

# ISM-Houston Business Report

## May 2019



ISM—Houston, Inc.

Analysis and report by **Ross Harvison, CPSM**  
 Chair of the ISM-Houston Business Survey Committee

(Houston, Texas) – According to Houston supply chain executives, manufacturing activity in Houston expanded in May for the 21st consecutive month and overall economic activity expanded for the 34th month. The near-term forecast continues to point to manufacturing and overall economic growth near term, but the rate of growth is anticipated to slow.

The May Houston Purchasing Managers Index registered **52.7**, down from its April reading of 58.7. The three underlying indicators that have the strongest direct correlation with current economic activity (sales/new orders, employment, and lead times), while falling, continue to report above neutral. The underlying indicator that has the largest inverse correlation, finished goods inventory, remained below neutral.

The three-month forecast for the Houston PMI registered **51.1**, down 4.8 points from its April reading of 55.9. Continued strong performance of the lead times index somewhat offset the fall of the sales/new orders and production indices to near neutral, and the drop of the prices paid index below neutral. These indices are all directly correlated with economic activity at the three-month forecast horizon.

On an industry specific basis Healthcare, Oil & Gas, EPC activities, Non-Durable Goods Manufacturing, and Mid-Stream Operations all reported expansion, while professional services reported contraction. From a three month forecast standpoint Healthcare, EPC activities, and Mid-Stream Operations are expected to continue to expand. Oil & Gas and Non-durable Goods Manufacturing are anticipated to slow to near neutral.

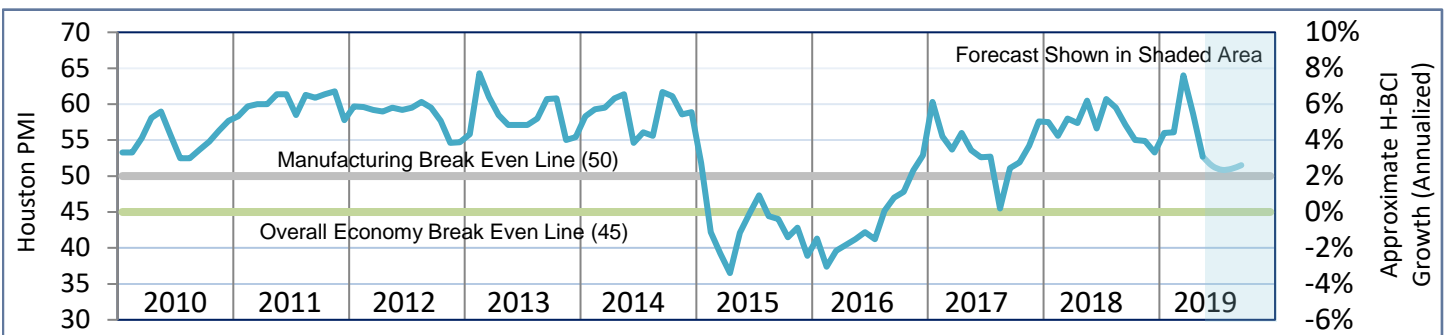
### Indices at a Glance

Index	May	Apr	Change	Track	Rate	Trend*
Houston PMI - Current	52.7	58.7	-6.0	Expanding	Slower	21
Houston PMI - 3 Month Forecast	51.1	55.9	-4.8	Expanding	Slower	5
Sales/New Orders	50.2	57.1	-6.9	Rising	Slower	5
Production	52.6	57.4	-4.8	Rising	Slower	21
Employment	52.6	61.1	-8.5	Rising	Slower	21
Purchases	52.3	50.4	1.9	Rising	Faster	3
Prices Paid	46.8	54.6	-7.8	Falling	Fr. Rising	1
Lead Times	56.7	58.4	-1.7	Rising	Slower	30
Purchased Inventory	42.4	47.2	-4.8	Falling	Faster	7
Finished Goods Inventory	47.6	46.0	1.6	Falling	Slower	4
Overall Houston Economy				Expanding	Slower	34

\* Number of months on current track

### Houston PMI Trend

With the Houston PMI registering 52.7 in May, manufacturing activity in Houston has expanded for nearly two years and overall economic activity has grown for almost three years. Readings over 50 generally indicate manufacturing expansion; readings below 50 show contraction. A PMI 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:** Ethanol; rare earth materials; turbines, pumps, compressors; alloy pipe; electrical equipment; copper based products; fabricated steel; ready mix concrete; well supplies; clinical supplies; software; ocean freight

**Down in Price:** Crude and motor fuels; natural gas and gas liquids, ethane, propane, butane; styrene, toluene, xylene, butadiene, MTBE, methanol; copper based products; platinum for catalyst uses; engineered equipment; surgical supplies

**In Short Supply:** Steel products; skilled craft labor, construction labor, plant operators, light industrial workers, oil field services workers, CDL drivers; software developers, tax and audit professionals; clinical supplies, lidocaine, prilocaine

---

### Sector Summaries

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

- Increased Deepwater industry activity, announcement of LNG projects on the U.S. Gulf Coast
- *This sector reported continued growth this month with the employment, prices paid, and lead times indices providing strong performance; the inventories indices fell; purchases returned to neutral*

#### Engineering and Construction:

- Many of our oil & gas customers have advanced major capital projects in first half 2019; primarily LNG and petrochemical
- *Respondents in this sector reported continued strong performance; the new orders, employment, prices paid, and lead times indices were reported as rising at a fast pace; purchases returned to neutral*

#### Manufacturing - Durable Goods:

- *This sector reported contraction again this month with the employment and prices paid indices reporting below neutral; the inventory indices returned to neutral*

#### Manufacturing - Non-Durable Goods:

- Butane pricing particularly low, possibly from the short term effect of the ship channel limiting ability to export
- Carbon, stainless, and alloy steel prices have been much more stable
- *This sector weakened, but remained above neutral; lead times were reported as expanding at a faster pace; inventories are contracting; all other indicators were near neutral*

#### Mid-Stream Operations:

- *This sector continues to report expansion; sales, production, purchases, prices paid, and inventories were flat and lead times rose at a good pace; employment, prices paid, and inventories were flat*

#### Wholesale Trade:

- *Respondents in this area reported growth near neutral; while the employment index continued to point to growth, prices paid fell and inventories rose, indicating potential contraction*

#### Professional Services:

- Oil price decline caused oil and gas companies to hit "pause" on some hiring and capital expenditure plans
- We are seeing higher supply than demand in professional supply chain, finance, and HR roles
- *Respondents in this area reported additional softening; sales, employment, and prices are now contracting*

#### Health Care:

- We continue to experience manufacturer backorders on many products giving room for many substitutions
  - Summer is a busy time at the hospital due to procedures having been put off until the end of school
  - *This sector improved further this month; the employment, purchases, prices paid indices all point to expansion at a faster pace*
- 

### 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.

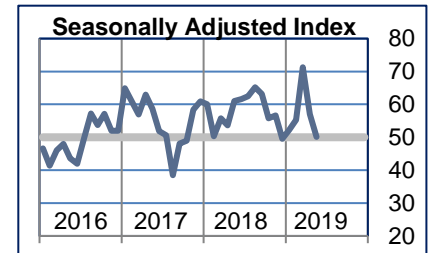
# ISM-Houston Business Report

## May 2019

### Sales/New Orders Index

The sales/new orders index has fallen significantly in the last two months and now stands near neutral. Non-durable goods manufacturing and professional services saw the greatest reductions.

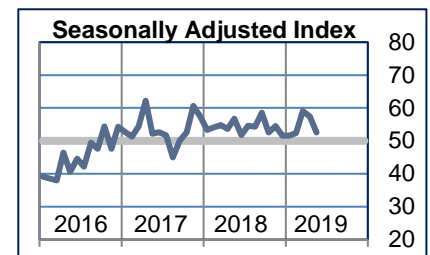
	Higher	Same	Lower	Net	Index
Dec/18	9%	77%	14%	-5%	49.5
Jan/19	11%	81%	8%	3%	52.2
Feb/19	20%	75%	5%	15%	55.2
Mar/19	42%	57%	1%	41%	71.3
Apr/19	22%	75%	3%	19%	57.1
May/19	9%	85%	6%	3%	50.2



### Production Index

The production index also fell with all sectors except mid-stream operations and utilities reporting near neutral. Non-durable goods and oil & gas reported the largest reductions. Durable goods recovered to neutral.

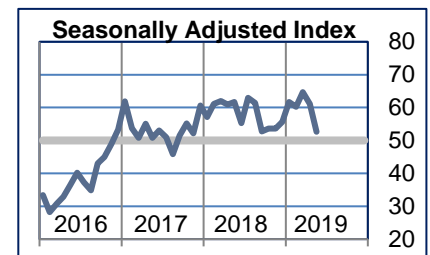
	Higher	Same	Lower	Net	Index
Dec/18	5%	92%	3%	2%	51.6
Jan/19	3%	96%	1%	2%	51.5
Feb/19	8%	90%	2%	6%	52.3
Mar/19	21%	77%	2%	19%	59.1
Apr/19	19%	78%	3%	16%	57.4
May/19	9%	89%	2%	7%	52.6



### Employment Index

The employment index also fell to just above neutral. EPC firms, oil & gas, healthcare, and wholesale trade reported strength while durable goods manufacturing and professional services reported weakness.

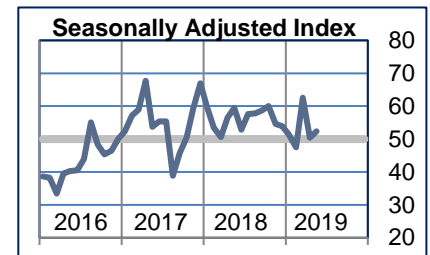
	Higher	Same	Lower	Net	Index
Dec/18	20%	74%	6%	14%	55.7
Jan/19	35%	50%	15%	20%	61.7
Feb/19	24%	70%	6%	18%	60.2
Mar/19	27%	72%	1%	26%	64.7
Apr/19	32%	61%	7%	25%	61.1
May/19	14%	80%	6%	8%	52.6



### Purchases Index

The purchases index improved modestly during the month. Only mid-stream operations and healthcare reported rising prices. All other sectors reported near neutral.

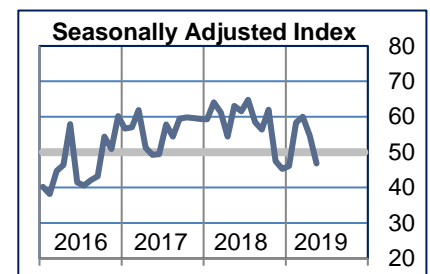
	Higher	Same	Lower	Net	Index
Dec/18	12%	82%	6%	6%	54.0
Jan/19	16%	72%	12%	4%	51.3
Feb/19	6%	84%	10%	-4%	47.5
Mar/19	28%	70%	2%	26%	62.6
Apr/19	13%	78%	9%	4%	50.4
May/19	6%	92%	2%	4%	52.3



### Prices Paid Index

The prices paid index fell below neutral. Wholesale trade and professional services reported significantly below the midpoint. Healthcare, construction, and oil & gas reported prices as rising.

	Higher	Same	Lower	Net	Index
Dec/18	10%	74%	16%	-6%	45.3
Jan/19	12%	68%	20%	-8%	46.1
Feb/19	19%	78%	3%	16%	58.4
Mar/19	22%	76%	2%	20%	60.0
Apr/19	13%	86%	1%	12%	54.6
May/19	8%	82%	10%	-2%	46.8



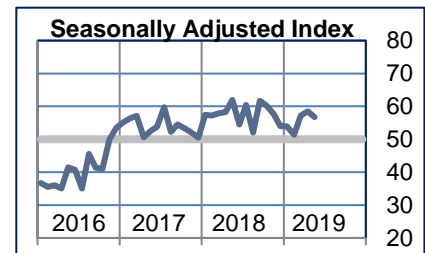
# ISM-Houston Business Report

## May 2019

### Lead Times Index

The lead times index fell marginally. Non-durable goods manufacturing, mid-stream operations, oil & gas, and EPC firms reported rising lead times. All other sectors remain near neutral.

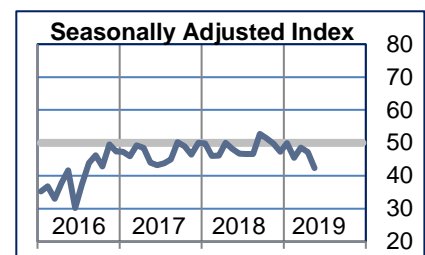
	Higher	Same	Lower	Net	Index
Dec/18	11%	85%	4%	7%	54.0
Jan/19	10%	85%	5%	5%	53.9
Feb/19	9%	88%	3%	6%	51.4
Mar/19	15%	84%	1%	14%	57.3
Apr/19	19%	80%	1%	18%	58.4
May/19	15%	84%	1%	14%	56.7



### Purchased Inventory Index

Respondents reported purchased goods inventories as falling at a faster pace. Non-durable goods manufacturing saw the greatest reduction in this index. Durable goods manufacturers reported these inventories as rising.

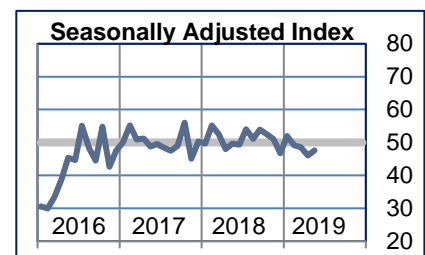
	Higher	Same	Lower	Net	Index
Dec/18	1%	89%	10%	-9%	47.3
Jan/19	10%	87%	3%	7%	49.9
Feb/19	4%	88%	8%	-4%	45.4
Mar/19	2%	95%	3%	-1%	48.6
Apr/19	1%	93%	6%	-5%	47.2
May/19	3%	84%	13%	-10%	42.4



### Finished Goods Inventory Index

The finished goods inventory index continues to point to inventory contraction. Durable goods and wholesale trade reported these inventories as rising. Oil & gas and non-durable goods reported them as falling.

	Higher	Same	Lower	Net	Index
Dec/18	1%	94%	5%	-4%	46.8
Jan/19	10%	89%	1%	9%	51.9
Feb/19	4%	92%	4%	0%	49.2
Mar/19	1%	94%	5%	-4%	48.5
Apr/19	1%	91%	8%	-7%	46.0
May/19	6%	83%	11%	-5%	47.6



### Comments on Houston PMI Calculation Methods

The 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. 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 BCI. A similar offset between the National PMI and the National economy has existed for some time.

The new regression factors have been utilized for this report. Additionally, the Houston PMI reported from the beginning of 2014 to present has been restated using the revised regression factors.

The ISM-Houston Business Report began in January 1995  
 Subscriptions are available through ISM-Houston, Inc. and can be obtained by request at [hpmi@ism-houston.org](mailto:hpmi@ism-houston.org)  
 The Institute for Supply Management-Houston is an affiliate of the Institute for Supply Management  
 Copyright 2019 by ISM-Houston, Inc. All Rights Reserved