Texas **Service Sector** Outlook Survey

June 26, 2018

Texas Service Sector Activity Continues to Expand

What's New This Month

For this month's survey, Texas business executives were asked supplemental questions on technology, employment expectations and pricing power. 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 service sector activity continued to increase in June, although at a slightly slower pace than last month, according to business executives responding to the Texas Service Sector Outlook Survey. The revenue index, a key measure of state service sector conditions, slipped from 22.8 in May to 19.0 in June.

Labor market indicators reflected continued employment growth and longer workweeks this month. The employment index remained positive but fell slightly from 16.6 in May to 13.9 in June. The hours worked index remained largely unchanged at 10.7, its highest level since early 2012.

Perceptions of broader economic conditions continued to reflect optimism in June. The general business activity index advanced nearly four points to 22.4, its highest reading since the beginning of the year. The company outlook index held steady at 14.4.

Price pressures remained elevated, and wage pressures accelerated this month. The wages and benefits index rose from 22.6 in May to 24.2 in June, its highest reading since the survey began. The selling price index was unchanged at 15.4, significantly above its postrecession average.

Respondents' expectations regarding future business conditions continued to reflect optimism. The future general business activity index advanced three points to 28.7, while the future company outlook index was unchanged at 27.6. Wage expectations remained elevated, as the future wage and benefits index held steady near an 11-year high. Indexes of future service sector activity, such as revenue and employment, also reflected continued optimism this month.

Texas **Retail** Outlook Survey

Retail Sales Rise Slightly in June but at Sharply Slower Pace

Retail sales growth abated in June, according to business executives responding to the Texas Retail Outlook Survey. The sales index plunged from 35.1 in May to 1.6 in June, indicating retail sales rose slightly in June but at a sharply slower rate. Inventories rose significantly, with the index surging over 20 points to 12.7.

Labor market measures indicated faster growth in retail employment and longer workweeks this month. The employment index rose slightly to 10.7, above its 12-month average. The hours worked index advanced four and a half points to 9.1.

Retailers' perceptions of broader economic conditions remained positive in June but fell from May levels. The general business activity index was largely unchanged at 13.0. The company outlook index declined from 13.2 to 6.1.

Retail price and wage pressures increased this month. The selling prices index moved up from 24.6 in May to 27.0 in June. The wages and benefits index rose over five points to 29.5, its highest reading on record, with over one-third of respondents noting an increase in June labor costs.

Retailers' perceptions of future broader economic conditions indicated continued optimism in June. The index of future general business activity rose slightly to 23.2. The index of future company outlook fell but remained positive, declining from 23.7 in May to 13.9 in June. Indexes of future retail sector activity picked up, with the future sales index increasing to an eight-month high.

The Texas Retail Outlook Survey (TROS) is a component of the TSSOS that uses information only from respondents in the retail and wholesale sectors.

Next release: July 31, 2018

Data were collected June 12–20, and 215 Texas service sector and 50 retail sector business executives responded to the survey. The Dallas Fed conducts the Texas Service Sector Outlook Survey monthly to obtain a timely assessment of the state's service sector activity. Firms are asked whether revenue, employment, prices, general business activity 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.

Texas Service Sector Outlook Survey

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

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Revenue	19.0	22.8	–3.8	Increasing	102	34.2	50.6	15.2
Employment	13.9	16.6	–2.7	Increasing	100	22.8	68.3	8.9
Part-Time Employment	4.3	5.6	–1.3	Increasing	5	8.3	87.7	4.0
Hours Worked	10.7	10.4	+0.3	Increasing	20	13.7	83.3	3.0
Wages and Benefits	24.2	22.6	+1.6	Increasing	109	26.3	71.6	2.1
Input Prices	32.2	32.0	+0.2	Increasing	110	33.2	65.8	1.0
Selling Prices	15.4	15.4	0.0	Increasing	28	18.1	79.1	2.7
Capital Expenditures	14.4	18.4	–4.0	Increasing	106	18.9	76.6	4.5

General Business Conditions
Current (versus previous month)

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	14.4	15.4	–1.0	Improving	24	20.8	72.9	6.4
General Business Activity	22.4	18.5	+3.9	Improving	22	25.5	71.4	3.1

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	6.9	5.3	+1.6	Increasing	5	16.9	73.1	10.0

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

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Revenue	44.6	50.9	–6.3	Increasing	112	52.5	39.6	7.9
Employment	28.9	30.9	–2.0	Increasing	111	35.8	57.3	6.9
Part-Time Employment	9.5	13.2	–3.7	Increasing	72	13.9	81.7	4.4
Hours Worked	10.7	14.4	–3.7	Increasing	22	14.8	81.1	4.1
Wages and Benefits	50.4	50.6	–0.2	Increasing	138	52.7	45.0	2.3
Input Prices	45.4	47.3	–1.9	Increasing	138	47.4	50.7	2.0
Selling Prices	35.8	36.7	–0.9	Increasing	110	39.7	56.4	3.9
Capital Expenditures	28.4	26.9	+1.5	Increasing	111	33.7	61.1	5.3

General Business Conditions
Future (six months ahead)

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	27.6	26.8	+0.8	Improving	28	35.6	56.3	8.0
General Business Activity	28.7	25.7	+3.0	Improving	28	32.2	64.3	3.5

Texas Retail Outlook Survey

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

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Retail Activity in Texas								
Sales	1.6	35.1	–33.5	Increasing	2	30.2	41.2	28.6
Employment	10.7	8.4	+2.3	Increasing	10	17.9	74.9	7.2
Part-Time Employment	8.2	6.7	+1.5	Increasing	2	10.2	87.8	2.0
Hours Worked	9.1	4.6	+4.5	Increasing	12	14.3	80.5	5.2
Wages and Benefits	29.5	24.1	+5.4	Increasing	88	34.7	60.1	5.2
Input Prices	41.3	32.3	+9.0	Increasing	29	43.7	53.9	2.4
Selling Prices	27.0	24.6	+2.4	Increasing	15	35.9	55.2	8.9
Capital Expenditures	12.0	13.0	–1.0	Increasing	23	16.0	80.0	4.0
Inventories	12.7	–8.6	+21.3	Increasing	1	28.2	56.3	15.5
Companywide Retail Activity								
Companywide Sales	4.2	28.0	–23.8	Increasing	2	25.1	54.0	20.9
Companywide Internet Sales	17.8	15.9	+1.9	Increasing	2	25.8	66.2	8.0

General Business Conditions, Retail
Current (versus previous month)

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	6.1	13.2	–7.1	Improving	15	18.8	68.6	12.7
General Business Activity	13.0	14.9	–1.9	Improving	2	20.2	72.6	7.2

Outlook Uncertainty
Current (versus previous month)

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	6.1	–4.8	+10.9	Increasing	1	20.4	65.3	14.3

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

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Retail Activity in Texas								
Sales	43.5	42.8	+0.7	Increasing	112	51.7	40.1	8.2
Employment	23.6	16.3	+7.3	Increasing	13	30.8	62.0	7.2
Part–Time Employment	9.7	2.3	+7.4	Increasing	4	12.7	84.3	3.0
Hours Worked	8.4	6.2	+2.2	Increasing	11	13.4	81.6	5.0
Wages and Benefits	50.9	41.5	+9.4	Increasing	114	52.5	45.8	1.6
Input Prices	47.9	35.5	+12.4	Increasing	110	50.0	47.9	2.1
Selling Prices	45.8	37.2	+8.6	Increasing	110	47.9	50.0	2.1
Capital Expenditures	20.8	15.6	+5.2	Increasing	21	27.1	66.7	6.3
Inventories	9.1	0.2	+8.9	Increasing	20	24.0	61.1	14.9
Companywide Retail Activity								
Companywide Sales	37.1	37.0	+0.1	Increasing	111	46.5	44.1	9.4
Companywide Internet Sales	24.2	17.2	+7.0	Increasing	23	30.3	63.6	6.1

General Business Conditions, Retail
Future (six months ahead)

Indicator	Jun Index	May Index	Change	Indicator Direction*	Trend** (Months)	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	13.9	23.7	–9.8	Improving	19	27.1	59.7	13.2
General Business Activity	23.2	20.7	+2.5	Improving	22	29.5	64.2	6.3

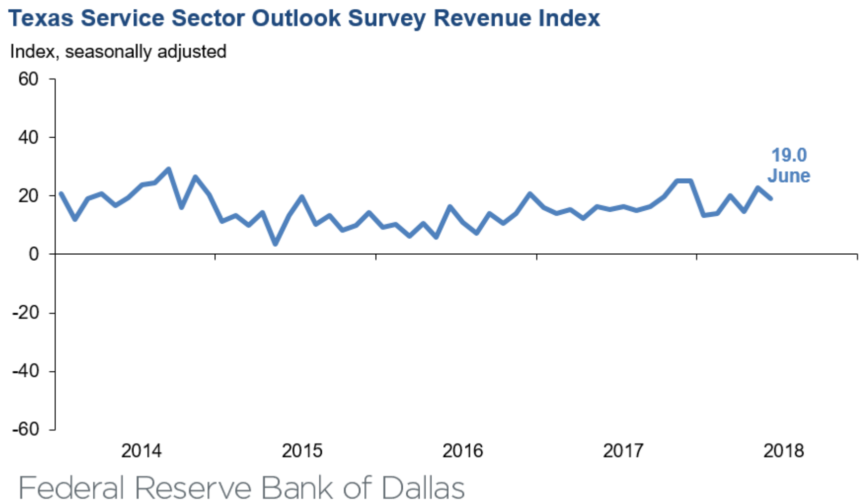
*Indicator direction refers to this month's index. If index is positive (negative), indicator is increasing (decreasing) or improving (worsening). If zero, indicator is unchanged.

**Number of months moving in current direction.

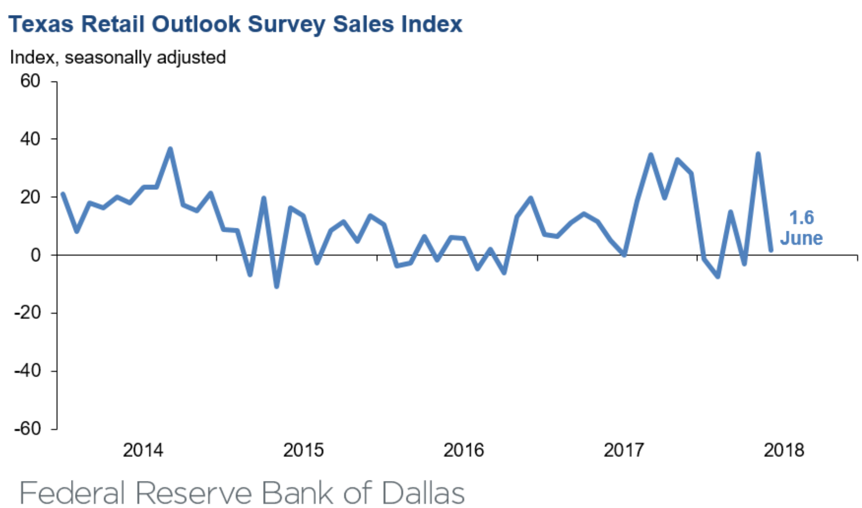
†Added to survey in January 2018.

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.

Texas Service Sector Outlook Survey



Texas Retail Outlook Survey



Texas Service Sector Outlook Survey

June 26, 2018

Comments from Survey Respondents

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

Utilities

- We continue to see an increase in uncertainty due to the ongoing trade disputes.

Broadcasting (Except Internet)

- We experienced a one-month spike in sales for June 2018; however, our pacing for sales for the next six months is running slower than planned. We are increasing wages in July to retain employees as the cost of living (housing) in West Texas has increased, and competition for employees continues to increase.

Credit Intermediation and Related Activities

- The demand for frack sand has been very steady and keeps the sand plants as well as trucking very strong. The prospects of a new cement plant are looking good with licensing by the TCEQ (Texas Commission on Environmental Quality). This will provide an increase in tax revenue during construction.

Securities, Commodity Contracts, and Other Financial Investments and Related Activities

- My company has taken on investment, which provides us cash to invest and grow, pay employees more, etc.

Insurance Carriers and Related Activities

- Many in the general public have a plan. That plan is there is no plan, and their retirement and businesses are at risk.

Real Estate

- Border and immigration issues are still a drag on the market, and the constant rhetoric on trade I'm sure is going to slow consumer confidence, which invariably slows retail activity. I think if we can settle the trade war and NAFTA (North American Free Trade Agreement) issues soon, consumer confidence will pick up, and we should have a strong holiday season. If not, I think those issues will further dampen confidence and the retail environment.
- Business is good. Inventories are still low. Interest rates are going up, pushing buyers to find a house. There is more confidence with the economy and President Trump.

Professional, Scientific and Technical Services

- We are somewhat concerned about continued trade-war rhetoric, but assume for now it is mostly that and some of the current tenor will shift in the coming months.
- Steel and aluminum tariffs are causing increases in construction costs, leading to less construction activity.
- Although the Texas economy is still doing very well, the real estate industry is being impacted by a slow down. Prices have risen to levels that are causing most investors to step back and take a longer look before entering into to a contract, and residential houses are sitting on the market much longer than they were a year ago. It is still a great market, but the transaction volume is headed lower.
- We continue to see strength in real estate. Mergers and acquisitions activity has picked up.
- The legal services sector and demand for legal services is up year over year and year to date for us, even above projections. While demand has been strong, the commencement of trade wars, the election in Mexico and the rise of interest rates cause us concern.
- We are doing great. We have not done this well since the 1990s. Maybe it is the Trump effect, but we will take it.
- Proposals for future work continue to be at historic lows. There is very little activity in the small-to-medium projects. A few large-to-very-large projects are accounting for our activity and profit.

- Business seems to be trending up other than the seasonal slowdown due to summer; otherwise, looking out six to 12 months, we are optimistic about the general state of the market and anticipate continued improvement for two to three years. The concern is that supply would outpace demand and, thus, create a market imbalance as U.S. production has continued to increase.
- We expect some consulting work in July. We are not sure if this means there is a significant pickup in project activity.

Management of Companies and Enterprises

- Increased competition by nonregulated and nontaxed companies is beginning to put pressure on regulated banks to loosen standards. The nonregulated credit unions and farm credit system are doing crazy loans, terms and collateral.
- Overregulation is still hurting us.

Administrative and Support Services

- We are seeing very strong demand.
- The markets are growing but so are the number of new competitors for both my company and my customers. As a result of competition, some customers—restaurants—are hesitant to commit to new services or even continue existing services. The real estate multifamily market is experiencing similar competitive challenges.
- The corporate aviation sector has softened. No major inspections or maintenance activities have been scheduled or quoted on since early May. We have no idea why it has changed. The oil and gas equipment services sector has remained flat, with a small increase in RFQs (requests for quotation) being submitted to us.
- My biggest fear now is when the bubble is going to burst.

Educational Services

- I'm happy with the regulatory environment. I'm happy with reduced regulation. I'm happy with business and personal taxes being reduced.

Ambulatory Health Care Services

- The drought situation in the Texas Panhandle will now affect summer crops, reducing yields and increasing cost due to the need to irrigate. A lack of grazing will impact local cattlemen. Commodity pricing on agriculture as well as oil and gas look to all be down. This could hurt fall/winter revenues as a significant portion of our revenue is derived from elective surgeries. Add to that the mid-term elections and the next six to 12 months could see a downturn in the local economy.

Hospitals

- State unfunded mandates have increased on rural health systems along with a reduction in commercial payments; this is concerning to independent rural health systems.

Amusement, Gambling and Recreation Industries

- The biggest issues we have are ones that have no relationship to the actual running of the business. The property values in Austin continue to skyrocket. Our property taxes for next year are projected to increase by as much as $40,000. In our world, that is a lot of extra martinis to sell. In addition, we have been told that our health insurance rates could go up as much as 35 percent. Part of that is due to a cancer claim, the other part of the increase is simply due to the ACA (Affordable Care Act) and rising health care costs. All of this is at a time when the unemployment rate in Austin is about 2.8 percent. We are calculating that we will need to raise wages 3.5–4 percent just to hope to keep our current staff. It is a challenging time!

Accommodation

- Labor continues to be very difficult to find. The cost of goods is starting to become worrisome. Interest rates are climbing slowly. On the flip side, lower taxes are beneficial, but I believe we will see higher deficits in the future. That equates to higher operating cost, thus higher prices. I don't believe our federal and state governments have a clue about our local situation.

Food Services and Drinking Places

- We are seeing progress in reopening after Hurricane Harvey.

- The cost of health insurance has increased again, and the cost of labor will add to a decrease in profits this year.

Personal and Laundry Services

- We are still having trouble finding qualified employees. I am having to offer signing bonuses as well as referral bonuses for new employees.

Merchant Wholesalers, Durable Goods

- We are hiring technology-related personnel for newly created positions to help with the digital transformation of our business. We expect the level of business activity to continue to increase in the coming months, both through traditional sales channels as well as through the internet.
- The construction sector in Texas continues to be strong and shows no weakening in the near future (next 18 months). Banks appear to be aggressive in lending opportunities, and we are seeing continued steady growth in projects being started. Highway lettings are strong and appear to be aggressive in the state as well.

Merchant Wholesalers, Nondurable Goods

- The Fed's most recent interest increase, with the thought that the Fed needed to be sure it had room to decrease rates again in the event there was a downturn, may have well achieved the opposite and precipitated a downturn. Leaving the rate alone and waiting is a much better choice considering all events—domestic and international.

Motor Vehicle and Parts Dealers

- We continue to experience an increase in inventory financing costs along with pressure on retail margins.
- If the steel and aluminum tariffs are left to stand, then there may be some issues with price and competitiveness. The tariff situation needs to be rectified soon before too much damage is done on both sides of the issue. Both sides need to compromise now.
- Our retail sales have decreased, but our commercial sales increased. Margins continue to decline as expenses increase. Net profits are down. Prime rate increases negatively impact our business model.
- We see how the economy appears to be improving and the unemployment rate continues to decline; however, pricing on new vehicles continues to rise. It is difficult to see how the current vehicle prices will be sustainable for the dual-income working family.
- We are in the business of selling and servicing imported vehicles. The tariffs currently being discussed will destroy our business if enacted.

Building Material and Garden Equipment and Supplies Dealers

- We continue to experience upward pressure on labor, transportation and product costs. Since these cost increases do not appear to be seasonal or temporary, we're planning to enact retail price increases in response. Since a significant amount of Texas economic activity depends on trade, there is increasing concern over government trade policies and the response of trading partners. In addition, continuing interest rate increases are impacting our more leveraged suppliers. Finally, energy cost increases reduce consumer disposable income and add to general inflationary expectations.
- General business activity is good but hard to keep up with because of labor shortages. Growth is limited because we can't find people who want to work or can pass a drug test. We are being conservative on the jobs we take so we can maintain our schedules and quality along with not putting too much pressure on our current workforce.

Clothing and Clothing Accessories Stores

- Apparel sales continue to be soft relative to nonapparel.

Questions regarding the Texas Service Sector Outlook Survey can be addressed to Christopher Slijk at christopher.slijk@dal.frb.org.

Texas **Service Sector** Outlook Survey

Special Questions

June 26, 2018

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 June 12–20, and 314 Texas business executives responded to the surveys.

1. **Which of the following technologies: has your firm already adopted; is your firm in the process of adopting; does your firm plan to adopt within the next three years? Please select all that apply.**

	Already adopted (percent)	In process of adopting (percent)	Plan to adopt (percent)
Communication platforms (Skype, email, etc.)	64.6	1.9	1.6
Social media	64.6	4.8	3.8
High-speed wireless communication	54.8	2.5	1.9
Intranet (private computer network)	49.7	1.3	1.6
Mobile apps	49.4	8.0	4.1
CRM (customer relationship management) system	45.5	8.6	5.1
Cloud computing/edge computing	42.0	10.8	8.0
Digital video/photography	41.1	2.9	0.6
Collaboration platforms (SharePoint, Google Docs, etc.)	40.1	8.3	4.1
E-commerce	40.1	4.1	3.5
Telecommuting/mobile workforce	38.2	3.2	2.2
Digitization	29.0	3.2	1.6
GPS tracking	28.7	2.2	3.2
Internet of Things (connection of physical objects to the internet)	22.0	5.7	2.2
Modeling using high-performance computing	15.3	3.2	2.2
Big data	10.8	8.9	9.6

	Already adopted (percent)	In process of adopting (percent)	Plan to adopt (percent)
Drones	10.2	2.5	4.1
Robotics	9.6	3.5	8.3
Biometric authentication	8.0	2.2	10.5
3D printing	7.0	1.9	9.9
Artificial intelligence (voice recognition, decision trees, autonomous vehicles, etc.)	5.4	8.0	11.8
3D scanning	4.8	1.3	10.8
Virtual reality/augmented reality	4.8	4.5	5.7
Digital currencies (cryptocurrency, bitcoin, etc.)	1.9	0.3	5.7
Nanotechnology	1.6	0.3	4.1
Blockchain	0.6	1.6	10.5
Other (please describe)	0.3	0.6	0.6
None of the above (5.7 percent)			

2. **What are the main reasons why your firm is adopting these technologies? You may select up to three.**

	June ’18 (percent)
To raise productivity	66.1
To remain competitive/fend off new competitors	52.9
To increase output (revenue/sales/production)	52.5
To lower costs	39.7
To expand into new business lines/markets	18.6
To strengthen security and/or protect information	18.0
To meet industry standards/government regulations	10.2
Other (please explain)	2.7

3. **On net, how will the adoption of these technologies affect employment at your firm over the next five years?**

	June ’18 (percent)
Increases our need for workers	12.5
Decreases our need for workers	14.2
Does not impact our need for workers	48.6
Changes the type of workers we need but not the number	24.7

4. **Overall, do you expect your firm to increase employment, leave employment unchanged, or decrease employment over the next five years?**

	June ’18 (percent)
Increase	65.4
Leave unchanged	25.6
Decrease	9.0

5. **On net, how have long-term trends in your industry, such as technological change and globalization, affected your firm's ability to pass on cost increases to customers over the past five years?**

	June '18 (percent)
Increased	23.1
No effect	54.2
Decreased	22.7

Texas Manufacturing Outlook Survey

Data were collected June 12–20, and 90 Texas manufacturers responded to the survey.

1. **Which of the following technologies: has your firm already adopted; is your firm in the process of adopting; does your firm plan to adopt within the next three years? Please select all that apply.**

	Already adopted (percent)	In process of adopting (percent)	Plan to adopt (percent)
Communication platforms (Skype, email, etc.)	64.4	2.2	1.1
Social media	58.9	4.4	4.4
High-speed wireless communication	56.7	0.0	0.0
Intranet (private computer network)	50.0	1.1	2.2
Digital video/photography	43.3	1.1	1.1
CRM (customer relationship management) system	42.2	12.2	4.4
Mobile apps	40.0	6.7	4.4
Cloud computing/edge computing	38.9	13.3	8.9
Collaboration platforms (SharePoint, Google Docs, etc.)	38.9	10.0	5.6
Telecommuting/mobile workforce	36.7	2.2	3.3
E-commerce	34.4	4.4	7.8
Digitization	33.3	2.2	4.4
GPS tracking	32.2	2.2	3.3
Internet of Things (connection of physical objects to the internet)	23.3	6.7	3.3
Modeling using high-performance computing	21.1	3.3	1.1
Robotics	20.0	5.6	18.9
3D printing	17.8	1.1	18.9
Biometric authentication	8.9	3.3	13.3
3D scanning	7.8	1.1	22.2
Big data	6.7	11.1	11.1
Artificial intelligence (voice recognition, decision trees, autonomous vehicles, etc.)	5.6	1.1	17.8
Drones	5.6	2.2	7.8
Virtual reality/augmented reality	5.6	6.7	10.0
Nanotechnology	3.3	0.0	7.8
Blockchain	0.0	1.1	14.4
Digital currencies (cryptocurrency, bitcoin, etc.)	0.0	0.0	6.7
Other (please describe)	1.1	2.2	1.1
None of the above (3.3 percent)			

2. **What are the main reasons why your firm is adopting these technologies? You may select up to three.**

	June '18 (percent)
To raise productivity	70.9
To lower costs	55.8
To increase output (revenue/sales/production)	53.5
To remain competitive/fend off new competitors	45.3
To expand into new business lines/markets	19.8
To strengthen security and/or protect information	16.3
To meet industry standards/government regulations	7.0
Other (please explain)	1.2

3. **On net, how will the adoption of these technologies affect employment at your firm over the next five years?**

	June '18 (percent)
Increases our need for workers	15.1
Decreases our need for workers	12.8
Does not impact our need for workers	48.8
Changes the type of workers we need but not the number	23.3

4. **Overall, do you expect your firm to increase employment, leave employment unchanged, or decrease employment over the next five years?**

	June '18 (percent)
Increase	78.2
Leave unchanged	16.1
Decrease	5.7

5. **On net, how have long-term trends in your industry, such as technological change and globalization, affected your firm's ability to pass on cost increases to customers over the past five years?**

	June '18 (percent)
Increased	20.5
No effect	48.2
Decreased	31.3

Special Questions Comments

These comments have been edited for publication.

Fabricated Metal Product Manufacturing

- In light of manufacturing, these perceived, adopted, etc., tariffs are going to ruin our economy.

Machinery Manufacturing

- Globalization and taxes have had detrimental effects on the decline of production for us.

Computer and Electronic Product Manufacturing

- We have not been able to execute a price increase on existing products in 10 years due to globalization; however, health care costs and salaries keep going up year after year, causing service levels to decrease.

Transportation Equipment Manufacturing

- With more internal data, we have been able to support passing along cost increases to our customers with specificity; it helps us demand improved pricing from suppliers as well.

Texas Service Sector Outlook Survey

Data were collected June 12–20, and 224 Texas business executives responded to the survey.

1. **Which of the following technologies: has your firm already adopted; is your firm in the process of adopting; does your firm plan to adopt within the next three years? Please select all that apply.**

	Already adopted (percent)	In process of adopting (percent)	Plan to adopt (percent)
Social media	67.0	4.9	3.6
Communication platforms (Skype, email, etc.)	64.7	1.8	1.8
High-speed wireless communication	54.0	3.6	2.7
Mobile apps	53.1	8.5	4.0
Intranet (private computer network)	49.6	1.3	1.3
CRM (customer relationship management) system	46.9	7.1	5.4
Cloud computing/edge computing	43.3	9.8	7.6
E-commerce	42.4	4.0	1.8
Collaboration platforms (SharePoint, Google Docs, etc.)	40.6	7.6	3.6
Digital video/photography	40.2	3.6	0.4
Telecommuting/mobile workforce	38.8	3.6	1.8
Digitization	27.2	3.6	0.4
GPS tracking	27.2	2.2	3.1
Internet of Things (connection of physical objects to the internet)	21.4	5.4	1.8
Modeling using high-performance computing	12.9	3.1	2.7
Big data	12.5	8.0	8.9
Drones	12.1	2.7	2.7
Biometric authentication	7.6	1.8	9.4
Artificial intelligence (voice recognition, decision trees, autonomous vehicles, etc.)	5.4	10.7	9.4
Robotics	5.4	2.7	4.0
Virtual reality/augmented reality	4.5	3.6	4.0
3D scanning	3.6	1.3	6.3
3D printing	2.7	2.2	6.3
Digital currencies (cryptocurrency, bitcoin, etc.)	2.7	0.4	5.4
Blockchain	0.9	1.8	8.9
Nanotechnology	0.9	0.4	2.7
Other (please describe)	0.0	0.0	0.4
None of the above (6.7 percent)			

2. **What are the main reasons why your firm is adopting these technologies? You may select up to three.**

	June '18 (percent)
To raise productivity	64.1
To remain competitive/fend off new competitors	56.0
To increase output (revenue/sales/production)	52.2
To lower costs	33.0
To strengthen security and/or protect information	18.7
To expand into new business lines/markets	18.2
To meet industry standards/government regulations	11.5
Other (please explain)	3.3

3. **On net, how will the adoption of these technologies affect employment at your firm over the next five years?**

	June '18 (percent)
Increases our need for workers	11.4
Decreases our need for workers	14.8
Does not impact our need for workers	48.6
Changes the type of workers we need but not the number	25.2

4. **Overall, do you expect your firm to increase employment, leave employment unchanged, or decrease employment over the next five years?**

	June '18 (percent)
Increase	60.3
Leave unchanged	29.4
Decrease	10.3

5. **On net, how have long-term trends in your industry, such as technological change and globalization, affected your firm's ability to pass on cost increases to customers over the past five years?**

	June '18 (percent)
Increased	24.1
No effect	56.7
Decreased	19.2

Special Questions Comments

These comments have been edited for publication.

Professional, Scientific and Technical Services

- Clients have much more access to information about our firm and our competitors, making the market more competitive.
- The workforce will shift somewhat. Some roles will be impacted to a greater degree by automation, and productivity will be enhanced in others, but we plan to expand in some of those areas and capture work with lower/controlled pricing, but ultimately better margins.

Administrative and Support Services

- Costs have crept up as a result of the tight employee market. The intensity of the competition and low barrier of entry into the staffing industry have given clients an escape route for the moment by moving to low-price small companies attempting to break into the market.
- We are using technology to link offices and workers in areas outside the main office.
- We are still running into acquiring bank loans to acquire capital equipment that is not directly utilized in our line of business. Technology infrastructure does not seem to be a big concern for the bankers at this time.

Ambulatory Health Care Services

- As an outpatient diagnostic imaging facility, we have no ability to raise costs; our reimbursement typically declines slightly each year. Health care for us is a deflationary business. We remain profitable due to our increasing productivity, but this can only increase so much.

Accommodation

- The tightening of the labor market and lack of available workers are forcing us to find ways to become more efficient in the delivery of our services.

Food Services and Drinking Places

- We have only experienced normal inflation. So far, we have been able to increase prices to cover these costs.

Personal and Laundry Services

- Most of the technologies do not apply to my industry.

Texas Retail Outlook Survey

Data were collected June 12–20, and 44 Texas retailers responded to the survey.

1. **Which of the following technologies: has your firm already adopted; is your firm in the process of adopting; does your firm plan to adopt within the next three years? Please select all that apply.**

	Already adopted (percent)	In process of adopting (percent)	Plan to adopt (percent)
Communication platforms (Skype, email, etc.)	63.6	0.0	2.3
Social media	61.4	2.3	4.5
High-speed wireless communication	54.5	0.0	2.3
Mobile apps	52.3	6.8	0.0
Cloud computing/edge computing	50.0	6.8	4.5
E-commerce	47.7	9.1	4.5
CRM (customer relationship management) system	45.5	9.1	6.8
GPS tracking	43.2	0.0	2.3
Digital video/photography	40.9	4.5	0.0
Intranet (private computer network)	40.9	0.0	0.0
Telecommuting/mobile workforce	36.4	2.3	2.3
Collaboration platforms (SharePoint, Google Docs, etc.)	34.1	4.5	6.8
Internet of Things (connection of physical objects to the internet)	27.3	0.0	0.0
Digitization	22.7	2.3	2.3
Big data	13.6	9.1	4.5
Drones	11.4	2.3	0.0
Modeling using high-performance computing	9.1	4.5	0.0
Artificial intelligence (voice recognition, decision trees, autonomous vehicles, etc.)	4.5	9.1	6.8
Biometric authentication	4.5	0.0	6.8
Robotics	4.5	6.8	2.3
Digital currencies (cryptocurrency, bitcoin, etc.)	2.3	0.0	4.5
Virtual reality/augmented reality	2.3	2.3	2.3
3D printing	0.0	4.5	9.1
3D scanning	0.0	4.5	6.8
Blockchain	0.0	0.0	9.1
Nanotechnology	0.0	2.3	2.3
Other (please describe)	0.0	0.0	0.0
None of the above (13.6 percent)			

2. **What are the main reasons why your firm is adopting these technologies? You may select up to three.**

	June '18 (percent)
To raise productivity	73.7
To remain competitive/fend off new competitors	71.1
To increase output (revenue/sales/production)	60.5
To lower costs	26.3
To expand into new business lines/markets	15.8
To strengthen security and/or protect information	10.5
To meet industry standards/government regulations	2.6
Other (please explain)	2.6

3. **On net, how will the adoption of these technologies affect employment at your firm over the next five years?**

	June '18 (percent)
Increases our need for workers	12.8
Decreases our need for workers	12.8
Does not impact our need for workers	51.3
Changes the type of workers we need but not the number	23.1

4. **Overall, do you expect your firm to increase employment, leave employment unchanged, or decrease employment over the next five years?**

	June '18 (percent)
Increase	65.0
Leave unchanged	32.5
Decrease	2.5

5. **On net, how have long-term trends in your industry, such as technological change and globalization, affected your firm's ability to pass on cost increases to customers over the past five years?**

	June '18 (percent)
Increased	30.8
No effect	46.2
Decreased	23.1

Special Questions Comments

These comments have been edited for publication.

Motor Vehicle and Parts Dealers

- Technology is driving our industry as it is the business model of the world. We spend more on technology today than ever before, and that trend will continue. We haven't found a way to pass the increased cost of doing business to the consumer. They want more for less. Technology has not allowed us to reduce a single head count. Our business model is flawed.
- We have been increasing costs with technology with not necessarily enough savings in personnel to offset the cost of the technologies (i.e., connectivity, tech support of programs, inefficiencies of less-than-complete tech solutions, etc.). The tools to conduct business (at least in the retail arena) have changed, but the basic process is still the same.

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