Texas Manufacturing Outlook Survey

September 24, 2018

Texas Manufacturing Expansion Continues amid Increased Uncertainty

What's New This Month

For this month's survey, Texas business executives were asked supplemental questions on the impact of tariffs. Results for these questions from the Texas Manufacturing Outlook Survey, Texas Service Sector Outlook Survey and Texas Retail Outlook Survey have been released together.

Texas factory activity continued to expand in September, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, dipped six points to 23.3, indicating output growth continued but at a slower pace than last month.

Other indexes of manufacturing activity also suggested slower expansion in September. The new orders index fell nine points to 14.7, its lowest reading in six months. Similarly, the growth rate of orders index slipped to 11.5, also a six-month low. The capacity utilization index retreated slightly to 21.6, while the shipments index fell five points to 20.8.

Perceptions of broader business conditions remained positive this month, although outlooks were less optimistic and uncertainty increased further. The general business activity index edged down but remained highly elevated at 28.1. The company outlook index held above average but retreated nine points to 18.2, its lowest reading in more than a year. The relatively new index measuring uncertainty regarding companies' outlooks moved up four points to a new high of 19.9.

Labor market measures suggest employment levels and work hours rose at a slower pace in September. The employment index remained positive but dropped 11 points to 17.7. One-quarter of firms noted net hiring, compared with 7 percent noting net layoffs. The hours worked index moved down to 12.7.

While price and wage pressures remained highly elevated in September, selling price increases again saw some deceleration. The raw materials prices index held fairly steady at 44.4, while the finished goods prices index edged down to 13.6. Compensation costs continued to rise at a faster clip than normal, with the wages and benefits index holding at 33.0.

Expectations regarding future business conditions remained positive in September. The indexes of future general business activity and future company outlook came in at 38.0 and 33.8, respectively. Other indexes for future manufacturing activity showed mixed movements this month but remained solidly in positive territory.

Next release: Monday, October 29

Data were collected Sep. 11–19, and 116 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	23.3	29.3	–6.0	Increasing	27	31.9	59.5	8.6
Capacity Utilization	21.6	25.2	–3.6	Increasing	27	29.7	62.2	8.1
New Orders	14.7	23.9	–9.2	Increasing	23	28.2	58.3	13.5
Growth Rate of Orders	11.5	19.9	–8.4	Increasing	21	24.2	63.1	12.7
Unfilled Orders	1.8	9.1	–7.3	Increasing	18	13.4	75.0	11.6
Shipments	20.8	26.0	–5.2	Increasing	22	29.9	61.0	9.1
Delivery Time	4.1	8.9	–4.8	Increasing	15	13.6	76.9	9.5
Finished Goods Inventories	6.0	13.9	–7.9	Increasing	2	12.9	80.2	6.9
Prices Paid for Raw Materials	44.4	45.3	–0.9	Increasing	31	45.0	54.4	0.6
Prices Received for Finished Goods	13.6	15.3	–1.7	Increasing	26	20.4	72.8	6.8
Wages and Benefits	33.0	33.4	–0.4	Increasing	110	34.9	63.2	1.9
Employment	17.7	28.9	–11.2	Increasing	21	25.1	67.5	7.4
Hours Worked	12.7	19.0	–6.3	Increasing	23	18.1	76.5	5.4
Capital Expenditures	17.0	25.1	–8.1	Increasing	25	21.0	74.9	4.0

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	18.2	27.3	–9.1	Improving	25	25.6	67.0	7.4
General Business Activity	28.1	30.9	–2.8	Improving	23	31.4	65.3	3.3

Indicator	Sep Index	Aug Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	19.9	16.2	+3.7	Increasing	4	25.9	68.1	6.0

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	43.7	46.6	–2.9	Increasing	115	49.5	44.7	5.8
Capacity Utilization	41.0	38.2	+2.8	Increasing	115	48.0	45.0	7.0
New Orders	44.9	47.4	–2.5	Increasing	115	48.8	47.3	3.9
Growth Rate of Orders	37.2	40.4	–3.2	Increasing	115	42.3	52.6	5.1
Unfilled Orders	12.7	9.7	+3.0	Increasing	36	20.7	71.3	8.0
Shipments	42.2	49.2	–7.0	Increasing	115	46.9	48.4	4.7
Delivery Time	5.7	7.1	–1.4	Increasing	22	11.9	81.9	6.2
Finished Goods Inventories	10.3	9.9	+0.4	Increasing	11	18.7	72.9	8.4
Prices Paid for Raw Materials	43.0	43.5	–0.5	Increasing	114	46.7	49.5	3.7
Prices Received for Finished Goods	28.0	32.0	–4.0	Increasing	32	35.5	57.0	7.5
Wages and Benefits	57.4	45.5	+11.9	Increasing	172	57.8	41.8	0.4
Employment	39.4	42.2	–2.8	Increasing	70	42.8	53.8	3.4
Hours Worked	11.4	11.3	+0.1	Increasing	28	17.8	75.8	6.4
Capital Expenditures	37.8	39.9	–2.1	Increasing	106	41.0	55.8	3.2

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	33.8	34.3	–0.5	Improving	32	38.8	56.2	5.0
General Business Activity	38.0	34.7	+3.3	Improving	28	40.2	57.6	2.2

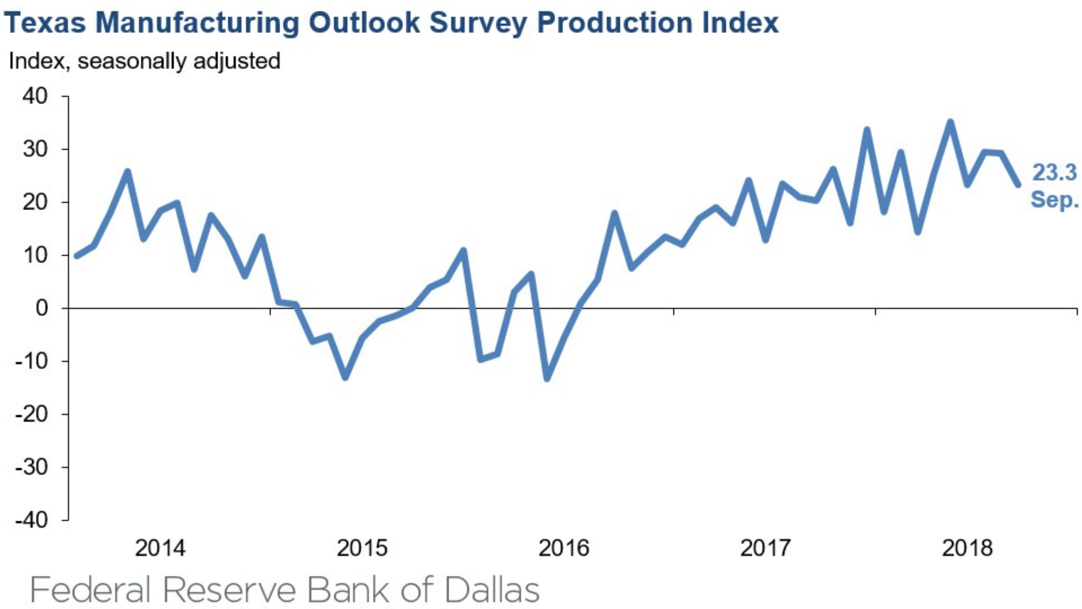
*Indicator direction refers to this month's index. If index is positive (negative), indicator is increasing (decreasing) or improving (worsening). If zero, indicator is unchanged.

**Number of months moving in current direction.

†Added to survey in January 2018.

Data have been seasonally adjusted as necessary, with the exception of the outlook uncertainty index, which does not yet have a sufficiently long time series to test for seasonality.

Production Index



Comments from Survey Respondents

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

Chemical Manufacturing

- We are starting to see our larger clients postpone inventory positions, thus increasing cycle times. Raw materials are increasingly more difficult to obtain, even with supply agreements in place.
- The demand for skilled employees is much higher than the supply. If skilled workers don't move to the Texas Gulf Coast, there will be trouble.
- We are experiencing a severe raw material shortage, which is causing a flat rate of production. We could sell more, but lack of raw materials limits this.

Nonmetallic Mineral Product Manufacturing

- Prices for steel have increased by 30 percent due to import tariffs. This has cut operating margins for the past four months and will continue to have an effect until these fixed-price bids are completed. New contracts will reflect higher raw material costs and higher prices to our customers.

Primary Metal Manufacturing

- We still have major concerns and uncertainty in regard to future raw material prices and availability due to tariffs, sanctions and possible quotas on raw aluminum.
- Business is good. We love President Trump and his policies. Keep it up.
- We are still working through burdensome regulatory issues, primarily the new silica rule, in which the Labor Department has been reluctant to hear industry concerns. Regardless, we continue to move forward with expansion and capital expenditures to reduce silica dust throughout the entire facility.

Fabricated Metal Product Manufacturing

- The first two to three weeks of August was a clear slowdown. The September activity and quote level is back to first- and second-quarter levels. There has been some price stabilization on steel (even a few percentage-points rollback as new supply capacity becomes available at the mills).
- If the Democrats take over either the House or Senate, the outlook will change for the worse. No doubt about it.
- Metal lead times and pricing remain at increased levels.

Machinery Manufacturing

- We are experiencing a lull in business activity compared with recent months. However, we also believe that this situation will be temporary, as all other signs in our industry remain strong. We remain cautiously optimistic.
- Of course, steel tariffs are hurting us, but we've seen this before. Big companies get protection, while little companies pay the price. We saw two months (July/August) with an uptick of about 8 percent in sales, but it looks like September and October will drop back down.
- Third-quarter sales are generally the slowest annually because of vacations by our customers. However, we already see the pickup in orders for year-end completion of projects and money that needs to be spent. Our sales have already exceeded all of 2017, and we are forecasting a 45 percent increase. We are looking forward to 2019 already since our customers are telling us to get ready for another strong year of business. I believe that many of our competitors are seeing the same outlook.

Electrical Equipment, Appliance, and Component Manufacturing

- Construction is strong coast to coast, which is driving sales of our products. Finding blue-collar labor is tough, especially since we drug test for safety in our plants. Many applicants either walk away from or fail drug tests. Some are amazed we fail them for pot. Random tests in the office have also resulted in dismissal of a couple of people. America has a problem!

Transportation Equipment Manufacturing

- Our business has been very consistent this year, which is good. The constant price increases from our suppliers are definitely decreasing our profits. Our market will not permit us to raise our prices to the point of matching the increases.
- Our volume outlook has improved due to adding a new production model.

Paper Manufacturing

- It is getting worse every month trying to find employees.

Printing and Related Support Activities

- These are still very challenging times—nothing like the fun months during 2005 through 2009. There is way too much uncertainty in Washington with our unpredictable leader. However, the economy seems to be better and hopefully this will continue. We source a lot of materials from non-U.S. suppliers, and those are starting to be a problem. We don't have domestic options on some of these, so between tariffs and longer lead times, it can be a real challenge.

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

Texas **Business** Outlook Surveys

Special Questions

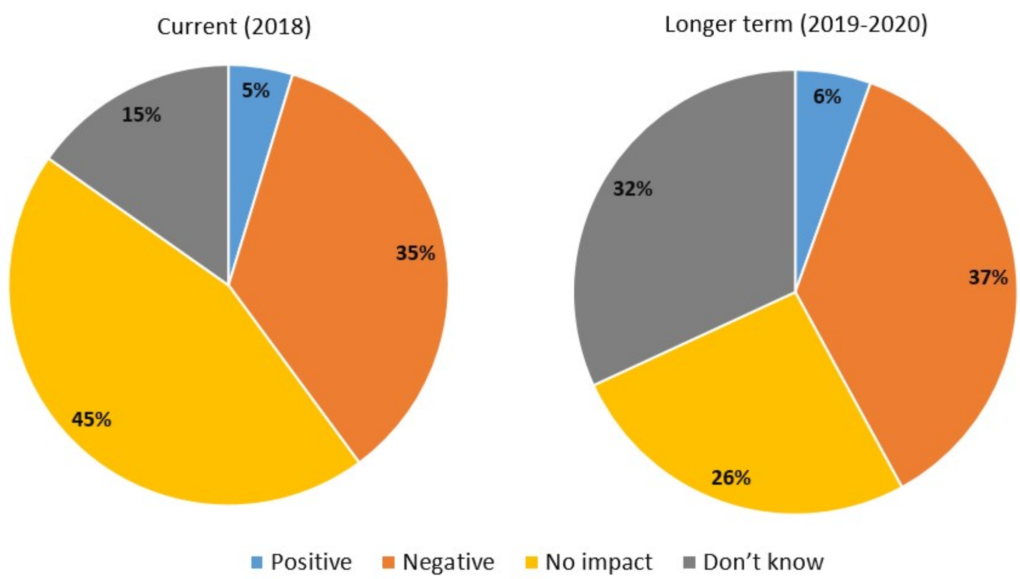
September 24, 2018

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

Texas Business Outlook Surveys

Data were collected Sept. 11–19, and 364 Texas business executives responded to the surveys.

What is the net impact on your firm of the tariffs announced and/or implemented by the U.S. and other countries this year as well as other potential changes to trade policy?*



SOURCE: Federal Reserve Bank of Dallas, Texas Business Outlook Surveys.

	Current (2018)	Longer term (2019–2020)
No impact	45	26
Positive	5	6
Negative	35	37
Don't know	15	32

What is the net impact of tariffs announced and/or implemented by the U.S. and other countries this year on the following aspects of your firm's business?

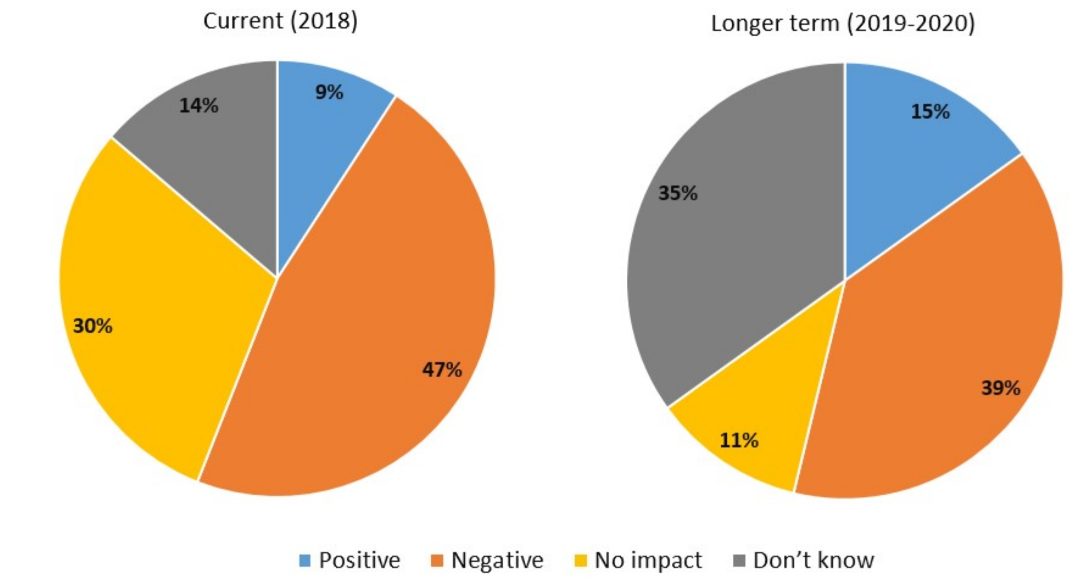
	Increased (percent)	Decreased (percent)	No impact (percent)
Input costs	44	2	54
Selling prices	28	3	69
Supplier delivery times	20	3	77
Production/revenue/sales	11	19	70
Employment	6	8	87
Capital spending plans	10	14	76
Uncertainty	55	3	42
Company outlook	10	20	71

*A similar question was posed to survey participants in the April 2018 special questions.

Texas Manufacturing Outlook Survey

Data were collected Sept. 11–19, and 110 Texas manufacturers responded to the survey.

What is the net impact on your firm of the tariffs announced and/or implemented by the U.S. and other countries this year as well as other potential changes to trade policy?*



SOURCE: Federal Reserve Bank of Dallas, Texas Manufacturing Outlook Survey.

	Current (2018)	Longer term (2019–2020)
No impact	30	11
Positive	9	15
Negative	47	39
Don't know	14	35

What is the net impact of tariffs announced and/or implemented by the U.S. and other countries this year on the following aspects of your firm's business?

	Increased (percent)	Decreased (percent)	No impact (percent)
Input costs	59	3	38
Selling prices	39	7	54
Supplier delivery times	25	1	74
Production/revenue/sales	14	25	61
Employment	10	10	81
Capital spending plans	12	20	68
Uncertainty	65	5	30
Company outlook	18	24	58

*A similar question was posed to survey participants in the April 2018 special questions.

Special Questions Comments

These comments have been edited for publication.

Chemical Manufacturing

- We have tried for years to sell our products in China with no luck due to high Chinese tariffs (25 percent). Hopefully, this will change and open a new market for us. There are at least 17 facilities that could potentially use our products.

Nonmetallic Mineral Product Manufacturing

- As of yet, the expected import tariffs on cement are not impacting the business. It is our assessment that given the very low price elasticity of the product, tariffs could be positive to the company's bottom line.

Primary Metal Manufacturing

- The uncertainty of whether tariffs will be implemented, in what amounts, and for how long makes long-term commitments challenging. We have net winners for what is clearly bad policy.
- We have to rely on foreign sources for raw aluminum in the United States.
- We can pass on the cost increases, but our customers may not be able to pass them on if they compete with products made in Mexico, China or Asia.

Fabricated Metal Product Manufacturing

- Aluminum and other metals are being used up as inventories have fallen. There are fewer sizes and certainly higher prices across the board, plastics included. On contracts, people are wanting to rebid if we won't take the price we gave them initially, chancing losing the business. Lead times resulting from lack of stock materials makes delivery less predictable.
- We are third tier in the supply chain; therefore, it is too early to make a knowledge assessment. Our customers are primarily contract manufacturers. Uncertainty over the fear of tariffs could result in increased revenue due to additional manufacturing in the U.S. vs. offshoring, or a decrease in revenue due to customers' higher costs of imported materials.
- Tariffs may be good for domestic steel producers and mills, but they have not been helpful for steel fabricators. The imposition of tariffs was followed immediately by a series of price increases of raw steel, causing losses on projects under contract. Steady, predictable market conditions are much more desirable.
- If you are selling steel, good news. In almost all cases, increased costs are able to be pushed through. Supply and availability trumps price right now for end users—that and the ability to get product delivered. Also, there are huge issues with cost and availability of delivered freight.

Machinery Manufacturing

- Suppliers are asking for forecasts for longer horizons, a longer time period. Some material lead times have increased.
- The tariffs have increased our input costs, but we've increased our prices to compensate, and our customers understand the situation and continue to buy our products. The tariffs as best as I can tell will have little or no effect on anyone's buying habits. It's been a political debate that will not stop anyone from buying that next pair of shoes or sneakers.
- We buy magnets from China, and the actual cost may go up $30 on a $220 item. Our selling price, however, is $850. So we increased our price $50. No one has yet said they won't buy this product because of the price increase. Fear seems to be the biggest outcome of the tariffs that political analysts have heaped on the American public. And you can probably include economists, too.
- The second round of tariffs affected some, but not all, of the raw materials that we use for manufacturing. We have started to increase our prices on just the products that are produced from the more expensive raw materials. However, we have also notified our customers that if the tariffs are eliminated in the future, we will reduce our prices accordingly.

Electrical Equipment, Appliance, and Component Manufacturing

- Unfair dumping of products by China needs to be addressed.

Transportation Equipment Manufacturing

- We're getting killed on aluminum pricing and potential availability.

Food Manufacturing

- Our biggest impact is in relation to our capital spending plans. Infrastructure costs (concrete, steel, etc.) are all significantly more expensive than they were five years ago, even excluding potential tariffs. Overall, we do not expect tariffs to last long term.

Paper Manufacturing

- Some customers might be negatively affected and some positively. The positive will lag the negative, so long term, the impact is still unsure.

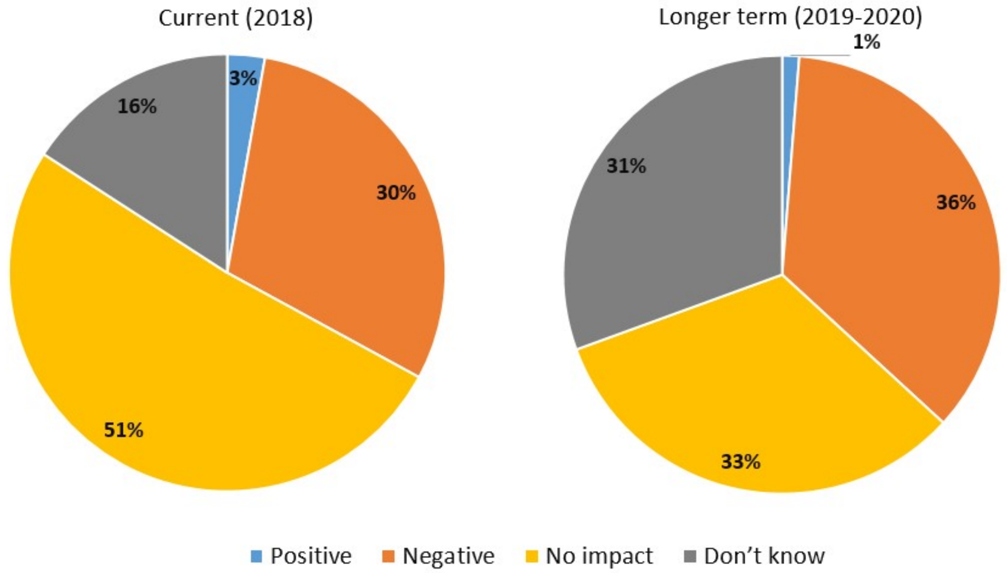
Miscellaneous Manufacturing

- Tariffs hurt our business, but we believe that the trade issues need to be addressed even if that means some short-term suffering. We want a balanced playing field with countries like China, as it is currently not fair to U.S. companies selling into China or owning assets in China. We are working with our partners in China to move production to other countries, and if the tariffs do not get resolved this year, most of those changes will be permanent by mid-2019. We are also moving production back to the U.S. and increasing production here where we can. Our market does not have access to enough quality and cost-effective labor, so there is a limit to how much we can bring back to the U.S. Some production in China is simply unable to be done in the U.S. due to a lack of skilled labor and available supply chain to support it.

Texas Service Sector Outlook Survey

Data were collected Sept. 11–19, and 254 Texas business executives responded to the survey.

What is the net impact on your firm of the tariffs announced and/or implemented by the U.S. and other countries this year as well as other potential changes to trade policy?*



SOURCE: Federal Reserve Bank of Dallas, Texas Service Sector Outlook Survey.

	Current (2018)	Longer term (2019–2020)
No impact	51	33
Positive	3	1
Negative	30	36
Don't know	16	31

What is the net impact of tariffs announced and/or implemented by the U.S. and other countries this year on the following aspects of your firm's business?

	Increased (percent)	Decreased (percent)	No impact (percent)
Input costs	37	1	61
Selling prices	23	2	75
Supplier delivery times	18	3	79
Production/revenue/sales	9	16	74
Employment	4	7	89
Capital spending plans	8	12	80
Uncertainty	50	2	48
Company outlook	6	18	76

*A similar question was posed to survey participants in the April 2018 special questions.

Special Questions Comments

These comments have been edited for publication.

Specialty Trade Contractors

- We deal with piping, steel and copper. We have many suppliers using the tariffs as an excuse for pricing increases.

Truck Transportation

- Tariffs affect us only when exports of meat and food are limited.

Support Activities for Transportation

- We handle several customers that have been impacted by the tariffs implemented. We have seen some customers increase volumes of shipments in and out of Mexico as well as other customers that have significantly reduced inventory levels of product once warehoused on the border. Among our customers that do business in Mexico, we have yet to see a decrease in shipment volume.

Data Processing, Hosting and Related Services

- Our business thus far is not impacted by the tariffs. We sell to U.S. businesses only, and primarily purchase from U.S. businesses. Occasionally, we farm out minor software projects to international programmers.

Credit Intermediation and Related Activities

- In predominantly rural markets, it is hard to measure the impact of tariffs in actual statistics, but there is the psychological impact that creates anxiety from the news of impending doom. We just have not identified much definitive impact. The one result we have heard is the delay in completing the second phase of our windmill farm due to the parts for the windmills coming out of China.

Real Estate

- Input costs for construction materials are rising right in the middle of a current project. Tariffs will push new projects that are marginal to the sideline … the economics don't work.

Professional, Scientific and Technical Services

- As a service provider, the tariffs impact my clients, which in turn impacts me. Uncertainty is a major impact on my business.
- Temporary tariffs should help U.S. companies located in the U.S. overall. Since we are in the enterprise software industry, which is led by U.S. suppliers and companies, we expect no impact on us in the short or long term.
- We are an engineering service provider. While we do not manufacture or purchase raw materials, we do spec pumps, valves etc. These items have increased in price due to steel pricing.
- As engineering consultants, we are not in the material supply chain directly. However, our clients buy large quantities of material (for building projects) that may be affected by the tariffs. Costs for these projects may increase, which may force some projects to be postponed or canceled.
- We're not really sure yet what the impact of tariffs will be. Clients express concerns in the context of not knowing what's ahead, but there is nothing specific at this time that we can connect to our marketing and advertising business.

Management of Companies and Enterprises

- We're not sure how the agricultural market will be affected.

Administrative and Support Services

- It is uncertain how the tariffs will impact our business overall. In the short term, I believe they will have a negative effect until such time that domestic producers can catch up and begin to bring foreign production back to the U.S. I suspect that the higher material costs will impact certain industries' short-term profitability until their prices can be adjusted for higher material costs. This may impact hiring, which would directly impact my business.
- We are a professional service company, and we have not been impacted by any tariffs so far.
- Land and building materials prices are up.
- Tariffs are always a bad thing.

Educational Services

- I agree that we have been on the receiving end of bad trade deals for a long time. The short-term pain of tariffs is negligible as compared with the benefits of renegotiating trade deals not in our favor, but in a more balanced way. I stand behind the administration in this effort—it is long overdue.
- As a nonprofit, and based on the market we serve, tariffs have no impact on our business whatsoever.

Ambulatory Health Care Services

- As a service provider, our costs are almost solely related to workforce and local infrastructure. Higher costs for imported goods and materials will raise the costs of doing business for all of us but will not directly impact this company.
- Tariffs will only affect our market if the agricultural industry suffers. Oil and gas along with government contracting in our area will support the rest of the economy.

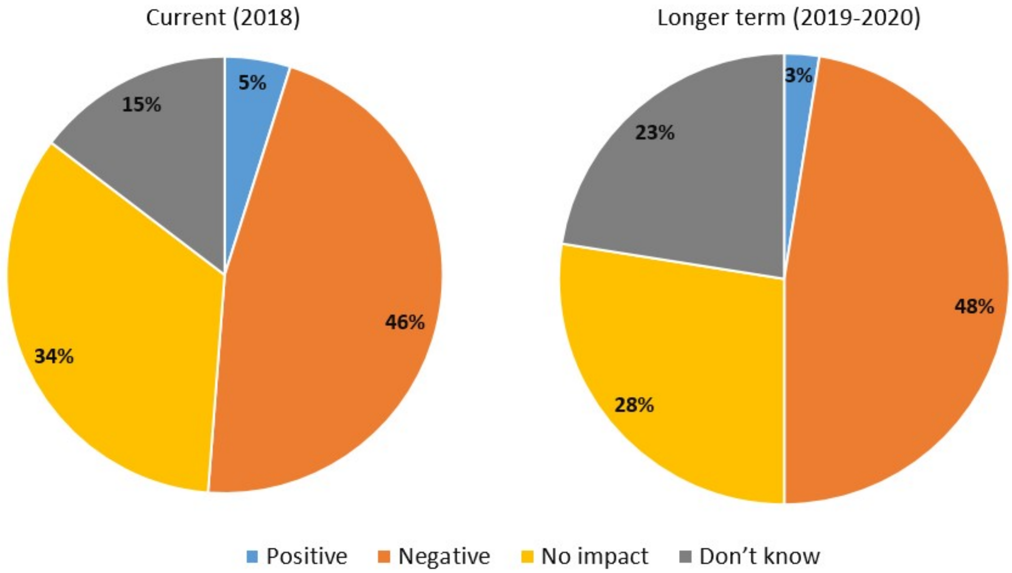
Food Services and Drinking Places

- In our recovery and rebuilding from Hurricane Harvey, we're needing steel and other building materials. Costs and uncertainty in delivery times seem to have increased.

Texas Retail Outlook Survey

Data were collected Sept. 11–19, and 42 Texas retailers responded to the survey.

What is the net impact on your firm of the tariffs announced and/or implemented by the U.S. and other countries this year as well as other potential changes to trade policy?*



SOURCE: Federal Reserve Bank of Dallas, Texas Retail Outlook Survey.

	Current (2018)	Longer term (2019–2020)
No impact	34	28
Positive	5	3
Negative	46	48
Don't know	15	23

What is the net impact of tariffs announced and/or implemented by the U.S. and other countries this year on the following aspects of your firm's business?

	Increased (percent)	Decreased (percent)	No impact (percent)
Input costs	70	3	28
Selling prices	70	3	28
Supplier delivery times	23	8	69
Production/revenue/sales	23	26	51
Employment	8	8	85
Capital spending plans	10	8	83
Uncertainty	58	3	40
Company outlook	8	16	76

*A similar question was posed to survey participants in the April 2018 special questions.

Special Questions Comments

These comments have been edited for publication.

Merchant Wholesalers, Durable Goods

- We need certainty on tariffs so we can best determine how to proceed for our business.
- The products we sell that have been or might be impacted by tariffs are generally not only imported by us, but by our competitors. Therefore, we are all subject to the same increased costs. How quickly those costs are passed on to the customers is the issue causing the short-term negative impact.

Merchant Wholesalers, Nondurable Goods

- Our concern is that farmers and ranchers will be and are losing existing and potential buyers for their products. We help feed the world, and pushing our international buyers to look for another supplier has the potential to alter the agricultural landscape.

Motor Vehicle and Parts Dealers

- It is too early to really know what changes there will be. Therefore, the uncertainty is causing some concern. Only time will tell. Our hope is that the present uncertainty will go away if the president's threats are only bargaining tools to achieve a better state of affairs for our country.
- The impact of tariffs in general is unknown. Of course, it also depends on which country, so it's difficult to fully answer the questions.

Building Material and Garden Equipment and Supplies Dealers

- Revenues did increase due to customers attempting to avoid the full tariff amount. However, input prices increased rapidly, which resulted in lower margins. Revenue did drop off after an initial surge immediately following the tariff announcement, but it has increased in the past 30-60 days.
- Most of our inventory is produced domestically, but there is some negative impact to tariffs on our costs.
- The greater concern is the damage done to our suppliers and customers, which then affects our costs as well as demand for our products.

Clothing and Clothing Accessories Stores

- As a retailer, we rely on manufacturers of brand-name products. For the most part, they are still uncertain as to the impact.

Questions regarding the Texas Business Outlook Surveys can be addressed to Emily Kerr at emily.kerr@dal.frb.org,