the direction of each these activities as either up, the same or down in comparison to the previous month. An index for each of these areas is then calculated by subtracting the percentage of respondents that sight a negative shift from the percentage that sight a positive shift. For indicators that are positively correlated with economic growth, this results in an underlying index that points to expansion when it is above zero. Indicators that are negatively correlated with growth point to expansion when they are below zero.

The final 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. This top-level index is converted to a 0 to 100 scale to match that of the national Purchasing Managers Index® (PMI®) which is published monthly by the Institute for Supply Management® (ISM®). Readings over 50 for the HPMI generally indicate manufacturing expansion in the Houston in the near term and readings below 50 show coming manufacturing contraction.

It is important to note that the manufacturing breakeven HPMI does not equate to the breakeven point for the overall Houston economy. 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 economy as measured by the Houston BCI. A similar offset between the National PMI and the National economy has existed for some time.

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