



Texas Manufacturing Outlook Survey

September 25, 2017

Growth in Texas Manufacturing Activity Holds Steady

What's New This Month

For this month's survey, Texas business executives were asked supplemental questions on the impact from Hurricane Harvey. Results for these questions from the Texas Manufacturing Outlook Survey (TMOS), Texas Service Sector Outlook Survey (TSSOS) and Texas Retail Outlook Survey (TROS) have been released together.

Texas factory activity continued to increase in September, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, edged down to 19.5 from 20.3 in August, indicating output grew at about the same pace as last month.

Other measures of current manufacturing activity also indicated continued growth. The new orders index increased and the growth rate of orders index ticked down but stayed positive, coming in at 18.6 and 9.7, respectively. The capacity utilization index edged up four points to 15.8, while the shipments index jumped nine points to 27.4.

Perceptions of broader business conditions improved in September. The general business activity index increased to 21.3, its highest reading in seven months. The company outlook index posted its 13th consecutive positive reading, jumping nine points to 25.6.

Labor market measures suggested faster employment growth and longer workweeks this month. The employment index came in at 16.3, its highest level since April 2014. Twenty-eight percent of firms noted net hiring, compared with 11 percent noting net layoffs. The hours worked index rose four points to 18.4.

Upward pressure on prices increased, while wage pressures held steady in September. The raw materials prices index pushed up eight points to 34.5, its highest reading since July 2011. The finished goods prices index climbed seven points to 17.5, its highest level in seven months. The wages and benefits index was essentially unchanged at 26.4.

Expectations regarding future business conditions continued to improve. The indexes of future general business activity and future company outlook remained elevated at 34.5 and 39.9, respectively. Other indexes for future manufacturing activity showed mixed movements but remained solidly in positive territory.

Next release: Monday, October 30

Data were collected Sept. 12–20, and 111 Texas manufacturers responded to the survey. The Dallas Fed conducts the Texas Manufacturing Outlook Survey monthly to obtain a timely assessment of the state's factory activity. Firms are asked whether output, employment, orders, prices and other indicators increased, decreased or remained unchanged over the previous month.

Survey responses are used to calculate an index for each indicator. Each index is calculated by subtracting the percentage of respondents reporting a decrease from the percentage reporting an increase. When the share of firms reporting an increase exceeds the share reporting a decrease, the index will be greater than zero, suggesting the indicator has increased over the prior month. If the share of firms reporting a decrease exceeds the share reporting an increase, the index will be below zero, suggesting the indicator has decreased over the prior month. An index will be zero when the number of firms reporting an increase is equal to the number of firms reporting a decrease. Data have been seasonally adjusted as necessary.

Results Summary

Business Indicators Relating to Facilities and Products in Texas Current (versus previous month)

Indicator	Sep Index	Aug Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	19.5	20.3	-0.8	Increasing	15	36.0	47.5	16.5
Capacity Utilization	15.8	12.2	+3.6	Increasing	15	31.8	52.2	16.0
New Orders	18.6	14.3	+4.3	Increasing	11	37.3	44.1	18.7
Growth Rate of Orders	9.7	11.7	-2.0	Increasing	9	26.4	56.9	16.7
Unfilled Orders	8.1	0.2	+7.9	Increasing	9	21.1	65.9	13.0
Shipments	27.4	18.1	+9.3	Increasing	10	41.4	44.6	14.0
Delivery Time	10.1	0.5	+9.6	Increasing	3	15.7	78.7	5.6
Materials Inventories	3.9	2.5	+1.4	Increasing	3	22.9	58.2	19.0
Finished Goods Inventories	-4.5	-3.8	-0.7	Decreasing	5	15.5	64.5	20.0
Prices Paid for Raw Materials	34.5	26.9	+7.6	Increasing	19	35.1	64.3	0.6
Prices Received for Finished Goods	17.5	10.2	+7.3	Increasing	14	21.3	74.9	3.8
Wages and Benefits	26.4	26.9	-0.5	Increasing	94	27.6	71.2	1.2
Employment	16.3	9.9	+6.4	Increasing	9	27.7	60.9	11.4
Hours Worked	18.4	14.5	+3.9	Increasing	11	27.9	62.6	9.5
Capital Expenditures	13.6	14.5	-0.9	Increasing	13	19.2	75.2	5.6

General Business Conditions Current (versus previous month)

Indicator	Sep Index	Aug Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	25.6	16.3	+9.3	Improving	13	33.9	57.8	8.3
General Business Activity	21.3	17.0	+4.3	Improving	12	30.3	60.7	9.0

Business Indicators Relating to Facilities and Products in Texas
Future (six months ahead)

Indicator	Sep Index	Aug Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	46.5	43.1	+3.4	Increasing	103	55.2	36.1	8.7
Capacity Utilization	44.9	38.6	+6.3	Increasing	103	53.5	37.9	8.6
New Orders	48.7	48.6	+0.1	Increasing	103	53.9	40.9	5.2
Growth Rate of Orders	35.8	37.1	-1.3	Increasing	103	42.1	51.6	6.3
Unfilled Orders	9.7	6.7	+3.0	Increasing	24	17.5	74.7	7.8
Shipments	47.8	41.8	+6.0	Increasing	103	55.6	36.6	7.8
Delivery Time	1.0	2.1	-1.1	Increasing	10	11.5	78.0	10.5
Materials Inventories	10.8	12.0	-1.2	Increasing	10	26.4	58.0	15.6
Finished Goods Inventories	10.5	-2.0	+12.5	Increasing	1	23.8	62.9	13.3
Prices Paid for Raw Materials	35.9	26.0	+9.9	Increasing	102	40.6	54.7	4.7
Prices Received for Finished Goods	20.0	17.0	+3.0	Increasing	20	27.6	64.8	7.6
Wages and Benefits	39.8	44.3	-4.5	Increasing	160	40.4	59.0	0.6
Employment	41.3	30.8	+10.5	Increasing	58	45.1	51.1	3.8
Hours Worked	17.2	11.8	+5.4	Increasing	16	20.9	75.4	3.7
Capital Expenditures	29.8	19.6	+10.2	Increasing	94	34.6	60.6	4.8

General Business Conditions
Future (six months ahead)

Indicator	Sep Index	Aug Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Worsened
Company Outlook	39.9	34.5	+5.4	Improving	20	44.1	51.7	4.2
General Business Activity	34.5	29.2	+5.3	Improving	16	39.0	56.5	4.5

*Indicator direction refers to this month's index. If index is positive (negative), indicator is increasing (decreasing) or improving (worsening). If zero, indicator is unchanged.

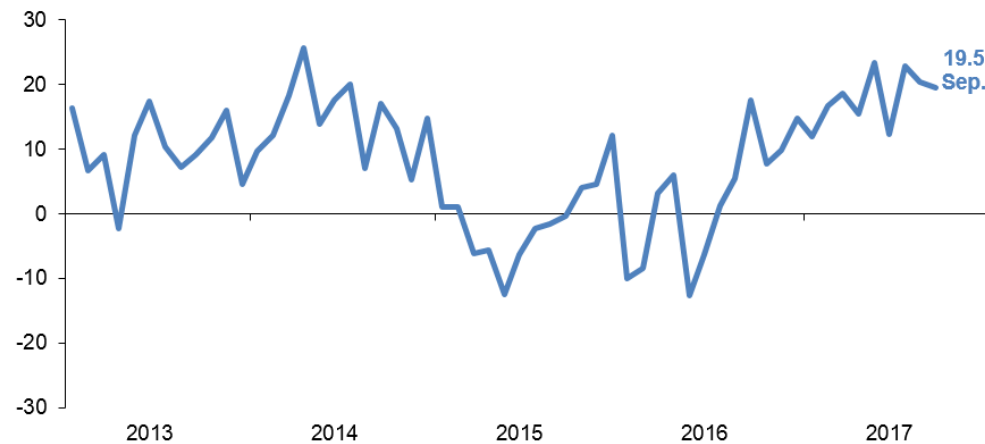
**Number of months moving in current direction.

Data have been seasonally adjusted as necessary.

Production Index

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

Comments from Survey Respondents

These comments are from respondents' completed surveys and have been edited for publication.

Chemical Manufacturing

- Hurricane Harvey resulted in increased raw material costs and increased inventory. We expect raw material prices to stay elevated for about six months and then eventually settle back down, but not to the pre-hurricane level, possibly 50 percent of the difference.
- Harvey did not impact our assets located in Louisiana but did materially slow logistics (rail, barge, truck) assets in Southwest Louisiana and Southeast Texas to service our plants in Louisiana. This slowed delivery of product to our customers. Lower production in Texas due to the storm coupled with solid demand caused product prices to rise. We also saw some energy-based feedstock prices rise in the same period.
- Hurricane Harvey is affecting delivery and availability of raw materials. This may take a few more weeks to resolve.

Nonmetallic Mineral Product Manufacturing

- We lost approximately seven days of production due to Hurricane Harvey. We are fully back online.

Primary Metal Manufacturing

- We may see an increase in business in our building and construction products related to the recent weather in Texas and Florida.
- The level of new starts in construction has already peaked and is on a slight decline. It is still good but declining from past months.

Fabricated Metal Product Manufacturing

- The storm caused the need for repairs in the refinery. This backlog of field and shop work repairs will last 30 to 60 days. We cannot hire enough qualified people to fill the need for this time period.
- Hurricane destruction will slow growth for a short period, and then recovery will increase growth.
- Harvey shut us down for a few days, but we did not sustain any damage. Business is good.
- Harvey seriously impacted our facilities, employees and customers, shutting us down for two weeks. Turnaround maintenance work has been pushed into next year, leaving a hole for us to fill.
- Current orders and available projections from customers for the rest of 2017 reflect a mixed picture: a slight pickup in the energy sector, a new-product launch with a key customer, flat industrial sector volume and slight order pushbacks from another key customer. Overall, we see a slightly improving trend for the remainder of 2017, but we have no visibility into 2018.
- Currently, the largest hindrance to continued construction growth is the availability of trained construction labor.

Machinery Manufacturing

- This past quarter, our overall sales decreased by 20 percent. We have a reasonable forecast for the next quarter and early 2018, but a cloud still looms over our industry (deep-sea drilling).

Computer and Electronic Product Manufacturing

- Demand is stronger than end markets, which may be due partly to softness in the past few years. We would not be surprised if we saw a correction in the next six months, but we could put together a scenario where we grow for the next three years.

Transportation Equipment Manufacturing

- Fortunately, we only had minor issues due to Hurricane Harvey, and those were mostly related to some employees not being able to make it in to work as the floodwaters receded. We did experience some material delays due to shipping issues. We also narrowly avoided a major component issue as one of our key suppliers was right in the path of Hurricane Irma. They also only had minor issues and were able to get product out to us shortly after the storm passed. Our expectation that tax receipts would begin to increase and flow through to us as new orders is coming to fruition slightly earlier than we anticipated—thus, the improved outlook for this month over last and for the foreseeable future.
- We are in our slow season.

Food Manufacturing

- We are having issues with our North American production due to a shortage of labor and are transferring more production to China.
- The bulk of our sales are centered around Houston, Austin and San Antonio. The hurricane directly affected our sales in these areas.

Paper Manufacturing

- We are experiencing a good uptick in orders for our busy season (August-November). We don't know if it will last, but it's good at this time.

Printing and Related Support Activities

- Hurricane Harvey seriously damaged the Southeast Texas business community. Already negatively affected by the general downturn of the oil business and, for us, the printing and USPS mail volume decline, the hurricanes hitting Houston (and shortly afterwards, Florida) have been an economic disaster for local small businesses. The situation is sadly reminiscent of the weeks following the 9/11 attack. Marketers and businesses locally are hesitant to gear back up.
- The hurricane impact in Houston and Louisiana has caused interruption of plastic packaging film supplies, causing short-term price increases due to supply/demand imbalances. Labor shortages continue to crop up, with the quality of the available workforce in the metroplex reaching levels (low) not seen since 1999–2000.
- We remain very concerned about the midterm to long-term health of the economy as it pertains to our industry. We are getting much busier, but that is the norm for this time of the year. I am worried about what four to six months will look like, activity wise.

Miscellaneous Manufacturing

- There is a labor shortage in Central Texas. We are unable to find qualified candidates. This is a factor among most Austin manufacturers I speak with.

Questions regarding the Texas Manufacturing Outlook Survey can be addressed to Emily Kerr at emily.kerr@dal.frb.org.



Texas Manufacturing Outlook Survey

Special Questions

September 25, 2017

Texas Business Outlook Surveys

Results below include responses from participants of all three surveys: Texas Manufacturing Outlook Survey (TMOS), Texas Service Sector Outlook Survey (TSSOS) and Texas Retail Outlook Survey (TROS).

Data were collected Sep. 12–20, and 390 Texas business executives responded to the surveys. Among responding firms, 78 are located along the Gulf Coast*.

1. What has been Hurricane Harvey's net impact to your firm's revenue/production?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Negative	77	31	41
No impact	10	60	50
Positive	13	8	9

2. What do you expect the hurricane's net impact to your firm's revenue/production will be over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Significant decrease	16	3	6
Slight decrease	37	24	27
No change on net	21	52	46
Slight increase	17	16	17
Significant increase	8	4	5

3. Because of Hurricane Harvey, how do you expect your firm's ability to find and hire workers to change over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Become significantly more difficult	13	6	7
Become slightly more difficult	32	17	20
No change on net	52	73	69
Become slightly easier	3	4	4
Become significantly easier	0	0	0

The following three questions were posed only to firms that noted a negative net impact from Hurricane Harvey.

4. Due to Hurricane Harvey, for how many days, if any, did your establishment experience...

	A Complete Shutdown			A Reduction in Revenue/Production		
	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
None	6	59	33	2	17	11
One to five days	67	30	48	34	43	39
More than five days	27	11	19	64	40	50
Average number of days	5.1	2.3	3.7	10.3	6.8	8.3
Average number of nonzero days	5.4	5.7	5.5	10.5	8.3	9.2

Note: Of the firms who experienced a reduction in revenue/production, 59 percent noted that it is still ongoing.

5. Because of Hurricane Harvey, to what extent will the following impede your firm getting back to business as usual over the next six months?

For each disruption, firms reported whether it will be a major or minor disruption or none at all.

	Major Extent (percent)	Minor Extent (percent)	Not at All (percent)
Personnel disruptions	19	46	35
Loss of customer base	17	50	33
Transportation and/or supply chain disruptions	14	51	36
Repair of facility	10	31	58
Repair/replacement of other capital (inventory/equipment)	7	24	68
Restoration of utilities (power/water/gas)	7	24	69
Ability to hire workers	5	27	68
Other	8	5	86

Note: This question was posed only to firms that expect the hurricane's net impact to be a decrease in revenue/production over the next six months.

6. To what extent will your firm's damages and/or losses due to Hurricane Harvey be covered by insurance (if applicable)?

	Physical capital losses (percent)	Revenue/Production losses (percent)
Not at All	58	74
Somewhat	27	18
Mostly	14	8

*For our analysis, Gulf Coast includes the metropolitan statistical areas of Houston, Beaumont-Port Arthur, Corpus Christi and Victoria.

Texas Manufacturing Outlook Survey

Data were collected Sep. 12–20, and 108 Texas manufacturers responded to the survey. Among responding firms, 23 are located along the Gulf Coast*.

1. What has been Hurricane Harvey's net impact to your firm's revenue/production?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Negative	83	28	40
No impact	9	64	52
Positive	9	8	8

2. What do you expect the hurricane's net impact to your firm's revenue/production will be over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Significant decrease	18	5	8
Slight decrease	32	17	20
No change on net	27	52	47
Slight increase	14	21	19
Significant increase	9	5	6

3. Because of Hurricane Harvey, how do you expect your firm's ability to find and hire workers to change over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Become significantly more difficult	25	6	10
Become slightly more difficult	35	19	22
No change on net	35	68	61
Become slightly easier	5	8	7
Become significantly easier	0	0	0

The following three questions were posed only to firms that noted a negative net impact from Hurricane Harvey.

4. Due to Hurricane Harvey, for how many days, if any, did your establishment experience...

	A Complete Shutdown			A Reduction in Revenue/Production		
	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
None	6	83	39	0	21	11
One to five days	50	8	32	31	42	37
More than five days	44	8	29	69	37	51
Average number of days	6.1	0.9	3.9	10.8	8.4	9.5
Average number of nonzero days	6.5	5.5	6.4	10.8	10.6	10.7

Note: Of the firms who experienced a reduction in revenue/production, 48 percent noted that it is still ongoing.

5. Because of Hurricane Harvey, to what extent will the following impede your firm getting back to business as usual over the next six months?

For each disruption, firms reported whether it will be a major or minor disruption or none at all.

	Major Extent (percent)	Minor Extent (percent)	Not at All (percent)
Personnel disruptions	14	38	48
Transportation and/or supply chain disruptions	14	57	29
Loss of customer base	10	45	45
Repair of facility	10	24	67
Repair/replacement of other capital (inventory/equipment)	5	24	71
Restoration of utilities (power/water/gas)	5	19	76
Ability to hire workers	0	33	67
Other	0	0	100

Note: This question was posed only to firms that expect the hurricane's net impact to be a decrease in revenue/production over the next six months.

6. To what extent will your firm's damages and/or losses due to Hurricane Harvey be covered by insurance (if applicable)?

	Physical capital losses (percent)	Revenue/ Production losses (percent)
Not at All	68	81
Somewhat	21	15
Mostly	11	4

*For our analysis, Gulf Coast includes the metropolitan statistical areas of Houston, Beaumont-Port Arthur, Corpus Christi and Victoria.

Special Questions Comments

These comments have been edited for publication.

Chemical Manufacturing

- Hurricane Harvey, while it did not have a direct effect on our revenue or production times, is going to decrease our profitability due to our increased raw material costs (price increases are coming quicker than we can raise prices) and will reduce our cash flow due to higher inventory requirements.

Primary Metal Manufacturing

- Technical people will become more in-demand in the regions of the hurricanes, making them harder to find for normal business.

Fabricated Metal Product Manufacturing

- We have two significant production equipment machines that we are still trying to troubleshoot to repair/restore electrical systems. The machines are too expensive to replace, and flood insurance only covers depreciated value, so we may be out of production longer than anticipated.
- Shipments to Southeast Texas customers were delayed a few days following Hurricane Harvey, but we have not seen any other impact to date.
- We haven't been able to hire employees all year. Houston is at full employment.

Machinery Manufacturing

- Though our facility did not have any physical damage (even inside Houston), many of our employees were unable to come to work due to blocked roads, damage to their homes or damage to their relatives' homes. This caused our office to be shut down for several days.

Transportation Equipment Manufacturing

- We are about to begin hiring again in earnest. Our guess is that it may be easier to find workers since some may have been displaced from businesses that experienced major or total losses due to Hurricane Harvey. But we haven't yet started that process, so we really won't know for a month or two.

Furniture and Related Product Manufacturing

- There has been a labor shortage of skilled trades for installation of our product for a while already. Hurricane Harvey may cause that to increase, which, if it does, will force lower construction rates in other areas where that labor was pulled from.

Food Manufacturing

- We were not affected by the storm, but many customers in areas hard-hit have lost facilities or are now producing less due to their demand decreasing.

Printing and Related Support Activities

- We were not impacted at all, but many of our Houston-area customers were, and we lost a very nice quick-turn job that was going to be produced in Houston. But because they couldn't find truckers to bring printed materials into Texas amid worries about fuel shortages and closed roads, the job went to a different part of the country. It was worth 10 percent of our monthly billing.

Miscellaneous Manufacturing

- I feel that construction pay increases in Houston will cause Central Texas workers to migrate that way, thus exacerbating the current labor shortage and wage increases we have been facing.

Texas Service Sector Outlook Survey

Data were collected Sep. 12–20, and 282 Texas business executives responded to the survey. Among responding firms, 55 are located along the Gulf Coast*.

1. What has been Hurricane Harvey's net impact to your firm's revenue/production?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Negative	75	33	41
No impact	11	59	50
Positive	15	8	10

2. What do you expect the hurricane's net impact to your firm's revenue/production will be over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Significant decrease	15	3	5
Slight decrease	40	27	29
No change on net	19	52	45
Slight increase	19	15	16
Significant increase	8	4	5

3. Because of Hurricane Harvey, how do you expect your firm's ability to find and hire workers to change over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Become significantly more difficult	8	5	6
Become slightly more difficult	31	17	19
No change on net	59	76	73
Become slightly easier	2	2	2
Become significantly easier	0	0	0

The following three questions were posed only to firms that noted a negative net impact from Hurricane Harvey.

4. Due to Hurricane Harvey, for how many days, if any, did your establishment experience...

	A Complete Shutdown			A Reduction in Revenue/Production		
	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
None	6	52	31	3	15	10
One to five days	75	36	54	35	43	40
More than five days	19	12	15	62	42	49
Average number of days	4.7	2.7	3.6	10.1	6.3	7.8
Average number of nonzero days	5.0	5.7	5.3	10.4	7.4	8.7

Note: Of the firms who experienced a reduction in revenue/production, 64 percent noted that it is still ongoing.

5. **Because of Hurricane Harvey, to what extent will the following impede your firm getting back to business as usual over the next six months?**

For each disruption, firms reported whether it will be a major or minor disruption or none at all.

	Major Extent (percent)	Minor Extent (percent)	Not at All (percent)
Personnel disruptions	20	49	31
Loss of customer base	19	51	30
Transportation and/or supply chain disruptions	14	49	38
Repair of facility	11	33	56
Repair/replacement of other capital (inventory/equipment)	8	24	68
Restoration of utilities (power/water/gas)	8	25	67
Ability to hire workers	7	25	68
Other	10	7	83

Note: This question was posed only to firms that expect the hurricane's net impact to be a decrease in revenue/production over the next six months.

6. **To what extent will your firm's damages and/or losses due to Hurricane Harvey be covered by insurance (if applicable)?**

	Physical capital losses (percent)	Revenue/ Production losses (percent)
Not at All	56	72
Somewhat	29	19
Mostly	15	10

*For our analysis, Gulf Coast includes the metropolitan statistical areas of Houston, Beaumont-Port Arthur, Corpus Christi and Victoria.

Special Questions Comments

These comments have been edited for publication.

Credit Intermediation and Related Activities

- We are waiting to determine what delayed impacts the hurricane will have on our market areas. We have a low percentage of our loan portfolio in the affected areas and are waiting on assessments of those credits. We anticipate we will see the increased cost for gas continue and building materials as well. Our community saw an increase in occupation rates at hotels and provided sanctuary for a number of people in available facilities but expect that to be short term.
- Our employees and physical facilities were not impacted, but we had several prospects about to sign a contract with us that had to delay their decision-making due to Hurricane Harvey. We believe they will sign at some point, but this will have an impact on our sales bookings for the third and fourth quarters of 2017.
- We are a commercial bank, and the survey questions are difficult to answer because the major impact will be determined by the impact on our customers, and it's much too early to determine that impact.

Insurance Carriers and Related Activities

- As a managing general agent for specialty carriers underwriting wind-exposed risks along the coast and inland including Houston, we expect to see 5 to 10 percent rate increases in premiums on new and renewal business over the next 12 months. We don't expect either Hurricanes Harvey or Irma to significantly impact the underwriting availability of coverage for wind-exposed risks.

- Our business is 300 miles inland. We have some clients who were in Hurricane Harvey's path, but most of their losses were insured (wind or flood) losses.

Real Estate

- While we do not feel we will be directly impacted, we do recognize that any construction-related work we need in Austin, San Antonio or any of the Rio Grande Valley markets will probably be more costly and harder to accomplish due to labor or materials costs or shortages.

Rental and Leasing Services

- I think there will be many opportunities to finance equipment to new and old customers, as many will have difficulty getting the down payment that lending firms require today. Their business has been flooded, and they don't have a cash flow right now; some will be new companies and not have sufficient credit history to meet the regulatory rules lenders require today, who will need quick, simple, easy, fast, skip payment, delayed payment, low interest rate, low down payment money available.

Professional, Scientific and Technical Services

- We lost time in the office but a number of our lawyers can work remotely. I expect we will see increased activity in hurricane-related claims in the months ahead.
- The economic impact of Hurricanes Harvey and Irma will have a significant impact upon the state of Texas.
- We are a professional engineering firm. We are expecting an uptick in project work. It is still too early to see if funding will be forthcoming for infrastructure projects.
- We were fortunate in that this was not a direct hit on the Houston metro area, and for the most part, power was maintained. This was key to us keeping folks—who were water-locked at home—engaged and working as best they could, particularly work-at-home staff, and also professionals who could work remotely. Some clients were no doubt offline. Our business continuity/disaster recovery plans worked very well, and we saw no systems disruption. The impact was isolated to Houston-based personnel and their inability to access the building for a couple of days, as folks were limited in ability to travel with widespread road flooding.
- I expect the rebuilding activity to have a net positive effect for the economy—notwithstanding the immediate negative impact—and therefore be an indirect positive effect on the economy throughout Texas.
- We expect significant cost increases on select building materials for our projects, possibly to the point of endangering going forward with construction on some projects. The increases are expected in drywall, metal studs and flooring materials.
- The overall effects of Hurricane Harvey on our business will be slight. We will have slightly higher costs this month due to lost production, but that will be made up in short order. About 15 percent of our staff were effected by flooding in their homes but all have returned to work while repairs are being made.
- We have received two small orders due to hurricane disruption but nothing significant enough to record. We cover San Antonio, Austin and South Texas and, thankfully, did not have much flooding in our footprint.

Management of Companies and Enterprises

- We have two assessment areas. Only one was impacted to some extent. The impacted area was slightly affected, and the loss of production was due to power outage and not flooding. The impacted area is 100 percent operational. Some clients were negatively impacted but not a large segment. There has been some slowdown but minimal overall impact.

Administrative and Support Services

- The effect we most see with Hurricane Harvey is the shipment of customers' parts to and from our lab.

Educational Services

- With construction/repair increasing in the Houston and Gulf Coast area, we are concerned about construction costs rising in Texas as well as availability of workers, etc.

Hospitals

- We are too far from the coast to be materially impacted.
- We expect costs to increase around Texas.

Social Assistance

- As a food bank, we have sent a significant amount of food to the areas affected by Hurricane Harvey and have been providing meals to evacuees. We have also seen increased donations and volunteers in response to the disaster.

Food Services and Drinking Places

- We got busier for a week or so because the hotels around us (Dallas suburbs) filled up with displaced Houstonians. That said, the hurricane had a very adverse effect on our Houston stores.
- Revenues for the recent period were down at the five stores impacted in Corpus Christi, Victoria and Houston. We were one of the first to reopen, and our sales have been very strong post-reopening. We are not sure how long this will last as other businesses get back on their feet.

Personal and Laundry Services

- Our business has not been impacted by Hurricane Harvey.

Texas Retail Outlook Survey

Data were collected Sep. 12–20, and 61 Texas retailers responded to the survey. Among responding firms, 16 are located along the Gulf Coast*.

1. What has been Hurricane Harvey's net impact to your firm's revenue/production?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Negative	63	24	34
No impact	0	53	39
Positive	38	22	26

2. What do you expect the hurricane's net impact to your firm's revenue/production will be over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Significant decrease	0	0	0
Slight decrease	44	30	33
No change on net	19	34	30
Slight increase	25	25	25
Significant increase	13	11	12

3. Because of Hurricane Harvey, how do you expect your firm's ability to find and hire workers to change over the next six months?

	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
Become significantly more difficult	13	7	9
Become slightly more difficult	38	21	26
No change on net	44	71	64
Become slightly easier	6	0	2
Become significantly easier	0	0	0

The following three questions were posed only to firms that noted a negative net impact from Hurricane Harvey.

4. Due to Hurricane Harvey, for how many days, if any, did your establishment experience...

	A Complete Shutdown			A Reduction in Revenue/Production		
	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)	Gulf Coast (percent)	Rest of Texas (percent)	All Firms (percent)
None	0	67	27	0	0	0
One to five days	89	33	67	30	71	47
More than five days	11	0	7	70	29	53
Average number of days	4.3	1.2	3.0	9.7	5.3	7.9
Average number of nonzero days	4.3	3.5	4.1	9.7	5.3	7.9

Note: Of the firms who experienced a reduction in revenue/production, 70 percent noted that it is still ongoing.

5. Because of Hurricane Harvey, to what extent will the following impede your firm getting back to business as usual over the next six months?

For each disruption, firms reported whether it will be a major or minor disruption or none at all.

	Major Extent (percent)	Minor Extent (percent)	Not at All (percent)
Transportation and/or supply chain disruptions	29	57	14
Loss of customer base	13	67	20
Personnel disruptions	7	57	36
Restoration of utilities (power/water/gas)	7	33	60
Repair of facility	0	47	53
Repair/replacement of other capital (inventory/equipment)	0	47	53
Ability to hire workers	0	33	67
Other	0	0	100

Note: This question was posed only to firms that expect the hurricane's net impact to be a decrease in revenue/production over the next six months.

6. To what extent will your firm's damages and/or losses due to Hurricane Harvey be covered by insurance (if applicable)?

	Physical capital losses (percent)	Revenue/ Production losses (percent)
Not at All	63	63
Somewhat	25	25
Mostly	13	13

*For our analysis, Gulf Coast includes the metropolitan statistical areas of Houston, Beaumont-Port Arthur, Corpus Christi and Victoria.

Special Questions Comments

These comments have been edited for publication.

Merchant Wholesalers, Durable Goods

- We have done business in Houston for over 35 years; we are serving and responding to our customer's needs for gypsum, insulation, roofing, doors, moulding and other related products as homeowners begin to repair their homes.

Motor Vehicle and Parts Dealers

- We are in the marine business and expect some revenue from repair or replacement of damaged boats, motors and equipment.
- We will experience a slight increase as a result of the number of vehicles being totaled. We aren't close enough to experience a major impact. Generally, the dealers in the impacted area will see a big increase in their overall business (new, preowned, certified preowned, rental, service loaner, parts, and service and collision centers).

Clothing and Clothing Accessories Stores

- Our corporate headquarters recovery took about a week; most stores took about five days to recover, but 10 stores had damage that will keep them closed until approximately Thanksgiving.

General Merchandise Stores

- We have eight locations in Houston. One was flooded and will be closed for up to a couple of months.

Nonstore Retailers

- I expect our ability to hire personnel may be impacted to a minor extent but could be major. I expect the cleanup, repair and rebuild efforts will absorb a great deal of the workforce we would typically draw from, although I don't know to what extent this may be offset by companies and individuals from outside Houston coming in to assist/benefit from these efforts. I see this driving wages higher in the area.
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Questions regarding the Texas Manufacturing Outlook Survey can be addressed to Emily Kerr at emily.kerr@dal.frb.org, and questions regarding the Texas Service Sector Outlook Survey or the Texas Retail Outlook Survey can be addressed to Amy Jordan at amy.jordan@dal.frb.org.