

November 27, 2018

Texas Service Sector Activity Accelerates Slightly

What's New This Month

For this month's survey, Texas business executives were asked supplemental questions on the labor market. 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 service sector activity grew at a faster pace in November, according to business executives responding to the Texas Service Sector Outlook Survey. The revenue index, a key measure of state service sector conditions, increased two points to 21.4 in November.

Labor market indicators reflected positive but slower employment growth and longer workweeks this month. The employment index fell from 13.1 in October to 8.7 in November, while the hours worked index increased slightly from 6.2 to 7.5.

Perceptions of broader economic conditions reflected continued optimism but growing uncertainty. The general business activity index declined from 14.1 in October to 11.4 in November, while the company outlook index was roughly unchanged at 12.0. The outlook uncertainty index rose nearly five points to 12.8 in November, its highest reading since the index began in January 2018.

Price pressures eased slightly, while wage pressures remained elevated this month. The wages and benefits index was roughly unchanged at 20.9, with nearly a quarter of respondents noting increases in compensation costs. The selling price index declined nearly four points to 12.2, its lowest reading in 2018.

Respondents' expectations regarding future business conditions reflected softening optimism six months from now. The future general business activity index fell to a two-year low of 16.6, while the future company outlook index declined from 22.8 in October to 17.3 in November. Other indexes of future service sector activity, such as revenue and employment, also declined but remained solidly in positive territory.



Retail Sales Growth Moderates

Retail sales continued to grow but decelerated slightly in November, according to business executives responding to the Texas Retail Outlook Survey. The sales index declined from 14.8 in October to 13.0 in November. Growth in inventories decelerated, with the inventories index ticking down to a six-month low of 3.6.

Retail employment growth slowed and workweeks continued to lengthen this month. The employment index ticked down nearly three points to 2.9 in November, a 10-month low. The hours worked index increased from 4.4 in October to 6.1 in November.

Retailers' perceptions of broader economic conditions reflected modestly increased optimism in October. The general business activity index turned positive, rising over eight points to 7.5, while the company outlook index increased from 2.8 in October to 4.1 in November.

Retail price pressures eased, but wage pressures increased this month. The selling prices index declined seven points to 12.7, its lowest reading since July 2017. The wages and benefits index increased from 17.5 in October to 19.7 in November.

Retailers' perception of future economic conditions softened considerably in November. The future general business activity index fell to 1.9, a two-year low, while the future company outlook index declined over 13 points to 0.2. Other indexes of future retail sector activity, such as sales and employment, also declined but remained positive.

The Texas Retail Outlook Survey is a component of the Texas Service Sector Outlook Surveythat uses information only from respondents in the retail and wholesale sectors.

Next release: January 2, 2019

Data were collected November 12–20, and 214 Texas service sector and 54 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)

| | | | | | | % | % | % |
|----------------------|-------------|----------|--------------|---------------------|----------|-----------|-----------|-----------|
| | | | | | Trend** | Reporting | Reporting | Reporting |
| Indicator | Nov Index O | ct Index | Change I | ndicator Direction* | (Months) | Increase | No Change | Decrease |
| Revenue | 21.4 | 19.4 | +2.0 | Increasing | 107 | 34.7 | 52.0 | 13.3 |
| Employment | 8.7 | 13.1 | -4.4 | Increasing | 105 | 17.3 | 74.1 | 8.6 |
| Part-Time Employment | 3.6 | 5.4 | -1 .8 | Increasing | 10 | 7.4 | 88.8 | 3.8 |
| Hours Worked | 7.5 | 6.2 | +1.3 | Increasing | 25 | 10.7 | 86.1 | 3.2 |
| Wages and Benefits | 20.9 | 20.2 | +0.7 | Increasing | 114 | 23.0 | 74.9 | 2.1 |
| Input Prices | 27.0 | 28.6 | -1 .6 | Increasing | 115 | 28.8 | 69.4 | 1.8 |
| Selling Prices | 12.2 | 16.1 | -3.9 | Increasing | 33 | 15.7 | 80.8 | 3.5 |
| Capital Expenditures | 11.3 | 12.6 | -1.3 | Increasing | 111 | 17.7 | 75.9 | 6.4 |

General Business Conditions Current (versus previous month)

| | | | | | | % | % | % |
|---------------------------|-------------|----------|----------|----------------------|---------------------|------|------------------------|-----|
| Indicator | Nov Index O | ct Index | Change I | Indicator Direction* | Trend** (Months) | | Reporting No Change | |
| Company Outlook | 12.0 | 11.2 | +0.8 | Improving | 29 | 19.4 | 73.2 | 7.4 |
| General Business Activity | 11.4 | 14.1 | -2.7 | Improving | 27 | 20.3 | 70.8 | 8.9 |

| | | | | | | % | % | % |
|----------------------|-------------|---------|----------|---------------------|----------|-----------|-----------|-----------|
| | | | | | Trend** | Reporting | Reporting | Reporting |
| Indicator | Nov Index O | t Index | Change I | ndicator Direction* | (Months) | Increase | No Change | Decrease |
| Outlook Uncertainty† | 12.8 | 8.0 | +4.8 | Increasing | 10 | 21.6 | 69.6 | 8.8 |

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

| | | | | | | % | % | % |
|----------------------|-------------|----------|----------|---------------------|---------------------|-----------------------|------------------------|--------------------|
| Indicator | Nov Index O | ct Index | Change I | ndicator Direction* | Trend** (Months) | Reporting Increase | Reporting No Change | Reporting Decrease |
| Revenue | 41.4 | 43.7 | -2.3 | Increasing | 117 | 50.4 | 40.6 | 9.0 |
| Employment | 30.0 | 33.4 | -3.4 | Increasing | 116 | 33.3 | 63.4 | 3.3 |
| Part-Time Employment | 10.9 | 12.4 | -1.5 | Increasing | 77 | 14.4 | 82.1 | 3.5 |
| Hours Worked | 6.3 | 6.1 | +0.2 | Increasing | 27 | 10.1 | 86.1 | 3.8 |
| Wages and Benefits | 47.3 | 48.5 | -1.2 | Increasing | 143 | 48.9 | 49.4 | 1.6 |
| Input Prices | 44.5 | 50.0 | -5.5 | Increasing | 143 | 48.2 | 48.2 | 3.7 |
| Selling Prices | 31.7 | 33.6 | -1.9 | Increasing | 115 | 38.3 | 55.1 | 6.6 |
| Capital Expenditures | 27.4 | 29.5 | -2.1 | Increasing | 116 | 32.2 | 63.0 | 4.8 |

General Business Conditions Future (six months ahead)

| | | | | | | % | % | % |
|---------------------------|-------------|----------|------------------|---------------------|----|------|------------------------|------|
| Indicator | Nov Index O | ct Index | Change I | ndicator Direction* | | | Reporting No Change | |
| Company Outlook | 17.3 | 22.8 | - 5.5 | Improving | 33 | 29.8 | 57.7 | 12.5 |
| General Business Activity | 16.6 | 20.9 | -4.3 | Improving | 33 | 26.7 | 63.2 | 10.1 |

Texas Retail Outlook Survey

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

| | | | | | | % | % | % |
|----------------------------|-------------|----------|------------------|---------------------|----------|-----------|-----------|-----------|
| | | | | | Trend** | Reporting | Reporting | Reporting |
| Indicator | Nov Index O | ct Index | Change I | ndicator Direction* | (Months) | Increase | No Change | Decrease |
| Retail Activity in Texas | | | | | | | | |
| Sales | 13.0 | 14.8 | -1 .8 | Increasing | 7 | 33.2 | 46.6 | 20.2 |
| Employment | 2.9 | 5.6 | -2.7 | Increasing | 15 | 12.4 | 78.1 | 9.5 |
| Part-Time Employment | 3.7 | 0.0 | +3.7 | Increasing | 1 | 9.4 | 84.9 | 5.7 |
| Hours Worked | 6.1 | 4.4 | +1.7 | Increasing | 17 | 8.8 | 88.5 | 2.7 |
| Wages and Benefits | 19.7 | 17.5 | +2.2 | Increasing | 93 | 21.8 | 76.1 | 2.1 |
| Input Prices | 21.2 | 31.0 | - 9.8 | Increasing | 34 | 25.2 | 70.8 | 4.0 |
| Selling Prices | 12.7 | 19.7 | - 7.0 | Increasing | 20 | 21.3 | 70.1 | 8.6 |
| Capital Expenditures | 5.5 | 5.2 | +0.3 | Increasing | 28 | 11.1 | 83.3 | 5.6 |
| Inventories | 3.6 | 6.0 | -2.4 | Increasing | 6 | 18.0 | 67.6 | 14.4 |
| Companywide Retail Activi | ity | | | | | | | |
| Companywide Sales | 16.8 | 16.6 | +0.2 | Increasing | 7 | 31.8 | 53.2 | 15.0 |
| Companywide Internet Sales | 8.3 | 6.1 | +2.2 | Increasing | 7 | 12.2 | 83.9 | 3.9 |
| | | | | | | | | |

General Business Conditions, Retail Current (versus previous month)

| | | | | | | % | % | % |
|---------------------------|-------------|-----------|----------|----------------------|---------------------|------|------------------------|------|
| Indicator | Nov Index O | t Index (| Change I | Indicator Direction* | Trend** (Months) | | Reporting No Change | |
| Company Outlook | 4.1 | 2.8 | +1.3 | Improving | 20 | 14.6 | 74.9 | 10.5 |
| General Business Activity | 7.5 | -1.1 | +8.6 | Improving | 1 | 16.3 | 74.9 | 8.8 |

Outlook Uncertainty
Current (versus previous month)

| | | | | | | % | % | % | |
|----------------------|-------------|---------|----------|---------------------|----------|-----------|-----------|-----------|--|
| | | | | | Trend** | Reporting | Reporting | Reporting | |
| Indicator | Nov Index O | t Index | Change I | ndicator Direction* | (Months) | Increase | No Change | Decrease | |
| Outlook Uncertainty† | 7.6 | 5.2 | +2.4 | Increasing | 6 | 17.0 | 73.6 | 9.4 | |

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

| | | | | | | % | % | % |
|----------------------------|-------------|----------|------------------|---------------------|----------|-----------|-----------|-----------|
| | | | | | Trend** | Reporting | Reporting | Reporting |
| Indicator | Nov Index O | ct Index | Change I | ndicator Direction* | (Months) | Increase | No Change | Decrease |
| Retail Activity in Texas | | | | | | | | |
| Sales | 16.4 | 25.7 | -9.3 | Increasing | 117 | 31.8 | 52.8 | 15.4 |
| Employment | 10.5 | 22.8 | -12.3 | Increasing | 18 | 16.6 | 77.4 | 6.1 |
| Part-Time Employment | 6.1 | 10.0 | -3.9 | Increasing | 9 | 12.4 | 81.3 | 6.3 |
| Hours Worked | -7.5 | 1.4 | -8.9 | Decreasing | 1 | 2.5 | 87.5 | 10.0 |
| Wages and Benefits | 35.6 | 40.7 | - 5.1 | Increasing | 119 | 38.2 | 59.2 | 2.6 |
| Input Prices | 23.1 | 38.9 | -15.8 | Increasing | 115 | 32.7 | 57.7 | 9.6 |
| Selling Prices | 21.2 | 28.3 | - 7.1 | Increasing | 115 | 32.7 | 55.8 | 11.5 |
| Capital Expenditures | 11.5 | 14.8 | -3.3 | Increasing | 26 | 19.2 | 73.1 | 7.7 |
| Inventories | 8.2 | 16.5 | -8.3 | Increasing | 25 | 17.4 | 73.4 | 9.2 |
| Companywide Retail Activit | ty | | | | | | | |
| Companywide Sales | 18.7 | 27.4 | -8.7 | Increasing | 116 | 29.4 | 59.9 | 10.7 |
| Companywide Internet Sales | 12.8 | 10.3 | +2.5 | Increasing | 28 | 17.9 | 76.9 | 5.1 |

General Business Conditions, Retail Future (six months ahead)

| | | | | | | % | % | % |
|---------------------------|-------------|----------|--------|----------------------|----------|-----------|-----------|-----------|
| | | | | | Trend** | Reporting | Reporting | Reporting |
| Indicator | Nov Index O | ct Index | Change | Indicator Direction* | (Months) | Improved | No Change | Worsened |
| Company Outlook | 0.2 | 13.6 | -13.4 | Improving | 24 | 19.7 | 60.8 | 19.5 |
| General Business Activity | 1.9 | 6.8 | -4.9 | Improving | 27 | 17.9 | 66.1 | 16.0 |

^{*}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.

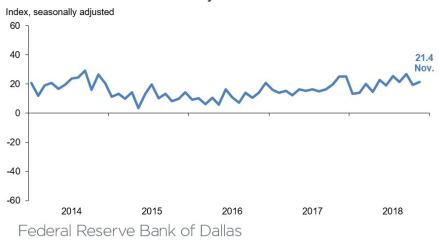
†Added to survey in January 2018.

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.

^{**}Number of months moving in current direction.

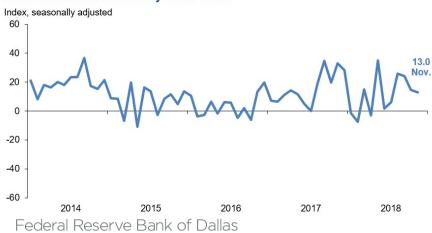
Texas Service Sector Outlook Survey

Texas Service Sector Outlook Survey Revenue Index



Texas Retail Outlook Survey

Texas Retail Outlook Survey Sales Index



Texas Service Sector Outlook Survey

November 27, 2018

Comments from Survey Respondents

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

Support Activities for Mining

• We have seen some potential impact from tariffs, but otherwise little change.

Specialty Trade Contractors

■ The biggest issue we are facing is finding qualified workers.

Pipeline Transportation

Uncertainty has increased related to trade and tariff issues.

Support Activities for Transportation

■ We are seeing seasonal increases in cruise activity in November, which will continue through early January. We are also expecting the continuation of wind cargo (blades and tower components) through the remainder of 2018 and into 2019. Grain continues to be less than expected due to the China tariffs.

Credit Intermediation and Related Activities

- We are a vendor in the residential mortgage industry. We are about where we thought we would be in an industry where most participants have never experienced rising interest rates.
- One of the companies that owns two frac sand mines has announced that it is closing both plants. This will impact over 100 employees. It is assumed that this is a result of the opening of several surface sand mines in the Kermit sand play that provide a cheaper source of frac sand and are in closer proximity to the Permian oil basin. The hunting season is in full swing, and the deer processing plant reports a stronger-than-normal start to the hunting season.

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

- Activity is pretty much the same as it has been over the past few months.
- Interest rate increases seem to have hit a tipping point from our point of view. New-home client transactions have taken a nosedive, as have refinances. We find our outlook has significantly declined since the last rate increase.

Insurance Carriers and Related Activities

- We are seeing falling housing indicators.
- We are insurance brokers, so we are seeing increased prices for auto insurance (partly due to distracted driving losses) and property insurance (due to Texas storm losses in the past two to three years.) That does drive selling prices and revenues up for us.

Real Estate

- While things are good at the moment, tariffs, the loss of more major retailers and continuing gridlock in Washington all weigh on the consumer and are dampening confidence. We are concerned that as we move into next year, the continuing trade wars, North Korea, the unresolved Syrian conflict and other Middle East issues will really start to strain consumer confidence. Adding new interest rate hikes and price increases related to tariffs in autos and other areas will also weigh on the markets. Jobs are the only good news now, and I am not sure how long that will last with all the other negatives in the market.
- Real estate sales are affected by the weather. San Antonio has had a lot of rain. People do not go to open houses or set up appointments when it is raining. Also, the general mental state of buyers has been poor. The Kavanaugh judicial hearings and the elections caused everyone to pull back on spending and to have uncertainty about the future of America.
- Trade tariffs are starting to have a negative impact on some of my clients.

Professional, Scientific and Technical Services

- We are really waiting and watching at this point. Similarly to last month, we are continuing to watch the Fed, as well as general economic indicators. It does seem "cooler" than it was from an economic standpoint from earlier in the year, and we hope activity accelerates some as we get closer to 2019. No shocks with mid-terms, which is good, but the focus on trade, Brexit, rate direction, etc., continues to keep our attention. Oil prices are an interesting shift too, as we see a downward trend developing. There are a lot of factors contributing—perhaps coolness in the global economy setting in, issues with oversupply tied to U.S. fracking and OPEC players, and more volume tied to exceptions from Iran than anticipated. The outcome could hit many of our clients and at least put them on the sidelines while they watch it play out.
- In prior months, I signaled great concern with the trade war issue and the increasing polarization of the geopolitical issues. Current post-election changes in Congress have led to increased uncertainty, but, frankly, that may be for the better.
- The residential real estate market has continued to slow down due to the increase in home prices and rising interest rates. The commercial market remains hot, but we anticipate it will follow the residential market at some point. The first quarter of next year will give us a better sense of where this market is headed in 2019.
- There is no clear indication of future work because proposals are down to 2009 levels. We do not know why.
- The holidays always signal a slowdown for us. Real estate activity slows during this time each year. If you add to that the concern about President Trump and his immigration policies, the aftermath of a bitter election and the downturn of the stock market, there is much to be concerned about.

Management of Companies and Enterprises

■ The election is over. Customer uncertainty has slackened and folks are making decisions again.

Administrative and Support Services

- Corporate aircraft work has increased with many inspection items being "cleared" before the holidays and budgets being used prior to the close of the fiscal year. Industrial inspections have decreased on manufactured replacement parts for oil rigs and pumping devices. Government request for quotations has increased within the aerospace sector (aircraft, UAV and replacement components) and remained flat within the government land equipment sector (gun mounts, barrels, etc.). Manufacturing (machine shops) orders have decreased 28 percent since Oct. 1. This seems to be a slowdown in that sector that will remain for a while. General thoughts: Fix the perceived trade tariff issue hanging over peoples' heads and we can plan again on how and who to sell to. The manufacturers should be active after that is settled.
- The weather has been a huge obstacle for production. We have experienced a lot of rain days over the last two and a half months that directly affects production.
- We are government contractors, and we were awarded a good-sized contract in September 2018, renewable for five years. We are now going through the slow season, but our gross sales numbers have escalated. We already paid for all new equipment, training and travel for this particular contract at the end of October 2018.

Educational Services

■ I am concerned that now there are divided legislative and executive branches in Washington. I hope that they will be able to compromise and get things done for the American people. I don't want any agenda items bogged down in needless investigations.

Ambulatory Health Care Services

- We are health care providers and not tied to the general economy. Our reimbursement rates have consistently been lowered, and our operating expenses for compliance continue to increase, making it difficult and very challenging for small and independent health care providers (home health, hospice, physician practices) to have to deal with increasing operating costs versus decreasing reimbursement, leading to a significant level of consolidation in the health care industry.
- The Dallas Fed has many positive numbers to tally, but the energy sector is pricing in a deep valley. There have been three rate hikes from [Federal Reserve] Chairman Powell, the bond market is starting to howl, and we are all waiting for the post-election equity markets to rally.

Hospitals

• Continued unfunded mandates are decreasing stability of independent rural health systems.

Nursing and Residential Care Facilities

- Within the next six months, our company will begin a renovation and repositioning project that will result in closure of one service line.
- State and federal agencies did not raise our reimbursement rate but did raise the state-supplied reimbursement rate for the same service.
- An oversupply of senior housing has created a challenging environment.

Social Assistance

• We are struggling to find productive workers. Wage increases are reducing profit margins, higher wages are displacing people with few job skills, and customer traffic is down. However, transactions are up, as well as dollars per transaction. There appear to be too many retail options versus the number of customers.

Performing Arts, Spectator Sports and Related Industries

■ Change in Congress makes me concerned with government attitude toward small business.

Amusement, Gambling and Recreation Industries

■ According to the Austin American Statesman, the average hourly wage climbed 5.4 percent in September. We, like most businesses, are feeling that pressure and have recently given a 5 percent increase to our employees. Of course, that is just the start of the cost. This means increases in workers compensation insurance, life insurance, Christmas bonuses (based on wages), payroll taxes, retirement plan contributions, vacation pay and sick pay. There is also a less than 3 percent unemployment rate, so hiring is a constant challenge. That does not even count the new hotels that keep opening that need employees. Our understanding is that one hotel is about 200 employees short and another is sending buses to San Antonio to pick up workers on a daily basis. All in all, these are major challenges to anyone in the hospitality business, along with the massive increases in property taxes.

Food Services and Drinking Places

- We have had lots of rain since September and people can't work. This has slowed our sales.
- For our businesses, stock market and oil weakness could impact consumer willingness to spend. Conversely, oil weakness might lead to softening in labor pressure in West Texas.
- We are still recovering from Hurricane Harvey and are waiting on insurance proceeds.
- Price increases will be taken in January to cover employee raises and increased costs from some vendors. We are having trouble hiring in some markets, so we may have to increase our starting hourly wage, mainly in some areas of San Antonio.

Merchant Wholesalers, Durable Goods

- For our business, the full 25 percent China tariffs that are in effect (due to the 90-day lead time), and arrival to the U.S. (port), coupled with rising interest and mortgage rates, have lowered my optimism.
- The major thing that can affect the economy is government.
- The decrease in net sales companywide is due to October sales being higher than normal due to our response to the hurricane on the east coast and in Florida. The uncertainty has increased due to the Democrats taking control of the house.
- In our private label business, about 7 percent has been impacted by China tariffs. The majority of the tariffs we were able to pass on through cost increases. We beefed up on China-manufactured products over the past three months and have a few more shipments coming in this year. Our U.S.-manufactured products have also had price increases, and about 70 percent have been passed on. Recruiting has been a little tougher, but our starting rate for lower positions is \$15 an hour. For many inside positions, we start pay at mid-\$30,000+. Construction activity in Texas is steady, but in multifamily there are fewer projects coming down the pike. Commercial activity is steady and growing.

Merchant Wholesalers, Nondurable Goods

- A labor shortage for non-skilled and semi-skilled positions continues to be a problem.
- Freight continues to be an issue—from finding drivers to keeping drivers to getting material shipped to us in a timely manner. Interest rate increases will be an issue this year as well.

Motor Vehicle and Parts Dealers

- We are beginning to see increased interest rates and a drop in used car values affect affordability of new vehicles.
- We have a flawed business model. Inventory is high, interest rates are up, and profits are down.
- With the manufacturers we represent running at maximum capacity as material and parts are supplied, there is a shortage of new trucks available. Increased sales will not be possible without new inventory being available. An increase in our industry is held back by the shortages currently caused by terrific demand and the booming economy that cannot be taken advantage of.

Building Material and Garden Equipment and Supplies Dealers

• Interest rates are going up too fast; sales are dropping fast and we are lowering prices to sell.

Health and Personal Care Stores

About 10 percent of our business comes from one firm, which has drastically cut reimbursements. In addition, local prescribers have changed patterns of dispensing. It remains to be seen if the new pattern is permanent or temporary.

Clothing and Clothing Accessories Stores

■ Sales at border stores are getting worse due to the strong dollar/weak peso.

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

Texas **Business** Outlook Surveys

Special Questions

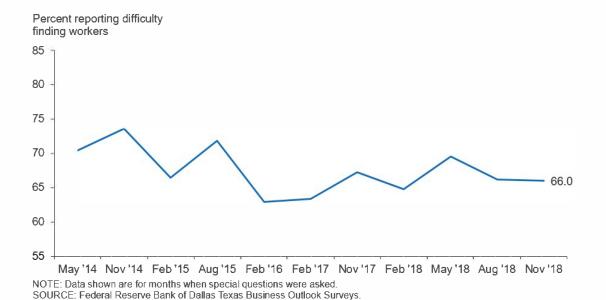
November 26, 2018

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 Nov. 12–20, and 359 Texas business executives responded to the surveys.

Are you having problems finding qualified workers when hiring?



| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|-----|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Yes | 67.3 | 64.8 | 69.5 | 66.2 | 66.0 |
| No | 32.7 | 35.2 | 30.5 | 33.8 | 34.0 |

If you are having problems finding qualified workers, in which categories are you experiencing difficulty? Please check all that apply.*

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 47.2 | 51.1 | 53.4 | 56.5 | 54.1 |
| Mid-skill positions (typically require some college or technical training) | 60.4 | 61.2 | 66.7 | 68.1 | 71.4 |
| High-skill positions (typically require college degree or higher) | 37.6 | 39.6 | 37.4 | 37.1 | 36.4 |

If you are having problems finding qualified workers, what are the main reasons? Please check all that apply.*

| | Feb. '17 (percent) | Nov. '17 (percent) | Feb. '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of available applicants/no applicants | 43.2 | 58.6 | 62.6 | 72.8 | 70.6 |
| Looking for more pay than is offered | 34.4 | 39.0 | 40.1 | 41.4 | 45.0 |
| Lack of technical competencies (hard skills) | 59.8 | 49.8 | 50.2 | 47.0 | 43.3 |
| Lack of experience | 40.5 | 32.5 | 37.0 | 37.1 | 40.7 |
| Lack of workplace competencies (soft skills) | 43.2 | 37.3 | 39.6 | 34.5 | 39.0 |
| Inability to pass drug test and/or background check | 29.3 | 32.1 | 30.0 | 31.0 | 32.5 |

What, if anything, are you doing to recruit and retain employees? Please check all that apply.**

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|--|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Increasing wages and/or benefits | 49.4 | 53.3 | 61.6 | 63.4 | 66.6 |
| Increasing wages | | | | | 61.9 |
| Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc. | 63.5 | 62.1 | 52.6 | 59.6 | 60.7 |
| Offering additional training | 35.7 | 38.2 | 27.8 | 36.6 | 35.9 |
| Increasing variable pay, including bonuses | 29.2 | 33.3 | 31.5 | 26.8 | 29.1 |
| Improving working conditions | 23.4 | 22.2 | 27.2 | 25.9 | 27.6 |
| Increasing benefits | | | | | 20.1 |
| Reducing education and other requirements for new hires | 8.8 | 6.5 | 8.3 | 12.9 | 12.1 |
| Other | 6.7 | 7.8 | 7.3 | 6.3 | 9.3 |

For each category below, please select the extent to which your firm raised wages (excluding benefits) over the past 12 months:

| | Nov. '18 (percent) | | | |
|---|-----------------------|------|------|--|
| | None | < 4% | ≥4% | |
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 23.5 | 43.7 | 32.8 | |
| Mid-skill positions (typically require some college or technical training) | 19.3 | 44.9 | 35.8 | |
| High-skill positions (typically require college degree or higher) | 27.4 | 36.5 | 36.2 | |

^{*}This question only posed to firms that noted they are having problems finding qualified workers when hiring.

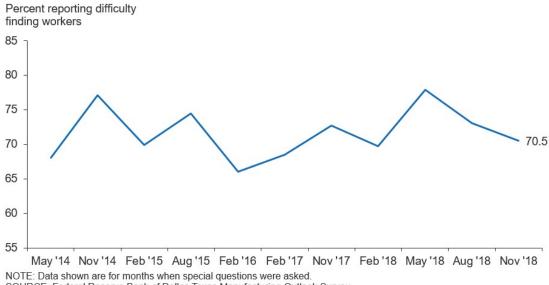
NOTES: Survey respondents were given the opportunity to provide comments. These comments can be found on the individual survey Special Questions results pages

^{**}Starting in November 2018, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Texas Manufacturing Outlook Survey

Data were collected Nov. 12–20, and 105 Texas manufacturers responded to the survey. See data files with a full history of results.

Are you having problems finding qualified workers when hiring?



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

| | Nov. '17 | Feb. '18 | May '18 | Aug. '18 | Nov. '18 |
|-----|-----------|-----------|-----------|-----------|-----------|
| | (percent) | (percent) | (percent) | (percent) | (percent) |
| Yes | 72.7 | 69.7 | 77.9 | 73.1 | 70.5 |
| No | 27.3 | 30.3 | 22.1 | 26.9 | 29.5 |

If you are having problems finding qualified workers, in which categories are you experiencing difficulty? Please check all that apply.*

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 61.1 | 64.7 | 62.9 | 68.9 | 66.2 |
| Mid-skill positions (typically require some college or technical training) | 66.7 | 70.6 | 70.0 | 71.6 | 77.5 |
| High-skill positions (typically require college degree or higher) | 30.6 | 32.4 | 28.6 | 27.0 | 26.8 |

If you are having problems finding qualified workers, what are the main reasons? Please check all that apply.*

| | Feb. '17 (percent) | Nov. '17 (percent) | Feb. '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of available applicants/no applicants | 44.3 | 51.4 | 72.1 | 70.3 | 69.9 |
| Lack of technical competencies (hard skills) | 72.2 | 61.1 | 60.3 | 64.9 | 57.5 |
| Lack of workplace competencies (soft skills) | 45.6 | 37.5 | 44.1 | 36.5 | 45.2 |
| Looking for more pay than is offered | 36.7 | 36.1 | 38.2 | 47.3 | 43.8 |
| Inability to pass drug test and/or background check | 29.1 | 45.8 | 41.2 | 35.1 | 42.5 |
| Lack of experience | 44.3 | 31.9 | 44.1 | 35.1 | 38.4 |

What, if anything, are you doing to recruit and retain employees? Please check all that apply.**

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|--|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Increasing wages and/or benefits | 51.7 | 53.5 | 55.8 | 64.3 | 68.4 |
| Increasing wages | | | | | 63.3 |
| Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc. | 67.4 | 65.1 | 53.5 | 67.3 | 61.2 |
| Offering additional training | 40.4 | 43.0 | 30.2 | 38.8 | 32.7 |
| Improving working conditions | 24.7 | 18.6 | 24.4 | 24.5 | 30.6 |
| Increasing variable pay, including bonuses | 28.1 | 31.4 | 26.7 | 21.4 | 24.5 |
| Reducing education and other requirements for new hires | 11.2 | 4.7 | 14.0 | 19.4 | 16.3 |
| Increasing benefits | | | | | 16.3 |
| Other | 5.6 | 7.0 | 7.0 | 0.0 | 7.1 |

For each category below, please select the extent to which your firm raised wages (excluding benefits) over the past 12 months:

| | Nov. '18 (percent) | | | |
|---|-----------------------|------|------|--|
| | None | < 4% | ≥4% | |
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 10.8 | 53.9 | 35.3 | |
| Mid-skill positions (typically require some college or technical training) | 11.7 | 49.5 | 38.8 | |
| High-skill positions (typically require college degree or higher) | 20.4 | 39.8 | 39.8 | |

^{*}This question only posed to firms that noted they are having problems finding qualified workers when hiring.

^{**}Starting in November 2018, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

These comments have been edited for publication.

Food Manufacturing

- We have had some success advertising on radio during "drive time" which enables us to "steal" workers from other businesses in our area. With unemployment at 3.7 percent, it appears almost everyone who wants a job, has a job. We have raised our hourly compensation for blue-collar jobs as well. It is a tough labor market. On another subject, there is a significant shortage of truck drivers right now. One national vendor of ours tells us the U.S. is short 60,000 truck drivers. They are currently 32 truckloads behind in picking up merchandise we have manufactured, per their orders, which creates a bottleneck for us from a warehousing point of view.
- We plan on a significant (more than 4 percent) raise for all positions effective January 2019.

Textile Product Mills

■ We have a higher level of orders, so we are increasing wages to keep workers happy and here!

Nonmetallic Mineral Product Manufacturing

■ In the Austin area, unemployment is very low, which affects the pool of available candidates. Those individuals left in the market are typically ones that don't want to work or can't find jobs; therefore, we have to be able to pull potential employees away from established positions.

Fabricated Metal Product Manufacturing

■ In the steel fabrication industry, skilled welders and fitters (with the ability to read fabrication drawings) are going to the oil and gas industry, which pays almost double what the fabrication industry pays. Because of this and other issues, other steel lattice fabricators have moved offshore.

Machinery Manufacturing

• We have increased wages for entry-level positions to improve the applicant pool.

Computer and Electronic Product Manufacturing

■ We always have trouble finding enough technical talent in the U.S. but can hire in other regions of the world to meet demand.

Electrical Equipment, Appliance and Component Manufacturing

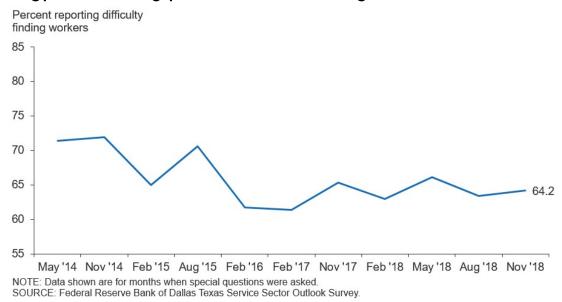
■ In our plants (which is where 85 percent of our employees work), drug testing washes out more people than you would think.

Random testing in our office has also nailed a couple. We are not in favor of pot laws. Also, we need a better pot test that tells if people are high or not.

Texas Service Sector Outlook Survey

Data were collected Nov. 12–20, and 254 Texas business executives responded to the survey. See data files with a full history of results.

Are you having problems finding qualified workers when hiring?



May '18 Nov. '18 Nov. '17 Feb. '18 Aug. '18 (percent) (percent) (percent) (percent) (percent) Yes 62.9 66.1 65.3 63.4 64.2 No 34.7 37.1 33.9 36.6 35.8

If you are having problems finding qualified workers, in which categories are you experiencing difficulty? Please check all that apply.*

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 41.6 | 45.3 | 49.0 | 50.6 | 48.8 |
| Mid-skill positions (typically require some college or technical training) | 57.9 | 57.2 | 65.1 | 66.5 | 68.8 |
| High-skill positions (typically require college degree or higher) | 40.4 | 42.8 | 41.6 | 41.8 | 40.6 |

If you are having problems finding qualified workers, what are the main reasons? Please check all that apply.*

| | Feb. '17 (percent) | Nov. '17 (percent) | Feb. '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of available applicants/no applicants | 42.8 | 61.6 | 58.5 | 74.1 | 70.9 |
| Looking for more pay than is offered | 33.3 | 40.1 | 40.9 | 38.6 | 45.6 |
| Lack of experience | 38.9 | 32.8 | 34.0 | 38.0 | 41.8 |
| Lack of technical competencies (hard skills) | 54.4 | 45.2 | 45.9 | 38.6 | 36.7 |
| Lack of workplace competencies (soft skills) | 42.2 | 37.3 | 37.7 | 33.5 | 36.1 |
| Inability to pass drug test and/or background check | 29.4 | 26.6 | 25.2 | 29.1 | 27.8 |

What, if anything, are you doing to recruit and retain employees? Please check all that apply.**

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|--|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Increasing wages and/or benefits | 48.6 | 53.2 | 63.9 | 63.0 | 65.8 |
| Increasing wages | | | | | 61.3 |
| Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc. | 62.1 | 60.9 | 52.3 | 56.2 | 60.4 |
| Offering additional training | 34.0 | 36.4 | 26.9 | 35.6 | 37.3 |
| Increasing variable pay, including bonuses | 29.6 | 34.1 | 33.3 | 29.2 | 31.1 |
| Improving working conditions | 22.9 | 23.6 | 28.2 | 26.5 | 26.2 |
| Increasing benefits | | | | | 21.8 |
| Reducing education and other requirements for new hires | 7.9 | 7.3 | 6.0 | 10.0 | 10.2 |
| Other | 7.1 | 8.2 | 7.4 | 9.1 | 10.2 |

For each category below, please select the extent to which your firm raised wages (excluding benefits) over the past 12 months:

| | Nov. '18 (percent) | | | |
|---|-----------------------|------|------|--|
| | None | < 4% | ≥4% | |
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 29.4 | 38.9 | 31.7 | |
| Mid-skill positions (typically require some college or technical training) | 22.7 | 42.8 | 34.5 | |
| High-skill positions (typically require college degree or higher) | 30.4 | 35.0 | 34.6 | |

^{*}This question only posed to firms that noted they are having problems finding qualified workers when hiring.

^{**}Starting in November 2018, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

These comments have been edited for publication.

Truck Transportation

It is difficult to find qualified truck drivers for over-the-road positions. It's a \$70,000 per year job but drivers are gone from home 90 percent of the time.

Support Activities for Transportation

■ People literally just do not understand or want to put in a good day's work.

Data Processing, Hosting and Related Services

■ Lack of qualified applicants in Dallas—Fort Worth has prompted us to expand searches. We've used recruiters for approximately 85 percent of hires this year. We've increased wages and benefits to attract and retain talent. The younger the talent, the more time they want to "work from home," but that hasn't proven to enable the company to serve its customers as well.

Credit Intermediation and Related Activities

- We do not gauge skill in terms of college degrees or training but rather in terms of knowledge and ability.
- In our rural markets, we must recruit available students out of high school to try and establish a trainable employment base that will stay on the job for years to come.

Insurance Carriers and Related Activities

• We hire based on sales and relationship talent, not vocational-technical type training.

Professional. Scientific and Technical Services

• I don't use anyone but "high-skill" workers. The type I would need would be relatively available, as high-skill workers for energy business projects are not in particularly high demand.

Administrative and Support Services

- I am a recruiter, so I'm speaking not from my firm's experience, but from our clients' perspectives. Some positions are extremely difficult to fill, like civil engineering, audit/tax, clinical/pharmaceutical/therapeutic, etc. The less socially active you are and the more conservative in nature, the harder it is to hire. The lead times are significant, but many of these firms don't start their hiring process until there is a need, which is a fatal flaw in their process.
- Finding employees is a very big challenge. Just finding an individual with a good driver's license is like winning the lottery.
- Increasing pay to retain qualified existing employees is essential.

Educational Services

• We continue to struggle with hiring transportation drivers and teachers. We continue to reinforce our efforts by increasing wages and through more robust recruiting. It's not only our problem but the problem in our industry.

Nursing and Residential Care Facilities

• We are making wage adjustments in targeted markets to try to attract and retain employees.

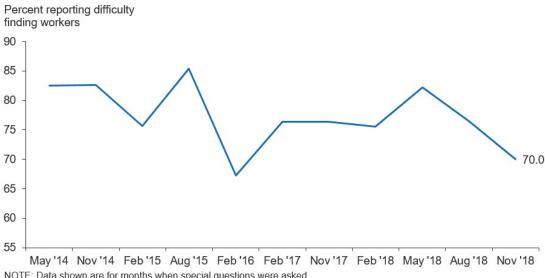
Food Services and Drinking Places

■ There are more jobs than people.

Texas Retail Outlook Survey

Data were collected Nov. 12–20, and 50 Texas retailers responded to the survey. See data files with a full history of results.

Are you having problems finding qualified workers when hiring?



NOTE: Data shown are for months when special questions were asked. SOURCE: Federal Reserve Bank of Dallas Texas Retail Outlook Survey.

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|-----|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Yes | 76.4 | 75.5 | 82.2 | 76.5 | 70.0 |
| No | 23.6 | 24.5 | 17.8 | 23.5 | 30.0 |

If you are having problems finding qualified workers, in which categories are you experiencing difficulty? Please check all that apply.*

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 54.8 | 55.6 | 69.4 | 56.8 | 61.8 |
| Mid-skill positions (typically require some college or technical training) | 66.7 | 69.4 | 75.0 | 86.5 | 76.5 |
| High-skill positions (typically require college degree or higher) | 21.4 | 13.9 | 30.6 | 24.3 | 29.4 |

If you are having problems finding qualified workers, what are the main reasons? Please check all that apply.*

| | Feb. '17 (percent) | Nov. '17 (percent) | Feb. '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of available applicants/no applicants | 46.7 | 59.5 | 56.8 | 78.9 | 66.7 |
| Lack of technical competencies (hard skills) | 55.6 | 54.8 | 48.6 | 52.6 | 45.5 |
| Inability to pass drug test and/or background check | 48.9 | 47.6 | 37.8 | 42.1 | 45.5 |
| Lack of workplace competencies (soft skills) | 46.7 | 33.3 | 40.5 | 36.8 | 39.4 |
| Looking for more pay than is offered | 28.9 | 38.1 | 24.3 | 23.7 | 36.4 |
| Lack of experience | 37.8 | 35.7 | 35.1 | 34.2 | 33.3 |

What, if anything, are you doing to recruit and retain employees? Please check all that apply.**

| | Nov. '17 (percent) | Feb. '18 (percent) | May '18 (percent) | Aug. '18 (percent) | Nov. '18 (percent) |
|---|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| Increasing wages and/or benefits | 56.6 | 41.3 | 56.8 | 63.0 | 58.7 |
| Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, | 66.0 | 60.9 | 65.9 | 54.3 | 58.7 |
| etc. | | | | | |
| Increasing wages | | | | | 56.5 |
| Increasing variable pay, including bonuses | 39.6 | 43.5 | 36.4 | 37.0 | 30.4 |
| Offering additional training | 34.0 | 32.6 | 18.2 | 30.4 | 26.1 |
| Improving working conditions | 24.5 | 26.1 | 27.3 | 32.6 | 26.1 |
| Increasing benefits | | | | | 15.2 |
| Reducing education and other requirements for new | 13.2 | 10.9 | 6.8 | 10.9 | 10.9 |
| hires | | | | | |
| Other | 5.7 | 4.3 | 4.5 | 8.7 | 10.9 |

For each category below, please select the extent to which your firm raised wages (excluding benefits) over the past 12 months:

| | Nov. '18 (percent) | | |
|---|-----------------------|------|------|
| | None | < 4% | ≥4% |
| Low-skill positions (typically require high school diploma or less and minimal work experience) | 16.3 | 46.5 | 37.2 |
| Mid-skill positions (typically require some college or technical training) | 18.6 | 44.2 | 37.2 |
| High-skill positions (typically require college degree or higher) | 38.5 | 41.0 | 20.5 |

^{*}This question only posed to firms that noted they are having problems finding qualified workers when hiring.

^{**}Starting in November 2018, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

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Merchant Wholesalers, Nondurable Goods

Drivers are in high demand and hard to find and keep.

Motor Vehicle and Parts Dealers

 Younger college-educated candidates are wanting fewer work hours and noncommissioned pay plans, making it difficult to recruit for sales positions.

Building Material and Garden Equipment and Supplies Dealers

■ There has always been an issue with schools not training workers properly.

Health and Personal Care Stores

■ I now have one more employee on company health insurance than I did last quarter.

Clothing and Clothing Accessories Stores

■ There is significantly more difficulty in hiring in major metropolitan areas like Houston. Smaller cities are generally not experiencing any issues.

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