

# Farmers Market Survival in Appalachia during the COVID-19 Pandemic

Justice McAdoo

The University of Tennessee Southern, Pulaski, TN, USA

Email: [jhmcadoo@gmail.com](mailto:jhmcadoo@gmail.com)

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## Abstract

The farming industry contributed \$134.7 billion to the United States economy or roughly 0.6 percent of GDP. Farmers operating during the COVID-19 pandemic faced challenges receiving funding, retaining staff, and competing with national conglomerates. A value central to farmers includes workable solutions to feeding communities. The problem for minority farmers in Appalachia is magnetized when considering their lack of access to resources. This article highlights minority farmers' and farmers markets' contributions to the region and their struggles. I interviewed members of Organization X, a non-profit organization that seeks to provide multiple resources for Kentucky farmers and families, to understand the resources and barriers minority farmers in Appalachia encounter to during the COVID-19 pandemic. The best way to reach this understanding was to speak with individuals working directly with minority farmers and farmer's markets. The researcher was interested in understanding what resources minority farmers used to survive in the Appalachian region due to the region's poverty and recent small business closures. This understanding could help farmers leverage resources to reduce the impacts of external market forces. In a personal interview, I asked representatives of the non-profit organization, Organization X, "What barriers do minority farm owners face in sustaining their operations? How has COVID-19 impacted minority farmers and farmers markets? What has your organization learned in meeting the needs of the community, and what are the future opportunities for farmers in Appalachia?" I used the SET framework to provide an understanding on customer-farmer relationships. This research helps further knowledge on tools minority farmers can use to sustain their businesses.

## Keywords

Small Business, Farmer, Sustainability, Equity, Inclusion

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## 1. Introduction

The Appalachian region covers an area of 205,000 square miles across 420 counties spanning 13 states (Appalachian Regional Commission, 2021a; ProximityOne, 2020). Approximately 25 million people live in the region with 27% of counties living in 20% or greater poverty level (Appalachian Regional Commission, 2021a). The United States average poverty level is 13.7% (Giannarelli, Wheaton, & Shantz, 2021). Unlike more densely populated regions, rural areas in Appalachia have often struggled to attain access to resources such as broadband internet, health care, and other supportive infrastructure needs. Deller, Whitacre and Conroy (2021) discovered that the relationship between broadband access and new business startups stimulated economic growth. Variables such as broadband internet download and upload speeds, coverage, and stability provided key indicators of the likelihood of new startup survival (Deller et al., 2021). Using the Bayesian spatial Tobit estimator, authors found that download speeds tend to be more important than upload speeds. Less than 60% of people in 18 Appalachian counties had a broadband subscription in 2019 (Appalachian Regional Commission, 2021b). Navigating the small business environment for farmers in Appalachia can be challenging given the shortage of resources in comparison to more economically successful regions. Specific challenges include finding the necessary resources to operate their businesses such as hard-working employees, affordable tools, and outlets to sell their products. Declining populations of eligible farm workers coupled with a low unemployment rate, nationally, impact farm operators' ability to hire more workers (American Farm Bureau Federation, 2022). More than 120 counties in Central Appalachia include distressed classification or where the poverty rate is 200% the national average (Appalachian Regional Commission, 2021c). During the COVID-19 pandemic, some farmers reported struggles finding necessary resources such as feed, tools, machinery, and even outlets to sell their harvest (Appalachian Sustainable Research Project, 2021). Despite declining population in rural areas, farm jobs do not appeal to most Americans, forcing small farm operators to use visa programs to bring in foreign workers (The National Law Review, 2021). Manufacturing plant output of machinery and components needed to build that equipment slowed substantially due to the COVID-19 pandemic while commodity prices rose and demand increased (Mowitz, 2021). Some machinery such as row crop tractors and utility tractors experienced an 18% - 27% increase in value, respectively (Mowitz, 2021). Investment in technology, chemicals, and modern equipment can help farmers shed some of their financial burden (Pastusiak, 2017; United States Department of Agriculture, 2021b). Ninety percent of all U.S. farms include small family farms while 3% of large-scale farms provide 44% of gross cash farm income (United States Department of Agriculture, 2021a).

The progressive decline of privately owned farms in the U.S. economy signals agricultural entrepreneurs to develop supportive businesses unrelated to agriculture (Aubert & Enjolras, 2021). For example, some farms include retail facili-

ties, residential dwellings, and event spaces (Freedman et al., 2016). Selling locally sourced goods directly to customers can eliminate costly markups and supply chain delays (Aubert & Enjolras, 2021; Bauman, McFadden, & Jablonski, 2018). Small farm owners can maximize their profitability by investing in strategic agritourism (Van Sandt, Low, & Thilmany, 2018). Agritourism refers to the behavior, experiences, and revenue generated from the entertainment and education of consumers who visit farms (Kania & Bogusz, 2016; Van Sandt et al., 2018). Popular attractions, including microbreweries, recreational hemp products, and gift shops offer farmers additional opportunities to attract tourism (Meierotto & Castellano, 2019).

## 2. Research Method

The specific issue addressed in this study was that some small minority farm operators face challenges operating during the COVID-19 pandemic. The purpose of this qualitative case study was to understand ways minority farm operators in Appalachia sustain their businesses despite challenges finding workers, navigating COVID-19 restrictions, and selling their products. The best way to reach this understanding was to spend time with individuals who work directly with minority farmer operators. I used a semi-structured interview to attain the data and did not test human subjects or require additional approval for sensitive populations.

## 3. Farmers Market Survival

Farmers market participants face barriers operating and sustaining businesses due to: 1) a lack of resources for minority farmers, 2) rising costs, and 3) competition. Finding sufficient resources challenges farmers to find creative ways to operate their businesses. The United States Department of Agriculture (USDA) facilitated inequitable scenarios for some minority farmers (Carr, Polanko, & Tyler, 2020). As a vital component of farmers markets, minority farmers experience more obstacles obtaining state and local resources than White counterparts (United States Department of Agriculture, 2021c). Rural Black poverty remains the highest of all rural race/ethnicity groups at 31.6% in 2018 (United States Department of Agriculture, 2021c). Rising food costs further hinders low-income farmers and their families. Quality food systems, including whole foods like fruit and vegetables, help reduce the negative impact of food scarcity (Fanzo et al., 2022). Forming plentiful food environments requires community leaders to be proactive.

Marginalized communities in Appalachia can find innovative ways to receive fresh produce through fruit and vegetable programs by using community-based networks of social and economic relations to maneuver around broader economic and political constraints (Koempel, Brewer, Mudd-Martin, & Stephenson, 2020). One organization helping bridge the gap in food scarcity includes Organization X. The organization prides itself on organizing and promoting coopera-

tion among rural and urban citizens to expand access to agricultural benefits through community building (Organization X). In an interview with four representatives from the organization, I asked three questions to gather more information on the issues facing Black farmers and farmers markets in Eastern Kentucky.

The impacts of globalization and high energy consumption lifestyles further exhaust natural resources (Arabska, 2018). Thriving farming business owners' activities build community, encourage entrepreneurship, and provide some relief for individuals living in food deserts (Arabska, 2018). The ability to sustain communities makes farmers markets creative spaces for small business entrants to test out new ideas. For instance, some communities offer mobile farmers markets, locally made products, and networking events using social media (Ylitalo et al., 2019). In the Washington DC area, despite some markets remaining open in the winter and spring seasons of 2020, sales declined more than 70% from 2019 (O'Hara, Woods, Dutton, & Stavely, 2021).

Some metropolitan areas in Appalachia have bucked the trend of economic decline, population loss, and poverty such as Huntsville, Alabama. The Huntsville region workforce consists of 1.1 million residents and 544,000 labor participants spread across 13 counties, including three counties in Tennessee (Huntsville Madison County Chamber of Commerce, 2021). Huntsville's population grew more than 19% between the years 2010-2020, becoming Alabama's largest city (United States Census Bureau, 2021b). Median household incomes in Huntsville grew more than 2.7% from 2020 to 2021 (United States Census Bureau, 2021b). In neighboring rural counties such as Etowah and Dekalb counties, population loss remains. More than one third of Appalachian counties lost population during years 2010-2020; at least seven experiencing double digit percentage declines (United States Census Bureau, 2021a). The contrast in prosperity with rural economic decline provided me the opportunity to explore what economic influences support the growth of Black farmers. Government regulations, at the local level, can hinder entrepreneurship if the regulations make applying for a business license more difficult (Esteves, Vendramini, & Accioly, 2020).

Business leaders in cities such as Pittsburgh, Pennsylvania have made strides to increase the region's economic output. Pittsburgh's publicized economic decline due to diminishing coal and steel industries has not stopped the city's recovery efforts. Real GDP per capita rose 5.1 percent in 2017 in the Pittsburgh metro area (Federal Reserve Bank of Cleveland, 2019). The Pittsburgh metro area GDP per capita recovered stronger from the Great Recession than that of the state and nation in 2017 (Federal Reserve Bank of Cleveland, 2019). Rural areas, especially those dependent on coal mining and agricultural jobs, are often prone to stress, social stigmas, stereotypes, and cultural isolation (Doogan et al., 2018; Rural Health Information Hub, 2021).

Sustainable small business owners in Appalachia consider stakeholders' interests and the ability to create equitable communities (Mohamad & Chin, 2018;

United States Department of Energy, 2021). Cultural identifiers to Appalachia include land preservation and reuse, generating equitable communities, and sourcing locally produced goods and services (United States Department of Energy, 2021). Creative small business owners take on multiple roles to contribute to the economic development of an area (Bakas, Duxbury, & de Castro, 2018). Entrepreneurship can motivate rural businesspeople to sustain regional economies by adhering to and promoting local culture (Suroso, Anggraeni, & Andriyansah, 2017). For example, the recent Kentucky Black Farmers Conference 2022 provided minority farmers the chance to network, learn, and be uplifted by powerful guest speakers. Events such as this contribute to agritourism by giving people an opportunity to better understand the complexities of farming and food sourcing.

The global impact of economic uncertainty encourages individuals to advance entrepreneurship development through improved innovation, industry dynamics, and job creation to mitigate the effects (Krol, 2017). Small business owners more adeptly handle familiar risks affecting their daily lives than unfamiliar external risks (Abbas, 2018; Clapper & Richmond, 2016; Kovácsné Mozsár & Michelberger, 2018). External risks to small business owners include changes in the economy, technological advancement, and consumer demand (Porter, 1998). Key economic indicators are compounded by the current pandemic. The novel Corona Virus Disease 2019 or COVID-19 is a communicable respiratory illness resembling flu like symptoms (Centers for Disease Control and Prevention, 2022). Infectious disease researchers identified the viral spread as a pandemic (Centers for Disease Control and Prevention, 2022). The COVID-19 pandemic has caused devastation to small businesses such as the increase in unemployment, residential and commercial evictions, business closures, illness, and death (Poirier, Sink, & Tompkins, 2020; Wadwhani, 2020). Without a comprehensive plan from federal officials, the COVID-19 pandemic will negatively impact many farmers' abilities to sustain their businesses. Innovative technology use might help farmers markets continue to deliver products and services (Felderer & Ramler, 2016).

#### **4. Barriers for Black Farmers in Appalachia**

Interview participants indicated significant barriers to the development of Black farm entrepreneurship, including COVID-19 restrictions, finding employees, and racism. Small-scale Black farmers' success greatly depends on their perception of government's propensity to help. Black farmers who interacted with Farm Service Agency (FSA) officials experienced racial bias, inexperienced personnel, and a lack of bandwidth to help with COVID-19 relief applications (Bashir, Kitenge, & Berry-West, 2020). Disparities exist for Rural Black access for food, healthcare, and educational attainment in comparison to White counterparts (Neighbors, Mattingly, Johnson, & Morse, 2022). Black residents of Appalachia tend to suffer from higher levels of obesity, smoking, and experience less

access to healthcare than other regions (Williams, Mamudu, Talham, Montiel-Ishino, & Whiteside, 2022). In a study conducted on taxpayer's preferences for farm policy in the U.S., data from 299 participants located across three cities revealed perceptions of a farmers' income influenced their decision to support farm policy (Ellison, Lusk, & Briggeman, 2010). Most participants agreed for a need to increase farm support for small farms and decrease subsidies to large farms (Ellison et al., 2010). COVID-19 infections were more difficult to control in rural areas lacking COVID-19 restrictions, especially among agriculture workers (Lusk & Chandra, 2021).

Other challenges such as the ability to attract and retain staff directly impact farm business survival. Labor shortages and higher than average uncertainty currently impact agriculture personnel processes (United States Department of Agriculture, 2021a). The effect of the pandemic on crop yield might be a result of a labor shortage due to fear of infection or fatality caused by COVID-19 (Yaddanapudi & Mishra, 2021). These issues, consequently, raise costs for farmers by creating added pressure to operate (Mishra, Bruno, & Zilberman, 2021).

Black farmers in the United States experience racism and discrimination more frequently than any other ethnic group (Ferguson, 2021). From 1920 through 2017, the number of Black farms diminished by 98% (Environmental Working Group, 2020). The USDA granted loans to only 37 percent of Black applicants in 2020 while 71 percent of White farmers received loans (POLITICO, 2021). In 2021, minority farm operators received less than one percent of the COVID-19 relief payments despite comprising of five percent of the U.S. farmer population (POLITICO, 2021).

## 5. Interview Questions

I dug deeper to get information on the challenges facing minority farmers from representatives who work directly with minority farmers and farmers markets. I did not limit the time to answer questions or coerce the participants in any manner. The following interview questions shed light on the challenges minority farmers face in their quest to survive, flourish, and innovate during COVID-19. I conducted a video interview via Zoom with members of Organization X, including Participant #1, Organizer; Participant #2, Coordinator; Participant #3, Senior Associate; and Participant #4, Coordinator. For interview question #1, what barriers do minority owners face in sustaining their operations, Participant #1 stated:

The barriers that we're finding with our farmers are the educational-cultural barriers, which means there is a lot of education out there, but it may not hit the culture of the minority person. The information is too wordy, too long, or the pictures do not represent them. Different pieces of the education have presented blocks, such as how they are obtaining their funding and access to grants and loans specific to agriculture. According to assessments and data, even though Black farmers are less than 1% of far-

mers in Kentucky, the number is less when considering the lack of membership to professional farmer related organizations and lenders such as Farm Credit Mid-America. Many Black farmers do not know they exist. The network in Kentucky is very White, so network opportunities are very scarce. And so, you have to have relationships with people inside the networks regardless of what they look like because those are the ones giving out the information. Understanding that network and that system while navigating it has been difficult. We are hoping to overcome that this year (Participant #1, personal communication, June 17, 2022).

For question #2, how has COVID-19 impacted minority farmers and farmers markets, Participant #1 explained:

I feel like Black farmers saw an increase in business because they were local and had products when other places did not. The resilience and innovation of Black farmers allowed them to step outside of their bubble. They had to figure out ways to get their food directly to customers. They've seen more doors open for feeding programs and things of that nature. I would say it was not a negative but more of a positive for minority farmers during COVID-19. I am attending these farmer-sponsored events and conferences, and I am not seeing Black and Brown farmers there. We cannot think that if there is \$100 in the pot and only less than 1% of the farmers in Kentucky are Black, the majority are going to take their spot. Maybe one spot will go to a Black farmer. So, we began the Black Farmer Fund, which is an organic, teamwork exercise that we just look for our funders. Money that we already had allocated to minority work is put into a fund. The Farm to Table team was able to give minority farmers small stipends of money to help them and supplement anything they were getting with relief funds, however it looked. These stipends supported other relief funds like the flood relief funds in Southeastern Kentucky. This was a need that we saw needed to be facilitated and supported because there was not a lot of funding going to help those individuals. Between Black farming and Eastern Kentucky, Organization X has really listened to us as staff. We are able to listen to the community and implement assessments, resources, funding, and help build relationships. We are putting our feelers out every time we do work. Outreach is part of our day to day, every day. I feel like we have been given the opportunity to go beyond our job descriptions by preparing the communities for the funding, even before they know they are going to receive help (Participant #1, personal communication, June 17, 2022).

Interviewer:

It sounds like you guys are intentional in your outreach.

Participant #2 added:

It seems to me that, and I have not been as involved with the Black Farmer

Fund, outreach, and community as Participant #1 and Participant #3 have, but there was some initial COVID relief grants available, and with this targeted outreach, that has just snowballed. There has been a lot of energy with Participant #1, Participant #3, and another individual. I feel like it has taken on a life of its own in terms of Black farmers being seen and heard. I know there is a long way to go, but there has been some tremendous work already done (Participant #2, personal communication, June 17, 2022).

Interviewer:

Are there any community meetings or events that you hold at churches, community centers, or farms that allow community members to ask questions or give suggestions?

Participant #1:

When we held community food system assessments, we conducted those types of meetings where we talked to consumers, farmers, and buyers together and separately. But that was for community food systems, and not necessarily to assess our farmers. We have two partnerships for 2022 including round table discussions like this to assess farmers about markets and market channels, and how to get their food into those markets. We will be having more of those sessions in 2022, for sure (Participant #1, personal communication, June 17, 2022).

For question #3, what has your organization learned in meeting the needs of the community, and what are the future opportunities for farmers in Appalachia, Participant #4 responded:

I think that's something we are exploring. I am with the Farmers Market support program under Organization X. One of the things we keep exploring are things that don't exactly look like a farmers market to engage more people (Participant #4, personal communication, June 17, 2022).

Participant #2:

I believe Participant #4 is referring to something we call the Fresh Stop Market, which is a sliding scale CSA type program. In Perry County, which is in Southeastern Kentucky, we have a product that contains fruits and vegetables, protein, or a grain for \$25.00. The sliding scale is \$25.00 if you are secure-income and \$12.00 if you are low-income. We accept SNAP benefits, and if you run into a little extra money you can pay to support your community eating. We have over the past couple of years partnered with the church in town, and a couple of service organizations, to both get food purchased and out in the community to people who may not be able to make it to a farmers market. And so far, it has been an effective way to address a transportation challenge, which is huge, particularly among folks who are low income. Consequently, it then increases the consumer group of



farmers which allows them to grow their businesses. It has been a great way to increase food access. We are modeled after a program that takes place in the west end of Louisville, where there are no good places to get real food. This is a way to address food insecurity or access to food in places that get left behind, including places that have large barriers to overcome such as transportation or not feeling comfortable (Participant #2, personal communication, June 17, 2022).

Participant #4:

You saying that, Participant #2, reminds me of Charles Booker's book from *Hood to Hollar*, taking an urban area serving primarily African Americans and how that translates to rural area serving primarily White folks. There is so much in common there about access to food that transcends location and race. These models can be used to serve at risk populations. There are similar markets in Lexington, KY that serve African Americans and international populations. Each has been modified to meet the needs of each community. I am all about farmers markets. I think they are a great thing, and we need to continue to support it. We have to, continually, think outside of that farmers market model to see how we can continue giving farmers more access, outlets, and customers to have direct access to those farmers (Participant #4, personal communication, June 17, 2022).

Participant #3:

When we conducted the 2020 Black Farmer Fund. We asked how people were affected by COVID-19, and how their markets were impacted. One interesting thing that we found is that farms were affected negatively and positively by the pandemic. Some farms had great demand increases and had issues getting their supplies and production sufficient enough to meet the demand. They had more trouble in the amount of time it took from applying for funds to receiving the funds to increase their production, rather than offsetting by being hurt by the pandemic in some way. There was a lot of panic buying, and people could not get the items. They looked for other sources to find them (Participant #3, personal communication, June 17, 2022).

## 6. Promoting Small Farms

Small firms with limited financial resources might address the barrier by focusing on diversity early in the development process and maximizing intellectual capital to reduce operating expenses (Sequeira et al., 2018). Effectively implemented competitive strategies can impact customer generation, grow revenues, provide customers value, and establish the SBO as trustworthy, supportive, reliable, and dependable (Porter, 1998; Williams, Manley, Aaron, & Daniel, 2018). Thinking outside the box can help Black farmers meet demanding harvest sche-

dules. Some Black farmers incorporate volunteers to help plant crops and harvest produce (Williams & Springs, 2022). Others seek support from supply chain stakeholders who have an interest in seeing the small farm operation succeed (Rakhra & Singh, 2021).

The expansion of farmers markets in Eastern Kentucky indicates the importance of local food history, strong social networks, and community engagement to reduce the impacts of poverty and economic decline (Koempel et al., 2020). Agritourism helps promote small minority farms by providing entertainment, education, and unique local culture exploration (Brune, Knollenberg, Stevenson, Barbieri, & Schroeder-Moreno, 2021). Stakeholders in agriculture who prioritize collective welfare and social stability encourage economic development (Brune et al., 2021; Elsen & Fazzi, 2021). The impact of successful minority farms can influence younger generations to model sustainable entrepreneurial endeavors.

## 7. Building Relationships

During the COVID-19 pandemic, small farm operators focused on dynamic revenue-driven considerations in response to the market (Hsiao & Tuan, 2021). Finding the right resources challenged small farm operators to make tough decisions on cutting costs (Darnhofer, 2020). Some businesses cut staff and reduced operating hours to save resources. Building value-oriented relationships during the pandemic required small farm operators to reevaluate their value chain relationships (Coluccia, Agnusdei, Miglietta, & De Leo, 2021).

The Social Exchange Theory proposes that during the exchange process, customers and small business owners seek to maximize their benefits and minimize costs (Blau, 1960). Individuals weigh the potential benefits and risks of social relationships (Cook & Rice, 2006). When the risks outweigh the rewards, people will terminate or abandon the relationship (Blau, 1960). In this way, farmers should consider approaches to not only provide education on their importance, but how their customers make a difference in the comprehensive outlook of their success. Market-led approaches, such as utilizing extension workers, non-profit groups, and community resources, will further strengthen small farm operation's value chain (Ndlovu, Thamaga-Chitja, & Ojo, 2021). If small farm operators feel they are not getting satisfactory service from members in their value chain, they will likely replace relationships with new and alternative members (Ndlovu et al., 2021; Supriyanto, Patiung, & Wisnujati, 2021). Thus, maintaining, or exceeding service begets customer loyalty (Supriyanto et al., 2021).

## 8. Farmers as Social Entrepreneurs

Social entrepreneurship occurs when organizations create social value by promoting a long-term approach to achieving business sustainability (Kokko, 2018). Social entrepreneurs create value for communities by tackling social injustices and stimulating social change. Social value creation can directly impact communities when small business leaders and their employees volunteer for activi-

ties, give donations, or donate free goods or services that improve the local image (de Beer, 2018). Entrepreneurs can act as role models to inspire individuals to bring their ideas to life. For instance, the growing number of women in agricultural can inspire young girls to pursue more roles in this sector (Hanif, Meryem, Rao, & Nawaz, 2017; Schmidt, Goetz, & Tian, 2021). Having more diversity in farming, in general, can help build communities and increase equity for minorities (Schmidt et al., 2021). Thus, small business owners increase social value by creating job opportunities and spreading awareness on social issues. Post-COVID-19 opportunities for entrepreneurs include more permanent safety protocols and a focus on incorporating technology to reach more consumers (Nuseir, 2018). Realizing consumer demand for safe, sustainable food can empower communities to support their local farms.

## 9. Conclusion

The purpose of this qualitative case study was to understand ways minority farm operators in Appalachia sustain their businesses despite challenges finding workers, navigating COVID-19 restrictions, and selling their products. The best way to reach this understanding was to spend time with individuals who work directly with minority farmer operators. I used a semi-structured interview to attain the data and did not test human subjects or require additional approval for sensitive populations. The qualitative study offered insights into how small minority farm operators can use resources available to them to survive the COVID-19 pandemic. While the current COVID-19 pandemic exposes disparities for minority farmers, its imposed social isolation intensifies the focus on finding effective ways communities can fill in the gaps on providing equitable scenarios (O'Hara & Toussaint, 2021).

This case study contributed to knowledge on strategic approaches small minority farmers use to sustain their operations. Key findings from the data revealed that assistance from public and private entities can enhance the entrepreneurial experience of farmers markets by building community support and advocacy. The continued growth and development of successful metropolitan areas in Appalachia can offer economic guidance for struggling areas.

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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