

# Demographic Disparities in COVID-19 Disruptions: What Has Shaped Them?

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## Abstract

This article uses the Community Impact Survey implemented by the Federal Reserve System in 2021 to identify COVID-19 disruptions on low- to moderate-income communities. I find that communities that were primarily of Color were more likely to be significantly disrupted by COVID-19 than White communities. I also assess the importance of certain challenges, such as returning to work or unequal access to government relief, in shaping the observed demographic differences in disruption.

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## 1. INTRODUCTION

In the past years, we have seen waves of COVID-19 infections disrupting communities in the United States. The pandemic has interfered with lives across the country, and its effects on low- to moderate-income (LMI) individuals and communities have been significant. Though the peak of distress has passed, people of Color are still bearing major disturbances. Figure 1 shows that at the peak of COVID-19, distressed communities were facing serious disruptions regardless of demographic composition. However, 18 months into the pandemic, communities of Color were 20 percentage points more likely to be significantly disrupted than White communities even though the disruptions had already halved.<sup>1</sup>

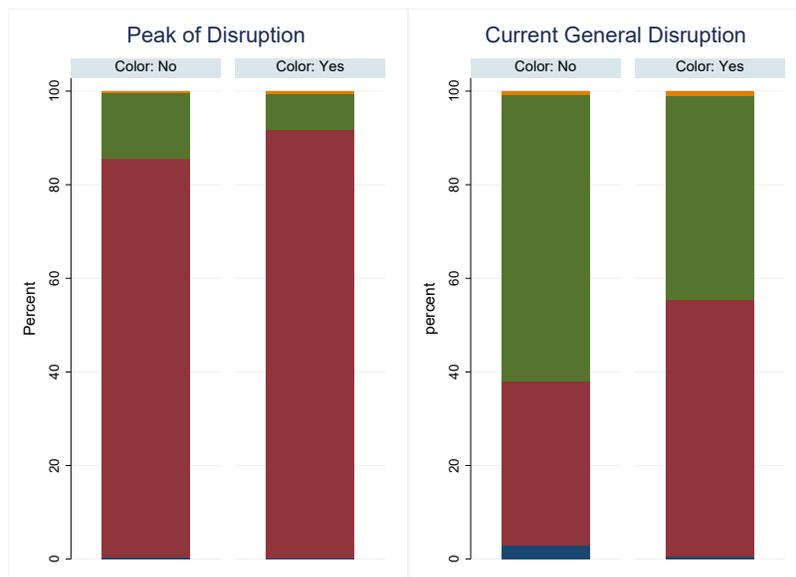
This article analyzes a different and unique channel to assess the disruption gap between the two communities—unequal access to government COVID 19 relief—and compares it with other possible explanations, such as challenges returning to work. Government relief has been very critical to LMI communities (Chalise and Gutkowski, 2021). It has kept millions out of poverty, helped people access health coverage, and reduced hardships like the inability to afford food or meet other basic needs (Budget and Policy Priorities, 2021). Nevertheless, equally distributing these funds was challenging. Holtzblatt and Karpman, 2020 show that the receipt of Economic Impact Payments from the CARES Act occurred more slowly—or not at all—for some groups. Having no recent history of filing taxes, lacking internet access, and being unbanked were some of the barriers to receiving government payments. Many were also excluded from unemployment benefits. For example, people of Color who often work in low-wage or part-time jobs, or as independent contractors, may have been more likely to be excluded or not eligible for regular unemployment insurance (Janger, Rubin, and Singh, 2020).

1. The distinction between primarily White communities and communities of Color comes from the following survey question: “Does the entity you represent primarily serve a community of Color?” See Section 2.1.1.

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**Figure 1**  
**General Economic Disruption**



NOTE: The figure shows the percentage of respondents who reported disruption at the peak of distress (left panel) and at the time of the survey (right panel) for entities serving communities that were primarily of Color and those that were not.\*

\*Questions on disruption were the following: “Thinking about the period of peak of distress caused by the pandemic, what level of disruption did COVID-19 have on economic conditions in your community at that time?” “Currently, what level of disruption is COVID-19 having on economic conditions in your community?”

Furthermore, not all small businesses had access to Paycheck Protection Program (PPP) loans due to lack of eligibility, burdensome paperwork, and lack of knowledge and understanding of the program. According to Liu and Parilla, 2020, it took 31 days for small businesses with paid employees in majority-Black zip codes to receive PPP loans—7 days longer than those in majority-White communities. Lack of a bank relationship was also a burden. The initial demand for loans significantly exceeded the ability of banks to deliver them, and they appear to have prioritized firms with which they had a preexisting relationship (Granja et al., 2022; Li, Strahan, and Zhang, 2020). Thus, larger firms—which tend to have ongoing bank relationships—accessed PPP funds sooner than smaller firms, on average.

I find that unequal access to government relief plans was as important as challenges in returning to work in explaining variation in disruption between White communities and communities of Color. Returning to work has been particularly challenging to many due to risk of exposure, lack of childcare, or lack of public transportation. Together, these challenges can explain approximately 30 percent of the disruption gap. These findings highlight the importance of targeting, implementing, and distributing government relief packages and the relevance of childcare in the US economy.

The difference in the disruption across demographics groups could be explained by a variety of factors. For example, Maxwell, 2020 suggests that economic hardship, food and housing insecurity, and unequal access to mental healthcare services could have contributed to explaining differences in the overall disruption caused by COVID-19. Gemelas, Davison, et al., 2022 show that people of Color experienced larger income losses, which could have made it harder for them to make ends meet. In addition, workers in communities of Color had less ability to telecommute, which may have resulted in unequal health risks affecting overall employment and labor force participation (OECD, 2022).

Differences in access to healthcare and health insurance could also have contributed to the gap. Gangopadhyaya, Karpman, and Aarons, 2020 show that between late April and mid-July, more than three million adults lost employer-sponsored insurance (ESI). These losses were concentrated among Hispanic adults, young adults, men, and adults who did not attend college. Though the reduction in ESI was partially offset by a rise in public coverage, groups that faced the largest ESI losses also saw the largest increases in uninsurance.

The next section provides more information about the data from the Community Impact Survey (CIS) as well as the main variables of interest. Section 3 presents the main analysis and results, followed by some

robustness exercises. I conclude in Section 4 with some discussion about the findings and further possible areas of research toward an equitable recovery path.

## 2. DATA AND ANALYSIS

### 2.1 *Community Impact Survey (CIS)*

The data for this analysis come from the CIS, conducted by the Federal Reserve System in collaboration with eight national partners in August 2021.<sup>2</sup> The survey was designed to monitor the impact of the pandemic on low-to-moderate-income (LMI) communities and the organizations that serve them. It provides an insightful and informative snapshot of how COVID-19 affected people and organizations as of the dates the survey was administered.

Survey respondents included representatives of nonprofit organizations, government agencies, financial institutions, and other organizations who serve LMI communities across the US.<sup>3</sup> Responses were collected through a convenience sampling method that relied on contact databases to identify representatives of these community organizations. These representatives were invited to participate in the survey via emails, newsletters, and social media posts.

The survey was organized into three different sections: respondent profile questions, questions about the impact of COVID-19 on the entities providing services, and questions about the impact on the people and communities these entities served. It is worth noting that respondents to this survey were service provider organizations, and thus all of the answers about the impact on people and communities come from their perspective.

This article focuses on the disruption caused by COVID-19 on LMI people and communities, differences in the impact across demographic groups, and how challenges returning to work or accessing government funding have shaped the observed differences in disruption. Given the diversity of responding entities, I focus on nonprofit organizations that completed the full survey (N=2291). In the next section, I describe the main variables of interest for this work.

#### 2.1.1 *Communities of Color*

Respondents were asked if they served a community that was primarily of Color (possible responses were yes, no, or unsure). Throughout the article, I refer to “community of Color” as those who responded with yes (47 percent of responses) to this question and “White” as those who responded with no (48 percent of responses).<sup>4,5</sup> Communities that were primarily of Color included neighborhoods where the primary population was American Indian or Native Alaskan (4 percent), Asian (3 percent), Hawaiian or Pacific Islander (2 percent), Hispanic or Latino (41 percent), non-Hispanic Black or African American (45 percent), and Other (5 percent).

#### 2.1.2 *Disruption*

My main variable of interest is the COVID-19 level of economic disruption on people and communities. The survey question asked “Currently, what level of disruption is COVID-19 having on economic conditions in your community?” (possible responses were significant disruption, some disruption, no disruption, or unsure). Figure 1 shows the general economic disruption on LMI communities disaggregated by the demographics served. At the peak of distress, disruption levels were high for all demographic groups, with more than 80 percent of respondents reporting significant disruption. While significant disruption almost halved in 2021 for all LMI communities, it was 20 percentage points more likely for communities of Color to be significantly disrupted than White communities.

While economic conditions could be interpreted differently across respondents, they provide a broad overview of how respondents saw COVID-19 disruptions impacting their communities. To have a better understanding of COVID-19’s impact on several dimensions, the survey also asked about disruption in different segments of the economy that are vital for the development of LMI communities. These segments were financial stability (related to income loss and income instability), small business (including short-/long-term closure, supply chain disruptions, and reduced demand), access to healthcare (such as access to adequate healthcare, access to health insurance, and mental health services), services for children (including the availability of childcare and adequate access to K-12 education), housing stability (involving evictions, back rent, foreclosures, and homelessness), and basic consumption needs (for example, food, household essentials, and other personal needs).

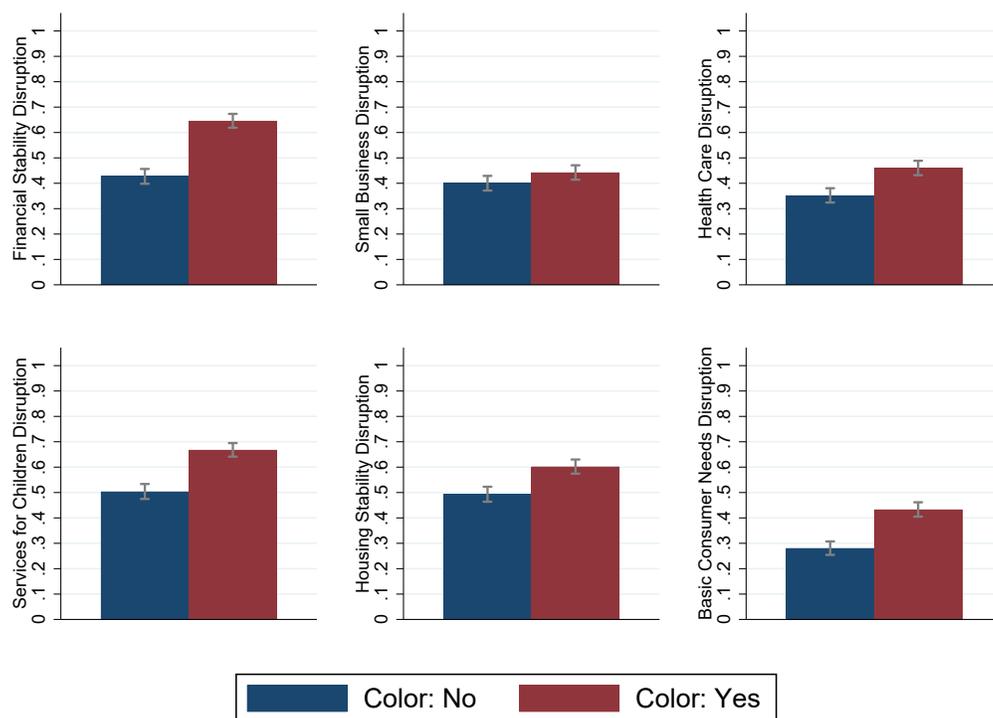
2. For more information on the survey, please visit <https://fedcommunities.org/data/main-street-covid19-survey-2021>.

3. There were approximately 3,700 responses from entities who answered most of the survey, including the questions related to being a direct service provider or not and COVID-19’s level of disruption during the peak of the pandemic and at the time of the survey.

4. Five percent of responses were “unsure,” which are not included in the study.

5. The survey did not explicitly ask whether the respondent served a primarily White community.

**Figure 2**  
**Significant Disruption in Segments of the Economy**



NOTE: The figure shows the percentage of respondents who reported significant disruption in their communities in each segment of the economy at the time of the survey, by the demographics served with 95 percent confidence interval bars.

There was some variation in responses for these different segments of the economy with significant disruption ranging between 30 and 60 percent of responses (Appendix Figure A.3). Nevertheless, communities of Color were more likely to be significantly disrupted than White communities for all segments of the economy surveyed (Figure 2). Appendix Tables A.1 and A.2 provide a disaggregation of responses by demographic composition, type of engagement with community and location, and the distribution of impact for each segment.

### 2.1.3 Challenges

The next set of relevant variables relate to the barriers or challenges that affected people and communities.<sup>6</sup> Respondents were asked to rate the seriousness of the following challenges: 1) returning to work (such as childcare, public transportation, COVID-19 exposure risk), 2) accessing government funding (lack of eligibility or capacity for processing applications), 3) relationship with banks to access capital, 4) and applying for funds (including complex process, burdensome paperwork, internet access).

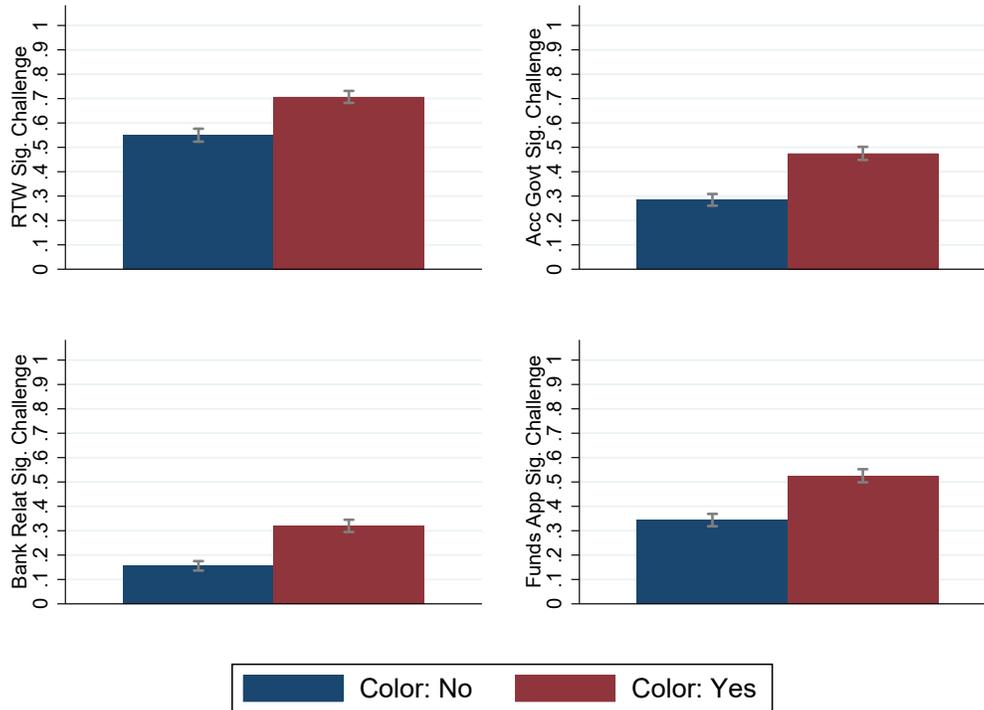
More than 65 percent of responses indicated that returning to work was a significant challenge and 38 percent claimed that accessing government funding was a severe hurdle. Lack of a bank relationship was a serious barrier for almost 30 percent of respondents, and more than 45 percent indicated applying for funds was a severe obstacle. Appendix Table A.3 provides the distribution of challenges among respondents. However, this distribution was not symmetric across demographic groups: The likelihood of these obstacles being severe was higher for communities of Color.<sup>7</sup> Figure 3 shows there is a statistically significant difference in the likelihood of communities of Color reporting that these difficulties were acute relative to White communities."

Differences in barriers to returning to work could be related to unequal access to childcare due to high costs, inflexible schedules, closures, and illnesses due to COVID-19 exposure. Lee and Parolin, 2021 find that Black, Latino, and Asian families have been exposed to childcare closures to a much greater extent than White families. Labor market segmentation and differences in occupations could also account for the observed differences in

6. They were asked the following question: "During the COVID-19 pandemic, how challenging were the following for the people and communities you serve?" Respondents replied with "significant challenge," "challenge," "no challenge," or "unsure."

7. See Appendix Figure A.4 for responses across White communities and communities of Color.

**Figure 3**  
**Significant Challenges by Demographic Group**



NOTE: The figures show the percentage of respondents who reported significant challenges for the communities they serve by demographic group served. Top left: Return-to-work challenges (such as childcare, public transportation, COVID-19 exposure risk). Top right: Challenges accessing government funding (lack of eligibility or capacity for processing applications). Bottom left: Relationship with banks to access capital. Bottom right: Applying for funds (including complex process, burdensome paperwork, internet access).

difficulties returning to work. Accessing government funds has been a challenge to many, particular to people of Color due to lack of eligibility, lack of knowledge or resources to apply to them, and lack of historical bank relationships, which favored previous connections when expediting funds. Holtzblatt and Karpman, 2020 show that the receipt of Economic Impact Payments from the CARES Act occurred more slowly—or not at all—for some groups. Barriers to payment receipt included having no recent history of filing taxes, lacking internet access, and being unbanked. Autor et al., 2022 show that the PPP—another well-known federal program to mitigate COVID-19 disruptions—incidence was highly regressive, with about three-quarters of PPP funds accruing to the top quintile of households.

#### 2.1.4 Control Variables

Within the respondent profile part of the survey, entities were asked whether they served primarily in urban, suburban, or rural communities and whether or not they were offering services directly to people or small businesses (direct service providers). Suburban observations account for 13 percent of observations with a similar demographic composition and outcome than rural areas. I exclude these observations to reduce the amount of noise introduced in the analysis and to facilitate the interpretation of the coefficient on location. Given that the geographic location of service as well as direct service (or not) could have a different demographic composition, I control for these variables in my analysis (see Appendix Figures A.1 and A.2).

### 3. RESULTS

In this section, I first provide supportive evidence that communities that were facing major challenges were more likely to be significantly disrupted at the time of the survey. I then show, in Section 3.2, that the disruption gap between White communities and communities of Color was approximately 17 percentage points and that incorporating these challenges reduces the disruption gap by a third. Section 3.2.1 assesses the relative importance of each obstacle in explaining the disruption gap. The main finding is that all the challenges

**Table 1**  
**Challenges and Likelihood of Disruption**

	General economic significant disruption					
	(1)	(2)	(3)	(4)	(5)	(6)
Urban	0.124*** (0.0215)	0.108*** (0.0212)	0.0973*** (0.0212)	0.105*** (0.0214)	0.0997*** (0.0213)	0.0837*** (0.0210)
DSP	0.0474 (0.0293)	0.0489* (0.0288)	0.0443 (0.0283)	0.0455 (0.0286)	0.0375 (0.0284)	0.0420 (0.0279)
RTW		0.198*** (0.0209)				0.116*** (0.0224)
Acc Gvt Fund			0.238*** (0.0209)			0.137*** (0.0253)
BK Relat				0.211*** (0.0238)		0.0716** (0.0280)
Fund Appl					0.212*** (0.0207)	0.0813*** (0.0260)
Constant	0.342*** (0.0302)	0.225*** (0.0315)	0.270*** (0.0294)	0.305*** (0.0296)	0.273*** (0.0297)	0.192*** (0.0306)
Observations	2,291	2,291	2,291	2,291	2,291	2,291
R-squared	0.015	0.051	0.069	0.048	0.059	0.095

NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

have been similarly important in explaining the disruption gap. Section 3.3 provides results for my preferred specification and contrasts challenges returning to work with overall access to government support during the pandemic. Last, in Section 3.4 I perform some robustness checks on the impact on a variety of segments of the economy to further support the main findings as well as to control for median household income in the environment (Section 3.5).

### 3.1 Challenges and Likelihood of Disruption

I first provide evidence of the positive correlation between the challenges and the likelihood of being significantly disrupted. I use the following regression:

$$(1) \quad \text{SigDisrup} = \alpha + \beta * \text{Challenge} + \gamma * \text{urban} + \delta * \text{DSP} + \nu,$$

where *SigDisrup* is a dummy variable that equals one if disruption was significant and equals zero otherwise. *Challenge* is a dummy variable that equals one if the respondent indicated significant challenge and equals zero otherwise. The four challenges analyzed are returning to work (*RTW*), accessing government funding (*Acc Gvt Fund*), bank relationship (*BK Relat*), and the fund application process (*Fund Appl*). To control for differences in disruption due to geographic location, I incorporate *Urban*, a dummy variable that equals one if the entity offered services primarily in urban areas. *DSP* is a dummy that equals one if the responding entity was a direct service provider (offering services directly to individuals, families, or small business owners). Controlling for the type of engagement with the community is important since direct service providers could be less optimistic about disruption and recovery than indirect providers given the nature of their engagement with the community, and thus the results could be biased (see Appendix Table A.2).

Table 1 shows that the challenges considered are relevant in explaining the variation in the disruption as well as the location of service. The communities that were more likely to face any of these challenges were more likely to be significantly disrupted given the positive sign and statistical significance of the coefficients. The table shows that urban areas were more likely to be severely disrupted. Consistent with earlier findings by Brooks, Mueller, and Thiede, 2021 and Parker, Horowitz, and Minkin, 2021, this could be due to higher exposure risk in urban areas than rural areas as well as distinct disruptions in the labor market. Column 2

**Table 2**  
**Demographics, Challenges, and COVID-19 Economic Disruption**

	General economic significant disruption						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Color	0.191*** (0.0205)	0.169*** (0.0219)	0.143*** (0.0219)	0.131*** (0.0220)	0.140*** (0.0223)	0.137*** (0.0220)	0.108*** (0.0220)
RTW			0.178*** (0.0211)				0.108*** (0.0224)
Acc Gvt Fund				0.217*** (0.0212)			0.129*** (0.0252)
BK Relat					0.184*** (0.0240)		0.0594** (0.0278)
Fund Appl						0.191*** (0.0209)	0.0765*** (0.0259)
Urban		0.0649*** (0.0227)	0.0599*** (0.0222)	0.0542** (0.0223)	0.0587*** (0.0226)	0.0545** (0.0223)	0.0493** (0.0220)
DSP		0.0333 (0.0290)	0.0368 (0.0286)	0.0336 (0.0281)	0.0340 (0.0285)	0.0270 (0.0283)	0.0333 (0.0278)
Constant	0.365*** (0.0145)	0.306*** (0.0300)	0.205*** (0.0313)	0.248*** (0.0293)	0.280*** (0.0295)	0.250*** (0.0296)	0.180*** (0.0305)
Observations	2,291	2,291	2,291	2,291	2,291	2,291	2,291
R-squared	0.037	0.040	0.069	0.084	0.064	0.075	0.105

NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

shows that communities that faced serious barriers in returning to work were almost 20 percent more likely to be heavily distressed at the time of the survey. Lack of regular hours for childcare, unpredictable closures due to COVID-19 exposure or illnesses, and inflexible schedules all could have contributed to these observed differences.

Similarly, communities with major issues accessing government funds were also more likely to be seriously disrupted (Column 3). Federal COVID-19 relief has helped millions of people navigate the crisis and has kept many out of poverty. However, those who were not able to access these funds could not benefit from the generous package. In addition, communities that lacked a bank relationship (Column 4), as well as those that faced burdensome paperwork, lack of internet, and a complex application process (Column 5), were approximately 20 percent more likely to be extremely disrupted by COVID-19. These barriers related to being unbanked, not being within the network of lending banks, lacking knowledge, or lacking capacity were clear obstacles in the process of applying and thus accessing funds. Column 6 incorporates all four challenges together. The coefficients on each challenge fall; however, all four challenges remain positive and significantly different from zero, indicating their relevance when assessing the disruption.

### 3.2 Challenges and the Disruption Gap

In this section I focus on the disruption gap between White communities and communities of Color and find that the explored challenges can explain almost 30 percent of the disruption gap. To this end, I run a similar regression as before but now include *Color*—a dummy variable that equals one if the community served was primarily of Color—as one of my main explanatory variables of interest:

$$(2) \quad \text{SigDisrup} = \alpha + \theta * \text{Color} + \beta * \text{Challenge} + \gamma * \text{Urban} + \delta * \text{DSP} + v.$$

Table 3 shows the results. The first two columns indicate that communities of Color were 19 percentage points more likely to experience significant disruption at the time of the survey and almost 17 percentage points when accounting for differences in location and type of engagement with the community. Columns 3 to 6 incorporate, one by one, the different challenges of interest. In all cases, the coefficients on the challenges

**Table 3**  
**Demographics, Challenges, and COVID-19 Economic Disruption**

	General economic significant disruption						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Color	0.191*** (0.0205)	0.169*** (0.0219)	0.143*** (0.0219)	0.131*** (0.0220)	0.140*** (0.0223)	0.137*** (0.0220)	0.108*** (0.0220)
RTW			0.178*** (0.0211)				0.108*** (0.0224)
Acc Gvt Fund				0.217*** (0.0212)			0.129*** (0.0252)
BK Relat					0.184*** (0.0240)		0.0594** (0.0278)
Fund Appl						0.191*** (0.0209)	0.0765*** (0.0259)
Urban		0.0649*** (0.0227)	0.0599*** (0.0222)	0.0542** (0.0223)	0.0587*** (0.0226)	0.0545** (0.0223)	0.0493** (0.0220)
DSP		0.0333 (0.0290)	0.0368 (0.0286)	0.0336 (0.0281)	0.0340 (0.0285)	0.0270 (0.0283)	0.0333 (0.0278)
Constant	0.365*** (0.0145)	0.306*** (0.0300)	0.205*** (0.0313)	0.248*** (0.0293)	0.280*** (0.0295)	0.250*** (0.0296)	0.180*** (0.0305)
Observations	2,291	2,291	2,291	2,291	2,291	2,291	2,291
R-squared	0.037	0.040	0.069	0.084	0.064	0.075	0.105

NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

are positive and significant, between 18 and 22 percent, indicating that even within communities with similar demographic compositions, communities that were facing these challenges were more likely to be severely disrupted. Most importantly, the coefficient on *Color* decreases between 15 and 22 percent when incorporating the challenges as explanatory variables of disruption. This is not surprising given that Figure 3 presents evidence that communities of *Color* were more likely to face serious hurdles. When all four challenges are considered, the coefficient on *Color* falls by approximately 35 percent. In other words, the observed differences in the severeness of the obstacles faced by the different demographic groups can explain 35 percent of the disruption gap.

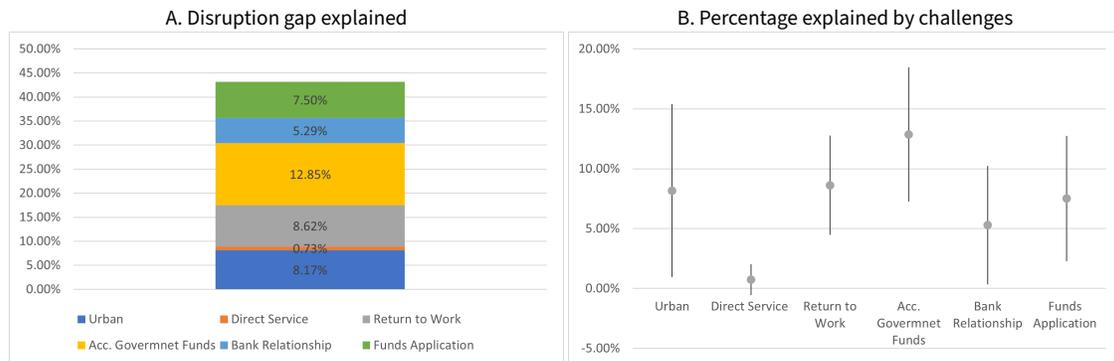
### 3.2.1 Relative Importance of Challenges

In this section I perform an Oaxaca decomposition to assess the relative importance of each challenge in explaining the disruption gap between White communities and communities of *Color*.

Of the 19–percentage–point difference in disruption between communities of *Color* and White communities (disruption gap of 19 percentage points), 8 percentage points can be explained by location, direct or indirect service, and all four challenges—this would account for 43 percent of the disruption gap. Figure 4 shows that approximately 13 percent of the disruption gap can be explained by unequal access to government relief plans and almost 9 percent by challenges returning to work. Lack of a bank relationship explains around 5 percent of the disruption gap, while barriers in applying for funds explains 7.5 percent. All four challenges can explain approximately 35 percent of the disruption gap, and location differences account for another 8 percent. While these numbers suggest that unequal access to government funding had a larger role in explaining the disruption gap, I cannot reject that this barrier was as relevant as the other ones (Figure 4B). In other words, I cannot claim that this obstacle was more important than the other challenges considered in explaining the disruption gap.

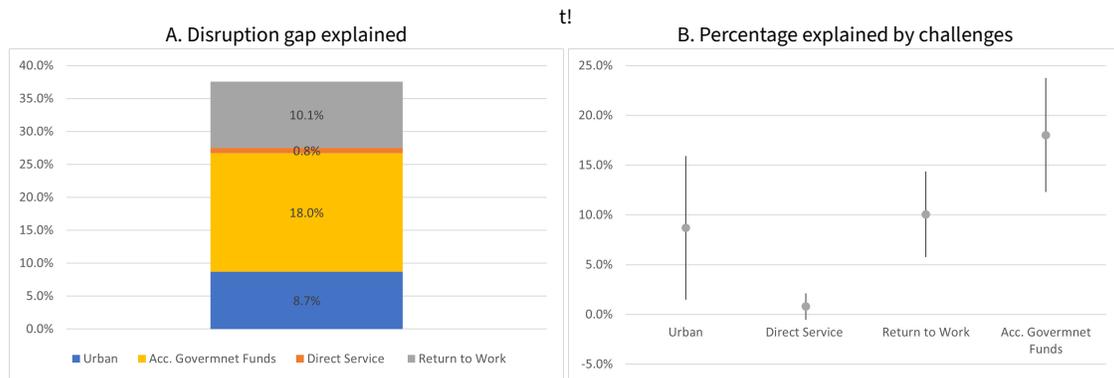
One could think that unequal access to government funding encompasses having difficulty applying for funds or lacking bank relationships to access funds since, in the end, communities either received funds late or not at all. Thus the correlation between these challenges might be reducing the overall importance of funding

**Figure 4**  
**Disruption Gap: Explanatory Power of Challenges**



NOTE: The figure shows the percentage of the disruption gap explained by each variable of interest (panel A) and 95 percent confidence intervals for each variable of interest (panel B).

**Figure 5**  
**Returning to Work versus Unequal Access to Government Funding**



NOTE: The figure shows the percentage of the disruption gap explained by each variable of interest (panel A) and 95 percent confidence intervals for each variable of interest (panel B).

relative to return-to-work challenges.<sup>8</sup> To address this concern, I test the robustness of my earlier findings by running equation (2) again but now having *Return to Work* and *Acc Govt Fund* as explanatory variables:

$$(3) \quad \text{SigDisrup} = \alpha + \theta * \text{Color} + \beta_1 * \text{RTW} + \beta_2 * \text{Acc.Govt} + \gamma * \text{Urban} + \delta * \text{DSP} + v.$$

Table 4 presents the results. Return-to-work barriers on their own explain approximately 15 percent of the gap (Column 2), while unequal access to government funding explains 22 percent of the gap on its own (Column 3). Together, they explain 30 percent of the gap (Column 5).

### 3.3 Returning to Work versus Funding

To test the relative weight of returning to work versus access to government funding, I perform an Oaxaca decomposition. I find that unequal access to government funding is as important as barriers to returning to work in shaping the disruption gap. While unequal access to government funding increases its impact on the gap, on average, so do barriers to returning to work (Figure 5). Their confidence intervals still overlap (Figure 5B), and thus unequal access to government funding remains as relevant as return-to-work barriers in shaping the disruption gap.

Next, I create a dummy variable, *All Funding*, that encompasses all disruptions related to funding (lack of bank relationship, challenges accessing government funding, and difficulty applying for funds). Mainly, this variable equals one if any of the above mentioned implied a significant barrier and equals zero otherwise. Table 4, Columns 4 and 6 show that this new variable is very similar to *Acc Govt Fund*. The coefficient on *Color* barely

8. Responses indicating significant challenge are positively correlated with a coefficient between approximately 0.4 and 0.5.

**Table 4**  
**Returning to Work versus Funding**

	General economic significant disruption					
	(1)	(2)	(3)	(4)	(5)	(6)
Color	0.169*** (0.0219)	0.143*** (0.0219)	0.131*** (0.0220)	0.131*** (0.0219)	0.119*** (0.0219)	0.120*** (0.0219)
RTW		0.178*** (0.0211)			0.126*** (0.0220)	0.120*** (0.0223)
Acc Govt Fund			0.217*** (0.0212)		0.180*** (0.0223)	
All Funding				0.216*** (0.0207)		0.178*** (0.0221)
Constant	0.306*** (0.0300)	0.205*** (0.0313)	0.248*** (0.0293)	0.214*** (0.0300)	0.187*** (0.0306)	0.163*** (0.0309)
Observations	2,291	2,291	2,291	2,291	2,291	2,291
R-squared	0.040	0.069	0.084	0.085	0.097	0.096

NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Obs: 2,291; Controls: DSP and Urban

differs from those in Columns 3 and 5. The change in the disruption gap is fairly small when I compare *All Funding* to *Acc Govt Fund*.

Overall, this preferred specification provides supportive evidence that unequal access to government funding as well as challenges returning to work were important features shaping the observed disruptions in communities. Together, they can explain almost 30 percent of the disruption gap, and both challenges were as important in explaining differences in disruption.

### 3.4 Segments of the Economy Disruption Gap and Challenges

The survey asked not only asked about general economic conditions but also about COVID-19 disruptions on communities along different segments of the economy—financial stability, small business, access to healthcare, services for children, housing stability, and basic consumption needs. All these segments of the economy are vital for vulnerable communities. As mentioned earlier, serious disruption along these areas varied between 30 and 60 percent. Nevertheless, across all segments, it was more likely for communities of Color to be significantly disrupted. Disruption gaps also varied across segments, with financial stability and services for children having the largest gaps: 22 and 16 percentage points, respectively.

I next examine the role that challenges played in shaping these observed gaps. Table 5 shows the disruption gap along the different sectors as well as the percentage of the gap explained by challenges. Challenges and location explain approximately 40 percent of the disruption differences in general economic disruption, financial stability, services for children, and basic consumption needs. More interestingly, they can be held accountable for most of the disruption gap in small business and housing stability, explaining 91 percent and 71 percent of the disruption gap, respectively. It is worth noting that the disruption gap in small business is small relative to the rest of the sectors analyzed.

Appendix Figure A.5 compares each one of the challenges to assess their relative importance in each segment. All four challenges were important and equally relevant in shaping the observed disruption gap for all six sectors except for services for children, where, reasonably, bank relationships seem to have no explanatory power on the disruption gap. In other words, the data suggest that challenges returning to work, lack of a bank relationship, unequal access to government funding, and barriers applying for funds all seem to be important in shaping the differences in the observed disruption across demographic groups. Together with the differences in community location, these challenges can explain more than 40 percent (up to 90 percent for certain sectors) of the observed disruption gap. These findings highlight the importance of the implementation and distribution

**Table 5**  
**Segments of the Economy and the Disruption Gap**

	Disruption gap	Percentage of gap explained
General disruption	19.1%	43.2%
Financial stability	21.9%	43.3%
Small business	4.2%	90.8%
Access to healthcare	10.8%	57.8%
Services for children	16.4%	41.5%
Housing stability	10.9%	71.2%
Basic consumer needs	15.2%	42.8%

of COVID-19 government relief packages as well as the relevance of childcare, transportation, and healthcare in our economy.

### 3.5 Disruption Gap and Income

In this section I examine whether some of the racial disparities observed in the results stem from income differences in LMI communities and find that they do not. This is because income differences do not explain the variation in the disruption levels or the variation in the severity of the challenges faced. Moreover, there are income differences between White communities and communities of Color, even when comparing among LMI communities.

Matching communities' median household income to this data set offers some challenges as I do not have precise information on where communities were located and know only the location of the respondents' organization headquarters. A report by Faulk et al., 2021 shows that headquarter location is a strong predictor of the area served. That said, in some cases organizations serve in multiple locations as well as both regionally and nationwide. Using organizations' headquarter zip code as a proxy for the community's location will provide a noisy measure of income in the communities served, given that some organizations serve in several locations. Nevertheless, it is only way I can measure income in the community served given the available data.

Appendix Tables A.4 and A.5 show that incorporating communities' *Income*—logarithm of median household income—does not affect the coefficient or significance of *Color*. In other words, median household income does not alter the role that demographic composition plays in explaining general economic COVID-19 disruptions within LMI communities. This finding is robust when having a dummy variable for high income instead. *High Income* is a dummy variable that equals one when median household income is above the sample median and equals zero otherwise. In all cases, incorporating income does not alter the coefficient on *Color* or the relevance of the main challenges analyzed in explaining variation in disruption.

While this finding might be somewhat surprising, Appendix Table A.6 shows that variation in income cannot explain the differences in general economic disruptions, challenges returning to work, or accessing government funding. A possible explanation for this is that while there might be some variation in median income within my sample, the survey was already targeted at low-income communities, where job losses and financial instability have hit the majority of low-income neighborhoods in a similar manner.

Overall, these last two sections provide some robustness to the core of this article supporting the relevance of unequal access to government funding as well as the challenges of returning to work as important features shaping the observed disruptions in communities. The importance of these two indicators remains regardless of accounting for income or the segments of the economy analyzed, all important for the vitality of LMI communities.

## 4. CONCLUSION

The federal government responded to the COVID-19 pandemic with a safety net that went a long way in preventing widespread hardship (Cooney and Shaefer, 2021). The relief measures it provided reduced poverty, helped people access health coverage, and reduced hardships such as the inability to afford food or meet other

basic needs. Funds and resources were substantial for LMI communities, with almost two-thirds of respondents indicating that stimulus checks, unemployment benefits, and rent relief were very critical during COVID-19 (Chalise and Gutkowski, 2021).

However, as this article finds, the ability to access funds has been unequal between communities of Color and White communities and can explain the observed differences in disruption levels across demographic groups. Possible reasons for these differentiated outcomes likely rely on historical inequities that cannot be easily resolved by distributing funds. Special attention and targeting might be necessary for funds to reach selected recipients, and further research on this targeting and implementation could help address these issues.

I also find that unequal access to government relief was as important as return-to-work challenges in shaping the observed demographic differences. Together, these challenges can explain approximately 30 percent of the disruption gap. While much research has been devoted to explaining how barriers to employment have had a destabilizing effect during COVID-19, this article highlights that the demographic variation in return-to-work challenges can explain part of the disruption gap between White communities and communities of Color. The findings highlight the importance of targeting, implementing, and distributing government relief packages as well as the relevance of childcare in our economy. Further work is needed to allow a more-inclusive labor market, such as one with accessible and affordable childcare.

**REFERENCES**

- Autor, David, David Cho, Leland D. Crane, Mita Goldar, Byron Lutz, Joshua Montes, William B. Peterman, David Ratner, Daniel Villar, and Ahu Yildirmaz. 2022. The \$800 billion paycheck protection program: where did the money go and why did it go there? *Journal of Economic Perspectives* 36, no. 2 (May): 55–80. <https://doi.org/10.1257/jep.36.2.55>. <https://www.aeaweb.org/articles?id=10.1257/jep.36.2.55>.
- Brooks, Matthew M, J Tom Mueller, and Brian C Thiede. 2021. Rural–urban differences in the labor–force impacts of covid-19 in the united states. *Socius* 7:23780231211022094.
- Budget, Center On, and US Policy Priorities. 2021. Tracking the covid-19 economy’s effects on food, housing, and employment hardships. *Center on Budget and Policy Priorities. United States.[Web Archive]* Retrieved from: <https://www.cbpp.org/research/poverty-andinequality/tracking-the-covid-19-economyseffects-on-food-housing-and>.
- Chalise, Nishesh, and Violeta A Gutkowski. 2021. Perspectives from main street: the impact of covid-19 on communities and the entities serving them. Retrieved from *Federal Reserve System Fed Communities*, <https://fedcommunities.org/data/main-street-covid19-survey-2021>.
- Cooney, Patrick, and H Luke Shaefer. 2021. Material hardship and mental health following the covid-19 relief bill and american rescue plan act. *Ann Arbor, Michigan: Poverty Solutions, University of Michigan*.
- Faulk, Lewis, Mirae Kim, Teresa Derrick–Mills, Elizabeth Boris, Laura Tomasko, Nora Hakizimana, Tianyu Chen, Minjung Kim, and Layla Nath. 2021. Nonprofit trends and impacts 2021. *The Urban Institute*.
- Gangopadhyaya, Anuj, Michael Karpman, and Joshua Aarons. 2020. As the covid-19 recession extended into the summer of 2020, more than 3 million adults lost employer–sponsored health insurance coverage and 2 million became uninsured. *Washington, DC: Urban Institute*.
- Gemelas, Jordan, Jenna Davison, et al. 2022. Inequities in employment by race, ethnicity, and sector during covid-19. *Journal of racial and ethnic health disparities* 9 (1): 350–355.
- Granja, João, Christos Makridis, Constantine Yannelis, and Eric Zwick. 2022. Did the paycheck protection program hit the target? *Journal of financial economics* 145 (3): 725–761.
- Holtzblatt, Janet, and Michael Karpman. 2020. Who did not get the economic impact payments by mid–to–late may, and why? *Washington, DC: The Urban Institute*.
- Janger, Emma, Nicole Rubin, and Sejal Singh. 2020. Making unemployment insurance work for working people. *UCLA L. Rev. Discourse* 68:102.
- Lee, Emma K, and Zachary Parolin. 2021. The care burden during covid-19: a national database of child care closures in the united states. *Socius* 7:23780231211032028.
- Li, Lei, Philip E Strahan, and Song Zhang. 2020. Banks as lenders of first resort: evidence from the covid-19 crisis. *The Review of Corporate Finance Studies* 9 (3): 472–500.
- Liu, Sifan, and Joseph Parilla. 2020. New data shows small businesses in communities of color had unequal access to federal covid-19 relief. *Brookings Institution Report*.
- Maxwell, Connor. 2020. The coronavirus crisis is worsening racial inequality. *Center for American Progress website: americanprogress.org/issues/race/news/2020/06/10/486095/coronavirus-crisis-worsening-racial-inequality*. Published June 10.
- OECD. 2022. The unequal impact of covid-19: a spotlight on frontline workers, migrants and racial/ethnic minorities, <https://doi.org/https://doi.org/https://doi.org/10.1787/f36e931e-en>. <https://www.oecd-ilibrary.org/content/paper/f36e931e-en>.
- Parker, Kim, Juliana Menasce Horowitz, and Rachel Minkin. 2021. Americans are less likely than before covid-19 to want to live in cities, more likely to prefer suburbs.

**APPENDIX 1.****Table A.1**  
**COVID-19's Level of Disruption by Segments of the Economy**

	No disruption (%)	Some disruption (%)	Significant disruption (%)	Unsure (%)	Observations
General disruption	1.4	51.2	46.4	1.0	2,391
Financial stability	1.7	41.3	54.3	2.8	2,291
Small business	1.1	34.7	60.4	3.7	1,598
Access to healthcare	4.6	43.0	40.8	11.6	2,288
Services for children	1.8	29.1	59.1	10.0	2,287
Housing stability	3.4	31.0	55.3	10.3	2,289
Basic consumer needs	5.5	51.9	35.9	6.7	2,288

**Table A.2**  
**Disruption by Color, Type of Service, and Location**

	No disruption (%)	General economic disruption			Observations (% of total)
		Some disruption (%)	Significant disruption (%)	Unsure (%)	
Color: No	2.5	60.5	36.3	0.8	48
Color: Yes	0.4	42.5	55.8	1.2	52
No DSP	2.7	55.9	40.8	0.7	14
DSP	1.2	50.5	47.3	1.1	86
Rural	2.1	59.5	37.9	0.5	35
Urban	1.1	46.8	50.9	1.3	65
Total obs.	31	1,115	1,010	22	

NOTE: This table shows the distribution of responses to general economic disruption disaggregated by communities' demographics, type of service provided, and location.

**Table A.3**  
**Distribution of Challenges among Respondents**

	Challenges			
	RTW (%)	Acc Gvt Fund (%)	BK Relat (%)	Fund Appl (%)
Not a challenge	2.2	7.5	14.3	6.4
Challenge	27.8	41.9	29.6	36.5
Significant challenge	65.9	40.1	27.3	46.4
Unsure	4.1	10.6	28.8	10.6
Observations	2,222	2,233	2,019	2,195

**Table A.4**  
**Robustness: Controlling for Income**

	General economic significant disruption					
	(1)	(2)	(3)	(4)	(5)	(6)
Color	0.195*** (0.0210)	0.195*** (0.0210)	0.194*** (0.0210)	0.170*** (0.0226)	0.170*** (0.0226)	0.169*** (0.0226)
Income		-0.000126 (0.0258)			-0.00267 (0.0260)	
High Income			-0.0112 (0.0210)			-0.0143 (0.0210)
Urban				0.0691*** (0.0233)	0.0693*** (0.0234)	0.0704*** (0.0234)
DSP				0.0472 (0.0301)	0.0469 (0.0302)	0.0458 (0.0302)
Constant	0.363*** (0.0148)	0.364 (0.285)	0.369*** (0.0186)	0.290*** (0.0310)	0.319 (0.289)	0.298*** (0.0332)
Observations	2,178	2,178	2,178	2,178	2,178	2,178
R-squared	0.038	0.038	0.038	0.043	0.043	0.043

NOTE: Robust standard errors are in parentheses.\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Table A.5**  
**Robustness: Controlling for Income (2)**

	General economic significant disruption		
	(1)	(2)	(3)
Color	0.111*** (0.0227)	0.111*** (0.0227)	0.110*** (0.0227)
Income		0.00203 (0.0248)	
High Income			-0.00933 (0.0204)
Urban	0.0533** (0.0227)	0.0532** (0.0227)	0.0542** (0.0227)
DSP	0.0480* (0.0289)	0.0482* (0.0290)	0.0471 (0.0290)
RTW	0.110*** (0.0230)	0.110*** (0.0230)	0.110*** (0.0230)
Acc Govt Fund	0.124*** (0.0258)	0.124*** (0.0258)	0.124*** (0.0258)
BK Relat	0.0527* (0.0285)	0.0528* (0.0285)	0.0521* (0.0285)
Fund Appl	0.0786*** (0.0266)	0.0785*** (0.0266)	0.0786*** (0.0265)
Constant	0.164*** (0.0313)	0.142 (0.275)	0.169*** (0.0334)
Observations	2,178	2,178	2,178
R-squared	0.105	0.105	0.105

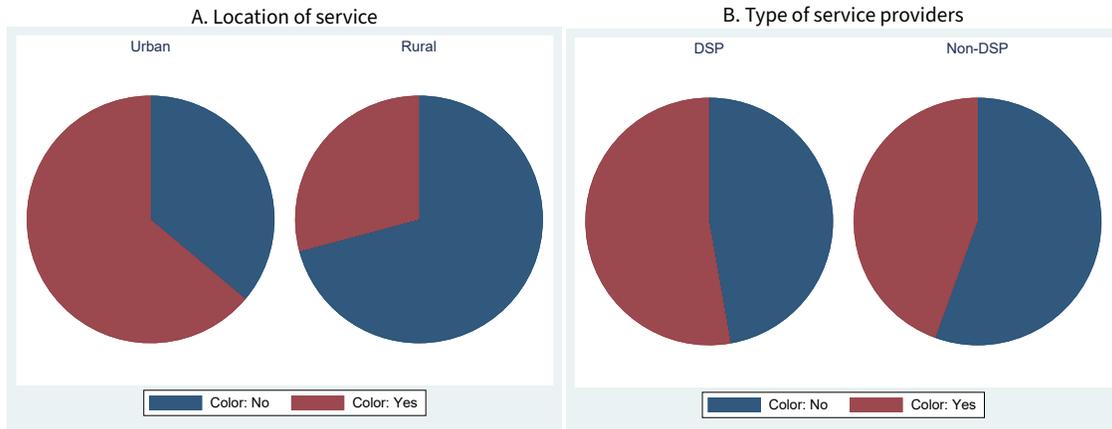
NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Table A.6**  
**Disruption, Challenges, and Income Differences**

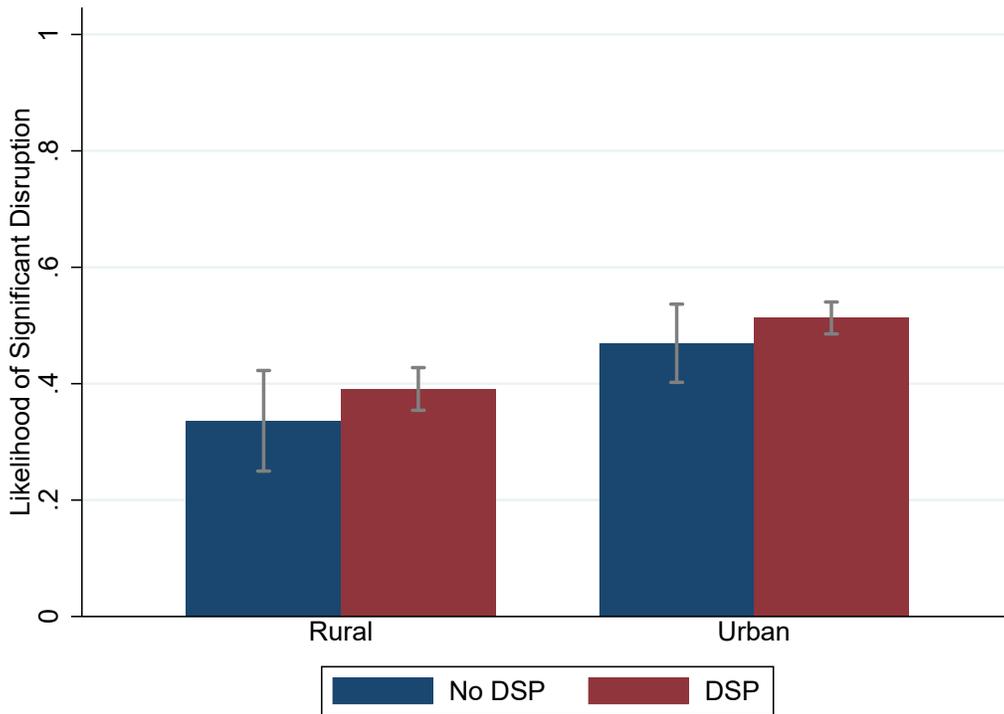
	Color		General sig. disrupt.		RTW sig. chall.		Acc Govt sig. chall.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income	-0.0540** (0.0260)		-0.0106 (0.0264)		0.00110 (0.0248)		-0.0159 (0.0260)	
High Income		-0.0367* (0.0214)		-0.0184 (0.0214)		-0.00735 (0.0206)		-0.00918 (0.0209)
Constant	1.110*** (0.285)	0.535*** (0.0151)	0.580** (0.290)	0.473*** (0.0151)	0.627** (0.273)	0.643*** (0.0145)	0.565** (0.286)	0.395*** (0.0148)
Observations	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178
R-squared	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000

NOTE: Robust standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

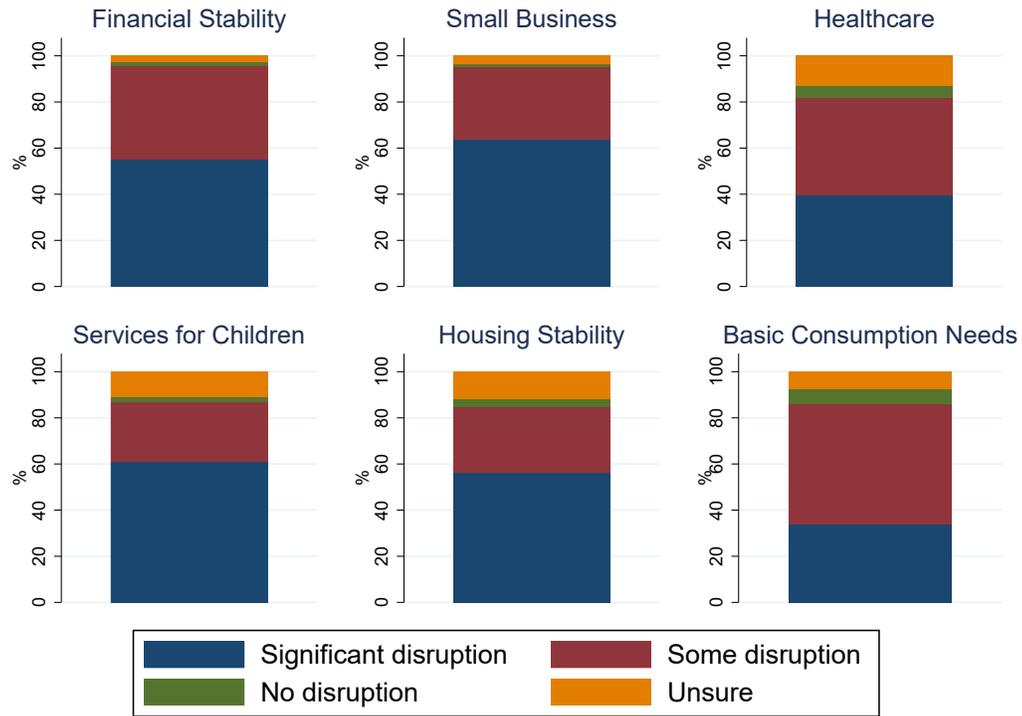
**Figure A.1**  
Demographics and Communities Served



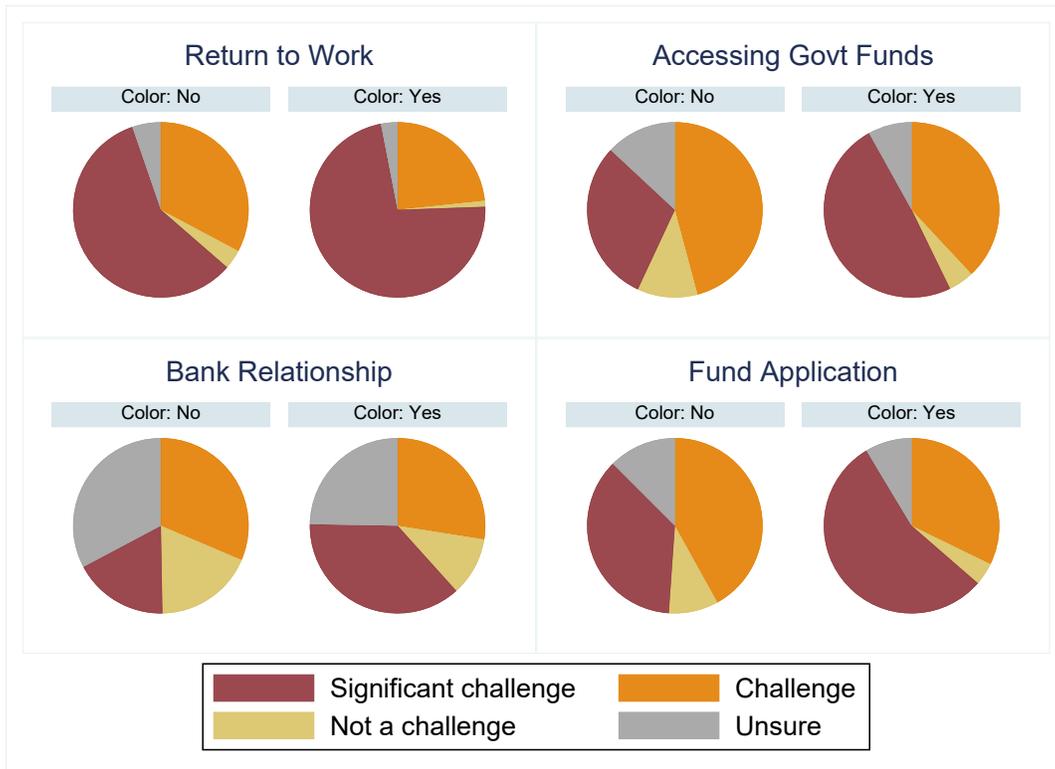
**Figure A.2**  
Disruption by Type of Service Offered and Location



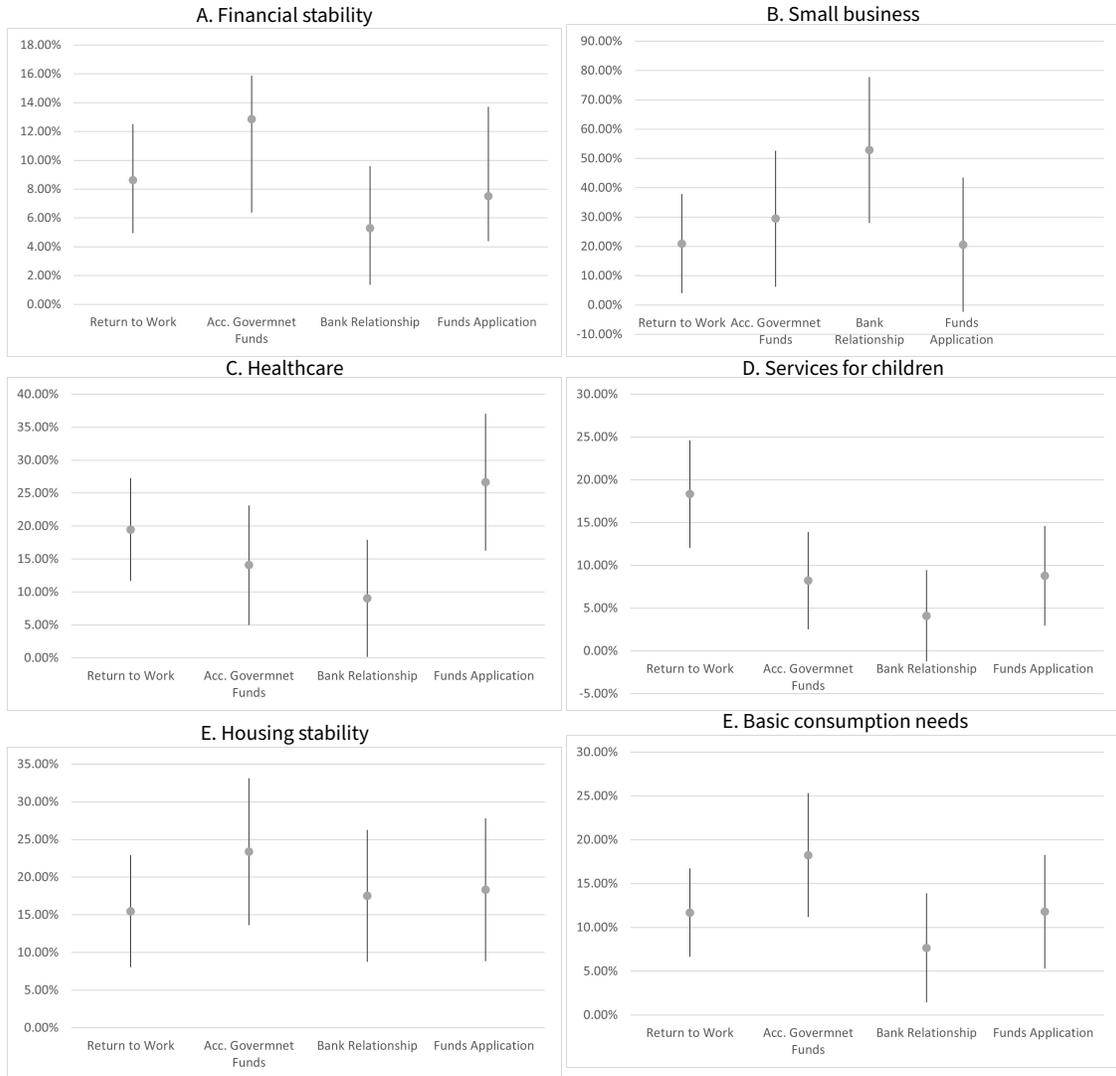
**Figure A.3**  
**Disruption in Segments of the Economy**



**Figure A.4**  
**Challenges Faced by Demographic Group**



**Figure A.5**  
**Confidence Intervals of Challenges by Segments of the Economy**



NOTE: The figures show 95 percent confidence intervals from the Oaxaca decomposition for each of the challenges analyzed. There is one figure for the decomposition in each segment of the economy.