

Sales and Production Expand at a Strong Pace

Employment Continues to Move Up

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(Houston, Texas) – According to area Houston area Supply Chain leaders, economic activity in Houston expanded for the seventh month in April. The Houston Purchasing Managers Index registered 54.1, up 2.7 points from March.

Five underlying indicators continue to show expansion over the 3-4 month forecast horizon. The Sales/New Orders index completed 9 months pointing to expansion, registering 63.0 in April, up 6.1 points. The Production, Employment, Purchases, and Lead Times indices reported their fifth month of expansion. The Production index registered 62.2, significantly above its March level of 54.4. The Employment index registered 55.1, rising 4.3 points. The Purchases index was also up significantly to 67.7, rising from its March level of 59.0. The Lead Times index registered 50.6, down from 57.2. All of these indicators are directly correlated with economic activity.

Two underlying indicators are pointing to contraction near term. The Purchased Inventory (Raw Materials) index completed its 29th month indicating contraction, registering 48.5, down 0.8 points. This indicator is also directly correlated to economic activity. The Finished Goods Inventory index registered 51.2, up 0.3 points, completing its 4th month pointing to contraction. This indicator is inversely correlated to economic activity.

The last underlying indicator, Prices Paid, is also inversely correlated to the economy over most of the economic cycle. However, it can show a direct correlation during the early stages of a recovery. The Prices Paid index registered 51.3, down from 57.2 in March.

On an industry specific basis, non-durable goods manufacturing, oil & gas, and professional services are expanding. Engineering and construction contracted for the second month. All other sectors reported minimal month to month change.

INDICES AT A GLANCE

Index	Apr	Mar	Change	Track	Rate	Trend*
Houston PMI	54.1	51.4	2.7	Expanding	Faster	7
Sales/New Orders	63.0	56.9	6.1	Rising	Faster	9
Production	62.2	54.4	7.8	Rising	Faster	5
Employment	55.1	50.8	4.3	Rising	Faster	5
Purchases	67.7	59.0	8.7	Rising	Faster	5
Prices Paid	51.3	61.9	-10.6	Rising	Slower	7
Lead Times	50.6	57.2	-6.6	Rising	Slower	5
Purchased Inventory	48.5	49.3	-0.8	Falling	Faster	29
Finished Goods Inventory	51.2	50.9	0.3	Rising	Faster	4

* Months on current track



Commodities Reported Up in Price: Vaccines; oil country tubular goods; ready mix concrete; alloy and carbon pipe, fabricated structural steel; turbines, pumps, compressors; inbound ocean freight

Commodities Reported Down in Price: Computers and office supplies; crude oil; platinum, silver, nickel

Commodities Reported in Short Supply: Custom pharmaceuticals; oil country tubular goods

WHAT OUR RESPONDENTS ARE SAYING AND SUMMARIES BY SECTOR

Oil and Gas Exploration, and Key Support Services:

- Still not sure we are in a recovery even for North America; seems spotty on the incoming bookings
- Overall, respondents in this sector reported expansion at a similar pace to last month; sales, production, purchases, prices, and lead times all increased

Engineering and Construction:

- Overall, respondents in this area indicated contraction at a level consistent with last month; new orders were neutral; employment, prices, and lead times continue to fall

Manufacturing - Durable Goods:

- This sector fell to contracting this month; while production and purchases were up, employment fell

Manufacturing - Non-Durable Goods:

- Respondents in this area reported further strengthening; purchases, sales, and production were up; employment and inventories returned to neutral

Professional Services:

- Business activity and hiring of direct employees and contingent labor increased in April
- Respondents in this area reported moderate improvement overall; contract staffing and direct hire services reported increased hiring again this month

Health Care:

- This sector continues to show modest expansion with most indicators reported near neutral; employment and purchases were reported as up

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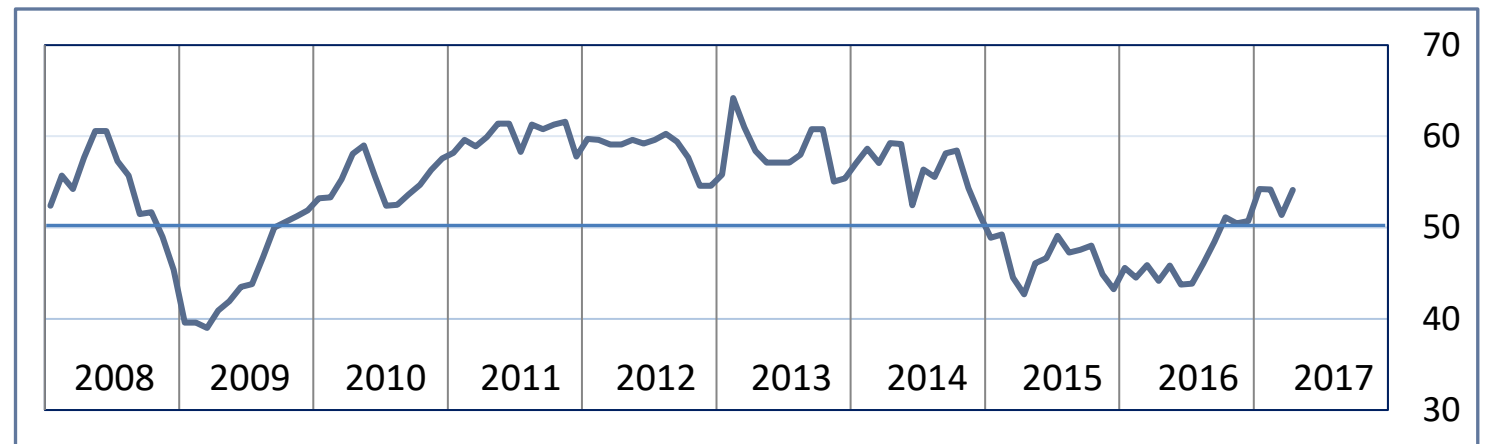


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Houston PMI Trend

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.

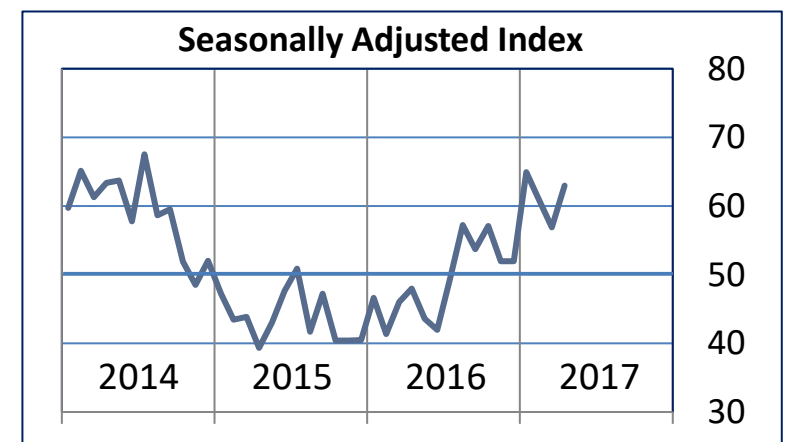


Trend of Underlying Indicators

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.

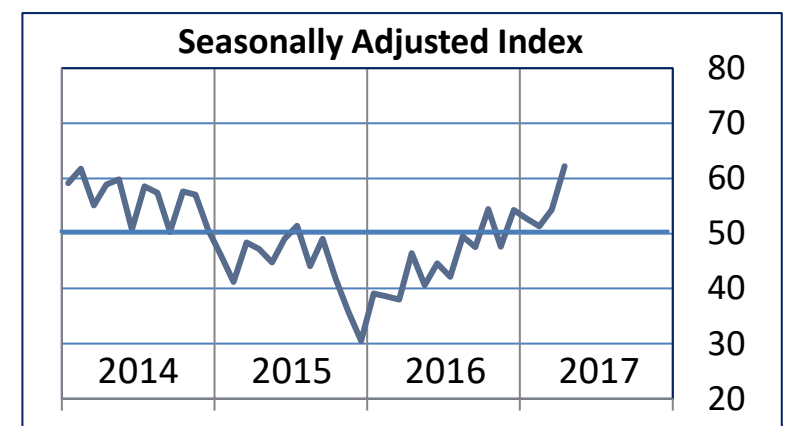
Sales/New Orders

	% Higher	% Same	% Lower	Net	Index	
Nov/16	15	70	15	0	52.0	The sales/new orders index grew at faster pace with oil & gas, non-durable goods manufacturing, and professional services reporting significant gains. Construction joined all other sectors reporting near neutral.
Dec/16	12	75	13	-1	52.0	
Jan/17	35	60	5	30	64.9	
Feb/17	30	66	4	25	60.8	
Mar/17	20	73	7	13	56.9	
Apr/17	29	70	1	28	63.0	



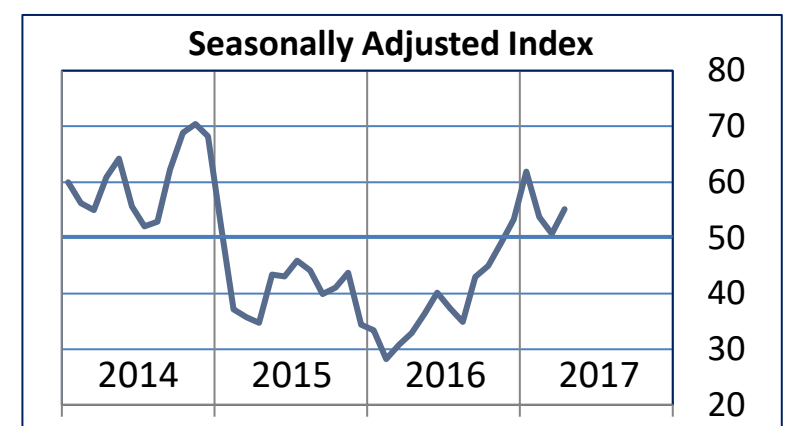
Production

	% Higher	% Same	% Lower	Net	Index	
Nov/16	2	91	7	-5	47.6	The production index increased in line with sales. Midstream activities joined oil & gas and manufacturing in showing strength in this index. All other sectors reported production levels as unchanged.
Dec/16	5	95	0	5	54.3	
Jan/17	8	92	0	8	52.8	
Feb/17	9	90	1	7	51.3	
Mar/17	9	89	2	7	54.4	
Apr/17	23	75	2	21	62.2	



Employment

	% Higher	% Same	% Lower	Net	Index	
Nov/16	8	78	14	-6	48.9	The employment index rebounded with professional services and healthcare showing gains. Construction reported further weakness, while other sectors reported near neutral.
Dec/16	13	75	12	1	53.3	
Jan/17	29	59	12	17	61.9	
Feb/17	20	68	12	7	53.7	
Mar/17	17	70	13	4	50.8	
Apr/17	23	70	7	16	55.1	



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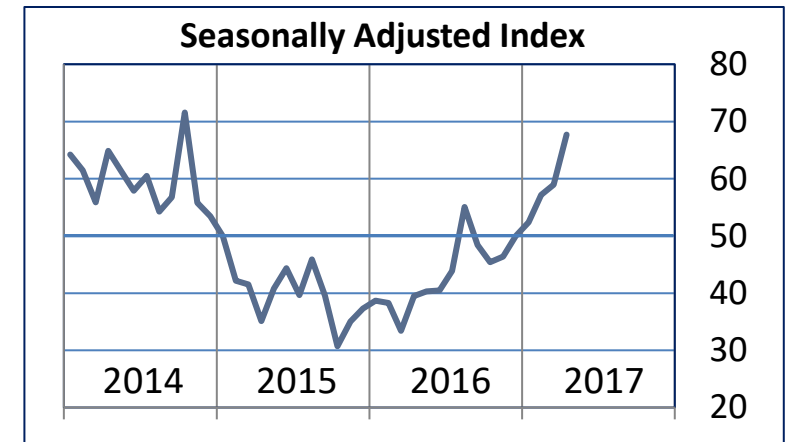
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Purchases

	% Higher	% Same	% Lower	Net	Index
Nov/16	12	68	20	-8	46.4
Dec/16	11	71	18	-7	50.0
Jan/17	20	68	12	8	52.3
Feb/17	24	69	7	17	57.2
Mar/17	28	62	10	18	59.0
Apr/17	36	60	4	32	67.7

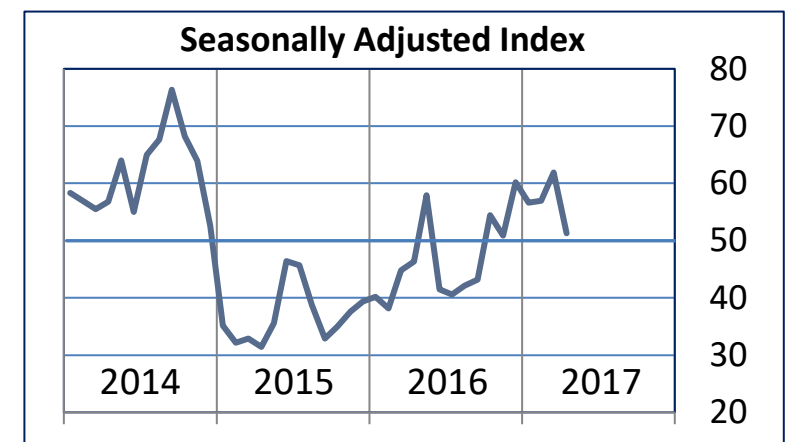
The purchases index rose significantly to its highest level since 2012. Manufacturing, oil & gas, midstream operations, and healthcare all showed strong improvement. Other sectors reported as unchanged.



Prices Paid

	% Higher	% Same	% Lower	Net	Index
Nov/16	11	80	9	1	50.9
Dec/16	16	84	0	16	60.2
Jan/17	17	83	0	17	56.6
Feb/17	19	77	4	14	57.0
Mar/17	28	70	2	26	61.9
Apr/17	11	87	2	9	51.3

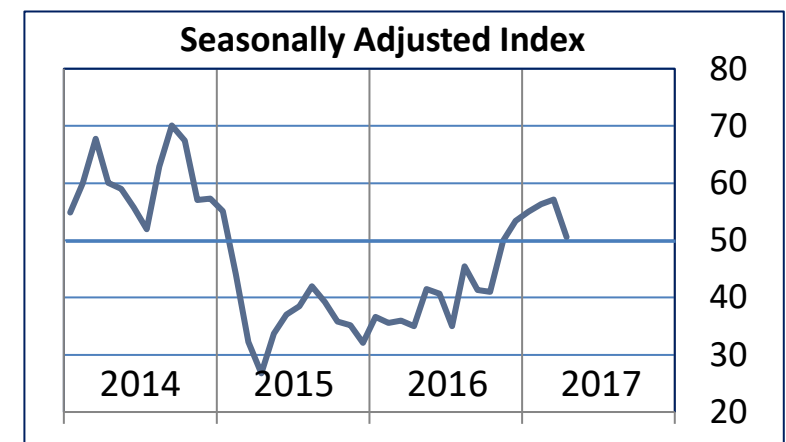
The prices paid index fell with most sectors reporting near neutral. Oil & gas, durable goods manufacturing, and healthcare reported strong upward pressure. Construction reported further price reductions.



Lead Times

	% Higher	% Same	% Lower	Net	Index
Nov/16	8	83	9	-1	49.9
Dec/16	12	81	7	5	53.4
Jan/17	7	93	0	7	55.1
Feb/17	16	83	1	14	56.3
Mar/17	19	79	2	17	57.2
Apr/17	8	90	2	6	50.6

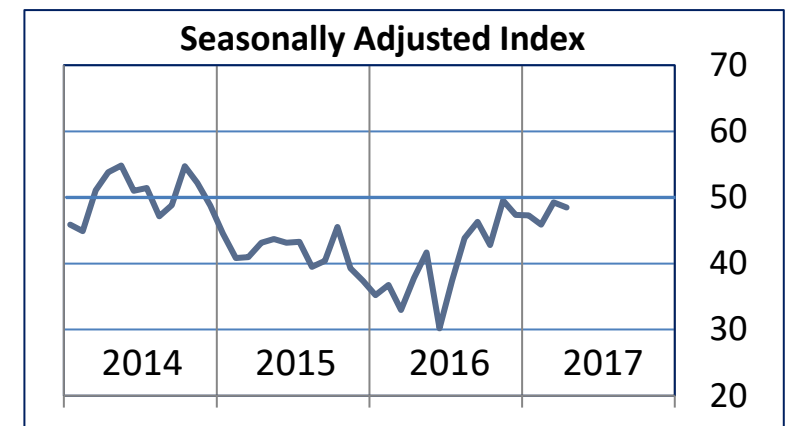
The lead times index also fell to near neutral. Oil & gas reported increasing lead times and construction reported lower lead times. Other sectors reported as neutral.



Purchased Inventory

	% Higher	% Same	% Lower	Net	Index
Nov/16	1	94	5	-4	49.5
Dec/16	0	88	12	-12	47.4
Jan/17	6	89	5	1	47.3
Feb/17	4	89	7	-3	45.9
Mar/17	6	89	5	1	49.3
Apr/17	2	92	6	-4	48.5

The purchased goods inventory index fell moderately during the month. Durable goods manufacturing reported a large reduction in this index while all other sectors reported near neutral.



Finished Goods Inventory

	% Higher	% Same	% Lower	Net	Index
Nov/16	1	86	13	-12	42.7
Dec/16	6	85	9	-4	47.5
Jan/17	11	87	2	10	50.1
Feb/17	15	84	1	14	55.2
Mar/17	6	91	3	3	50.9
Apr/17	10	85	5	5	51.2

The finished goods inventory index stayed near neutral with all sectors reporting similar levels month over month.

