

Most Gulf Coast Operations Show Recovery After Harvey

Production and Employment Improve

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(Houston, Texas) – According to Houston area Supply Chain leaders, the Houston area economy made a partial recovery from the impact of Hurricane Harvey. The Houston Purchasing Managers Index moved up from 46.5 in August to 48.6 in September. Five of the underlying indicators (Production, Employment, Lead Times, Purchased Goods Inventories, and Finished Goods Inventories) are now pointing to expansion and three (Sales/New Orders, Purchases, and Prices Paid) are indicating potential contraction near term.

The Sales/New Orders index gained 9.6 points to 48.1 in September, its second month indicating potential contraction. The Production index moved up 5.0 points to neutral. The Employment index moved back to indicating expansion, up 5.7 points to 51.5. The Purchases index gained 6.9 points, remaining below neutral at 45.7. The Lead Times index gained 2.2 points to 54.5 and the Purchased Inventory index rose 5.4 points to 50.3, its first time above neutral in almost three years. These six indicators are directly correlated with economic activity. The Finished Goods Inventory index completed its fifth month pointing to expansion registering 49.0 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 third month, registering 59.5, up 5.1 points.

On an industry specific basis, durable goods manufacturing, non-durable goods manufacturing, and Health Care are point to expansion near term. Oil & Gas, EPC, and Professional Services are showing potential contraction. All other sectors reported near neutral.

INDICES AT A GLANCE

Index	Sep	Aug	Change	Track	Rate	Trend*
Houston PMI	48.6	46.5	2.1	Contracting	Slower	2
Sales/New Orders	48.1	38.5	9.6	Falling	Slower	2
Production	50.0	45.0	5.0	Neutral	Neutral	1
Employment	51.5	45.8	5.7	Rising	Fr. Falling	1
Purchases	45.7	38.8	6.9	Falling	Slower	2
Prices Paid	59.5	54.4	5.1	Rising	Faster	3
Lead Times	54.5	52.3	2.2	Rising	Faster	10
Purchased Inventory	50.3	44.9	5.4	Rising	Fr. Falling	1
Finished Goods Inventory	49.0	47.5	1.5	Falling	Slower	5

* Months on current track



Commodities Reported Up in Price: Fracking crews; vaccines; carbon steel and alloy pipe; pumps, compressors, and turbines; copper wire and cable

Commodities Reported Down in Price: Ocean freight from Europe; Computers and computer components; office supplies

Commodities Reported in Short Supply: High end rigs and fracking crews; custom pharmaceuticals; petrochemical feedstocks

WHAT OUR RESPONDENTS ARE SAYING AND SUMMARIES BY SECTOR

Oil and Gas Exploration, and Key Support Services:

- Fracking crew shortages are having an impact on our business
- Overall, respondents in this sector reported improvement from last month, but are still indicating business contraction; production and prices were up; purchases and inventories were down; employment and lead times were flat

Engineering and Construction:

- Overall, respondents in this area reported continued contraction this month; employment and purchases were down; prices were up; all other indicators were near neutral

Manufacturing - Durable Goods:

- Price of oil is back to \$50 a barrel, the rig count is holding around 900, and orders for manufactured parts are increasing driven in part by increased international orders
- This sector reported good expansion; sales, production, employment, purchases, and prices were up, while all other indicators were flat

Manufacturing - Non-Durable Goods:

- As Gulf Coast facilities recover from Harvey, supply chain balances also are beginning to recover from widespread unplanned downtime
- Primary commodities in our business are up in price due to short term shortages and lost production
- Respondents in this area reported strengthening; sales, prices, and lead times increased; production, purchases, and inventories fell

Professional Services:

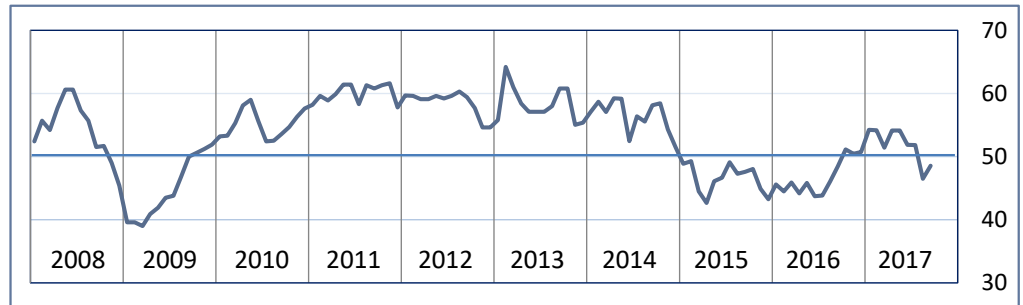
- Hurricane Harvey disrupted business activity for nearly three weeks; activity levels are just now getting back to "normal" the first week of October
- Respondents in this area reported further weakening with sales, employment, and purchase down

Health Care:

- Hiring is very slowly occurring and administrative spend gradually as well; contingent workplace hiring is continuing to increase
- This sector reported additional strengthening this month with employment, purchases, prices, and lead times all increasing

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.



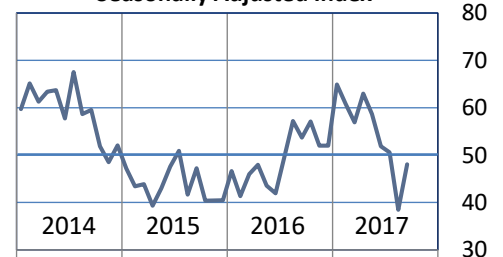
Trend of Underlying Indicators

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	
Apr/17	29	70	1	28	63.0	The sales/new orders index improved with the restart of facilities impacted by Harvey. Manufacturing showed significant gains, while oil & gas, including supporting activities, showed continued weakness.
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	
Sep/17	20	56	24	-4	48.1	

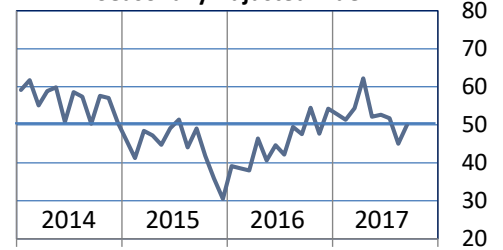
Seasonally Adjusted Index



Production

	% Higher	% Same	% Lower	Net	Index	
Apr/17	23	75	2	21	62.2	The production index improved to neutral with oil & gas and durable goods manufacturing showing improvement. Non-durable goods reported reductions. Most other sectors responded as unchanged from last month.
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	
Sep/17	20	61	19	1	50.0	

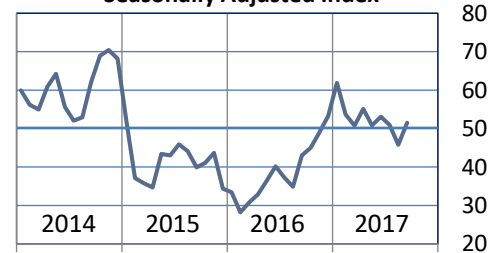
Seasonally Adjusted Index



Employment

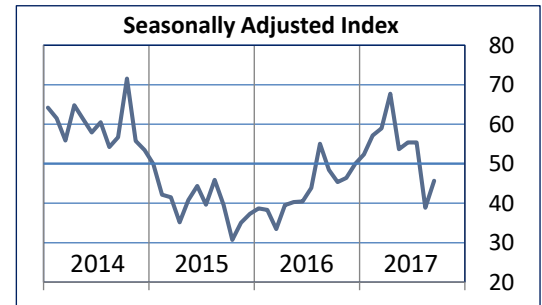
	% Higher	% Same	% Lower	Net	Index	
Apr/17	23	70	7	16	55.1	The employment index returned to showing growth, with health care and durable goods manufacturing reporting increases. EPC firms and professional services reported staff reductions.
May/17	14	76	10	4	50.8	
Jun/17	15	81	4	11	53.1	
Jul/17	15	72	13	2	50.9	
Aug/17	12	70	18	-6	45.8	
Sep/17	26	52	22	4	51.5	

Seasonally Adjusted Index



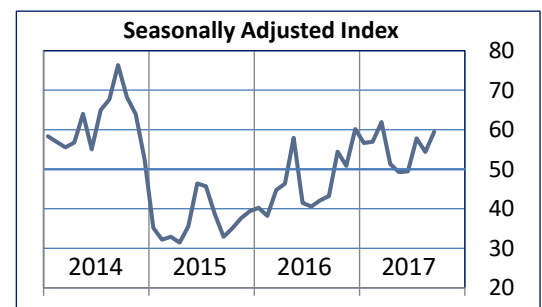
Purchases

	% Higher	% Same	% Lower	Net	Index	
Apr/17	36	60	4	32	67.7	The purchases index rebounded, but stayed below neutral. Durable goods manufacturing and health care reported increases. EPC firms, oil & gas, and non-durable goods manufacturing noted reductions month over month.
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	
Sep/17	21	55	24	-3	45.7	



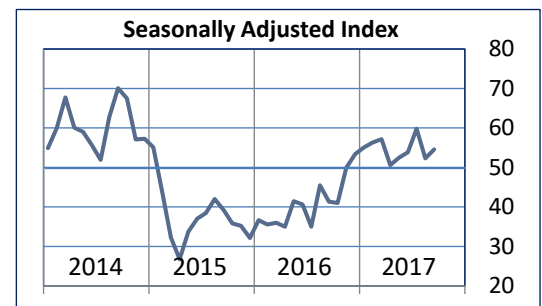
Prices Paid

	% Higher	% Same	% Lower	Net	Index	
Apr/17	11	87	2	9	51.3	The prices paid index increased with oil & gas, construction, manufacturing, and health care all reporting prices as up from last month. No sector reported prices as falling this month.
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	
Sep/17	32	53	15	17	59.5	



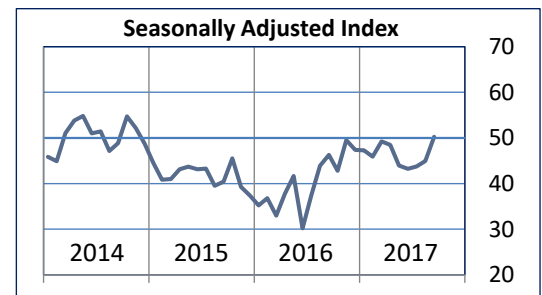
Lead Times

	% Higher	% Same	% Lower	Net	Index	
Apr/17	8	90	2	6	50.6	The lead times index also rose this month. Non-durable goods manufacturing and health care reported the greatest increases in this index, with all other sectors reporting near neutral overall.
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	
Sep/17	21	64	15	6	54.5	



Purchased Inventory

	% Higher	% Same	% Lower	Net	Index	
Apr/17	2	92	6	-4	48.5	The purchased goods inventory index moved to modest expansion this month with most sectors reporting near neutral.
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	
Sep/17	15	64	21	-6	50.3	



Finished Goods Inventory

	% Higher	% Same	% Lower	Net	Index	
Apr/17	10	85	5	5	51.2	The finished goods inventory index continues to run just below neutral. Durable goods manufacturing reported increases in this index, while non-durable goods reported reductions. Other sectors reported as unchanged.
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	
Sep/17	16	62	22	-6	49.0	

