

ISM-Houston Business Report

June 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 for the 13th consecutive month in June. The overall ISM-Houston PMI diffusion index rose modestly. Manufacturing activities have now expanded for eight months, and services activities have expanded for eleven.

The Houston Purchasing Managers Index rose 2.5 points to 56.7 during the month. Significant strengthening of the sales/new orders and lead times indices along with a minimal change in the employment index, the three underlying indicators that have the strongest direct correlation with the economy, drove this improvement. The sales/new orders index rose 3.3 points to 61.2. The lead times index rose 8.0 points to 61.8. The employment index fell 0.6 points to 51.8. The Finished goods inventory index, the underlying indicator that has the strongest inverse correlation with economic activity, fell 1.8 points to 46.4, a further sign that the economy is expanding.

The three-month forecast for the Houston PMI rose 1.6 points to 57.3. Higher sales/new orders and prices paid indices, offset modestly by a fall in the production index are responsible for this gain. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis, durable goods and non-durable goods manufacturing joined oil & gas, construction, transportation, healthcare, and leisure and hospitality in reporting 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.

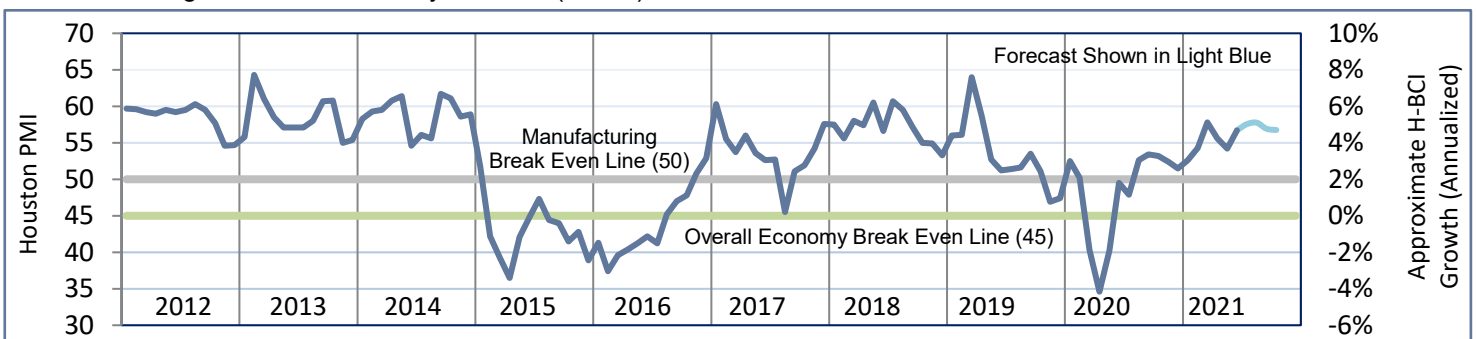
Indices at a Glance

Index	Jun	May	Change	Track	Rate	Trend*
Houston Overall PMI - Current	56.7	54.2	2.5	Expanding	Faster	11
Houston Overall PMI - 3M Forecast	57.3	55.7	1.6	Expanding	Faster	13
Sales/New Orders	61.2	57.9	3.3	Rising	Faster	13
Production	54.8	57.2	-2.4	Rising	Slower	13
Employment	51.8	52.4	-0.6	Rising	Slower	5
Purchases	57.7	57.1	0.6	Rising	Faster	10
Prices Paid	70.5	63.3	7.2	Rising	Faster	10
Lead Times	61.8	53.8	8.0	Rising	Faster	15
Purchased Inventory	47.4	46.8	0.6	Falling	Slower	6
Finished Goods Inventory	47.4	49.2	-1.8	Falling	Faster	6
Overall Houston Economy				Expanding	Faster	13

* Number of months on current track

Houston PMI Trend

Overall economic activity in Houston expanded in June. 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: Crude oil, natural gas, natural gas liquids, gasoline, diesel, jet fuel; ethane, propane, normal butane, isobutane, ethylene, propylene; fabricated structural steel, alloy and carbon steel pipe, valves, and fittings, ANSI pumps and compressors, copper wire and cable; electrical equipment, bulks, and cable; bulk and containerized ocean freight

Down in Price: Rhodium

In Short Supply: Steel; plastics and resins; electronic components; truck drivers

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- Texas rig counts continue to rise at a very slow pace
- *This sector reported further strengthening with all underlying indicators continuing to point to expansion*

Construction:

- Lumber prices, while still high on a historical basis, ended June at half the level they were earlier this year
- *This sector improved further with strong growth seen in the sales/new orders, purchases, prices paid, and lead times indices*

Durable Goods Manufacturing:

- Our production rates are up, but not as much as would be expected due to the increase in oil prices
- *This sector strengthened to the levels seen earlier in the year with the production, prices paid, and lead times indices rising at a fast pace; the purchases and inventory indices returned to near neutral*

Non-durable Goods Manufacturing:

- Continue to see more people traveling for the holidays so jet fuel demand continues to rise, which has enabled us to reduce jet fuel inventories
- Prices for precious metals used in catalysts, while still high, appear to have stabilized
- We are seeing continued upward pricing pressure on industrial metals (aluminum, copper, nickel)
- We are forecasting additional price increases for high alloy steels due to continued pressure on the inputs to these steels
- *This sector returned to a higher level of expansion this month with strong expansion signals given by the sales/new orders, production, prices paid, and lead times indices; both inventory indices were reported as contracting*

Transportation and Warehousing:

- Domestic airport passenger traffic continues to increase; international traffic is being constrained by travel restrictions in place in our international partner countries
- *This sector continues to strengthen with strong performance of the sales/new orders, employment, purchases, and prices paid indices; all other indicators were reported near neutral*

Real-Estate Services:

- Home sales continue at a strong pace
- Prices continue to rise, but the rate of increase may be slowing
- *This sector improved during the month with continued strength in new and existing home sales; apartments also reported strength; continued weakness was reported in industrial, office, and retail real estate*

Professional and Business Services:

- Our oil & gas clients are maintaining capital discipline
- There continues to be over supply of qualified people for most functional occupations
- While we see a slight increase in hiring for staff positions, the prices remain flat; still 10-20% below compensation levels of three years ago
- *This sector reported just above neutral again this month; the sales/new orders, prices paid, and lead times indices showed strength; the employment index continues to run below neutral*

What Our Respondents Are Saying (Continued)

Leisure and Hospitality

- This sector report further improvement in the sales, employment, purchases, prices paid, and lead times indices pointing to stronger growth

Health Care

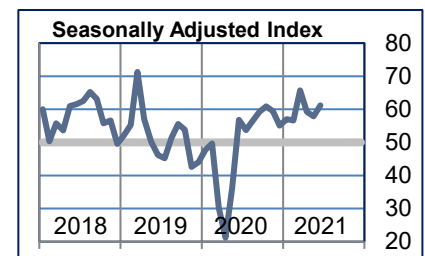
- This sector continues to report expansion with all indicators showing strength

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.

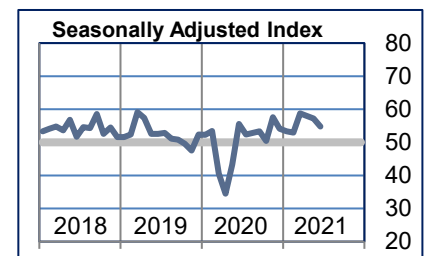
Sales/New Orders Index

The sales/new orders index improved during the month to point to expansion at a stronger pace. Construction, oil & gas, leisure and hospitality, health care, transportation, and manufacturing reported strength.		Higher	Same	Lower	Net	Index
	Jan/21	19%	80%	1%	18%	57.0
	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



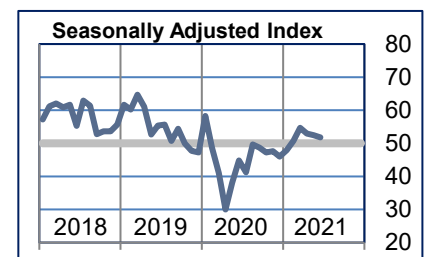
Production Index

The production index fell modestly continuing to indicate expansion, but at a slower pace. Oil & gas, construction, and manufacturing reported strength while all other sectors reported near neutral.		Higher	Same	Lower	Net	Index
	Jan/21	8%	92%	0%	8%	53.3
	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



Employment Index

The employment index came in relatively unchanged indicating continued modest growth. Oil & gas, transportation, health care, and leisure and hospitality reported well above neutral. Professional services reported weakness.		Higher	Same	Lower	Net	Index
	Jan/21	6%	83%	11%	-5%	47.9
	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



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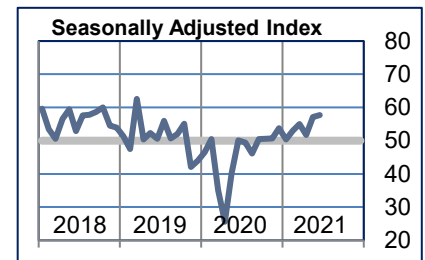


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Purchases Index

The purchases index pointed to expansion at a similar pace to last month. Health care, manufacturing, construction, transportation, and oil & gas reported this index as expanding. This index rose to neutral for professional services.

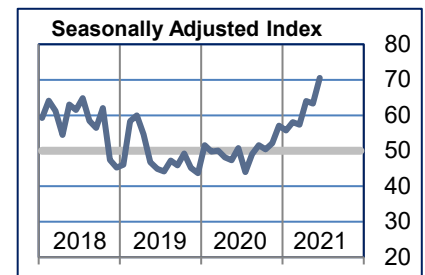
	Higher	Same	Lower	Net	Index
Jan/21	9%	85%	6%	3%	50.4
Feb/21	12%	82%	6%	6%	53.0
Mar/21	17%	77%	6%	11%	55.0
Apr/21	14%	78%	8%	6%	51.7
May/21	21%	71%	8%	13%	57.1
Jun/21	21%	72%	7%	14%	57.7



Prices Paid Index

The prices paid index rose significantly to indicate expansion at a much faster pace. Almost all sectors reported this index as expanding at rapid pace.

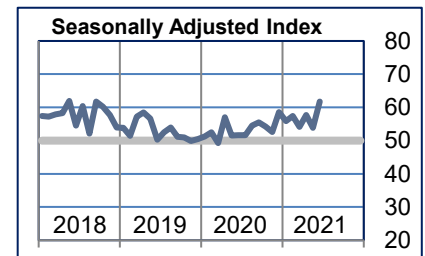
	Higher	Same	Lower	Net	Index
Jan/21	11%	89%	0%	11%	55.8
Feb/21	17%	82%	1%	16%	58.0
Mar/21	20%	79%	1%	19%	57.3
Apr/21	29%	70%	1%	28%	64.0
May/21	33%	66%	1%	32%	63.3
Jun/21	37%	63%	0%	37%	70.5



Lead Times Index

The lead times index strengthened to indicate expansion at a faster pace. Leisure and hospitality, and professional services joined oil & gas, construction, manufacturing, real estate, and health care in reporting this index as expanding.

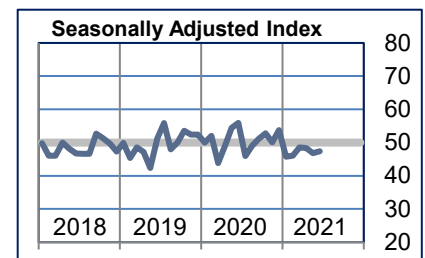
	Higher	Same	Lower	Net	Index
Jan/21	11%	89%	0%	11%	55.9
Feb/21	16%	84%	0%	16%	57.4
Mar/21	12%	88%	0%	12%	54.1
Apr/21	18%	81%	1%	17%	57.7
May/21	13%	85%	2%	11%	53.8
Jun/21	24%	75%	1%	23%	61.8



Purchased Inventory Index

The purchased inventory index continues to run just below neutral showing a very modest economic expansion signal. All sectors that report inventories reported near neutral.

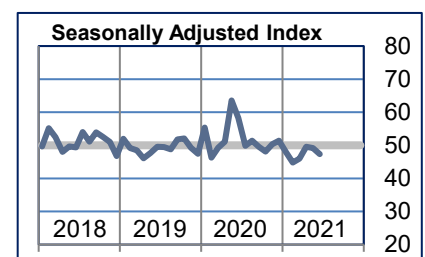
	Higher	Same	Lower	Net	Index
Jan/21	5%	89%	6%	-1%	45.8
Feb/21	1%	92%	7%	-6%	46.0
Mar/21	4%	89%	7%	-3%	48.6
Apr/21	3%	91%	6%	-3%	48.4
May/21	2%	91%	7%	-5%	46.8
Jun/21	0%	95%	5%	-5%	47.4



Finished Goods Inventory Index

The finished goods inventory index fell further below neutral, also giving a modest economic expansion signal. Oil and gas and non-durable goods manufacturing joined real estate in reporting these inventories as contracting.

	Higher	Same	Lower	Net	Index
Jan/21	6%	87%	7%	-1%	47.9
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



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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