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Articles

COVID-19 Small Business Impacts in the Texas Coastal Bend: A Hyperlocal Approach for Small Towns & Rural Communities

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Coronavirus (COVID-19) has caused mass economic distress across communities. Historically, rural areas have more difficulty recovering from economic crises, though the severity of impacts may go uncaptured as these areas also tend to have lower response rates to broader surveys. This study was conducted in the South Texas Coastal Bend to better understand the economic impacts of COVID-19 on local businesses with a methodology that can be replicated in future observations. Results show that by late Summer 2020, 28 percent of small business owners reported losing over half of their revenue. However, 65 percent of businesses reported no reductions in staff, 9 percent hired new employees, and over three-quarters of businesses surveyed did not anticipate permanent workforce reductions. Top concerns about reopening included socially distancing employees and customers, providing face masks and personal protective equipment (PPE), and ensuring sanitation supplies stay stocked. These results show initial resilience of a rural region but also raise important questions regarding those most impacted by the economic effects of the pandemic; understanding the long-term impacts will prove to be challenging but essential to ensuring the economic stability of small towns and rural communities.

Introduction

Coronavirus (COVID-19) has affected the livelihood of virtually every person across the globe, with grave consequences for public health. However, the impacts of COVID-19 reach far beyond public health; COVID-19 has created severe economic conditions not seen in some countries since the Second World War (World Health Organization, 2020; Reuters, 2020). In the United States alone, consumer confidence plummeted at the onset of the pandemic, with the unemployment rate peaking at 14.7 percent in April 2020 (The Conference Board, 2020; United States Department of Labor, 2020). Globally, the virus may send some countries into recession, while the international market saw the "fastest, steepest downgrades in consensus growth projections among all global recessions since 1990" (The World Bank, 2020). Essential industries took hard hits from these troubling times. The price of oil fell substantially, dropping below $50 per barrel (Wells, 2020), while international air travel hit its lowest point on April 12, 2020 at merely 46,294 flights that day, down from 193,655 on the same date in 2019 (Flightradar24, 2020). In the United States, the number of working business owners took a plunge in April as well, dropping from 15 million to 11.5 million: the single largest occupational drop on record (Fairlie, 2020).

While these global and international trends are important to measure and analyze, it is also essential to understand the economic effects of the coronavirus at the local level. Doing so provides communities a means to address issues that affect people in their day-to-day lives and offers a better understanding of the resources needed to address specific impacts. To develop this understanding, this study used a stratified sampling methodology to conduct a telephone-based survey on COVID-19 economic impacts to small and medium size businesses in rural and small town areas in the South Texas Coastal Bend.

Small Towns and Rural Communities Face Unique Economic Challenges

Local governments existing outside of their metropolitan counterparts, called nonmetro counties, have historically faced issues when recovering from economic depression (United States Department of Agriculture, 2019). According to the United States Office of Management and Budget (OMB), metropolitan areas, also known as a metropolitan statistical areas (MSAs), "have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties" (United States Office of Management and Budget, 2013, p. 2). The United States Department of Agriculture (USDA) reports that after the Great Recession of 2009, nonmetro employment increased at an average annual rate of 0.4 percent between 2010 and 2018, while metro areas grew by 1.5 percent per year (USDA, 2019). By the second quarter of 2019, metro employment was above the pre-recession level by more than 9 percent, while nonmetro employment growth dragged behind at 1 percent below pre-recession levels,

likely due in-part to the disproportionate rate of population growth between these two types of counties (USDA, 2019). For example, in rural counties that are non-adjacent to metro counties, a 2 percent decrease occurred in population, whereas metro counties experienced a 7 percent increase (USDA 2019). Nonmetro counties also have faced higher poverty rates compared to their counterparts, and the gap of personal income per person (PIPP) has grown since 2010 (USDA, 2019). In 2017, the PIPP was about $54,000 in metro areas and less than $40,000 in nonmetro sectors (USDA, 2019). Largely, this is due to nonmetro communities being more likely to have a less educated, older, and more disabled population (USDA, 2019). A study by Gascon & Reinbold (2019) further supports the theory that nonmetro areas in the U.S. have a significant disparity in growth compared to metro counties, finding that from 2012-2015 the distribution growth of gross domestic product (GDP) of metro counties exceeded that of nonmetro from 1.68-1.97 percent (Gascon & Reinbold, 2019). Such inequality suggests that rural economies lack the advantages of more service-based urban sectors and therefore may face more challenges when recovering from economic disasters. As such, it is paramount to pay particular attention to rural and small-town communities in this time of crisis.

Texas Response to COVID-19

On March 19, 2020, Texas Governor Greg Abbott signed an Executive Order closing bars, gyms, and restricting restaurants to carry-out and drive thru only (Cochran, 2020). On April 24, some retailers were allowed to serve customers at curbside and in-store pickup (Office of the Texas Governor, 2020; Taylor, 2020). The month of May saw reopening of bars and gyms at 25 percent capacity; meanwhile, hair salons were able to resume services with one customer at a time (Kamath, 2020; Svitek, 2020a). June followed with allowing all businesses to open to 50 percent and restaurants to 75 percent, the latter of which was reduced again to 50 percent following a surge of coronavirus cases in the state (Smith, 2020; Svitek, 2020b).

As the competition for both private and public financial assistance is fierce, it is necessary for local jurisdictions to demonstrate need, including through economic impact assessment. In the Spring and Summer of 2020, Texas A&M University – Corpus Christi's (TAMUCC) South Texas Economic Development Center (STEDC) worked with the Corpus Christi Regional Economic Development Corporation and others to issue web-based surveys to capture economic impacts to Coastal Bend businesses (South Texas Economic Development Center (STEDC), 2020a, 2020b, 2020c; Texas A&M University – Corpus Christi, 2020). Despite this effort, local experts agreed that rural counties disproportionally respond to online surveys at a lower rate than their urbanized counterparts. Pew Research Center supports this claim as well, stating that there is lower access to internet in areas that are rural and have older, less affluent, and undereducated residents, which in turn leads to underrepresentation in online-based surveys (Pew Research Center, n.d.). To better understand impact in these communities, a telephone-based survey was selected as the most appropriate approach.

Research Objective

The objective of this study was to assess local economic impacts of COVID-19 in four adjoined rural counties in the South Texas Coastal Bend: Aransas, Bee, Refugio and San Patricio. In addition to better understanding local economic impacts in each county, we also provide a methodological framework that can be replicated in other small town/rural areas. The expected significance of this study is to provide useful data to local officials, Chambers of Commerce, Economic Development Corporations and other partners as they seek to understand and pursue resources to address persistent economic impacts of COVID-19.

Data and Methods

Survey Methodology and Strategies

This study was conducted from July 16, 2020 to August 14, 2020 using stratified sampling methodology of 2,254 business establishments across the four counties. The data were purchased from a National U.S. Business Database maintained by DirectMail.com, which included contact and business information (e.g., employee size) as well as industry classification information. Standard Industrial Classification (SIC) codes were used to separate businesses into categories from the initial pool. For the first four digits of each Primary SIC Code and employee size range (out of 1-4, 5-9, 10-19, 20-49, 50-99, 100-249, 250-499), we selected the first business listed in the smallest town (by population size), with the biggest number of employees within that range. This resulted in an initial sample of 431 businesses. However, after testing for over/undersampling, we found a slight oversampling in Fulton (Aransas County), Odem (San Patricio County), and Taft (San Patricio County). Moreover, there was an undersampling in the larger towns of Beeville (Bee County), Portland (San Patricio County), and Rockport (Aransas County), which is granted given the methodology's preference toward small towns. To correct for undersampling, we applied the same methodology by Primary SIC code focusing only on the undersampled towns, resulting in a survey sample size of 499 businesses. However, some of these were removed because they were large corporate chains such as Walmart and Texas major grocer H-E-B, and thus the final sample resulted in 483 businesses across the four counties. We contacted these businesses via phone and requested to speak with their respective owners or managers. We then asked questions from a standard list used across all phone calls, concluding with a request to follow-up for future surveys. No follow-ups have been conducted at this time.

Results

Survey Response Rate and Types

Of the 483 businesses contacted, we received 93 full responses for a 19 percent response rate. This number, while seemingly low at first glance, is higher than the average of telephone-based response rates, which has fallen to 7-9 percent in some of the nation's top data collecting institutions such as Pew Research Center and the Gallup Poll (Keeter et al., 2017; Marken, 2018). Additionally, though

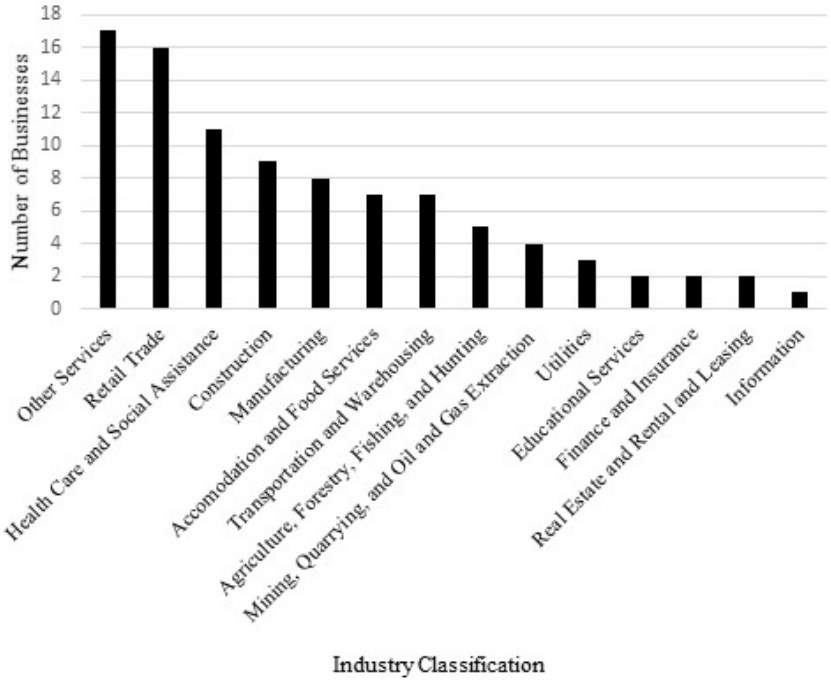

Figure 1. Industries Surveyed.

industries responded at disproportionate rates, responses were gleaned from a diverse set of industries (Figure 1).

Operating Status

During the period issuing the survey (July 16 - August 14, 2020), we found that the majority of businesses (56 percent) were operating at full capacity; 13 percent were operative at over three-quarters capacity, 20 percent at over half capacity, and 11 percent stated that they were operating below half capacity. Many businesses expressed concern over shuttering their doors. Eight percent believed their business could survive for 6 months or more under current conditions, 17 percent for 3-5 months, and 13 percent for only 1-2 months. An additional 58 percent of respondents could not quantify a timeframe in which they would have to close their doors, typically citing they either had no concern or lacked a means of knowing that information.

Revenue Impacts

A decrease in store traffic yielded a drop in revenue for many Coastal Bend entrepreneurs. Some 38 percent of respondents had up to a quarter of their revenue negatively impacted; 34 percent up to half; 17 percent up to three-quarters; and 11 percent with revenue impacts between three-quarters and 100 percent. Businesses were also asked if they applied for financial welfare programs to lessen the economic effects of COVID-19, including the first rounds of the Paycheck Protection Plan (PPP) and Economic Injury Disaster Loans (EIDL). In total, 39 percent of respondents stated they were approved for financial aid under these programs; 6 percent were denied assistance; 34 percent stated that they did not apply at all; 1 percent were in the process of applying, and 20 percent gave other responses. These were typically from lower-end managers or other staff who did not have that information. Reasons not applying for the PPP or EIDL varied from some stating they did not need it, to thinking they were ineligible (though they may have been eligible), to being concerned about paying the money back, to specifically stating that they did not want government assistance. During many calls, we shared contact information for the Del Mar College Small Business Development Center, which provides free guidance to small businesses on the PPP and EIDL during the pandemic.

Effects on Employee Status

Looking at changes to employee counts due to the pandemic, 65 percent of businesses reported no change. While this is uplifting, there were still 35 percent that reported layoffs of some kind, though 6 percent of the layoffs were characterized as reduced hours for employees. Most layoffs reported included 5-7 employees, with a maximum of 16 employees at a retail company. As for terminations, a construction company reported a troubling total of 80 employees, while the average for the rest of businesses that reported terminations was about 5 employees. It must be kept in mind that a small mean drop of employees does not equate to a small effect. For example, one business owner reported all eight staff quit due to the high rate of compensation from unemployment, leaving them with an entire business to run alone.

Fortunately, not all businesses saw layoffs or terminations, including 11 percent of respondents in manufacturing, healthcare, retail trade, and other services who reported new hires. Perhaps the most promising data included 78 percent of business owners who did not anticipate any permanent reductions in their workforce at the time of the

Table 1. Top COV-19 Operational Concerns.

Concern Type	Percentage of Respondents
Other	54
Face masks/PPE	42
Socially distancing customers and employees	41
Sanitation supplies	28
Revenue impacts	24
Increased cleaning services	23
Employee childcare	14
Limiting employee shifts	4
Employee telework	4
COVID-19 screening	2
Plexiglass barriers	2
Hygiene etiquette	1

survey. Although, we should point out that this contradicts with the lack of confidence in business lifespan, where 13 percent of businesses projected that they could only stay open 1-2 months; 17 percent said 3-5 months; 8 percent said 6 months or more, and only 4 percent said more than one year. Nevertheless, the 9 percent of respondents who did anticipate a permanent reduction of employees and the roughly 13 percent who were not sure indicates that the economic impacts from the novel coronavirus will continue.

Employer Reopening Concerns

As a final part of the survey, we inquired about respondents' top concerns for operating their businesses in a safe manner as the state continues to reopen. Being able to safely distance employees and customers was the paramount concern, along with having access to face masks and personal protective equipment (PPE). As for other concerns, these varied from access to sanitation supplies, childcare for employees, revenue impacts, and many more specified below (Table 1).

Discussion

Noteworthy studies are being released on the economic effects of COVID-19. One of the most in-depth and commonly referenced studies so far was done by Bartik et al. (2020) in which they used Alignable, a "network-based platform focused on the small business ecosystem," which enabled them to communicate with 4.5 million small businesses across North America (p. 4). They received responses from 5,819 businesses based in the United States, all meeting the prerequisite of having no more than 500 employees. They found that businesses with fewer than 20 employees were more likely to shut down due to the coronavirus' financial impacts; furthermore, firms with employees numbering between 6 and 19 were at an increased risk of employee reductions. Such studies are key to building the evidence base to understand on-the-ground conditions during this unprecedented event. For example, consider the finding that, on average, 40 percent of businesses studied had reduced their employee counts by some amount since January 2020 (Bartik et al., 2020). Comparing that with our own result of 37.6 percent of businesses with a reduction in employee counts from July to August provides a strong signal of conditions at the local level.

It is also worth noting Bartik et al.'s findings on the projected outlook of businesses. The restaurateurs surveyed in the study stated they only had a 30 percent chance of survival if the economic crisis of the pandemic continued for more than four months past April; as for what would happen after six months, businesses reported a survival rate of 15 percent (Bartik et al., 2020). A comparable metric in our study determined that 13 percent of businesses were projected to close within 1-2 months and 17 percent within 3-5 months. While the businesses surveyed in the Coastal Bend indicated a less grim percentage in total than the national picture, 30 percent of businesses being shut down within less than 5 months in rural communities would have significant negative impacts.

Humphries et al. (2020) surveyed over 8,000 small businesses in the United States and data found that even before economic relief was available, some 59 percent of small businesses had laid off a large portion of their employees. Our results were less severe, with 35 percent reporting any workforce reductions; although, this may have been due to Humphries et al.'s study being conducted from March to April when more lockdown regulations were in place in many areas. A study from Kurmann et al. (2020) also found that the industries of Leisure & Hospitality, Retail Trade, Educational & Health Services, and Other Services reduced their workforces on average by 40 percent by mid-April and increased employment to 20 percent below the pre-pandemic level by mid-June (p. 1). We think it is therefore reasonable to suggest that studies done earlier in the year would produce more grim results.

A question naturally arises when considering this data: is there a correlation between Texas' lockdown restrictions and negative impacts on businesses? It's quite likely given that the survey was conducted during July to August 2020 when Executive Order GA-28 was in effect, which placed a 50 percent occupancy restriction on many businesses (Executive Department, 2020). However, additional factors are worth considering. For example, how much of the public was reluctant to engage in commerce in the same way they did before the COVID-19 outbreak began? Such a question would be worth answering in a future study.

The Issue of Welfare Programs for Small Businesses

Cowling et al. (2020) reports that government-run economic aid programs are certainly necessary in this crisis; although they will not fix the overall issue of small to medium-sized enterprises (SMEs) not being prepared for economic crashes. While the study was conducted in the United Kingdom, Cowling et al. argues that their findings are relevant on a global scale, particularly since most developed economies rely heavily on SMEs. They found that only 39 percent of businesses were "bolstering their cash balances" prior to the pandemic, which suggests that 61 per-

cent of SMEs run the risk of running out of funding if traffic does not return to normal in the near future (Cowling et al., 2020, p. 1-2). Though arguably the pandemic has created impacts to some businesses that are lasting and could not have been foreseen, the study also found 8.9 percent of businesses had no savings at all, which places them in a category of "severe risk" of shutting down due to the pandemic or conceivably any economic disruption (Cowling et al., 2020, p. 1-2).

The United States government did initially take some measures to lessen collapse of the national economy. On March 27, 2020, President Trump signed into law a bipartisan bill named Coronavirus Aid, Relief, and Economic Security, or CARES Act (United States Department of the Treasury, 2020). This massive $2 trillion stimulus package provided "fast and direct economic assistance for American workers, families, and small businesses" (United States Department of the Treasury, 2020). The most relevant form of aid came in the form of a subsidized loan called the Paycheck Protection Program, or PPP (United States Small Business Administration, 2020). This loan was designed to appeal to entrepreneurs because the federal government agreed to fully forgive the loan as long as funds were used for payroll costs, interest on mortgages, rent, and utilities (United States Small Business Administration, 2020). Bartik et al. (2020) found that 72 percent of owners would take out a loan if it would be forgiven. However, this program among other forms of government intervention and philanthropic programs have not been enough to stop small businesses from falling through the cracks. Additionally, not everyone was eager to accept the assistance. In our study, about one third of businesses were not interested at all in the PPP. Most of them simply stated they did not need it, but 13 percent of those who did not apply for the PPP or EIDL specifically did not want the government to keep their business afloat. Reasons varied, but there seemed to be a common lack of trust in public officials. This has been the case in other studies as well – nearly 20 percent of those in Bartik et al.'s (2020) study who did not take out loans said that they did not believe the government would actually forgive their debt, which would leave them to pay back a massive deficit.

A cardinal issue with the PPP lays with those who were denied it. We found that 6 percent of businesses surveyed did not qualify for the PPP; while this is a small percentage in the bigger picture, the reasoning for many of those denied is discouraging, with 14 percent of respondents who either did not apply for or were denied financial aid stating they were denied due to their tax status as 1099 contractors. However, according to the United States Small Business Administration (2020), independent contractors are eligible. This raises the question of how many other businesses were denied across the United States; for instance, whether a portion of participants in Bartik et al.'s study were denied for the same reason.

Another issue with the initial round of the PPP is that some people were simply uninformed about the program. Humphries et al. (2020) argued that larger businesses had disproportionate knowledge of federal aid programs early on, therefore leading to an unequal access of funds (Humphries et al., 2020). Their researchers found that only 50 percent of businesses with fewer than 5 employees knew about economic relief programs at the time of open applications, and this increased only to 70 percent by the initial exhaustion of PPP funds on April 16th. Had the PPP not been given additional funding, tens of thousands of the United States' small businesses would not have known about financial aid before it ran out. It follows that this could cause a disproportionate number of layoffs for these firms when compared to large corporate chains that received millions of dollars from the PPP (Gandel, 2020). Fortunately in our study, only 3 percent of those who did not apply for financial aid were not aware of the PPP or EIDL. This is likely because this study was conducted nearly two months after the end of Humphries et al. (2020), which suggests that more businesses became aware of the program as the time progressed. This is supported by their study due to the 20 percent increase of small businesses of 5 employees or less knowing about the PPP within about one month (Humphries et al., 2020).

Local Implications for Economic Resilience

To better understand longer-term economic impacts of the COVID-19 crisis, it is important to consider these and additional findings in the context of economic resilience. The U.S. Economic Development Administration emphasizes three primary attributes of economic resilience: the ability to recovery quickly from a shock, to withstand a shock, and to avoid the shock all together (Economic Development Administration (EDA), 2020). While empirically this can be difficult to measure (Martin & Sunley, 2015; Rose, 2004), progress is being made to demonstrate economic resilience to disasters, particularly through case studies (Rose, 2009).

In the Texas Coastal Bend, the aforementioned regional survey conducted by TAMUCC's South Texas Economic Development Center and the Corpus Christi Regional Economic Development Corporation showed some signals or broader regional resilience. For example, whereas data identified that more than one-third of businesses were closed during March and April of 2020, by June over 90 percent of businesses reported they were open and operating at about 80 percent of normal levels (South Texas Economic Development Center (STEDC), 2020b). However, businesses did report revenue losses over the same period on average by 30 percent, with some industries – especially in arts and recreation, and hospitality – reporting higher losses (South Texas Economic Development Center (STEDC), 2020b).

Particularly in the study area, is also is important to consider how economic resilience is strengthened or weakened through time. The Texas Coastal Bend is situated in a naturally precarious region, and in particular the counties involved in this study were impacted by numerous disaster over 3 years, including the COVID-19 pandemic but also Hurricane Harvey in 2017 and Hurricane Hanna in 2020. Consideration of how small businesses and the broader economic ecosystem responded to and were impacted by consecutive disasters is important when assessing *dynamic economic resilience,* which Rose (2009) offers as the speed at which an entity or system recovers from a severe shock to achieve a desired state. For example, further analyses would be useful to determine whether prior disaster expe-

rience eroded the resilience of the businesses surveyed, or, alternatively, whether such experience strengthened business practices or support systems to better weather the COVID-19 storm, particularly by fostering local programs, policies or specialized services to help small businesses in times of disaster (Rose, 2009).

Outside of previous disaster experience, still others suggest that the COVID-19 crisis may lead to enhanced support for small to medium businesses through an increase in business incubators focused on fostering economic resilience (Berawi, 2020). There is some initial evidence for this in Texas, for example, through the rise over the past year of the Texas Global Health Security Innovation Consortium (TEXGHS), a consortium between academia, public sector, and private sector partners that are leading the creation and long-term growth of a health security innovation business ecosystem that supports innovators and innovations fighting COVID-19 and future pandemics (Texas Global Health Security Innovation Consortium (TEXGHS), 2020).

Potential for Future Work

There have been interesting discoveries regarding the disproportionality of the economic effects of COVID-19, which may be of interest for further investigation in the Coastal Bend and other small town and rural areas. For example, Robert W. Fairlie of the National Bureau of Economic Research (2020) conducted a study of the Bureau of Labor Statistics' Current Population Survey (CPS) and found troubling patterns with the relationship between the gender, race, and immigrant status of business owners and the pandemic's economic woes. He found that between February and April 2020, the timespan in which many shelter-in-place orders and other regulations were issued across most states, active African American business owners were decreased by 41 percent, Latinx owners dropped by 32 percent, immigrant business owners by 36 percent, and female business owners by 25 percent, whereas active white business owners were reduced by only 17 percent (Fairlie, 2020). The reason behind this was due to the concentration of these groups within the industries of construction, restaurant, hotel, transportation, and personal/laundry services, which experienced sharp declines in the number of active business owners due to the pandemic (Fairlie, 2020). While some owners began to bounce back in the summer, the researcher argues that prolonged termination of female and minority active business owners could lead to further racial inequality at the local community level due to the lack of job opportunities for other job-seeking minorities (Fairlie, 2020). This trend could be further examined in small towns and rural areas to determine if similar disproportionate impacts are taking place.

In 2019 during a time of general economic prosperity in the United States, the Federal Reserve Bank of New York found that Latinx and African-American business owners were much more likely to be classified as "at risk" or "distressed" in their firm's finances when compared to whites, which raises serious questions as to how disproportionately minority businesses of the Coastal Bend were affected by COVID-19's economic impacts (Mills & Battisto, 2020). For instance, minorities make up 45 percent of Refugio County's firms (United States Census Bureau, 2012); a future study could specifically examine impacts across these businesses.

Conclusion

Our study found that small and medium sized businesses in the rural Texas counties of Aransas, Bee, Refugio and San Patricio were negatively impacted by the economic impacts of COVID-19, but that at the time of the study the impacts across the board were not as severe as might be expected. Nevertheless, some businesses were clearly experiencing significant impacts, with with over 28 percent of entrepreneurs reported revenue loss of over 51 percent of income. On the other hand, nearly 65 percent of businesses reported no employee reductions, and 9 percent of respondents in lumber, healthcare, and small groceries had new hires. Moreover, owners had an optimistic outlook on their operations, with 78 percent stating that they did not anticipate permanent reductions in their workforce at the time of the study. When asked about their top concerns while the state continues to reopen, respondents most frequently noted that they need to be able to safely distance employees and customers, provide face masks and personal protective equipment (PPE), and secure sanitation supplies. They were also concerned about revenue impacts, among other issues. The results of this survey raise some important questions to be addressed in future studies, such as how many 1099 contractors were wrongly denied government assistance, or how disproportionately racial minorities, immigrants, and women were affected by the economic impacts of COVID-19. As well, this study points to the importance of using tailored local approaches such as telephone-based surveys to connect with communities in small towns and rural areas, which can be underrepresented in online surveys. Understanding the longer-term economic impacts of COVID-19 in these areas will continue to be both a challenge and important effort.

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