

ISM-Houston Business Report

January 2021



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 January for the eighth month. Manufacturing activities expanded for the second month and services activities have now expanded for the last six months.

The Houston Purchasing Managers Index rose 1.1 points to 52.6 during the month. The sales/new orders and lead times indices, two of the three underlying indicators that have a strong direct correlation with the economy, continue to point to strong expansion. Employment, the third indicator with a strong positive correlation, continues to show modest economic weakness. The sales/new orders index rose 1.9 points to 57.0, its eighth month of indicating expansion. The lead times index fell 2.7 points to 55.9, also its eighth month pointing to expansion. The employment index rose 1.9 points to 47.9, its 15th month pointing to contraction. Finished goods inventory, the underlying indicator that has the strongest inverse correlation with economic activity, fell 3.5 points to 47.9, indicating a modest expansion signal.

The three-month forecast for the Houston PMI rose minimally to 54.2. An improvement in the sales/new orders index was mostly offset by lower lead times and production indices. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis construction, manufacturing, transportation, and healthcare reported expansion at a strong pace. Manufacturing and oil & gas reported expansion at a modest pace. Professional services returned to near neutral. The three-month forecast continues to predict additional improvement primarily due to the strength of the sales/new orders, production, and prices paid indices.

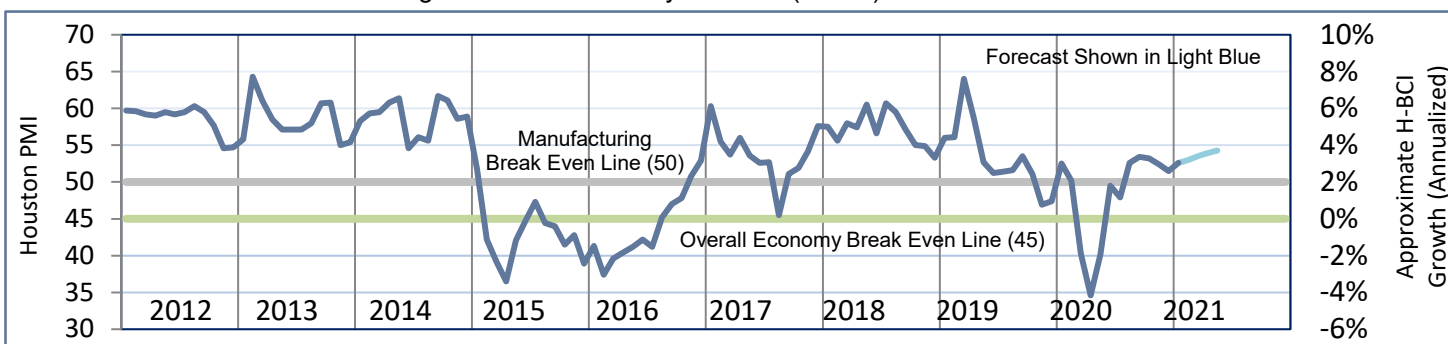
Indices at a Glance

Index	Jan	Dec	Change	Track	Rate	Trend*
Houston Overall PMI - Current	52.6	51.5	1.1	Expanding	Faster	6
Houston Overall PMI - 3M Forecast	54.2	54.1	0.1	Expanding	Faster	8
Sales/New Orders	57.0	55.1	1.9	Rising	Faster	8
Production	53.3	54.1	-0.8	Rising	Slower	8
Employment	47.9	46.0	1.9	Falling	Slower	12
Purchases	50.4	53.7	-3.3	Rising	Slower	5
Prices Paid	55.8	57.1	-1.3	Rising	Slower	5
Lead Times	55.9	58.6	-2.7	Rising	Slower	10
Purchased Inventory	45.8	53.8	-8.0	Falling	Fr. Rising	1
Finished Goods Inventory	47.9	51.4	-3.5	Falling	Fr. Rising	1
Overall Houston Economy				Expanding	Faster	8

* Number of months on current track

Houston PMI Trend

Overall economic activity in Houston expanded again in January. 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: Syringes; crude oil, gasoline, diesel, jet fuel; ethane, propane, butanes, natural gas, natural gas liquids; ethylene, propylene, butadiene, polyethylene, polypropylene; platinum, rhodium; turbines, steel products, carbon and alloy steel pipe, copper wire and cable, fabricated structural steel; ready mix concrete; lumber; bulk and containerized ocean freight

Down in Price: PPE supplies (masks and gloves); fabricated structural steel, heat exchangers

In Short Supply: Syringes; butadiene; corrugated boxes; steel; professionals with EPC procurement experience

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- Continued downward pressure on employment caused by asset sales and re-organizations
- U.S. and Texas Rig Counts continue to rise
- *This sector stayed just above neutral; the production index rose to join the purchases and lead times indices at very strong levels; the employment index continues to report well below neutral*

Construction:

- Continued lull, pandemic uncertainty delaying activity
- *This sector rose to above neutral led by improving sales/new orders, employment, prices paid, and lead times indices*

Durable Goods Manufacturing:

- In manufacturing for the energy industry, the biggest challenge of 2021 will be political uncertainty regarding support for fossil fuels
- *This sector reported additional improvement this month with the sales/new orders, production, purchases, prices paid, and lead times indices all showing strength; the employment index remained near neutral*

Non-durable Goods Manufacturing:

- Continuing to see effects of COVID but vaccinations should help increase demand by 2Q21
- Gulf Coast refinery utilization continues to improve, but is still only in the mid 80s
- *This sector also reported further strengthening with the sales/new orders, production, prices paid, lead times, and finished goods inventory indices showing further improvement; the employment index continues to be reported well below neutral*

Transportation:

- Project activity at the Port of Houston is picking up
- *This sector reported expansion again this month; the sales, employment, and purchases indices showed considerable strength; the employment index was reported near neutral*

Financial Services and Real-estate:

- Office and Industrial real estate vacancy rates continue to climb
- *This sector reported modestly below neutral this month with the sales index falling under neutral*

Professional and Business Services:

- Several customers have issued contracts in the first few weeks of 2021 for engineering services, project planning, and bridging activities; these are positive indicators for a rebound in major EPC project work later this year
- The increase in oil prices has not created an increase in hiring or capital expenditures in the O&G industry as leaders wait to see if higher prices are here for the long term
- Companies are still hesitant to utilize staffing, professional and consulting services as revenues continue to be well below pre-COVID levels and cost control remains essential
- *This sector reported significant improvement this month as the sales/new orders and employment indices returned to neutral*

Accommodations and Food Services:

- This sector reported near neutral with all indices flat on a month to month basis

What Our Respondents Are Saying (Continued)

Health Care:

- Given the increase in the COVID-19 vaccine administration, there has been an increase in demand for syringes; both manufacturers and distributors excess inventory has been depleted and they are operating at critical inventory levels
- Clinical grade masks are becoming available for the general public due to increase levels of inventory; gloves will continue to be a watch-list item
- *This sector continues to report strength with the sales, purchases, and lead times indices all pointing to expansion; the employment index remains near neutral*

Trend of Underlying Indicators

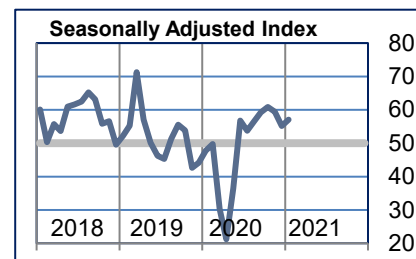
The Houston PMI is based on diffusion indices for eight underlying indicators. The net value of each indicator is simply the percentage of respondents who cite a positive shift from the previous month minus the percentage who cite a negative shift. The diffusion index is calculated based on the percent 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.

Sales/New Orders Index

This index is pointing to expansion at a moderately higher pace.

Durable and non-durable goods manufacturing, transportation, and health care showed expansion. Commercial and industrial real estate reported weakness.

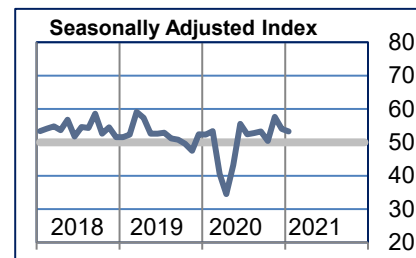
	Higher	Same	Lower	Net	Index
Aug/20	20%	74%	6%	14%	56.5
Sep/20	26%	69%	5%	21%	59.2
Oct/20	25%	67%	8%	17%	60.9
Nov/20	18%	78%	4%	14%	59.4
Dec/20	15%	75%	10%	5%	55.1
Jan/21	19%	80%	1%	18%	57.0



Production Index

The production index pointed to continued expansion at a slower pace. Durable goods manufacturing reported considerable strength. All other industries came at or just above neutral.

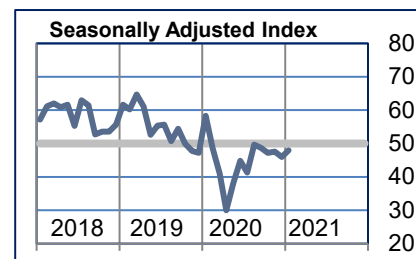
	Higher	Same	Lower	Net	Index
Aug/20	10%	85%	5%	5%	52.8
Sep/20	10%	87%	3%	7%	53.3
Oct/20	6%	88%	6%	0%	50.4
Nov/20	14%	86%	0%	14%	57.6
Dec/20	7%	91%	2%	5%	54.1
Jan/21	8%	92%	0%	8%	53.3



Employment Index

This index continues to point to contraction. O&G and non-durable goods manufacturing reported further contraction. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
Aug/20	9%	78%	13%	-4%	49.7
Sep/20	9%	79%	12%	-3%	48.7
Oct/20	4%	84%	12%	-8%	47.2
Nov/20	7%	78%	15%	-8%	47.6
Dec/20	4%	83%	13%	-9%	46.0
Jan/21	6%	83%	11%	-5%	47.9



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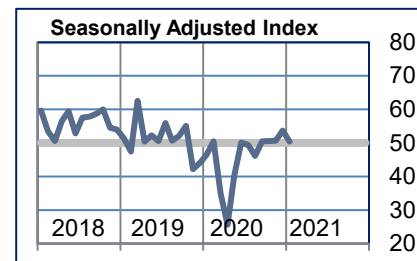


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Purchases Index

This index fell to near neutral. O&G, transportation, durable goods manufacturing, and health care reported it as expanding. Construction and professional services reported it as contracting.

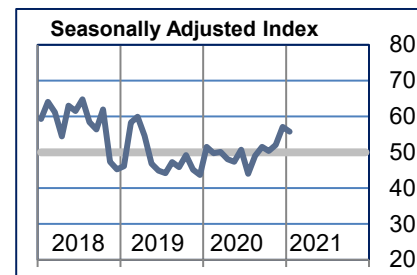
	Higher	Same	Lower	Net	Index
Aug/20	6%	83%	11%	-5%	46.1
Sep/20	15%	75%	10%	5%	50.5
Oct/20	13%	74%	13%	0%	50.5
Nov/20	7%	85%	8%	-1%	50.7
Dec/20	10%	83%	7%	3%	53.7
Jan/21	9%	85%	6%	3%	50.4



Prices Paid Index

The prices paid index continues to indicate expansion. Construction, manufacturing, real estate, and health care reported this index as expanding. All other sectors reported near neutral.

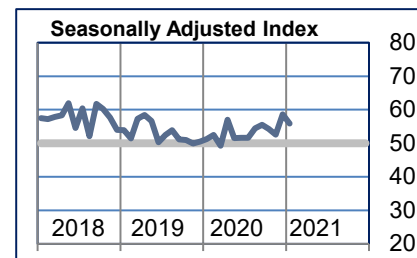
	Higher	Same	Lower	Net	Index
Aug/20	8%	80%	12%	-4%	49.0
Sep/20	11%	80%	9%	2%	51.5
Oct/20	11%	82%	7%	4%	50.4
Nov/20	10%	82%	8%	2%	52.1
Dec/20	10%	89%	1%	9%	57.1
Jan/21	11%	89%	0%	11%	55.8



Lead Times Index

The lead times index also continues to indicate expansion. Oil & gas, construction, manufacturing, and health care reported this index as expanding at a high rate. All other sectors reported near neutral.

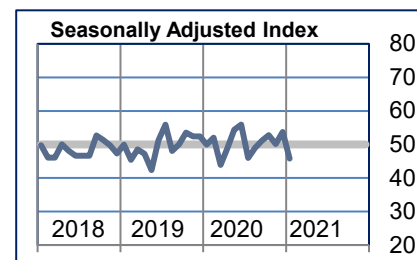
	Higher	Same	Lower	Net	Index
Aug/20	12%	85%	3%	9%	54.5
Sep/20	13%	86%	1%	12%	55.5
Oct/20	7%	93%	0%	7%	54.2
Nov/20	7%	90%	3%	4%	52.6
Dec/20	13%	87%	0%	13%	58.6
Jan/21	11%	89%	0%	11%	55.9



Purchased Inventory Index

The purchased goods inventory index is now showing contraction. Only health care reported these inventories as expanding. O&G, construction, and durable goods manufacturing reported them as contracting.

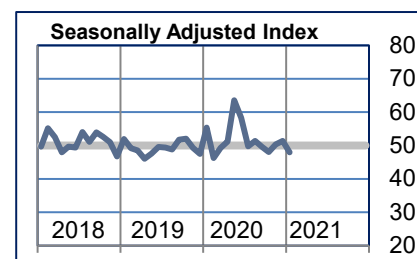
	Higher	Same	Lower	Net	Index
Aug/20	2%	93%	5%	-3%	49.0
Sep/20	6%	88%	6%	0%	51.2
Oct/20	9%	84%	7%	2%	52.8
Nov/20	8%	85%	7%	1%	50.1
Dec/20	10%	83%	7%	3%	53.8
Jan/21	5%	89%	6%	-1%	45.8



Finished Goods Inventory Index

The finished goods inventory index fell below neutral. Construction and non-durable goods manufacturing reported these inventories as contracting. Durable goods manufacturing reported them as expanding.

	Higher	Same	Lower	Net	Index
Aug/20	6%	93%	1%	5%	51.4
Sep/20	5%	87%	8%	-3%	49.6
Oct/20	6%	83%	11%	-5%	48.1
Nov/20	12%	79%	9%	3%	50.3
Dec/20	10%	82%	8%	2%	51.4
Jan/21	6%	87%	7%	-1%	47.9



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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