

ISM-Houston Business Report

January 2022



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, economic activity in Houston expanded at a faster pace in January. The ISM-Houston PMI diffusion index rose modestly, led by faster expansion in non-manufacturing sectors. Manufacturing activities expanded at a slower pace again this month, led by a decline in the non-durable goods space.

The Houston Purchasing Managers Index rose 1.8 points to 59.6 during the month. Higher sales/new orders, employment, and lead times indices drove this improvement. These indicators have the strongest direct correlation with economic activity in Houston. The sales/new orders index rose 0.9 points to 57.5, the employment index rose 2.4 points to 59.9, and the lead times index rose 3.4 points to 66.2. The Finished goods inventory index, the underlying indicator that has the strongest inverse correlation with economic activity, rose 2.5 points to a neutral 50.0, giving neither an expansion nor contraction signal.

Starting this month, ISM-Houston begins reporting separate indices for manufacturing and non-manufacturing industries in addition to the overall Houston Purchasing Managers Index. With this change, the 3-month forecast for the HPMI has been eliminated. The Houston Manufacturing PMI fell 1.6 points to 57.3, continuing to point to strong expansion. The non-manufacturing PMI rose 2.4 points to 60.0 showing a greater expansion signal for the industries in this sector.

On an industry specific basis, healthcare, professional and management services, oil & gas, manufacturing, construction, and trade and transportation reported strong expansion. Leisure and hospitality returned to reporting modest growth along with real estate.

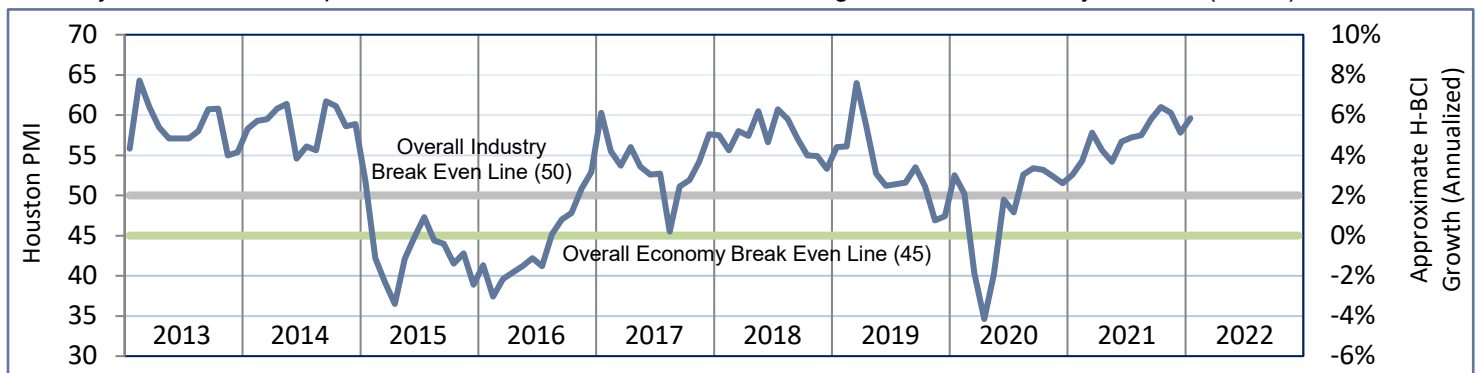
Indices at a Glance

Index	Jan	Dec	Change	Track	Rate	Trend*
Houston Overall PMI	59.6	57.8	1.8	Expanding	Faster	18
Houston Manufacturing PMI	57.3	58.9	-1.6	Expanding	Slower	14
Houston Non-Manufacturing PMI	60.0	57.6	2.4	Expanding	Faster	18
Sales/New Orders	57.5	56.6	0.9	Rising	Faster	20
Production	53.7	53.7	0.0	Rising	Unchanged	20
Employment	59.9	57.5	2.4	Rising	Faster	12
Purchases	58.1	54.4	3.7	Rising	Faster	5
Prices Paid	67.1	64.7	2.4	Rising	Faster	17
Lead Times	66.2	62.8	3.4	Rising	Faster	22
Purchased Inventory	51.1	52.3	-1.2	Rising	Slower	2
Finished Goods Inventory	50.0	47.5	2.5	Neutral	Neutral	1
Overall Houston Economy				Expanding	Faster	20

* Number of months on current track

Houston PMI Trend

Houston PMI readings over 50 generally indicate that respondents see their activities as expanding. An HPMI above 45 normally 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: PPE and other clinical supplies; truck, general, craft, skilled, rig, and professional labor; crude oil, motor fuels, natural gas; natural gas liquids, ethane, propane, normal butane, isobutane, natural gasoline, ethylene, propylene, toluene, xylene, styrene; industrial gases; lumber, aluminum, copper, nickel, steel[†], lined pipe, valves, capital equipment, rigs; palladium and rhodium for catalysts; rail and truck transportation; software and hardware

Down in Price: Butadiene; steel[†]; sand

In Short Supply: Medical testing kits and test readers; skilled craft labor, rig labor, light and heavy industrial labor, IT Professionals; silicon sealants, methanol, acetic acid, propylene glycol, glycol ethers; valves, steel based products; trucking, drill ships, rigs; computer hardware

[†] reported as up or down by different respondents

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- Continued price inflation across almost all categories
- Believe we're seeing a topping out of steel inflation
- Lead times are lengthening for many commodities
- *This sector strengthened further during the month with the production, employment, purchases, prices paid, and lead times indices all moving higher*

Construction:

- Capital spending for EPC projects in oil, gas and energy have begun to increase
- Lead time increases have impacted planning
- *This sector reported faster growth with the employment, purchases, prices paid, and lead times indices moving higher; the sales/new orders index came in near neutral*

Durable Goods Manufacturing:

- *This sector improved modestly to just above neutral; the production, purchases, prices paid, and lead times indices showed strength while the inventory indices came in above neutral signaling potential contraction*

Non-durable Goods Manufacturing:

- *While still showing strength, this sector weakened modestly; the production, employment, prices paid, and lead times indices remained strong while the sales index fell to neutral; the inventory index rose above neutral*

Trade, Transportation, and Warehousing:

- Likely not to see any price decreases until end 2023
- *This sector improved to show strong expansion; the sales, purchases, and lead time indices expanded at a faster pace while all other indicators came in near neutral*

Real-Estate Services:

- Industrial and retail real estate vacancy rates continue to fall
- Our [new home] prices are now 15-20% higher than the same time last year
- We had a good start for the new year
- *This sector continued to expand at a modest pace; the prices paid and lead times indices showed strength while all other indices were reported near neutral*

Professional and Business Services:

- Demand for light and heavy industrial labor continues to far exceed the supply
- Wages and salaries continue to increase for all types of labor as companies struggle to find the talent they need
- Candidates for jobs have many options and continue to be in the driver's seat
- Labor prices are pretty stable but hourly rates and direct hire prices are expected to increase
- It is difficult to find applicants who want to work at an office 5 days a week
- *This sector continued to show expansion at a strong pace; the purchases index joined the sales/new orders, employment, prices paid, and lead times indices pointing to rapid expansion*

Leisure and Hospitality

- *Activity in this sector rebounded to just above neutral during the month with all indices reporting near the mid-point*

What Our Respondents Are Saying (Continued)

Health Care

- We are now experiencing the effects of the pandemic and the shutdown in 2020; there are long lead times for many products; backorders are continuing to increase and there are many product shortages; this is due to manufacturing delays and very high demand for clinical supplies
- *This sector continues to report expansion at a high rate with the sales/new orders, employment, purchases, prices paid, and lead times indices remaining strong*

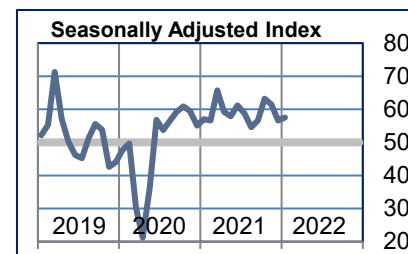
Trend of Underlying Indicators

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 due to strengthening in non-manufacturing sectors and durable goods manufacturing. This index fell to neutral in the non-durable goods manufacturing sector.

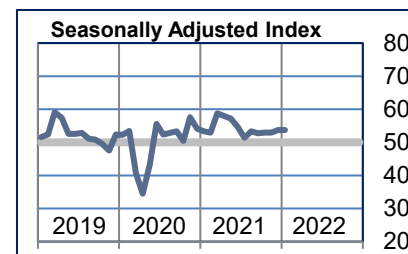
	Higher	Same	Lower	Net	Index
Aug/21	10%	89%	1%	9%	54.6
Sep/21	15%	84%	1%	14%	56.7
Oct/21	23%	75%	2%	21%	63.2
Nov/21	17%	82%	1%	16%	61.4
Dec/21	12%	82%	6%	6%	56.6
Jan/22	18%	80%	2%	16%	57.5



Production Index

The production index was unchanged. Durable goods manufacturing joined oil & gas and non-durable goods manufacturing in reporting considerable strength. All other sectors that report this index near neutral.

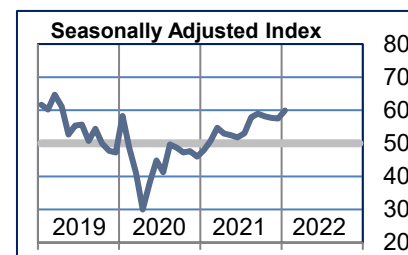
	Higher	Same	Lower	Net	Index
Aug/21	6%	94%	0%	6%	53.3
Sep/21	10%	86%	4%	6%	52.7
Oct/21	10%	86%	4%	6%	52.9
Nov/21	7%	92%	1%	6%	53.0
Dec/21	8%	90%	2%	6%	53.7
Jan/22	10%	89%	1%	9%	53.7



Employment Index

The employment index rose modestly. Professional and business services, health care, oil & gas, construction, and non-durable goods reported above neutral. All other sectors reported at the mid-point.

	Higher	Same	Lower	Net	Index
Aug/21	16%	81%	3%	13%	57.9
Sep/21	19%	80%	1%	18%	58.9
Oct/21	21%	73%	6%	15%	58.2
Nov/21	20%	74%	6%	14%	57.7
Dec/21	16%	82%	2%	14%	57.5
Jan/22	18%	81%	1%	17%	59.9



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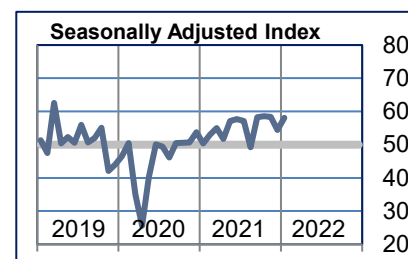


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Purchases Index

The purchases index rose significantly. Oil & gas, construction, durable goods manufacturing, transportation and warehousing, and professional and business services joined healthcare showing strength in this index.

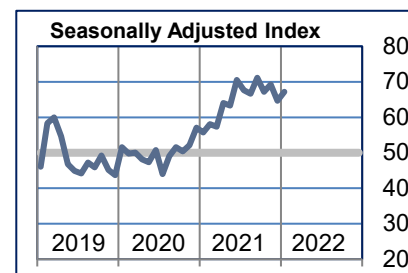
	Higher	Same	Lower	Net	Index
Aug/21	3%	94%	3%	0%	49.2
Sep/21	22%	78%	0%	22%	58.3
Oct/21	20%	78%	2%	18%	58.6
Nov/21	16%	82%	2%	14%	58.4
Dec/21	8%	88%	4%	4%	54.4
Jan/22	20%	79%	1%	19%	58.1



Prices Paid Index

The prices paid index rose modestly during the month. Almost all sectors continue to report this index as expanding at a rapid pace.

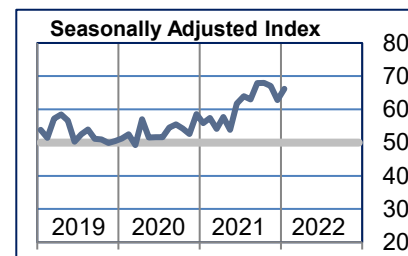
	Higher	Same	Lower	Net	Index
Aug/21	31%	69%	0%	31%	66.7
Sep/21	42%	58%	0%	42%	71.1
Oct/21	39%	61%	0%	39%	67.1
Nov/21	37%	62%	1%	36%	69.2
Dec/21	26%	72%	2%	24%	64.7
Jan/22	36%	63%	1%	35%	67.1



Lead Times Index

The lead times index also rose during the month. As with the prices paid index, most sectors reported this index as continuing to expand at a rapid pace. Only transportation and warehousing reported below neutral.

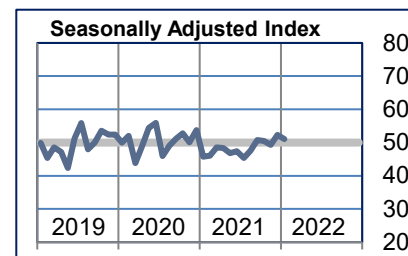
	Higher	Same	Lower	Net	Index
Aug/21	26%	74%	0%	26%	63.1
Sep/21	36%	64%	0%	36%	67.9
Oct/21	35%	64%	1%	34%	68.0
Nov/21	35%	62%	3%	32%	67.1
Dec/21	26%	70%	4%	22%	62.8
Jan/22	32%	64%	4%	28%	66.2



Purchased Inventory Index

The purchased inventory index fell modestly but remained above neutral. Health care, durable and non-durable goods manufacturing, and transportation and warehousing reported this index as expanding.

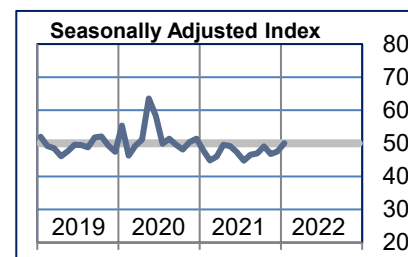
	Higher	Same	Lower	Net	Index
Aug/21	0%	95%	5%	-5%	47.6
Sep/21	2%	96%	2%	0%	50.8
Oct/21	2%	95%	3%	-1%	50.4
Nov/21	2%	95%	3%	-1%	49.3
Dec/21	2%	97%	1%	1%	52.3
Jan/22	9%	90%	1%	8%	51.1



Finished Goods Inventory Index

The finished goods inventory index rose to neutral. New home construction continues to report this index as contracting at a rapid pace. Manufacturing reported it as expanding at a moderate rate.

	Higher	Same	Lower	Net	Index
Aug/21	0%	95%	5%	-5%	46.6
Sep/21	0%	92%	8%	-8%	47.0
Oct/21	0%	93%	7%	-7%	49.1
Nov/21	1%	93%	6%	-5%	46.8
Dec/21	1%	95%	4%	-3%	47.5
Jan/22	8%	89%	3%	5%	50.0



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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