

The Empowerment of Black Businesses to Assist their Communities During and After a
Disaster: An Ethnographic Study

by

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Abstract

Disadvantaged communities, especially those populated by African Americans, are some of the most negatively affected communities during and after a natural or manufactured disaster.

Systemic and systematic racism and institutionalized distrust have hampered African American/Black-owned businesses from scaling successfully, preventing them from providing economic opportunity and other necessary resources to their communities and further compounding the sluggish recovery of disadvantaged communities. Using a qualitative research method based on critical theory, this ethnographic study aimed to identify ways to position African American firms as an asset to their communities during and after a natural or manufactured disaster.

Keywords: disaster preparedness, emergency management, African American, Black

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Chapter 1: Introduction

Disaster recovery is often unequally applied in the United States and other countries (Kammerbauer & Wamsler, 2017). Communities of lower socioeconomic status, usually comprised of people of color, are the hardest hit by any disaster, from Hurricane Katrina to the most recent COVID-19 shock (Substance Abuse and Mental Health Services Administration, 2017). The unequal recovery time from catastrophe is a result of racism, economic disenfranchisement, and environmental justice issues. Longer recovery times negatively affect community members and other institutions such as schools and local businesses, the latter of which can aid in disaster recovery until the Federal Emergency Management Administration (FEMA) or state emergency agencies deploy further assistance. Local businesses, particularly those in the African American community, should be prepared to adequately supply the community with needed products and services after an emergency.

Background of the Problem

Due to *systemic and systematic racism*, the Black community is disproportionately affected and ill-equipped to navigate different emergencies (Green et al., 2011). Systemic racism is defined as the systems that uphold racism via institutional power (Banaji et al., 2021), and *systematic racism* refers to the limited access, a result of residential segregation, to healthy food or food desserts, healthcare, education, and labor opportunities, which has further exacerbated the adverse outcomes experienced by African American communities (Henkel et al., 2006; Karpyn et al., 2019; Popescu et al., 2018). The African American community also has a history of *institutional distrust* of the United States government, which is defined as an individual's or a group's lack of confidence in medical, public health, or governmental systems (Best et al., 2021). The United States also has a history with Black economics and businesses, ranging from race

riots (Messer, 2011) to exclusionary practices such as restricting access to capital and other resources to grow their businesses (Ammons, 1996). Under the imposition of these systemic and systematic restrictions, African Americans have proved unable to scale their businesses at the same rate as other groups (Ammons, 1996). Therefore, when necessary, they may be unable to sufficiently meet the community's needs, such as providing additional relief during and after natural or manufactured disasters.

Statement of the Research Problem

Ideally, federal and state emergency aid would be dispensed equally among all groups who have been affected by a crisis to assist in a quick recovery for the community. Yet as indicated in studies such as Green et al. (2011), the African American community exhibited a historically slow recovery after a natural disaster. Local Black-owned firms should be prepared to adequately provide services to their communities during and after emergencies.

Purpose Statement

The researcher explored what resources Black-owned firms need to accommodate their communities' demands during and after a natural disaster or emergency. The researcher developed a preliminary understanding of the research problem by collecting qualitative data via interviews with business owners who identify as Black or African American. This study is necessary because it can provide policymakers with data to identify ways to strengthen Black-owned businesses' ability to help their communities during and after emergencies if they choose to provide any service. These data can be used to create and incorporate these policies into existing and future community planning and emergency management regulations.

Significance and Scope of the Problem

There is limited existing literature concerning the African American community's delayed disaster recovery and reliance on Black businesses for help during and after an emergency. Wilson et al. (2021) cited racial segregation, inadequate housing options, financial need, inequitable access to federal programs, and limited funds allocation from programs as some of the main reasons for the Black community's slow economic recovery after an emergency. The interview data may provide additional context about the existing obstacles Black businesses face and what policy changes can be made to prepare them to assist during a crisis until state or federal help arrives. The empowerment of African American businesses to address the needs of their communities during natural disasters and events such as the COVID-19 pandemic can increase the recovery time of said communities while decreasing reliance on FEMA and state emergency management organizations such as the California Office of Emergency Services (CalOES). This framework can also identify why there are gaps in FEMA funding allocated to these communities compared to White communities. The scope of the study was limited to 30 recruited volunteers (Moser & Korstjens, 2017). Each participant was asked to complete a short interview to identify the ability to assist in a disaster and what resources they would require to be of service.

Definition of Terms

Black-owned business refers to an enterprise where 51% of ownership is held by someone who identifies as African American or Black (Ammons, 1996, p.486).¹

¹The terms African American and Black are not used interchangeably because there are groups that may identify as Black but are not considered African American.

Disaster preparedness relates to a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action to ensure effective coordination during incidence response (Department of Homeland Security, n.d.).

Emergency management refers to the managerial function framework where communities can reduce vulnerability to hazards and cope with disasters (Federal Emergency Management Agency, 2008).

Resilience was defined as the ability of a system, such as an urban area or a community, to mitigate hazards and consequences of hazards, in terms of loss of performances of the system and time needed for a full recovery of the initial performances (Faber et al., 2014, p. 602).

Chapter 2: Literature Review

The topic initially researched involved preparing African American businesses to effectively provide products and services to their communities during and after a crisis. Although no studies on the research subject were discovered during the literature search, enough studies were identified to provide significant groundwork for the topic. The research proposal provided additional context to extant studies on disaster recovery for African American communities. With local firms available to service their communities until federal or state authorities can provide further assistance, the African American community can experience a quicker recovery.

The literature review is divided into the following categories: Black business disadvantages and needs, disaster recovery recommendations for low-income communities disaster recovery strategies for small businesses, disaster preparedness and how businesses can help, and selected research methodologies. Each category represents a component in preparing Black businesses to be assets to their communities during and after a crisis. However, existing conditions must be researched to better understand the problem and identify the gaps in the extant literature. Papers on Black business disadvantages and needs were reviewed because identifying existing conditions assisted in generating additional research questions. Disaster preparedness and recovery studies were evaluated to determine the companies' immediate needs during and after a disaster and the alignment of Black businesses to offer these products and services. Literature on disaster recovery rates for Black communities also explains how quickly Black-owned companies will recover from a microeconomic level to be of assistance. Included in the disaster recovery category, there was a focus on the role of the African American church was included because the church has historically provided support after a disaster and acted as an intermediary between government agencies and the community. Articles on disaster recovery

strategies for small businesses were assessed to determine what existing strategies can be applied to African American/Black companies.

Black Business Disadvantages and Needs

In partnership with the Brookings Institution, Perry and Romer (2020) provided an overall analysis of existing conditions for Black-owned businesses and the economic impact on their community if they reached parity with non-Black companies. Analysis of the number of Black businesses in metropolitan areas such as Washington D.C. and Las Vegas revealed that Black ownership is represented across common industries such as healthcare, waste management, administrative, professional, scientific, and technical services. However, this segment still lags behind non-Black companies in terms of revenue and access to capital, as Black companies reportedly produce about 10 jobs with an average annual pay of approximately \$30,000 compared to 23 jobs created by non-Black companies that pay almost \$52,000 annually (Perry & Romer, 2020). Additionally, an analysis of the abovementioned metro areas averaged a range of .3–.6 Black-owned businesses per area with the highest black populations. The St. Louis metropolitan area, for example, which boasts a Black population of 19.5%, ranked highest with .6 and 10% of businesses identifying as Black-owned, but the Oxnard-Ventura metropolitan area had the lowest ratio with .3 Black-owned businesses per 2.7% of the population segment that identifies as Black. Perry and Romer also suggested an emphasis on investment and policy change to address the devaluation of homes in predominately Black areas, equity in high-revenue industries, and investment in the Black community and industries where Black businesses have substantial representation.

Harper-Anderson (2017) added additional context to the existing issues facing Black-owned businesses and their competitiveness. Situating their empirical qualitative study in

Chicago, they sourced responses from 43 Black business owners who indicated some challenges with relationship development. These issues include a lack of relationships with larger, White-owned firms and mistrust of the business owner's expertise. Concerning the issue of limited relationships with White-owned businesses, one participant responded that the larger firms did not make any outreach attempts to learn about Black-owned firms in the region. Regarding mistrust, another participant stated that executives in larger firms felt as if smaller, Black-owned firms might lack the mental expertise to function as a viable partner on a project. Harper-Anderson also asserted that racial stereotyping and a lack of diversity in the supply chain were problematic. Their article is a crucial component of this literature review because the case study provided the experiences of an inadequately researched segment of Black firms, that is, the highly educated, experienced professional services entrepreneur.

Urban renewal and community redevelopment also contribute to the lack of substantial, successful Black businesses in larger cities. Hyra (2012) featured Harlem's urban renewal as an example of the forced displacement of Black-owned mom-and-pop businesses. As mainstream establishments began to return to the area, the rise in commercial rents forced many smaller Black-owned businesses to close their doors. However, at the same time, other Black businesses thrived during redevelopment, reviving several black neighborhoods, thus illustrating that although race was a displacement factor, it was aligned with class and income (Hyra, 2012).

Herring (2004) designed a research study to determine how to reduce poverty in the inner cities of the United States and why some minorities are more likely to engage in entrepreneurship than other groups. They put forth the labor market discrimination theory, where minorities may have turned to entrepreneurship because of labor bias, as well as the economic detour theory, which states that systemic and systematic racism and terrorist activities have

contributed to the lack of business creation and scalability of businesses for African Americans. Herring used Black Americans, Mexican Americans, and Puerto Ricans as independent variables to collect data from interviews with 2,490 participants, ultimately illustrating that the denial of credit, racial discrimination in certain industries, and living in ethnic enclaves can hinder entrepreneurial progress. Herring's data also showed that for Blacks and Mexican Americans, self-employment was associated with lower incomes, casting doubt that more minority-owned businesses can alleviate poverty in urban areas (Herring, 2004).

Fairlie and Robb (2007) listed the major stumbling blocks facing African American/Black-owned businesses and how they contribute to lower profits, lower sales, an inability to hire employees, and higher rates of closure compared to white businesses. To perform the calculations for their nonlinear decomposition regression model, they sent the survey to more than 75,000 firms and over 115,000 owners who earned more than \$500 in sales. Using the culled information, the authors listed disadvantages such as a lack of access to self-employed family members, little experience working in a family business, reduced likelihood of inheriting a family business, less prosperous family backgrounds, and limited access to capital to scale the business. They also exposed a correlation between work experience and the success rate of African American businesses, noting that a lack of experience in a family firm or similar business lowered the chances of scalability. Fairlie and Robb also provided policy recommendations for minority business incubators, including providing opportunities to acquire work experience and reserving capital and funding.

Mafundu and Mafini (2019) conducted a qualitative research study on the internal constraints Black-owned small and medium construction enterprises experienced in South Africa. Following the end of apartheid in 1994, policies were implemented to assist Black-owned

businesses to compete successfully in various industries. Using the questionnaire responses from 13 Black-owned firms, Mafundu and Mafini revealed the following hindrances to business growth: occupational health and safety, human resources, leadership style, workplace communication, and resource allocation. Moreover, through analysis of culled responses, the researchers concluded that a lack of planning in these areas is the main cause of the lack of success for these businesses.

Tareque et al. (2021) provided numerical data on the pre-COVID-19 disadvantages that African American businesses faced compared to White and Latino-owned firms. Compared to White and Latino-owned businesses, only 7% of Black-owned businesses in the United States were scaled between 2012 and 2017. Despite having similar rates of business ownership, Black entrepreneurs reported that having lower access to capital funds has negatively affected their profitability (16%) when compared to White (5%) and Latino-owned firms (9%). The lower access to capital has forced these firms to resort to using personal savings and credit cards to remain solvent. Additionally, Tareque et al. reported that more than one third of Black firms closed their businesses because of inadequate cash flows or sales compared to 27% of Latino firms and 21% of White-owned businesses. Limited access to government relief during COVID-19 further exacerbated disparities in recovery for Black, Latino, and White firms. Despite being more likely to be located in COVID-19 hot spots, only 20% of Black-owned businesses qualified for Paycheck Protection Program (PPP) loans, with 90% of recipients receiving less than what was requested.

Concerning the COVID-19 recovery, and citing findings from the New York Federal Reserve, Baboolall et al. (2020) discovered that before the pandemic, 58% of Black-owned businesses were already in a precarious financial condition compared to White-owned

enterprises. Only 5% of Black-owned companies had business equity, but White-owned companies had 15%, with the amount of equity being 33% of the average White business. The disproportionate closures and other problems for Black-owned companies are attributed to their lower revenues in most industries; overrepresentation in low-growth, low-revenue sectors like food services and accommodations; and a location in an area with limited paths to promote business growth. Baboolall et al. also cited the barriers to capital that African American/Black-owned firms face compared to White owners, such as being required to provide additional tax and financial documentation. The authors suggested that African American entrepreneurs should expand into more lucrative fields, create networking and mentoring opportunities, and have more access to funding and sponsorship.

The survey of the above literature provides a useful background regarding the systemic and systematic racism African American/Black-owned firms have faced in effectively operating their businesses prior to any emergency. These businesses were already experiencing obstacles, which further legitimizes the author's research efforts to identify the additional needs of these companies.

Disaster Recovery Recommendations for Low-Income Communities

There is a shortage of information on Black-owned businesses' assistance in disaster recovery. The authors of extant literature have studied the effects of Hurricane Katrina, and the subsequent recovery from the storm was included because the disaster affected large swaths of Louisiana's Black community. Case studies of disasters in low-income nations were also included because many developing countries experience the same environmental and economic issues as lower socioeconomic communities in the United States. The importance of the church, particularly the African American church, is also included in this literature review because the

church acts as a disaster management entity in lower-income communities of color as compared to more affluent White communities that often depend on government assistance and the business community. Current studies also included recommendations for emergency response equity for low-income communities. Comerio (2014) centered housing and community resilience around disaster recovery by studying the recovery from major earthquakes in the United States and foreign countries such as Haiti and Japan and measuring community resiliency around the following points: a lack of preparedness for recovery, local implementation, and funding; an antiquated and inflexible government program; and an impoverished community marked by dilapidated structures. Regarding the abovementioned points, Comerio concluded that housing is essential to recovery with a timeline describing repairs and reconstruction and noted that better cooperation between local and national governments is needed, as is a better balance between individual responsibility and government assistance after a disaster.

Community resilience was also a focus in the Cutter et al. (2013) article. The authors outlined approximately ten guiding principles to ensure resilience after a disaster. Some of the most important components as they relate to this study include the following: informed, involved leaders; annual assessment of individuals, businesses, and communities; agile businesses that incorporate resilience into planning and operations; careful avoidance of assumption that the past is a good indicator of future natural disaster recovery; and capable communities that prove resilient to disasters. The importance of Cutter et al.'s research to this literature review is the author's assertion that lives, and money would be saved post-disaster if spending billions of dollars that were used on disaster response and recovery were used on community resilience strategies. This concept would prove beneficial to Black and other marginalized communities.

Bethel et al. (2013) used Behavioral Risk Factor Surveillance System (BRFSS) data with both a univariate (percentage) and bivariate (chi-square test) to analyze the disparities in disaster preparedness among Whites, Blacks, and Latinos. After analyzing the responses from approximately 63,000 participants between 2006 and 2010, the results showed that 42% of all households had comprehensive emergency plans that included 3 days of medication. Black, English-speaking Latinos, and Spanish-speaking Latinos did not have enough medication to last for 3 days in case of a disaster. Although these groups may store inadequate medication, Black and Latino households were more likely than White households to have evacuation plans and preparedness items, especially if located in Los Angeles County, California (Bethel et al., 2013).

After conducting 16 semi-structured interviews with emergency response practitioners about racism's effect on disaster recovery in Puerto Rico, Rodriguez-Diaz et al. (2020) concluded that the country's history of being a colony and structural racism hindered recovery efforts after Hurricane Maria in 2017. The responses provided additional context to these findings. For example, they expressed the perception that the United States is a highly racist and racialized country, and although Puerto Rico does have issues with racism, the concept of race is not as much of a problem. The colonial history and past corruption in Puerto Rico's government were identified as another potential reason for the poor emergency response from the United States (Rodriguez-Diaz et al., 2020).

Comparing the responses to Hurricanes Harvey and Irma in the continental United States and Hurricane Maria in Puerto Rico in 2017, Willison et al. (2019) discovered that FEMA responded more quickly and more generously in terms of money and staffing for communities in Florida and Texas when compared to Puerto Rico. Garnering data from FEMA records, news releases, and National Oceanic and Atmospheric Administration (NOAA) reports, Willison et al.

noted Harvey and Irma survivors received \$100 million compared to the \$6 million disbursed to the victims of Hurricane Maria in the first 9 days after the storm, despite more extensive damage in terms of housing destruction and loss of electricity in Puerto Rico. Those payments ballooned to over \$1 billion for Irma and Harvey survivors in the first 2 months after the natural disasters, but it took 4 months for Maria survivors to reach the same amount in recovery funds.

Additionally, peak federal emergency staff deployment in the first month for Puerto Rico was 19,000, approximately 40% less than the staffing level represented by 30,000 FEMA employees in Texas within 9 days of landfall. Willison et al. concluded that although barriers such as geography and distance were issues, racial bias and perception of differential citizenship may have played a part in the disparate responses.

Sadri et al. (2017) focused on rural communities and what caused some small towns in Indiana to recover more quickly than others. After surveying 390 households in 2015 and using a probit regression model, Sadri et al. concluded that slower recovery times were attributed to more damage to physical items, larger households, and reliance on private insurance for disaster funds. The participant responses indicated a faster recovery often occurred when there existed higher trust in government, denser personal networks and help from neighbors, close proximity to networks, and previous disaster equipment. As with other reviewed studies, Sadri et al. illustrated how elevated trust in government and closer networks aided in a community's quick recovery from a disaster.

Hoffman (2009) emphasized the importance of equity in disaster recovery. Despite creating significant disaster readiness initiatives, vulnerable communities' needs were often excluded from the planning process. For example, during Hurricane Katrina, most of the population who were unable to leave were African American, with approximately 21,000

African American families unable to evacuate because they did not have transportation. African Americans with mobility issues could only access 5% of FEMA housing when approximately 25% of the displaced population needed temporary housing. Hoffman also asserted that Black evacuees were less likely to be accepted into other communities than other groups. Because African Americans are one and a half times more likely than Whites to die in an emergency because of poverty, lack of social capital, and systemic racism, the U.S. government included a constitutional provision known as the Equal Protection Clause to ensure equal disaster recovery efforts from federal agencies. Although the clause, located under the 14th Amendment, purports to eliminate race-based inequity in receiving aid during an emergency, Hoffman asserted that it remains difficult to prove direct racial discrimination.

Understanding the disproportionate effect of COVID-19 on communities of color, Myint et al. (2022) outlined the steps a local government can take to ensure equity in a pandemic response. Taken from a revised structure from Washington state and implemented in Washington County, Oregon, these procedures included creating new positions for the county's Emergency Operations Center (EOC) and interacting with community stakeholders and other partners. The new positions created for the EOC were equity officer, language access coordinator, equity technical assistant, and an equity team. The positions were comprised of culturally competent subject matter experts that had the associated responsibilities of providing updates to the incidence commander, creating language policies, and interfacing with community leaders. Myint et al. stated that although there was some success with the implementation, there were some challenges, such as team members juggling multiple duties, experiencing a lack of training, performing with limited resources, and seeing competition for available assistance. Myint et al.

went on to assert that the main solution to mitigate these challenges was to establish equity as a regular part of the planning process for emergency response.

In an analysis of a quantitative study using FEMA data, Billings et al. (2019) also said FEMA policies exacerbated existing disaster recovery lags for the Black community. Areas with more Black residents were less likely to receive inspections, and FEMA often fails to fund these repairs. Additionally, Black residents have been denied inspections at a higher rate and, when approved, have received less funding for repairs. Although Billings et al. focused more on flood buyout programs, Domingue and Emrich (2019) focused on the discrepancy in funding for repairs in cities and counties, finding that the lack of disbursement of FEMA funds in Black and minority communities affects the community's prosperity long after the disaster. Using a multinomial logistic regression model with FEMA data, Domingue and Emrich discovered that municipalities with higher concentrations of Black citizens and other minorities received fewer FEMA funds for reimbursement of rebuilding costs related to city infrastructure and for buyouts, thus hollowing out communities and lowering the future tax base.

In addition to FEMA, there are several volunteer coordination platforms, such as the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP). This database mobilizes healthcare professionals for various emergencies (Iserson, 2020). With a focus on technology and human interaction, Streefkerk et al. (2014) presented the COBACORE platform, a mechanism to assist with disaster recovery. Using Human–Computer Interaction (HCI), the main functions of the platform are to align community needs, inform organizations of recovery activities, and improve collaboration between professionals and communities. Some HCI challenges were limited access to coordinating volunteers to align with community needs. Turning their focus to the historic 2013 floods in Germany, Streefkerk et al.'s case study focused

on repairing HCI challenges in disaster recovery in a developed nation. However, to provide a well-rounded analysis of the platform, studies that analyze the HCI challenges COBACORE would face in a lower-income community or developing nation with environmental challenges are needed.

Stofferahn (2012) studied the ways cultural, social, and human infrastructures influenced political capital and led to access to financial resources to rebuild their community, noting how the victims of a tornado in Northwood quickly amassed financial resources, including federal and state government grants and loans as well as monies garnered from fundraisers and development agency funds, to rebuild their community. Stofferahn explained how the funds were used to rebuild homes, a grocery store, a laboratory, and a museum, and to construct new housing and manage other developments. The ability to recover quickly was attributed to the Northwood community's homogeneity in terms of race, ethnicity, income, and religion, which created a sense of trust and increased the ability to work together.

Social capital plays an important part in disaster preparedness in low-income minority groups (Reininger et al., 2013). Focusing on the low-income majority Mexican American community in the U.S. Gulf region, Reininger outlined how an individual's disaster preparedness is determined through intellectual resources, social support networks, community-level preparedness, and the community's access to these resources through their elected representatives. The study culled survey responses from 3,030 participants; the demographic variables included 93% who identified as Mexican, 52% as female, and 62% who declared a household income of less than \$15,000, with the average number of people per household numbering four. The data Reininger et al. gathered revealed that when controlling for other demographics, two distinct associations were identified between social capital variables and

disaster preparedness: perceived civic trust and perceived fairness. Participants who were considered more prepared for a disaster had a greater perception of civic trust and fairness and were more likely to share their resources with others.

Working with qualitative data culled from interviews about disaster response participation in China, India, and the United States, Chandrasekhar et al. (2014) outlined the importance of nontraditional participation and its influence on the speed of disaster recovery in the participants' communities. The researchers concluded that although time-consuming, disaster recovery planners should increase stakeholder participation by engaging nonprofit organizations, citizens, and other marginalized groups during normal times. Examples from Chandrasekhar et al.'s case studies included details about how the local Chinese government recognized homeowners from different regions as planning participants when the homeowners rejected the original housing reconstruction plan and how marginalized nonprofit organizations in the Lower Ninth Ward advocated for their residents.

Storr and Haeffele-Balch (2012) used Hurricane Katrina to illustrate the divide between communities that have rebounded and those still in recovery, asserting that the difference is attributed to the resources available to residents. Known as the *collective action problem*, current and past literature has asserted that homogenous, tight-knit communities recover more quickly than disparate, heterogenous communities. Storr and Haeffele-Balch additionally examined how heterogeneous communities can work together to recover quickly after a disaster and emphasized the importance of community-based organizations such as churches, which can collect and share information about community members' plans and challenges post-recovery. Finally, these scholars emphasized the value of maintaining contact among community members through meetings and other activities. The findings in this article correlate with existing studies on the

importance of the African American church and other religious institutions as the center for disaster recovery in low-income communities.

Although Storr and Haeffele-Balch (2012) and Stofferahn (2012) compared how quickly disaster recovery was implemented in heterogeneous and homogenous communities, Fothergill and Peek (2004) concluded that socioeconomic status was a significant predictor of disaster preparedness and recovery. Lower-income families were less likely to be prepared for a disaster, lacking adequate insurance coverage or additional supplies, making them more susceptible to death and injury. Additionally, Fothergill and Peek indicated that a community's ability to recover quickly from a disaster is based on preexisting conditions and access to resources, power, and information; they concluded with recommendations about general policies for housing infrastructure, such as providing landlords and owners funds to update older housing stock and present safety standards and educate response agencies on cultural competency.

In sharp relief to the studies discussed so far, Ntontis et al. (2020) concluded that the psychological feeling attached to an emergency can aid community-based disaster recovery among diverse groups. The researchers disseminated three surveys, in September 2016, April 2017, and September–October 2017, to approximately 3,000 households in postcodes that have experienced at least one natural disaster. The first questionnaire yielded a response rate of 7%, and the second and third questionnaires saw a 6% and 4% completion rate, respectively. Due to low participation rates in the surveys, a cross-sectional design was used to remove participants who repeated the survey. The results indicated the feeling of having a common fate in surviving a disaster could create a sense of community with groups that do not have a pre-existing bond such as race or class. This was true in flood-prone areas, where the bond among residents is defined by geographical area (Ntontis et al., 2020).

Majd et al. (2019) emphasized the importance of disaster education for vulnerable populations such as women, the elderly, persons with disabilities, and children. For reliability and validity purposes, each researcher on the team individually studied existing methods regarding disaster education and concluded these populations should receive special education to reduce the loss of life and property. Since different countries use different training models, researchers could not identify best practices, which explained why they could not measure a difference in the behavior and performance of the target population. Although disaster education was effective at every stage of a crisis, the researchers did conclude emergency preparedness had the most impact on recovery (Majd et al., 2019).

Bronfman et al. (2019) discussed different methods for disaster preparedness for different sociodemographic groups in countries exposed to multiple types of hazards. Chile was the study area. Although not a literature review, the authors researched articles identifying many different emergency management models, with the two most effective being the Social-Cognitive Model and the Protective Action Decision Model. The Social-Cognitive Model focuses on the motivational reasons for disaster preparedness, such as threats, self-advocacy, and a sense of community, and the Protective Action Decision (PAD) Model involves preparation based on risk perception, previous incidences, and demographics. Bronfman et al. sought to analyze the ways the PAD model could be used for disaster preparedness where an individual may spend the most time, that is, the workplace and home. Using a qualitative research method, the researchers distributed a questionnaire to a group of 476 participants chosen through a combination of random sampling, systematic sampling, and a quota system. The findings indicated that dependent on the natural disaster, earthquake versus flood, being partnered or married, and being a woman indicated a higher level of preparedness. There was an anomaly found where men felt

they were more prepared when there was a flood; this was attributed to the men working in medium and large-scale mining operations, whereas women tended to work in service and commerce industries. This new response also highlighted the importance of how large companies can influence disaster preparedness. Mining operations are a large part of the region's economy and because they have large numbers of employees, their emergency risk reduction and responses are more formalized (Bronfman et al., 2019).

Clark-Ginsburg et al. (2021) outlined how FEMA has increased the disaster risk for vulnerable communities. Applying the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method, aside from historical disenfranchisement, the authors concluded that limited inclusion of vulnerable populations in the decision-making process, difficult bureaucratic processes, unequal distribution of relief across race and class, and location caused FEMA to create additional risks for these communities. Using Hurricane Katrina and Superstorm Sandy's effect on Puerto Rico, additional risk creation in terms of delayed resources included living in subpar dangerous housing conditions and dealing with poor mental health, as well as a breakdown of family and community, poverty, and unnecessary deaths (Clark-Ginsburg et al., 2021).

Environmental Racism Effects on the African American Community

Environmental racism plays a role in the slow recovery of the African American community during and after a disaster. Kaufman and Hajat (2021) have asserted that aspects of environmental racism include placing communities of color near pollution sources such as major roadways, toxic waste sites, landfills, and chemical plants. They went on to note how housing policies have contributed to environmental racism by relegating these same communities to substandard housing, which puts them at risk of hazardous exposures. Rivera and Miller (2007)

determined that systemic racism had confined African Americans and other minority groups, making them place-bound in disaster-prone areas, with few resources and little opportunity to move to a safer area. These vulnerable populations often reside in flood zones and substandard housing that cannot withstand tornadoes or hurricanes. Rivera and Miller also examined three natural events that placed the African American community at a disadvantage in the aftermath of the disaster. Using the Great Flood of 1927, the Vanport Flood of 1948, and Hurricane Katrina as examples, the authors illustrated the influence of racialized policies on the migration patterns of African Americans, including the Great Migration of the 1930s and 1940s. However, it appears that no matter where African Americans move, existing discriminatory practices in other states continue to exacerbate social disadvantages, thus continuing to foster the existing institutional distrust the Black community has today with disaster response (Rivera & Miller, 2007).

The 2017 supplemental research bulletin of the Substance Abuse and Mental Health Services Administration (SAMHSA) outlined the factors that hinder a fast recovery for low-income communities reeling from disasters such as Hurricanes Katrina and Rita. The factors include lack of housing, housing in environmentally degraded locations, poorer physical health, fewer assets, and lack of earthquake or flood insurance (SAMHSA, 2017). The SAMHSA report also offered some policy recommendations to assist lower socioeconomic communities, such as living-wage jobs for impoverished areas, safer housing alternatives, evacuation support, and increased access to financial incentives and post-recovery aid. Relying on data analysis from an ordinary least squares (OLS) regression, Downey (2014) stated that although race and poverty are often intertwined, poverty played a more significant role in hindering economic recovery during Hurricane Katrina. However, the metropolitan areas saw a quicker economic recovery with access to jobs for people of all races regardless of poverty rates, compared to rural areas

where race played a significant factor in disaster recovery. Some policy recommendations from the Downey study included incorporating the local economy's needs into any comprehensive emergency management plans, including the creation of pilot programs for economic development.

The Role of the Church in Natural Disasters

Religious groups and the church are often tasked with providing shelter, case management, volunteer coordination, and food for marginalized communities (Sledge & Thomas, 2019). Sheikhi et al. (2020) conducted a literature review emphasizing the church's vital role in disaster management and noted that churches often participate in the disaster response and recovery phase. Sheikhi et al. concluded that religious institutions could provide an even greater service by collaborating with other community stakeholders to help in disaster preparedness and mitigation for the community. Different denominations have different approaches toward natural disasters. McGeehan and Baker (2016) have determined that in the Church of Latter-day Saints (LDS), each member serves as a teacher and engages one or two other members in the community every month; this creates a network to mobilize volunteers for communication and aid in a disaster, and LDS missionaries are called upon to go into affected areas to provide manual labor and other assistance during recovery. Other interview responses from the 26 participants in the McGeehan and Baker study mentioned that the United Methodist Church took up a special collection to support disaster efforts, was hands-on with rebuilding and recovery efforts, and ensured all community members were safe and properly cared for after a disaster.

The African American church provides cultural competency, such as spiritual and emotional needs and resources, to Black and other minority communities during disasters

(Trader-Leigh, 2008). In interview findings culled from the responses of 26 participants who experienced Hurricanes Katrina and Rita, Trader-Leigh (2008) stated that because of a lack of finances, many Black churches go into debt as a result of providing resources to survivors. Trader-Leigh indicated how churches could direct some donor contributions build disaster endowments and that the American Red Cross should reimburse churches for other services. The researchers also suggested support for pastors and the clergy, who often performed these services with little training. The African American church has historically been the backbone of its immediate community, mobilizing members and resources for disaster management and recovery (Brewer et al., 2020). After sending emergency evaluation kits to 120 churches, Brewer et al. (2020) followed and assessed the Fostering African American Improvement in Total Health (FAITH!) program, a partnership between the Mayo Clinic and Minnesota-based Black churches that addressed chronic health-related issues, including the most recent COVID-19 pandemic. After receiving evaluations from the participating churches, and to address the disparities in the number of deaths between Black and White communities, the FAITH! Program's community steering committee instituted the following policies: create emergency response teams, train community communication leaders, and message map development that incorporated social media (Brewer et al., 2020). Local Black-owned businesses can alleviate some of the church's burdens through disaster management efforts.

Disaster Recovery Strategies for Small Businesses

In order for small businesses to recover quickly from a natural disaster, Xiao et al. (2018) stated that planners should consider firms as economic and social units in disaster recovery and community planning. The researchers also indicated that small business owners typically owned homes in the affected community and did not want to move their businesses to alternate

locations. Furthermore, due to limited access to capital sources or small business loans, business owners often used personal funds, which may prohibit them from resuming business through actions such as finding new sources for goods, contacting customers, or hiring new employees. Homeowners experienced a quicker recovery because they had more access to external sources such as government assistance (Xiao et al., 2018), but with their time split between stabilizing their homes and businesses, many small business owners cannot fully participate in the post-disaster community recovery process.

Providing further context to the Xiao et al. (2018) study, Marshall et al. (2015) accumulated data from telephone interviews of approximately 500 businesses to conclude that in addition to incorporating businesses into community disaster planning strategies, special attention should be paid to higher-risk enterprises. Higher-risk enterprises are small businesses more vulnerable to closure post-disaster, such as minority, women, and veteran-owned firms. Disaster recovery also varies by industry type, with service-based firms boasting a higher post-disaster survival rate than product-based companies. Marshall et al. also noted that the location of a small business plays a role in survival after a crisis: notably, firms located in poor and coastal areas face a higher potential for closure. Their study supplements the existing literature by identifying the need for policymakers to create policies and programs that assist small minority-owned businesses precrisis to ensure their viability post-disaster. Nevertheless, there is no relevant literature outlining precise recovery strategies for businesses during a disaster.

Adding to the existing literature about the economic effects of COVID-19 on small businesses and entrepreneurship, Belitski et al. (2021) discussed racial disparities in the PPP allocation. The authors discovered that Black-owned companies received approximately 50% less in loans when compared to similar White-owned businesses, and they experienced a delay in

loan distribution, which negatively affected a firm's ability to conduct business. Belitski et al. recommended policies focused on technology adoption and zero-interest loans, grants, and subsidies to small businesses reliant on supply chains or to businesses that lack stable banking relationships, which tend to be minority-owned.

Disasters fall into two categories: natural and manufactured Alabdulwahab (2016) outlined several types of emergencies, such as hurricanes, wildfires, earthquakes, tornadoes, and floods as natural disasters, and manufactured disasters involved IT bugs, materials spills, infrastructure failure, and bioterrorism. Alabdulwahab also stated that disaster recovery falls under the overall business continuity plan and should focus heavily on IT infrastructure. Some recommendations include pure and hybrid cloud storage systems, regular data backup, antivirus programs, fire extinguishers, and alarm systems for physical infrastructure. Regarding the COVID-19 pandemic, Margherita and Heikkilä (2021) provided comprehensive disaster recovery plans including all aspects of business continuity, such as customer service and corporate social responsibility. Table 1 compiles the strategies that Margherita and Heikkilä culled from the survey responses of 50 Fortune 500 companies.

Table 1*Business Continuity Strategies of Leading Companies During COVID-19*

Category	Company Consideration
Operations and value system	Analyze supply chain status, scenarios; inbound, outbound logistic flows; manufacturing continuity, conversion
Customer experience and support	Physical interaction and mobility; financial and emotional assistance; marketing and customer communication
Workplace and human capital	Employee safety and disease prevention; work continuity and job productivity; leave and infection handling
Leadership and change management	Emergency and continuity management; post-emergency vision and value creation
Community and social engagement	Community donations and support; communication and coordinated actions

Note. Margherita, A., & Heikkilä, M. (2021). Business continuity in the COVID-19 emergency: A framework of actions undertaken by world-leading companies. *Business Horizons*, 64(5), 683–695. <https://doi.org/10.1016/j.bushor.2021.02.020>

Morrish and Jones (2020) created a post-disaster business recovery framework with interview responses that emergency managers can use to understand an entrepreneur's decisions to resume business after a crisis. These decisions included possible relocation, financial injection, and new business model creation and adoption. Using this framework, entrepreneurs identified new customer and new stakeholder values, leveraged existing resources, and secured additional funds through insurance and access to government assistance. Auzzir et al. (2014) built upon previous studies to craft a framework that explains how public–private partnerships are effective in disaster and emergency management because they allow private entities to assist in the implementation of government programs and deliver better services to the community. During and after a disaster, PPP loans can prompt economic growth and create a sustainable

social infrastructure. The articles by Moorish and Jones and Auzzir et al. are important to this research study because they provide guidance to continue business operations during and after an emergency. Black-owned businesses can employ some of these solutions to remain in operation so they can help their communities.

Recovery for African American/Black-owned Businesses

Racial disparities in post-disaster business recovery funding persist, and White-owned businesses are favored over Latino or Black-owned firms, even if they are located in the same metropolitan area; this instigates long-term implications for the local economy of marginalized communities (Bento & Elliott, 2021). Using data from the Center of Responsible Lending, Lahr et al. (2022) stated that a large portion of minority-owned firms (Black, 95%; Latino, 91%; Native Hawaiian/Pacific Islander, 91%; and Asian, 75%) had little chance of accessing PPP loans to continue to conduct business during COVID-19. Lahr et al. and other studies have identified common hindrances to the scale and success of Black-owned businesses, including a lack of capital, lack of leadership education, and lack of access to market entry; however, Lahr et al. provided suggestions for African American/Black-owned businesses regarding improved management of the pandemic through a social strategy program called the 4th Dimension. The premise of the 4th Dimension, which is based on historical economic activity, involves forming cooperatives to promote social growth, employment, and expanded market access.

Compared to the pre-COVID-19 era, Fairlie (2020) cited a 41% drop in active African American-owned businesses during the pandemic; additionally, 26% of Black-owned businesses active in May 2021 and 19% of Black-owned firms active in June 2021 were not reactivated. Fairlie explained that the main reason behind the closures is the firms' primary operation in personal services, an industry hard hit because of the shutdown orders. Baboolall et al. (2020)

also asserted that the slower recovery of Black-owned businesses was caused by incorrect information or networks to apply for the PPP loan, a mechanism to help firms retain staff and provide goods and services throughout the shutdown. Due to systemic and systematic racial bias in banking, African American/Black business owners who did receive the loans often applied through Black-owned banking institutions or other entities such as community development financial institutions.

According to Liu and Parilla (2020), cash-constrained Black-owned firms were the last to receive PPP loans. Based on results from the Federal Reserve's 2020 Small Business Credit Survey, the authors concluded that the leading loan suppliers for Black-owned firms were financial technology, or fintech, companies, and these online lenders were not allowed to distribute PPP loans until after April 14, well after most of the first round of funds was depleted. The late disbursement and a limited amount of funds led to additional business recovery delays for Black and other minority-owned firms. Liu and Parilla emphasized the importance of reducing the reliance on financial technology (fintech) companies and other lending companies to keep Black-owned businesses open and to guarantee their success post-COVID-19. Because Black-owned businesses fare worse during recovery than other firms, Atkins (2017) highlighted the importance of Black social networks and organizations. Using Hurricane Harvey as the basis for a qualitative research study, for example, Atkins mentioned a small business grant for Black entrepreneurs developed by the Greater Houston Black Chamber of Commerce's (GHBCC). Participants in the Atkins study also listed other Black organizations that assisted disaster-impacted businesses, such as the National Association for the Advancement of Colored People (NAACP) and the National Urban League (NUL).

Disaster Recovery for the Community and How Businesses Can Help

Frank (2020) stated the possible reason for inequitable disaster recovery between Black and White communities was the lack of diversity in emergency management. During a congressional house committee meeting, members of the disaster preparedness community expressed a desire to reverse the policies negatively affecting minority communities during crises and to encourage a concerted effort to hire more people of color as emergency managers. Frank asserted that most emergency managers are White males and recruiting more minorities to this field would offset some residual problems and provide a different understanding of the issues associated with redlining and other segregated housing regulations that put minority communities in peril. Sourcing data from conversations with organizational officials and qualitative analyses in scholarly articles, Anderson (2008) also cited a lack of diversity in emergency management and disaster research, noting few African Americans, Asians, and Latinos in the fields. To create more diversity, the Red Cross has partnered with the National Urban League to increase minority participation in their volunteer efforts and paid staff (Anderson, 2008). After surveying 115 NGOs, Sledge and Thomas (2019) listed the most essential company types during a disaster and recovery, citing firms that can protect privately owned infrastructure and those that provide commodity provisions such as food, communication and information sharing, and logistical support.

As a part of a two-pronged RAND Corporation study consisting of a literature review and key informant interviews, Chandra et al. (2016) explained how major companies have provided disaster preparedness services during emergencies. For example, Office Depot offers small businesses emergency preparedness tips, Walmart posts tips for specific areas, shelters, and disaster information, and Shell Oil helps disaster victims meet fuel needs. Other assistance from

significant corporations includes grantmaking, nonfood relief supplies, volunteer coordination, capacity-building, and cleanup. Chandra et al. also outlined opportunities for major corporations to help during and after disasters, such as providing working capital to businesses and general resilience founded in basic training and outreach for vulnerable communities. Palin (2017) discussed the ability of U.S.-based grocery stores to provide goods after an emergency and analyzed six of the largest retailers for their extensive inventories, including C&S Wholesale Grocers, Inc., Kroger Company, Unified Grocers, Walmart, and New Albertsons. Palin asserted that the consistent abundance of nonperishable food items on the shelves and in stockrooms of these grocery stores could provide sufficient food to survivors of catastrophic events in urban areas. The barriers are related to logistics, such as the transport of goods to broad suburban and rural areas. Palin also emphasized the importance of private-sector transportation, such as truck drivers and their access to fuel and other transportation alternatives such as Uber, Lyft, UPS, USPS, and FedEx.

Adding context to the logistical issue of providing groceries to disaster survivors, Jiang and Yuan (2019) emphasized the importance of logistics in emergency management, especially for large-scale disasters. The authors listed the following challenges for emergency logistics: multi-party collaboration issues, allocation of scarce resources, infrastructure damage, possible secondary disaster, and local demand surge. In their literature review, Jiang and Yuan suggested that the methods used to address these challenges should become more holistic; for example, instead of breaking down the problem, the approach should integrate all of the logistical tasks, from time for operational efficiency to time for lifesaving, adding that this mindset shift could enrich logistics operations in emergency management.

Governments often become overwhelmed during a large-scale public health emergency, thus Buehler et al. (2006) focused on government-private industry collaboration for the mass distribution of pharmaceuticals. They mentioned in particular the Business Executives for National Security (BENS), a national organization with multiple offices across the United States that consults on national security issues via a public-private partnership model. Using the success case method and responses from 26 participants, the successful partnership had the unintended benefit of community cohesion. However, challenges remained, such as differences in public versus private management culture and the failure to extend Good Samaritan laws, which provide liability protection to individuals if they assist someone during an emergency, to businesses and nonprofits (Buehler et al., 2006). The Buehler et al. case study offered additional examples of businesses assisting in disasters, such as transportation for evacuees, volunteers, and resources during Hurricane Katrina.

Storr et al. (2022) illustrated the importance of entrepreneurs in community recovery after a large-scale emergency and asserted that commercial and social entrepreneurs are equally crucial in providing resources and volunteers during and after a crisis. Using the COVID-19 pandemic as an example, the authors outlined three roles entrepreneurs fulfill: provide necessary goods to survive and combat a national emergency, provide essential services, and provide community support and leadership. The authors also cited two hindrances business owners face: a limited ability to continue regular business during a crisis and few legal remedies to allow them to assist during a disaster. Storr et al. listed several companies that provided everything from logistics to high-risk communities, such as Amazon or DoorDash, to connectedness, including Zoom, Google, and Microsoft. In alignment with the Buehler et al. (2006) study and the Good

Samaritan laws, Storr et al. also mentioned policy-related hindrances to businesses, such as the closure of nonessential businesses and manufacturing problems related to medical equipment.

Although the Storr et al. (2022) study provided important information regarding entrepreneurial action after a natural disaster, Monllor and Murphy (2017) focused on the entrepreneur's interpretation of the post-disaster environment as full of opportunities or increased failure. Their study found that entrepreneurs may engage in necessity-driven opportunities in areas where there is no solid economic base because of the area's high-growth potential; additionally, entrepreneurs may use previous examples of business resiliency to identify methods to continue business during other natural disasters, whether large or small-scale. The Monllor and Murphy study does not add pertinent information to the existing problem outlined in this research study as there is a limited focus on how existing businesses, particularly those classified as Black-owned, assist their communities during and after a crisis. The reviews of Storr et al. (2022) and Monllor and Murphy (2017) are important to this research study because they outline the important industries and associated businesses needed to create or maintain disaster resilience for a community.

Selected Research Methodologies

Critical theory, critical race theory, and ethnography are the selected research methodologies that explain the basis of this study. These methodologies and constructs were chosen because the target population of this study is African American and Black-owned businesses. Ethnography will be used to provide comprehensive insights into the depth of the problem from participants who may have experienced disasters as business owners and those who have not. The Delphi Method will be used to improve the reliability and validity of the data. Literature was reviewed to understand why each methodology was chosen for this study.

Creswell and Poth (2017) defined critical theory as the desire to comprehend and, in some cases, transform the underlying orders of social life in terms of race, class, and gender. Thompson (2017) enriched the context of their platform by explaining how critical theory was founded in Russia during the Marxist period and initially involved class analysis, where there were discrepancies following the failure of various socialist movements. The founders of the critical theory framework were Wilhelm Reich, Karl Korsch, Georg Lukacs, and Antonio Gramsci, and they broke from Marxist origins to incorporate the dynamics of family, work, institutions, and dominant culture to critique the thoughts, actions, and politics of the working classes (Thompson, 2017). Thompson also discussed the Frankfurt School of thought and more recent theory practitioners and noted how the methodology was further shaped to include problem analysis using a social science construct and a more communicative approach to address problems. The critical theory narrative of this study involves an emancipation interest, with a focus on self-determination and connectedness with others (Steinberg & Kincheloe, 2010).

Lawrence and Hylton (2022) stated that critical race theory, or CRT, has five guiding principles. The first consideration is that racism is endemic and a permanent fixture in society; this leads to the second component, which asserts that any gains made by minorities are only allowed when they continue to benefit the dominant (White) society. Third, to tackle racial inequality, White supremacy must be studied, and fourth, CRT aims to give a voice to minorities as a counternarrative to the predominantly White-centered thoughts in society. Finally, Lawrence and Hylton explained that CRT tracks how oppression works through race as well as other positions, such as gay rights and feminism; this final component of CRT justifies the author's reliance on it in this research study because it adds a cross-sectional lens via participants who

may represent one or more protected classes in addition to identifying as Black or African American.

Higginbottom et al. (2013) defined ethnography as the work of describing culture using a process of learning about people by learning from them observation of a group of people while incorporating the history and culture of the study group. Skulmoski et al. (2007) cited the Delphi Method as an ideal data collection and analysis instrument that uses multiple minds and voices in circumstances that present problems or phenomena. The researchers also explained that the Classic Delphi Method, developed by Norman Dalkey of the RAND Corporation, initially began as a military project and included four key elements: the anonymity of Delphi participants, iteration, controlled feedback, and statistical aggregation of a group response. However, for this study, a modified version of the Delphi Method was used for data collection and synthesis and included the following components: (a) methodological choice, (b) initial question (broad or narrow), (c) expertise criteria, (d) number of participants homogenous or heterogeneous), (e) number of rounds, (f) mode of interaction, (g) methodological rigor, (h) results, (i) further verification, and (j) publication (Skulmoski et al., 2007). Because no two Delphi studies produce the same results, the modified Delphi Method can be used for quantitative, qualitative, or mixed-method studies, and it can be validated through triangulation and other research approaches (Skulmoski et al., 2007).

Research Methods for Literature Review

Approximately 150 articles were evaluated for this literature review. Some of these resources provided insight and research into multiple sections and have been cited as such. Additionally, international articles addressing racial discrepancies were also included to provide context that systemic and systematic issues concerning race are global.

Chapter 3: Methodology

Purpose Statement

This study explored what Black-owned firms need to accommodate their communities' demands during and after a disaster and developed a preliminary understanding of the research problem by collecting qualitative data via interviews with business owners who identify as Black or African American. This study is necessary because it can provide policymakers with data to identify ways to strengthen Black-owned businesses' ability to help their communities during and after emergencies if they choose to provide any service. These data can be used to create and incorporate relevant policies into existing and future community planning and emergency management regulations.

Research Questions

The research questions deployed in this study were qualitative and primarily presented as open-ended queries. Using CRT and Critical theory principles, the data were collected and used in a qualitative analysis to identify the resources necessary to scale African American businesses, which would enable them to support their communities during and after a disaster.

RQ1. What can these businesses provide during and after an emergency?

RQ2. What resources do these businesses need?

RQ3. If these resources were available, would these businesses participate in disaster recovery?

Research Design

The research design for this study was a qualitative design based on critical theory. This framework was chosen because the study aimed to identify factors to empower African American businesses to be of service to their communities during critical times such as disasters.

Industrial and demographic data were used to determine the number of existing African American/Black-owned firms and if they were positioned in or near areas identified as traditionally African American or Black communities. Interviews with business owners who identified as Black or African American were used to gather the information to prepare them to help their communities during and after an emergency. Saturation was chosen because the data collection ceased once collected data failed to identify new insights or ideas (Creswell & Creswell, 2018). The reason behind collecting qualitative data was to identify factors that prepare African American/Black-owned businesses to address the needs of their community during and after a disaster. Practitioners can use this data to create policies for partnerships with Black-owned companies to prepare them for emergency management.

Population of Interest

Casteel and Bridier (2021) defined the population of interest as the principal group for the research, and the general boundaries to identify the population of interest may include geography, race, ethnicity, age, business sector, or occupation. For this study, the main traits included identification as African American or Black, a business owner, and a resident in an area with large African American/Black-identifying populations. The target population was more narrowly defined as the specific group of potential business owner participants that represents the population of interest. For this study, characteristics included (a) identifying as African American or Black and between ages 25 and 65, (b) owning a business in operation for at least 3 years and in an industry necessary for disaster recovery, (c) type of business structure, and (d) residing in an area with a substantial African American/Black-identifying population. The companies owned by these potential participants must be situated in regions with a high concentration of African American or Black-identifying people. Table 2 provides further details

about African American/Black-identifying persons, states with the highest African American/Black-identifying populations, and types of business structures. Notably, the age range of 25 to 65 was chosen because it spans four generations, including Generation Z (1997–2012), Millennials (1981–1996), Generation X (1965–1980), and Boomers (1946–1964; Beresford Research, n.d.); moreover, this segment was appropriate because African American businesses tend to have younger founders than non-Black businesses (Office of Advocacy, 2016). The minimum operational period of 3 years is applicable because the failure rate for businesses is approximately 40% within the first 3 years of operation. (Bureau of Labor Statistics, n. d.)

Table 2

Sample Characteristics

Category	Characteristic
African American/Black-identifying person	Persons identifying as African American or Black; Black may include Afro-Caribbean, Afro-Latino, Afro-Canadian, or African
Business structure	Sole proprietorship, partnership, limited partnership, limited liability partnership, limited liability corporation, c-corporation, or s-corporation
High African American or Black-identifying populations	Florida, Texas, New York, Georgia, California, North Carolina, Illinois, Maryland, Virginia, and Ohio
Types of businesses needed in disaster recovery	Logistics, groceries, communications support, lodging, appraisers

Note. Agency for Healthcare Research and Quality. (2018, December). *Chartbook for health care for Blacks, part 1: Overviews of the report and the Black population.*

<https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/blackhealth/part1.html>

There are approximately 2.6 million Black-owned businesses in the United States, with 124,000 identified as employer firms, meaning they have employees (Perry, 2020). Referencing the literature review, the most crucial industries needed in a disaster were transportation, grocery,

communications support, and real estate appraisal. For this study, the target characteristics were those who identified as African American or Black, who have been in business for three or more years, and were located in California.

Sample

Nonprobability sampling, such as purposive and convenience sampling, was used to compile the interview group (Casteel & Bridier, 2021). This type of sampling was chosen because when compared to probability sampling, nonprobability sampling addresses populations considered to be hidden in plain sight, such as ethnic groups or stigmatized populations. Purposive sampling was used because the criteria for selecting the participant (outlined in Table 2) are of interest to the researcher. The sample size will be approximately 30 African American/Black business owners in the transportation/logistics, communications support, appraisal, or grocery industries and with firms based in California. This number was ideal because the study incorporated ethnographic methodology, for which Moser and Korstjens (2017) recommend data saturation, which requires 25 to 50 interview participants. Convenience sampling via the researcher's social media accounts was also used to recruit participants for the study.

Instrumentation

The instrumentation will be the researcher conducting online interviews using the Microsoft Teams and Zoom online videoconferencing platforms. The validity of this selected instrument will include recording the interview, transcribing the interview in real-time using the online videoconferencing transcription add-ons, and asking for clarification on any responses. In qualitative research studies, inter-rater reliability serves as a mechanism to establish consistency with findings from an analysis conducted by two or more researchers (Armstrong et al., 1997).

Yet, McDonald et al. (2019) stated that agreement in coding, formal or informal, is unnecessary when the researcher has unique expertise and experience and that triangulation is an appropriate method for the collection in ethnographic studies.

Data Collection

The data collection was based on the ethnography framework. The data collection procedure was conducting online videoconferencing interviews with a questionnaire that combined closed and open-ended questions. The closed questions focused primarily on the age of the business, business structure, proposed participation in disaster recovery, scalability, and company success. The open-ended questions focused on current needs assessment, future needs assessment, and how the participant's firm can provide necessary goods and services during and after a disaster. To determine the company's age, documents such as the statement of information and articles of incorporation were used. Interviews were conducted via the Microsoft Teams and Zoom online videoconferencing platforms, and were recorded, and transcribed in real-time. Additional notes supplemented online recordings and transcription. The researcher submitted the completed questionnaire form, recording, and transcription of the completed interview to the participant to ensure the accuracy of their answers. The Delphi Method ensured accuracy in the participants' responses (Skulmoski et al., 2007). Using the literature review as a guide, Table 3 illustrates how the Delphi Method was applied in this study.

Table 3*Delphi Method*

Category	Characteristic
Methodology choice	Qualitative
Initial question(s) – broad or narrow	The research questions are provided in Chapter 3 of this document.
Expertise criteria	African American or Black-identifying business owners who have been in operation for a minimum of 3 years and are in the logistics or groceries industry
Number of participants (homogenous or heterogeneous)	Homogeneous (race/ethnicity); heterogeneous (industry, business type, years of operation)
Number of rounds	One
Mode of interaction	Zoom online platform
Methodological rigor	Braun and Clarke's Six Steps to Data Analysis
Results	Sorted by key code words and themes for agreement and disagreement
Further verification	Recommendation of further studies with different locations and other essential businesses for disaster response

Note. Agency for Healthcare Research and Quality. (2018, December). *Chartbook for health care for Blacks, part 1: Overviews of the report and the Black population.*

<https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/blackhealth/part1.html>

Method for Data Analysis

Braun and Clarke's (2006) Six Steps to Data Analysis were applied to the initial coding and data analysis process. For open-ended questions, keywords were identified and coded using inductive (in vivo) and for themes (Creswell & Creswell, 2018). The six steps for coding included the following:

1. Familiarizing oneself with the data

2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining themes
6. Performing analysis and completing the write-up

Codes were assigned to each answer for closed questions (e.g., 1 for yes, 2 for no, or the numbers 1 through 5 for multiple-choice answers). For open questions, keywords were identified and coded using inductive (in vivo) for themes (Creswell & Poth, 2017).

Design and Instrument Limitations

To minimize personal bias in this research study, multiple validity procedures were employed to reduce limitations that could undermine data analysis accuracy. Creswell and Creswell (2018) suggested the following methods: cross-checking codes, checking transcripts for accuracy, using triangulation, checking members for accuracy of answers with participants, debriefing peers to emphasize the importance of this study to a broader audience, and relying on an external auditor for confirmation of the significance of the study to a larger audience. For this study, checking transcripts for accuracy, member checking for accuracy of answers, and peer debriefing were crucial. Inter-Rater Reliability (IRR), a numerical measure of the agreement between different coders regarding the same data and its coding frame, was also used (O'Connor & Joffe, 2020).

The limitations of the research study included location, which may determine the types of disasters and access to programs and policies, the limited number of participants, personal bias, respondent bias, and cultural differences between African Americans and those from other countries who may identify as Black. For example, Africans from different nations may have

different methods of saving money or generating sales compared to African Americans or Afro-Caribbeans.

Chapter 4: Data Analysis

Email and social media were the methods used to recruit the sample size of 30 participants for the qualitative study. Initially, the recruitment period was four weeks but was extended to six weeks to compensate for the amendments that were made to the Institutional Review Board (IRB) application. Social media recruitment was conducted on Facebook, Twitter, LinkedIn, and Instagram. The social media posts were placed in multiple groups that contained potential participants who fit the criteria of the targeted population. The social media groups, primarily located on Facebook, included those posting in Black-owned business forums across multiple locations in California and affinity groups with a significant number of women who identified as African American or Black. The Black groups were identified as Afro-Latino, Caribbean, or African descent. Four participants were identified from these affinity Facebook groups. Social media recruitment also included sending private messages to business pages that were identified as African American/Black-owned and living in California as well as the researcher's Facebook friends. Social media recruitment was posted in the affinity groups and on the researcher's personal pages once per week for the six-week recruitment period.

Email recruitment was conducted via a combination of outreach to the researcher's friends, colleagues, and associates who identified as African American/Black business owners operating in California and via an internet search of African American/Black-owned businesses in the outlined grocery/food, logistics/transportation, appraisal, and communications support industries. Approximately 250 emails were sent to prospective African American/Black-owned businesses, and email recruitment messages were forwarded by the researcher's associates, which garnered two participants for the research study. Three Black-owned businesses reached out to express an interest in participating, and there were three follow-up emails sent throughout

the six weeklong recruitment period as reminders to schedule the videoconferencing interviews. These business owners did not responded to the follow-up emails.

Initially, the sample size of 30 participants was anticipated to contribute to the study. At the end of the recruitment period, a total of 12 interviewees contributed to the research study. Each interview was scheduled to last 45 minutes, but the interview period averaged 25 to 30 minutes to answer 19 questions that combined five closed questions, three demographics questions, and 11 open-ended questions about participants' businesses and business owners' abilities to assist during an emergency. The online interviews were conducted on the Microsoft Teams and Zoom videoconferencing platforms, allowing the researcher to transcribe and record the responses. The purpose of recording and transcribing the interviews was to ensure the accuracy of the participants' responses and conduct validity and reliability tests for the qualitative study. The validity and reliability methods used for this research study included the Delphi Method (Skulmoski et al., 2007) and IRR (Armstrong et al., 1997:).

The 11 open-ended questions posed to participants were designed to gather information about their current needs and capabilities, their willingness to assist during a disaster or emergency, their needs to be able to provide disaster relief, and their requests for support from different levels of government. The assembled open-ended interview questions included the following queries:

- Q1. Why would you help during a natural disaster?
- Q2. What were some issues you faced as a business?
- Q3. What are some of your needs to operate and scale your business?
- Q4. If any, what resources would you need to be able to assist during a crisis?
- Q5. What elements would allow you to provide assistance for this long?

- Q6. What assistance can you provide if there were an emergency or disaster in your community?
- Q7. Would your business be better poised to provide assistance during the disaster or after the disaster? Why?
- Q8. How long could you provide that assistance?
- Q9. What would you like to see from the federal government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?
- Q10. What would you like to see from the state government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?
- Q11. What would you like to see from the local government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?

Familiarizing Yourself with the Data

The online interviews were transcribed and recorded to provide the researcher with the most accurate account of responses from the 12 participants. Zhang and Wildemuth (2009) outlined how to prepare the data for interviews, such as deciding whether to transcribe the whole interview or only the main questions, whether the responses should be transcribed literally or simply summarized, and whether observations such as audible behavior should be transcribed. After each interview, the researcher recorded the summary data and documented the most impactful quotes for each open-ended question, which were used to conduct preliminary coding with in vivo schemes taken directly from each participant.

Table 4 summarizes the qualifying demographics for each participant, which included the number of years in business, identification as African American or Black, business structure

type, industry type, and location. The terms African American and Black were not used interchangeably but were added to allow others who identify as Black but not African American to participate. A few participants who were born in Africa or the Caribbean provided responses to the questions. The age of the business ranged from 3 to 115 years, with the average age being 3 years. The average business structure was a Limited Liability Corporation, with C-corporations as a close second. The most common industry was groceries/food preparation and delivery, with logistics as the second most common. Most participants' businesses were situated in northern California, in the city of Sacramento, and southern California, with Los Angeles County as a close second.

Table 4

Participant Demographics

Participant number	Years in business	Ethnicity	Location	Business structure	Industry
1	12	Black	Pleasanton	Limited liability corp.	Fleet management
2	7	Black	Los Angeles	C-corporation	Prepackaged foods/delivery
3	24	Black	San Bernardino	S-corporation	Trucking
4	4	Black	Los Angeles	S-corporation	Real estate
5	3	Black	Los Angeles	Sole proprietorship	Grocery
6	12	Black	Los Angeles	Limited liability corp.	Transportation services pickup/delivery
7	3	Black	Los Angeles	Limited liability corp.	Grocery/farmers market
8	3	Black	Los Angeles	Limited liability corp.	Grocery/farmers market
9	3	African	Sacramento	Limited liability corp.	Mental health treatment/rehab
10	3	Black	Sacramento	C-corporation	Salon
11	8	Black	Sacramento	Sole proprietorship/nonprofit	Food/social development/housing

Generating Initial Codes

Maguire and Delahunt (2017) stated that codes should be arranged into similar schemes based on the responses of several participants and reduced into small chunks of meaning. Although the authors used a theoretical thematic analysis, they did offer an example that indicated the inductive coding process was more comprehensive. The researcher used a combination of theoretical and inductive thematic analysis. In vivo coding, defined as identifying codes taken from the participants' direct quotes, was used to identify codes (Manning, 2017). Initially used in grounded theory, this inductive coding method provides a real-time understanding of the stories and experiences of a particular group or culture. To simplify the process and identify the final themes, the researcher grouped each open-ended question into four classifications when conducting the in vivo coding process: qualifying, needs assessment, capabilities, and government related. The in vivo coding was further reduced and assisted in constructing and grouping the different responses into codes, themes, and categories. The list of topics is shown in Table 5 in correlation with the 11 open-ended questions.

Table 5

In vivo Coding

Question	In vivo coding
1	No change, help, community, healthy option, FEMA, transportation network, water, resource, difficulties, supply chain, support, create ecosystems, humble beginnings, clients, homeless shelters, health, help, seniors, assistance, employees, spectrum
2	Production line, shutdown, no access to funding, PPP loans problems, free seminars, waivers, guidelines, reduction in business, profitable, no blueprint, learning, funding, entrepreneurship, challenge, learning curve, finances, policy, challenge, shortage, qualified individuals, employment, labor problems, shortage, employees, financing, strict, safety, issues with forms, loans, company name problem, staff, hiring more people
3	Inventory, labor shortage, funding, training, unavailable parts, business funding, clients, skill set, finances, marketing, infrastructure, financial resources, capital,

Question	In vivo coding
	finance myself, financing, staff, infection control, qualified people, incentives
4	Business-to-business, avoid layoffs, resources, senior meal programs, healthy, food, training, transport food, mobile morgue, cleanup efforts, people, food, financial resources, first-aid items, basic survival, food, farmers, producers, transport needs, free mental health services, staffing, financial assistance, logistics, donations, food, logistics, delivery, fundraising
5	During and after, before, damage control, basic necessities, food, individuals, resources, staffing, paperwork, loans, medication
6	No need, workforce/labor, instructions, directives, financial, funding, more people, no facility, inventory, no need, labor force, therapy, community, volunteer
7	6, 3, 2, 4, 1, indefinitely, 12, funding, reserves allowed, 8 months, weeks, days, hours
8	Payroll, resources, facilities, food, manpower, drivers, relax, wind down, financial resources, connect, people, volunteers, staff, funding, kitchen, financial, charitable, manpower, people, work, compensation, personal reserves, contracts, donated food
9	Black/brown businesses, provide services, goods/services, localized efforts, contracts, PPP loans, jump through hoops, financial resources, funding at the federal level, disaster preparedness kits, resources, pamphlets, employee pay support, emergency funding, policy change, jump through hoops, funding set aside, troubles, stigmatization, awareness, resources, SBA, chambers of commerce, businesses, simplify, cultural competency, mental health support, Asperger's, great workers
10	Extra effort, Black and brown, business with state, state sponsor, grants, seminars, liaison, community churches, certification, education, resources, direct line, concise details, direct outreach, staff support, operational, change policy, funding set aside, rehabilitation services, level playing field, action, supporting Black businesses, resources, help, processes, funding, health care
11	Increase jobs, community, Black/brown, outreach, certifications, system, CLEMARS, help, connected, networking, smaller resources, power, community meetings, survival kits, ongoing relationship, direct outreach, direct communication, space, financial assistance, grants, better collaboration, communities, equal playing field, opportunity to serve connections, thrive, processes, familiar with ethnic background, safety, background checks

Note. FEMA = Federal Emergency Management Administration, SBA = Small Business

Administration, PPP = Paycheck Protection Program, and CLEMARS = California Law

Enforcement Mutual Aid Radio System.

Initial codes were garnered from participants' responses. Some in vivo codes were used to identify the initial codes that were grouped because the words may have represented the same thing. For example, Question 1 included the terms seniors, clients, and employees; to identify

initial codes, those three in vivo codes were grouped under the term community, which appeared often in participants' responses. Multiple preliminary codes were assigned to each open-ended question and quote, as shown in Table 6.

Table 6

Preliminary Codes Assignments

Question	Preliminary codes
1	Community, transportation, resources
2	Shutdown, funding, learning curve, policy, labor problems, safety, profitability
3	Inventory, labor shortage, funding, infrastructure, infection control
4	Avoid layoffs, resources, training, transport, cleanup efforts, financial, staffing
5	During and after, before, during, and after, after
6	No need, workforce/labor, directives, financial, no facility, inventory
7	6 months, 3 months, 2 months, 2–3 months, 3–4 days, 1 month indefinitely, 12 months, 8-hour shifts, 2 weeks
8	Resources, facilities, manpower, financial
9	Contracting, financial resources, resources, policy change, cultural competency
10	Business with state, education, resources, direct outreach, change policy, funding
11	Increase jobs, outreach, systems, resources, space, financial, familiar with ethnic background, safety

Searching for Themes

The semi-structured interview questions were grouped into sets that reflected the following classifications: qualifying (Question 1), needs assessment (Questions 2, 3, 6, and 8), capabilities (Questions 4, 5, and 7), and government-related questions (Questions 9–11). This process aimed to address any recurring codes that may be found across multiple questions. For example, funding was a common code found in responses to questions under the needs assessment, capabilities, and government-related classifications.

Reviewing Themes

Some questions featured up to three themes that could be applied to the data. For example, with Question 1, the three themes were community, resources, and network. A relationship between community and network was obvious, so they were combined under the term community, which appeared in most participants' responses. Another example is the term appropriations for Question 9, a term that is defined as something that has been appropriated, such as money set aside by formal action for specific use (Merriam-Webster, n.d.; Skulmoski et al., 2007). Most respondents indicated there was a need for a special provision for African American or Black-owned businesses regarding emergency management preparation. Contracting and policy could also be included under the appropriations theme. Table 7 shows the subthemes identified and grouped under a central theme.

Table 7

Classifications According to Themes and Subthemes

Question	Classification	Theme and subtheme
Why would you help your community?	Qualifying	Community <ul style="list-style-type: none"> • Resources • Network
What were some issues you faced as a business?	Needs assessment	Capital <ul style="list-style-type: none"> • Inventory • Infrastructure
What are some of your needs to operate and scale your business?	Needs assessment	Funding <ul style="list-style-type: none"> • Infrastructure • Inventory
What assistance can you provide if there is an emergency or disaster in your community?	Capabilities	Resources <ul style="list-style-type: none"> • Food
Would your business be better poised to provide assistance during the disaster or after the disaster? Why?	Capabilities	Continuous help <ul style="list-style-type: none"> • During, after • Before, during, after
If any, what resources would you need to be able to assist during a crisis?	Needs assessment	Funds <ul style="list-style-type: none"> • Infrastructure
How long could you provide that assistance?	Capabilities	Short-Term

Question	Classification	Theme and subtheme
		<ul style="list-style-type: none"> • Months • Days
What elements would allow you to provide assistance for this long?	Needs assessment	Manpower
What would you like to see from the federal government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?	Government-related	Appropriations <ul style="list-style-type: none"> • Contracting • Policy
What would you like to see from the state government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?	Government-related	Sponsor <ul style="list-style-type: none"> • Contracting • Policy
What would you like to see from the local government in terms of helping African American/Black-owned businesses be more prepared to assist during a disaster?	Government-related	Outreach <ul style="list-style-type: none"> • Networking <ul style="list-style-type: none"> ◦ Systems • Collaboration

Defining Themes

Using the results shown in Table 7, the researcher grouped subthemes into one main theme and then allocated the preliminary codes listed in Table 8. This compilation allowed the researcher to calculate the instances of each code in participants' responses as a definition to allocate a theme to the most common code. Different terms were used to identify themes with common words, depending on the classification of the question; for example, the code for funding was found across responses in the needs assessment, capabilities, and government-related questions. The term capital was applied as a theme for Question 2.

Table 8*Preliminary Codes and Themes*

Grouping	Preliminary codes	Theme
Qualifying	Community, transportation, resources	Community
Needs assessment	Shutdown, funding, learning curve, policy, labor problems, safety, profitable	Capital
Needs assessment	Inventory, labor shortage, funding, infrastructure, infection control	Funding
Capabilities	Avoid layoffs, resources, training, transport, cleanup efforts, financial, staffing	Resources
Capabilities	During and after, before, during, after, after	Continuous help
Needs assessment	No need, workforce/labor, directives, financial, no facility, inventory	Funds
Capabilities	6 months, 3 months, 2 months, 2–3 months, 3–4 days, 1 month indefinitely, 12 months, 8-hour shifts, 2 weeks	Short-term
Needs assessment	Resources, facilities, manpower, financial	Manpower
Government-related	Contracting, financial resources, resources, policy change, cultural competency	Appropriations
Government-related	Business with state, education, resources, direct outreach, change policy, funding	Sponsor
Government-related	Increase jobs, outreach, systems, resources, space, financial, familiar with ethnic background, safety	Outreach

Performing Analysis and Write-Up

The material was analyzed. Some quotes were assigned multiple codes, but for thematic purposes, the most emphasized words were used to calculate the percentages for each code. The most common codes were then designated as themes (see Table 9).

Table 9*Analysis of Initial Code and Appropriate Theme by Participants' Response*

Question	Initial code	% of sample for each code	Theme
1	Community	66.6	Community
	Transportation	8.3	
	Resources	25	
2	Shutdown	8.3	Capital
	Funding	25	
	Learning curve	16.6	
	Policy	16.6	
	Labor problems	25	
3	Profitable	8.3	Funding
	Inventory	8.3	
	Labor shortage	16.6	
	Funding	58.3	
	Infrastructure	8.3	
4	Infection control	8.3	Resources
	Avoid layoffs	8.3	
	Resources	41.6	
	Training	8.3	
	Transport	16.6	
	Cleanup efforts	8.3	
	Financial	8.3	
5	Staffing	8.3	Continuous help
	During and after	66.6	
	Before, during, after	8.3	
6	After	25	Funds
	No need	16.6	
	Workforce/labor	25	
	Directives	8.3	
	Financial	41.6	
7	No facility/inventory	8.3	Short-term
	6 months	8.3	
	3 months	16.6	
	2 months	8.3	
	3–4 days	8.3	
	1 month	16.6	
	Indefinitely	16.6	
	12 months	16.6	
	8-hour shifts, 2 weeks	8.3	
8	Resources	16.6	Manpower
	Facilities	16.6	
	Manpower	50	
	Financial	16.6	
9	Contracting	16.6	Appropriations
	Financial resources	25	
	Resources	16.6	

Question	Initial code	% of sample for each code	Theme
10	Policy change	25	Sponsor
	Cultural competency	16.6	
	Business with state	8.3	
	Education	8.3	
	Resources	8.3	
	Direct outreach	25	
	Change policy	25	
11	Funding	25	Outreach
	Increase jobs	8.3	
	Outreach	50	
	Systems	8.3	
	Resources	8.3	
	Space	8.3	
	Familiar with ethnic background	8.3	
	Safety	8.3	

Note. N = 12.

Table 10 displays certain quotes that were extracted and emphasized after being designated as the most interesting participant response or being considered a particularly comprehensive response.

Table 10

Emphasized Quotes

Question	Participant	Emphasized quote
1	3	I am a part of the FEMA transportation network. FEMA sites that are dedicated to transportation facilities, where my trucks and trailers can be utilized to transport water and other emergency needed materials to an area.
2	2	Disadvantages with access to funding, no support for healthy food businesses, not enough programs to help small businesses. Leaders not advertising the free seminars to help businesses. PPP loan problems.
3	9	Capital is one of the most important things, and every business, you need to have the right capital to start, the right funds. I was fortunate I was able to finance my entire operations myself, but not

Question	Participant	Emphasized quote
		everybody has that opportunity a lottery to do so.
4	7	We work with food, we work with farmers, we work with entrepreneurs in general, so we focus on farmers, food producers, and chefs. That's our core. But we also have other businesses but essential businesses. Prosperity bucks, free money for community members to shop.
5	8	After we are actually building our mobile vehicle like, which is our actual mobile market, that would allow us, once that is up and running, then during because we actually would be able to take the food into different areas.
6	1	Do not need additional resources now; we are beyond that now.
7	12	3–4 days, 8-hour shifts for company volunteers.
8	5	And so, we would just need a lot of volunteers. Or that if our staff isn't able to get there besides myself, it would just be more manpower basically.
9	12	Mental health and having support, qualifying people, a lot of people on Asperger's, great workers for meticulous work, and federal government involved to put them to work, more communications support.
10	3	Well, I think that they would be a better liaison, some type of liaison that was set up in community churches where we would feel more comfortable going to speak with people no matter what color they are. But within a church-type of environment and are a community center.
11	11	We need more African Americans in position to help Black businesses through the processes; Blacks just tend to go to whoever thinks they want to help them when they often don't. We need people who understand, relate to you, familiar with your ethnic background, who can relate to you and be able to help you and move through the system.

Note. FEMA = Federal Emergency Management Administration and PPP = Paycheck Protection Program.

Findings

Despite indicating several individual needs and issues associated with their industry, common themes were still identified from the twelve participants' responses. Table 11 presents a summary of the participant responses to each interview question and corresponding theme assignment. Appendix B provides additional context regarding how each participant's phrases and wording in response to each question were coded and grouped into themes.

Table 11

Summary of Responses and Themes

Question	Theme	Response
1	Community	All participants said they would help the Black community during a disaster because it is their community.
2	Capital	Approximately 66% of participants cited funding as a significant issue. Some of the subthemes, such as labor or employees and profit, involved funding.
3	Funding	Sixty-six percent of respondents indicated that funding was the most important thing needed for their businesses. Other respondents (25%) also mentioned finances and addressed other needs like infrastructure and inventory, issues that are also related to funding.
4	Resources	All participants stated they could provide resources as assistance during the disaster. Fifty percent of respondents cited a physical resource they could provide, such as food, staff, and water, and 33.3% of respondents could provide a service resource such as cleanup efforts or training.

Question	Theme	Response
		Participant 1's answer was included in relation to providing resources; however, it was indicated that the deployment of company resources to avoid staff layoffs staff was a type of assistance to the community.
5	Continuous Time	Most participants (66%) indicated they could assist the best during and after the disaster.
6	Funds	Five of 12 respondents indicated that funding was needed. The other one of 12 indicated a need for a facility, and two of 12 participants, or 16%, indicated they had all the resources they needed at the time to help. These three other responses could also be grouped under funds, rounding out the number to eight of 12 interviewees, or 66.6%.
7	Short-term	Sixty-six percent of participants, or 8 of 12, stated they could assist for a few days to a few months. Interestingly, Participant 7 indicated they could assist indefinitely, and Participant 11 could assist until their personal resources ran out.
8	Manpower	Half of all participants stated that manpower was a need for them to continue assisting for a specified period. Although indicating that funds were the most important, Participant 4 also indicated a need to connect with people who could help secure funding, which can also be indirectly considered manpower.
9	Appropriations	According to responses, the information was varied. However, on performing an interrelationship analysis, seven of 12 participants, or 58%, stated they desired a provision for Black-owned businesses from the federal government. This sentiment ranged from 25%, or three of 12 for funds, and two of 12 wanted resources; another two of 12 wanted contracting opportunities for Black-owned

Question	Theme	Response
10	Sponsorship	businesses. The participants' responses were distributed equally among the main themes of sponsors (25%) and policy (25%). Participant 1 stated that they would like to see the state provide contract opportunities to Black and brown businesses. This feedback can also be included in sponsorship under policy, which would place seven of 12 respondents' themes as sponsor.
11	Outreach	Although 25% of respondents indicated outreach as their primary need from the local government, four participants' responses shifted: Participant 4's response was nestled under the subtheme of networking, the responses of Participants 8 and 1 moved to collaboration, and Participant 3's response transferred to systems. These subthemes were grouped and represented as outreach because they involve connecting the local government with others regarding access to resources and other needs.

Analysis

The study participants managed business structures ranging from sole proprietorships, to corporations, limited liability corporations, and nonprofits. All participants agreed that they would assist during a disaster that affected their community. The most common theme and need from the government for all participants to provide assistance during a disaster was access to money. However, companies operating in the logistics industry tended to have more access to cash and held adequate monetary resources to scale and assist their communities during and after a disaster. These respondents instead indicated a need for manpower. Those participants who operated in the grocery/food industry also expressed a need for manpower and more education

on starting and maintaining their businesses, expounding that there was no blueprint to follow. An interesting perspective was included from a decision-maker in a Fortune 500 company. Although not a business owner in the traditional sense, the respondent holds influence on what the local branches of the Fortune 500 company can provide to the community, particularly those with large Black populations.

Most respondents claimed they could provide disaster assistance for a few months. Interestingly, logistics business owners could assist for a few days to two weeks, considering current employee health and safety, and the assistance included basic survival resources such as food, water, transportation, and items related to first aid. Participant 1 stated that his assistance in a community would be to use company resources to avoid laying off employees during a disaster, and Participant 3 mentioned that mobile morgues were important in addition to transportation resources. The researcher also included responses from Participant 10 whose business fell outside of the four distinct industries needed in an emergency or disaster: Participant 10 owns a business in the beauty and self-care industry and offered to provide staff to assist and logistics services. This participant's responses to the needs assessment and government-related questions were similar to responses from those active in the grocery, communications support, appraisal, and logistics/transportation industries.

The extent of the government's involvement in helping African American/Black-owned businesses prepare to aid their communities during a disaster varied depending on the level of government. For example, most respondents wanted appropriations of resources, whether monetary or policy-related, such as a more straightforward application process for the PPP loan or the Economic Injury Disaster Loan (EIDL) from the federal government. From the state government, respondents sought a form of sponsorship that included contracting opportunities,

funding provisions, and better healthcare options, as well as workforce policy changes to include workers with disabilities. Policy change could also be included under sponsorship. Outreach was one of the most critical needs that respondents would like to see from the local government, which encompassed the county and city.

Delphi Method

The Delphi Method was employed to ensure the validity of the participants' responses. As outlined in Skulmoski et al. (2007), the Delphi method is often employed when the goal is to better understand problems, opportunities, or solutions. Skulmoski et al. also stated that the method is well-suited to studies seeking a better understanding of the problem or phenomenon. To verify validity and accuracy, each participant was sent a copy of the questions, responses, coding, and themes. Participants agreed with the accuracy of the online interviews and completed interview forms.

Inter-Rater Reliability

The document containing the questions, participants' responses, codes, and themes was sent to a colleague, who was a doctoral candidate working in emergency management for a major theme park in Southern California, to confirm inter-rater reliability. The colleague, who was also pursuing emergency management certifications, was the ideal candidate and possessed an in-depth understanding of the government's role in emergency management and what businesses and other entities would need to be able to assist the community during a disaster. This colleague's review provided feedback and suggestions about the study codes and themes and the rater agreed with the codes and themes that were assigned to each question.

Chapter 5: Discussion

Three research questions formed the basis of the study. During the data analysis phase, an unintended question emerged, and that question was included to provide additional context to the study.

RQ1. What can these businesses provide during and after an emergency?

RQ2. What resources do these businesses need?

RQ3. If these resources were available, would these businesses participate in disaster recovery?

RQ4. What are the main reasons African American businesses are unable to provide aid to their communities during and after an emergency?

For Research Question 1, the 12 African American/Black-owned business owners indicated an ability to provide various resources associated with their businesses, such as shelter, food, water, first aid, and mobile morgues. By contrast, others mentioned help unrelated to their industries. Moreover, African American/Black-owned businesses would provide services during and after the disaster but on a short-term basis, a provision based on the availability of funding, both personal and provided by governmental entities, and the availability of manpower. The average time span to provide aid during a disaster was estimated at approximately 1 to 3 months, but African American/Black-owned businesses with adequate resources at their disposal could provide services as long as they were needed or until resources run out.

The responses to Research Question 2 indicated that the primary needs of these African American/Black-owned business owners to provide disaster assistance included a combination of funding, cultural competency, outreach, policy changes, and business opportunities with the government. The need for funding included grants, loans, and monetary provisions for African

American/Black-owned companies. The definition of cultural competency is the acquisition and maintenance of culture-specific skills required to interact effectively with people from different cultures (Wilson et al., 2013). Respondents specified that cultural competency included an understanding of the African American or Black experience in terms of credit and financing and hiring African American/Black people in agencies such as the Small Business Administration and other business entities. Cultural competency also requires outreach to Black chambers of commerce and churches to better understand the needs of African American/Black-owned businesses. Policy changes included a more straightforward application process for loans and grants, funding set aside specifically for Black-owned businesses, and additional measures to contract with African American firms for disaster management. Respondents also emphasized changes that would better engage those who are differently abled as a viable source of labor. All levels of government could provide these services to the African American/Black business communities, with an emphasis on policy change regarding funding at the federal level, contracting and outreach as they relate to the state government level, and outreach as it pertains to local government.

In response to Research Question 3, African American/Black business owners who participated in the study indicated they would assist their communities in an emergency regardless of the availability of resources because helping one's community was the right thing to do. Participants stated that additional resource allocation would allow them to provide their goods and services for a longer period of time or on a larger scale during an emergency or disaster. A response from a participant highlighted the influence of African American or Black executives/managers in how large, mainstream companies could assist the Black community. One participant stated that they could allocate personnel and resources to an affected area

because of their position at a Fortune 500 company, which has locations in areas with a high African American/Black population.

In response to Research Question 4, participants indicated that the main barrier to African American or Black-owned businesses' assistance during a disaster is the limited availability and access to funds. Obstacles related to PPP and EIDL loans as well as other grants were cited as the most common. Access to qualified staff and labor shortages were also noted as potential hindrances in helping the community during an emergency. African American decision-makers in more prominent, mainstream companies cited allocating their staff as volunteers as an issue. Depending on the industry, training and regulations pose an obstruction to the ability of African American or Black-owned businesses to hire personnel that would allow them to provide consistent help during a disaster. For those who work in the communications support industry, finding qualified mental health personnel proves cumbersome, and transportation and logistics companies face licensing requirements. Respondents also noted that some infrastructure issues exist, primarily regarding access to buildings and inventory, and there exists a supply chain issue with parts and repairs for the transportation and logistics industry. For grocery and food retail, a lack of access to infrastructure, lack of a blueprint, and lack of education on starting and maintaining the business were noted as potential barriers.

The participants' responses made clear that preexisting conditions limit African American/Black business owners in properly scaling their businesses to assist their communities during and after a crisis. The literature review outlined discriminatory banking practices in lending to African American business owners and the lack of financial institutions in the Black communities. The research study contributes to the extant literature on how preexisting systemic and systematic racial discrimination has hindered the Black community as a whole in realizing

self-reliance, whether related to the creation and growth of Black businesses, levels of Black homeownership, and crisis recovery assistance and aid. If adequately scaled, Black business owners would provide the necessary manpower, products, and services to assist their community during an emergency.

The literature review presented in this research study emphasized the lack of available information regarding how businesses, including firms that identify as African American or Black-owned, can assist during an emergency. The articles best aligned with a discussion of a company's responsibility to help its community during a disaster were Sledge and Thomas (2019), which focused on the essential businesses for recovery, and Chandra et al. (2016), which outlined what aid major corporations could provide. Another article by Marshall et al. (2015) underscored the importance of incorporating businesses into community disaster planning strategies. Although these studies are essential to the disaster management and recovery discourse, they fail to consider the issues directly related to the African American/Black community.

As identified in the literature review, many African American/Black communities are considered food deserts where community members often rely on small businesses, dollar stores, and farmers markets for food (Karpyn et al., 2019). That said, this research study provides additional context for the existing disaster management literature on diversity, equity, and inclusion and the preexisting condition the African American/Black community faces during recovery from an emergency. Existing studies have alluded to the lack of minority representation in the management ranks of regulatory agencies where more diverse personnel representation would ensure that the unique needs of these communities were addressed. As suggested by Marshall et al. (2015), community planners could target these business needs in their charrettes

when creating disaster protocols for their general plan revisions. The ability of African American businesses to provide needed services and products during and after a disaster is crucial to a quicker recovery for a community that already faces inadequate housing, environmental justice, and economic issues. Policy recommendations could also be created to provide funding provisions and programs that address the discrepancies and provide training for emergency assistance.

Conclusion

The slow recovery of the African American community from a disaster is rooted in systemic and systematic racism. These dynamics have negatively affected the community regarding economic empowerment and access to safe housing. With limited representation in disaster management and other regulatory agencies, the unique experiences of African Americans gain little attention in policy and program formation. Most existing literature cites environmental justice, housing issues, and economic disenfranchisement or poverty as the main reasons behind the slow recovery and underdevelopment of the African American community after a disaster, and few studies offer a critical theory or emancipation focus (Steinberg & Kincheloe, 2010) about how local Black-owned businesses can ease some of the burdens until state and federal emergency management agencies can respond. Eleven African American/Black business owners and one Black decision maker at a Fortune 500 company were interviewed about what prevents them from providing goods and services to the community after a disaster. The overall assumption is that no matter the business structure, Black firms would step up to assist their community during a crisis, but the inability to secure funding for growth precrisis was the main reason they felt hindered in fully servicing their community. Using this knowledge,

practitioners can create disaster management policies that provide consistent funding provisions for Black-owned businesses and training for the business owners.

Policy Recommendations

To better understand how preexisting conditions, both economic and environmental, affect the African American/Black community's ability to quickly recover from a disaster, policy creators, practitioners, and researchers should explore the study by Leigh (2008) on the role of the African American church as the primary resource for disaster recovery, Rivera and Miller (2007) on discriminatory practices and institutional distrust, and SAMHSA (2017) on factors that hinder a fast recovery for low-income communities. As of the completion of this study, no program has been identified that involves preparing African American/Black-owned businesses to assist their communities during and after a disaster. The existing policies and programs that pertain to emergency management for communities are the various county and city emergency management offices, the California Disaster Assistance Act, which provides funding to local governments for disaster recovery efforts (State of California, n.d.), and various federal aid programs for the state of California that offer rental and other assistance to California residents (Federal Emergency Management Administration, 2018).

Currently, the Red Cross, FEMA, Ready.gov, and the Occupational Safety and Health Administration offer courses to businesses to prepare them to be first responders and emergency managers for their companies and communities. Many of these courses are inexpensive or free, but some businesses remain unaware of such resources. Although these courses were not reviewed for their appositeness to the particular preexisting conditions, such as environmental and economic issues affecting many African American/Black communities, some essential components can be applied to advance faster recoveries. To ensure that the particular needs of

the African American/Black community are addressed, federal and state policies should include culturally competent training and funding provisions for Black-owned businesses to develop the proper tools to assist their communities during and after a crisis. Government outreach, as many of the respondents stated, would inform African American/Black-owned businesses of the available courses offered by government agencies and nonprofit companies.

Businesses identified as essential, such as transportation and logistics firms, grocery and food services, health care services, and communications support deserve top priority and immediate release of funding. The procedure to receive these funds, which are managed by the local affinity business chambers of commerce, could include the option for a business owner to submit an application to be identified as an entity available for crisis assistance. If there is no Black business chamber in a particular city or community, the local or regional business chamber of commerce could manage the paperwork and disperse the funds. As mentioned in the literature review, community planners should make a special effort to extend outreach to local Black-owned businesses to gather input on a community's needs and how to best assist the region.

In response to Question 9, Participant 5 suggested another potential program that would provide African American/Black-owned businesses and local churches with free, basic disaster preparedness kits to disperse across the community. Websites such as Ready.gov offer literature about how to compile an emergency preparedness kit, and FEMA offers free emergency financial first-aid kits that focus on a household's financial health before, during, and after a disaster (Federal Emergency Management Administration and Operation Hope, 2019); however, there is no large-scale offering of free disaster preparedness kits for low-income communities that could provide the basic necessities for 3 to 7 days. This same program can be replicated at

the state and local levels, and special consideration should be made about deploying formerly incarcerated people as human resources.

Limitations of the Study and Additional Research Opportunities

One limitation of the study includes its singular focus on businesses operating in California. Expanding the research study to include the entire United States would allow for more variety in participants who live in areas with different types of natural disasters and emergencies. Examples of crises include tornadoes, hurricanes, floods, and severe snowstorms. Disasters in California are often associated with earthquakes, floods, mudslides, and wildfires. Another issue was the limitation on industry type. As noted, industries not considered essential during an emergency can also be available for disaster relief efforts. Broadening the number and type of industries could enrich the context regarding how Black-owned businesses could assist during a crisis.

Additional research opportunities include a focus on cultural differences between immigrants who identify as Black versus African Americans when considering distinct responses to disaster recovery assistance. Although different groups may identify as Black, the Black community is not considered a monolith. Other potential studies can include how gender influences the ways a business responds to community needs during and after a crisis. Although the fastest-growing sector of entrepreneurs, female-led firms often operate in particular industries, such as education, retail services, or social services, which are not considered essential businesses (Kelley et al., 2021).

Researcher Bias Potential

To reduce researcher bias, the video camera remained off during the online interviews, so the researcher could not influence participants' responses through nonverbal cues such as facial

expressions and tone inflections. During the interview, the researcher only gave basic details of the study and what was included in the social media or email recruitment. The purpose of this omission was to limit the potential for undue influence on the participants' answers, especially those questions that involved their willingness to assist, their capabilities, and the duration of time they could provide these services. The researcher also interviewed respondents whose businesses were not classified as essential industries and those who did not identify as business owners with the aim of limiting researcher bias.

References

- Agency for Healthcare Research and Quality. (2018, December). *Chartbook for health care for Blacks, part 1: Overviews of the report and the Black population*.
<https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/blackhealth/part1.html>
- Alabdulwahab, M. (2016). Disaster recovery and business continuity. *International Journal of Scientific & Engineering Research*, 7(3), 322–327.
<https://www.ijser.org/researchpaper/Disaster-Recovery-and-Business-Continuity.pdf>
- Ammons, L. (1996). The evolution of Black-owned banks in the United States between the 1880s and 1990s. *Journal of Black Studies*, 26(4), 467–489.
<http://www.jstor.org/stable/2784719>
- Anderson, W. A. (2008). Mobilization of the Black community following Hurricane Katrina: From disaster assistance to advocacy of social change and equity. *International Journal of Mass Emergencies and Disasters*, 26(3), 197–217.
<https://www.alnap.org/system/files/content/resource/files/main/hurricane-katrina-black-community.pdf>
- Armstrong, D., Gosling, A., Weinman, J., & Marteau, T. (1997). The place of inter-rater reliability in qualitative research: An empirical study. *Sociology*, 31(3), 597–606.
<https://doi.org/10.1177/0038038597031003015>
- Atkins, A. (2017). After Hurricane Harvey, Black organizations can be life rafts for Black-owned businesses. *TribTalk: A Publication of the Texas Tribune*.
<https://www.tribtalk.org/2017/09/25/after-hurricane-harvey-black-organizations-can-be-life-rafts-for-black-owned-businesses>

- Auzzir, Z. A., Haigh, R. P., & Amaratunga, D. (2014). Public–private partnerships (PPP) in disaster management in developing countries: A conceptual framework. *Procedia Economics and Finance*, 18, 807–814. [https://doi.org/10.1016/S2212-5671\(14\)01006-5](https://doi.org/10.1016/S2212-5671(14)01006-5)
- Baboolall, D., Cook, K., Noel, N., Stewart, S., & Yancy, N. (2020). *Building supportive ecosystems for Black-owned U. S. businesses*. McKinsey. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/building-supportive-ecosystems-for-black-owned-us-businesses>
- Baboolall, D., & Fitzhugh, E. (2021). *Black-owned businesses face an unequal path to recovery*. McKinsey. <https://www.mckinsey.com/about-us/covid-response-center/inclusive-economy/black-owned-businesses-face-an-unequal-path-to-recovery>
- Banaji, M. R., Fiske, S. T., & Massey, D. S. (2021). Systemic racism: Individuals and interactions, institutions and society. *Cognitive Research: Principles and Implications*, 6(1). <https://doi.org/10.1186/s41235-021-00349-3>
- Belitski, M., Guenther, C., Kritikos, A. S., & Thurik, R. (2021). Economic effects of the COVID-19 pandemic on entrepreneurship and small businesses. *Small Business Economics*, 58(2), 593–609. <https://doi.org/10.1007/s11187-021-00544-y>
- Bento, A., & Elliott, J. R. (2021). The racially unequal impacts of disasters and federal recovery assistance on local self-employment rates. *Social Currents*, 9(2), 118–138. <https://doi.org/10.1177/23294965211028841>
- Beresford Research. (n.d.). *Age range by generation*. Retrieved December 6, 2021, from <https://www.beresfordresearch.com/age-range-by-generation>
- Best, A. L., Fletcher, F. E., Kadono, M., & Warren, R. C. (2021). Institutional distrust among African Americans and building trustworthiness in the COVID-19 response: Implications

- for ethical public health practice. *Journal of Health Care for the Poor and Underserved*, 32(1), 90–98. <https://doi.org/10.1353/hpu.2021.0010>
- Bethel, J. W., Burke, S. C., & Britt, A. F. (2013). Disparity in disaster preparedness between racial/ethnic groups. *Disaster Health*, 1(2), 110–116. <https://doi.org/10.4161/dish.27085>
- Billings, S. B., Gallagher, E., & Ricketts, L. (2019). Let the rich be flooded: The unequal impact of Hurricane Harvey on household debt. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.3396611>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brewer, L. C., Asiedu, G. B., Jones, C., Richard, M., Erickson, J., Weis, J., Abbenyi, A., Brockman, T. A., Sia, I. G., Wieland, M. L., White, R. O., & Doubeni, C. A. (2020). Emergency preparedness and risk communication among African American churches: Leveraging a community-based participatory research partnership COVID-19 initiative. *Preventing Chronic Disease*, 17. <https://doi.org/10.5888/pcd17.200408>
- Broady, K., McComas, M., & Ouazad, A. (2021, November 2). *An analysis of financial institutions in Black-majority communities: Black borrowers and depositors face considerable challenges in accessing banking services*. Brookings Institution.
<https://www.brookings.edu/research/an-analysis-of-financial-institutions-in-black-majority-communities-black-borrowers-and-depositors-face-considerable-challenges-in-accessing-banking-services>
- Bronfman, N. C., Cisternas, P. C., Repetto, P. B., & Castañeda, J. V. (2019). Natural disaster preparedness in a multi-hazard environment: Characterizing the sociodemographic profile

of those better (worse) prepared. *PLOS ONE*, 14(4), e0214249.

<https://doi.org/10.1371/journal.pone.0214249>

Buehler, J. W., Whitney, E. A., & Berkelman, R. L. (2006). Business and public health collaboration for emergency preparedness in Georgia: A case study. *BMC Public Health*, 6(1). <https://doi.org/10.1186/1471-2458-6-285>

Bureau of Labor Statistics (n.d.). *Table 7. Survival of private sector establishments by opening year*. Retrieved August 1, 2022, from

https://www.bls.gov/bdm/us_age_naics_00_table7.txt

Carter, T. (2021, January 3). *The true failure rate of small businesses*. Entrepreneur.

<https://www.entrepreneur.com/article/361350>

Casteel, A., & Bridier, N. (2021). Describing populations and samples in doctoral student research. *International Journal of Doctoral Studies*, 16, 339–362.

<https://doi.org/10.28945/4766>

Chandra, A., Moen, S., & Sellers, C. (2016). *What role does the private sector have in supporting disaster recovery, and what challenges does it face in doing so?* RAND Corporation. <https://doi.org/10.7249/pe187>

Chandrasekhar, D., Zhang, Y., & Xiao, Y. (2014). Nontraditional participation in disaster recovery planning: Cases from China, India, and the United States. *Journal of the American Planning Association*, 80(4), 373–384.

<https://doi.org/10.1080/01944363.2014.989399>

- Clark-Ginsberg, A., Easton-Calabria, L. C., Patel, S. S., Balagna, J., & Payne, L. A. (2021). When disaster management agencies create disaster risk: A case study of the U. S.'s Federal Emergency Management Agency. *Disaster Prevention and Management: An International Journal*, 30(4/5), 447–461. <https://doi.org/10.1108/dpm-03-2021-0067>
- Comerio, M. C. (2014). Disaster recovery and community renewal. *Cityscape: A Journal of Policy Development and Research*, 16(2), 51–68. <https://www.jstor.org/stable/26326883>
- Cooper, J. T., Jr., & Hicks Masterson, J. (2017, February 23). *How Black history has influenced disaster planning*. Center for Disaster Philanthropy. <https://disasterphilanthropy.org/blog/floods/black-history-influenced-disaster-planning/>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Cutter, S. L., Ahearn, J. A., Amadei, B., Crawford, P., Eide, E. A., Galloway, G. E., Goodchild, M. F., Kunreuther, H. C., Li-Vollmer, M., Schoch-Spana, M., Scrimshaw, S. C., Stanley, E. M., Whitney, G., & Zoback, M. (2013). Disaster resilience: A national imperative. *Environment: Science and Policy for Sustainable Development*, 55(2), 25–29. <https://doi.org/10.1080/00139157.2013.768076>
- Department of Homeland Security. (n.d.). *Plan and Prepare for Disasters*. Retrieved November 9, 2021, from <https://www.dhs.gov/plan-and-prepare-disasters>
- Domingue, S. J., & Emrich, C. T. (2019). Social vulnerability and procedural equity: Exploring the distribution of disaster aid across counties in the United States. *The American Review of Public Administration*, 49(8), 897–913. <https://doi.org/10.1177/0275074019856122>

- Downey, D. (2014). Disaster recovery in Black and white. *The American Review of Public Administration*, 46(1), 51–74. <https://doi.org/10.1177/0275074014532708>
- Faber, M., Giuliani, L., Revez, A., Jayasena, S., Sparf, J., & Mendez, J. (2014). Interdisciplinary approach to disaster resilience education and research. *Procedia Economics and Finance*, 18, 601–609. [https://doi.org/10.1016/s2212-5671\(14\)00981-2](https://doi.org/10.1016/s2212-5671(14)00981-2)
- Fairlie, R. (2020, December). COVID-19, small business owners, and racial inequality. *NBER Today, The Reporter*, 4. <https://www.nber.org/reporter/2020number4/covid-19-small-business-owners-and-racial-inequality>
- Fairlie, R., & Robb, A. (2007). Why are Black-owned businesses less successful than White-owned businesses? The role of families, inheritances, and business human capital. *Journal of Labor Economics*, 25(2), 289–323. <https://doi.org/10.1086/510763>
- Federal Emergency Management Association. (2008). *Emergency management principles*. [https://training.fema.gov/hiedu/docs/emprinciples/0907_176 em principles12x18v2f Johnson \(w-o draft\).pdf](https://training.fema.gov/hiedu/docs/emprinciples/0907_176_em_principles12x18v2f_Johnson(w-o%20draft).pdf)
- Federal Emergency Management Administration. (2018, August 5). *Federal aid programs for the state of California*. <https://www.fema.gov/press-release/20210318/federal-aid-programs-state-california-6>
- Federal Emergency Management Administration and Operation Hope. (2019, September). *Emergency financial first aid kit (EFFAK): Strengthen your financial preparedness for disasters and emergencies*. https://www.fema.gov/sites/default/files/documents/fema_effak-toolkit.pdf

- Fothergill, A., & Peek, L. A. (2004). Poverty and disasters in the United States: A review of recent sociological findings. *Natural Hazards*, 32, 89–110.
https://hazards.colorado.edu/uploads/publications/49_2004_Fothergill_Peek%20.pdf
- Frank, T. (2020, July 29). *Disaster management is too White, official tells Congress*. Scientific American. <https://www.scientificamerican.com/article/disaster-management-is-too-white-official-tells-congress/>
- Green, R. D., Hamelin, T., & Zitelman, K. (2011). NGOs address structural racism: After the storm in New Orleans. *The Review of Black Political Economy*, 38(4), 311–325.
<https://doi.org/10.1007/s12114-011-9093-3>
- Harper-Anderson, E. (2017). Contemporary Black entrepreneurship in the professional service sector of Chicago: Intersections of race, entrepreneurship, and economic transformation. *Urban Affairs Review*, 55(3), 800–831.
<https://doi.org/10.1177/1078087417712035>
- Henkel, K. E., Dovidio, J. F., & Gaertner, S. L. (2006). Institutional discrimination, individual racism, and Hurricane Katrina. *Analyses of Social Issues and Public Policy*, 6(1), 99–124. <https://doi.org/10.1111/j.1530-2415.2006.00106.x>

- Herring, C. (2004). Open for business in the Black metropolis: Race, disadvantage, and entrepreneurial activity in Chicago's inner city. *The Review of Black Political Economy*, 31(4), 35–57. <https://doi.org/10.1007/s12114-004-1009-z>
- Higginbottom, G. M. A., Pillay, J. J., & Boadu, N. Y. (2013). Guidance on performing focused Ethnographies with an emphasis on healthcare research. *The Qualitative Report*, 18(17), 1-16. Retrieved May 20, 2023, from <http://www.nova.edu/ssss/QR/QR18/higginbottom17.pdf>
- Hoffman, S. (2009). Preparing for disaster: Protecting the most vulnerable in emergencies. *UC Davis Law Review*, 42(5), 1491–1547. https://lawreview.law.ucdavis.edu/issues/42/5/articles/42-5_Hoffman.pdf
- Hyra, D. S. (2012). Conceptualizing the new urban renewal. *Urban Affairs Review*, 48(4), 498–527. <https://doi.org/10.1177/1078087411434905>
- Iserson, K. (2020). Augmenting the disaster healthcare workforce. *WestJem*, 21(3). <https://doi.org/10.5811/westjem.2020.4.47553>
- Jiang, Y., & Yuan, Y. (2019). Emergency logistics in a large-scale disaster context: Achievements and challenges. *International Journal of Environmental Research and Public Health*, 16(5), 779. <https://doi.org/10.3390/ijerph16050779>
- Kammerbauer, M., & Wamsler, C. (2017). Social inequality and marginalization in post-disaster recovery: Challenging the consensus? *International Journal of Disaster Risk Reduction*, 24, 411–418. <https://doi.org/10.1016/j.ijdrr.2017.06.019>
- Karpyn, A. E., Riser, D., Tracy, T., Wang, R., & Shen, Y. (2019). The changing landscape of food deserts. *UNSCN Nutrition*, 44, 46–53. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7299236/>

- Kaufman, J. D., & Hajat, A. (2021). Confronting environmental racism. *Environmental Health Perspectives*, 129(5). <https://doi.org/10.1289/EHP9511>
- Kelley, D., Majbouri, M., & Randolph, A. (2021, May 11). *Black women are more likely to start a business than White men*. Harvard Business Review. <https://hbr.org/2021/05/black-women-are-more-likely-to-start-a-business-than-white-men>
- Lahr, D., Adams, A., Edges, A., & Bletz, J. (2022). Where do we go from here? The survival and recovery of Black-owned businesses post-COVID-19. *Humanity & Society*, 46(3), 460–477. <https://doi.org/10.1177/01605976211049243>
- Lawrence, S., & Hylton, K. (2022). Critical race theory, methodology, and semiotics: The analytical utility of a “race” conscious approach for visual qualitative research. *Cultural Studies–Critical Methodologies*, 22(3), 255–265. <https://doi.org/10.1177/15327086221081829>
- Liu, S., & Parilla, J. (2020). *New data shows small businesses in communities of color had unequal access to federal COVID-19 relief*. Brookings Institution. <https://www.brookings.edu/research/new-data-shows-small-businesses-in-communities-of-color-had-unequal-access-to-federal-covid-19-relief/>
- Mafundu, R. H., & Mafini, C. (2019). Internal constraints to business performance in Black-owned small to medium enterprises in the construction industry. *The Southern African Journal of Management*, 11(1). <https://doi.org/10.4102/sajesbm.v11i1.165>
- Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9(3). <https://ojs.aishe.org/index.php/aishe-j/article/view/335>

- Majd, P., Torani, S., Maroufi, S., Dowlati, M., & Sheikhi, R. (2019). The importance of education on disasters and emergencies: A review article. *Journal of Education and Health Promotion*, 8(1), 85. https://doi.org/10.4103/jehp.jehp_262_18
- Manning, J. (2017). In vivo coding. In *The international encyclopedia of communication research methods*. Wiley-Blackwell, 1-2.
<https://doi.org/10.1002/9781118901731.iecrm0270>
- Margherita, A., & Heikkilä, M. (2021). Business continuity in the COVID-19 emergency: A framework of actions undertaken by world-leading companies. *Business Horizons*, 64(5), 683–695. <https://doi.org/10.1016/j.bushor.2021.02.020>
- Marshall, M. I., Niehm, L. S., Sydnor, S. B., & Schrank, H. L. (2015). Predicting small business demise after a natural disaster: An analysis of pre-existing conditions. *Natural Hazards*, 79(1), 331–354. <https://doi.org/10.1007/s11069-015-1845-0>
- McDonald, N., Schoenebeck, S., & Forte, A. (2019). Reliability and inter-rater reliability in qualitative research: Norms and guidelines for CSCW and HCI Practice. *Proceedings of the ACM on Human–Computer Interaction*, 3(CSCW), 1–23.
<https://doi.org/10.1145/3359174>
- McGeehan, K. M., & Baker, C. K. (2016). Religious narratives and their implications for disaster risk reduction. *Disasters*, 41(2), 258–281. <https://doi.org/10.1111/disa.12200>
- Merriam-Webster. (n.d.). Appropriation. In *Merriam-Webster.com dictionary*. Retrieved March 5, 2023, from <https://www.merriam-webster.com/dictionary/appropriation>
- Messer, C. M. (2011). The Tulsa race riot of 1921: Toward an integrative theory of collective violence. *Journal of Social History*, 44(4) 1217–1232.

- Monllor, J., & Murphy, P. J. (2017). Natural disasters, entrepreneurship, and creation after destruction. *International Journal of Entrepreneurial Behavior and Research*, 23(4), 618–637. <https://doi.org/10.1108/ijebr-02-2016-0050>
- Morrish, S. C., & Jones, R. (2020). Post-disaster business recovery: An entrepreneurial marketing perspective. *Journal of Business Research*, 113, 83–92. <https://doi.org/10.1016/j.jbusres.2019.03.041>
- Moser, A., & Korstjens, I. (2017). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European Journal of General Practice*, 24(1), 9–18. <https://doi.org/10.1080/13814788.2017.1375091>
- Myint, P., Hawes, E., Ellis, G., Boman-Davis, M., & Montgomery, G. (2022). Embedding equity in a local government's response to COVID-19. *Journal of Public Health Management and Practice*, 28(1), S54–S57. <https://doi.org/10.1097/phh.0000000000001429>
- Ntontis, E., Drury, J., Amlôt, R., Rubin, G., Williams, R., & Saavedra, P. (2020). Collective resilience in the disaster recovery period: Emergent social identity and observed social support are associated with collective efficacy, well-being, and the provision of social support. *British Journal of Social Psychology*. <https://doi.org/10.1111/bjso.12434>
- O'Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods*, 19. <https://doi.org/10.1177/1609406919899220>
- Office of Advocacy. (2016). *Small business owner facts, Black- or African American-owned businesses*. Small Business Administration. Retrieved December 7, 2021, from

<https://advocacy.sba.gov/2016/05/01/black-or-African-American-Owned-Businesses-in-the-United-States>

Palin, P. J. (2017). *The role of groceries in response to catastrophes*. CNA.

https://www.cna.org/cna_files/pdf/Final-The-Role-of-Groceries-in-Response-to-Catastrophe.pdf

Perry, A. M., & Romer, C. (2020, December 31). *To expand the economy, invest in Black businesses*. Brookings Institution. <https://brookings.edu/essay/to-expand-the-economy-invest-in-black-businesses/>

Popescu, I., Duffy, E., Mendelsohn, J., & Escarce, J. J. (2018). Racial residential segregation, socioeconomic disparities, and the White-Black survival gap. *PLOS ONE*, 13(2), e0193222. <https://doi.org/10.1371/journal.pone.0193222>

Ready.gov. (n.d.). *Make a plan*. Retrieved April 16, 2023, from <https://www.ready.gov/plan>

Reininger, B. M., Rahbar, M. H., Lee, M., Chen, Z., Alam, S. R., Pope, J., & Adams, B. (2013). Social capital and disaster preparedness among low-income Mexican Americans in a disaster prone area. *Social Science and Medicine*, 83, 50-60. <https://doi.org/10.1016/j.socscimed.2013.01.037>

Rivera, J., & Miller, D. (2007). Continually neglected: Situating natural disasters in the African American experience. *Journal of Black Studies*, 37(4), 502–522. <https://doi.org/10.1177/0021934706296190>

Rodriguez-Díaz, C. E., & Lewellen-Williams, C. (2020). Race and racism as structural determinants for emergency and recovery response in the aftermath of Hurricanes Irma and Maria in Puerto Rico. *Health Equity*, 4(1), 232–238. <https://doi.org/10.1089/heq.2019.0103>

- Sadri, A., Ukkusuri, S. V., Lee, S., Clawson, R., Aldrich, D., Nelson, M., Seipel, J., & Kelly, D. (2017). The role of social capital, personal networks, and emergency responders in post-disaster recovery and resilience: A study of rural communities in Indiana. *Natural Hazards*, 90(3), 1377–1406. <https://doi.org/10.1007/s11069-017-3103-0>
- Sheikhi, R., Seyedin, H., Qanizadeh, G., & Jahangiri, K. (2020). Role of religious institutions in disaster risk management: A systematic review. *Disaster Medicine and Public Health Preparedness*, 15(2), 239–254. <https://doi.org/10.1017/dmp.2019.145>
- Skulmoski, G. J., Hartman, F., & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology Education*, 6, 1–21.
- Sledge, D., & Thomas, H. F. (2019). From disaster response to community recovery: Nongovernmental entities, government, and public health. *American Journal of Public Health*, 109(3), 437–444. <https://doi.org/10.2105/ajph.2018.304895>
- State of California. (n.d.). *California disaster assistance act*. Retrieved April 15, 2023, from <https://www.caloes.ca.gov/office-of-the-director/operations/recovery-directorate/recovery-operations/public-assistance/california-disaster-assistance-act/>
- Steinberg, S. R., & Kincheloe, J. L. (2010). Power, emancipation, and complexity: Employing critical theory. *Power and Education*, 2(2), 140–151. <https://doi.org/10.2304/power.2010.2.2.140>
- Stofferahn, C. W. (2012). Community capitals and disaster recovery: Northwood and recovery from an EF4 tornado. *Community Development*, 43(5), 581–598. <https://doi.org/10.1080/15575330.2012.732591>

- Storr, V., & Haefele-Balch, S. (2012). Post-disaster community recovery in heterogeneous, loosely connected communities. *Review of Social Economy*, 70(3), 295–314.
<https://doi.org/10.1080/00346764.2012.662786>
- Storr, V., Haefele, S., Lofthouse, J. K., & Hobson, A. (2022). Entrepreneurship during a pandemic. *European Journal of Law and Economics*, 54, 83–105.
<https://doi.org/10.1007/s10657-021-09712-7>
- Streefkerk, J., Neef, M., Meesters, K., Pieneman, R., & van Dongen, K. (2014). HCI challenges for community-based disaster recovery. In *Lecture notes in computer science* (pp. 637–648). Springer International Publishing. https://doi.org/10.1007/978-3-319-07725-3_63
- Substance Abuse and Mental Health Services Administration. (2017, July). *Disaster Technical Assistance Center supplemental research bulletin: Greater impact – How disasters affect people of low socioeconomic status*. https://www.samhsa.gov/sites/default/files/dtac/srb-low-ses_2.pdf
- Tareque, I. S., Orozco, M., Oyer, P., & Porras, J. I. (2021, May 6). *U.S. Black-owned businesses: Pre-pandemic trends and challenges*. Center for Entrepreneurial Studies, Stanford University Graduate School of Business. <https://www.gsb.stanford.edu/faculty-research/publications/us-black-owned-businesses-pre-pandemic-trends-challenges>
- Thompson, M. J. (2017). Introduction: What is critical theory? In M. Thompson (Ed.), *The Palgrave handbook of critical theory* (pp. 1–14). Palgrave Macmillan.
https://doi.org/10.1057/978-1-137-55801-5_1

- Trader-Leigh, K. (2008). *Understanding the role of African American churches and clergy in community crisis response*. Joint Center Publications.
- <https://diversitypreparedness.org/~media/Files/diversitypreparedness/HPI%20UnderstandingRoleofChurches.ashx?la=en>
- Willison, C. E., Singer, P. M., Creary, M. S., & Greer, S. L. (2019). Quantifying inequities in us federal response to hurricane disaster in Texas and Florida compared with Puerto Rico. *BMJ Global Health*, 4(1), e001191. <https://doi.org/10.1136/bmjgh-2018-001191>
- Wilson, B., Tate, E., & Emrich, C. T. (2021). Flood recovery outcomes and disaster assistance barriers for vulnerable populations. *Frontiers in Water*, 3.
- <https://doi.org/10.3389/frwa.2021.752307>
- Wilson, J., Ward, C., & Fischer, R. (2013). Beyond culture learning theory. *Journal of Cross-Cultural Psychology*, 44(6), 900–927. <https://doi.org/10.1177/0022022113492889>
- Xiao, Y., Wu, K., Finn, D., & Chandrasekhar, D. (2018). Community businesses as social units in post-disaster recovery. *Journal of Planning Education and Research*, 42(1), 76–89.
- <https://doi.org/10.1177/0739456x18804328>
- Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. In *Applications of social research methods to questions in information and library science*. Libraries Unlimited.
- https://www.ischool.utexas.edu/~yanz/Content_analysis.pdf

Appendix A: Interview Questionnaire Results

Table B1

Responses to Question 1: Why Would You Help During a Natural Disaster?

Participant	Participant response	Preliminary code	Theme
1	I'll help my community before a natural disaster and during and after; I mean, I didn't change anything because of a natural disaster. That's not the nature of my business. I mean, I have to respond to my clients.	No change, help, community	Community
2	Well, I mean it's also that's literal existence is to help the community specifically S Los Angeles, that we were designed to bring a healthy option to. And, you know, helping during a disaster just naturally fits in what.	Healthy option, community	Community
3	I am a part of the FEMA transportation network. FEMA sites that are dedicated for transportation facilities, where my trucks and trailers can be utilized to transport water and other emergency needed materials to an area.	FEMA, water, transportation network	Network
4	I am a real estate professional, and I became a real estate professional to advocate for Black homeownership. And so, I believe that I am to be a resource to my community and people in some type of natural disaster.	Resource, community	Community
5	Because the community needs us anytime the community need done, if I can help, I can help well.	Community	Community
6	Well, we all have humble beginnings. I was born in and raised in Los Angeles. our community needs additional resources because of redlining, etc.	Humble beginnings, resources	Resources
7	During the start of the pandemic, especially like the stay-at-home order, the difficulties in	Difficulties, supply chain, community	Community

Participant	Participant response	Preliminary code	Theme
	supply chain, getting products to us, food and the grocery store lines and that hit all of us, particularly in Black/brown communities.		
8	So, we could support Black farmers, Black food businesses and essential Black businesses, and to create an ecosystem to circulate the dollar and provide those necessary resources.	Support, create ecosystems, resources	Resources
9	So, in this kind of situations we have to try reach out and see how many of our clients we can observe. You know, so they don't go into, like, homeless shelters or go into.	Clients, homeless shelters	Resources
10	It's the right thing to do. Honestly, if someone needs help, so it behooves me to ensure the health of my community by helping them in any way so that they can actually pour back into my businesses anyway.	Community, health, help	Community
11	In the African American community, seniors and other people who are fearful need assistance and fall through the cracks.	Community, seniors, assistance	Community
12	For us as a company we want to show that we are for the community, because the community supports and pours money into us, and also, we have employees on the spectrum.	Community, support, employees, spectrum	Community

Note. FEMA = Federal Emergency Management Agency.

Table B2*Responses to Question 2: What Were Some Issues You Faced as a Business?*

Participant	Participant response	Preliminary code	Theme
1	Toyota, General Motors, Chevrolet couldn't produce as many vehicles as before. No chips from Asia, and problems with labor, when people got COVID that were on the production line, the whole line shut down.	Production line, shutdown	Inventory
2	Disadvantages with access to funding, no support for healthy food business, not enough programs to help small businesses. Leaders not advertising the free seminars to help businesses. PPP loan problems.	No access to funding, PPP loans problems, free seminars	Capital
3	Certain guidelines were pushed aside. Federal trucking for the whole U.S. not just for myself particularly, but the hours of service waivers for a necessities and things that were needed for the emergency for pandemic.	Waivers, guidelines	Regulations
4	A reduction in business due to COVID and navigating those times because I'm in business to be profitable. So, maintaining my profit margins, ensuring that I am profitable and productive has been a bit of a challenge.	Reduction in business, profitable	Capital
5	Had to learn kind of by doing until I was able to meet a couple other businesses in the same field with the same issues. there was no set blueprint for our businesses and so we kind of had to rely on each other.	No blueprint, learning	Education
6	Having issues with employment, employing people that are 100% functional in doing the job duties and responsibilities, so it's been a shortage of us, it's been a shortage for us in terms of employment finding qualified individuals.	Shortage, qualified individuals, employment	Employees

Participant	Participant response	Preliminary code	Theme
7	The biggest challenge I would probably say has been funding, if you don't have a pot of money set aside or don't have a lot of connected people or people who are even really knowledgeable about entrepreneurship, how do you get the money that you need to get a business off the ground and.	Funding, entrepreneurship, challenge	Capital
8	We had to learn just all of the business, things like how to structure. Then we had to learn about. So. So there's a big learning curve there. Other challenges are finances. Of course. That's a big challenge. policy, jumping through hoops.	Learning curve, finances, policy, challenge	Policy
9	Currently in California, the biggest challenges are most employers are having not just me. We are fighting the labor problems, a shortage of workers across the board. Inflation.	Labor problems, shortage, employees	Employees
10	Ah, financing became a lot more strict. It made it incredibly harder for me to get the financing we need to operate. The increased cost of everything the safety of myself and the safety of my staff and clients, Cal OSHA infection control.	Financing, strict, safety	Capital
11	Smaller amount of money than qualified for from SBA, issues with identity, taxes, forms, going back and forth with information, denial letters, even with 3rd party help, economic injury disaster loan, company name a problem.	Issues with forms, loans, company name problem	Capital
12	Some staff not coming in, staff getting sick, hiring more people to work, having to work double shifts.	Staff, hiring more people	Employees

Note. PPP = Paycheck Protection Program.

Table B3

Responses to Question 3: What Are Some of Your Needs to Operate and Scale Your Business?

Participant	Participant response	Preliminary code	Theme
1	I need vehicle inventory. They need labor right now. There's a lot of labor shortages out there.	Inventory, labor shortage	Inventory
2	Funding and help from programs, grants.	Funding	Funding
3	Appropriate people that are properly trained in order to maintain and drive the vehicles. So, because they were allowed to work extended hours and there was a lot of work. Truck parts not available to fix trucks on time.	Proper training, unavailable parts	Labor
4	I guess business funding, more clients, investment in like education and skill set.	Business funding, clients, skill set	Funding
5	Finances, especially when you're first starting out. Finding funds. To help fund your business, help to help. finding funds to help the startup cause finding funds to help with Marketing tools funding those.	Finances, marketing	Funding
6	Funding.	Funding	Funding
7	Funding.	Funding	Funding
8	Financial resources operational capacity. We need more people, infrastructure, a commercial kitchen. We're building our mobile trailer right now and we crowdfunded for that money.	Infrastructure, financial resources	Infrastructure
9	Capital is one of the most important things and every business you need to have the right capital to start, the right funds. I was fortunate I was able to finance my entire operations myself, but not everybody has that opportunity a lottery to do so.	Capital, finance myself	Funding

Participant	Participant response	Preliminary code	Theme
10	Financing, staffing, infection control measures.	Financing, staff, infection control	Funding
11	Loan increase, access to funding.	funding	Funding
12	Incentives, phenomenal benefits, how to qualify people for the job, getting people to work for us, people not taking jobs seriously, manpower and wanting to work.	Qualified people, incentives	Labor

Table B4

Responses to Question 4: If Any, What Resources Would You Need to be Able to Assist During a Crisis?

Participant	Participant response	Preliminary code	Theme
1	Do not need additional resources now; we are beyond that now.	No need	
2	We would need some workforce/labor.	Workforce/labor	Workforce
3	Directives instructions as to where to go, what they need, and how many and how much. So, the directives have to come from them. But oftentimes, you know, we sit here when we see earthquakes and things that are happening within our community.	Instructions, directives	Guidance
4	Financial always financial.	Financial	Funding
5	More, more financial support to purchase additional items that would be able to serve our community that we are in.	Financial	Funding
6	We have all the resources we need.	No need	No need

Participant	Participant response	Preliminary code	Theme
7	So definitely funding because there are things that we want to put in place that we don't necessarily have the funds for yet. And I would actually even say. People like that, that definitely, you know the capacity. We have a very small team and so funding would allow us to bring more people on to be able to do more work.	Funding, more people	Funding
8	We need a commercial kitchen because right now we have so many different farmers and vendors, but we don't have a facility to store inventory. So, if we can store our own inventory then we can do a lot more on our own.	No facility, inventory	Infrastructure
9	To be able to again hire the right level, force higher enough labor force to provide services. Because without people our organization runs on their ability to deliver good services so.	Labor force	Workforce
10	Funding.	Funding	Funding
11	Access to funding and increase in loan amount.	Funding	Funding
12	Mental health therapy for employees, for community, will provide whatever is needed, help with sandbags, get volunteer group to help with whatever the community needs.	Therapy, community, volunteer	Volunteer/work force

Table B5

Responses to Question 5: What Elements Would Allow You to Provide Assistance for This Long?

Participant	Participant response	Preliminary code	Theme
1	Federal government provided resources to kind of help you maintain your payroll, and so did the state.	Payroll, resources	Funds
2	Facilities, access to food, manpower.	Facilities, food, manpower	Manpower
3	Well, I would have to be able to pay the drivers for doing it so the services would have to be paid for by someone. Probably more than likely the government or whomever. Umm, the other things that would be needed to utilize is an opportunity for the drivers to be cleaned up. So, a place to wind down, shower, relax.	Drivers, relax, wind down	Manpower
4	Meeting with some financial resources. So, I'd have to connect with people that can help me secure funding to pay for various things that are needed, time, resources and things of that nature.	Financial resources, connect, people	Funds
5	And so, we would just need a lot of volunteers. Or that if our staff isn't able to get there besides myself, it would just be more manpower basically.	Volunteers, staff	Manpower
6	Manpower.	Manpower	Manpower
7	Manpower, funding.	Funding, manpower	Funds
8	Commercial kitchen, partnerships , financial resources. Sponsors, like any type of sponsorships or donations specifically for like the food distributions and the charitable work.	Kitchen, financial, charitable	Funds
9	Fringe benefit, so adequate compensation to make	People, work,	Manpower

Participant	Participant response	Preliminary code	Theme
	people want to work.	compensation	
10	Manpower.	Manpower	Manpower
11	Access to funding, personal reserves, it's all about funding, for funding to be there, the flow of money from contracts and orders can help me to continue to help as long as I can.	Funding, personal reserves, contracts	Funds
12	Manpower, donated food, maybe some shirts if ordered early enough.	Manpower, donated food	Manpower

Table B6

Responses to Question 6: What Assistance Can You Provide if There Were an Emergency or Disaster in Your Community?

Participant	Participant response	Preliminary code	Theme
1	My business is business-to-business so no direct contact with individual in that way, but I didn't lay one employee off so; by not laying off any employee in the middle of a pandemic, they were able to provide for their families, indirect way that I helped the community. Used own resources.	Business to business, not laying off, resources	Resources
2	In terms of emergency, we would be providing our healthiest and most nutrient rich salads, drinks, water, and even desserts as well. We did desserts during the emergency, with the senior meals program.	Senior meal programs, healthy, food	Food,
3	I could provide the training to the individuals to train them to drive the truck. My trucks can provide the means to transport food and other perishable items to locations throughout the United States or locally here in Southern California in the emergency. Refrigerated trucks, mobile morgue.	Training, transport food, mobile morgue	Training

Participant	Participant response	Preliminary code	Theme
4	I could leverage my relationships with prominent organizations and bring additional resources by way of either financial resources or people manpower to help with cleanup efforts and, you know, help with, you know, getting food and things like that.	Cleanup efforts, people, food, financial resources	Resources
5	Basic food, basic survival necessities, water, bread. First-aid items.	First aid items, basic survival	First aid
6	We're able to assist with any transport needs.	Transport needs	Transportation
7	I would probably say connection and access to food or farmers.	Food, farmers	Food
8	We work with food, we work with farmer, we work with entrepreneurs in general, so we focus on farmers, food producers, chefs. That's our core. We also have other businesses but essential businesses. Prosperity bucks, free money for community members to shop.	Food, farmers, producers	Food
9	We can provide during one, we can provide free therapeutic services and mental health services. That can help him to be individuals who are going through this crisis to better manage the crisis they face. Some temporary housing.	Free mental health services	Health
10	Would only be just to provide staff and then provide the staffing that I have in my personal time and energy. I don't know that you know, I would try to see what kind of financial assistance that we could help with, logistics.	Staffing, financial assistance, logistics	Labor
11	Providing food and donating food, other types of donations, discounted food and other items.	Donations, food	Food
12	Logistics, fundraising, providing delivery services.	Logistics, delivery, fundraising	Transportation

Table B7

Responses to Question 7: Would Your Business be Better Poised to Provide Assistance During the Disaster or After the Disaster? Why?

Participant	Participant response	Preliminary code	Theme
1	During and after. Please refer to previous question.	During and after	Continuous
2	We are prepared and will it very willing and able to provide those services both during and after any said disaster, of that type.	During and after	Continuous
3	Before, during, and after.	Before, during, after	Continuous
4	During, and after. I'd leverage the relationships I have to help with cleanup. While the disasters, you know, in place and then after then there will need some, you know, some damage control, I would presume. So, I could help leverage some other relationships that I have because I'm connected with, you know, contractors and cleanup crews and, you know, maintenance people.	During, after, damage control	Continuous
5	During and after. I would assume during a disaster there will be a need for water and basic food necessities. We can help with those during and after.	During and after, basic necessities	Continuous
6	During and after.	During, after	Continuous
7	After. We are actually building our mobile vehicle like which is our actual mobile market that would allow us once that is up and running then during because we actually would be able to take the food into different areas.	After, food	After
8	During and after, because of mobile capabilities for food.	During, after, food	Continuous
9	After, we may not be able to sufficiently provide services because some individuals who work for us or work with us maybe impact it to the	After, individuals, resources	After

Participant	Participant response	Preliminary code	Theme
	point where we will need additional resources.		
10	After, because of current staffing.	After, staffing	After
11	During and after, some people are able to go out and others are not able to go out and won't be able to get food because they are fearful or older. Can also help aa businesses be able to get their paperwork together for their businesses to apply for loans, and access to funding.	During, after, food, paperwork, loans	Continuous
12	Both, because people need medication.	During, after, medication	Continuous

Table B8

Responses to Question 8: How Long Could You Provide That Assistance?

Participant	Participant response	Preliminary code	Theme
1	6 months	6	Month
2	3 months	3	Month
3	2 weeks because of not wanting to overwork drivers	2	Month
4	2–3 months	2, 3	Month
5	3–4 days	3, 4	Day
6	12 months	12	Year
7	1 month	1	Month
8	Indefinitely	Indefinitely	
9	1 month	1	Month
10	About 2 weeks	2	Weeks
11	As long as my funding and personal reserves will allow	Funding, reserves, allowed	Reserves
12	3–4 days, 8-hour shifts for company volunteers	3, 4, 8	Days; new code for this is short-term

Table B9

Responses to Question 9: What Would You Like to See From the Federal Government in Terms of Helping African American/Black-Owned Businesses be More Prepared to Assist During a Disaster?

Participant	Participant response	Preliminary code	Theme
1	I'd like to see the federal government makes extra steps to make it easier for Black and brown businesses to be able to provide services for the federal government that would be very helpful if that were to happen because they buy more goods and service than anybody in the world.	Black/brown businesses, provide services, goods/services	Contracting
2	I would like to see more hyper-localized efforts to contract with federal time to offer federal contracts to minority-owned businesses, and use local businesses for help during emergency, i.e., COVID.	Localized efforts, contracts	Contracting
3	First PPP loans had a lot of conditions within those ramifications through the SBA. The second PPP loan and they used the same documentation that we had used prior, but it had a bunch of things for minority people to jump through and one of them was background checks. You had to have a great credit score and a lot of hoops to jump through.	PPP loans, jump through hoops,	Policy
4	Financial resources are probably the number one issue when it comes to the ability for Black business owners to provide and help out at the local level. I know a lot of Black businesses are grassroots and pull resources from the community. I think that there if there was funding available at the federal level for businesses that have the heart, the mindset to help.	Financial resources, funding at federal level	Appropriations
5	Disaster preparedness kits. Delivered to Black businesses. Whether they are storefronts or even a lot of there's a lot of ecom virtual Black businesses. They have delivery services and so if there was resources and pamphlets that were handed out.	Disaster preparedness kits, resources, pamphlets	Preparedness

Participant	Participant response	Preliminary code	Theme
	People in the community who come to this particular store and get natural disaster 3 to 4-day kits that would help them survive until, you know, medical or medical emergencies can help all.		
6	I would say just really more support to Black business owners during disasters so they can be more prepared to assist. You know there's funding set aside for Black business owners in case of disaster to be able to assist.	Funding set aside	Appropriations
7	Find or know where to go to get the information for what would be needed. Funding, employee pay support. Emergency funding. You know, if a business is gonna assist during a disaster, they need to know that.	Employee pay support, emergency funding	Appropriations
8	Policy change. It doesn't make sense how hard it is for us to even be able to accept SNAP and EBT, it's not easy for residents to get SNAP and EBT whether it's stigma, whether you just have to jump through the hoops of qualifying. A lot of people who do qualify aren't getting those benefits; they're missing out on the benefits, but that's also I mean millions of dollars that the economy is missing out on too, because those funds aren't in play.	Policy change, jump through hoops,	Policy
9	Well, less troubles that Black businesses to face. It's more of stigmatization. You know, I think. Educating people to understand Black people more and give them the opportunity to provide U.S. services will help at the, you know, at the federal level, providing the resources to Black businesses, helping create an awareness, you know through the media or whatever they can do will help a lot.	Troubles, stigmatization, awareness, resources	Appropriations
10	Really strengthening their SBA. To reach out to Black businesses. And also, being involved with the Black businesses chambers of commerce who has their eye on the pulse of the Black business to little bit more. I think a lot of times Black businesses don't go mainstream because there's no help. Things aren't	SBA, Chambers of Commerce, businesses	Outreach

Participant	Participant response	Preliminary code	Theme
	set up to make it easy for us to access.		
11	I'm gonna simplify and a more simplified application and not so many in-depth detailed questions. People who understand Black business needs, easier access for African American to complete application, cultural competencies with getting money.	Simplify, cultural competency	Policy
12	Mental health and having support, qualifying people, a lot of people on Asperger's, great workers for meticulous work, and fed government involved to put them to work, more communications support.	Mental health support, Asperger's, great workers	Support, policy

Note. PPP = Paycheck Protection Program, SBA = Small Business Administration, SNAP = Supplemental Nutrition Assistance Program, and EBT = Electronic Benefits Transfer.

Table B10

Responses to Question 10: What Would You Like to See From the State Government in Terms of Helping African American/Black-Owned Businesses be More Prepared to Assist During a Disaster?

Participant	Participant response	Preliminary code	Theme
1	The same answer goes for the state of California compared to the federal government. I would like to see the state make extra effort for black and brown businesses to do business with the state as well as a way to represent our percentage of the population in the state.	Extra effort, Black and brown, business with State	Contracting
2	State needs to do a better job of outreach. State sponsor, funded resources, like grants, lending, business seminars and target them to minority and urban areas so minority businesses have a fair shot.	State sponsor, grants, seminars	Sponsorship

Participant	Participant response	Preliminary code	Theme
3	Well, I think that they would be a better liaison, some type of liaison that was set up in community churches where we would feel more comfortable going to speak with people no matter what color they are. But within a church type of environment and are a community center.	Liaison, community churches	Outreach
4	I think that in addition to funding, there should be a certification or education around how to provide those resources should have disaster come or should a disaster be implemented, to help out the community.	Certification, education, resources	Education
5	More or less the same, but since it's since it's the state it there should be more of a direct line. There could be more of a concise or details and where they can go even after.	Direct line, concise details	Outreach
6	I think it's the same thing. You know, funding set aside for organizations that are truly helping the community, helping the community, meaning you're providing jobs, opportunities, or coaching. Or you maybe be providing rehabilitation services.	Funding set aside, rehabilitation services	Sponsorship
7	Where to go to be able to say hey in a disaster I have the means to be able to help and support. what would that look like? Where is that information found? It's not necessarily directed to Black-owned businesses. Direct outreach, so that the businesses can know along with that operational and staff support.	Direct outreach, staff support, operational	Outreach
8	I would say the same thing because the state they can, they can change policy too.	Change policy	Policy
9	It's mostly how they disburse funds. So, what I like to see from the state government is more action towards supporting Black businesses. And again, it goes towards, you know, making the playing field level.	Level playing field, action, supporting Black businesses	Policy

Participant	Participant response	Preliminary code	Theme
10	I think the answer is exactly the same. providing the resources to Black businesses, helping create an awareness.	Resources, Black businesses	Sponsorship
11	We need more African Americans in position to help Black businesses through the processes.	Help, processes	Policy
12	More funding, grants for Black businesses, better health care for people who are working or have their own businesses.	Funding, grants, health care	Sponsorship

Table B11

Responses to Question 11: What Would You Like to See From the Local Government in Terms of Helping African American/Black-Owned Businesses be More Prepared to Assist During a Disaster?

Participant	Participant response	Preliminary code	Theme
1	Same answer applies. I mean, you know whether it's the city of Oakland that has a high percentage of Black population or the surrounding cities around Oakland and San Jose and San Francisco. Be able to do the same thing right. Just make it easier for Black and brown businesses to. Do we come? Vendors within the cities, so that you know they can and try and hire people from the community, and, you know, increase the number of jobs in the community.	Increase jobs, community, black/brown	Jobs
2	County and city governments need to do a better job at outreach, help with certifications, store paperwork in the cloud instead of a business having to carry it around. have more events to help out businesses, meet and greets with city councils, neighborhood councils.	Outreach, certifications	Outreach

Participant	Participant response	Preliminary code	Theme
3	It needs to be some type of system like that setup from the city, local agency, state and federal. So that when they pick up the radio and they go, I need help. Something similar to California Law Enforcement Mutual Aid Radio System Plan (CLEMARS).	System, CLEMARS, help	Systems
4	Organizations being connected, so maybe like networking events, lunch and learns smaller resources that are at the local level, so that maybe life for like businesses can connect and then be more powerful together. Because I think there's unity and you know numbers right. There's power in numbers.	Connected, networking, smaller resources, power	Networking
5	I would hope that local government step in like even like now and possibly have an ongoing relationship with these businesses to serve these community. So, our local governments, I would hope could provide even if it's not kits that have survival items, it could be pamphlets on what to do on a continuous basis whether it be biweekly or even every other month just come by, show their face, have a community meeting at these stores to serve these, to serve the to inform the people of these communities.	Community meetings, survival kits, ongoing relationship	Outreach
6	But I think a collaboration with more of the local organizations that they are aware of that bring a better collaboration for their communities. We will bring better collaboration for their communities.	Better collaboration, communities	Collaboration
7	Direct outreach to those businesses, you know, direct communication.	Direct outreach, direct communication	Outreach
8	In their jurisdiction, whether it be land, for example, there, I'm sure there's a kitchen space that could be made available to us for the work that we're doing. So, I think I think they have the resources to provide. And all of them can provide grants and financial assistance. They can all do that.	Space, financial assistance, grants,	Auspice

Participant	Participant response	Preliminary code	Theme
9	Just making the playing field equal, you know in your cell and their selection process, make it equal for everybody to be able to get the opportunity to serve. And if they do that back it up with the funds, the resources give people of color, you know the money and trust them that they will deliver the services.	Equal playing field, opportunity to serve	Policy
10	They have an opportunity to make connections with us before. And emergency happens. To make sure to see how they can help making things easier for us as Black businesses to thrive. If our local has been helping us and reaching out to us and you know helping us to ensure that we thrive in the community. Emergency happens and when we're in a more stable situation before emergency happens, it makes it more we're more apt to help and have and more available to help, you know.	Connections, help, thrive	Collaboration
11	We need more African Americans in position to help Black businesses through the processes. Blacks just tend to go to whoever thinking they want to help them, when they often don't. We need people who understand, relate to you, are familiar with your ethnic background, who can relate to you and be able to help you and move through the system.	Help, processes, familiar with ethnic background, system	Processes
12	Safety, making sure that businesses are informed of whatever that is going on in the community, such as background checks	Safety, background checks	Safety

Appendix B: Protection of Human Subjects

- Risks to the subjects
 - Regarding the involvement of human subjects and characteristics, the following markers were relevant.
 - The involvement of human subjects included interviews concerning the practices, abilities, and access to supplies to properly scale their firms to provide services and products to their communities during a disaster.
 - The characteristics of the subject population included those who identify as African American or Black business owners between the ages of 21 to 65.
 - The criteria for the exclusion of any subpopulation included any person who does not identify as African American or Black.
 - This research study did not involve special classes of subjects, such as fetuses, neonates, pregnant women, children, prisoners, institutionalized individuals, or others who may be considered vulnerable populations. Note that “prisoners” includes all subjects involuntarily incarcerated (for example, in detention centers) and subjects who became incarcerated after the study begins.
 - The interviews were conducted via Microsoft Teams and Zoom online videoconferencing platforms.
- Sources of materials were limited to online communication.
 - The research material was obtained from interviews conducted online via the Microsoft Teams and Zoom online videoconferencing platforms.

- The online interviews were recorded and transcribed. The researcher involved with this study had access to subject identities. No linkages between subjects were identified other than location.
 - The data collected was used explicitly for this research project.
- Potential risks were considered.
 - There were no identified risks associated with this research project.
- An adequate protection against risks was pursued.
 - Recruitment and informed consent were considered carefully.
 - Informed consent was unnecessary for this research study because it did not include the collection of personal information, biological specimens, or human genetic material. Additionally, subjects were not identified as protected classes or those considered incompetent or incapacitated.
 - Adequate protection against risk was prioritized.
 - Some identified risks could be associated with a subject's participation in this research proposal, such as a potential for post-traumatic stress. The proposal will be re-submitted to the Institutional Review Board (IRB) for review if another potential risk is identified.
- Potential benefits of this research study for the subjects and others were considered.
 - The potential benefits of this research for the subjects included the identification of factors that could assist in scaling businesses or entering industries that could provide goods and services during and after a disaster. The potential benefits for others included forming policies and procedures to assist Black-owned companies in scaling for success.

- No identified risks were identified.
- Importance of the knowledge gained is a critical factor.
 - The importance of knowledge gained via the research may provide policymakers and practitioners with data to create programs and policies that address systemic issues that contribute to the ability or inability of African American businesses to give aid during and after disasters.