



Texas Manufacturing Outlook Survey

February 24, 2020

Texas Manufacturing Expansion Continues

What's New This Month

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

Growth in Texas factory activity accelerated further in February, according to business executives responding to the Texas Manufacturing Outlook Survey. The production index, a key measure of state manufacturing conditions, rose six points to 16.4, suggesting stronger output growth than last month.

Other measures of manufacturing activity pointed to continued expansion in February, though demand growth decelerated. The new orders index fell nine points to 8.4, down from a 15-month high in January but still slightly above average. Similarly, the growth rate of orders index fell but remained above average, edging down from 6.1 to 3.6. The capacity utilization and shipments indexes held steady at 11.3 and 8.5, respectively.

Perceptions of broader business conditions were slightly more optimistic in February. The general business activity index edged up to 1.2 and the company outlook index ticked up to 3.6, though both readings remain slightly below average. The index measuring uncertainty regarding companies' outlooks moved up eight points to 11.0 after receding in the prior two months.

Labor market measures suggested flat employment levels and slightly longer workweeks this month. The employment index stayed near zero for a second month in a row, coming in at -0.9. Fifteen percent of firms noted net hiring, while 16 percent noted net layoffs. The hours worked index moved up to 2.1.

Upward pressure on input prices and wages picked up in February, while selling prices remained flat. The raw materials prices index moved up three points to 12.8, a reading still well below average. The wages and benefits index rose from 16.3 to 22.6, reaching its highest level in six months. Meanwhile, the finished goods prices index hovered just above or below zero for the fourth month in a row, suggesting no meaningful change in selling prices.

Expectations regarding future business conditions were slightly more optimistic in February. The indexes of future general business activity and future company outlook moved up to 18.0 and 24.1, respectively. Most other indexes for future manufacturing activity declined slightly but remained solidly in positive territory.

Next release: Monday, March 30

Data were collected Feb. 11–19, and 112 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	Feb Index	Jan Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	16.4	10.5	+5.9	10.5	3(+)	36.4	43.6	20.0
Capacity Utilization	11.3	11.5	−0.2	8.2	3(+)	31.1	49.1	19.8
New Orders	8.4	17.6	−9.2	6.5	3(+)	32.3	43.7	23.9
Growth Rate of Orders	3.6	6.1	−2.5	0.1	2(+)	22.7	58.2	19.1
Unfilled Orders	0.5	−3.6	+4.1	−2.9	1(+)	14.0	72.5	13.5
Shipments	8.5	8.6	−0.1	9.2	3(+)	30.0	48.4	21.5
Delivery Time	2.6	−3.0	+5.6	−0.5	1(+)	14.1	74.4	11.5
Finished Goods Inventories	−5.5	−3.5	−2.0	−3.1	11(−)	12.7	69.1	18.2
Prices Paid for Raw Materials	12.8	9.5	+3.3	24.6	47(+)	23.9	65.0	11.1
Prices Received for Finished Goods	−0.1	−1.9	+1.8	6.4	2(−)	11.8	76.3	11.9
Wages and Benefits	22.6	16.3	+6.3	18.8	127(+)	25.6	71.4	3.0
Employment	−0.9	1.9	−2.8	6.5	1(−)	14.8	69.5	15.7
Hours Worked	2.1	−0.2	+2.3	2.8	1(+)	19.8	62.5	17.7
Capital Expenditures	6.9	9.1	−2.2	7.0	42(+)	20.9	65.1	14.0

General Business Conditions

Current (versus previous month)

Indicator	Feb Index	Jan Index	Change	Series Average	Trend**	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	3.6	1.9	+1.7	7.2	3(+)	20.7	62.2	17.1
General Business Activity	1.2	−0.2	+1.4	2.9	1(+)	18.8	63.6	17.6

Indicator	Feb Index	Jan Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Outlook Uncertainty†	11.0	2.7	+8.3	9.4	21(+)	22.9	65.1	11.9

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

Indicator	Feb Index	Jan Index	Change	Series Average	Trend*	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Production	35.0	38.9	-3.9	38.7	132(+)	45.0	45.0	10.0
Capacity Utilization	33.0	37.4	-4.4	35.5	132(+)	42.9	47.1	9.9
New Orders	34.1	40.1	-6.0	36.5	132(+)	43.3	47.4	9.2
Growth Rate of Orders	30.0	27.0	+3.0	26.9	132(+)	37.8	54.4	7.8
Unfilled Orders	5.4	8.3	-2.9	4.0	2(+)	13.2	79.0	7.8
Shipments	27.3	38.3	-11.0	37.4	132(+)	39.9	47.5	12.6
Delivery Time	8.7	5.8	+2.9	-1.8	5(+)	16.0	76.7	7.3
Finished Goods Inventories	16.8	0.9	+15.9	-0.4	3(+)	27.7	61.4	10.9
Prices Paid for Raw Materials	21.4	20.2	+1.2	33.7	131(+)	27.2	67.0	5.8
Prices Received for Finished Goods	11.6	10.0	+1.6	19.5	49(+)	19.4	72.8	7.8
Wages and Benefits	39.7	42.4	-2.7	38.3	189(+)	41.5	56.7	1.8
Employment	20.4	25.3	-4.9	22.3	87(+)	33.1	54.2	12.7
Hours Worked	12.2	14.2	-2.0	9.4	45(+)	21.0	70.2	8.8
Capital Expenditures	21.2	28.3	-7.1	20.2	123(+)	30.2	60.8	9.0

General Business Conditions
Future (six months ahead)

Indicator	Feb Index	Jan Index	Change	Series Average	Trend**	% Reporting Increase	% Reporting No Change	% Reporting Worsened
Company Outlook	24.1	15.6	+8.5	21.1	49(+)	36.3	51.5	12.2
General Business Activity	18.0	7.6	+10.4	14.5	5(+)	32.1	53.8	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.

**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.

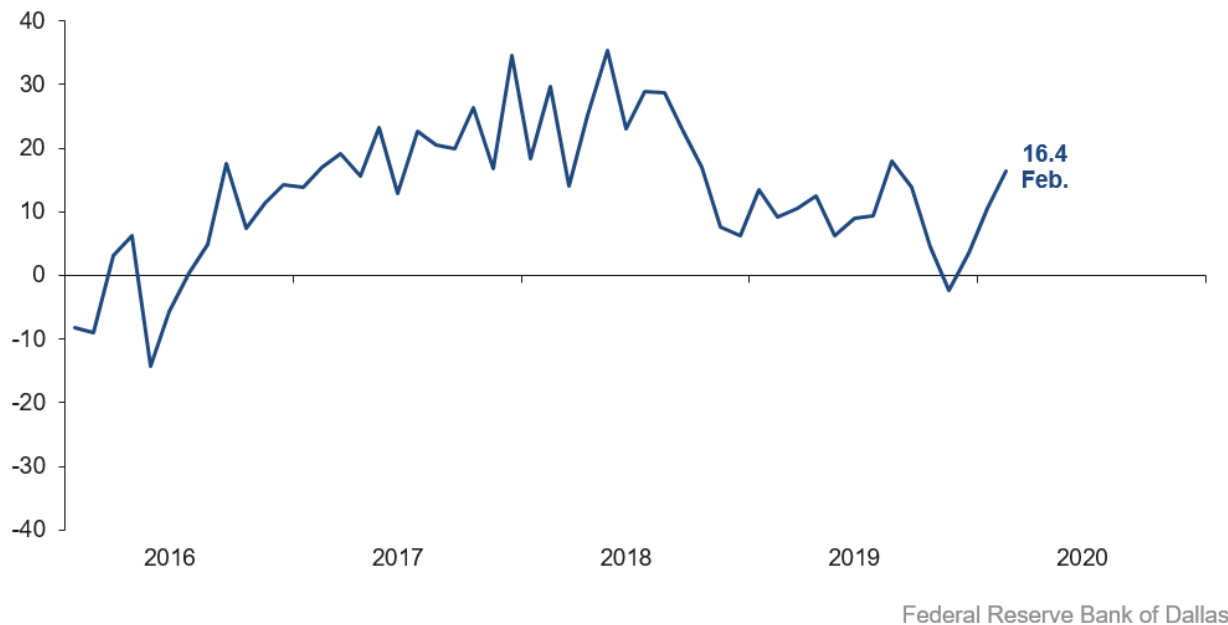
†Added to survey in January 2018.

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



Comments from Survey Respondents

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

Chemical Manufacturing

- There seemed to be an inventory buildup in the supply chain that one of our products sells into. That inventory is being worked down. Another product that sells into infrastructure building in emerging countries has picked up.

Nonmetallic Mineral Product Manufacturing

- China factories are shut down due to coronavirus. If they stay closed for more than two to three more weeks, it will be a big problem as our "buffer" inventory of raw materials from China is depleted.

Fabricated Metal Manufacturing

- We will feel the negative effect of the American Iron and Steel provision of the Clean Water and Drinking Water State Revolving Fund programs more since the waiver of stainless steel fasteners is not being renewed. The documentation requirement of this regulation adds extra layers of paperwork, tracking and cost to design, bidding, quotation, pricing and certification of material in all of the projects. Many projects are delayed, suffer design changes that cause lowered life expectancies and add significantly to the cost of all processes.

Machinery Manufacturing

- Lower-priced similar items from China are killing our business. We manufacture hydraulic cylinders. There was a tariff on these types of goods coming from China, and it seems to have disappeared.
- Business is starting off strong and steady this year, and we anticipate that it will continue to strengthen throughout the year.

Computer and Electronic Product Manufacturing

- Coronavirus uncertainty has been introduced recently. It is impacting some of our customers with plants in China, which may disrupt future production schedules, dependent upon length of plant closures (commercial air and semiconductor manufacturers). We are seeing a mild impact on the supply chain out of China for some industrial components.
- The coronavirus has introduced uncertainty, and we continue to monitor the impact closely. The biggest near-term threat looks to be to our supply chain, but certainly, a more significant impact to end demand has a real possibility of developing. Demand trends post-Chinese New Year look unaffected as of today. Broader signals have shown signs of stabilization in almost all our markets and geographies. Our current expectation is that year-over-year growth will resume as shipments of our customers more closely match end demand.
- We are starting to see an impact in the supply chain from the coronavirus.

Transportation Equipment Manufacturing

- We have budgeted for production volumes in 2020 to be flat with our rate of production in fourth quarter 2019. However, prices are increasing and we are aggressively negotiating with key vendors to lower material costs, so we anticipate higher sales and profits in 2020. Longer term, 2021 and beyond, our outlook is positive. Therefore, we are continuing to make capital investments to improve efficiencies and reduce the risk of failure of aging equipment.
- The recreational vehicle slump is continuing and forecasted to last through 2020. While our volume is expected to increase, the product mix is shifting to lower-priced units.
- We are losing staff to companies paying a lot more.

Food Manufacturing

- The ill-advised effort and then failure to impeach Trump is a positive for business.

Textile Product Mills

- The Chinese issues have slowed our imported inventory and increased the cost of goods. But overall, we are very optimistic, and our customer base is increasing while repeat orders are also increasing in frequency and value.

Paper Manufacturing

- Activity has shown a small uptick from the third and fourth quarter of 2019. First quarter 2020 has some guarded optimism for what 2020 will bring.

Printing and Related Support Activities

- We have managed to land one really large job that will keep us very busy in February and into March, typically slow months for us. In addition, we have a large amount of work coming in the March-through-May time frame that will also help with activity levels. Overall business seems to be better than we would expect for this time of year.

Miscellaneous Manufacturing

- We are seeing a continued decrease in volumes from our automotive customers. We are working one shift only with no overtime.

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

February 24, 2020

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 February 11–19, and 376 Texas business executives responded to the survey.

See data files with a full history of results.

Are you currently trying to hire?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	71.4	69.8	60.0	65.5
No	28.6	30.2	40.0	34.5

NOTE: 371 responses.

Are you having problems finding qualified workers when hiring?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	83.0	75.6	80.5	80.2
No	17.0	24.4	19.5	19.8

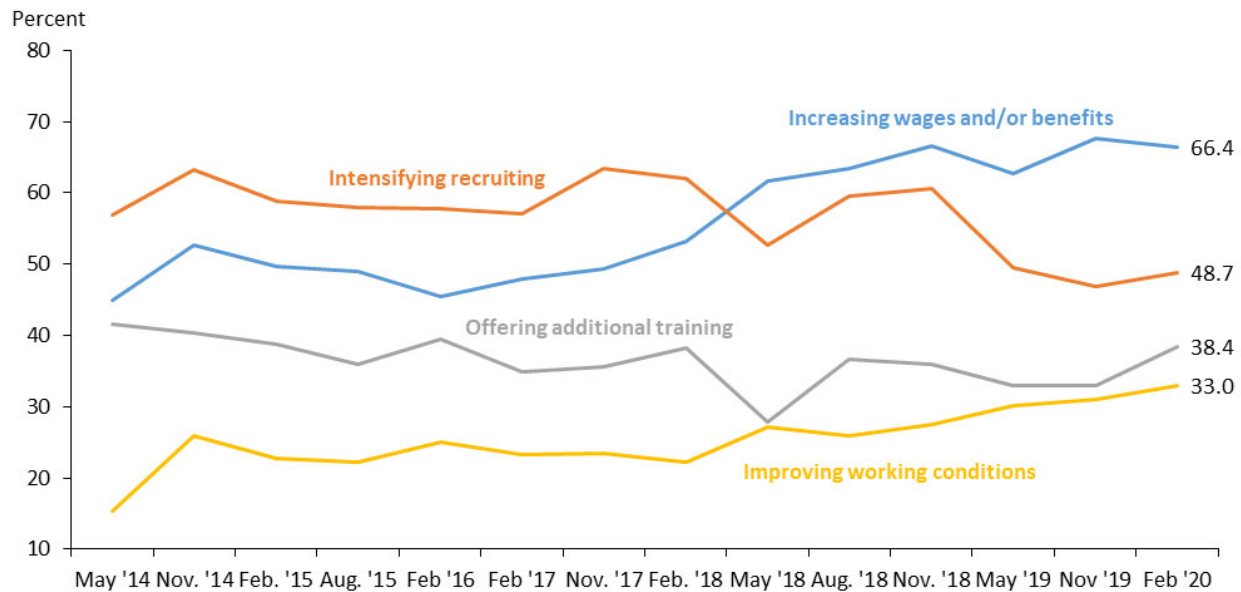
NOTES: 237 responses. This question was posed only to respondents that answered “Yes” to the preceding question.

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

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Lack of available applicants/no applicants	43.2	62.6	62.9	60.0
Lack of technical competencies (hard skills)	59.8	50.2	53.1	52.6
Lack of experience	40.5	37.0	39.4	44.7
Looking for more pay than is offered	34.4	40.1	46.9	43.7
Lack of workplace competencies (soft skills)	43.2	39.6	33.8	37.9
Inability to pass drug test and/or background check	29.3	30.0	32.9	24.7

NOTES: 190 responses. This question was posed only to respondents that answered “Yes” to having problems finding qualified workers.

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



NOTE: Data plotted for top four responses in February 2020. Data are shown for months when special questions were asked.
SOURCE: Federal Reserve Bank of Dallas Texas Business Outlook Surveys.

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Increasing wages and/or benefits	47.9	53.3	62.7	66.4
Increasing wages			58.3	59.1
Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc.	57.1	62.1	49.5	48.7
Offering additional training	34.8	38.2	32.9	38.4
Improving working conditions	23.2	22.2	30.1	33.0
Increasing variable pay, including bonuses	30.1	33.3	32.3	28.6
Increasing benefits			17.9	21.7
Reducing education and other requirements for new hires	5.4	6.5	8.5	8.2

NOTES: 318 responses. Starting in May '19, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Texas Manufacturing Outlook Survey

Data were collected February 11–19, and 105 Texas manufacturers responded to the surveys.
See data files with a full history of results.

Are you currently trying to hire?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	72.7	64.0	59.5	57.1
No	27.3	36.0	40.5	42.9

NOTE: 105 responses.

Are you having problems finding qualified workers when hiring?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	79.5	83.6	86.2	84.5
No	20.5	16.4	13.8	15.5

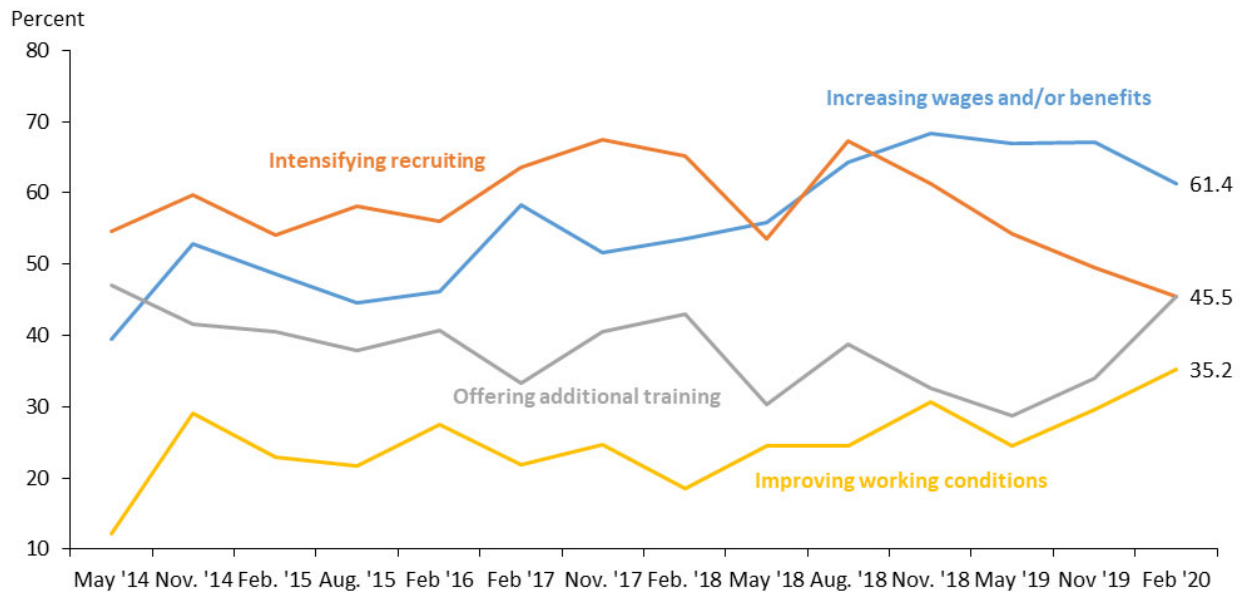
NOTES: 58 responses. This question was posed only to respondents that answered “Yes” to the preceding question.

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

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Lack of available applicants/no applicants	44.3	72.1	60.7	65.3
Lack of technical competencies (hard skills)	72.2	60.3	68.9	57.1
Lack of workplace competencies (soft skills)	45.6	44.1	42.6	51.0
Lack of experience	44.3	44.1	42.6	49.0
Looking for more pay than is offered	36.7	38.2	44.3	46.9
Inability to pass drug test and/or background check	29.1	41.2	42.6	28.6

NOTES: 49 responses. This question was posed only to respondents that answered “Yes” to having problems finding qualified workers.

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



	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Increasing wages and/or benefits	58.3	53.5	67.0	61.4
Increasing wages			59.6	56.8
Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc.	63.5	65.1	54.3	45.5
Offering additional training	33.3	43.0	28.7	45.5
Improving working conditions	21.9	18.6	24.5	35.2
Increasing variable pay, including bonuses	30.2	31.4	34.0	30.7
Increasing benefits			16.0	15.9
Reducing education and other requirements for new hires	5.2	4.7	11.7	11.4

NOTES: 88 responses. Starting in May '19, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

These comments have been edited for publication.

Primary Metal Manufacturing

- There are not enough people who want or need to work.

Fabricated Metal Manufacturing

- It is very difficult finding hourly employees with construction experience who we can afford and that can pass drug and background tests. Also, young employees in their 20s seem to come to work for 90 days, then quit.

Machinery Manufacturing

- We had to lay off 15 percent of our employees in January.

Computer and Electronic Product Manufacturing

- We are doing well hiring unskilled labor and training for assembly jobs. It is more of a challenge finding skilled engineers.

Food Manufacturing

- The No. 1 problem in supporting growth is the lack of available labor. The lack of labor in this country is at a critical point. We must solve this shortage or we will stop growing. Period.
- We have restructured our shift schedule to allow everyone off every other Friday, Saturday and Sunday.

Miscellaneous Manufacturing

- Lack of applicants and no skill level are the two main barriers.

Texas Service Sector Outlook Survey

Data were collected February 11–19, and 271 Texas business executives responded to the surveys.
See data files with a full history of results.

Are you currently trying to hire?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	70.8	72.3	60.2	68.8
No	29.2	27.7	39.8	31.2

NOTE: 266 responses.

Are you having problems finding qualified workers when hiring?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	84.5	72.5	78.1	78.8
No	15.5	27.5	21.9	21.2

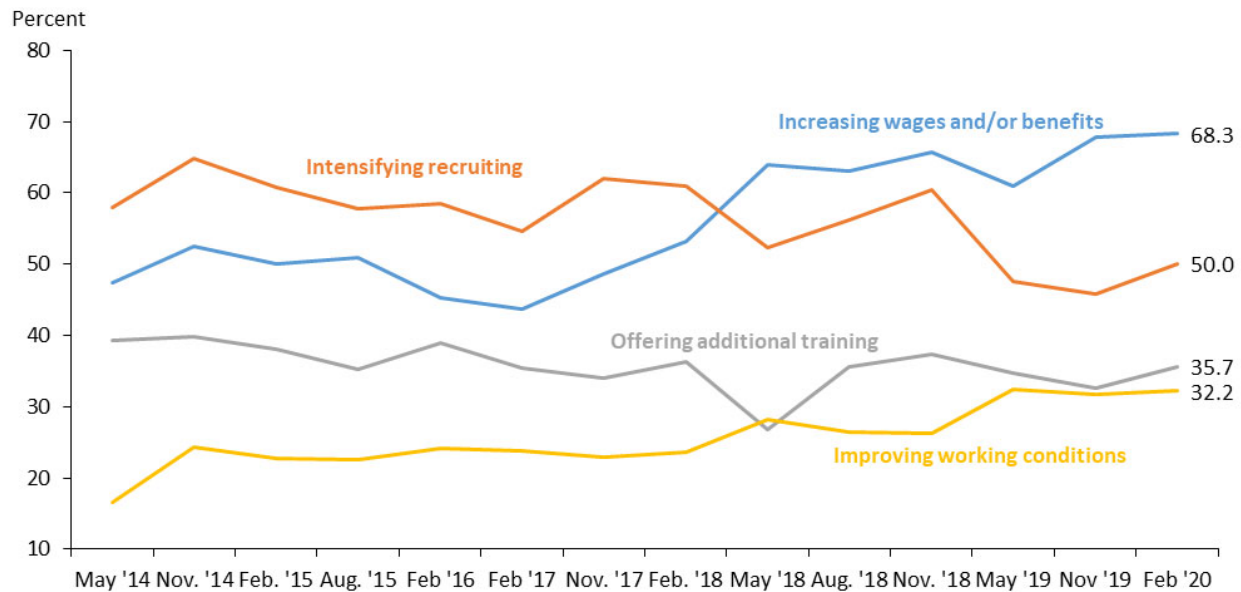
NOTES: 179 responses. This question was posed only to respondents that answered “Yes” to the preceding question.

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

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Lack of available applicants/no applicants	42.8	58.5	63.8	58.2
Lack of technical competencies (hard skills)	54.4	45.9	46.7	51.1
Lack of experience	38.9	34.0	38.2	43.3
Looking for more pay than is offered	33.3	40.9	48.0	42.6
Lack of workplace competencies (soft skills)	42.2	37.7	30.3	33.3
Inability to pass drug test and/or background check	29.4	25.2	28.9	23.4

NOTES: 141 responses. This question was posed only to respondents that answered “Yes” to having problems finding qualified workers.

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



NOTE: Data plotted for top four responses in February 2020. Data are shown for months when special questions were asked.
SOURCE: Federal Reserve Bank of Dallas Texas Service Sector Outlook Survey.

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Increasing wages and/or benefits	43.8	53.2	60.9	68.3
Increasing wages			57.8	60.0
Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc.	54.6	60.9	47.6	50.0
Offering additional training	35.4	36.4	34.7	35.7
Improving working conditions	23.8	23.6	32.4	32.2
Increasing variable pay, including bonuses	30.0	34.1	31.6	27.8
Increasing benefits			18.7	23.9
Reducing education and other requirements for new hires	5.4	7.3	7.1	7.0

NOTES: 230 responses. Starting in May '19, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

These comments have been edited for publication.

Support Activities for Transportation

- Applicants want high pay but lack the absolute basic core skills and don't bother using correct grammar, punctuation or spelling.

Data Processing, Hosting and Related Services

- Hiring top talent in Dallas–Fort Worth remains tight. Lack of quality applicants is our biggest challenge. We have hired recruiters to help, and they're having trouble finding good quality folks—technical and management.

Credit Intermediation and Related Activities

- For several years, it has been difficult to find reliable front-line employees. Consequently, this group represents our highest turnover. Skilled positions are also hard to fill (lenders, lending assistants, knowledgeable operations).
- The hardest markets to fill are in our rural markets, especially at the officer level.

Real Estate

- We will hire part time in the spring or early summer.

Professional, Scientific and Technical Services

- Less than 1 percent of our workforce is part time or contract.
- I am a sole-practitioner CPA and have no employees. When my clients need help with less-technical matters, I refer them to contract service providers such as bookkeepers and payroll service providers. I have no plans to change that by hiring any paraprofessionals.

Management of Companies and Enterprises

- There are certainly not enough good bankers out there, and there is a lack of women and minorities in the industry. We are having to develop our own through recruitment, training, education and mentoring. This takes time, but if everybody is doing it, we will finally end up with the right mix of good professionals to run our banks in the future.

Administrative and Support Services

- When we hire new personnel, we try to utilize referrals from our own workforce. However, we have used online services to recruit when referrals are not available.
- We are in the contract staffing business, and none of our employees are part time.

Amusement, Gambling and Recreation Industries

- The hidden cost of not being able to hire enough qualified people is that the qualified people we do employ are being asked to work overtime at time-and-a-half [pay], thus increasing our costs. In addition, management personnel are having to work increased hours to either train or fill in the gaps. This is taking a toll on both of the above categories.

Texas Retail Outlook Survey

Data were collected February 11–19, and 50 Texas retailers responded to the surveys.
See data files with a full history of results.

Are you currently trying to hire?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	70.0	75.5	57.4	61.2
No	30.0	24.5	42.6	38.8

NOTE: 49 responses.

Are you having problems finding qualified workers when hiring?

	May. '19 (percent)	Aug. '19 (percent)	Nov. '19 (percent)	Feb. '20 (percent)
Yes	88.6	78.4	88.9	86.7
No	11.4	21.6	11.1	13.3

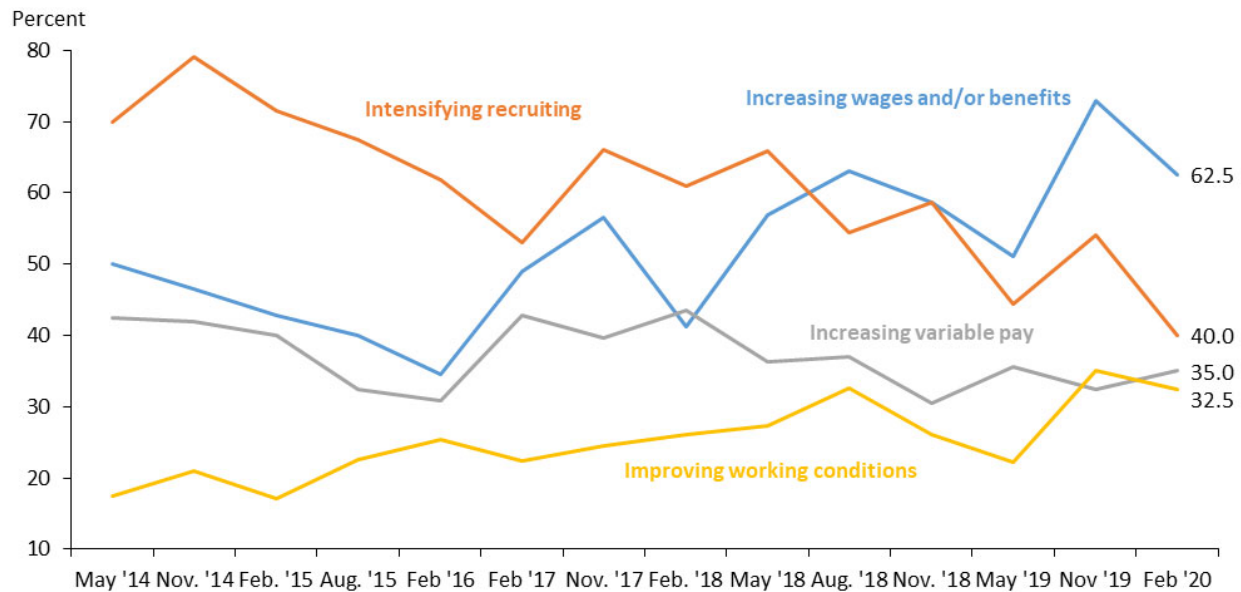
NOTES: 30 responses. This question was posed only to respondents that answered “Yes” to the preceding question.

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

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Lack of technical competencies (hard skills)	55.6	48.6	64.5	57.7
Lack of available applicants/no applicants	46.7	56.8	61.3	53.8
Lack of experience	37.8	35.1	29.0	50.0
Inability to pass drug test and/or background check	48.9	37.8	54.8	46.2
Lack of workplace competencies (soft skills)	46.7	40.5	35.5	34.6
Looking for more pay than is offered	28.9	24.3	22.6	30.8

NOTES: 26 responses. This question was posed only to respondents that answered “Yes” to having problems finding qualified workers.

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



NOTE: Data plotted for top four responses in February 2020. Data are shown for months when special questions were asked.
SOURCE: Federal Reserve Bank of Dallas Texas Retail Outlook Survey.

	Feb. '17 (percent)	Feb. '18 (percent)	May '19 (percent)	Feb. '20 (percent)
Increasing wages and/or benefits	49.0	41.3	51.1	62.5
Increasing wages			46.7	55.0
Intensifying recruiting, including advertising, paying recruiting bonuses, utilizing employment agencies, etc.	53.1	60.9	44.4	40.0
Increasing variable pay, including bonuses	42.9	43.5	35.6	35.0
Improving working conditions	22.4	26.1	22.2	32.5
Offering additional training	30.6	32.6	33.3	30.0
Increasing benefits			20.0	22.5
Reducing education and other requirements for new hires	6.1	10.9	8.9	10.0

NOTES: 40 responses. Starting in May '19, "increasing wages" appears as a separate answer choice from "increasing benefits." We will continue to include the share of firms reporting increasing wages and/or benefits but as a calculation based on responses to "increasing wages" and "increasing benefits."

Special Questions Comments

There were no comments for the Texas Retail Outlook Survey for this release.

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