

Storm Impacts Gulf Coast Operations

Sales, Production, and Employment Reported as Falling

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(Houston, Texas) – According to Houston area Supply Chain leaders, the Houston area economy was heavily impacted by Hurricane Harvey. The Houston Purchasing Managers Index moved from 51.8 in July to 46.5 in August. While six of the index's underlying indicators were pointing to expansion in July, an equal number (Sales/New Orders, Production, Employment, Purchases, Prices Paid, and Purchased Inventory) are now indicating potential near term contraction. Only the Lead Times and Finished Goods Inventory Indices are point to expansion.

The Sales/New Orders index fell significantly by 12.1 points to 38.5 in August, its first month indicating potential contraction since July of last year. The Production, Employment, and Purchases indices also reversed direction, ending eight months point to expansion. The Production Index was down 6.7 points to 45.0. The Employment Index registered 45.8 points, down 5.1 points. The Purchases Index fell considerably to 38.8 points, down 16.6 points. The Lead Times Index fell to 52.3, down from 59.8, but still predicting expansion near term. These five indicators are directly correlated with economic activity. The purchased inventory index, which is also positively correlated with economic activity, continues to predict contraction near term registering 44.9 points, up modestly from July.

The Finished Goods Inventory index completed its fourth month pointing to expansion registering 47.5 points. This indicator is inversely correlated with economic activity. The other indicator that is inversely related to the economy, Prices Paid, indicated potential contraction near term for the second month, registering 54.4 points, down 3.4 from July.

On an industry specific basis, only non-durable goods showed any sizable trend towards expansion. Oil & gas, construction, and to a lesser extent wholesale trade are now indication contraction near term. All other sectors reported near neutral.

INDICES AT A GLANCE

Index	Aug	Jul	Change	Track	Rate	Trend*
Houston PMI	46.5	51.8	-5.3	Contracting	Unchanged	10
Sales/New Orders	38.5	50.6	-12.1	Falling	Fr. Rising	1
Production	45.0	51.7	-6.7	Falling	Fr. Rising	1
Employment	45.8	50.9	-5.1	Falling	Fr. Rising	1
Purchases	38.8	55.4	-16.6	Falling	Fr. Rising	1
Prices Paid	54.4	57.8	-3.4	Rising	Slower	2
Lead Times	52.3	59.8	-7.5	Rising	Slower	9
Purchased Inventory	44.9	43.8	1.1	Falling	Slower	33
Finished Goods Inventory	47.5	48.3	-0.8	Falling	Faster	4

* Months on current track



Commodities Reported Up in Price: Vaccines; alloy and carbon steel pipe; pumps, compressors, and turbines; electrical equipment and transformers; copper based products; Europe to the US ocean freight

Commodities Reported Down in Price: Computers and computer components

Commodities Reported in Short Supply: Hospital patient supplies and custom pharmaceuticals; qualified and experienced personnel for projects

WHAT OUR RESPONDENTS ARE SAYING AND SUMMARIES BY SECTOR

Oil and Gas Exploration, and Key Support Services:

- Overall, respondents in this sector reported significant reductions in economic activity; many respondents indicated sales, production, employment, and purchases as down

Engineering and Construction:

- Anticipate sales to increase due storm; too early to tell how fast work, other than clean up, will begin
- Overall, respondents in this area indicated greater contraction this month; employment, purchases, prices, and lead times were all down

Manufacturing - Durable Goods:

- Sales came to a stop at month end due to the storm; anticipate a rebound as recovery efforts begin
- This sector reported modest expansion; employment was up, while all other indicators where flat

Manufacturing - Non-Durable Goods:

- Hurricane Harvey stopped operations at the end of August causing delays/reductions in key feedstock supplies, as well as production; expect commodity prices to rise in September
- Manpower and shop time were stable in August; expected to be short in early September
- Respondents in this area reported mixed results, with respondents reporting sales, prices near neutral; production, employment, and purchases were down; lead times were up

Professional Services:

- Harvey temporarily shutdown many oil, gas and petrochemical companies which impacted goods and services suppliers; too early to predict the mid to longer term impact on employment and demand
- Respondents in this area reported modest weakening with sales and purchase down; employment and prices were unchanged

Health Care:

- Most prices are increasing in healthcare overall
- Projects are smaller in budget and scope but are many in number
- Because of the aftermath of the recent hurricane, there is a shortness of materials and labor anticipated in the immediate future; expect prices to increase rapidly due to supply and demand
- This sector moved back to neutral this month with equal numbers of respondents reporting improvement and decline. Purchases were reported as increasing; all other indicators came in at neutral overall

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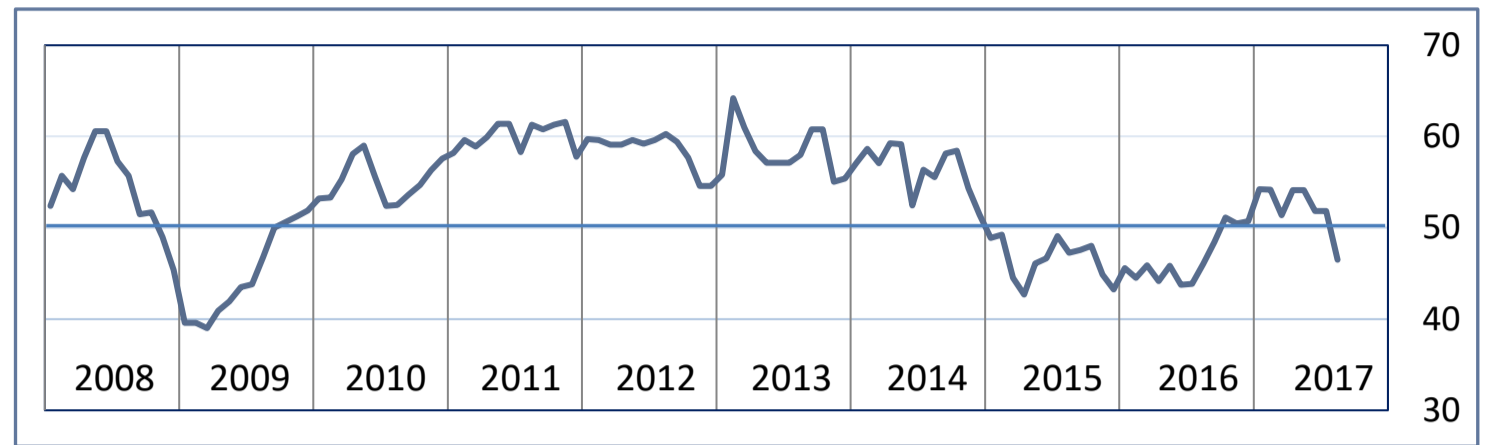


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Houston PMI Trend

The Houston PMI indicates likely shifts in economic activity three or four months in advance. Readings over 50 generally indicate expansion over the near term; readings below 50 show coming contraction.

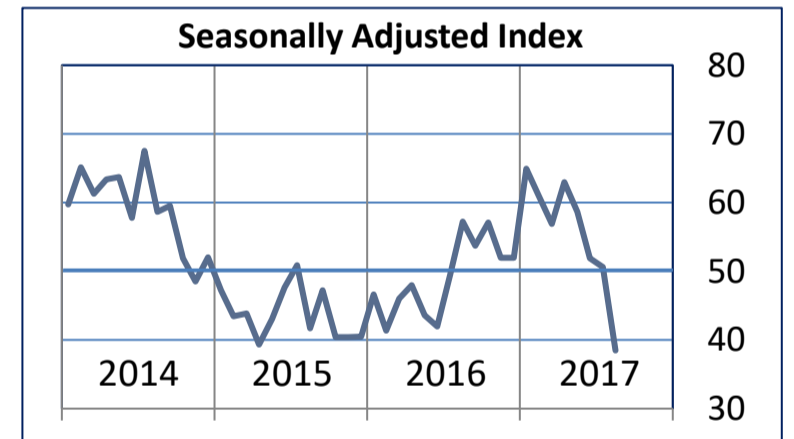


Trend of Underlying Indicators

The Houston PMI is based on diffusion indices for eight underlying indicators as shown below. The net value of each of these indicators 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 X12 ARIMA forecast using the previous 12 years data. Seasonally adjusted values above 50 for the Sales/New Orders, Production, Employment, Purchases, Lead Times and Purchased Inventory indicators point towards expansion and values below 50 signal contraction. The Prices Paid and Finished Goods Inventory indicators are inversely correlated to economic activity, meaning that values below 50 point to expansion and values above point to contraction.

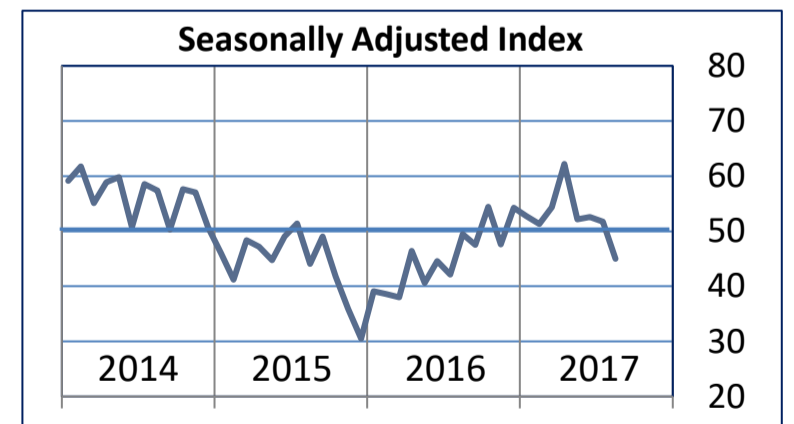
Sales/New Orders

	% Higher	% Same	% Lower	Net	Index	
Mar/17	20	73	7	13	56.9	The sales/new orders index fell below neutral with many professional services, oil & gas support services, and wholesale trade respondents reporting reductions. All other sectors reported near neutral.
Apr/17	29	70	1	28	63.0	
May/17	25	71	4	21	58.7	
Jun/17	13	78	9	4	51.9	
Jul/17	12	78	10	2	50.6	
Aug/17	2	74	24	-21	38.5	



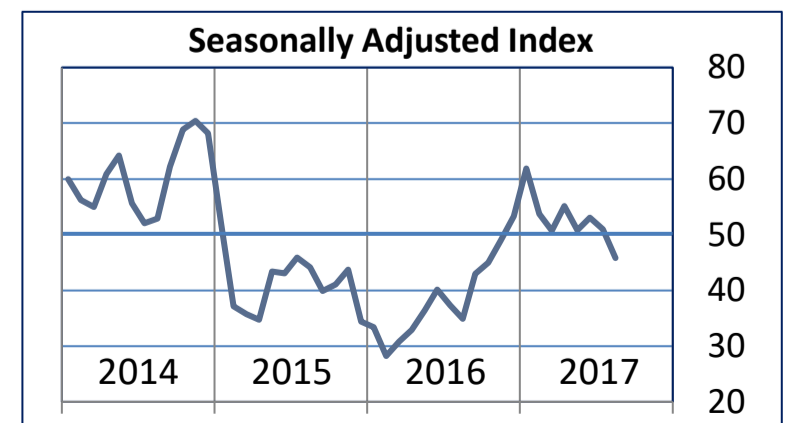
Production

	% Higher	% Same	% Lower	Net	Index	
Mar/17	9	89	2	7	54.4	The production index also moved from expansion to contraction. Manufacturing and oil & gas support services respondents reported the largest number of reductions. Most other sectors reporting near neutral.
Apr/17	23	75	2	21	62.2	
May/17	6	92	2	4	52.1	
Jun/17	5	93	2	4	52.6	
Jul/17	5	92	3	2	51.7	
Aug/17	2	87	11	-8	45.0	



Employment

	% Higher	% Same	% Lower	Net	Index	
Mar/17	17	70	13	4	50.8	The employment index fell below neutral as well. Oil and gas, construction, durable goods manufacturing respondents reported the largest number of reductions. Wholesale trade reported gains.
Apr/17	23	70	7	16	55.1	
May/17	14	76	10	4	50.8	
Jun/17	15	81	4	11	53.1	
Jul/17	15	72	13	2	50.9	
Aug/17	12	70	18	-6	45.8	



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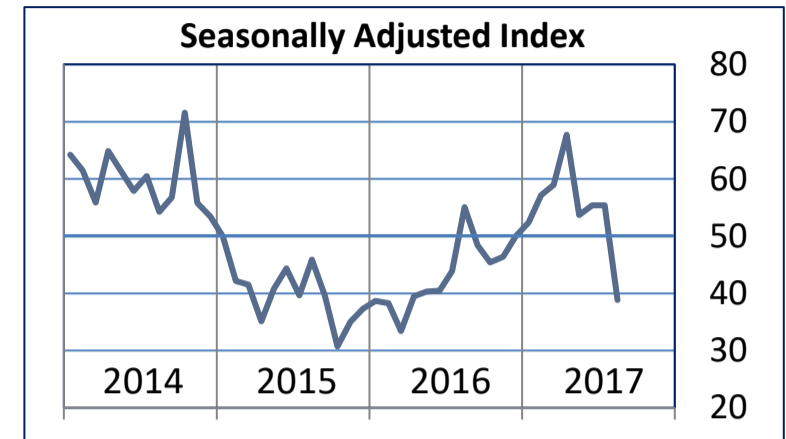
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Purchases

	% Higher	% Same	% Lower	Net	Index
Mar/17	28	62	10	18	59.0
Apr/17	36	60	4	32	67.7
May/17	20	65	15	5	53.7
Jun/17	17	75	8	9	55.4
Jul/17	16	73	11	5	55.4
Aug/17	6	68	26	-20	38.8

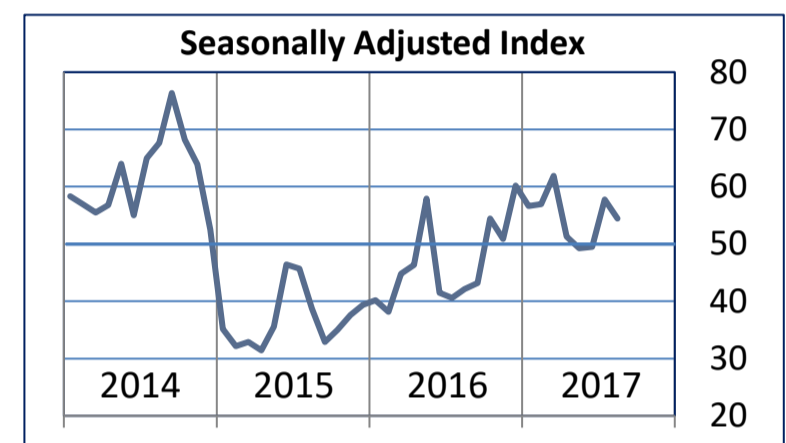
The purchases index also moved from predicting expansion to contraction. Purchases were reported overall as lower in the oil & gas, construction, manufacturing, and professional services sectors.



Prices Paid

	% Higher	% Same	% Lower	Net	Index
Mar/17	28	70	2	26	61.9
Apr/17	11	87	2	9	51.3
May/17	3	94	3	0	49.2
Jun/17	5	87	8	-2	49.5
Jul/17	12	86	2	10	57.8
Aug/17	9	89	2	7	54.4

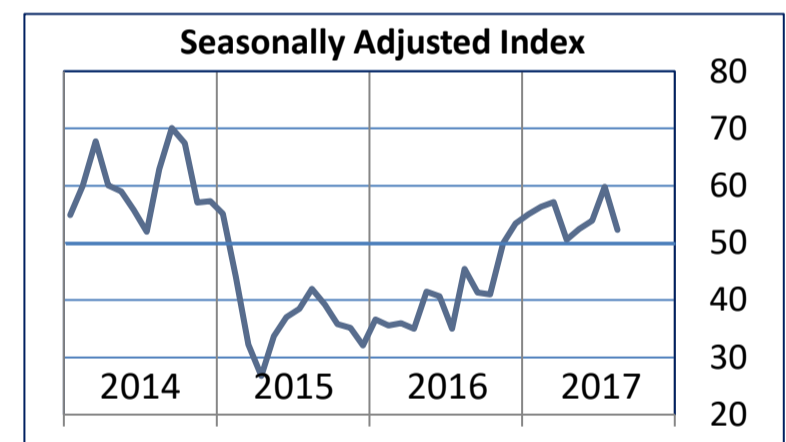
The prices paid index stayed above neutral this month with most sectors reporting as unchanged or marginally up. A high number of price decreases were reported by EPC respondents.



Lead Times

	% Higher	% Same	% Lower	Net	Index
Mar/17	19	79	2	17	57.2
Apr/17	8	90	2	6	50.6
May/17	9	89	2	7	52.5
Jun/17	12	86	2	10	53.9
Jul/17	23	75	2	21	59.8
Aug/17	5	93	2	2	52.3

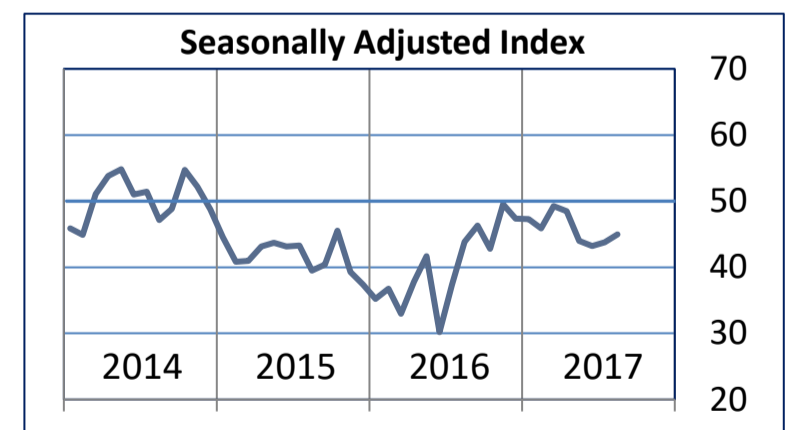
Fewer respondents reported lead times increases; overall this index stayed above neutral. Non-durable goods manufacturing reported the highest number of increases, while other sectors were near neutral.



Purchased Inventory

	% Higher	% Same	% Lower	Net	Index
Mar/17	6	89	5	1	49.3
Apr/17	2	92	6	-4	48.5
May/17	1	90	9	-9	44.0
Jun/17	2	86	12	-10	43.2
Jul/17	0	89	11	-11	43.8
Aug/17	2	87	11	-8	44.9

The purchased goods inventory index continues to point to contraction near term. Oil & gas support services and construction respondents reported the highest number of month over month decreases in this area.



Finished Goods Inventory

	% Higher	% Same	% Lower	Net	Index
Mar/17	6	91	3	3	50.9
Apr/17	10	85	5	5	51.2
May/17	5	86	9	-4	48.7
Jun/17	5	86	9	-3	49.6
Jul/17	5	87	8	-3	48.3
Aug/17	2	90	8	-6	47.5

The finished goods inventory index continues to run just below neutral. All sectors reported near this level, except oil & gas support services, which reported a significant number of inventory reductions.

