

# ISM-Houston Business Report

## July 2021



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 for the 14th consecutive month in July. The overall ISM-Houston PMI diffusion index rose modestly. Both manufacturing and services activities showed strength.

The Houston Purchasing Managers Index rose 0.5 points to 57.2 during the month. Strengthening of the lead times and employment indices, offset modestly by weakening of the sales/new orders index drove this improvement. These three indicators have the strongest direct correlation with the economic activity in Houston. The sales/new orders index fell 2.5 points to 58.7. The lead times index rose 2.1 points to 63.9. The employment index rose 1.3 points to 53.1. The Finished goods inventory index, the underlying indicator that has the strongest inverse correlation with economic activity, fell 2.7 points to 44.7, a further sign that the economy is expanding.

The three-month forecast for the Houston PMI fell 1.9 points to 55.4. Lower sales/new orders, production, and prices paid indices are responsible for this reduction. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis, oil & gas, construction, manufacturing, transportation, healthcare, new and existing home sales, and leisure and hospitality reported strong expansion. 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 and prices paid indices.

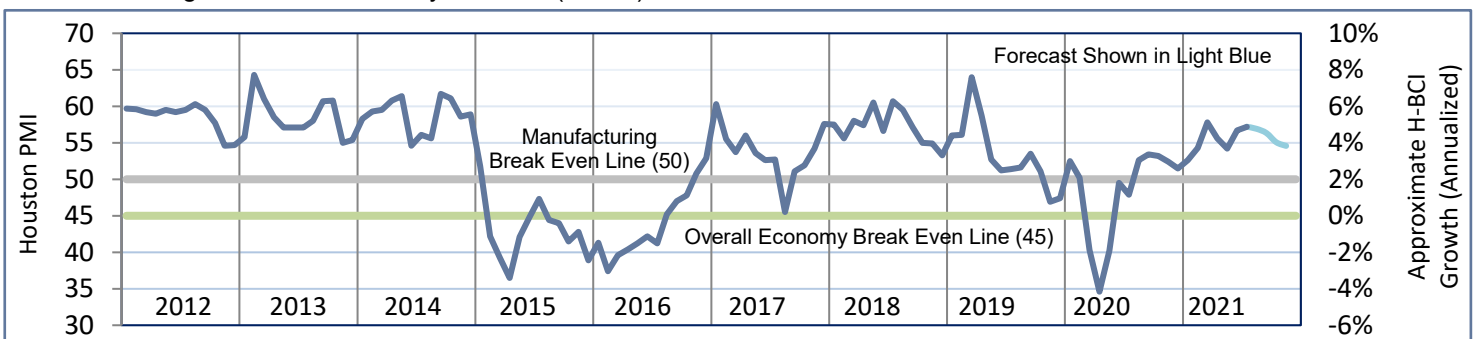
### Indices at a Glance

Index	Jul	Jun	Change	Track	Rate	Trend*
Houston Overall PMI - Current	57.2	56.7	0.5	Expanding	Faster	12
Houston Overall PMI - 3M Forecast	55.4	57.3	-1.9	Expanding	Slower	14
Sales/New Orders	58.7	61.2	-2.5	Rising	Slower	14
Production	51.4	54.8	-3.4	Rising	Slower	14
Employment	53.1	51.8	1.3	Rising	Faster	6
Purchases	57.1	57.7	-0.6	Rising	Slower	11
Prices Paid	67.6	70.5	-2.9	Rising	Slower	11
Lead Times	63.9	61.8	2.1	Rising	Faster	16
Purchased Inventory	45.4	47.4	-2.0	Falling	Faster	7
Finished Goods Inventory	44.7	47.4	-2.7	Falling	Faster	7
Overall Houston Economy				Expanding	Faster	14

\* Number of months on current track

### Houston PMI Trend

Overall economic activity in Houston expanded in July. 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:** Craft labor rates, professional contract labor, direct hire rates; pumps, compressors, heat exchangers, alloy and carbon steel pipe, structural steel; copper wire and cable, transformers, electrical equipment; lumber<sup>‡</sup>; natural gas, natural gas liquids, ethane, propane, butanes, ethylene, propylene, butadiene, gasoline; domestic rail and truck freight; container and bulk ocean freight; software and hardware

**Down in Price:** Precious metals for catalysts (gold, platinum, silver); lumber<sup>‡</sup>

**In Short Supply:** Structural steel, carbon steel pipe; truck drivers

<sup>‡</sup> reported as up or down by different respondents

### What Our Respondents Are Saying

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

- Starting the new Hybrid Work Model (office and remote)
- Continued trend of longer lead times and rising prices
- *This sector report expansion at a modestly lower rate than last month; prices and lead times continue to rise at a rapid pace; production, employment, and purchases rose at a slower pace*

#### Construction:

- There are general supply chain concerns about future impacts related to the increasing number of COVID cases
- Lumber prices are finally returning to a level near normal for the summer season
- *This sector reported growth at a similar level to last month; the sales/new orders, purchases, prices paid, and lead times indices were reported as growing at a strong pace; the employment index was reported as expanding at a modest pace*

#### Durable Goods Manufacturing:

- Increasing prices are a real problem; inflation is going to hurt all of us
- Containerized ocean freight costs are now 5-6 times what they were in early 2020
- *This sector reported continued modest growth; the prices paid and lead times indices showed rapid expansion while the sales, production, employment, and purchases indices reported as neutral; inventories are falling at a fast rate*

#### Non-durable Goods Manufacturing:

- Seeing positive market trends, but slow moving; labor is getting more expensive
- *This sector continued to grow at a modest pace during the month; the sales/new orders, production, and purchases indices continued to point to modest expansion; the prices paid and lead times indices showed expansion at a rapid pace; the employment index showed contraction; inventories are contracting at a fast pace*

#### Transportation and Warehousing:

- Domestic passenger traffic is now at about 90% of pre-pandemic levels
- *This sector strengthened further with continued good performance of the sales/new orders, employment, purchases, and prices paid indices*

#### Real-Estate Services:

- Sales traffic for new homes is down from earlier in the year but is still strong
- Finally seeing more resale listings hit the market
- Apartment occupancy rates and prices are rising
- Starting to see modest demand improvement in the industrial real estate market
- *This sector improved further this month with continued strength in new and existing home sales, as well as apartment rentals; industrial real estate showed modest improvement; continued weakness was reported in office and retail real estate*

#### Professional and Business Services:

- If the price of oil remains near \$70/bbl we anticipate that oil companies will include staff additions in the year end budgeting efforts; if prices fall we see a continued freeze at 2021 budget levels
- There was a slight increase in direct hire and hourly contract pricing this month; this will level off soon
- *This sector improved modestly this month; the sales/new orders, prices paid, and lead times indices showed strength; the employment index rose to neutral*

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## What Our Respondents Are Saying (Continued)

### Leisure and Hospitality

- This sector reported further improvement with the sales, employment, purchases, prices paid, and lead times indices all pointing to strong growth

### Health Care

- This sector continues to report expansion with all indicators showing strength

## Trend of Underlying Indicators

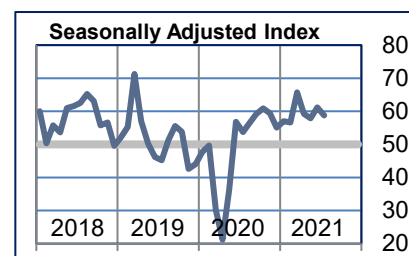
The Houston PMI is based on diffusion indices for eight underlying indicators. The net value of each indicator is simply the percentage of respondents who cite a positive shift from the previous month minus the percentage who cite a negative shift. The diffusion index is calculated based on the percent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

pointing to strong expansion at a modestly slower pace. Health care, leisure and hospitality, non-durable goods, new and existing homes, professional services, construction, and transportation reported strength.

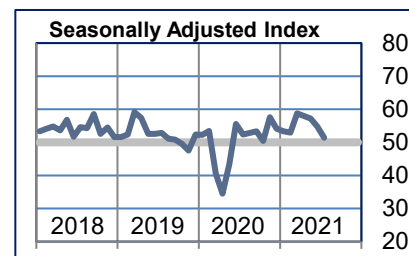
	Higher	Same	Lower	Net	Index
Feb/21	20%	76%	4%	16%	56.6
Mar/21	33%	66%	1%	32%	65.7
Apr/21	22%	77%	1%	21%	59.3
May/21	20%	79%	1%	19%	57.9
Jun/21	20%	79%	1%	19%	61.2
Jul/21	19%	81%	0%	19%	58.7



### Production Index

The production index fell modestly to just above neutral. Non-durable goods manufacturing reported strength while all other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
Feb/21	11%	84%	5%	6%	53.0
Mar/21	18%	82%	0%	18%	58.7
Apr/21	18%	82%	0%	18%	58.0
May/21	15%	85%	0%	15%	57.2
Jun/21	9%	89%	2%	7%	54.8
Jul/21	4%	95%	1%	3%	51.4

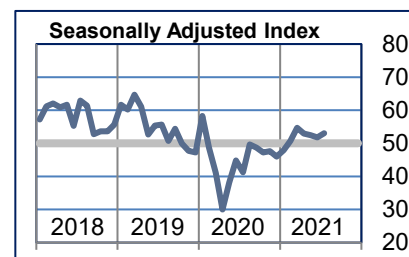


### Employment Index

The employment index rose to indicate modest strength.

Construction joined oil & gas, transportation, health care, and leisure and hospitality reporting above neutral. Non-durable goods returned to reporting weakness.

	Higher	Same	Lower	Net	Index
Feb/21	7%	85%	8%	-1%	50.8
Mar/21	18%	73%	9%	9%	54.7
Apr/21	19%	73%	8%	11%	53.0
May/21	15%	76%	9%	6%	52.4
Jun/21	13%	82%	5%	8%	51.8
Jul/21	13%	79%	8%	5%	53.1



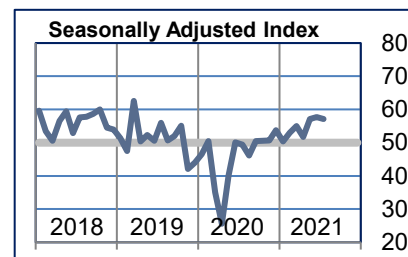
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## Purchases Index

The purchases index was relatively unchanged, continuing to point to strong expansion. Health care, non-durable goods manufacturing, construction, transportation, oil & gas, and leisure and hospitality reported this index as expanding.

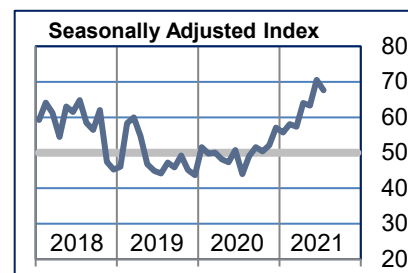
	Higher	Same	Lower	Net	Index
Feb/21	12%	82%	6%	6%	53.0
Mar/21	17%	77%	6%	11%	55.0
Apr/21	14%	78%	8%	6%	51.7
May/21	21%	71%	8%	13%	57.1
Jun/21	21%	72%	7%	14%	57.7
Jul/21	17%	77%	6%	11%	57.1



## Prices Paid Index

The prices paid index fell modestly to indicate expansion at a slower pace. All sectors reported this index as expanding at rapid pace.

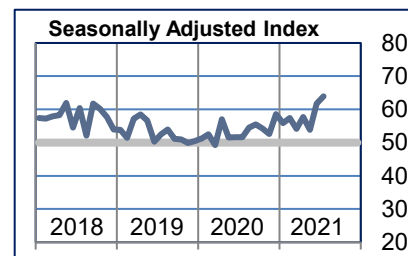
	Higher	Same	Lower	Net	Index
Feb/21	17%	82%	1%	16%	58.0
Mar/21	20%	79%	1%	19%	57.3
Apr/21	29%	70%	1%	28%	64.0
May/21	33%	66%	1%	32%	63.3
Jun/21	37%	63%	0%	37%	70.5
Jul/21	32%	68%	0%	32%	67.6



## Lead Times Index

The lead times index strengthened to indicate expansion at a faster pace. Oil & gas, construction, manufacturing, real estate, health care, leisure and hospitality, and professional services reported this index as expanding.

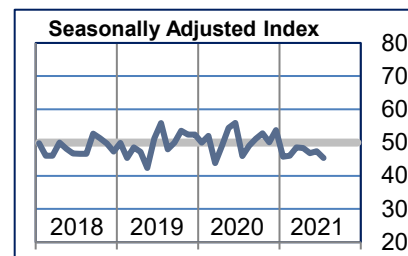
	Higher	Same	Lower	Net	Index
Feb/21	16%	84%	0%	16%	57.4
Mar/21	12%	88%	0%	12%	54.1
Apr/21	18%	81%	1%	17%	57.7
May/21	13%	85%	2%	11%	53.8
Jun/21	24%	75%	1%	23%	61.8
Jul/21	27%	73%	0%	27%	63.9



## Purchased Inventory Index

The purchased inventory index fell further below neutral strengthening its economic expansion signal. All sectors that report these inventories reported near or below neutral.

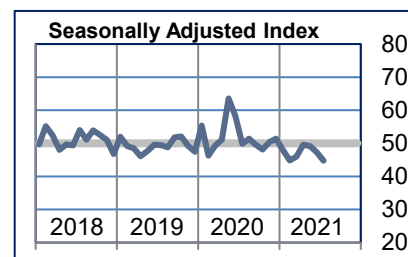
	Higher	Same	Lower	Net	Index
Feb/21	1%	92%	7%	-6%	46.0
Mar/21	4%	89%	7%	-3%	48.6
Apr/21	3%	91%	6%	-3%	48.4
May/21	2%	91%	7%	-5%	46.8
Jun/21	0%	95%	5%	-5%	47.4
Jul/21	0%	93%	7%	-7%	45.4



## Finished Goods Inventory Index

The finished goods inventory index fell to well below neutral, showing a strong economic expansion signal. Oil and gas, manufacturing, and new and existing home sales reported these inventories as contracting at a rapid pace.

	Higher	Same	Lower	Net	Index
Feb/21	1%	89%	10%	-9%	44.8
Mar/21	2%	88%	10%	-8%	46.0
Apr/21	5%	88%	7%	-2%	49.5
May/21	3%	91%	6%	-3%	49.2
Jun/21	0%	93%	7%	-7%	47.4
Jul/21	0%	92%	8%	-8%	44.7



### 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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