

December 28, 2020

Texas Manufacturing Activity Expands at a Faster Pace

What's New This Month

For this month's survey, Texas business executives were asked supplemental questions on the impact of COVID-19, as well as wages and prices. Results for these questions from the Texas Manufacturing Outlook Survey, Texas Service Sector Outlook Survey and Texas Retail Outlook Survey have been released together.

Expansion in Texas factory activity picked up in December, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, rebounded from 7.2 to 25.5, indicating an acceleration in output growth.

Other measures of manufacturing activity also point to stronger growth this month. The new orders index pushed up 11 points to 17.8, and the growth rate of orders index rose from 9.7 to 16.5. The capacity utilization index moved up 11 points to 17.7, and the shipments index advanced from 13.7 to 21.9.

Perceptions of broader business conditions continued to improve in December. The general business activity index remained positive but edged down from 12.0 to 9.7. Meanwhile, the company outlook index pushed further into positive territory, rising from 11.0 to 16.8. Uncertainty regarding companies' outlooks continued to rise; the index increased six points to 13.4.

Labor market measures indicated an increase in employment and work hours. The employment index increased from 11.7 to 19.6, suggesting a pickup in hiring. Thirty percent of firms noted net hiring, while 10 percent noted net layoffs. The hours worked index held steady at 9.3.

Price and wage pressures accelerated in December. The raw materials prices index shot up 14 points to 49.0, a two-year high. The finished goods prices index rose notably as well, pushing up 13 points to 17.4, also a two-year high. The wages and benefits index edged up to 19.1 and is back in line with its series average, pulling out of a slump that began in March.

Expectations regarding future activity remained positive in December, though some key indexes moved down from their November readings. The future production index rose seven points to 47.3, while the future general business activity index moved down eight points to 17.6. Other measures of future manufacturing activity showed mixed movements but remained solidly in positive territory.

Next release: Monday, January 25

Data were collected Dec. 14–22, and 113 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)

			Series		% Reporting	% Reporting	% Reporting
Dec Index	Nov Index	Change	Average	Trend*	Increase	No Change	Decrease
25.5	7.2	+18.3	10.0	7(+)	40.3	44.8	14.8
17.7	6.9	+10.8	7.6	7(+)	35.0	47.7	17.3
17.8	7.2	+10.6	5.8	7(+)	37.6	42.6	19.8
16.5	9.7	+6.8	-0.3	6(+)	31.8	52.9	15.3
8.7	8.4	+0.3	-2.9	6(+)	21.9	64.9	13.2
21.9	13.7	+8.2	8.7	7(+)	37.1	47.7	15.2
10.2	12.2	-2.0	-0.4	6(+)	21.2	67.8	11.0
-8.1	-14.7	+6.6	-3.4	21(–)	13.5	64.9	21.6
49.0	35.0	+14.0	24.1	8(+)	50.2	48.6	1.2
17.4	4.7	+12.7	5.9	5(+)	20.6	76.2	3.2
19.1	13.6	+5.5	18.3	7(+)	19.3	80.5	0.2
19.6	11.7	+7.9	6.2	6(+)	29.5	60.6	9.9
9.3	9.7	-0.4	2.4	6(+)	21.8	65.7	12.5
8.5	9.0	-0.5	6.1	4(+)	19.1	70.3	10.6
	25.5 17.7 17.8 16.5 8.7 21.9 10.2 -8.1 49.0 17.4 19.1 19.6 9.3	25.5 7.2 17.7 6.9 17.8 7.2 16.5 9.7 8.7 8.4 21.9 13.7 10.2 12.2 -8.1 -14.7 49.0 35.0 17.4 4.7 19.1 13.6 19.6 11.7 9.3 9.7	25.5 7.2 +18.3 17.7 6.9 +10.8 17.8 7.2 +10.6 16.5 9.7 +6.8 8.7 8.4 +0.3 21.9 13.7 +8.2 10.2 12.2 -2.0 -8.1 -14.7 +6.6 49.0 35.0 +14.0 17.4 4.7 +12.7 19.1 13.6 +5.5 19.6 11.7 +7.9 9.3 9.7 -0.4	Dec Index Nov Index Change Average 25.5 7.2 +18.3 10.0 17.7 6.9 +10.8 7.6 17.8 7.2 +10.6 5.8 16.5 9.7 +6.8 -0.3 8.7 8.4 +0.3 -2.9 21.9 13.7 +8.2 8.7 10.2 12.2 -2.0 -0.4 -8.1 -14.7 +6.6 -3.4 49.0 35.0 +14.0 24.1 17.4 4.7 +12.7 5.9 19.1 13.6 +5.5 18.3 19.6 11.7 +7.9 6.2 9.3 9.7 -0.4 2.4	Dec Index Nov Index Change Average Trend* 25.5 7.2 +18.3 10.0 7(+) 17.7 6.9 +10.8 7.6 7(+) 17.8 7.2 +10.6 5.8 7(+) 16.5 9.7 +6.8 -0.3 6(+) 8.7 8.4 +0.3 -2.9 6(+) 21.9 13.7 +8.2 8.7 7(+) 10.2 12.2 -2.0 -0.4 6(+) -8.1 -14.7 +6.6 -3.4 21(-) 49.0 35.0 +14.0 24.1 8(+) 17.4 4.7 +12.7 5.9 5(+) 19.1 13.6 +5.5 18.3 7(+) 19.6 11.7 +7.9 6.2 6(+) 9.3 9.7 -0.4 2.4 6(+)	Dec Index Nov Index Change Average Trend* Increase 25.5 7.2 +18.3 10.0 7(+) 40.3 17.7 6.9 +10.8 7.6 7(+) 35.0 17.8 7.2 +10.6 5.8 7(+) 37.6 16.5 9.7 +6.8 -0.3 6(+) 31.8 8.7 8.4 +0.3 -2.9 6(+) 21.9 21.9 13.7 +8.2 8.7 7(+) 37.1 10.2 12.2 -2.0 -0.4 6(+) 21.2 -8.1 -14.7 +6.6 -3.4 21(-) 13.5 49.0 35.0 +14.0 24.1 8(+) 50.2 17.4 4.7 +12.7 5.9 5(+) 20.6 19.1 13.6 +5.5 18.3 7(+) 19.3 19.6 11.7 +7.9 6.2 6(+) 29.5 9.3 9.7 -0	Dec Index Nov Index Change Average Trend* Increase No Change 25.5 7.2 +18.3 10.0 7(+) 40.3 44.8 17.7 6.9 +10.8 7.6 7(+) 35.0 47.7 17.8 7.2 +10.6 5.8 7(+) 37.6 42.6 16.5 9.7 +6.8 -0.3 6(+) 31.8 52.9 8.7 8.4 +0.3 -2.9 6(+) 21.9 64.9 21.9 13.7 +8.2 8.7 7(+) 37.1 47.7 10.2 12.2 -2.0 -0.4 6(+) 21.2 67.8 -8.1 -14.7 +6.6 -3.4 21(-) 13.5 64.9 49.0 35.0 +14.0 24.1 8(+) 50.2 48.6 17.4 4.7 +12.7 5.9 5(+) 20.6 76.2 19.1 13.6 +5.5 18.3 7(+)

General Business Conditions

Current (versus previous month)

				Series		% Reporting	% Reporting	% Reporting
Indicator	Dec Index	Nov Index	Change	Average	Trend**	Improved	No Change	Worsened
Company Outlook	16.8	11.0	+5.8	6.4	7(+)	31.0	54.8	14.2
General Business Activity	9.7	12.0	-2.3	2.1	5(+)	27.6	54.5	17.9

Indicator	Dec Index	Nov Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	13.4	7.2	+6.2	13.0	31(+)	26.8	59.8	13.4

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

				Series		% Reporting	% Reporting	% Reporting
Indicator	Dec Index	Nov Index	Change	Average	Trend*	Increase	No Change	Decrease
Production	47.3	40.8	+6.5	38.2	8(+)	56.8	33.7	9.5
Capacity Utilization	42.9	36.2	+6.7	35.1	8(+)	52.4	38.1	9.5
New Orders	38.8	43.2	-4.4	36.0	8(+)	51.5	35.8	12.7
Growth Rate of Orders	33.5	31.3	+2.2	26.6	8(+)	44.9	43.7	11.4
Unfilled Orders	9.7	12.0	-2.3	3.9	7(+)	19.7	70.3	10.0
Shipments	40.3	36.7	+3.6	36.7	8(+)	52.5	35.3	12.2
Delivery Time	2.5	7.2	-4.7	- 1.6	7(+)	17.6	67.3	15.1
Finished Goods	19.8	1.9	+17.9	-0.3	2(+)	28.3	63.2	8.5
Inventories								
Prices Paid for Raw	50.0	42.2	+7.8	33.2	9(+)	52.8	44.3	2.8
Materials								
Prices Received for	32.0	21.4	+10.6	19.0	8(+)	37.7	56.6	5.7
Finished Goods								
Wages and Benefits	45.7	37.0	+8.7	37.5	8(+)	46.7	52.3	1.0
Employment	32.5	27.5	+5.0	21.8	7(+)	40.6	51.3	8.1
Hours Worked	14.6	14.6	0.0	9.2	8(+)	26.4	61.8	11.8
Capital Expenditures	27.3	16.2	+11.1	19.5	7(+)	35.3	56.7	8.0

General Business Conditions

Future (six months ahead)

Indicator	Dec Index	Nov Index	Change	Series Average	Trend**	% Reporting Increase	% Reporting No Change	% Reporting Worsened
Company Outlook	24.1	22.5	+1.6	20.4	7(+)	40.1	44.0	16.0
General Business Activity	17.6	25.8	-8.2	14.0	7(+)	31.7	54.2	14.1

^{*}Shown is the number of consecutive months of expansion or contraction in the underlying indicator. Expansion is indicated by a positive index reading and denoted by a (+) in the table. Contraction is indicated by a negative index reading and denoted by a (-) in the table.

+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.

^{**}Shown is the number of consecutive months of improvement or worsening in the underlying indicator. Improvement is indicated by a positive index reading and denoted by a (+) in the table. Worsening is indicated by a negative index reading and denoted by a (-) in the table.

Comments from Survey Respondents

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

Chemical Manufacturing

• With the coming of the COVID-19 vaccine, overall hope and our outlook are improving related to pandemic business impacts. With a lack of clarity on how the global marketplace will rebound and concerns with the new administration coming into office, overall uncertainty remains unchanged.

Primary Metal Manufacturing

- Most of our customer base remains busy but concerned about the overall economy after the election. Most of our customer base doesn't think a Democratic administration will be good for the manufacturing industry in the long run.
- The volume of shipments will be down in December due to shop employees on vacations and COVID-related absences.

Fabricated Metal Manufacturing

- As a small (16 employee) machining business, we are not seeing a concrete increase in business for 2021. We feel it will
 not get better until the end of second quarter 2021.
- We are completely unable to forecast into the six-month mark.
- Watch for raw material inflation.
- President Trump has really screwed up the economy due to his nonaction since the election. Prices for raw material are
 on the rise again, if you can even find the stuff. Inaction on COVID-19 has the economy so messed up—even the vaccine
 distribution is fouled up.
- We currently have a larger backlog than this time last year but have no additional work scheduled for later in the first quarter.
- There is an extreme price increase and shortage in raw materials. We are unable to quote and hold pricing for the usual 30 days; it's been reduced to 14 days and we've had to manage quotes on an individual basis. Raw materials quotes were not being honored [for] 24 hours in some cases. Others are not even quoting at this time.

Machinery Manufacturing

- We are currently running at capacity and making new production machinery. We are fortunate to be supplying a large international company with a highly specialized COVID-related product, which is increasing our sales dramatically.
- Two of our competitors are virtually bankrupt, and we've actually offered to buy out one of them. But instead of selling out, they are firing employees and furloughing them without pay for weeks at a time. The lengths that others are taking to stay in business are to the point of severe desperation. However, we are the beneficiaries of this COVID economy that has wrecked this oil and gas energy economy. Our business is down, but we are not out of opportunities. Consequently, we will keep moving forward even at the slow pace that is keeping us in business but not making any real profits. At least we are able to pay our employees and pay our bills.
- Prices for raw material (steel) are escalating rapidly, with availability becoming an issue. The downward pressure on finished goods, however, remains strong.
- Our order activity typically slows from Thanksgiving through the end of the year. This is occurring now as well.
- Though we are confident the economy will improve next year with the suppression of the coronavirus, there is no clear path for improvement in the offshore oil market.

Computer and Electronic Product Manufacturing

Leaving the pro-business environment does hurt the confidence in the industrial machinery segment.

Transportation Equipment Manufacturing

- Our primary customer is the United States government. We have a large amount of uncertainty due to the change in administration.
- The political impact on the economy is uncertain. If Democrats win the majority in the Senate, uncertainty rises even more

Food Manufacturing

• The demand side of our equation is endless. Funding and distribution are a challenge. The supply chain is holding.

Apparel Manufacturing

• Military uniform inventory has skyrocketed with the cutback in activity during the pandemic, significantly diminishing demand for the next year or so.

Paper Manufacturing

• We are experiencing some COVID-related production interruptions that have us behind on filling orders. We expect that to correct itself in the coming months. Major raw material cost increases have been passed through due to a current shortage of supply.

Printing and Related Support Activities

- Availability of semi-skilled labor is the primary impediment to achieve growth opportunities.
- We continue to see very sluggish business activity, and normally we would be quite busy this time of year. Many of our customers report the same thing,

Furniture and Related Product Manufacturing

 We are seeing price pressure from owners and general contractors at a time when materials and skilled labor costs are increasing. Projects related to hospitality, entertainment, higher education, and corporate headquarters and office buildings are on hold.

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

December 28, 2020

For this month's survey, Texas business executives were asked supplemental questions on the impacts of COVID-19, as well as wages and prices. 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 December 14–22, and 380 Texas business executives responded to the surveys.

1. How do your firm's current revenues compare with a typical December? For example, if revenues are down 20 percent from normal, enter 80 percent. If revenues are up 20 percent, enter 120 percent.

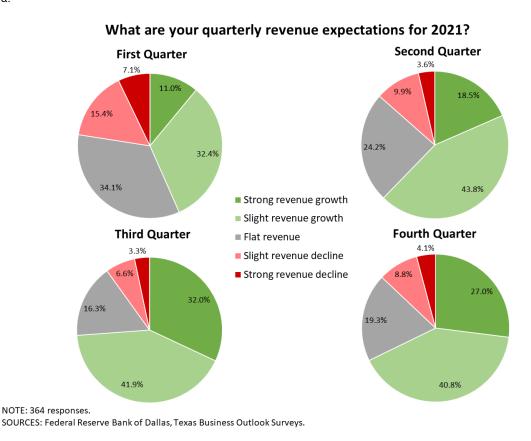
81.2	75.6	74.2	68.3	62.0	63.7	58.7
-38.3	-32.4	-29.1	-29.9	-31.3	-28.7	-28.8
10.2	13.7	15.5	18.3	21.0	19.9	24.2
20.1	20.2	23.3	17.6	20.6	17.7	18.4
8.6	10.6	10.3	13.4	17.0	16.4	17.1
	-38.3 10.2 20.1	-38.3 -32.4 10.2 13.7 20.1 20.2	-38.3 -32.4 -29.1 10.2 13.7 15.5 20.1 20.2 23.3	-38.3 -32.4 -29.1 -29.9 10.2 13.7 15.5 18.3 20.1 20.2 23.3 17.6	-38.3 -32.4 -29.1 -29.9 -31.3 10.2 13.7 15.5 18.3 21.0 20.1 20.2 23.3 17.6 20.6	-38.3 -32.4 -29.1 -29.9 -31.3 -28.7 10.2 13.7 15.5 18.3 21.0 19.9 20.1 20.2 23.3 17.6 20.6 17.7

NOTES: 356 responses. In past months the question wording was adjusted to reference the respective month of comparison. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average revenue decline is calculated using only responses from firms that reported reduced revenues. Average revenue increase is calculated using only responses from firms that reported increased revenues.

2. What change do you expect in your firm's revenue in 2021 compared with 2020 levels?

Increase	66.7
Decrease	15.8
No change	17.5
By what percentage?	
Average among respondents noting an increase	29.6
Average among respondents noting a decrease	18.1

NOTES: 360 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.



3. How does your firm's current employee head count compare with February (pre-COVID)? For example, if head count is down 20 percent from February, enter 80 percent. If head count is up 20 percent, enter 120 percent. Please exclude any changes due to typical seasonality.

43.0	51.2	51.4	49.2	51.1	47.3
-26.5	-25.4	-27.2	-30.6	-28.4	-25.4
12.3	14.0	15.4	17.5	13.2	18.7
10.8	15.6	21.0	14.8	15.2	13.8
44.6	34.8	33.2	33.3	35.7	34.1
	-26.5 12.3 10.8	-26.5 -25.4 12.3 14.0 10.8 15.6	-26.5 -25.4 -27.2 12.3 14.0 15.4 10.8 15.6 21.0	-26.5 -25.4 -27.2 -30.6 12.3 14.0 15.4 17.5 10.8 15.6 21.0 14.8	-26.5 -25.4 -27.2 -30.6 -28.4 12.3 14.0 15.4 17.5 13.2 10.8 15.6 21.0 14.8 15.2

NOTES: 364 responses. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average head count decline is calculated using only responses from firms that reported reduced head count. Average head count increase is calculated using only responses from firms that reported increased head count.

4. What change do you expect in your firm's head count in 2021 compared with its current level?

Increase	51.6
Decrease	10.1
No change	38.3
By what percentage?	
Average among respondents noting an increase	24.6
Average among respondents noting a decrease	16.0

NOTE: 368 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

5. What annual percent change in wages and input prices did your firm experience in 2020, and what do you expect for 2021? Also, by how much did your firm change selling prices in 2020, and by how much do you expect to change selling prices in 2021?

Wages	2.1	4.3
Input prices (excluding wages)	2.7	3.7
Selling prices	1.1	3.4

6. Are there structural changes your firm has made or plans to make as a result of the COVID-19 pandemic that you expect to be permanent?

Yes	52.3
No	47.7

NOTE: 369 responses.

6a. Please specify any changes, and whether it is an increase or decrease.

	Dec. '20 (percent)		
Telecommuting	67.4	98.2	1.8
Technology adoption	60.5	100.0	0.0
Business travel	50.5	4.2	95.8
Office space	40.0	16.4	83.6
Contactless product/service delivery	40.0	98.4	1.6
Other new product/service offerings	28.4	93.6	6.4
Other	8.9		

NOTES: 190 responses. This question was only posed to those indicating they've made or plan to make structural changes.

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

Texas Manufacturing Outlook Survey

Data were collected December 14–22, and 110 Texas manufacturers responded to the survey.

1. How do your firm's current revenues compare with a typical December? For example, if revenues are down 20 percent from normal, enter 80 percent. If revenues are up 20 percent, enter 120 percent.

78.0	70.6	73.8	68.6	60.8	57.7	49.0
-38.6	-34.4	-30.5	-28.7	-28.9	-30.7	-28.4
16.5	16.5	19.4	20.0	23.5	29.8	38.2
19.1	20.6	27.3	24.6	22.5	19.3	17.3
5.5	12.8	6.8	11.4	15.7	12.5	12.7
	-38.6 16.5 19.1	-38.6 -34.4 16.5 16.5 19.1 20.6	-38.6 -34.4 -30.5 16.5 16.5 19.4 19.1 20.6 27.3	-38.6 -34.4 -30.5 -28.7 16.5 16.5 19.4 20.0 19.1 20.6 27.3 24.6	-38.6 -34.4 -30.5 -28.7 -28.9 16.5 16.5 19.4 20.0 23.5 19.1 20.6 27.3 24.6 22.5	-38.6 -34.4 -30.5 -28.7 -28.9 -30.7 16.5 16.5 19.4 20.0 23.5 29.8 19.1 20.6 27.3 24.6 22.5 19.3

NOTES: 102 responses. In past months the question wording was adjusted to reference the respective month of comparison. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average revenue decline is calculated using only responses from firms that reported reduced revenues. Average revenue increase is calculated using only responses from firms that reported increased revenues.

2. What change do you expect in your firm's revenue in 2021 compared with 2020 levels?

Increase	75.0
Decrease	11.5
No change	13.5
By what percentage?	
Average among respondents noting an increase	30.6
Average among respondents noting a decrease	22.8

NOTES: 104 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

What are your quarterly revenue expectations for 2021? **Second Quarter** First Quarter 2.9% 11.4% 20.0% 26.0% 16.3% 26.7% 38.1% ■ Strong revenue growth 47 1% ■ Slight revenue growth **Third Quarter Fourth Quarter** ■ Flat revenue 4.8% 2.9% Slight revenue decline ■ Strong revenue decline 13.5% 36.5% 22.1% 45.2%

NOTE: 105 responses. SOURCES: Federal Reserve Bank of Dallas, Texas Manufacturing Outlook Survey.

42.3%

3. How does your firm's current employee head count compare with February (pre-COVID)? For example, if head count is down 20 percent from February, enter 80 percent. If head count is up 20 percent, enter 120 percent. Please exclude any changes due to typical seasonality.

Share of firms reporting reduced head count	42.6	52.5	47.6	43.6	49.0	48.1
Average head count decline (compared with Feb. 2020 levels)	-20.7	-23.0	-23.9	-22.9	-24.5	-25.6
Share of firms reporting increased head count	15.7	21.2	21.9	16.8	17.3	24.5
Average head count increase (compared with Feb. 2020 levels)	9.2	22.5	17.1	13.1	22.0	18.8
Share of firms reporting no change in head count	41.7	26.3	30.5	39.6	33.7	27.4

NOTES: 106 responses. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average head count decline is calculated using only responses from firms that reported reduced head count. Average head count increase is calculated using only responses from firms that reported increased head count.

4. What change do you expect in your firm's head count in 2021 compared with its current level?

Increase	56.1
Decrease	11.2
No change	32.7
By what percentage?	
Average among respondents noting an increase	22.2
Average among respondents noting a decrease	13.5

NOTES: 107 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

5. What annual percent change in wages and input prices did your firm experience in 2020, and what do you expect for 2021? Also, by how much did your firm change selling prices in 2020, and by how much do you expect to change selling prices in 2021?

Wages	3.3	4.2
Input prices (excluding wages)	3.0	4.6
Selling prices	1.6	3.9

NOTES: 101 responses. Shown are trimmed means with the lowest and highest 5 percent of responses omitted.

6. Are there structural changes your firm has made or plans to make as a result of the COVID-19 pandemic that you expect to be permanent?

Yes	40.2
No	59.8

NOTE: 107 responses.

6a. Please specify any changes, and whether it is an increase or decrease.

	Dec. '20 (percent)		
Telecommuting	75.6	96.7	3.3
Business travel	68.3	7.1	92.9
Technology adoption	58.5	100.0	0.0
Other new product/service offerings	31.7	91.7	8.3
Office space	29.3	0.0	100.0
Contactless product/service delivery	24.4	90.0	10.0
Other	12.2		

NOTES: 41 responses. This question was only posed to those indicating they've made or plan to make structural changes.

Special Questions Comments

These comments have been edited for publication.

Chemical Manufacturing

• We've noticed we are able to conduct the same level of business with fewer employees. We have already eliminated 8 percent of remote positions and will evaluate more reductions by focusing on essential business activities.

Plastics and Rubber Products Manufacturing

• 2020 has been challenging for the oil industry. Pre-COVID, we were already seeing a pullback in the market as inventory levels began to reach peak. Then COVID hit and consumption dropped considerably. Domestic oil production is down 60 percent versus this time last year. However, things are beginning to rebound. Four months ago, analysts were predicting an average onshore rig count of approximately 280 around this time, with the average next year being around that same number. Fast forward to December, and now we're sitting at 338 (which is an increase over last week). Is a rebound due soon? Could it just be optimism with the incoming president-elect and the possibility of a vaccine for COVID? Only time will tell.

Primary Metal Manufacturing

• High-rise construction will slow markedly in the second half [of 2021].

Fabricated Metal Manufacturing

- We expect sales and profits to be below normal for the first two quarters of 2021 but expect the second half of the year to improve significantly.
- For the steel construction markets, there has been a significant uptick in demand that coincides with a reduction in supply. This has led to shortages and allocations resulting in significantly higher steel prices. Also, it is very difficult to hire in today's environment. The additional COVID relief recently announced will prolong this difficulty. Hopefully the vaccine will help keep the existing workforce healthy.

Machinery Manufacturing

- I want my country back. COVID is being used to harm small companies. Embedded corruption is destroying "blue collar" faith in our institutions. Our judicial system has failed. Our election system has failed. Our media has failed. The rule of law has collapsed. Economic instability is a major concern for 2021 due to these issues.
- Our company had a significant layoff which may continue into the first quarter of next year unless sales improve significantly.
- We will continue to vertically integrate our company, albeit at a much slower pace. We will continue to pay off debt and reduce expenses at an aggressive pace. We will only hire salespeople who can contribute to sales immediately. We've eliminated the bottom 10 percent of our employees and hope to replace them with better-quality personnel to improve our company performance. These are desperate times, and we can only afford the very best people.
- We are managing rapid expansion, which is a challenge within itself.

Computer and Electronic Product Manufacturing

• Watch a lack of confidence in manufacturing go through the roof; going from pro-business to against business is not the best government policy.

Transportation Equipment Manufacturing

• We may make structural changes based on economic threats and reality. COVID is going away.

Food Manufacturing

We will have reduced group meetings and remain strong on anti-COVID practices. We do not admit nonempl the facility. We will not make the vaccine mandatory, though we will encourage it. We are an essential service	

Texas Service Sector Outlook Survey

Data were collected December 14–22, and 270 Texas business executives responded to the survey.

1. How do your firm's current revenues compare with a typical December? For example, if revenues are down 20 percent from normal, enter 80 percent. If revenues are up 20 percent, enter 120 percent.

82.5	77.6	74.4	68.2	62.5	66.0	62.6
-38.4	-31.8	-28.7	-30.5	-32.5	-28.1	-29.3
7.7	12.6	14.1	17.7	20.1	16.0	18.5
23.1	21.9	23.1	16.6	19.7	16.4	21.0
9.9	9.7	11.6	14.1	17.5	17.9	18.9
	-38.4 7.7 23.1	-38.4 -31.8 7.7 12.6 23.1 21.9	-38.4 -31.8 -28.7 7.7 12.6 14.1 23.1 21.9 23.1	-38.4 -31.8 -28.7 -30.5 7.7 12.6 14.1 17.7 23.1 21.9 23.1 16.6	-38.4 -31.8 -28.7 -30.5 -32.5 7.7 12.6 14.1 17.7 20.1 23.1 21.9 23.1 16.6 19.7	-38.4 -31.8 -28.7 -30.5 -32.5 -28.1 7.7 12.6 14.1 17.7 20.1 16.0 23.1 21.9 23.1 16.6 19.7 16.4

NOTES: 254 responses. In past months the question wording was adjusted to reference the respective month of comparison. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average revenue decline is calculated using only responses from firms that reported reduced revenues. Average revenue increase is calculated using only responses from firms that reported increased revenues.

2. What change do you expect in your firm's revenue in 2021 compared with 2020 levels?

Increase	63.3
Decrease	17.6
No change	19.1
By what percentage?	
Average among respondents noting an increase	29.1
Average among respondents noting a decrease	18.4

NOTES: 256 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

What are your quarterly revenue expectations for 2021? **Second Quarter** First Quarter 8.5% 15.4% 10.8% 30.1% 27.4% 42.5% 37.1% ■ Strong revenue growth ■ Slight revenue growth **Third Quarter Fourth Quarter** ■ Flat revenue ■ Slight revenue decline ■ Strong revenue decline 30.9% 30.1% 17.4% 18.1% 39.0%

3. How does your firm's current employee head count compare with February (pre-COVID)? For example, if head count is down 20 percent from February, enter 80 percent. If head count is up 20 percent, enter 120 percent. Please exclude any changes due to typical seasonality.

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

NOTE: 254 responses.

Share of firms reporting reduced head count	43.2	50.7	52.8	51.3	51.9	46.9
Average head count decline (compared with Feb. 2020 levels)	-29.3	-26.7	-28.8	-33.1	-30.4	-25.3
Share of firms reporting increased head count	11.0	11.4	13.0	17.7	11.7	16.3
Average head count increase (compared with Feb. 2020 levels)	12.8	13.4	23.7	15.4	11.1	12.6
Share of firms reporting no change in head count	45.8	37.9	34.2	31.0	36.5	36.8

NOTES: 258 responses. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average head count decline is calculated using only responses from firms that reported reduced head count. Average head count increase is calculated using only responses from firms that reported increased head count.

4. What change do you expect in your firm's head count in 2021 compared with its current level?

Increase	49.8
Decrease	9.6
No change	40.6
By what percentage?	
Average among respondents noting an increase	26.0
Average among respondents noting a decrease	19.9

NOTE: 261 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

5. What annual percent change in wages and input prices did your firm experience in 2020, and what do you expect for 2021? Also, by how much did your firm change selling prices in 2020, and by how much do you expect to change selling prices in 2021?

Wages	1.3	4.4
Input prices (excluding wages)	2.6	3.2
Selling prices	0.8	3.2

NOTES: 227 responses. Shown are trimmed means with the lowest and highest 5 percent of responses omitted.

6. Are there structural changes your firm has made or plans to make as a result of the COVID-19 pandemic that you expect to be permanent?

Yes	57.3
No	42.7

NOTE: 262 responses.

6a. Please specify any changes, and whether it is an increase or decrease.

Dec.	'20
(perc	ent)

	,		
Telecommuting	65.1	98.8	1.3
Technology adoption	61.1	100.0	0.0
Business travel	45.6	2.9	97.1
Contactless product/service delivery	44.3	100.0	0.0
Office space	43.0	20.0	80.0
Other new product/service offerings	27.5	94.3	5.7
Other	8.1		

NOTES: 149 responses. This question was only posed to those indicating they've made or plan to make structural changes.

Special Questions Comments

These comments have been edited for publication.

Warehousing and Storage

We expect to see diminished revenue in 2021 compared to 2020, for both us and our customers, and will respond with minimal wage increases and by holding our customer tariff flat. We do not expect to cut costs spent for maintenance and capital, however—nor do we expect to reduce head count, though we will remain flat after four years of doubledigit head-count growth.

Publishing Industries (Except Internet)

Traction this month seems to have hit a muddy, uncertain spot. Longer-term, we are still quite positive.

Broadcasting (Except Internet)

• Our selling prices are down 20 percent compared to 2019, and we expect that we will not recover pricing back to 2019 levels until fourth quarter 2021. However, we expect to add more customers beginning in June 2021 and, thereby, increase total revenues in 2021 over 2020.

Data Processing, Hosting, and Related Services

• Uncertainty about the economy is top of mind (as it's currently negatively impacting purchasing decisions). Significant plans to grow the company are pending as we see if the economy continues to grow. We are watching to see if regulations and government spending will increase (both of which slow our customers' purchasing decisions and our hiring decisions). We are keeping an eye on inflation as well.

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

• The IRS rules for PPP [Paycheck Protection Program] loan forgiveness will cause a major tax blow.

Real Estate

Our company gave COVID bonuses this year.

Professional, Scientific and Technical Services

- Remote working from home due to COVID has proven to be very productive for our workforce. Now we, as the employer, will trust employees more to work from home, and a remote work option for the majority of days will always be available. Employees will choose which mix they like.
- COVID-19 has taught us that working remotely is a viable option for some of our processes. This is going to allow us to reduce our office footprint and increase our efficiencies. With the adoption of technology, our staff has seen a tremendous amount of time savings that they weren't willing to embrace pre-COVID.
- We expect most of our staff to return to offices, but we will allow more telecommuting than before, particularly in cities with heavy traffic/long commutes.
- PPP [the Paycheck Protection Program] did for us what it was supposed to do and allowed us to hang on to our people and complete the projects we had in hand through 2020. However, the continued impacts of COVID on the energy and commercial real estate industries have left us with very little backlog and reduced opportunities for new projects into 2021.
- As an independent consultant, I will continue to be a company of "one" that when help is needed, it will be of the contract (IRS 1099) variety. There will definitely be extremely limited face-to-face contact, and most meetings will be virtual.

Administrative and Support Services

- PPE [personal protection equipment] prices will continue to rise in 2021, I believe, for the first two quarters. Once the full effect of the vaccines is felt, we should see some sanity in the supply chain and people's perceptions of their personnel safety.
- We provide travel services to federal agencies and the Department of Defense. We have three contracts, and they are based on fixed pricing, and we have been providing our services for the last four months when they started to travel. Even during the pandemic, the agencies have been very active with requests for quotation, and we have been replying to all those that we qualified for. We have been productive in preparing the proposals and managing our contracts. These activities have kept us positive and energized.
- We are a high-personal-touch service and have had to adjust how we engage clients and deliver services as well as generate new business.

Ambulatory Health Care Services

- We currently have five of 130 employees out with COVID, so we are seeing a surge, but cases appear mild.
- COVID-19 has taught lessons that could be a permanent way of doing business. Leveraging technology and delivering services to changing customer expectations is the way to move forward.

Museums, Historical Sites, and Similar Institutions

• We have reduced hours or days open to the public.

Accommodation

We have implemented wage increases a result of California and Florida minimum-wage increases. Input cost increases
are a result of COVID-related changes at hotels, including increased cleaning supplies, personal protective equipment
and increased guest supplies.

Personal and Laundry Services

• I anticipate revenue to increase in 2021, but I am also an optimist. There is really too much uncertainty. So much of the boost in the economy is dependent on vaccines being effective. If there are any major issues with the vaccine process or side effects, I could see another 20 percent decline in business in 2021.

Utilities

More employees are working from home.

Texas Retail Outlook Survey

Data were collected December 14–22, and 51 Texas retailers responded to the survey.

1. How do your firm's current revenues compare with a typical December? For example, if revenues are down 20 percent from normal, enter 80 percent. If revenues are up 20 percent, enter 120 percent.

90.7	78.4	76.0	67.9	58.5	66.7	64.6
-35.0	-34.0	-21.1	-25.6	-28.5	-23.1	-18.1
1.9	15.7	18.0	18.9	22.6	20.8	14.6
20.0	15.0	20.7	21.8	22.0	30.3	13.7
7.4	5.9	6.0	13.2	18.9	12.5	20.8
	-35.0 1.9 20.0	-35.0 -34.0 1.9 15.7 20.0 15.0	-35.0 -34.0 -21.1 1.9 15.7 18.0 20.0 15.0 20.7	-35.0 -34.0 -21.1 -25.6 1.9 15.7 18.0 18.9 20.0 15.0 20.7 21.8	-35.0 -34.0 -21.1 -25.6 -28.5 1.9 15.7 18.0 18.9 22.6 20.0 15.0 20.7 21.8 22.0	-35.0 -34.0 -21.1 -25.6 -28.5 -23.1 1.9 15.7 18.0 18.9 22.6 20.8 20.0 15.0 20.7 21.8 22.0 30.3

NOTES: 48 responses. In past months the question wording was adjusted to reference the respective month of comparison. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average revenue decline is calculated using only responses from firms that reported reduced revenues. Average revenue increase is calculated using only responses from firms that reported increased revenues.

2. What change do you expect in your firm's revenue in 2021 compared with 2020 levels?

Increase	57.1
Decrease	22.4
No change	20.4
By what percentage?	
Average among respondents noting an increase	27.3
Average among respondents noting a decrease	10.8

NOTES: 49 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

What are your quarterly revenue expectations for 2021? **Second Quarter** First Quarter 8.5% 12.8% 12.8% 21.3% 29.8% 40.4% Strong revenue growth 40.4% ■ Slight revenue growth **Third Quarter Fourth Quarter** ■ Flat revenue ■ Slight revenue decline ■ Strong revenue decline 12.8% 27.7% 14 9% 34.0% 17.0% 12.8%

29.8%

NOTE: 47 responses.
SOURCES: Federal Reserve Bank of Dallas, Texas Retail Outlook Survey.

36.2%

3. How does your firm's current employee head count compare with February (pre-COVID)? For example, if head count is down 20 percent from February, enter 80 percent. If head count is up 20 percent, enter 120 percent. Please exclude any changes due to typical seasonality.

41.2	52.0	45.3	53.7	46.9	39.6
-26.1	-17.4	-27.0	-31.2	-25.6	-16.9
7.8	4.0	13.2	7.4	12.2	16.7
11.3	42.5	20.0	18.8	8.7	6.6
51.0	44.0	41.5	38.9	40.8	43.8
	-26.1 7.8 11.3	-26.1 -17.4 7.8 4.0 11.3 42.5	-26.1 -17.4 -27.0 7.8 4.0 13.2 11.3 42.5 20.0	-26.1 -17.4 -27.0 -31.2 7.8 4.0 13.2 7.4 11.3 42.5 20.0 18.8	-26.1 -17.4 -27.0 -31.2 -25.6 7.8 4.0 13.2 7.4 12.2 11.3 42.5 20.0 18.8 8.7

NOTES: 48 responses. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted. Average head count decline is calculated using only responses from firms that reported reduced head count. Average head count increase is calculated using only responses from firms that reported increased head count.

4. What change do you expect in your firm's head count in 2021 compared with its current level?

Increase	39.6
Decrease	8.3
No change	52.1
By what percentage?	
Average among respondents noting an increase	25.8
Average among respondents noting a decrease	32.5

NOTES: 48 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

5. What annual percent change in wages and input prices did your firm experience in 2020, and what do you expect for 2021? Also, by how much did your firm change selling prices in 2020, and by how much do you expect to change selling prices in 2021?

Wages	1.1	3.0
Input prices (excluding wages)	3.3	2.6
Selling prices	2.4	2.9

NOTES: 48 responses. Averages are calculated as trimmed means with the lowest and highest 5 percent of responses omitted.

6. Are there structural changes your firm has made or plans to make as a result of the COVID-19 pandemic that you expect to be permanent?

Yes	51.0
No	49.0

NOTE: 49 responses.

6a. Please specify any changes, and whether it is an increase or decrease.

	Dec. '20 (percent)		
Technology adoption	79.2	100.0	0.0
Contactless product/service delivery	66.7	100.0	0.0
Telecommuting	37.5	100.0	0.0
Other new product/service offerings	37.5	100.0	0.0
Business travel	33.3	0.0	100.0
Office space	29.2	50.0	50.0
Other	0.0		

NOTES: 24 responses. This question was only posed to those indicating they've made or plan to make structural changes.

Special Questions Comments

These comments have been edited for publication.

Merchant Wholesalers, Durable Goods

- Pricing is commodity based.
- We're closing the business.

Building Material and Garden Equipment and Supplies Dealers

• We are using Teams for more of our meetings.

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