

# ISM-Houston Business Report

February 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 February for the ninth month. Manufacturing activities expanded for the third month and services activities have now expanded for the last seven months.

The Houston Purchasing Managers Index rose 1.7 points to 54.3 during the month. The employment index joined the sales/new orders and lead times indices in pointing to expansion. These three underlying indicators that have a strong direct correlation with the economy. The sales/new orders index fell a modest 0.4 points to 56.6, its ninth month of indicating expansion. The lead times index rose 1.5 points to 57.4, also its ninth month pointing to expansion. The employment index rose 2.9 points to 50.8. The employment index has not indicated expansion since early last year. 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 fell minimally to 54.1. An improvement in the lead times index was offset by lower sales/new orders and production indices. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis oil & gas joined construction, manufacturing, transportation, and healthcare in reporting expansion at a strong pace. All other sectors reported near neutral. The three-month forecast continues to predict further expansion primarily due to the strength of the sales/new orders, production, and prices paid indices.

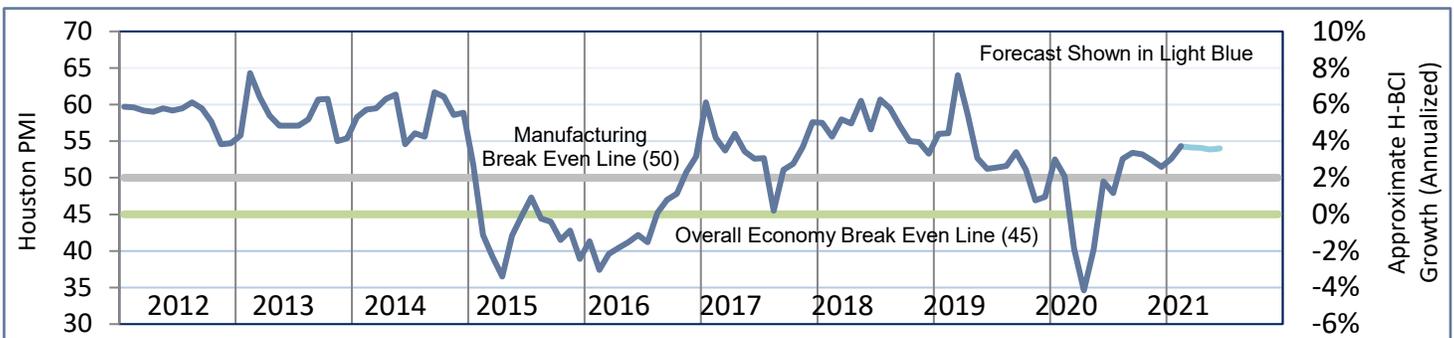
## Indices at a Glance

Index	Feb	Jan	Change	Track	Rate	Trend*
Houston Overall PMI - Current	54.3	52.6	1.7	Expanding	Faster	7
Houston Overall PMI - 3M Forecast	54.1	54.2	-0.1	Expanding	Slower	9
Sales/New Orders	56.6	57.0	-0.4	Rising	Slower	9
Production	53.0	53.3	-0.3	Rising	Slower	9
Employment	50.8	47.9	2.9	Rising	Fr. Falling	1
Purchases	53.0	50.4	2.6	Rising	Faster	6
Prices Paid	58.0	55.8	2.2	Rising	Faster	6
Lead Times	57.4	55.9	1.5	Rising	Faster	11
Purchased Inventory	46.0	45.8	0.2	Falling	Slower	2
Finished Goods Inventory	44.8	47.9	-3.1	Falling	Faster	2
Overall Houston Economy				Expanding	Faster	9

\* Number of months on current track

## Houston PMI Trend

Overall economic activity in Houston expanded again in February. 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:** Isolation gowns; electricity; crude oil, gasoline, diesel, jet fuel; ethane, propane, butane, isobutane, natural gas, natural gas liquids; ethylene, propylene, polyethylene, polypropylene; rhodium; aluminum products, copper based wire and cable, fabricated structural steel, carbon pipe, alloy pipe, transformers, heat exchangers, electrical equipment; ready mix concrete; lumber; bulk and containerized ocean freight

**Down in Price:** None reported

**In Short Supply:** General purpose syringes; natural gas and electricity

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### What Our Respondents Are Saying

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

- Increasing drilling activity in the Permian Basin
- Rig counts continue to rise
- Recovering at Permian from the Texas winter storm
- *This sector strengthened considerably during the month; the production, purchases, and lead times indices all rose to well above neutral; the employment index improved to just below neutral*

#### Construction:

- Lumber prices continue to be a major concern for new home construction
- *This sector was relatively flat during the month; the purchases index remained below neutral while the prices and lead times indices continues to point to strength*

#### Durable Goods Manufacturing:

- Sales are improving and we are starting to slowly add back jobs
- *This sector improved further this month and is now showing significant growth; all underlying indices showed strength*

#### Non-durable Goods Manufacturing:

- Winter Storm had a significant impact on Houston Ship Channel operations and supply chain deliveries
- Ethylene and propylene polymer pricing has risen significantly over the last few months
- The price for Rhodium used in catalysts continues its sharp rise
- *This sector strengthening further with the sales/new orders, production, purchases, lead times, and finished goods inventory indices all showing strength; the employment index rose to near neutral*

#### Real-Estate Services:

- Apartment occupancy and rental rates continue to fall at a modest pace
- New and existing home inventories are below 2 months supply
- Closings, new listings, and showings fell significantly due to the winter storm
- New industrial real estate market deliveries have increased vacancy rates this year
- Retail real estate occupancy rates are at their lowest level since 2014
- *This sector reported near neutral again this month with strength in new and existing home sales and weakness in industrial and retail real estate*

#### Professional and Business Services:

- The oil & gas industry seems to be immersed in discussions around carbon capture, green energy, and energy transition; these topics are becoming integrated into all aspects of capital projects from planning to completion and operation
- If current projections for COVID in U.S. are accurate we will see business activity increase in 2nd half 2021
- There is an increased interest in adding jobs in energy, however, it is isolated in the alternative energy business; traditional energy companies continue to announce reductions in staff
- Rising oil prices are creating a slight increase in optimism around hiring of employees and contractors
- Some capital projects and major corporate initiatives like system upgrades and implementations that were halted in early 2020 are starting back up
- Hiring managers are being very deliberate about how much hiring to do and when to do it
- *This sector reported flat this month after strong improvement last month; the purchases index indicated weakness while process paid index showed strength; all other indices were near neutral*

### What Our Respondents Are Saying (Continued)

#### Health Care:

- As we continue to increase the amount of COVID-19 vaccinations, general purpose syringes are in very high demand; these syringes are used for all other types of vaccinations; we are engaging the manufacturers to ensure that we remain on their respective production schedules; it is anticipated that this high demand will continue through the end of the calendar year
- *This sector continues to report strength with the sales, purchases, and lead times indices all continuing to pointing to expansion; the employment index remains near neutral*

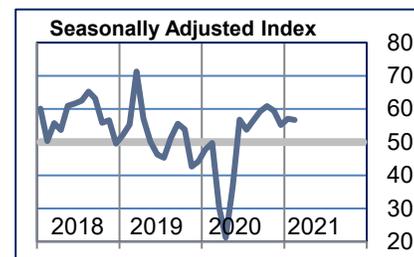
### Trend of Underlying Indicators

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

The sales/new orders index continues to point towards moderate to strong expansion. Oil & gas, manufacturing, and health care showed significant strength. No sector reported contraction in this index.

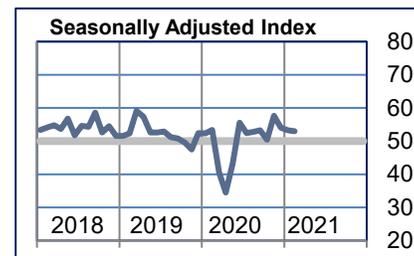
	Higher	Same	Lower	Net	Index
Sep/20	26%	69%	5%	21%	59.2
Oct/20	25%	67%	8%	17%	60.9
Nov/20	18%	78%	4%	14%	59.4
Dec/20	15%	75%	10%	5%	55.1
Jan/21	19%	80%	1%	18%	57.0
Feb/21	20%	76%	4%	16%	56.6



#### Production Index

The production index pointed to continued expansion at a slower pace. Oil & gas joined non-durable goods manufacturing in showing strength. All other sectors reported near neutral.

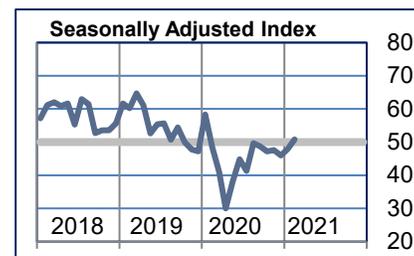
	Higher	Same	Lower	Net	Index
Sep/20	10%	87%	3%	7%	53.3
Oct/20	6%	88%	6%	0%	50.4
Nov/20	14%	86%	0%	14%	57.6
Dec/20	7%	91%	2%	5%	54.1
Jan/21	8%	92%	0%	8%	53.3
Feb/21	11%	84%	5%	6%	53.0



#### Employment Index

This employment index rose to above neutral for the first time since early last year. Durable goods manufacturing reported strength and non-durable goods rose to just below neutral. All other sectors reported at neutral.

	Higher	Same	Lower	Net	Index
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
Feb/21	7%	85%	8%	-1%	50.8



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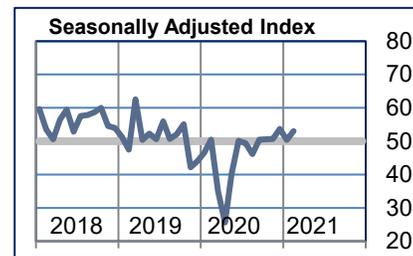


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### Purchases Index

This index rose this month to continue indicating expansion. Non-durable goods joined O&G, durable goods, and health care reporting it as expanding. Construction and professional services continue to report it as contracting.

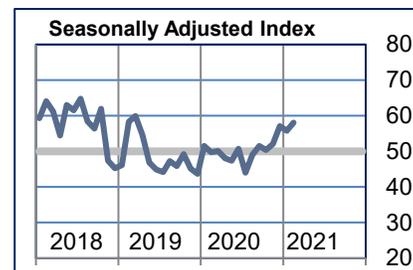
	Higher	Same	Lower	Net	Index
Sep/20	15%	75%	10%	5%	50.5
Oct/20	13%	74%	13%	0%	50.5
Nov/20	7%	85%	8%	-1%	50.7
Dec/20	10%	83%	7%	3%	53.7
Jan/21	9%	85%	6%	3%	50.4
Feb/21	12%	82%	6%	6%	53.0



### Prices Paid Index

The prices paid index rose to indicate stronger expansion. Real estate, construction, durable goods manufacturing, professional services, and health care reported this index as expanding. All other sectors reported near neutral.

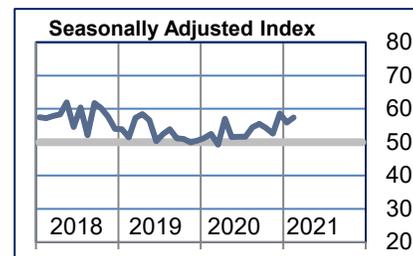
	Higher	Same	Lower	Net	Index
Sep/20	11%	80%	9%	2%	51.5
Oct/20	11%	82%	7%	4%	50.4
Nov/20	10%	82%	8%	2%	52.1
Dec/20	10%	89%	1%	9%	57.1
Jan/21	11%	89%	0%	11%	55.8
Feb/21	17%	82%	1%	16%	58.0



### Lead Times Index

The lead times index rose further this month. Real estate joined oil & gas, construction, manufacturing, and health care in reporting this index as expanding at a high rate. All other sectors reported near neutral.

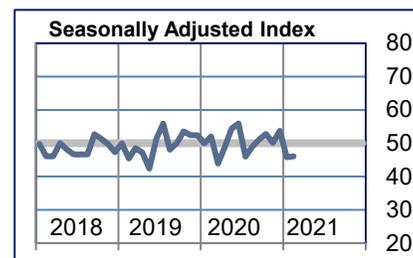
	Higher	Same	Lower	Net	Index
Sep/20	13%	86%	1%	12%	55.5
Oct/20	7%	93%	0%	7%	54.2
Nov/20	7%	90%	3%	4%	52.6
Dec/20	13%	87%	0%	13%	58.6
Jan/21	11%	89%	0%	11%	55.9
Feb/21	16%	84%	0%	16%	57.4



### Purchased Inventory Index

The purchased goods inventory index was again below neutral. Construction and durable goods manufacturing reported these inventories as contracting. All other sectors were near neutral.

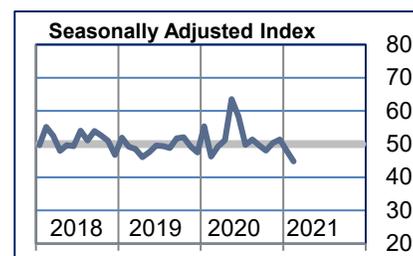
	Higher	Same	Lower	Net	Index
Sep/20	6%	88%	6%	0%	51.2
Oct/20	9%	84%	7%	2%	52.8
Nov/20	8%	85%	7%	1%	50.1
Dec/20	10%	83%	7%	3%	53.8
Jan/21	5%	89%	6%	-1%	45.8
Feb/21	1%	92%	7%	-6%	46.0



### Finished Goods Inventory Index

The finished goods inventory index showed further contraction. O&G, construction, and manufacturing reported these inventories as contracting. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
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
Feb/21	1%	89%	10%	-9%	44.8



### 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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