



The Impact of COVID-19 on Austin Businesses: Background Information about Economic Activity in the Region

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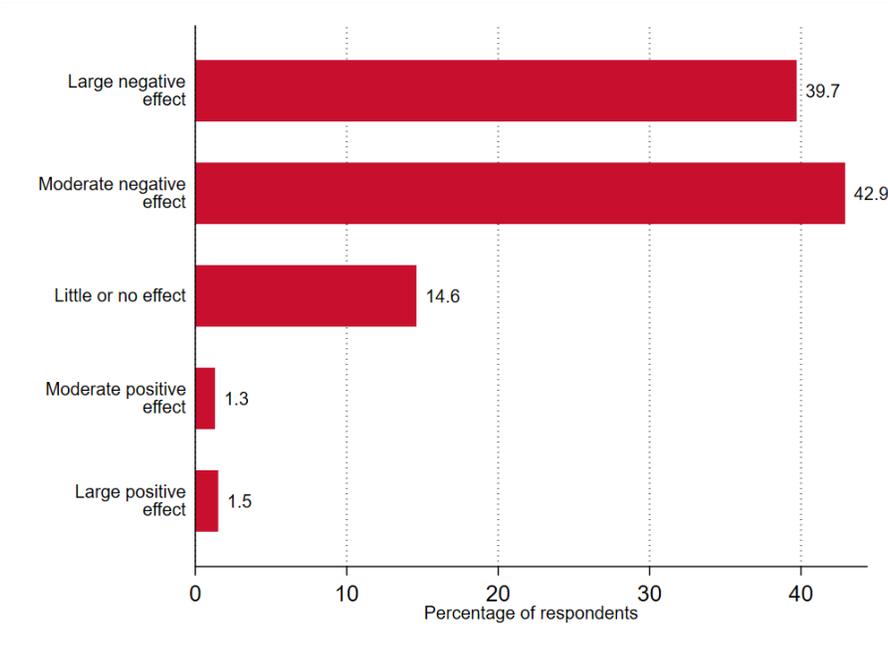
Impact of COVID-19 in the Austin Region Background Information on Economic Activity in the Region

Businesses in Austin have experienced a sharp decline in economic activity due to the COVID-19 pandemic and the ensuing stay-home orders enacted by the City of Austin and the Government of Texas. The University of Houston's Hobby School of Public Affairs conducted an on-line survey of Austin area businesses at the request of the City of Austin and the Austin Chamber of Commerce. The survey sought to better understand the impact of the COVID-19 Pandemic and concomitant shutdowns on the businesses. The main report presents the results from the 1,050 Austin area business owners who completed the survey between June 11 and June 25. This ancillary report presents the most recent data from the U.S. Census Bureau and other sources describing economic and business conditions in Austin at the time of the survey.

Impact on Small Businesses in Austin

The impact has been the hardest among small and medium businesses. Results from the seventh wave of the US Census Bureau’s Small Business Pulse Survey conducted around the time when the Hobby School survey was in the field show that 83% of small businesses in the Austin Metropolitan Statistical Area (MSA) have suffered a large or moderate negative effect on their business activities due to COVID-19 (Figure 1).

Figure 1: Impact of COVID-19 on Austin Businesses

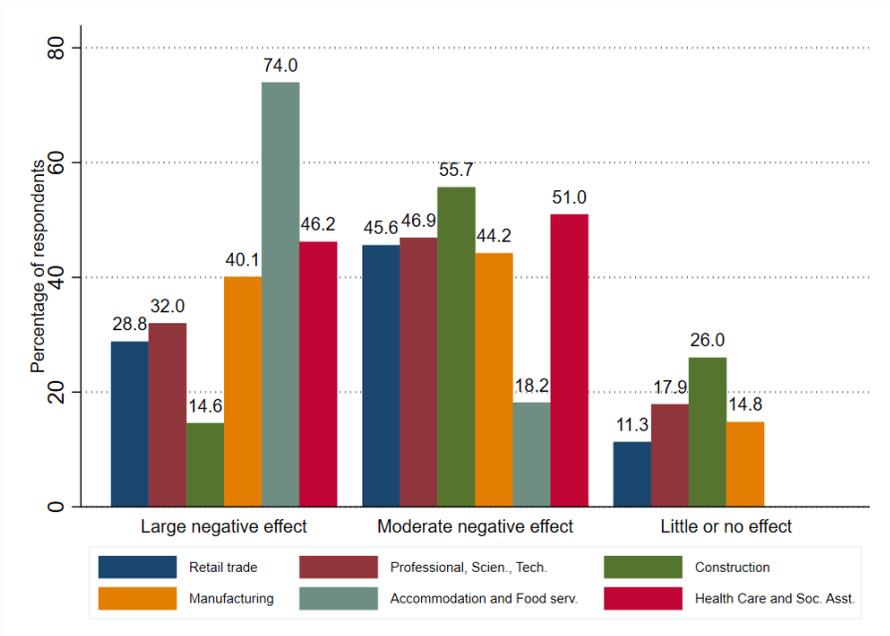


Source: Small Business Pulse Survey (BPS), Wave 7, US Census Bureau (BPS)
Question 1: Overall, how has this business been affected by the COVID-19 pandemic?

In contrast, less than 15% responded that the impact is little or no effect, while slightly less than 3% expressed that the pandemic has a positive impact on their businesses.

As reflected in Figure 2 (and Table A1 in the Appendix), the sectors experiencing the largest negative impact are manufacturing; accommodation and food services; health services; professional services; construction; and retail trade, except for food, groceries and cleaning goods. Table A2 in the Appendix shows that these sectors also experienced the largest numbers of unemployment claims in Texas. Labor market conditions in Travis County and the Austin region are discussed in Section 3.

Figure 2: Impact of COVID-19 on Austin MSA Small Businesses (Selected Sectors)

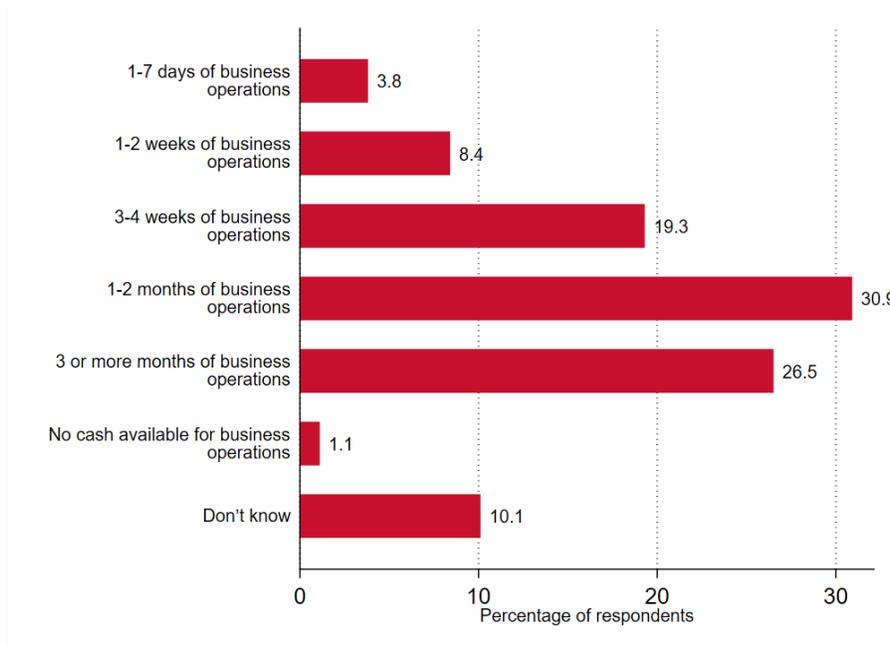


Source: Small Business Pulse Survey (BPS), Wave 7, US Census Bureau (BPS)
Question 1: Overall, how has this business been affected by the COVID-19 pandemic?

It should be noted the analysis from the Hobby School survey show that Austin-based businesses are facing important financial constraints, which will likely hinder economic recovery in the region. Businesses have experienced sharp drops in revenue yet they still need access to capital to cover their outstanding costs, expenditures and other financial liabilities to remain in business. At present, most

small firms report having limited access to cash to defray those costs (see Figure 3).

Figure 3: Financial Constraints Faced by Small Businesses in Austin MSA



Source: Small Business Pulse Survey (BPS), Wave 7, US Census Bureau (BPS)

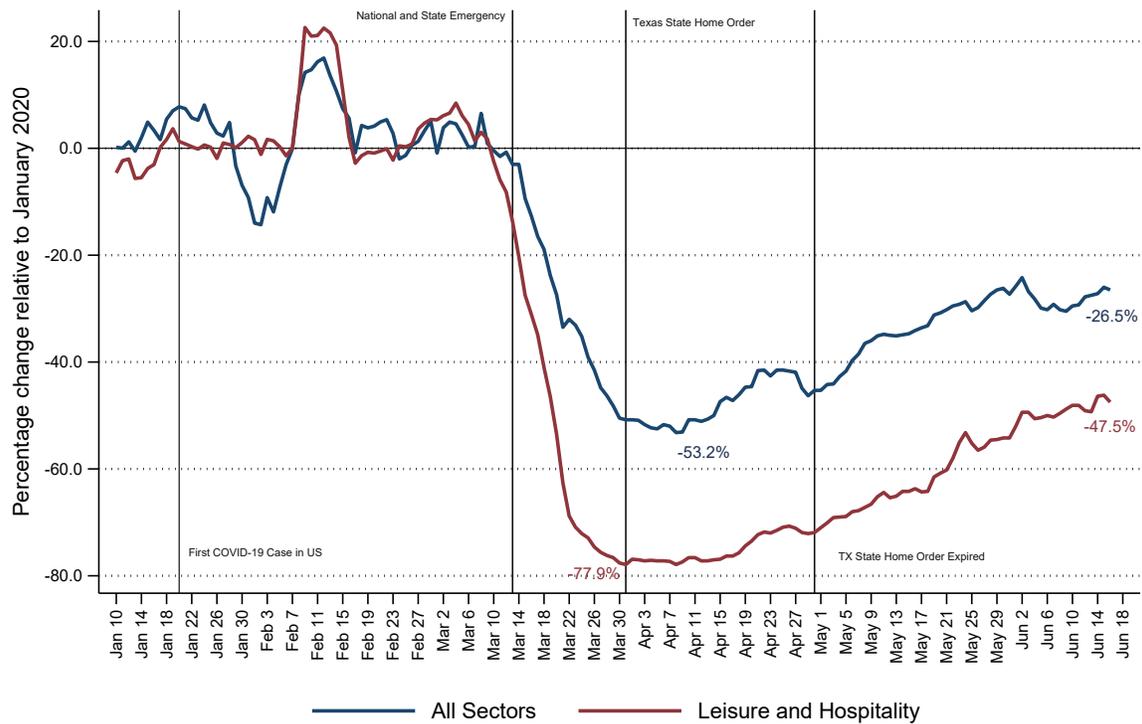
Question 10: How would you describe the current availability of cash on hand for this business, including any financial assistance or loans? Currently, cash on hand will cover...

By mid-June there were signs of recovery compared to the April figures, but due to higher contagion rates and uncertainty about the ability to contain the spread of COVID-19, at the time the Hobby School survey was in the field aggregate sales, business revenue, and employment income have stabilized at a lower activity level when contrasted with pre-COVID-19 levels.

Chetty, et al. (2020) calculate the change in small business daily revenue in the Austin MSA relative to January 2020. The blue line in Figure 4 represents the change in small business revenue in all sectors for which data is available. The red line describes the change in small business revenue in the Leisure and Hospitality sector, the most-affected industry in the Austin area. The authors found that the small business revenue dropped substantially after President Trump and Governor Abbott declared National Emergency and State of Disaster in Texas, respectively, on March 13, and hit to the lowest level, on average, after Texas imposed the

stay-at-home order on March 31, 2020. According to estimates by Chetty et al. 2020, overall revenue in the Austin area bottomed out from a low level of -50% in the second week of April when contrasted to January 2020.¹ Yet in comparison to January, overall business revenue remained 26.5% lower in the second week of June.

Figure 4: Change in Small Business Revenue in Austin MSA relative to January 2020



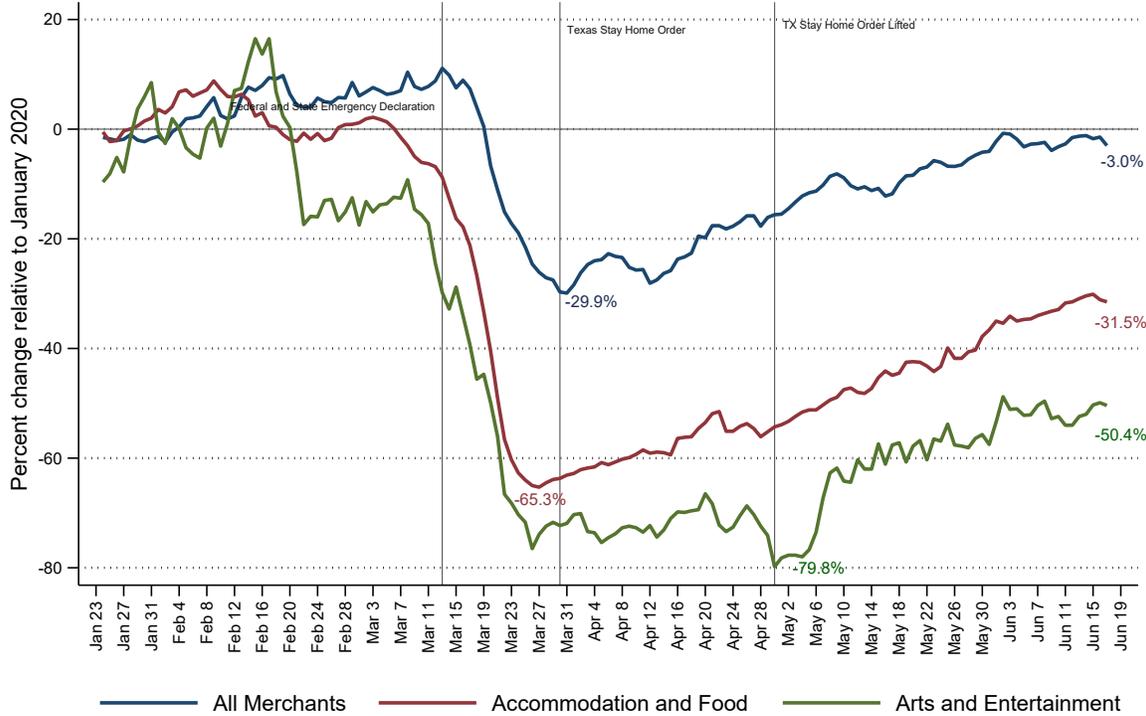
Source: Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. 2020. *How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data* from tracktherecovery.com [Accessed June 25, 2020]

As discussed above the most-impacted industry during the pandemic is Leisure and Hospitality. The industry recorded a negative change in revenue even before March 13 when the federal and the State of Texas decreed the National Emergency

¹Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. 2020. How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data from <https://www.tracktherecovery.org/> [Accessed June 25, 2020]

and State of Disaster respectively. The largest record change was about -78% on April 8. The industry is experiencing the slowest recovery in comparison to other sectors. As of June 18, 2020, the sectoral revenue was still 47% below the January 2020 level. Table A3 in the Appendix presents the percentage change in small business revenue relative to January 2020 in the Austin MSA for other sectors or industries.

Figure 5: Change in Average Consumer Spending in Austin MSA relative to January 2020



Source: Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. 2020.

How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data from tracktherecovery.com [Accessed June 25, 2020]

Changes in business revenue are directly related to changes in consumer spending. Figure 5 illustrates the percentage change in average consumer spending in Austin MSA relative to January 2020. The blue line represents the change in average consumer spending for all merchants, whereas the red and green lines depict the

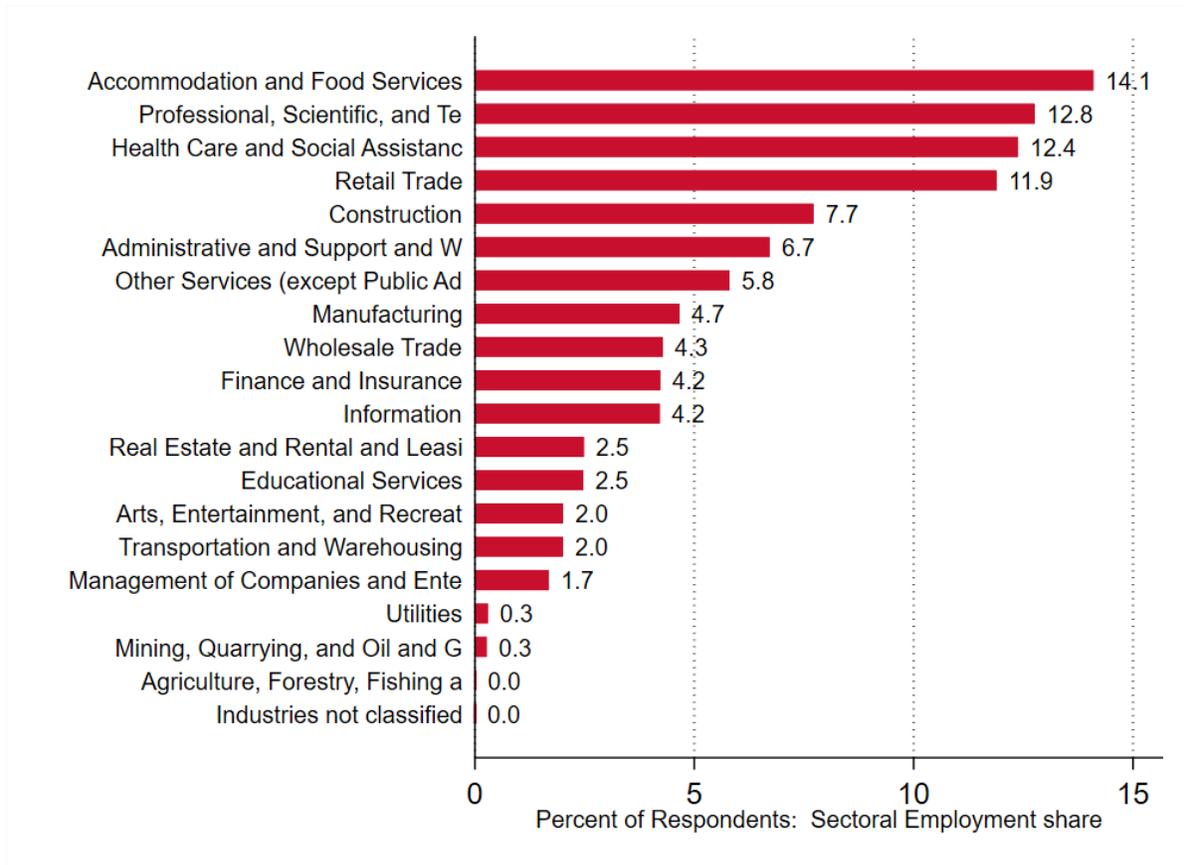
sectors of “Accommodation and Food” and “Arts and Entertainment”, respectively. After the declarations of the National Emergency and the State of Disaster, consumer spending fell dramatically. It remained low after the stay-at-home order was imposed. The largest percentage change in consumer spending in all sectors was about 30% on March 31, 2020, compared to January 2020. However, as of June 18, the situation was much improved and almost returned to the pre-pandemic level. The average consumer spending was 3% below the level in January 2020.

The drop in spending was stronger in some specific sectors. For example, consumer spending dropped more than 60% in the industries of “Accommodation and Food” and “Arts and Entertainment.” The lowest level for the “Arts and Entertainment” sector relative to January was -79.8% (recorded on April 30), followed by -65.3% for the “Accommodation and Food” sector (on March 27). Like other sectors in the Austin area, these two sectors have been recovering recently. However, as of June 18, the “Arts and Entertainment” sector was still 31.5% below the level in January, and the “Arts and Entertainment” sector was still 50% below the pre-pandemic level. (see also Table A4 in the Appendix.)

Importantly, the industries experiencing the hardest hits by COVID-19 account for over fifty percent of the jobs in the region, according to the Quarterly Workforce Indicators compiled by the U.S. Census Bureau.² Figure 6 describes the employment share by industry in Travis County. These industries are also more likely to employ female, minority, and less-educated workers (see also Table A5-A11 in the Appendix).

²The sum of employment shares in the sectors of “accommodation and food services,” “professional, scientific, and technical services,” “retail trade,” “health care and social assistance,” “transportation and warehousing,” “education services,” and “arts, entertainment, and recreation” are about 57% in Travis county

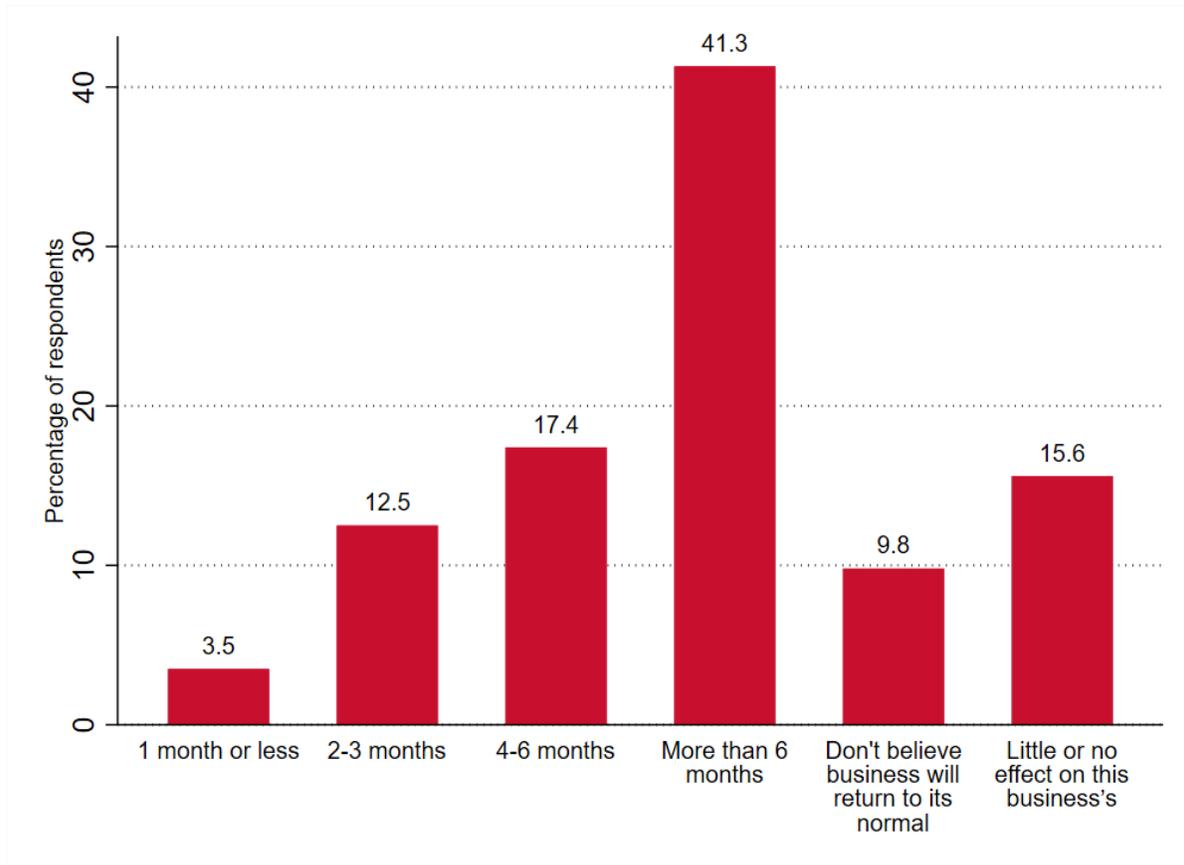
Figure 6: Employment Share by Industry in Travis County



Source: Quarterly Workforce Indicators (Third Quarter, 2019), Census Bureau

While conditions have started to improve during the month of June, Figure 7 shows 41 percent of small business reported that it would take their business more than 6 months to return to normal, whereas 10 percent think their business is unlikely to return to a normal level of operations.

Figure 7: Time to recovery to pre-COVID-19 level



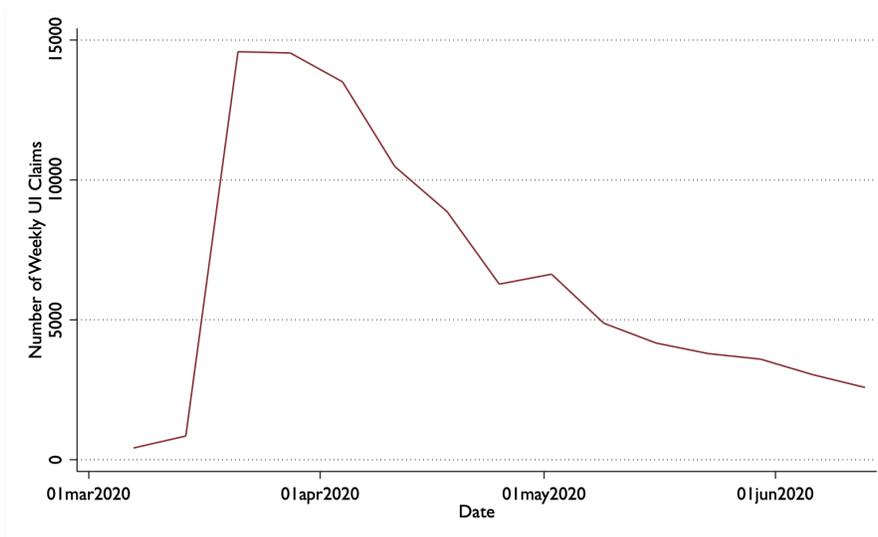
Source: US Census Bureau, Small Business Pulse Survey

Question 15: In your opinion, how much time do you think will pass before this business returns to its normal level of operations relative to one year ago

Labor Market Conditions

The decline in economic activity can also be reflected in the evolution of the weekly unemployment claims in Travis County and in the sharp unemployment increase in the Austin region. Texas Workforce Commission (TWC) reports the number of weekly unemployment insurance claims in Travis County. Figure 8 shows the total weekly unemployment insurance claims in the weeks of March 7 and March 14, 2020, were 420 and 847, respectively. It jumped up more than 17 folds to 14,585 claims in the week of March 21. Weekly unemployment claims remained at more than 10,000 claims for four weeks until the week of April 11, 2020, and gradually dropped to 2,583 in the week of June 13.

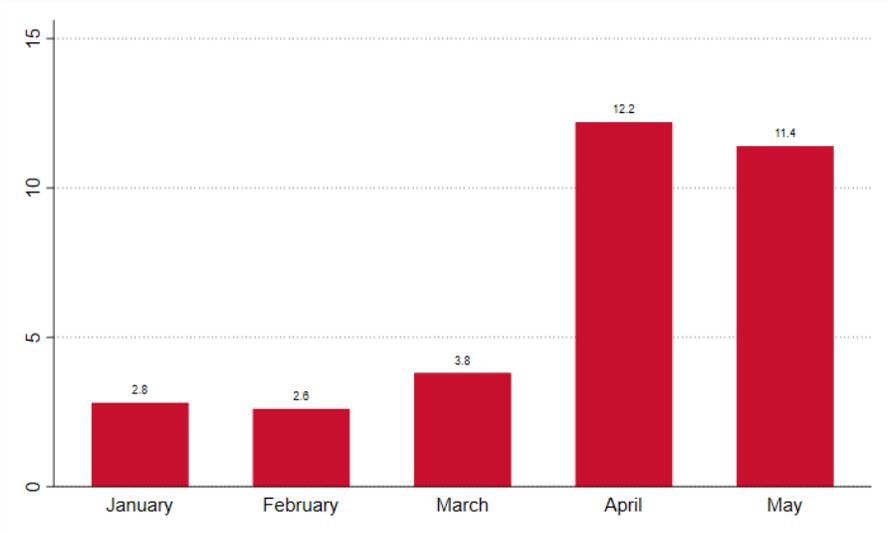
Figure 8: Number of weekly unemployment insurance claims in Travis County



Source: Texas Workforce Commission, Unemployment Claims by Numbers
<https://www.twc.texas.gov/news/unemployment-claims-numbersclaimsByCounty>

According to the US Bureau of Labor Statistics (BLS), the rate of unemployment in the region of Austin-Round Rock-San Marcos in April went up to 12.2%, from 3.8% in March, and drop slightly to 11.4% in May as illustrated in Figure 9. This April unemployment condition is consistent with the trend of weekly insurance claims, as observed in Figure 8.

Figure 9: Unemployment Rate in the Austin, Round Rock, and San Marcos Areas



Source: U.S. Bureau of Labor Statistics, Economy at a Glance
URL: U.S. BLS

Bibliography

- [1] Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, *How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New RealTime Economic Tracker Based on Private Sector Data.*, [URL: Track the Recovery](#).
- [2] *Texas Workforce Commission, Unemployment Claims by Numbers*, [URL: Texas Unemployment Claims](#).
- [3] *U.S. Bureau of Labor Statistics*, [URL: U.S. BLS](#).
- [4] *U.S. Bureau of Labor Statistics, Economy at a Glance*. [URL: U.S. BLS](#).
- [5] *U.S. Census Bureau, Quarterly Workforce Indicators (Third Quarter, 2019)*., [URL: Census Quaterly Workforce Indicator](#).
- [6] *U.S. Census Bureau, Small Business Pulse Survey.*, [URL: U.S. Small Business Pulse Survey](#).
- [7] *U.S. Census Bureau, Household Pulse Survey.*, [URL: U.S. Household Pulse Survey](#).

Appendix

Table A1: Impact of COVID-19 on Austin MSA Small Businesses

NAICS 2 Digit	Large negative effect (%)	Moderate negative effect (%)	Little or no effect (%)	Moderate positive effect (%)	Large effect (%)
Agriculture, Fishing & Hunting	–	–	–	–	–
Mining	67.1	28.0	–	–	–
Utilities	–	–	–	–	–
Construction	14.6	55.7	26.0	–	–
Manufacturing	40.1	44.2	14.8	–	–
Wholesale Trade	38.6	43.0	16.0	–	–
Retail Trade	28.8	45.6	11.3	–	–
Transportation & Warehous.	38.5	40.5	21.0	–	–
Information	55.3	–	–	–	–
Finance & Insurance	22.4	49.4	25.6	–	–
Real Estate & Rental & Leasing	28.5	52.2	–	–	–
Prof., Scientific, & Tech. Serv.	32.0	46.9	17.9	–	–
Management of Companies	–	–	–	–	–
Admin. & Support & Waste Mgt	28.9	40.5	22.9	–	–
Educational Services	74.5	–	–	–	–
Health Care & Social Assistance	46.2	51.0	–	–	–
Arts, Ent., & Recreation	55.7	33.5	–	–	–
Accomm. & Food Services	74.0	18.2	–	–	–
Other Serv. (except Public Admin.)	51.8	38.2	–	–	–

Source: US Census Bureau, Small Business Pulse Survey

Question 1: Overall, how has this business been affected by the COVID-19 pandemic?

Table A2: Number of Unemployment Claims by industry in Texas (June 13, 2020)

NAICS	Industry	Claims
11	Agriculture, Forestry, Fishing and Hunting	245
21	Mining	2,098
22	Utilities	95
23	Construction	4,975
30	Manufacturing	5,142
40	Retail Trade	7,161
42	Wholesale Trade	2,560
49	Transportation & Warehousing	3,136
51	Information	838
52	Finance & Insurance	1,198
53	Real Estate Rental & Leasing	1,100
54	Professional, Scientific, & Technical Services	3,122
55	Management of Companies & Enterprises	326
56	Administration, Waste Management & Remediation	7,951
61	Educational Services	2,981
62	Health Care & Social Assistance	6,165
71	Arts, Entertainment & Recreation	962
72	Accommodation & Food Services	7,933
81	Other Services	1,760
92	Public Administration	534
	Others (N/A)	14,446
	Total Observation	74,728

Source: Texas Workforce Commission, Unemployment Claims by Numbers

Table A3: Percentage Change in Small Business Revenue relative to January 2020 in Austin MSA

Industry/Sector	Largest recorded change (%)		Latest reading¹
Transportation and Retail Trade	-53.7	16-Apr	-20.7
Education and Health Services	-65.2	13-Apr	-20.8
Leisure and Hospitality	-77.9	8-Apr	-47.5
Professional and Business Services	-30.3	30-Mar	-16.1
All Sectors	-53.2	8-Apr	-26.5

Source: Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. *How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data.* [URL:tracktherecovery.com](https://tracktherecovery.com)

Table A4: Percentage Change in Average Consumer Spending relative to January 2020 in Austin MSA

Industry/Sector	Largest recorded change (%)		Latest reading²
Accommodation and Food	-65.3	27-Mar	-31.5
Arts and Entertainment	-79.8	30-Apr	-50.4
General Merchandise and Apparel	-56.5	30-Mar	-13.0
Grocery and Food Stores	-0.8	25-Jan	16.5
Health and Social Assistance	-58.4	30-Mar	-13.4
Transportation and Warehousing	-76.2	15-Apr	-55.3

Source: Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. *How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data.* [URL:tracktherecovery.com](https://tracktherecovery.com)

Table A5: Sectoral employment and Hobby survey respondents

NAICS		Sectoral Employment		Hobby School Survey	
Code	Industry label	Employees	(%)	Respondents	(%)
11	Agriculture, Fishing & Hunt	1,397	0.1	4	0.4
21	Mining	4,160	0.4	1	0.1
22	Utilities	2,511	0.2	2	0.2
23	Construction	78,238	7.2	84	9.3
30	Manufacturing	69,362	6.4	13	1.4
40	Retail Trade	127,292	11.7	67	7.5
42	Wholesale Trade	54,687	5.0	5	0.6
49	Transportation & Warehousing	24,901	2.3	7	0.8
51	Information	39,434	3.6	17	1.9
52	Finance & Insurance	47,899	4.4	35	3.9
53	Real Estate Rental & Leasing	26,170	2.4	41	4.6
54	Professional, Scientific, & Tech. Serv.	144,185	13.2	176	19.6
55	Management of Comp. & Ent.	8,480	0.8	7	0.8
56	Administrative, Waste & Remed.	96,928	8.9	8	0.9
61	Educational Services	23,191	2.1	54	6.0
62	Health Care & Social Assistance	126,289	11.6	79	8.8
71	Arts, Entertainment, & Recreation	19,127	1.8	128	14.2
72	Accommodation & Food Services	153,520	14.1	74	8.2
81	Other Services (except Public Admin.)	44,321	4.1	97	10.8

Note: Survey responses under code 71 include activities coded as 72 in the Census data.

Table A6: Employment by Industry and Race – Austin MSA

Industry (NAICS 2-digit)	Total Employment	Hispanic	White	Black or African American	American Indian or Alaska Native	Asian	Hawaiian or Pacific Islander	Native	Two or More Race Groups
Agriculture & Hunting	1,397	33.7	60.3	3.4	0.0	1.9	0.0	0.0	0.5
Mining	4,160	33.4	55.9	5.1	0.4	4.0	0.2	0.2	1.0
Utilities	2,511	20.8	65.5	4.6	0.4	7.3	0.0	0.0	1.3
Construction	78,238	39.9	50.9	5.3	0.4	2.5	0.2	0.2	0.9
Manufacturing	69,362	26.3	51.8	7.3	0.3	12.9	0.1	0.1	1.3
Retail Trade	127,292	35.7	47.3	9.9	0.3	5.0	0.2	0.2	1.6
Wholesale Trade	54,687	23.2	60.0	7.3	0.3	7.8	0.2	0.2	1.3
Transportation & Ware.g	24,901	33.7	40.8	20.7	0.3	2.8	0.2	0.2	1.4
Information	39,434	19.2	61.3	7.3	0.3	10.0	0.1	0.1	1.8
Finance & Insurance	47,899	26.3	56.8	9.0	0.3	6.2	0.1	0.1	1.4
Real Estate Rental & Leasing	26,170	32.5	54.2	8.8	0.3	2.7	0.1	0.1	1.4
Professional, Scien., & Tech.	144,185	18.7	62.0	6.6	0.3	10.7	0.1	0.1	1.6
Management of Comp. & Ent.	8,480	30.0	48.4	14.4	0.3	5.3	0.1	0.1	1.5
Admin., Waste Mgt & Remed.	96,928	34.9	41.6	17.5	0.3	4.1	0.2	0.2	1.4
Educational Services	23,191	22.1	61.5	9.1	0.3	5.2	0.1	0.1	1.7
Health Care & Social Asst.	126,289	29.5	49.0	14.0	0.3	5.6	0.1	0.1	1.5
Arts, Ent., & Rec.	19,127	23.3	64.2	7.3	0.3	2.7	0.2	0.2	2.1
Accommodation & Food Serv.	153,520	34.3	47.7	10.0	0.4	5.5	0.2	0.2	1.9
Others (except Public Admin.)	44,321	29.4	55.1	8.2	0.3	5.2	0.2	0.2	1.7

Source: Quarterly Workforce Indicators (Third Quarter, 2019), Census Bureau.

Table A7: Employment by Industry and Ethnicity in Austin MSA (3-digit NAICS)

Industry (NAICS 2-digit)	Total Employment	Hispanic	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Two or More Race Groups
Crop Production	575	30.8	61.7	3.8	2.6	0.0	0.0	0.7
Animal Production & Aqua.	559	36.9	57.6	3.4	1.4	0.0	0.0	0.5
Fishing, Hunting & Trapping	10 40.0	70.0	0.0	0.0	0.0	0.0	0.0	
Support Activities for Agric. .	253	33.2	62.9	2.4	1.2	0.0	0.0	0.0
Oil & Gas Extrac.	1,067	22.5	70.3	2.9	3.2	0.3	0.0	0.8
Mining (except Oil & Gas)	1,426	45.5	43.0	6.5	3.4	0.4	0.3	0.8
Support Activities for Mining	1,667	30.1	57.7	5.3	5.1	0.4	0.2	1.3
Utilities	2,511	20.8	65.5	4.6	7.3	0.4	0.0	1.3
Construction of Buildings	15,877	28.1	63.3	4.9	2.4	0.4	0.1	1.0
Heavy & Civil Engineering Const.	13,931	45.6	44.9	5.4	2.6	0.5	0.2	0.8
Specialty Trade Contractors	48,430	42.1	48.6	5.4	2.4	0.4	0.2	0.9
Food Manufacturing	3,921	38.0	42.8	9.1	8.5	0.4	0.2	1.1
Bev. & Tobacco Prod. Manuf.	2,299	27.9	60.2	8.4	1.7	0.3	0.0	1.5
Textile Mills	89	47.2	41.6	5.6	3.4	0.0	0.0	0.0
Textile Product Mills	226	30.5	62.4	2.7	2.7	0.0	0.0	1.3
Apparel Manufacturing	163	22.1	66.3	1.8	8.0	0.0	0.0	2.5
Leather & Allied Prod. Manuf	218	37.6	34.9	23.9	2.3	0.0	0.0	0.9
Wood Prod. Manuf.	1,020	51.3	36.9	7.2	3.1	0.4	0.0	1.0
Paper Manuf.	312	41.4	43.3	9.3	3.9	0.0	0.0	1.3
Printing & Rel. Support Act.	2,391	30.5	57.1	7.3	3.6	0.5	0.0	1.0
Petroleum & Coal Prod. Manuf.	129	38.8	51.9	7.8	0.0	0.0	0.0	0.0
Chemical Manufacturing	2,952	21.9	47.5	16.5	12.0	0.3	0.2	1.7
Plastics & Rubber Prod. Manuf.	1,829	41.6	37.0	12.0	7.8	0.3	0.3	1.1
Nonmetallic Mineral Prod. Manuf.	3,339	49.5	36.6	11.1	1.6	0.3	0.1	0.9
Primary Metal Manuf.	532	45.1	42.1	8.5	2.3	0.0	0.0	1.7
Fabricated Metal Prod. Manuf.	4,963	36.3	52.0	5.9	3.6	0.7	0.2	1.3
Machinery Manuf.	4,325	22.9	55.2	8.1	12.1	0.3	0.1	1.2
Comp. & Elect. Prod. Manuf.	31,282	16.5	54.7	5.7	21.3	0.2	0.1	1.3
Elect. Equip., Appl., & Component	2,946	34.2	52.7	6.0	5.8	0.1	0.1	1.1
Transportation Equip. Manuf	1,542	38.8	47.0	7.3	4.6	0.4	0.0	1.8
Furn. & Related Prod. Manuf.	1,854	40.5	47.8	8.5	1.4	0.4	0.2	1.4
Miscellaneous Manufacturing	3,030	27.9	58.3	5.4	6.6	0.4	0.1	1.4
Mcht Wholes., Durable Goods	40,947	21.6	61.1	6.7	9.0	0.3	0.1	1.3
Mcht Wholes., Nondurable Goods	9,016	32.9	51.5	11.2	2.8	0.2	0.2	1.2
Wholes. Elect. MKts & Agents	4,724	18.7	66.8	5.6	7.0	0.3	0.2	1.4
Motor Vehicle & Parts	15,099	37.5	52.3	6.3	2.1	0.3	0.2	1.4
Furniture & Home Furnish. Stores	4,424	30.3	54.9	10.0	2.9	0.4	0.2	1.5
Electronics & Appliance Stores	5,018	30.5	50.5	8.8	7.7	0.5	0.1	1.9
Building Mat. & Garden Equip.	9,355	33.3	55.1	8.3	1.5	0.4	0.1	1.4
Food & Beverage Stores	25,036	39.9	43.8	8.3	6.0	0.3	0.2	1.5
Health & Personal Care Stores	6,779	33.0	47.4	10.2	7.5	0.3	0.2	1.5
Gasoline Stations	6,572	29.6	38.2	9.9	20.0	0.4	0.3	1.7

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Table A7: Employment by Industry and Ethnicity in Austin MSA (3-digit NAICS)
(continued)

Industry (NAICS 2-digit)	Total Employment	Hispanic	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Two or More Race Groups
Clothing & Accessories Stores	16,113	41.0	37.6	15.3	3.8	0.3	0.2	1.8
Sport, Music, & Book Stores	5,182	32.3	57.2	5.9	2.3	0.3	0.1	1.7
General Merchandise Stores	17,383	41.7	38.4	13.5	4.3	0.4	0.2	1.6
Misc. Store Retailers	7,611	28.7	58.9	7.0	3.0	0.3	0.1	1.9
Nonstore Retailers	8,720	21.6	61.5	10.1	4.8	0.3	0.2	1.6
Air Transportation	1,133	20.2	63.5	9.9	3.9	0.3	0.4	1.9
Truck Transportation	5,790	34.1	42.5	19.1	2.6	0.2	0.2	1.3
Transit & Ground Transp.	3,586	29.6	31.8	35.6	1.5	0.5	0.1	1.0
Pipeline Transportation	175	32.6	58.9	5.7	0.0	0.0	0.0	0.0
Scenic & Sightsee Transp	82	17.1	79.3	0.0	0.0	0.0	0.0	0.0
Support Activities for Transp.	3,273	31.5	49.3	14.4	2.8	0.3	0.3	1.4
Couriers & Messengers	5,754	33.4	38.7	23.6	2.2	0.4	0.1	1.7
Warehousing & Storage	5,108	41.3	36.1	16.1	4.8	0.3	0.2	1.3
Publishing Ind.(except Internet)	8,133	14.4	69.8	4.2	9.3	0.4	0.1	1.7
Motion Picture & Sound Recor. Ind.	7,266	24.0	61.3	7.9	4.3	0.3	0.1	2.0
Broadcasting (except Internet)	1,166	25.3	64.0	6.4	2.2	0.3	0.0	1.7
Telecommunications	7,975	26.2	45.8	12.3	13.6	0.4	0.1	1.6
Data Proc., Hosting, & Rel. Serv	8,003	16.6	62.5	7.2	11.4	0.2	0.2	1.9
Other Information Services	6,891	13.8	67.1	4.6	12.0	0.3	0.1	2.1
Credit Intermed & Rel. Activ.	20,248	32.0	51.1	8.5	6.5	0.3	0.1	1.4
Securities, Contracts & Other Inv.	9,291	14.0	67.0	6.7	10.6	0.2	0.1	1.3
Insurance Carriers & Rel. Activ.	17,950	26.4	57.6	10.8	3.6	0.2	0.1	1.4
Funds, Trusts, & Other Fin. Vehicles	410	16.1	72.9	4.2	5.4	0.0	0.0	1.2
Real Estate	19,457	33.1	55.1	7.1	2.9	0.3	0.1	1.4
Rental & Leasing Services	6,488	31.4	51.1	13.6	2.0	0.3	0.1	1.4
Lessors of Assets (except Copyright)	225	19.1	67.1	8.0	4.0	0.0	0.0	1.8
Professional, Scien., & Tech. Services	144,185	18.7	62.0	6.6	10.7	0.3	0.1	1.6
Management of Comp. & Ent.	8,480	30.0	48.4	14.4	5.3	0.3	0.1	1.5
Admin. & Support Serv.	93,696	34.7	41.6	17.6	4.2	0.3	0.2	1.4
Waste Mgt and Remed. Servs.	3,232	39.5	42.6	15.2	1.1	0.3	0.1	1.2
Educational Services	23,191	22.1	61.5	9.1	5.2	0.3	0.1	1.7
Ambulatory Health Care Serv.	56,602	30.0	51.3	11.2	5.7	0.3	0.1	1.4
Hospitals	29,586	24.7	56.3	9.8	7.3	0.3	0.1	1.5
Nursing & Residential Care Fac.	16,275	30.3	36.8	27.0	3.9	0.3	0.2	1.5
Social Assistance	23,826	33.8	43.1	17.1	4.1	0.3	0.2	1.5
Performing Arts, Sports, & Rel. Ind.	5,208	19.9	69.1	6.3	2.4	0.4	0.1	1.8
Museums, Hist. Sites, & Similar Inst.	577	23.2	68.3	3.5	2.4	0.0	0.0	2.1
Amusement, & Recreation Ind.	13,342	24.6	62.0	7.8	2.9	0.3	0.2	2.2
Accommodation	18,197	38.6	41.6	11.3	6.5	0.3	0.2	1.5
Food Services & Drink Places	135,323	33.7	48.6	9.8	5.4	0.4	0.2	1.9
Repair & Maintenance	12,468	34.3	52.9	7.6	3.1	0.3	0.2	1.6
Personal & Laundry Serv.	16,345	29.8	51.1	8.6	8.3	0.3	0.2	1.8
Religious, Grant, Civic, & Others	13,321	23.1	63.0	8.3	3.5	0.2	0.1	1.8
Private Households	2,187	37.5	49.4	8.0	3.1	0.2	0.0	1.7

Table A8: Employment by Industry and Gender in Austin MSA (2-digit NAICS)

Industry	Total Employment	Male (%)	Female (%)
Agriculture, Forestry, Fishing & Hunting	1,397	65.5	34.7
Mining	4,160	74.2	25.8
Utilities	2,511	71.3	28.7
Construction	78,238	78.7	21.3
Manufacturing	69,362	70.4	29.6
Retail Trade	127,292	49.7	50.3
Wholesale Trade	54,687	68.3	31.8
Transportation & Warehousing	24,901	67.1	32.9
Information	39,434	62.6	37.4
Finance & Insurance	47,899	44.1	55.9
Real Estate Rental & Leasing	26,170	55.4	44.6
Professional, Scientific, & Technical Services	144,185	57.0	43.0
Management of Companies & Enterprises	8,480	45.5	54.5
Administration, Waste Management & Remediation	96,928	57.9	42.1
Educational Services	23,191	32.2	67.8
Health Care & Social Assistance	126,289	22.7	77.3
Arts, Entertainment, & Recreation	19,127	51.9	48.1
Accommodation & Food Services	153,520	50.3	49.7
Other Services (except Public Admin.)	44,321	45.3	54.7

Source: : Quarterly Workforce Indicators (Third Quarter, 2019), Census Bureau.

Table A9: Employment by Industry and Gender in Austin MSA (3-digit NAICS)

Industry	Total	Male (%)	Female (%)	Industry	Total	Male (%)	Female (%)
Crop Production	575	64.0	36.2	Sport Goods, Music, & Books	5,182	50.1	50.0
Animal Production and Aqua.	559	67.3	32.7	General Merch. Stores	17,383	40.6	59.4
Fishing, Hunt & Trappi.	10	70.0	40.0	Miscellaneous Store Retail.	7,611	45.4	54.6
Support Activ. for Agric. & Fores.	253	64.8	35.2	Non-store Retailers	8,720	39.3	60.7
Oil & Gas Extrac.	1,067	70.2	29.9	Air Transportation	1,133	64.5	35.5
Mining (except Oil & Gas)	1,426	73.9	26.2	Truck Transportation	5,790	80.8	19.2
Support Activ. for Min.	1,667	77.0	23.0	Transit & Ground Transp.	3,586	57.1	42.9
Utilities	2,511	71.3	28.7	Pipeline Transportation	175	72.6	27.4
Const. of Buildings	15,877	72.7	27.3	Scenic & Sightseeing Transp.	82	54.9	45.1
Heavy & Civil Eng. Const.	13,931	79.8	20.2	Support Activ. for Transp.	3,273	72.8	27.3
Spec. Trade Contractors	48,430	80.3	19.7	Couriers & Messengers	5,754	68.3	31.7
Food Man.	3,921	54.1	45.9	Warehousing & Storage	5,108	54.0	46.0
Bev. & Tobacco Prod. Man.	2,299	67.5	32.5	Publish. Ind. (excl. Internet)	8,133	61.5	38.5
Tex. Mills	89	57.3	42.7	Motion Picture & Sound Rec.	7,266	62.3	37.7
Tex. Prod. Mills	226	51.3	48.7	Broadcas. (except Internet)	1,166	56.4	43.7
Apparel Man.	163	31.3	68.7	Telecomm.	7,975	70.1	29.9
Leather & Allied Prod. Man.	218	49.1	50.9	Data Proc., & Rel. Serv.	8,003	62.3	37.8
Wood Prod. Manufacturing	1,020	79.6	20.4	Other Info. Services	6,891	57.1	42.9
Paper Man.	312	48.1	51.9	Credit Intermed. & Rel. Activ.	20,248	43.9	56.1
Printing & Rel. Support Activ.	2,391	61.9	38.1	Securities, Contr., & other Fin.	9,291	58.2	41.8
Petroleum & Coal Prod. Man.	129	86.1	14.7	Insurance & Rel. Activ.	17,950	36.7	63.3

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Table A9 : Employment by Industry and Gender in Austin MSA (3-digit NAICS) (continued)

Industry	Total	Male (%)	Female (%)	Industry	Total	Male (%)	Female (%)
Chemical Manufacturing	2,952	59.8	40.2	Funds, Trusts, & Other Fin.	410	55.4	44.6
Plastics and Rubber Prod. Man.	1,829	62.3	37.7	Real Estate	19,457	49.8	50.2
Nonmetal Min. Prod.t Man.	3,339	85.0	15.0	Rental & Leasing Serv.	6,488	72.0	28.0
Pry Metal Manuf.	532	65.0	34.8	Lessors of Intang. (excl. Copyr.)	225	61.3	38.7
Fabr. Metal Prod. Man.	4,963	77.4	22.6	Prof., Scien., & Tech. Serv.	144,185	57.0	43.0
Mach Man.	4,325	77.9	22.2	Mgt of Comp. & Ent.	8,480	45.5	54.5
Comp. & Elect. Prod. Man.	31,282	71.8	28.2	Adm. & Support Serv.	93,696	57.2	42.8
Elect. Equip., Appl., & Comp.	2,946	72.6	27.4	Waste Mgt & Remed. Serv.	3,232	78.1	21.9
Transp. Equip. Manuf.	1,542	73.5	26.5	Educational Serv.	23,191	32.2	67.8
Furn. & Rel. Prod. Man.	1,854	77.1	22.9	Amb. Health Care Serv.	56,602	22.8	77.2
Misc. Manufacturing	3,030	60.0	40.0	Hospitals	29,586	22.0	78.0
Merch. Durable Goods	40,947	68.1	31.9	Nursing & Resid. Care Fac.	16,275	25.3	74.7
Merch. Nondurable Goods	9,016	71.1	29.0	Social Ass.	23,826	21.4	78.6
Wholes. Elec. Markets & Agents	4,724	63.9	36.1	Perfor. Arts, Sports, & Rel. Ind.	5,208	56.5	43.5
Motor Veh. & Parts Dealers	15,099	77.5	22.5	Museums, Hist. Sites, & others	577	37.4	62.6
Furn. & Home Furnish Stores	4,424	48.7	51.3	Amusement & Rec. Ind.	13,342	50.7	49.3
Elec. & Appl. Stores	5,018	65.4	34.6	Accom	18,197	45.4	54.6
Build. Mat. & Garden Equip.	9,355	67.9	32.1	Food Serv. & Drink Places	135,323	51.0	49.0
Food & Bev. Stores	25,036	52.3	47.7	Rep. & Maint.	12,468	79.4	20.6
Health & Per. Care Stores	6,779	34.3	65.7	Pers.& Laundry Serv.	16,345	28.9	71.1
Gas Stations	6,572	51.5	48.6	Rel, Grants, Prof., & others	13,321	38.7	61.3
Clothing & Acces. Stores	16,113	27.8	72.2	Private Households	2,187	13.4	86.6

Source: Quarterly Workforce Indicators, Census Bureau (Third Quarter, 2019)

Table A10 : Employment by Industry and Education in Austin MSA (2-digit NAICS)

Industry	Total Employment	Less than high school (%)	High school or equivalent, no college (%)	Some college or Associate degree (%)	Bachelor's degree or advanced degree (%)	Educational attainment not available (24 or younger) (%)
Agriculture, Forestry, Fish., & Hunt.	1,397	23.4	23.1	23.1	16.5	13.7
Mining	4,160	19.2	25.9	26.2	20.8	7.9
Utilities	2,511	10.7	22.5	30.0	30.6	6.3
Construction	78,238	22.3	24.9	25.3	14.9	12.7
Manufacturing	69,362	14.5	21.7	27.8	28.8	7.2
Retail Trade	127,292	14.7	21.3	23.1	14.3	26.7
Wholesale Trade	54,687	13.0	22.8	28.5	29.1	7.7
Transportation and Warehousing	24,901	17.1	25.4	27.2	14.3	16.0
Information	39,434	10.8	19.0	26.3	32.7	11.2
Finance and Insurance	47,899	11.6	20.3	29.0	31.7	7.5
Real Estate Rental and Leasing	26,170	17.0	23.2	27.1	19.4	13.4
Professional, Scien., and Tech. Serv.	144,185	10.9	18.7	26.2	34.7	9.5
Management of Comp.s and Ent.	8,480	15.2	22.2	26.2	21.2	15.2
Waste Mgmt and Remediation Serv.	96,928	19.2	23.0	25.6	17.4	14.9
Educational Services	23,191	11.4	18.5	24.8	28.5	16.9
Health Care and Social Assistance	126,289	14.7	21.9	30.2	22.4	10.8
Arts, Entertainment, and Recreation	19,127	11.3	18.3	22.3	17.5	30.7
Accommodation and Food Services	153,520	16.0	18.5	18.9	11.5	35.1
Other Services (except Public Admin.)	44,321	15.3	21.8	25.8	18.4	18.8

Source : Quarterly Workforce Indicators (Third Quarter, 2019), Census Bureau.

Table A11 : Employment by Industry and Education in Austin MSA (3-digit NAICS)

Industry	Total Employment	Less than high school (%)	High school or equivalent, no college (%)	Some college or Associate degree (%)	Bachelor's degree or advanced degree (%)	Educational attainment not available (24 or younger) (%)
Crop Production	575	21.4	21.6	23.0	17.0	17.0
Animal Production & Aqua.	559	24.7	24.5	23.4	16.5	10.9
Fishing, Hunting & Trapping	10	0.0	30.0	0.0	20.0	50.0
Support Activities for Agric. & Fores.	253	26.1	22.9	23.7	15.0	12.7
Oil & Gas Extrac.	1,067	14.1	25.8	29.5	26.4	4.2
Mining (except Oil & Gas)	1,426	26.0	26.0	22.2	14.5	11.6
Support Activities for Mining	1,667	16.7	25.9	27.6	22.7	7.2
Utilities	2,511	10.7	22.5	30.0	30.6	6.3
Construction of Buildings	15,877	17.8	24.2	27.9	20.4	9.7
Heavy & Civil Eng. Const.	13,931	25.4	23.8	23.1	14.4	13.3
Specialty Trade Contractors	48,430	22.8	25.5	25.0	13.3	13.5
Food Manufacturing	3,921	21.6	23.0	23.5	16.5	15.5
Bev.& Tobacco Prod. Manuf.	2,299	16.8	25.5	27.5	18.1	12.1
Textile Mills	89	22.5	19.1	25.8	12.4	19.1
Textile Product Mills	226	16.4	24.3	27.9	19.0	12.4
Apparel Manuf.	163	14.7	21.5	26.4	25.2	11.7
Leather & Allied Prod.Manuf.	218	10.6	17.4	19.3	11.5	41.3
Wood Product Manuf.	1,020	25.7	25.3	24.2	12.8	12.1
Paper Manuf.	312	18.9	25.0	26.6	21.5	7.7
Printing & Rel. Support Actv.	2,391	15.6	27.5	31.2	19.4	6.4
Petroleum & Coal Prod. Manuf.	129	20.9	27.9	30.2	14.7	6.2
Chemical Manufacturing	2,952	12.8	23.1	30.5	26.9	6.7
Plastics & Rubber Products Manuf.	1,829	21.1	26.4	27.1	14.8	10.7
Nonmetallic Mineral Product Manuf.	3,339	27.1	28.9	25.5	11.4	7.1
Primary Metal Manuf.	532	17.1	23.1	27.1	14.1	18.4
Fabricated Met. Prod. Manuf.	4,963	20.5	26.4	27.4	14.7	11.0
Machinery Manufacturing	4,325	12.9	21.7	31.1	30.2	4.1
Comp. & Elect. Prod. Manuf.	31,282	9.5	17.5	27.8	40.6	4.6
Electr. Equip., Appl., & Comp. Manuf.	2,946	17.4	24.3	28.8	23.5	6.1
Transportation Equip. Manuf.	1,542	16.9	28.0	29.0	17.9	8.2
Furn. & Related Prod. Manuf.	1,854	22.8	26.5	26.0	13.3	11.3
Miscellaneous Manufacturing	3,030	15.9	25.9	29.9	21.7	6.7
Mcht Wholes., Durable Goods	40,947	12.3	21.1	28.6	30.8	7.3
Mcht Wholes., Nondurable Goods	9,016	16.7	25.1	28.4	19.6	10.3
Wholes. Elect. Mkts & Agents	4,724	11.9	20.9	28.2	31.8	7.1
Motor Vehicle &Parts	15,099	16.4	25.0	27.0	13.6	18.0
Furniture & Home Furnish. Stores	4,424	14.2	22.8	26.9	17.0	19.1
Electronics & Appliance Stores	5,018	13.3	19.6	25.6	22.7	18.8
Building Mat. & Garden Equip.	9,355	14.9	24.6	26.5	14.1	20.0
Food & Beverage Stores	25,036	15.7	21.0	21.7	12.27	29.3
Health & Personal Care Stores	6,779	13.8	21.4	24.8	17.0	23.0
Gasoline Stations	6,572	17.2	21.6	22.0	17.1	22.0

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Table A11 : Employment by Industry and Education in Austin MSA (3-digit NAICS) (continued)

Industry	Total Employment	Less than high school (%)	High school or equivalent, no college (%)	Some college or Associate degree (%)	Bachelor's degree or advanced degree (%)	Educational attainment not available (24 or younger) (%)
Clothing & Accessories Stores	16,113	11.5	14.7	16.1	10.2	47.6
Sport. Goods, Music & Book Stores	5,182	12.0	20.2	22.6	14.3	30.9
General Merchandise Stores	17,383	16.0	22.0	21.8	11.0	29.3
Misc. Store Retailers	7,611	13.0	21.3	24.0	15.2	26.6
Nonstore Retailers	8,720	14.8	23.4	27.9	24.2	9.8
Air Transportation	1,133	11.7	25.9	33.5	24.5	4.7
Truck Transportation	5,790	19.1	27.0	26.1	13.3	14.6
Transit & Ground Transp.	3,586	18.7	29.6	32.6	12.6	6.5
Pipeline Transportation	175	16.0	28.0	32.6	16.0	7.4
Scenic & Sightsee. Transp.	82	17.1	24.4	28.1	28.1	0.0
Support Activities for Transp.	3,273	17.4	24.8	26.2	15.7	16.0
Couriers & Messengers	5,754	15.8	24.1	27.3	13.0	19.8
Warehousing & Storage	5,108	16.2	22.1	23.8	14.6	23.2
Publishing Ind. (except Internet)	8,133	9.5	17.6	27.0	40.2	5.8
Motion Picture & Sound Recording	7,266	10.0	17.2	20.8	20.5	31.5
Broadcasting (except Internet)	1,166	11.2	19.0	28.3	32.3	9.2
Telecommunications	7,975	11.8	20.3	29.1	32.1	6.7
Data Proc., Hosting, & Rel. Serv.	8,003	11.4	19.8	27.4	35.1	6.2
Other Information Services	6,891	11.4	19.9	26.4	34.8	7.5
Credit Intermed. & Related Activ.	20,248	12.8	20.8	28.5	28.4	9.6
Securities, Contracts, & Other Invest.	9,291	8.6	16.8	25.8	41.4	7.3
Insurance Carriers & Rel. Activ.	17,950	11.8	21.6	31.3	30.2	5.2
Funds, Trusts, & Other Fin. Vehicles	410	10.0	18.5	26.3	39.8	5.6
Real Estate	19,457	17.4	23.0	27.5	20.8	11.4
Rental & Leasing Services	6,488	16.1	24.0	26.0	14.7	19.3
Lessors of Assets (excl. Copyright)	225	11.1	19.6	25.3	27.6	16.4
Professional, Scien., & Tech. Services	144,185	10.9	18.7	26.2	34.7	9.5
Management of Comp. & Ent.	8,480	15.2	22.2	26.2	21.2	15.2
Admin. & Support Serv.s	93,696	19.1	22.9	25.5	17.5	15.0
Waste Mgt. and Remed. Servs	3,232	21.3	27.6	27.7	13.6	9.8
Educational Services	23,191	11.4	18.5	24.8	28.5	16.9
Ambulatory Health Care Serv.	56,602	14.2	21.8	30.6	24.1	9.3
Hospitals	29,586	12.6	21.2	33.1	26.6	6.6
Nursing & Residential Care Fac.	16,275	17.7	24.1	29.4	16.5	12.4
Social Assistance	23,826	16.2	21.7	26.3	17.3	18.6
Performing Arts, Sports, & Rel. Ind.	5,208	12.7	21.7	26.7	22.7	16.2
Museums, Hist. Sites, & Similar Inst.	577	9.4	16.8	20.1	19.8	34.1
Amusement & Recreation Ind.	13,342	10.8	17.0	20.6	15.3	36.2
Accommodation	18,197	21.4	22.2	23.6	15.1	17.8
Food Services & Drink Places	135,323	15.3	18.0	18.3	11.0	37.4
Repair & Maintenance	12,468	17.2	24.2	26.3	14.0	18.4
Personal & Laundry Servs.	16,345	16.7	22.2	25.1	15.6	20.5
Religious, Grant making, & Similar Orgs.	13,321	10.7	19.0	26.2	26.1	18.1
Private Households	2,187	22.4	22.7	25.2	17.3	12.4