

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 significantly slower pace in January. Manufacturing sector activity fell to minimal contraction while nonmanufacturing activity slowed to very modestly expansion.

The Houston Purchasing Managers Index fell 3.0 points to 50.8. Two of the three underlying indicators that have the strongest correlation with the Houston economy, sales/new orders and lead times, are now pointing to possible weak contraction while the third, employment, continues to indicate potential expansion. The sales/new orders index fell 2.3 points to 47.2. The employment index fell 3.4 points to 55.5. The lead times index fell 4.1 points to 48.7. The Finished goods inventory index, the underlying indicator that has the strongest inverse correlation with economic activity, rose 1.4 points to 53.0, giving a modestly higher indication of contraction.

The Houston Manufacturing PMI fell 1.7 points to 48.6, giving a modest contraction signal. The non-manufacturing PMI fell 3.3 points to 51.2, showing a slower expansion rate for the industries in this sector.

On an industry specific basis, professional and management services, construction, oil & gas, and health care reported continued expansion. Manufacturing, leisure and hospitality, real estate, and trade, transportation & warehousing reported near neutral. No sector reported significant contraction.

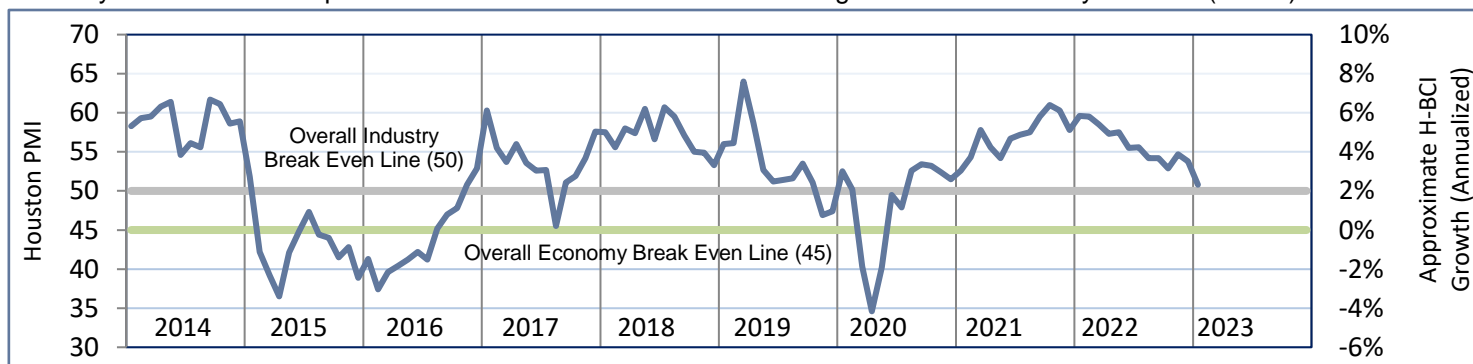
Indices at a Glance

Index	Jan	Dec	Change	Track	Rate	Trend*
Houston Overall PMI	50.8	53.8	-3.0	Expanding	Slower	30
Houston Manufacturing PMI	48.6	50.2	-1.6	Contracting	Fr. Expanding	1
Houston Nonmanufacturing PMI	51.2	54.5	-3.3	Expanding	Slower	30
Sales/New Orders	47.2	49.5	-2.3	Falling	Faster	2
Production	51.3	48.8	2.5	Rising	Fr. Falling	1
Employment	55.3	58.6	-3.3	Rising	Slower	24
Purchases	53.5	55.3	-1.8	Rising	Slower	3
Prices Paid	52.9	46.7	6.2	Rising	Fr. Falling	1
Lead Times	48.7	52.7	-4.0	Falling	Fr. Rising	1
Purchased Inventory	51.5	55.9	-4.4	Rising	Slower	7
Finished Goods Inventory	53.0	51.6	1.4	Rising	Faster	10
Overall Houston Economy				Expanding	Slower	31

* 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: Technical support, engineering services, well drilling and completion services, skilled and unskilled labor; oil country tubular goods (OCTG) and rigs; motor fuels (gasoline, diesel[‡], jet fuel); propane, normal butane, isobutane, natural gasoline, propylene, caustic; molybdenum for catalysts; some carbon steel pipe sizes and fittings, motors, electronics, wire and cable, electrical equipment/gear, some mechanical equipment, concrete/cement; software

Down in Price: Oil field chemicals, proppant; natural gas, diesel[‡]; ethane, butadiene, MTBE; sulfuric acid; carbon and alloy steel; bulk and containerized ocean freight

In Short Supply: Senior consultants, finance and accounting professionals, high alloy welders, skilled and unskilled labor; medical lab supplies; OCTG (casing and tubing); fluoropolymers (PFAs); motors, drives, power supplies, electrical components, cement, cement products, some mechanical components, specific sizes of pipe

[‡] reported as up or down by different respondents

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- We anticipate market inflation in drilling and completion services/materials to be in the 10-20% range in 2023
- Rig counts changed minimally
- *This sector reported higher growth this month with the purchases index joining the production, employment, prices paid, and lead times indices showing significant strength*

Construction:

- The shortage of labor in the US continues to be a challenge across industries
- Mixed bag for construction sectors; demand still good in many areas
- *Performance in this sector fell to just above neutral with significant declines in the purchases and lead times indices; the employment and prices paid indices continue to show strength while the sales/new index is pointing to contraction*

Durable Goods Manufacturing:

- *This sector strengthened further this month with the sales/new orders, production, and purchases indices pointing to greater expansion; the employment, prices paid, and lead times indices remained near neutral; inventories are still too high*

Non-durable Goods Manufacturing:

- Multiple headwinds anticipated in terms of new orders and related demand
- Energy situation in Europe continues to be of concern
- Supplier backlogs are high but anticipated to be balanced in 2023
- Job reductions are anticipated to manage structural costs
- Polymer prices were relatively stable during the month
- *This sector fell further below neutral with the sales/new orders, production, purchases, lead times indices remaining well below neutral; the prices paid index returned to neutral while the employment index remained strong*

Trade, Transportation, and Warehousing:

- *This sector's performance fell to near neutral during the month with all indices reporting at or near neutral*

Professional and Business Services:

- Employment is good and availability of people is tight
- We don't see a very, very tight market but certainly see a market that takes work to find good people
- Prices for hourly and direct hire professional workers remains very stable
- Compared to a couple of years ago, people are demanding and getting more pay
- Prices have remained steady and there continues to be people in the market for new opportunities
- We are seeing a return to the office and remote work is being reduced
- Anyone looking to change jobs is putting remote/hybrid as a high priority for making a change
- *This sector's performance fell to just above neutral during the month; the prices paid index joined the employment index in showing strength while the sales/new orders index fell well below neutral*

What Our Respondents Are Saying (Continued)

Real Estate Services:

- Sales have stabilized (New homes)
- *This sector improved to modest contraction with housing improving to near neutral; industrial and retail real estate remained strong*

Leisure and Hospitality:

- *This sector's performance fell to near neutral during the month with all indices reporting near this level*

Health Care

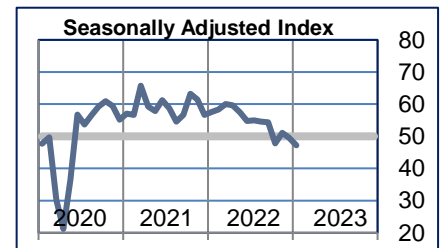
- Healthcare in Houston is robust
- Healthcare services continue to move down the continuum of care out of the hospital and into surgery/clinical day setting
- Allocations of healthcare supplies continue; production is robust but just enough; order cancellations result in moving to the bottom of the pile; very important to place long lead time orders right away to get in line
- *This sector strengthened from last month with the employment index joining the purchases index in indicating strong expansion; all other indices were 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 seasonal adjustments to the Sales/New Orders, Production, Employment, and Prices Paid indices 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.

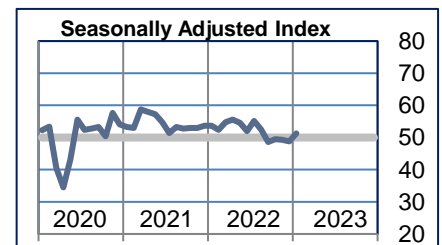
Sales/New Orders Index

The sales/new orders index fell further below neutral with both the manufacturing and nonmanufacturing sectors coming in at similar levels to last month		Higher	Same	Lower	Net	Index
	Aug/22	14%	82%	4%	10%	54.6
	Sep/22	17%	75%	8%	9%	54.4
	Oct/22	6%	81%	13%	-7%	47.8
	Nov/22	14%	70%	16%	-2%	51.1
	Dec/22	8%	78%	14%	-6%	49.5
	Jan/23	7%	85%	8%	-1%	47.2



Production Index

The production index rose to back above neutral. Nonmanufacturing returned to modest expansion while manufacturing remained well below neutral.		Higher	Same	Lower	Net	Index
	Aug/22	10%	85%	5%	5%	52.5
	Sep/22	6%	85%	9%	-3%	48.6
	Oct/22	7%	85%	8%	-1%	49.5
	Nov/22	8%	82%	10%	-2%	49.3
	Dec/22	5%	84%	11%	-6%	48.8
	Jan/23	9%	84%	7%	2%	51.3



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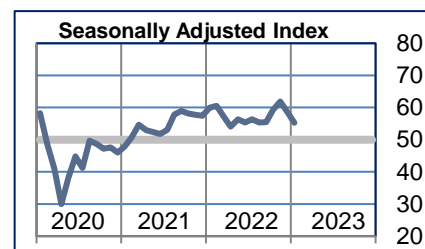
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Employment Index

This index fell modestly again this month with nonmanufacturing reporting minimally slower growth and manufacturing indicating modest expansion at a similar level to last month.

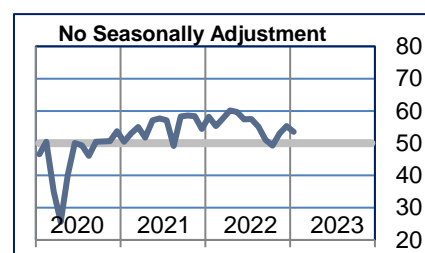
	Higher	Same	Lower	Net	Index
Aug/22	14%	84%	2%	12%	55.4
Sep/22	15%	83%	2%	13%	55.4
Oct/22	20%	78%	2%	18%	59.3
Nov/22	23%	74%	3%	20%	61.9
Dec/22	16%	81%	3%	13%	58.6
Jan/23	14%	86%	0%	14%	55.3



Purchases Index

The purchases index showed moderately slower expansion. Nonmanufacturing activities fell to near neutral while manufacturing performance returned to indicating modest expansion.

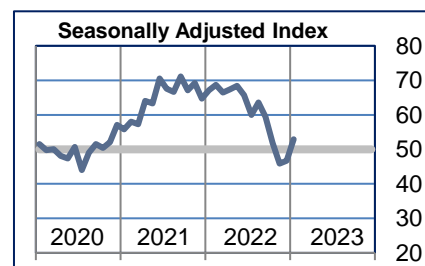
	Higher	Same	Lower	Net	Index
Aug/22	19%	74%	7%	12%	55.1
Sep/22	11%	84%	5%	6%	51.0
Oct/22	8%	81%	11%	-3%	49.2
Nov/22	14%	77%	9%	5%	53.0
Dec/22	13%	77%	10%	3%	55.3
Jan/23	10%	87%	3%	7%	53.5



Prices Paid Index

The purchases index returned to indicating growth with both nonmanufacturing and manufacturing reporting modest growth.

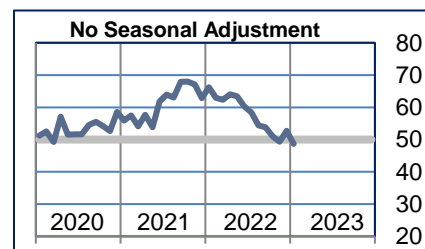
	Higher	Same	Lower	Net	Index
Aug/22	29%	67%	4%	25%	63.6
Sep/22	21%	76%	3%	18%	59.4
Oct/22	16%	72%	12%	4%	51.9
Nov/22	12%	67%	21%	-9%	45.9
Dec/22	7%	76%	17%	-10%	46.7
Jan/23	7%	91%	2%	5%	52.9



Lead Times Index

This index fell back below neutral during the month lead by a significant drop in performance in nonmanufacturing sectors. Manufacturing sectors fell further below neutral.

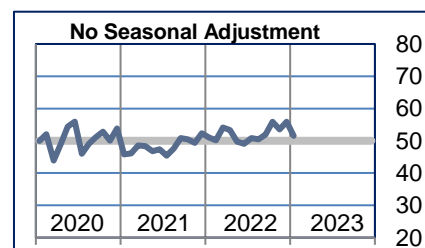
	Higher	Same	Lower	Net	Index
Aug/22	17%	76%	7%	10%	54.4
Sep/22	15%	77%	8%	7%	53.8
Oct/22	10%	80%	10%	0%	51.1
Nov/22	9%	80%	11%	-2%	49.3
Dec/22	11%	81%	8%	3%	52.7
Jan/23	4%	89%	7%	-3%	48.7



Purchased Inventory Index

The purchased inventory index fell to near neutral with both the nonmanufacturing and manufacturing sectors falling to near this level.

	Higher	Same	Lower	Net	Index
Aug/22	9%	84%	7%	2%	50.4
Sep/22	6%	88%	6%	0%	51.9
Oct/22	8%	88%	4%	4%	55.9
Nov/22	9%	86%	5%	4%	53.5
Dec/22	7%	90%	3%	4%	55.9
Jan/23	4%	95%	1%	3%	51.5



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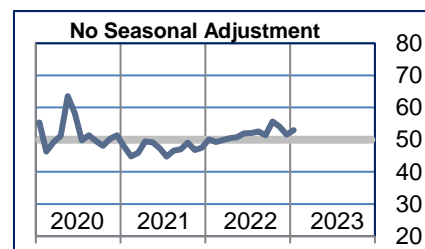
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Finished Goods Inventory Index

The finished goods inventory index rose modestly lead by a significant increase in the manufacturing sectors. The nonmanufacturing sectors fell to just above neutral.

	Higher	Same	Lower	Net	Index
Aug/22	9%	86%	5%	4%	52.6
Sep/22	7%	87%	6%	1%	51.4
Oct/22	11%	81%	8%	3%	55.7
Nov/22	14%	82%	4%	10%	54.1
Dec/22	10%	85%	5%	5%	51.6
Jan/23	6%	94%	0%	6%	53.0



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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