



Texas Manufacturing Outlook Survey

August 31, 2020

Recovery Continues in Texas Manufacturing

What's New This Month

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

Texas factory activity expanded in August for the third month in a row following a record contraction in the spring after the onset of the COVID-19 pandemic, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, came in at 13.1, down slightly from July but still indicative of moderate growth.

Other measures of manufacturing activity also point to expansion this month. The new orders index advanced three points to 9.8, and the growth rate of orders index surged more than 10 points to 11.8. The shipments index rose from 17.3 to 23.3, while the capacity utilization index inched down but remained positive at 10.9.

Perceptions of broader business conditions improved in August. The general business activity index turned positive after five months in negative territory, coming in at 8.0. The company outlook index registered a third consecutive positive reading, shooting up 11 points to 16.6, its highest reading in nearly two years. The index measuring uncertainty regarding companies' outlooks remained positive but retreated to 8.2.

Labor market measures indicated solid growth in employment and workweek length. The employment index pushed up from 3.1 to 10.6, suggesting more robust hiring. Twenty-three percent of firms noted net hiring, while 13 percent noted net layoffs. The hours worked index pushed up five points to 10.5.

Input and labor costs continued to increase, while selling prices remained fairly flat in August. The raw materials prices index rose 10 points to 19.4, and the wages and benefits index rose six points to 15.2. The finished goods prices index remained near zero, suggesting no change in selling prices from July.

Expectations regarding future activity were more positive in August. The future production index pushed up to an above-average reading of 43.0, and the future general business activity index jumped 10 points to 20.4. Other measures of future manufacturing activity advanced further into positive territory.

Next release: Monday, September 28

Data were collected Aug. 18–26, and 111 Texas manufacturers responded to the survey. The Dallas Fed conducts the Texas Manufacturing Outlook Survey monthly to obtain a timely assessment of the state's factory activity. Firms are asked whether output, employment, orders, prices and other indicators increased, decreased or remained unchanged over the previous month.

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

Results Summary

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

Indicator	Aug Index	Jul Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	13.1	16.1	−3.0	9.8	3(+)	35.4	42.2	22.3
Capacity Utilization	10.9	14.0	−3.1	7.5	3(+)	30.9	49.1	20.0
New Orders	9.8	6.9	+2.9	5.6	3(+)	33.2	43.4	23.4
Growth Rate of Orders	11.8	1.3	+10.5	−0.6	2(+)	28.7	54.4	16.9
Unfilled Orders	7.8	7.9	−0.1	−3.1	2(+)	27.1	53.6	19.3
Shipments	23.3	17.3	+6.0	8.5	3(+)	42.0	39.4	18.7
Delivery Time	7.1	3.2	+3.9	−0.6	2(+)	19.2	68.7	12.1
Finished Goods Inventories	−17.3	−9.9	−7.4	−3.3	17(−)	11.8	59.1	29.1
Prices Paid for Raw Materials	19.4	9.7	+9.7	23.9	4(+)	28.1	63.2	8.7
Prices Received for Finished Goods	0.9	−1.5	+2.4	5.9	1(+)	13.5	73.9	12.6
Wages and Benefits	15.2	9.0	+6.2	18.4	3(+)	21.2	72.8	6.0
Employment	10.6	3.1	+7.5	6.1	2(+)	23.4	63.8	12.8
Hours Worked	10.5	5.8	+4.7	2.3	2(+)	25.1	60.3	14.6
Capital Expenditures	0.0	−3.0	+3.0	6.1	1()	14.7	70.6	14.7

General Business Conditions

Current (versus previous month)

Indicator	Aug Index	Jul Index	Change	Series Average	Trend**	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	16.6	5.9	+10.7	6.2	3(+)	33.8	49.0	17.2
General Business Activity	8.0	−3.0	+11.0	1.8	1(+)	29.5	48.9	21.5

Indicator	Aug Index	Jul Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	8.2	20.9	−12.7	13.4	27(+)	25.5	57.3	17.3

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

Indicator	Aug Index	Jul Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	43.0	37.2	+5.8	38.1	4(+)	57.8	27.4	14.8
Capacity Utilization	41.0	30.7	+10.3	35.0	4(+)	53.8	33.4	12.8
New Orders	42.5	38.6	+3.9	35.9	4(+)	54.4	33.7	11.9
Growth Rate of Orders	39.2	30.4	+8.8	26.5	4(+)	46.0	47.3	6.8
Unfilled Orders	7.8	2.7	+5.1	3.8	3(+)	21.2	65.4	13.4
Shipments	36.0	33.2	+2.8	36.7	4(+)	50.0	36.0	14.0
Delivery Time	7.1	4.8	+2.3	-1.7	3(+)	15.7	75.7	8.6
Finished Goods Inventories	1.0	1.0	0.0	-0.5	3(+)	18.3	64.4	17.3
Prices Paid for Raw Materials	22.1	22.3	-0.2	33.1	5(+)	25.0	72.1	2.9
Prices Received for Finished Goods	7.8	10.9	-3.1	18.9	4(+)	17.5	72.8	9.7
Wages and Benefits	28.1	22.5	+5.6	37.5	4(+)	31.0	66.1	2.9
Employment	27.6	11.1	+16.5	21.7	3(+)	34.9	57.8	7.3
Hours Worked	14.9	9.9	+5.0	9.2	4(+)	27.4	60.1	12.5
Capital Expenditures	13.0	11.6	+1.4	19.5	3(+)	26.4	60.2	13.4

General Business Conditions
Future (six months ahead)

Indicator	Aug Index	Jul Index	Change	Series Average	Trend**	% Reporting Increase	% Reporting No Change	% Reporting Worsened
Company Outlook	27.8	18.7	+9.1	20.2	3(+)	41.5	44.8	13.7
General Business Activity	20.4	10.6	+9.8	13.8	3(+)	37.4	45.5	17.0

*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.

**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.

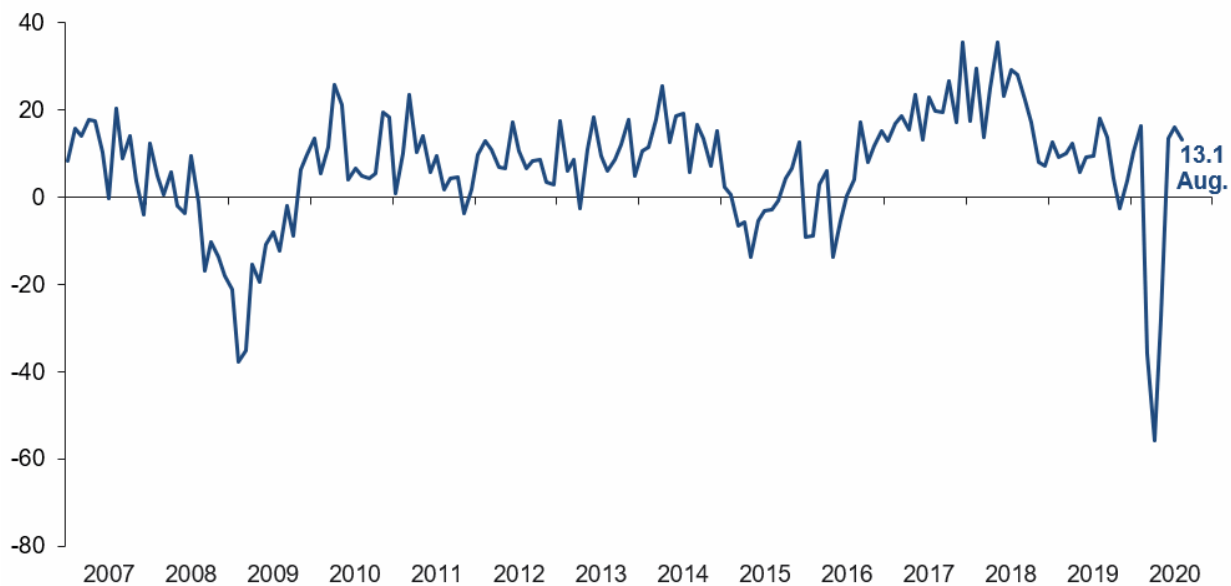
†Added to survey in January 2018.

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

Production Index

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

Comments from Survey Respondents

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

Chemical Manufacturing

- Although orders and, thus, capacity utilization are increasing month over month, the pace is somewhat slower than hoped due to the continued COVID-19 impacts to the general economy and, thus, the basic materials sector.

Plastics and Rubber Product Manufacturing

- There hasn't been much change in the overall outlook. COVID-19 restrictions continue to be a hindrance to a rebound in the oil market. U.S. oil rig operations are down around 70 percent from last year. However, current projections show that there should be a rebound in late third quarter or early fourth quarter in oil demand. This should allow drillers to rehire any laid-off workers and resume normal operations. That being said, this is all contingent on COVID-19.

Nonmetallic Mineral Product Manufacturing

- The six-months-from-now rosy projection we submitted assumes a Trump reelection. Flip this projection completely from very positive to very negative if Biden is elected. We are not expanding our capacity or making any capital expenditures now and will not until the election. If Biden is elected, we anticipate that interest rates will rise fast, and the new-home construction market will drop fast. If Trump is reelected and this increased market demand continues, then we must increase our capacity, factory space and employment levels.

Primary Metal Manufacturing

- Most of our customer base is busy and openly stating they hope the current administration stays in place. All seem to be concerned if there is a change.

Fabricated Metal Manufacturing

- We are having difficulty receiving favorable terms on our bank refinancing since we are classified as being associated with the energy and petrochemical sectors. Although we expect to be able to renew, the bank has made it clear there will be no “new money” to finance capital expenditures or contract financing.
- We have benefited from the shift in consumer buying patterns toward home and property improvement. It is not possible to determine if this is a long-term change or a short-term change.
- New construction project opportunities are decreasing steadily, demand overall is decreasing and competitive end-product pricing has our margins declining.

Machinery Manufacturing

- Back in May, I forecasted we would be entering a full-blown depression by fall if government policies did not change and we didn't get this economy open. Well, thanks to the governors running their states into the ground, Texas included, that is exactly what is happening. Our July sales collapsed 50 percent from an already bare-minimum base. One simply cannot take away people's ability to make an honest living and expect no repercussions. The horror of facing a Biden/Harris economic “policy” would be the nail in the coffin.
- Business is back for both of our primary customer segments, electronics and medical, and we are absolutely booming.

Computer and Electronic Product Manufacturing

- Auto [business] has rebounded as expected. We are taking capacity utilization up as inventories normalize from elevated levels. Channel inventory remains low. We continue to be cautious about demand, as we believe it could still weaken quickly.
- The city and state government will begin to get new budgets in October. We expect to see shortfalls and cuts in budgets.
- Our short-term outlook has worsened primarily because of the oil and gas industry. Those customers are delaying more orders due to high inventory and reduced demand. Other industries seem to continue to be ordering, and that demand seems mostly stable in the other industries we serve. The supply chain has become more difficult to manage with many manufacturing and shipping delays. In short, there is work available, but it is harder to manage with personnel and supply-chain delays, leading to a significant loss of efficiency.
- The volume of new orders is slowly increasing since the low point in April. We exceeded early COVID-19-adjusted forecasts but revised downward late-year forecasts. We have exceeded forecasts each month since April and expect to meet or slightly beat adjusted forecasts moving forward.
- We are unsure of economic activity in 2021 due to the virus and if there are lagging consequences for our business.

Transportation Equipment Manufacturing

- The only effect of COVID-19 now is that a small percentage of workers are unwilling to return to work, so labor is just a bit more scarce, contributing to more overtime.
- We build ambulances, so near-term orders have increased as counties have received additional funding related to COVID-19 that must be used this year.
- The supply chain for some materials has slowed and, in some cases, stopped. COVID-19 has slowed production, and a significant number of workers are reluctant to reenter the workforce due to the virus and/or the supplemental federal unemployment payment.

Food Manufacturing

- New relationships with significant financial capability to buy our product are in the negotiation stage or are, in fact, purchasing.

Textile Product Mills

- The home quarantine is apparently causing people to reevaluate their bedding and pillows, therefore benefiting our direct-to-consumer orders. This is offsetting the decrease in wholesale store orders. We are cautiously optimistic about the future.

Paper Manufacturing

- In August versus July, we are still running at about 80 percent.
- Though we haven't seen them yet, we do expect unemployment to have widespread economic consequences at some point.
- I understand there is a need to help some people with additional unemployment benefits, but we have general-labor needs that are not being met because it is too easy for some people to stay home and draw enough money that it makes working an unattractive option.

Printing and Related Support Activities

- We have been so very fortunate to be quite busy during these pandemic times, but it's truly because of one customer who has become a large customer on overflow work, and then some infusion of general work from our everyday customers. We also had a super nice, unexpected reorder on a job we have been doing for eight years now that we keep thinking will finally die on the vine, and it was for 30 percent of a normal month's billing. Without these nice jobs landing in our laps, it would be dismally slow for us, as it is for many of our customers. We are grateful for the work, but we're not counting on it continuing like this much longer.

Miscellaneous Manufacturing

- We've increased production hours in August compared to July but are not back to 40 hours per week yet. Business in all markets served is increasing.

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

August 31, 2020

For this month's survey, Texas business executives were asked supplemental questions on the impacts of COVID-19. 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 August 18–26, and 402 Texas business executives responded to the surveys.

How do your firm's current revenues compare with a typical August?

	May '20 (percent)	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced revenues	81.2	75.6	74.2	68.3
Average revenue decline (Y/Y)	-38.3	-32.4	-29.1	-29.9
Share of firms reporting increased revenues	10.2	13.7	15.5	18.3
Average revenue increase (Y/Y)	20.1	20.2	23.3	17.6
Share of firms reporting no change in revenues	8.6	10.6	10.3	13.4

NOTES: 388 responses. This same question was posed in May, June and July, with the wording 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.

How does your firm's current employee head count compare with February (pre-COVID-19)?

	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced head count	43.0	51.2	51.4
Average head count decline (compared with Feb. 2020 levels)	-26.5	-25.4	-27.2
Share of firms reporting increased head count	12.3	14.0	15.4
Average head count increase (compared with Feb. 2020 levels)	10.8	15.6	21.0
Share of firms reporting no change in head count	44.6	34.8	33.2

NOTES: 389 responses. This same question was posed in June and July. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted.

What share of your employees were working remotely in February (pre-COVID-19), and what share are currently working remotely? What share do you expect to work remotely after the pandemic ends?

	Average (percent)
Pre-COVID-19	8.3
Current	35.0
Post-COVID-19	20.6

NOTE: 390 responses.

How has an increased share of remote employees affected your firm's productivity overall?

	Aug. '20 (percent)
Increased productivity	9.2
No change in productivity	55.3
Decreased productivity	29.8
Don't know	5.7

NOTES: 262 responses. Only posed to those who reported a higher current share of remote employees than pre-COVID-19 in the previous question.

Firms reporting an effect on productivity were asked why.

The responses can be found on the individual survey Special Questions results pages, accessible by the tabs above.

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 August 18–26, and 109 Texas manufacturers responded to the survey.

How do your firm's current revenues compare with a typical August?

	May '20 (percent)	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced revenues	78.0	70.6	73.8	68.6
Average revenue decline (Y/Y)	-38.6	-34.4	-30.5	-28.7
Share of firms reporting increased revenues	16.5	16.5	19.4	20.0
Average revenue increase (Y/Y)	19.1	20.6	27.3	24.6
Share of firms reporting no change in revenues	5.5	12.8	6.8	11.4

NOTES: 105 responses. This same question was posed in May, June and July, with the wording 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.

How does your firm's current employee head count compare with February (pre-COVID-19)?

	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced head count	42.6	52.5	47.6
Average head count decline (compared with Feb. 2020 levels)	-20.7	-23.0	-23.9
Share of firms reporting increased head count	15.7	21.2	21.9
Average head count increase (compared with Feb. 2020 levels)	9.2	22.5	17.1
Share of firms reporting no change in head count	41.7	26.3	30.5

NOTES: 105 responses. This same question was posed in June and July. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted.

What share of your employees were working remotely in February (pre-COVID-19), and what share are currently working remotely? What share do you expect to work remotely after the pandemic ends?

	Average (percent)
Pre-COVID-19	4.9
Current	20.4
Post-COVID-19	10.5

NOTE: 106 responses.

How has an increased share of remote employees affected your firm's productivity overall?

	Aug. '20 (percent)
Increased productivity	4.2
No change in productivity	60.6
Decreased productivity	26.8
Don't know	8.5

NOTES: 71 responses. Only posed to those who reported a higher current share of remote employees than pre-COVID-19 in the previous question.

Firms reporting an effect on productivity were asked why.

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

Increased productivity

- Meetings are easier to manage.
- No interruptions working remotely.
- There seem to be fewer distractions when working at home for many people.

Decreased productivity

- Takes longer to do things.
- There is a basic need to collaborate in-person. The tools available for video/phone collaboration are good, but overall, effectiveness is lower. Contrarily, remote workers are tending to work longer hours due to the productivity impacts of remote working—more time to reach the same output of the past.
- I am seeing limited productivity and lack of collaboration from remote employees.
- Less collaboration, and some employees decrease their effort and time on job-related tasks.
- Lag in communication due to availability. We used to have many quick hallway/office decision meetings that now get delayed due to email/message response time.
- No structure.
- Cannot have interpersonal face-to-face contact that leads to “discovery.” Remote is efficient but limits the interaction. It is just not as good.
- We do not have systems in place to adequately support remote work, nor are we adequately using some of the connectivity tools that are available, such as Zoom. We also do not have the metrics to measure productivity of remote work, so my thought that productivity has decreased is my sense of the results we are seeing.
- Working from home is inefficient: lack of coordination, lack of group problem-solving and sharing. All my associates want to come back and NOW. They are tired and miserable. The glow of working from home has vanished.
- Lack of coordination, and availability of supplies and records.
- Can't stay focused, poor project reporting, longer delivery time.
- People are less efficient from home and do not have complete access to everything required to do their jobs.
- The face-to-face interaction is better for productivity and relationships.
- Need more interaction with manufacturing. This can be solved with 40/60 split of remote versus on-site. If they come in twice a week, productivity is similar.

- Management, supervision and accountability systems are not equipped to keep employees engaged, provide direction and keep productivity high when done remotely. We noticed a drop-off of productivity for about 80 percent of people working from home after four to six weeks. Initially, a large percentage of workers appeared to increase productivity, but productivity leveled off or started decreasing within a few weeks. Without regular oversight from home, productivity was significantly reduced.

Special Questions Comments

These comments have been edited for publication.

Chemical Manufacturing

- It is a mixed answer on productivity. In some cases, more efficient methods of communication have been initiated. Sometimes the IT capability of home offices are less than the office.
- No change in productivity has been noticed to date, and I'm not really sure we have an accurate way to measure it fully. I am concerned that if this persists, there will be some decline, especially in building company culture, teamwork and on-boarding/training of new or existing employees.

Fabricated Metal Manufacturing

- The remote work shift allowed a decrease in office lease expenses and less drive time, which expands employees' time availability. The digital shift required revisions to our website as to how we message, go to market and sell.
- Our shop and office have not experienced any COVID-19 infections. We have had two employees with a family member exposed. Those two employees were quarantined within their homes and tested several times before returning to our site.

Machinery Manufacturing

- Our sales are down 50 percent and revenue will follow. We actually produce parts, so "remote" working is a joke. It is hard to imagine anyone actually making something in America anymore, but there's a handful of us left, no thanks to both parties doing everything under the sun to run us out of business. They will eventually succeed, and part of me looks forward to a city appraisal district trying to sell our building and land for what they taxed us for.
- During the height of COVID-19 hysteria, we had approximately 10 percent of employees working remotely.

Computer and Electronic Product Manufacturing

- Productivity remains strong, but I don't believe it can be sustained in all functions for all time. This situation has definitely proved we can work from home for sustained periods of time with minimal or no impact to operations.
- Employee count is misleading. The reduced revenue forces us to choose to downsize further and reduce capability or maintain capability at the cost of profitability. To this point, we have chosen to maintain capability, so employment numbers are greater than the level of revenue would normally support. In an environment where it is inherently less efficient because of absenteeism related to COVID, continued trade issues with China, increased shipping times across the supply chain, and a hyper-political environment, it is difficult to know what to expect going forward and how to properly adjust capacity and capability. It is both busy and slow, a world of contradictions. One thing for sure is that we are working harder for less.
- We have successfully transitioned into primarily work from home. New hires create a bit of a challenge from a training standpoint as we do not have formal training programs in place.
- Because we are a manufacturer, we prefer most employees to be in the plant for improved delivery times and efficiencies.

Food Manufacturing

- We were fortunate. We are an essential industry and produce humanitarian food relief. We have not shut down and, in fact, moved to 12-hour workdays. We invoked every standard of care put forth by CDC [Centers for Disease Control], WHO [World Health Organization], etc., and relied heavily on a "work smart/relax smart" policy for internal control and thinking about what you do over the weekend. We have relied heavily on communication and education, social distancing, hand washing, abundant hand sanitizer and masking. We also sealed the facility to any nonemployees. We have had only one positive COVID-19 test since March 1 and that person was quarantined at home.

Textile Product Mills

- We are a manufacturer, not just an importer, so we have to come to work to "make" the merchandise we sell.

Paper Manufacturing

- It is hard to accurately assess productivity at this point. We expect a slight increase in productivity due to remote (office-at-home) work and reduced travel in general.
- Our revenues are at a high level right now due to seasonal influences, but I remain very concerned what this fall and winter will bring. Our mainstream-product-line revenues, for industrial-based packaging, are below normal levels.

Printing and Related Support Activities

- We would like to add a couple of employees but are concerned to bring in newcomers and possibly infect others within the plant. So, for now, we are staying with what we have and taking care of them as best we can.

Furniture and Related Product Manufacturers

- We are a manufacturing operation, so there are very few positions that can work remotely.

Miscellaneous Manufacturing

- We have not laid employees off but have reduced hours. Our goal was to not lay anyone off, and we have been able to achieve that thus far.

Texas Service Sector Outlook Survey

Data were collected August 18–26, and 293 Texas business executives responded to the survey.

How do your firm's current revenues compare with a typical August?

	May '20 (percent)	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced revenues	82.5	77.6	74.4	68.2
Average revenue decline (Y/Y)	-38.4	-31.8	-28.7	-30.5
Share of firms reporting increased revenues	7.7	12.6	14.1	17.7
Average revenue increase (Y/Y)	23.1	21.9	23.1	16.6
Share of firms reporting no change in revenues	9.9	9.7	11.6	14.1

NOTES: 283 responses. This same question was posed in May, June and July, with the wording 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.

How does your firm's current employee head count compare with February (pre-COVID-19)?

	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced head count	43.2	50.7	52.8
Average head count decline (compared with Feb. 2020 levels)	-29.3	-26.7	-28.8
Share of firms reporting increased head count	11.0	11.4	13.0
Average head count increase (compared with Feb. 2020 levels)	12.8	13.4	23.7
Share of firms reporting no change in head count	45.8	37.9	34.2

NOTES: 284 responses. This same question was posed in June and July. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted.

What share of your employees were working remotely in February (pre-COVID-19), and what share are currently working remotely? What share do you expect to work remotely after the pandemic ends?

	Average (percent)
Pre-COVID-19	9.5
Current	40.4
Post-COVID-19	24.4

NOTE: 284 responses.

How has an increased share of remote employees affected your firm's productivity overall?

	Aug. '20 (percent)
Increased productivity	11.0
No change in productivity	53.4
Decreased productivity	30.9
Don't know	4.7

NOTES: 191 responses. Only posed to those who reported a higher current share of remote employees than pre-COVID-19 in the previous question.

Firms reporting an effect on productivity were asked why.

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

Increased productivity

- No commute time and the ability to work longer hours.
- Lack of commuting time.
- No commute time. Less pressure from management. Less distraction, not having to do other office-related things which are normal for any work environment. The only tasks staffs now do are directly office or work related. Or they rest at home. Quality time by all.
- Availability; less time on lunches/coffee breaks, commuting,
- The full embrace of all modern and even leading-edge communication technologies, along with the associated capital spending, which took several months to actually deploy. In short, the realization that we would be in this mode for at least one year allowed us to dig in and plan for it.
- Successful business continuity plan. The firm was using video conferencing with clients and internally for over five years. We are a service industry, and the insurance and investment companies had adapted many applications to accept an electronic signature versus paper prior to the pandemic.
- Less travel time, more focused, less chatting, etc.
- Less distraction.
- They are able to handle more calls and are willing to work overtime.
- Adapted to methods/better use of existing technology.
- Better work/life balance. Happier employees.
- More work being done, Less distraction.
- Less travel, less commute time, more time.

Decreased productivity

- Less interaction among staff. Service business requires close communication, and that is more difficult working remotely.
- It's not as efficient having employees work from home. Given their lack of supervision, they prioritize their personal tasks in with their company tasks. Although we are getting by, the people in the office are handling more of the emergency tasks along with assisting the stay-home people with their routine tasks. In short, it's a necessity, but it will not work long term.
- Level of day-to-day interaction has decreased.
- The longer remote working goes, the more challenging communication becomes, particularly for tasks where engagement and innovative solutions discussions take place.

- Collaboration.
- Harder to collaborate. Less creative back-and-forth.
- Many of our employees working from home have children at home, too. These individuals are being pulled by competing needs: work requirements and children's needs. This is causing people to pull away from work to take care of a child, leading to less work being performed. (This isn't a criticism of the people doing the work. It's a fact that has to be accepted and correspondingly addressed/accounted for in today's environment.)
- Collaboration is key to productivity. It just doesn't happen as often when the team is remote, and it's more planned instead of organic.
- We are in rural Texas where access to high-speed internet is sparse. Some employees do not have internet available at their homes.
- Lack of immediate interaction with clients and superiors.
- We use software to track productivity. Initially productivity was better than pre-COVID-19 as there seemed to be a general "we are going to make this work" type of camaraderie. The productivity rates continued through the following months but have recently begun to drop. We think this may be due to the increase in cases and the possibility of school staying online. Morale seems to be down because people are tired and worn down by the state of the pandemic.
- It is a small decrease—but primarily because of reduced ability to collaborate and focus on growth.
- Simply harder to have as many one-on-one conversations that create value or save time. Productivity decrease is small, maybe 10–15 percent.
- Slows the flow of information across departments and teams and reduces overall natural collaboration. Longer term, it will erode culture through a loss of organic training and apprenticeship of younger workers.
- It's more time-consuming for management to supervise and coordinate with remote employees.
- Collaboration speeds up productivity. Work is now separated, and redundant work is not discovered as soon.
- Less collaboration and oversight.
- There is a need to be in the office around other employees. It is like family. They share experiences and support each other.
- Lack of in-office management.
- Not as efficient and not enough face-to-face mentoring and review.
- The decrease is attributable to less work being available. Employees working remotely have been able to meet client demand, but demand is down. Because courts have suspended certain functions and curtailed other activities, the frequency of the need for legal services has been impacted.
- Our business is based on collaboration and sharing ideas. This is much harder to do remotely via Zoom or over computers. Our efficiency is negatively affected, and the creativity is hard to keep consistent when ideas are not shared in person.
- Lack of spontaneous collaboration and real-time solutions.
- Although working from home has worked out, it is not as efficient as working in the office. The lag time has increased the amount of time it takes to get a transaction closed.
- Working remotely is slowing the normal flow of communications between departments. What normally takes one day can take two or three, delaying various parts of the project.
- Communication and spontaneous collaboration are diminished or less effective. The design process is also slowed down, as the communication is delayed and suffers from contextual awareness being hampered by removing or reducing in-person nonverbal communication cues.
- Connectivity and scheduling are causing some lag in coordination efforts, prolonging project completion times.
- The ability to communicate instantaneously and effectively has hampered openness and true engagement.
- They want to come back to work. Too many interruptions at home and little interaction with the workplace.
- Personal time management while working from home has led to measured weaker performance/productivity. Turn-around times have slowed.
- Only a slight decrease in productivity, due mostly to remote management requiring extra time and communication by email and text.

- Less control over workday.
- We are experiencing a 10-plus percent decrease in efficiency based on key metrics through mid-August 2020, primarily (in our case) the result of increased labor cost and unit input on work being produced that cannot be billed.
- Inefficiencies and distractions from being at home with kids in virtual classes, family members sharing workspace.
- Delay in communication.
- We have decreased collaboration.
- Lack of connectivity on day-to-day issues. People who are not visible do not get asked to do things.
- Focus on tasks for some is not as productive.
- Loss of collaboration. In the service industry, we need to be physically in front of the customer.
- There are some tasks that need to be handled in the office and are normally handled by temporary/part-time workers. Due to the pandemic, they are not coming into the office.
- It seems the distractions of having to care for preschool-aged children and/or school-aged children learning remotely, not to mention mixed households with elderly parents/grandparents, seem to be contributing to a loss in productivity. The other issue is, having employee and spouse both working remotely from home seems to also be causing some loss in productivity.

Special Questions Comments

These comments have been edited for publication.

Truck Transportation

- We're a truck repair shop, so no one can work remotely.

Pipeline Transportation

- Due to remote working, efficiency and collaboration have suffered somewhat, but productivity remains high. Employees are working longer days. They start earlier and finish later.
- We have field personnel that are nearly all still working to move energy from producing basins to market centers.

Support Activities for Transportation

- Our employees have had the ability to work remotely prior to COVID-19; however, there was never a reason to "schedule" employees to work from home.

Warehousing and Storage

- [We are] working well remotely, which was something we had never done before. We have been pleasantly surprised. We have a new administration office building that was slated to open in January, but we are currently redesigning to add a fourth floor to account for professional distancing recommendations. We may still have 25 percent of employees in the future who work remotely or in some sort of hotel arrangement.

Publishing Industries (Except Internet)

- Work productivity may be down marginally, but remote work is very manageable. The downside is not being able to get relationships developed nearly as fast or as well due to no or very limited real human interface/bonding. The current constraints are OK to sustain current customers remotely, but with the need to initiate and grow new accounts to qualify and ramp up business opportunities, it is a significant challenge.

Credit Intermediation and Related Activities

- During COVID-19 beginning in late March, we had 40 percent of employees working remotely, alternating every seven days with 10 percent of each shift not set up to work remotely but all employees being paid a regular salary. We are currently working full staff with open lobbies. Our county still has less than 20 individuals infected with the virus at any one time.
- Our lending team had always had a number of employees working remotely, so there was no real change there. A few additional employees are now working remotely, but we do not see a change in productivity. Our garage employees are almost all working in-shop.

Insurance Carriers and Related Activities

- We have been a remote work company since inception, with some gathering for a weekly team meeting and quarterly strategy retreats. COVID-19 has stopped the gathering, but it hasn't impacted our work.
- We are retail insurance brokers, so we need to be where our clients want us to be, but we are finding that we can do more electronically instead of face to face, as some clients (like banks) are discouraging in-person meetings. So, we may see some remote interactions become permanent.

Real Estate

- We had a lot of people working remotely for a short period, but most employees are working the majority of the time in the office; any who are working remotely are only doing it sporadically.
- We have chosen to close our commercial brokerage business due to the age of the principal and the 80+ percent drop in business, which shows no sign of changing.

Professional, Scientific and Technical Services

- Reduction in travel time could be considered a productivity increase for my consulting business even though local travel has not been charged against any job.
- Going forward after COVID-19 is more under control, every company should create its version of remote and office work balance. Since productivity can be high even with remote work, employees should be given maximum flexibility, and a hybrid model works the best for many tech companies like ours (where some work from home and some work from office).
- Our business is up substantially, with the same number of employees.
- The Federal Reserve needs to find a way to wield its considerable balance sheet to dramatically speed up the roll-out of high-speed fiber optic networks and other advanced technologies.
- I sent a memo to staff in February (pre-COVID-19) cautioning against working from home when not explicitly authorized. The memo extolled the need for daily attendance due to collaboration being fundamental to our business. Thirty days later, we were working from home. I have been surprised and elated that our productivity has stayed more or less the same although many are working odd hours that are not always in sync with the remainder of their teams. But, the work is getting done. This genie will not be going back into the bottle quietly when the world gets past COVID-19, and that is a good thing in many respects.
- We were an all-remote company before COVID-19 and will continue to be an all-remote company. What changed for us in working with our clients was the face-to-face meetings at their locations. The shift to virtual was significant as we work intently to get to know the organizations in which we work, and being on-site with them and immersed in their programs helps us discern their infrastructure more quickly. As consultants, it helps to be in the space of the nonprofit partners we are working with. COVID-19 changed all of that to virtual, which resulted in our team working harder and more creatively to learn about our newer clients. Our existing relationships were pretty much unfazed because we already had strong working partnerships.
- Theoretically, remote work has not changed our firms' productivity, meaning employees perform as needed. Remote work has, however, shifted priorities. I can't quantify it, but employees are getting the "day-to-day" must-get-done things completed but not longer-term project work.
- We have to get back in the office. People are used to working at home, and it is not as efficient for a creative firm. It has become very comfortable for most to work at home. This is destroying commerce and the ability to be successful. Let's get the COVID-19 virus figured out and get back to the office.
- While productivity has remained high during the crisis, much of that had to do with (a) responding to the crisis, (b) the strength of our remote platform, (c) all our work can be done remotely, (d) client demand has remained strong, and (e) goodwill among our team that has been built up over a long period of time. As we get to the end of month five of the remote setup, we expect that we are beginning to lose the cohesiveness, organic innovation and camaraderie that we need to continue to work effectively. We continue to stress communication and social interaction, but it is not the same. We won't rush the return to the office, but we will start to encourage more office presence once the numbers go, and stay, down.

Administrative and Support Services

- Appropriately balancing economic and health care concerns remains the key issue. The lingering question is: Will the level of economic stimulus and low interest rates be sufficient to offset GDP [gross domestic product], unemployment and overall economic conditions?
- Current rent expenses are a burden that are not helping the survival of the company.
- While productivity hasn't necessarily been impacted, inter-working relationships have been and we're really starting to sense that in interactions.
- Our employees worked remotely during the worst of the first wave of spread and returned to the office gradually. Except for special situations, our office is in-house four days per week.

Educational Services

- Our ERP [enterprise resource planning] system allows for flexibility in processing at any location, so the impact was minimal. One thing COVID-19 has taught us is that we can still manage the workload with a smaller staff, so that's something we will assess in the months and years to come. I think COVID-19 has changed the way we execute our business model, meaning we are more efficient in delivery, and this will have an impact on the number of employees we hire going forward.

Ambulatory Health Care Services

- Productivity dipped at first, but staff have adapted and are doing well.
- Sixty-five percent of our business office team is working remotely. Our anesthesiologists and CRNAs [certified registered nurse anesthetists], of course, cannot work remotely.
- The spike in new cases confirmed among younger folks and the media hype of year-to-date deaths and new cases, rather than a focus on lower hospitalization/death rates of this younger cohort, helped lower consumer confidence, which is a driver for our cosmetic dentistry segment. That was combined with getting through the shutdown backlog of pent-up demand for general dentistry services, resulting in lower revenue running rates in August. We've yet to see what normal running rates are in the current environment.
- Many health care providers are practicing remotely but [this is] far from ideal—particularly those in primary care. [There has been a] marked decrease in screening for disease—blood pressure, diabetes, cancer, etc.
- We have added positions to facilitate COVID-19 screening.

Nursing and Residential Care Facilities

- We have two employees who are currently fully remote, as their duties allow that ability. For these two, productivity has stayed consistent. Occasionally, due to COVID-19 exposure, other employees have been quarantined at home but able to work remotely, covering many of their regular duties.

Accommodation

- The majority of our team members are unit based, subsequently working on-site. We have a small number of regional-based team members who support the units within their region. We have closed our corporate offices due to COVID-19. I expect we will continue remote work for many positions for the long term, reducing our corporate office footprint.

Food Services and Drinking Places

- Remote work (for positions that are able) has presented some new challenges, but our team members have been terrific at navigating them and presenting solutions. We'll just keep evolving.

Texas Retail Outlook Survey

Data were collected August 18–26, and 57 Texas retailers responded to the survey.

How do your firm's current revenues compare with a typical August?

	May '20 (percent)	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced revenues	90.7	78.4	76.0	67.9
Average revenue decline (Y/Y)	-35.0	-34.0	-21.1	-25.6
Share of firms reporting increased revenues	1.9	15.7	18.0	18.9
Average revenue increase (Y/Y)	20.0	15.0	20.7	21.8
Share of firms reporting no change in revenues	7.4	5.9	6.0	13.2

NOTES: 53 responses. This same question was posed in May, June and July, with the wording 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.

How does your firm's current employee head count compare with February (pre-COVID-19)?

	Jun. '20 (percent)	Jul. '20 (percent)	Aug. '20 (percent)
Share of firms reporting reduced head count	41.2	52.0	45.3
Average head count decline (compared with Feb. 2020 levels)	-26.1	-17.4	-27.0
Share of firms reporting increased head count	7.8	4.0	13.2
Average head count increase (compared with Feb. 2020 levels)	11.3	42.5	20.0
Share of firms reporting no change in head count	51.0	44.0	41.5

NOTES: 53 responses. This same question was posed in June and July. Averages are calculated as trimmed means with the lowest and highest 7.5 percent of responses omitted.

What share of your employees were working remotely in February (pre-COVID-19), and what share are currently working remotely? What share do you expect to work remotely after the pandemic ends?

	Average (percent)
Pre-COVID-19	6.0
Current	21.2
Post-COVID-19	15.1

NOTE: 54 responses.

How has an increased share of remote employees affected your firm's productivity overall?

	Aug. '20 (percent)
Increased productivity	6.9
No change in productivity	55.2
Decreased productivity	31.0
Don't know	6.9

NOTES: 29 responses. Only posed to those who reported a higher current share of remote employees than pre-COVID-19 in the previous question.

Firms reporting an effect on productivity were asked why.

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

Increased productivity

- More attention to detail and less distraction.

Decreased productivity

- Certain jobs are more difficult to do remotely. For some there is no change, but overall, it has decreased.
- More difficult to motivate and direct large sales teams.
- Not the same amount of supervision when people are at home, and harder to communicate.
- One employee is working from home and does not have the ability for personal interaction with customers.
- The random face-to-face conversations that can occur in a business often lead to discussions of issues or topics that lead to business improvements. Now these simply don't occur. As CFO and over 60, I'm working from home, and our CEO is in the office daily. I think the lack of face-to-face opportunities has hurt our business. Plus, the distractions you face at home may mean longer to return your attention to what you were working on.

Special Questions Comments

These comments have been edited for publication.

Merchant Wholesalers, Durable Goods

- I think some jobs will be conducive to working remote, while other jobs will not be conducive to a remote work environment going forward. It will take time for us to figure out how it will work and what formula will be best for our company. Needless to say, remote work is here to stay and will be a part of our working future forever.
- Possibly a slight increase [in worker productivity], as fewer interruptions allowed for some lingering projects to be completed. Since most of our remote employees have some tenure, it was fairly easy. As we have to make new hires because of growth or replacement, it will be harder to maintain our culture in a remote-work environment.

Merchant Wholesalers, Nondurable Goods

- We already had a remote-work policy in place before COVID-19 hit. It has allowed us to flex without losing productivity.

Motor Vehicle and Parts Dealers

- We are an essential business in the transportation industry. Selling of parts and services cannot be done from home.
- April through May we were determined to be an essential business, so we continued to have our showrooms open for business. Due to the need to have social distancing, we gave employees reduced schedules and put them in shifts to reduce the numbers in each dealership. The distancing played a big part in keeping our workforce healthy and COVID-19 free. It wasn't until mid-to-late June or early July that we started having positive tests from sick employees. Masks have just about eliminated this issue in our stores.
- We are dedicated to protecting head count and [maintaining a] stable work force.

Furniture and Home Furnishings Stores

- We produce and sell building materials. The cost of forest products is at an all-time high. That constitutes the entire increase in sales. Actually, we are selling fewer pieces of lumber and plywood, but revenues are up due to the inflation of these products. We expect prices will start dropping as soon as mill production catches up with demand. Demand is starting to drop due to such high prices in this category. People are beginning to hit the pause button on starting any new projects.

Food and Beverage Stores

- [We are an] essential retailer. [We have seen] no significant change.

Clothing and Clothing Accessories Stores

- We filed for bankruptcy in May 2020 and are in the process of closing all stores by Sept. 30.

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