COVID-19 Pandemic in the Houston Region – Wages and Employment
Findings from the Gulf Coast Coronavirus (COVID-19) Community Impact Survey

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The coronavirus pandemic has upended lives of Houston area families and households. In addition to its widespread health impacts, the COVID-19 pandemic also disrupted nearly all aspects of day-to-day life. To better understand the social consequences of COVID-19 on Houston area families and communities, the Houston Education Research Consortium (HERC), in collaboration with Connective (previously, Harvey Home Connect) launched the Gulf Coast Coronavirus (COVID-19) Community Impact Survey in March 2020. This report is one of a three-part series from HERC, and focuses on disruptions to families’ wages and employment during the first six months of the pandemic. COVID-19 has exacerbated inequality in the Houston area. Without decisive and equitable action by local, state, and federal leaders, the pandemic may increase existing social inequality.

Key Findings

- **Black and Hispanic households were more likely than white households to have their wages and employment disrupted.** One in 10 Black workers and one in 10 Hispanic workers lost their job, compared to one in 25 white workers.

- **Workers in lower paying jobs were more likely to have their job disrupted during the first six months of the pandemic.** Three-quarters of workers making less than $20,000 per year reported having their wages and employment disrupted in some way, compared to only one-quarter of workers making $100,000 per year or more.

- **The pandemic disrupted all Houston area industries, but particularly the hospitality industry and entertainment industry.** About 80 percent of hospitality industry (e.g., hotel) and entertainment industry (e.g., movie theater) workers earned less, were furloughed, or lost their jobs.

- **Within most industries, workers making less than $50,000 per year were more likely than workers making $100,000 or more per year to experience a disruption to their wages and employment.** In some industries (e.g., construction; manufacturing) workers earning less than $50,000 per year were two to three times more likely to be negatively affected than workers earning $100,000 or more per year.

- **Many workers who did not experience a disruption to their wages and employment in the first six months of the pandemic still felt a great deal of job insecurity.** More than half of workers in the oil, gas, and chemicals; construction; and manufacturing industries expected to lose their jobs, or were uncertain about their employment future.

- **The percent of workers able to work from home differed by industry.** More than half of the workers in the education; oil, gas, and chemicals; and banking and finance industries were able to relocate their job from an office to home, compared to only one in five manufacturing jobs.
Background

In March 2020, the coronavirus (COVID-19) spread across the United States. By April 2021, more than 31 million Americans had tested positive for COVID-19 and nearly 570,000 had lost their lives because of the disease (Johns Hopkins, 2021). In Harris County, Texas – home to Houston, the fourth largest U.S. city – there have been over 386,000 cases of COVID-19 resulting in nearly 4,000 deaths (Harris County Public Health, 2021). These numbers illustrate how hundreds of thousands of Houston-area residents have had their health directly impacted by COVID-19, thousands more lost lives, with significant costs to families and communities. For millions of other Houston-area residents, and people around the world, while COVID-19 has not directly impacted their health, the virus has brought other costs because of its disruptions to the economy, public education, and life in general.

Houston is often lauded as one of the most diverse large cities in the nation (McCann, 2019; Smanik, 2020), but also struggles under the weight of being one of the most segregated cities by income and race/ethnicity (Cortright, 2020; Emerson et al., undated).

Median household income in the Houston area is a little more than $52,000, which is lower than some major U.S. cities, like New York or Los Angeles, but similar to other large urban Texas cities, like Dallas and San Antonio (U.S. Census Bureau, n.d.). Also similar to Dallas and San Antonio, many residents in Houston are segregated based on their income. Nearly 40 percent of households earning less than $37,000 per year live in census tracts where the majority of households earn less than $37,000 per year. About 25 percent of households earning more than $110,000 per year live in census tracts where the majority of households earn more than $110,000 per year (Taylor & Fry, 2012).

In terms of race/ethnicity, Houston transformed from a majority-white city in 1990 to a plurality Hispanic city in less than 20 years (Emerson et al., undated). Still, while the Houston area may be without a majority race/ethnic group, the same cannot be said for most of its census tracts. Only a quarter of the 786 census tracts in the Houston area are without a race/ethnic group majority (O’Connell, 2016). No single race/ethnic group makes up the majority of a tract’s residents in 198 tracts within the Houston area. In contrast, 247 census tracts are majority Hispanic, 256 census tracts are majority white, and 85 census tracts are majority Black.

Houston is uniquely positioned to provide insights into how a variety of families and households experienced the economic, social, and personal impacts of the COVID-19 pandemic. This report, focused on wages and employment, is part of a series of reports examining pandemic’s influence on several dimensions of life in the Houston area. The other reports in the series focus on education and schooling and family and well-being.

Wages and Employment

The Houston area is home to about three million jobs (Bureau of Labor Statistics, 2020). In March and April 2020, the Houston area lost more than 350,000 jobs (Jankowski, 2020). More than a year later, the Houston-area economy have yet to recover to its pre-pandemic levels (Jankowski, 2021).

Some industries have managed to recover and grow (e.g., retail, transportation, and hospitality), but for others the recovery is slower. In fact, for some industries, like manufacturing and construction, the months since the massive layoffs in March and April 2020 have actually seen additional jobs cut. For many families, not only did the pandemic hit hard when it first arrived, but its drawn out nature threatens to undermine future job stability and prospects.
This report, which uses data collected during the first six months of the pandemic, examines the ways families and households had their wages and employment disrupted by COVID-19, and how these experiences differed by family income and race/ethnicity.

Data and Methods

The data used for this report came from the Gulf Coast Coronavirus (COVID-19) Community Impact Survey, which was a joint data collection between Connective (previously Harvey Home Connect) and HERC, a program of the Kinder Institute for Urban Research at Rice University. Data collected for the survey began in late March 2020. While the survey is ongoing, the results from this report focus on responses collected in the first six months of the pandemic through late September 2020.

Gulf Coast Coronavirus (COVID-19) Community Impact Survey

About 12,100 households had responded to the survey by late September 2020, providing data on 43,821 adults and children from over 26 counties in the Houston region. For this series of reports, the analyses are limited to examine the experiences of Houston area families with children during the first six months of the pandemic. The decision to limit the sample to households with children\(^1\) is because another report in the series focuses on education and schooling. As a result, the final analytic sample was 9,331 households made up of 37,752 adults and children.

Importantly, as the social consequences of COVID-19 continue to unfold, the findings detailed in this report may require future updating. The attitudes and opinions shared by respondents come from the early days of the pandemic, and may have evolved or changed since the data were collected. These analyses are informed by unique and otherwise unavailable data (see Appendix A for more details on sample), and provide insights into how the pandemic affected the lives of thousands of Houstonians.

Descriptive Statistics

Findings: COVID-19 Impacts in the Houston Area

Wages and Employment

Disruption to Wages and Employment by Race/Ethnicity

In the first six months of the pandemic, nearly three-quarters of households responding to the survey reported at least one household member had their wages and employment negatively affected. For some households, this meant someone working fewer hours, while for others, a family member may have lost their job or been furloughed. In the Houston area, the most severe disruptions to households’ wages and employment were experienced by Black families, Hispanic families, Asian families, and multiracial families (Figure 1). High severity disruption was defined as a member of the household reporting that they’d either lost a job, been furloughed (i.e., had to take time off work without pay), or had to close a business. Medium severity disruption was defined as a member of the household reporting they earned less or had to work fewer hours. Low severity disruption was defined as a member of the household reporting no direct disruption or being worried their job might be affected in the future. Black families were almost

\(^1\) Limiting the sample to households with children resulted in 2,769 households and 6,069 individuals getting dropped from the original sample. Analyses focused on or including households without children may provide a different view of COVID-19 experiences in the Houston area, and is left for consideration by other researchers.
twice as likely as white families to report someone in their household losing a job, being furloughed, or having to close a business.

**Figure 1.** More Asian families, Black families, Hispanic families, and multiracial families reported a high disruption their wages and employment.

Note: Chi-square test results show race/ethnicity related to severity of disruption to household's wages and employment during the first six months of the pandemic (p < 0.01), n = ~9,330.
Source: Gulf Coast Coronavirus (Covid-19) Community Impact Survey

Most households in the Houston region reported at least one person had a job disrupted by the pandemic. Since many households had two or more workers, the actual percent of working adults who experienced a change to their job during the first six months of the pandemic was lower. About 42 percent of employed adults reported earning less money during the first six months of the pandemic, but similar to the story at the household level, there were racial/ethnic differences. Around 67 percent, or two-thirds, of white respondents indicated their income had not been changed by the pandemic in its first six months (Figure 2). In contrast, only about half of Black and Hispanic respondents reported their income had not been affected. At the opposite extreme, more than 10 percent of Black workers, Hispanic workers, and multiracial workers reported losing their job in the first six months of the pandemic. About 6 percent of white respondents reported the same.
**Disruption to Wages and Employment by Income**

In its first six months, the pandemic disproportionately disrupted the wages and employment of lower earning workers (Figure 3). Although 42 percent of workers reported at least one disruption to their wages and employment, this number increased to 76 percent among workers earning less than $20,000 per year. In contrast, during the same time period, only 25 percent of workers earning $100,000 per year or more reported their job being disrupted. Lower earners were also more likely to report severe disruptions to their wages and employment. Nearly one in three workers earning less than $20,000 per year lost their job during the first six months of the pandemic, compared to about one in 25 workers earning $100,000 per year or more. Overall, about 9 percent workers in the Houston area – that’s, one in 10 employed adults responding to the survey – reported losing their job.
Disruption to Wages and Employment by Industry

All Houston-area industries were affected by the pandemic, but workers in some industries experienced more disruptions to their wages and employment (Figure 4). Around 80 percent of workers in the hospitality and entertainment industries reported their jobs were disrupted during the pandemic. In contrast, only about 20 percent of people with government jobs in and 14 percent of people with education jobs reported experiencing job disruptions. Although education were the least likely to report disruptions, the number reporting some sort of disruption still meant the pandemic affected about one in seven education workers.

More than half the respondents working in the transportation, retail, and construction industries, nearly one-half the respondents working in the manufacturing and healthcare industries, and about one-third of respondents in the oil, gas, and chemicals industry reported their jobs had been disrupted during the first six months of the pandemic.
While every industry experienced disruptions during the first six months, the pandemic was particularly devastating to the wages and employment of people working in jobs earning less than $50,000 per year (Figure 5). For example, 53 percent of respondents in the construction industry reported a negative change to their job during the pandemic – about one in every two workers. Yet, a very different story emerged when looking at construction jobs paying less than $50,000 per year versus those earning more than $100,000 per year. Around 69 percent of construction workers earning less than $50,000 per year reported their job was disrupted during the pandemic compared to 24 percent of construction workers earning more than $100,000 per year. This pattern also was true in the manufacturing; education; and oil, gas, and chemicals industry; and, to a lesser extent, the retail industry. An exception to this pattern was observed in the hospitality industry, where the salary of a job did not seem to matter: 83 percent of workers earning less than $50,000 per year and 82 percent of workers earning more than $100,000 per year reported having their job disrupted during the pandemic.
Feelings of Job Insecurity by Industry

The survey also collected information from survey respondents’ about the potential for future disruptions to their jobs. For people who reported their job had not been disrupted within the first six months of the pandemic, they were asked if they expected their jobs would be affected in the future (i.e., job security). Respondents reporting that they did not expect to lose their job were considered to be job secure, while those reporting uncertainty or the expectation of losing a job were considered to be job insecure. These data built on the earlier evidence of the immediate disruptions to wages and employment during the pandemic, and described workers’ perceptions of how the economic consequences might play out among different industries in the Houston area.

Among working adults whose jobs had not been disrupted within the first six months of the pandemic, 45 percent reported feeling job insecure. Feelings of job security differed across industry (Figure 6). Despite many workers already experiencing disruptions due to the pandemic, 75 percent of those still employed in the hospitality industry reported feeling job insecure. Between 60 percent and 64 percent of workers in the oil, gas, and chemical; construction; and manufacturing industries reported feeling job insecurity. In contrast, 27 percent of workers in the education industry reported feeling job insecurity.
In the first six months of the pandemic, about 40 percent of all adult workers reported being able to do their job from home, but this varied across industries. For example, more than 70 percent of education workers and more than 60 percent of workers in the oil, gas, and chemicals industry reported being able to do their jobs at home (Figure 7). However, less than 5 percent of workers in the hospitality industry, 6 percent of workers in retail, 10 percent of workers in construction, and 20 percent of manufacturing workers reported being able to do their jobs from home. Since these data were collected, many workers across industries, including education, have been asked to return to work in-person.
Discussion and Recommendations

Beyond its immediate health impacts, the consequences of the COVID-19 pandemic have been far reaching and this report focused on disruptions to wages and employment during the first six months of the pandemic in the Houston area. Disruptions varied from having to work fewer hours, being furloughed, and having to close a business. Nearly three-quarters of households, corresponding to four-in-10 workers, responding to the survey reported having a job affected by the pandemic. One-in-10 workers reported job loss.

Despite the pandemic’s widespread influence on wages and employment, not all families and industries were similarly affected. Black and Hispanic families were more likely than white families to report having a job severely disrupted. Additionally, workers in lower paying jobs were more likely to report earning less or losing their jobs, than workers making more money (i.e., more than $100,000 per year). Among industries, workers in hospitality and retail were much more likely to report having their wages and employment affected in the first six months of the pandemic. And while education and government workers were less likely to report lost wages or losing their jobs, this does not mean these jobs were unaffected by the pandemic.
Healthcare workers, teachers, restaurant staff, and grocery store clerks and cashiers are just a few of the jobs whose work demands and responsibilities were fundamentally altered during the pandemic. At the beginning of the pandemic, teachers and education professionals were tasked with shifting to 100 percent online instruction, and, even a year later, many of these same individuals are navigating dual-instruction offerings while trying to follow public health protocols. Grocery store clerks and cashiers were tasked with keeping shelves stocked in the face of sometimes limited supplies and increased public demand. Healthcare workers have been the front-line defense from the beginning of the pandemic, and the stress and exhaustion related to their duties is immeasurable. The data collected in the survey and shared in this report do not speak to these types of job changes and impacts.

Evidence from the survey shows that having a better paying job, in more flexible (though sometimes high-demand) industries provided certain households and workers a little more stability in terms of their wages and employment during the destabilizing times of the pandemic. The broad disruptions to employment in the Houston area during the early months of the pandemic were largely unprecedented in size or scope, and were concentrated among Black and Hispanic workers, and those in lower paying positions.

Since the early days of the pandemic, many jobs have returned to the Houston area, which has provided the opportunity for many people to get back to work. However, some industries have been slower to recover than others. For example, jobs in retail have returned, but manufacturing and construction continue to shed jobs (Jankowski, 2021). Whether these jobs will ever return is a question only time will answer, but even as more people returning to the workforce can be celebrated, simply having a job does not mean the pandemic’s threat to careers and long-term livelihood has subsided.

Survey findings provide insight into the early months of the pandemic, and there are a few recommendations that can be drawn from it, which, if implemented, may help minimize lasting damage done by the economic impacts of COVID-19.

1. **Establish equitable job training opportunities.** Other policy scholars (e.g., Casey, 2020) have called attention to the need for more and better job training, but these opportunities for professional development would be most beneficial if provided equitably. Ensuring priority access to job training for Black and Hispanic workers and those earning less than $50,000 per year would put those workers in the position to upskill and be more competitive in today’s job market while also preparing for tomorrow’s. Without expressly building equity into these job training efforts, they run the risk of reproducing and expanding existing inequalities. Findings from this study make clear which people and jobs were in the industries most disrupted during the pandemic. Equitably building a more resilient and skilled labor force will direct resources toward those whose jobs were most often disrupted during the pandemic, and ensure a better and more skilled labor pool today and for the future.

2. **Continue support to families and households who have had lower earnings, but may not have lost their jobs.** While most families reported having at least one member whose job was affected during the early days of the pandemic, the most common changes to wages and employment were earning less at a job, not losing the job. Expanded unemployment benefits were likely a useful resource to those who could use it, but for the majority of workers whose jobs were affected in the early months of the pandemic, they were not unemployed – only earning less money. Consequently, the expanded unemployment benefits were not available to them. There may need to be additional supports for these workers to help them recover from more than a
year of lower wages. More recent legislation to provide second and third stimulus checks were important steps to support these individuals and their families.

3. **Prepare for returning to the workplace.** Early in the pandemic, many industries saw jobs shift from an office environment to working from home. Being able to switch to a work-from-home environment made certain jobs more adaptable to and therefore resistant to the full disruptive force of the pandemic on wages and employment. While many workers made the move from office desk to kitchen table seemingly overnight, it is likely that a slower transition to return to the office will be required. Education is an example of an industry that experienced a speedy and sometimes contentious effort to get workers’ (e.g., teachers) to return to in-person duties, especially before COVID-19 vaccines were prioritized for teachers and school personnel. Industries who still have a large portion of employees working extensively or primarily in remote locations, will need to work with employees to return to the office. After more than a year of working from home, and developing habits, routines, and rituals in the altered work arrangement, returning to the office (if organizations decide to return to the office) will most likely require planning and patience on the part of employers and employees.
Works Cited


Appendix: Details of Gulf Coast Coronavirus (COVID-19) Community Impact Survey

The Gulf Coast Coronavirus (COVID-19) Community Impact Survey was an online survey launched on March 23, 2020. The survey was accessible to anyone with an internet connection living in the Gulf Coast region. The survey’s website, with accompanying interactive data dashboard, is located at the following URL: [https://www.gulfcoastcovidsurvey.org/](https://www.gulfcoastcovidsurvey.org/). Data for the analyses contained in this report were downloaded September 18, 2020.

The survey consisted of about 50 questions, and was designed to serve two purposes. The primary purpose of the survey was to gather information about family and household needs so that Connective (previously Harvey Home Connect) could link respondents with non-profits and other organizations around the Houston region who were providing assistance. Connective was able to use survey responses to inform families and households about utility assistance, food banks, food delivery programs, rental assistance, financial counseling, telemedicine/telehealth, domestic violence resources, and childcare assistance. The survey’s second purpose, and the one most relevant to this report, was to collect information on the economic, social, and personal impacts of the pandemic on families and households around the region.

The survey asked respondents about the impacts of COVID-19 in three major areas: wages and employment, education and schooling, and family and well-being. Wages and employment questions asked respondents if members of their household had earned less money, worked fewer hours, lost a job, or been forced to close a business because of the pandemic. Education and schooling questions asked respondents about communication from schools/districts regarding the pandemic, concern over student preparedness for the fall, and access to the digital devices needed to engage with online education during the early days of the pandemic. Family and well-being questions asked about issues providing supervision to children, food and home goods shortages, and experiences of mental health strain and conflict in the household.

In addition to collecting information on the impacts of the pandemic, the survey also gathered basic household demographic information, such as household size, presence of children, race/ethnicity, and annual earnings. This demographic information allowed for comparison of the impacts across groups in the sample, such as looking at how COVID-19 affected different racial/ethnic groups and higher- and lower-income households.

Appendix Table 1 provides a comparison of respondent characteristics from survey, with recent estimates from the American Community Survey for Harris County, Texas. In general, the Gulf Coast Coronavirus (COVID-19) Community Impact survey has slightly more white respondents and fewer Hispanic respondents, than in the Houston area overall. There is also an over-representation of households earning less than $35,000 per year and an under-representation of households earning over $100,000 per year in the survey data. Given these differences in sample versus population characteristics reiterates the need to interpret findings from this report with caution, and not over-generalize. It is also worth noting the survey data reflect much of the diversity in Harris County, both in terms of race/ethnicity and household income.
### Appendix Table 1. Survey Estimates Compared to Population Estimates, Harris County

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**Source:** American Community Survey (ACS), Harris County, Texas, five-year estimate, 2014-2019. Gulf Coast Coronavirus (COVID-19) Community Impact Survey.
About HERC. Focusing on the most pressing challenges facing the region, the Houston Education Research Consortium (HERC) is a research-practice partnership between Rice University and 11 Houston-area school districts. HERC aims to improve the connection between education research and decision making for the purpose of equalizing outcomes by race, ethnicity, economic status, and other factors associated with inequitable educational opportunities.