

SETTING THE TABLE FOR A NEW RURAL FOOD ACCESS APPROACH: AN
ASSESSMENT OF MODELS TO INCREASE FRESH FRUIT AND VEGETABLE
AVAILABILITY IN THE RURAL AMERICAN SOUTHEAST

by

ABIGAIL E. DARWIN

(Under the Direction of JENNIFER J. THOMPSON)

ABSTRACT

Rural residents of the United States experience high rates of food insecurity due to numerous intersecting barriers; this results in higher rates of diet-related chronic disease compared to their urban counterparts. This thesis characterizes existing models of community-based rural food access programs in the Southeast United States. This foundation is intended to act as a supporting resource to rural communities that seek to establish similar programs.

Data were collected through document analysis and semi-structured interviews on 12 rural food access programs. Data were analyzed to identify and characterize current models according to their structures and guiding values. Results focus on the characteristics of four program models: Charity Model, Support Model, Restructure Model, and Market Model. Also included is advice for other communities in the Southeast seeking to initiate programs to increase the availability and accessibility of locally-sourced fruit and vegetables for low-income residents.

INDEX WORDS: Food access, community-derived, rural, food systems, COVID-19

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ABIGAIL E. DARWIN

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ABIGAIL E. DARWIN

Major Professor: Jennifer J. Thompson
Committee: Abigail Borron
Jung Sun Lee

Electronic Version Approved:

Ron Walcott
Vice Provost for Graduate Education and Dean of the Graduate School
The University of Georgia
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DEDICATION

To Texas Pete. For reminding me to sit contently in a patch of sunshine.

Why all the embarrassment
about being happy?

Sometimes I'm as happy
as a sleeping dog,
and for the same reasons,
and for others.

- Wendell Berry

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Thank you, Jenn, for your guidance. It has been an honor to work with you.

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CHAPTER 1

Literature Review and Methods

Introduction:

The overarching goal of this project is to identify and characterize existing programs that increase fresh fruit and vegetable access in rural Southeastern United States to establish a foundation of data. This foundation is intended to act as a supporting resource to rural communities that seek to establish similar programs and to researchers extending the formal knowledge of rural food access programs.

This research seeks to draw upon the success of produce prescription programs that have been implemented in urban settings. These programs have reported significantly decreasing rates of food insecurity, diabetes, high blood pressure, and obesity within the participants (Aiyer et al., 2019; Marcinkevage, Auvinen, & Nambuthiri, 2019; Zhu, 2019). During a program, participants gain increased access to fresh fruits and vegetables and receive education in nutrition and food preparation skills. Most food prescription programs require that individuals have a preexisting, diet-related health condition and fall within the income threshold of the Supplemental Nutrition Assistance Program (SNAP) eligibility (Swartz, 2018). During the program, participants receive prescription vouchers redeemable for fresh fruits and vegetables, commonly from local producers via farmer's markets or CSA models. To ensure the participants maximize the benefits of the fresh foods, education is provided on nutrition basics, kitchen skills, and recipes (Cook,

McClintic, Reasoner, Girard, & Bookhart, 2019; Joshi et al., 2019; Schlosser et al., 2019). Often produce prescription programs offer childcare and transportation to farmer's markets and classes, which are held at times and places identified as convenient by the participants (Cook et al., 2019). Despite the success of these urban implementations, there is a lack of similar programming in rural settings.

The overarching research question for this project is as follows: **What models exist to guide the establishment of sustainable, community-based programs to increase locally-sourced fruit and vegetable availability and accessibility for low-income residents of rural Southeastern United States?** Specifically, this research identifies the program models currently available in the Southeast and describe their characteristics.

This research project develops the foundation for a broader effort to increase fresh fruit and vegetable access in rural communities. Currently, there is limited data on programs that address rural food access at large, further limited when focused on the Southeastern region of the United States. To my knowledge, this is the only research focused on rural, community-derived food access programs. Data collection utilized a document analysis and semi-structured interviews to develop a thorough understanding of current programs that can serve as models for program development and implementation. The analysis examined program structures, key community characteristics, identification of needs and assets, and navigation of limitations to identify and characterize current program models.

Background:

Intersecting Barriers of Rural Food Access:

According to a 2019 report by the USDA, food insecurity rates were at 16.0% in rural America compared to 13.3% in non-rural counterparts (Coleman-Jensen, 2020). The United States Census Bureau defines "rural" as any population not in an urban classification zone. Urban can have two definitions: either "urbanized" zones with more than 50,000 people or "urban areas" with more than 2,500 but less than 50,000. Based on this definition, 20% of Americans live in rural areas compared to the 80% who live in urban areas. However, this 20% is spread across 97% of the United States landmass (Ratcliffe, 2016). This results in varying degrees of population densities in the rural areas, with most of the populations living in rural clusters and fewer living outside of these clusters. These clusters range from rural towns, to small communities, to areas adjacent to urban zones. When defining individual counties within their rural classification, there are three subcategories: mostly urban (less than 50% of the population living in rural area), mostly rural (between 50% and 99% of the population living in rural area), and completely rural (100% of the population living in rural area) (Ratcliffe, 2016). Further, the Census Bureau defines areas based on county line, not accounting for potentially large differentials in rurality and access within counties. In addition to the U.S. Census Bureau, the U.S. Department of Agriculture and the Office of Management and Budget have their own differing definitions of "rural," and government agencies often utilize the definition that best suits their agenda (Hewitt & Congress of the U.S, 1989). Although governmental agencies define rurality in large but discrete categories, it is important to recognize that rurality exists on a continuum.

It is also important to note that the composition of the rural population is not as racially and ethnically homogenous as it is often perceived to be. Currently, 20% of rural the population identifies as Black, Indigenous, and/or People of Color (BIPOC), and that number is steadily rising as rural communities become increasingly diverse (James Cara et al., 2017). However, there are regional patterns to this racial and ethnic diversity. For example, the Southeast U.S. is home to 93.9% of Blacks who reside in rural areas; while, only 43.9% of Whites who live in rural areas reside in the Southeast. Similarly, the highest concentration of rural Indigenous populations (38.2%) resides in the West; while the rural Indigenous population in the Northeastern region of the U.S is very small (4.3%) (James Cara et al., 2017). These trends in rural Black and Indigenous populations reflect the histories of these peoples as shaped by White populations. White settlers stole Indigenous lands after forcibly removing tribes. Many of the tribes who survives this experience moved further West to plots of land allotted by the American government where many descendants still reside today. Furthermore, many of the Black Americas residing in the rural Southeast are descendants of Africans who were brought to America as enslaved people, where their agricultural knowledge and forced labor enabled the agricultural success of the Southeast. In today's South, rural Black residents continue to have less access to farmland, markets, capital, and education while facing higher food insecurity and poverty rates than their white counterparts in both rural and urban settings (Alkon & Mares, 2012; Alkon & Norgaard, 2009).

More generally, the rural context presents many intersecting barriers to residents' fresh fruit and vegetable access. Historically, and today, the proportion of U.S. residents living in poverty is higher in rural and nonmetro areas than their metro counterparts (Hoppe, 1991;

Thiede, Lichter, & Slack, 2018). Recent studies show that there are decreasing employment opportunities in rural areas, accompanied by an increase in unemployment and poverty in rural residents. Additionally, the risk and rates of poverty for the rural employed are increasing. Working poverty is 17% higher among rural residents than urban (Thiede et al., 2018). These trends are tied to the increasing urbanization and centralization of the job market and an inability to recover from the 2007-2009 Great Recession (Balk, Leyk, Jones, Montgomery, & Clark, 2018; Burton, Lichter, Baker, & Eason, 2013). Within rural residents, there are disparities in household income and poverty by race and ethnicity. Sixty two percent of rural Black households make less than \$25,000 per year, followed by 56.3% of indigenous households. In contrast, only 31.8% of rural White households make less than \$25,000 (James Cara et al., 2017).

Although poverty is the most powerful barrier to food access, it is compounded by the social and geographical barriers faced by rural residents. Food security status can vary by rural location as food proximity can vary. More accessible food stores, such as rural corner stores and gas stations, have a limited selection, higher prices, and often no fresh fruits or vegetables (Jared et al., 2015; Pitts et al., 2013). Many corner store owners view carrying fresh food as a risk as it encroaches on their limited space, may reduce the sale of higher profit items, and may even expire before being sold. Although USDA guidelines require that stores carry at least 12 healthy food items to accept SNAP, rural stores most often meet these requirements through shelf-stable items, like whole-grain cereal (Larson, Mullaney, Mwangi, Deu, & Ziegler, 2017).

To meet nutritional needs, rural residents must commute to the nearest city with a supermarket, but transportation is an additional hindrance because many rural residents do not have access to consistent and reliable transportation to make a commute that regularly exceeds

an hour (Bauer & Dolan, 2011; Gantner, Olson, Frongillo, & Wells, 2011; MacNell, 2018). Once in these supermarkets, both low-income and rural shoppers strategically purchase shelf-stable, calorically-dense, nutritionally poor foods rather than more expensive, highly perishable fresh fruits and vegetables. Additionally, rural shoppers are more likely to go to multiple stores once they are "in town" to get the best price for their purchases (McGee et al., 2011). Bulk buying in this situation is often a privilege as it requires the upfront money for large purchases, as well as the space to store them. An additional limitation to low-income consumers is a lack of confidence and exposure in preparing produce in a healthful, time-efficient way that produces appetizing results for all family members. This is can be due to social and traditional preferences for food preparation techniques or due to limited access to educational material surrounding kitchen skills (Correa, Reed, McCool, Murimi, & Lyford, 2016; Overcash et al., 2018). Informal social networks within rural communities can mitigate the barriers to food security by providing transportation, childcare, and an exchange of knowledge around preparing and growing foods. However, when these networks do not exist or all community members are not included, food insecurity rates are higher (Garasky, Morton, & Greder, 2006). A tradition of gardening is prevalent in rural culture, but even this act includes a level of privilege as all residents may not have access to the time, space, knowledge, and the support necessary to grow one's own food. Notably, government food assistance programs (e.g., SNAP) can fall short of addressing rural food insecurity when only providing financial assistance as residents who qualify are also at higher risk for experiencing the other barriers, such as accessing transportation, as discussed above (Whitley, 2013).

Rural residents experience higher rates of health disparities than their urban and suburban counterparts. Within rural areas of the United States the rate of obesity is 34.2% compared to 28.7% urban areas, the rate of heart disease is 8.6% compared to 6.5% in urban areas, the rate of diabetes is 12% compared to 10.4% in urban areas, and the rate of hypertension is 38.1% compared to 32.6% in urban areas (*Health, United States, 2017: With Special Feature on Mortality.*”, 2018). Consequently, food access—and, therefore, food consumption—directly impacts these areas of health (Ahern, Brown, & Dukas, 2011; Wang et al., 2014). In addition to having limited access to healthful foods, rural residents experience a lack of access to healthcare (Apatu, Hamadi, Abrams, Metzger, & Spaulding, 2019; Capalbo & Heggem, 1999; Neff, 2015). The decreased access to healthcare further magnifies the adverse health effects resulting from limited healthy food access. Non-White rural residents are also more likely than their White counterparts to rate their health as “poor,” be obese, go without medical care because of the financial costs, and lack a regular healthcare provider (James Cara et al., 2017). In addition to experiencing the barrier to healthcare faced by rural residents at large, these challenges are exacerbated for non-White residents by structural racism within our nations medical system (Gee & Ford, 2011). Within all rural populations, health—and, therefore, access to health food options—should be recognized as a key quality-of-life component.

In addition to these measurable barriers, residents of the rural American South face a lack of food sovereignty and racial justice. The rural Southeast economy, infrastructure, and culture were founded upon and are still nested in agriculture that relies on racial inequality. However, the rural residents who grow our foods and manage our landscapes are alienated by food policy agendas, such as the discrimination of Black farmers by the USDA (Orozco, Ward, & Graddy-

Lovelace, 2018). This, in combination with the increase of urbanization drawing resources away from rural communities, results in limited access to healthy and culturally-appropriate food systems in rural communities (Alkon & Mares, 2012; McEntee & Naumova, 2016). As a result, food sovereignty cannot transform future generations, regardless of race, without strides in racial justice (Alkon & Mares, 2012).

There is a need for rural food access programs that address the intersection of barriers faced by rural residents. Rather than developing programs that address single barriers, those that focus on holistic, adaptable, community-derived approaches have the potential to create transformative change for rural residents (Ledwith & Springett, 2010). While produce prescription programs address intersecting barriers in urban communities, this model would need to be adapted to meet the complexity of implementation in a rural setting. This research aims to identify additional models grounded in the community-derived nature of participation and dialogue that hold similar potential.

Theoretical Framework:

This research examines grassroots, community-derived models of food access programs. Although the models included in this project are diverse in approach, they are united by the goal of increasing rural fresh fruit and vegetable access. Because this research focuses on community-derived programs, the approaches chosen to act as a theoretical framework are community-oriented as well. The theoretical framework for this research will draw from the Assets-Based Community Development (ABCD) (Kretzmann & McKnight, 1993) and the Culture-Centered Approach (CCA) (Dutta, 2007). Although these frameworks were developed to guide program

development, I drew on them to create inclusion criteria, develop data collection methods, approach analysis, and guide my interactions with program stakeholders.

Assets-Based Community Development:

Assets-Based Community Development, or ABCD, was developed by urban planners John Kretzmann and John P. McKnight during urban redevelopment in the early 1990s (Kretzmann & McKnight, 1993). The approach is still used today in innovative strategies for urban and rural development within low-income/low-access communities, extending beyond the original implementation in urban planning. The premise of ABCD is that communities can organize and drive their development by identifying their needs, and identifying and mobilizing their community assets (Alison & Gord, 2003). Kretzmann and McKnight developed this approach in response to the standard needs-based, deficit model that focused on what communities "lack", and thus need to have brought in from the outside to catalyze improvement in the community. They found that, within the standard needs-based model of community development, community leadership positions are often distributed on the basis of the resources that leaders can bring into the community and that the most efficient way to attract resources is to emphasize the severity of the problem. Consequently, the continual emphasis on what a community is lacking convinces the community members that their problems can only be solved by relying on external help (Kretzmann & McKnight, 1993). Within a needs-based approach, community members are then positioned as receivers of these external services rather than active citizens who hold decision making power. Although the needs-based approach can bring short-term relief, it can often prove unsustainable—as funds are neither permanent nor given directly

to the community but the external organizations. As funding is power, these external organizations often hold decision-making power rather than the community itself (Alison & Gord, 2003).

In contrast, ABCD draws upon the formative ideas of appreciative inquiry, or the influence of language in defining perspectives (Cooperrider & Whitney, 2005; Kretzmann & McKnight, 1996). The key component of ABCD is challenging this deficit approach by igniting self-efficacy and returning decision-making power to communities. This positions communities to engage in dialog with governments from a position of power rather than of need (Ennis & West, 2010). This is accomplished by emphasizing the resilience and problem-solving ability of the community (Kretzmann & McKnight, 1993, 1996). However, this is not to imply that communities do not need the support of external organizations; rather, it reframes outside resources in support of the in-place *community* agenda. ABCD embraces neighbor-to-neighbor ties and traditions of community organization as the foundation on which all external organizations should rest (Kretzmann & McKnight, 1993). While community assets often go unrecognized or underutilized in a needs-based approach, ABCD focuses on bridging social assets and growing network ties as the crux on which community development is built and often the most unrecognized asset. These assets are based on social, kinship, and associational networks and can leverage additional support and resources (Alison & Gord, 2003). The awareness and recognition of informal networks mean that newly recognized assets can be connected to other assets, often through more formal networks like local government organizations, to multiply their ability and effectiveness. This bridging increases the sustainability of the change, meaning that the effects can be lasting and create change in social

systems or local policy. The effects derived from ABCD can promote community development and opportunities that are transferable across generations (Ennis & West, 2010). However, social assets are most efficient in communities that share similar expectations of trust and goals for the future.

Culture-Centered Approach

In addition to ABCD, this project draws upon the Culture-Center Approach (CCA) developed by Mohan J. Dutta in the early 2000s (Dutta, 2004). The approach was developed in the context of health communication and promotion, in response to the more commonly used culturally sensitive approach (Dutta, 2015). As opposed to the culturally sensitive approach, which adapts existing practices to suit the characteristics of the culture, CCA puts culture at the core of the practice and builds the approach from the identified desires of the culture (Dutta, 2007).

A key element in CCA is introducing subaltern voices into discussions and places of decision making, therefore increasing their agency. "Subaltern" refers to groups and communities whose voices are absent or are actively being erased from discursive spaces by existing power differences, such as the marginalization of groups based on political, socioeconomic, racial, and cultural differences that institute power (Dutta, 2007, 2015). The framework acknowledges that current structures are sustaining subalternity and that the status quo must be challenged in relation to power dynamics and privilege (Dutta, 2007). Seeking out and engaging with the absent voices is the foundation a pushing against the status quo, then moving forward through actions that increase the agency of these individuals. CCA acknowledges that subaltern cultures, or communities, understand their issues and solutions, and only through continual dialogue can

they be understood by outsiders (Dutta, 2018). Listening to the subaltern voices offers an entry point for engagement by external organizations as co-participants (Dutta, 2007, 2015).

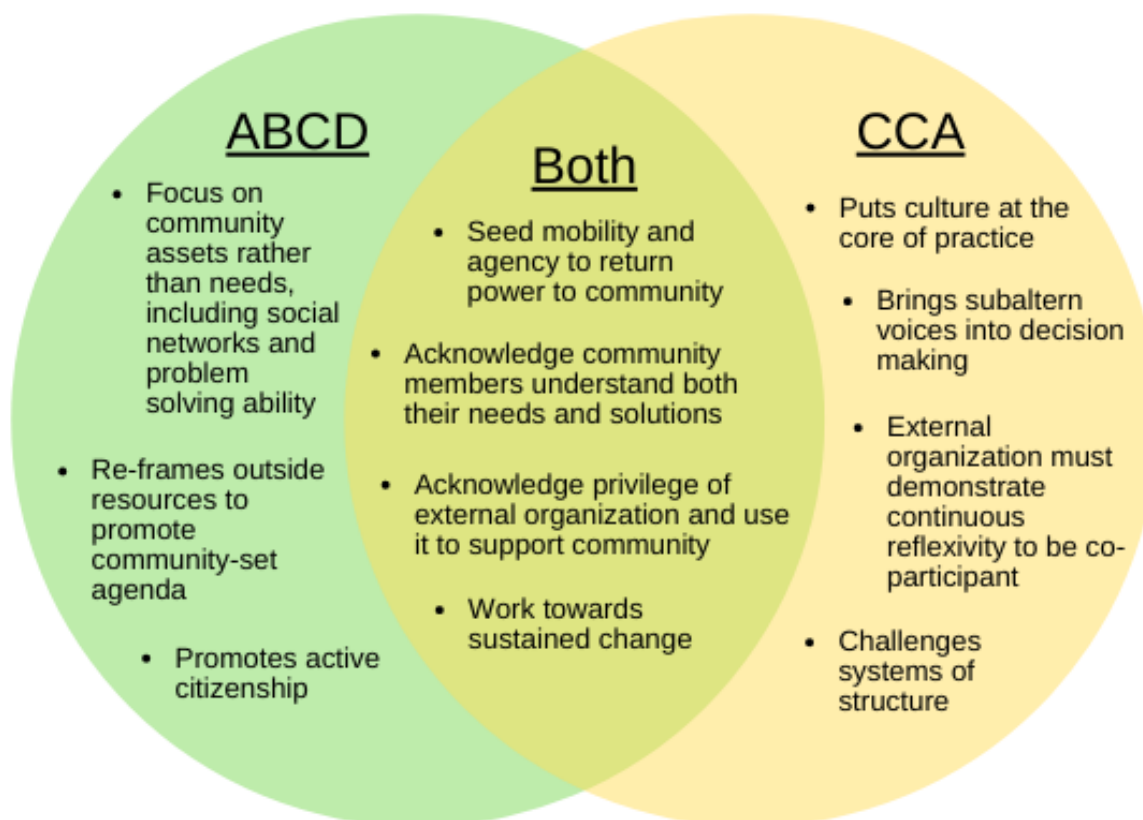
The application of this theory begins by working to prioritize problems and solutions from within a culture. Community lies at the core of all definitions of the problems and the co-creation of solutions (Dutta, 2015). In other words, the lived experiences that make community members most aware of the nature of issues is also make them best equipped to participate in the development of the solution.

Additionally, this theory includes an awareness of structure and context, meaning the organization of social systems, from the highest level to the lowest. CCA acknowledges that structure perpetuates inequity through the organization of society, institutions, and organizations. Systems of structure, or the dominant and powerful norms, must be challenged to achieve sustainable equity (Dutta, 2018). Culture and community are linked to social structure, particularly since social structure determines how resources are allocated and controlled, and those with resources make the decisions that affect those without. Seeding mobility and agency of subaltern voices, both economic and social, are the modes of change-making that drive CCA. Dutta views economic resilience of cultures and communities, particularly in regard to agricultural economics, as the most powerful act of defiance and success (Dutta, 2015). The potential of CCA lies in the external, supporting organization to practice reflexivity and recognize its privilege (Dutta, 2007).

The CCA uses the term "culture" in a manner that is largely synonymous with this research project's understanding of community. Rural America is home to millions of citizens living in small communities with unique perspectives, barriers, and lifestyles that differ vastly

from urbanized America and each other. In this sense, this project approaches each rural community as a “culture”, despite the contradiction that that each community can consist of many sub-groups with differing levels of privilege and power. Additionally, this approach acknowledges that the community members recognize what is best for their community. Likewise, as rural American communities become more marginalized, they can become subaltern voices. Even more so, as each rural community has a unique setting and context in which their struggle is nested, meaning that large-scale government is unlikely to listen to small groups of people who all need specific, but very often different, resources. Despite the marginalization of low-income/low-access communities overall, there can still be varying levels of privilege within communities. The paradox present in community-derived programs is that community members with greater privilege hold greater decision-making ability than those with less privilege. Paradoxically, those with less privilege are often the target audience of programs but experience more barriers limiting participation (Dutta, 2015). For this research, "community" will be used to refer to a group of people who generally associate themselves as a group largely determined by residency in an area. Nevertheless, I recognize that defining a community strictly by proximity often does not account for in-groups and out-groups. Power inequities and exclusions may be present due to race, gender, class, religion, and other power structures (Dutta, 2015).

Intersecting Elements of Theory



The figure 1.1 (above) visualizes the elements from ABCD and CCA that either intersect or are unique to their own theory.

Both theories, ABCD and CCA, aim to achieve similar outcomes: acknowledging local lived-experience as expertise for identifying issues and solutions, returning power to the communities and individuals, and using the power, privilege, and abilities of external organizations to support communities-derived priorities and challenge current systems (see Figure 1.1). Although both are traditionally used during the developmental stages of program planning, the current project draws on these theories to inform our selection criteria, data collection methods, and analysis.

Research Question

The overarching research question is as follows: **What models exist to guide the establishment of sustainable, community-based programs to increase the availability and accessibility of locally sourced fruit and vegetable for low-income residents of rural Southeastern United States?** Specifically, this research identifies the program models currently available in the Southeast and describes their characteristics.

This research project describes current models, composed of multiple programs with shared characteristics across several key variables. These variables include daily **program operations, key community characteristics, community-derived elements**, as well as how programs identify programmatic **needs and assets**, and navigate **limitations or challenges**. Several of these variables (program operations, identification of program needs and assets, and navigation of limitations) focus on program structure and daily operations. Key community characteristics identify the context a program derived from. Lastly, community-driven elements assess how a program has incorporated its community culture into the structure of the program itself. For this work, the definition of a "program" is loosely defined to include efforts to increase fresh produce access by nonprofits, local government, community initiatives, or a collaboration. A "model" is defined as a collection of programs grouped together by shared characteristics.

Framework Approach

This work follows an iterative path: collecting data, moving through stages of data analysis, returning to data collection, and concluding analysis (Fig 1.2). To ensure that the analysis is structured and complete during this iterative process, this work is guided by the framework approach (Gale, Heath, Cameron, Rashid, & Redwood, 2013a). This approach is

commonly used in qualitative applied policy research, particularly in the health field, to

describe and interpret the data produced (Gale, Heath, Cameron, Rashid, & Redwood, 2013b; Ritchie & Spencer, 1994). The framework approach is appropriate for this analysis because it allows for comparing patterns both within and across programs (Smith & Firth, 2011). The phases of this approach involve familiarization with the data, identification of themes, indexing, charting, and interpretation (Smith & Firth, 2011). These phases often intersect and are returned

Iterations of the Framework Approach through the Three Stages

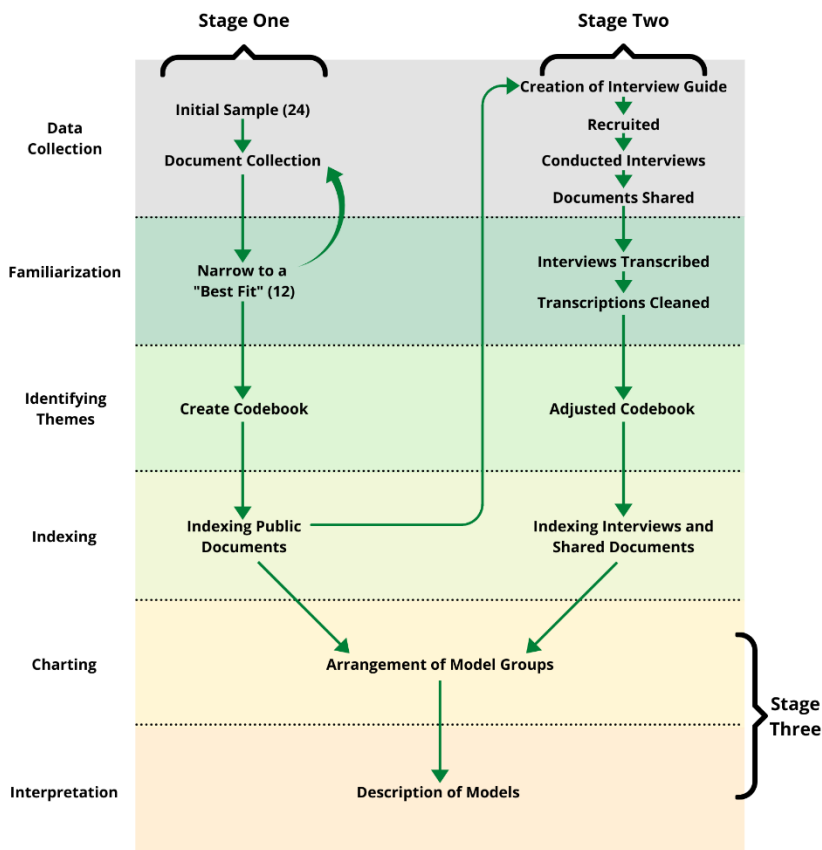


Figure 1.2 (above) shows the pathway of the three stages as they move through each element of the framework analysis.

to throughout the process as they are not independent or distinct, rather data should move through all the phases to complete a full analysis.

This research project was conducted in three stages. Stage One included identifying a purposeful sample and conducting a document analysis. In Stage Two, semi-structured interviews were conducted with stakeholders of the sample. Stage Three consisted of analyzing data collected in the previous stages. The stages are interdependent and have ongoing elements of analysis present throughout both.

Stage 1: Sample Identification and Document Analysis

Inclusion Criteria

Before data collection could begin, I established a set of inclusion, or prioritization, criteria. Both guiding theories informed the criteria. For this research, these criteria were used during the initial collection of programs and referred to throughout the data collection process as new information was uncovered. Because the available data on rural food access programs in the Southeast, specifically those that are community-derived, are limited, the criteria are not absolute. To be included, a program had to meet the first criterium plus two of the latter three.

The criteria for inclusion are as follows:

- 1) The program *must aim to increase fresh fruit and vegetable access* within a community; however, this does not need to be the only focus of the program. Many programs may address multiple issues in order to be more impactful and increase community buy-in.

Allowing flexibility in this criterion will allow for more diverse and potentially effective

approaches to increasing access, particularly as food access is acknowledged to be affected by many intersecting barriers.

- 2) Programs *situated in the rural Southeast* will be prioritized. Many programs are site-specific and may best translate to a similar social, political, and physical environment (Horlings, Nieto-Romero, Pisters, & Soini, 2020; Marsden, 2013). As this research has the long-term goal of supporting the development of future programs in the Southeast, I prioritized the inclusion of programs situated in the rural Southeast. Due to the limited number of rural Southeastern programs, exemplary urban and non-Southeastern models may be included if they employ elements easily translatable to the rural South. For this research, the definition of Southeastern states follows the definition set by the USDA and includes Louisiana, Arkansas, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, and Tennessee (USDA, 2016). These states have historically been regionally distinct within American culture, with large amounts of rural land, an agriculturally based economy, and persistent racial inequalities.
- 3) Programs that are *community-derived* will be prioritized. This concept draws from ABCD and CCA and includes community ownership of the program, space for community voices, addressing community-identified needs, and mobilizing community-identified assets. The level to which a program may be community derived exists on a continuum; therefore, it may be present at different levels within each program.
- 4) Programs that *support local agricultural production* will be prioritized. Programs that provide fresh foods to low-income/low-access consumers and residents at a subsidized price, with minimal cut in proceeds to the farmer and programs that source from local

small and mid-scale farms will be prioritized. Local sourcing may increase the sustainability of solutions by building the economic resilience of the local food system, connecting consumers to their food source, and extending the benefits of a program to farmers as well as consumers (McEntee & Naumova, 2016).

Although programs may initially be identified for inclusion, if further data collection revealed that they did not meet the criteria, they were excluded. The inclusion process served as the beginning of the document analysis.

Sample

Programs for the sample were initially identified through online searches of peer-reviewed content and general internet webpages, blogs, and local news. Search terms included, but were not limited to combinations of "rural", "fresh foods", "food access", "food hubs", "food assistance programs", and "food sovereignty". These terms, and like terms, were derived from the research question and inclusion priorities. Because there is no defined terminology around the type of grassroots programs, the search terms were intentionally broad. Unrelated search terms were also included because they were "in vogue" expressions surrounding food systems work, such as "teaching gardens," because the results would often link to additional community work that was more relevant to this research.

Relevant peer-reviewed content was limited and upon review it did not result in the identification of any previously unidentified programs. However, peer-reviewed search engines did produce related articles on two previously identified programs. Keywords in these articles were used as search terms for further searches, yet all results were situated in urban or non-

Southeastern environments. The most successful method was the use of search terms in the public Google search engine. This resulted in local news sources and websites that identified multiple programs. The Google search was beneficial when multiple search terms combined without any Booleans, such as "rural food access program Appalachian sustainable economy." The News Tab on Google further narrowed the results down and included articles from local newspapers, T.V. stations, and even church and school bulletins. Instagram was an unexpected tool for program identification, mainly because Instagram accounts of programs often follow the accounts of other programs doing similar work, acting as a snowball sample. Lastly, two programs were identified by attending conferences where program stakeholders presented their work.

The target was to identify between 12 and 18 programs for the document analysis; however, I continued to identify programs until theoretical saturation was reached, meaning that newly identified programs did not diversify the range of program structures. Our initial search identified twenty-four programs that appeared to meet the inclusion criteria. Documents were collected on these twenty-four programs and ranged from guiding documents, impact reports, promotional material, images, videos, news reports, and screen shots of program websites where the program mission, formation, available services were commonly displayed. All collected documents were further evaluated to select for those that offered maximum variation across programs and closest alignment with inclusion priorities. After increasing familiarity with programs through the document collection, our sample was purposefully re-assessed to exclude those that met fewer inclusion priorities while ensuring that the sample continued to reflect the full range of variation within programs (Patton, 2014). Most programs were eliminated because

they were more exclusively "farmer-focused" than they initially appeared, referring to programs providing education and assistance to current and aspiring farmers. Although this work increases the resilience of the local food system, the programs doing this work were not directly aiming to increase fresh food access within the community. I also excluded several food pantry style programs that focused solely on emergency food without working to address the causes of need within



Figure 1.3 (above) illustrates the general distribution of the twelve programs. Each red point represents a program.

their local food system. There is currently ample literature on externally-driven emergency food models, such as national level food banks, that include program operations and critiques (McIntyre, Tougas, Rondeau, & Mah, 2016). As this work hopes to identify alternative models, emergency food programs that remained were community-derived and included supplementary element, such as community gardens or shared kitchens. The elimination process also involved assessing whether programs were currently active by checking the consistency of their online presence, such as maintaining a current website and posting announcements to social media. This process resulted in narrowing the original 24 programs down to 12 that best fit the inclusion criteria. While there were similarly structured programs within the original 24, after the elimination process, the remaining 12 programs were diverse in structure. Eleven of the programs were all community-derived programs situated in rural communities. The final

program is in a sub-urban area that has recently been urbanized. Most worked to address both immediate food needs while simultaneously striving to create sustainable and resilient local food systems. Two of the 12 programs were situated in Appalachian Ohio, and although it is not situated in our study prioritization area, many elements make it applicable to rural communities in the Appalachian Southeast. The 12 programs were situated in Georgia (1), Mississippi (2), North Carolina (5), Kentucky (1), West Virginia (1), and Ohio (2) (Fig 1.3). A final search for programs within Southeastern states not represented, such as Florida and Alabama, resulted in programs that had already been identified and subsequently eliminated for the reasons described above.

Publicly available documents for these 12 programs encompassed a wide range of text, images, and graphs, ranging from single web pages to lengthy publications. All documents found (190 in total) were saved and uploaded to Atlas.ti (Scientific Software Development GmbH), a qualitative data analysis tool. The document collection contributed to the familiarization phase of the framework approach.

As a final check on our sample, I asked interviewees in Stage 2 (most commonly program directors or founders) whether there were other programs I should include in our research. When I followed up on participants' recommendations, I found that these programs either did not meet the inclusion criteria or were structurally similar to programs in the current sample and did not warrant inclusion. Based on this exhaustive approach, I believe that I reached theoretical saturation, as we were unable to identify any new program types.

Lastly, it is important to note the purposeful sampling in this method and clarify that this is not representative of all rural food access programs within the Southeast. As this work

prioritized community-derived programs, it excluded many successful externally driven initiatives to address rural food insecurity. However, as externally driven initiatives are the dominate narrative in food access work, this research attempts to present an alternative approach.

Coding

Once uploaded and organized in document sets, I reread to familiarize myself with the programs further. Afterward, I began creating a codebook. This iterative process involved elements of both inductive and deductive coding. It began by reviewing the research question and creating codes for characteristics specifically sought out, such as "Guiding Values," "Food Environment," and "Identifying Needs." Each code was defined to ensure that it was used consistently across all documents. After developing a set of deductive codes, I began coding a document set using the established codes and adding new inductive codes, or open codes, when a new element of interest appeared. Open codes were added until saturation (i.e., no new topics of interest) was reached, which happened after coding the third document set. My familiarity with the documents allowed me to assess if an open code was relevant across all document sets or if it was specific to the current document set. Given our focus on themes that spanned multiple document sets, I avoided creating codes that were solely relevant to single programs (i.e., codes that's related to specific, small town politics). When essential but solitary elements appeared in the data, they were coded under the most related code and tagged with a memo; this was an uncommon occurrence.

After the third set of documents was coded and no new codes appeared, the codebook was re-assessed. I reviewed the definitions of each code to ensure that they did not overlap and

similar codes were collapsed together. Codes used only a few times were assessed to see if they should be kept, collapsed, or removed from the codebook entirely. Ultimately, the codebook was reduced to 28 unique codes from 39 (see Appendix A) . After this initial assessment, I recoded the three document sets to ensure they represented the most current coding schema. Then I coded the remaining document sets. Although not actively open coding, I remained alert for concepts not captured by the current codebook. One additional code (“Keys to Success”) was added after that first assessment, and all documents were reviewed to incorporate this code.

Stage Two: Semi-structured Interviews

Creation of the interview guide

Stage One created a foundation of knowledge that supported data collection in Stage Two. After collecting and reviewing all publicly-facing information related to programs in the sample, I was able to assess what aspects of the research question would need to be addressed by the interviews with program leadership. Information in the publicly-facing documents often related to program operation and services, mission and goals, and the program formation story. Being familiar with these elements meant less valuable interview time was spent asking interviewees to explain the basics of the program, thus making room for richer topics not typically shared in public-facing documents. Further, my familiarity with the program built my rapport with the interviewees and demonstrated that I valued their time. Additionally, Stage One allowed me to identify topics in need of elaboration or clarification during the interviews (e.g., program operations, community networks).

I developed questions for the interview guide that focused on these knowledge gaps (see Appendix B). The interviews were semi-structured to allow for flexibility and engagement, and the questions acted as a guide to the conversation. This allowed for the exploration of new, unanticipated topics. Additionally, the semi-structured approach made space for questions to be phrased appropriately for the program and the conversation. I arranged questions in a natural arc that flowed between questions, beginning with the program's formation, moving into its evolution and current operations, and concluding with questions regarding its future.

The wording of the interview guide was modeled after Appreciative Inquiry by using positive language and tone (Cooperrider & Whitney, 2005). This is derived from Assets Based Community Developments as it positively frames communities as experts of their own experiences. The influence of Appreciative Inquiry influences the specific language and phrasing of the questions, such as using "lessons learned" in place of "challenges" or the use of other positive words like "success," "unique," and "opportunities." Additionally, Appreciative Inquiry impacted the topics addressed and the tone used. As this research project is not meant to evaluate or criticize these programs, but to learn from their successes, this approach ensured the question topics did not feel formal or critical. Difficult or negative topics were framed to focus on what lessons and advice could be passed to other programs. If a question phrased with positive vocabulary did not evoke the intended discussion topic, the question was rephrased using more direct language, such as asking specifically about "challenges" if the topic did not arise naturally when discussing "lessons learned."

IRB

After completing the interview guide, we submitted materials to the University of Georgia Institutional Review Board. The submission included a summary of the research and its goals and any additional documents used in data collection, including the interview guide, recruitment material, and the consent form. Because the research is focused on characteristics and actions of the programs, not the individual interviewed, this work was determined to be "Non-Human Subjects Research." Nevertheless, to adhere to our research ethics, I provided informed consent information for all participants.

Recruitment

Recruitment for the interviews began by identifying leadership contacts for each of the 12 programs. Specifically, I searched for the most senior member of a program to serve as a point of contact, most commonly the program director or founder. I sent recruitment emails on a rolling basis. Ten of the 12 initial contacts responded with interest and were scheduled for an interview. I reached out to two board members of one of the programs whose initial contact did not respond, and both agreed to participate. The final program did not respond after following up, and I could not find an additional point of contact¹.

¹ For the program that did not respond, I used publicly available interviews with their founder to address many of the elements included in the interview guide.

Conducting Interviews

I conducted 12 interviews with 14 people from 11 programs. Of the 14 participants, 6 were program directors, 3 were program founders, 3 were active board members, and 2 were outreach coordinators. Two of the interviews consisted of multiple interviewees, one with a director and an outreach coordinator and one with a founder and a board member. For a program where I could not get in contact with the program director, I interviewed two board members at separate times. I prepared for the interview by reviewing the interview guide and identifying any program specific questions or clarifications, often through concept mapping (see Appendix C). The interviews were conducted over Zoom to simulate face-to-face interactions. I used recording feature embedded in Zoom to audio record the interviews, which lasted no longer than an hour and a half.

The interviews were organic and guided by the participants' desire to share information about their programs. It was common that questions prompted narratives that addressed many of the additional questions. This validated the topics I included in my interview guide, and indicated that they are relevant to program stakeholders and are likely relevant to future programs. Additionally, the participants used storytelling and narratives more than anticipated to illustrate their programs' journeys with specific antidotes.

After each interview, I saved the audio recording and the Zoom-produced transcript. I then recorded my initial notes and reflections. I sent thank you cards to each interview participant that included a \$30 gift card of their choice. I also followed up and offered to share the interview transcripts with them. Participants who requested to see their final transcript did not express any concerns with its content.

Interviews often resulted in programs sharing additional documents which were added to the document analysis and coded using the established codebook. These documents related to needs assessments, foundations of the programs, and impact assessments. Documents did not contain confidential information but provided more in-depth information than the program's websites. Additionally, participants often recommended other programs that were doing similar work in their area. I Google search the recommended programs and then conducted a preliminary review to assess if the program brought something new to the dataset. Information collected on suggested programs resulted in determining that they were structured similarly to the program that recommended them and thus would contribute little new data. This further validated the our determination that our dataset had reached saturation in the diversity of programs.

Familiarization

The audio recordings were first transcribed through the free, automated Zoom service. Where Zoom failed to provide a sufficient transcript (i.e., interviews with multiple participants or those with participants with regional dialects) interviews were re-transcribed through Rev.com². I cleaned the transcripts by hand to ensure that the transcripts accurately represented the participants' words and intended meaning. The cleaning process contributed to the

² The Zoom transcription were created via an artificial intelligence software. While the Rev transcription services used the voice sound to distinguish the speaker, Zoom transcription services use the Zoom accounts to determine who is speaking. This was a useful differentiation as my voice was often confused with other female presenting interviewees. However, when there were additional interviewees using the same Zoom account, the Zoom transcriptions did not distinguish their voices. I used Rev.com to transcribe these. Additionally, the Zoom transcription software did not produce accurate transcriptions of interview participants with African American dialects. These interviews were transcribed through Rev.com which produced more accurate results despite also using an automated intelligence software.

familiarization phase of the framework approach. Additionally, it facilitated further reflection on the data, and I often expanded on my initial interview notes during cleaning.

Indexing

The cleaned transcriptions from the 12 interviews, including two interviews from a single program, were uploaded into a new project folder in Atlas.ti, along with any documents shared by participants, since they provided context for information discussed in the interviews. I created a new project folder to distinguish between data collected from public-facing documents and data shared in the more personal setting of the interviews.

After familiarization with the transcripts, it became apparent that the interviews provided complementary data and different themes than the public-facing documents. To address this, I adjusted the codebook to better represent the interview data. The creation of the adjusted interview codebook began by assessing the relevance of codes used in the document analysis. Codes related to elements that did not appear in the interviews were removed or collapsed into other codes (such as "Additional Operations"). Additionally, codes and their definition for themes already identified during familiarization were created (such as "Challenges Overcome"). Lastly, there was a period of inductive or open coding while indexing the first three transcriptions that resulted in the creation of one additional code: "Evolution" referring to the evolution of a program, or change over time. Afterward, I re-coded the three transcripts to accurately reflect the updated codebook. The resulting interview codebook was not dissimilar to the original codebook used for the document analysis, yet it made efficient use of the codes and represented the interview data more accurately (see Appendix A).

After completing the interview codebook, I began indexing the interview transcripts and continued to add to my notes on each program. Building on the broad understanding of programs developed during Stage One, this stage of indexing was intended to identify patterns that allowed programs to be grouped together as models. This still involved identifying characteristics of the programs, but the use of the same generalized codes allowed for comparison across programs.

Stage Three: Analysis

Stages One and Two included both data collection and preliminary analysis, while Stage Three consists solely of analysis. As previously described, the first two Stages included the familiarization, identification of themes, and indexing phases. The remaining phases of the framework approach, charting and interpretation, were completed during Stage Three. This final stage involved charting the programs to identify programs that shared characteristic, and cluster them into model groups. These model groups created more generalizable typologies of the programs, addressing the essence of the research question. During the interpretation phase, I described model groups by characteristics, program structure, and shared wisdom.

Description of the Sample

Below is a brief description of each of the 12 programs included in the study sample. Programs are further expanded upon when their relevant model groups are described in Chapter 2.

Program 1: This program is situated in a rural Appalachian county in Northwestern North Carolina. Program 1 operates as a food pantry and soup kitchen, sourcing most of the food from a national food bank. It is operated by a local board and serves members of the county it is situated in. It is primarily funded through local grants and is facilitated by volunteers. Due to the rural environment and lack of an accessible central location, Program 1 also provided gardening resources for individuals and families in lieu of a community garden. However, this component is no longer in existence.

Program 2: This program is situated in rural Southeast North Carolina in an area of high poverty rates. Program 2 is a part of the organization's larger mission of supporting youth education to lift the next generation out of poverty. The food programs were adopted to benefit the youths' academic outcomes and assist community members experiencing food insecurity because of poverty. Program 2 has a food pantry that it distributes from throughout the week and distributes food to a network of regional churches. Additionally, it oversees a community garden that is used as a teaching tool for the youth and community, provides fresh produce for the pantry, and is available for use by community members.

Program 3: This program is in Appalachian, Southwest Virginia. Program 3 was originally founded by embracing the community value of sharing food between neighbors and to provide an efficient structure for reaching community members most in need. Program 3 provides emergency food relief to county residents in addition to operating a teaching garden. The food is sourced from the on-property garden, donations from residential gardens and local farms, salvaging food from local grocery stores and the nearby university, and some purchases of dry goods from a local Amish community. Due to the increase in demand during COVID-19, it

began purchasing additional food from a national food bank. Program 3 is operated by a board of directors, although much of the work is done by local volunteers. Due to its centrality and well-established local network, the program evolved to include a resource and referral aspect.

Program 4: Serving the Appalachian area of Southeast Ohio, this program purchases and distributes locally grown food to regional, small-scale emergency food operations. Funding comes from individual donors, which is used to purchase produce directly from growers at farmer's markets or local businesses and organizations, which is used to purchase wholesale produce at a local produce auction. Additionally, Program 4 has a gleaning operation in partnership with local farmers. The produce is aggregated and distributed to emergency food partners. Program 4 also has educational opportunities that teach the emergency food partners how to properly store and transport fresh produce and teach individuals how to prepare it. Notably, Program 4 is one arm of a larger regional organization that provides many resources and opportunities for partnership.

Program 5: This program is in Appalachian Western North Carolina and maintains a family-style community garden that provides free produce available to all community members. Community members created the program to embrace their tradition of sharing their garden harvest with neighbors. In addition to growing food, Program 5 often receives donations from local gardeners and farmers. The produce is distributed directly to community members and through partnerships with local soup kitchens and emergency food organizations. Program 5 is guided by the value that food is a right to all community members and works to challenge the transactional economy through which food is traditionally accessed.

Program 6: This program is situated in the Delta Region of Mississippi. It works to improve community health and economy by reviving the food system at a local level. Action items include educating youth about agriculture, nutrition, and data collection, creating a mobile market to address accessibility, and providing resources to local farmers to help them transition to a direct-sales market. Program 6 focuses on serving a specific community but is part of a larger organization that works throughout the Delta. The parent organization had worked with the community for many years before forming Program 6 and continues to include community members in all conversations and decision-making spaces.

Program 7: This program is situated in central South Georgia. Program 7 works to improve local access by providing resources for direct sales, such as mobile markets and farm-to-school, and an educational component focused on teaching individuals how to grow their food. Program 7 was created after a set of county-wide goals were determined by the city government, which focused on revitalizing the food system in an area with a deep history of agriculture. Although one community member spearheads the program, it is supported and overseen by a board representing other organizations throughout the county with a shared goal. This is one of the programs where the program director did not respond, so two board members were interviewed in their place.

Program 8: Located in Appalachian, Southeast Kentucky, Program 8 serves a rural community with high diet-related disease and poverty rates. Rather than a single program, it is better characterized as a collection of initiatives working collaboratively to create a local system where agriculture is economically viable and food is accessible. This work is intended to provide a pathway to better health and economic outcomes. The formation of this collaboration was

initiated by the collapse of the regional coal industry but drew on the community tradition of self-sufficiency and growing food. The first initiative implemented by the collaboration sought to teach members how to grow food themselves, after which a market was established to provide an income opportunity for excess food, followed by the creation of a commercial kitchen to create value-added products. Additionally, these initiatives worked collaboratively with other community organizations to double SNAP and WIC, create a produce prescription program, and establish a summer feeding program with locally sourced produce, all of which provided increased opportunity for access while revitalizing the local economy.

Program 9: The Sandhill Farmer's and Heritage Market founder specifically requested that their program name be included in this work. This program, situated in Spring Lake, North Carolina, was formed to preserve both land ownership and the culture of the local African American community. The market was established by collaboration with the city government to provide economic opportunities for landowners, increase access to fresh food, provide a gathering space for cultural events, and introduce youth to the profitability of agriculture as a profession. Additionally, the market has a SNAP doubling program and many health, nutrition, cooking, and gardening demonstrations rooted in cultural foodways.

Program 10: Located in the East Central Region of Mississippi, Program 10 was founded by tribal members to provide income and food access to their tribal nation. Their approach to this work has focused on growing and selling produce to the local casinos for profit to sustain their community work, involving increasing members' access to foods grown organically, and providing education around gardening and nutrition.

Program 11: Based out of southern Appalachian Ohio, Program 11 partners with local corner stores, pharmacies, and gas stations throughout the rural area to assist with the logistics of providing produce to their client base. This involves sourcing the produce, teaching the stores about proper display and safe handling of produce, assisting in marketing, and providing educational materials for the consumers. Additionally, Program 11 hosts pop-up markets in community spaces where they have fresh produce available. Although it depends on the individual stores, most, including the pop-up, accept SNAP. The produce for Program 11 is sourced from a produce auction run by their parent organization, which works closely with local farmers to expand and sustain markets for local producers.

Program 12: Located in eastern North Carolina, Program 12 was founded through a local pastor's efforts to increase health and quality of those living within the community. Efforts began through a single community church using its land to grow crops for direct consumption. The program has since evolved to include elements of youth development and a bee operation. Program 12 is operated through volunteer work of the congregation, which encompasses most members of the small community. The produce is shared throughout the community, prioritizing those most in need, such as the elderly, children, and those experiencing diet-related health issues. Despite several emails to the director, leadership from Program 12 did not respond to my interview request; I used the publicly available videos of previous interviews in place of conducting one myself.

Table 1.1

Identification	Environment	Formation	Year Est.	Structure	Guiding Values	Keys to Success
Program 1	Appalachian North Carolina	Created by residents to address immediate needs of a rural community	N/A	Food pantry and soup kitchen, sourcing most of the food from a national food bank. Previously had a program that provided gardening resources for individuals and families in lieu of a central community garden.	Guided by religious belief of serving neighbors	Local grants, core group of volunteers
Program 2	Southeast North Carolina	Food programs were adopted to benefit youth scholastic outcomes and assist families experiencing food insecurity.	2007	Food pantry and distribution food to network of churches. A community garden is used as a teaching tool and to supply fresh produce.	Guided by religious belief of serving neighbors	Support from regional churches
Program 3	Appalachian Southwest Virginia	Founded to provide a more formal pathway for community food sharing and support.	2011	Provides emergency food to county residents and operates a teaching garden. The food is sourced from the on-property garden, donations from gardens and local farms, and salvaging food.	Established community culture of sharing abundance between neighbors.	Land ownership, large volunteer network, integrated into the community
Program 4	Appalachian area of Southeast Ohio	Founded by a regional organization to connect emergency food operations to locally grown food and provide a safety net for farmers.	2007	Purchases locally grown food through community donations. Aggregates and distributes to local emergency food operations. Additional gleaned operation.	The belief that local food should be accessible to all community members.	Robust local food system, access to wholesale prices from produce auction, community donations
Program 5	Appalachian Western North Carolina	Created by community members to grow the produce needed for a local soup kitchen.	2009	Family style garden that provides produce to disperse through pop-up events and local emergency food organizations.	The community tradition of sharing garden harvests with neighbors to promote food as a right for all.	Guidance available through a network of community gardens, community volunteers
Program 6	Delta Region of Mississippi	Founded in partnership with a regional organization to improve community health and economy through food system revitalization.	2010	Youth education centered on agriculture, nutrition, and data collection; mobile market to address accessibility; and resources for local farmers to support direct sales.	Values community voice and direction, provides support and resources for community to drive its own change	Long-term relationships within community, history of agriculture in the area
Program 7	South Georgia	Established after a set of county wide goals were identified around revitalizing the food system.	2017	Operates a community garden that supplies produce for a mobile market, provide community education on growing food, and supports local farmers with direct sales.	Values increasing produce availability in an economically and environmentally sustainable manner.	Partnerships throughout the community and city government, deep agricultural history.

Program 8	Appalachian, Southeast Kentucky	Efforts were initiated by the collapse of the local coal economy to provide self-sufficiency through growing and selling food.	2013	A collection of programs working collaboratively to create a localized food system. Efforts evolved from teaching individuals how to grow food to supporting economic opportunities for new growers.	The programs aligned their values of health and increased access with the community value of economic self-sufficiency	Dedication and networking abilities of the spearheading individual, donation of a physical space
Program 9 The Sandhill Farmers and Heritage Market	Spring Lake, North Carolina	The organization was formed to preserve both land ownership and culture of the local African American community.	2006	The market provides an income opportunity for local landowners, increases access to produce, and acts as a platform for nutrition education and cultural events.	Values a system that allows community members to remain resilient, such as ownership of land and ties to traditional food ways.	The buy-in of the city council to adjust the city ordinance to allow a farmer's market.
Program 10	Central Mississippi	Founded to create local jobs by growing produce to sell to a casino's restaurants and staff cafeteria.	2013	Uses income from casino purchases to provides affordable produce for those on reservation. Has an educational component to encourage a renewed connection to foodways.	Values the wellbeing of tribal members, physically, mentally, and economically.	The support and shared values of the local casino
Program 11	Appalachian Ohio	Founded as an effort to increase the clientele base and provide financial security for local farmers.	2010	Aggregates and distributes local produce to corner stores. Also hosts produce pop-up stands.	Values the livelihood of farmers.	Wholesale produce prices from local produce auction.
Program 12	Eastern North Carolina	Founded through a local pastor's efforts to increase health and quality of living within a small community.	2007	Volunteers use church land to grow crops which are shared throughout the community, prioritizing those most in need.	Guided by religious and the desire to improve community health	Available land, church that brought together the whole community

Charting

Charting the programs provided the opportunity to step back from the specific characteristics of individual programs and begin to identify patterns related to shared values, program structures, and other key characteristics across programs. Grouping these programs into models based on shared characteristics is not meant to devalue the work and time these programs have invested in creating unique, community-derived solutions. It is, however, meant to identify shared characteristics of programs so that the knowledge gleaned from this process is more generalizable and available to support other communities in program development.

The charting stage began by evaluating the programs' structure according to two key dimensions: their orientation toward market-based approach to food distribution and their orientation toward making a transformative impact on the local food system. Although I did not specifically ask about these two themes during the interviews, they were selected because a number of interview participants characterized their program in relationships to these two themes. To aid as an analysis tool, these themes, market-based approach, and transformative impact were assigned axes, and the programs were plotted according to their relationship with each theme.

Vertical axis represents the degree to which a program relies on a market-based approach to achieve its goals. It should be noted that because of the economic system that the United States functions in, all programs are situated in a market-based economy to some extent, which is why this axis focuses only on the intended economic impact. The top of the axis represents programs that were strongly committed to a market-based approach, and the bottom of the axis

represents programs that participate less in the market system (i.e., they do not rely on the exchange of money to access food) either passively or as an act of resistance.

The horizontal axis represents degree to which a program aims to have a transformative impact on the local food system. The ideology of transformative change relates to creating long-term change guided by the desires of the community (Morton, 1995). The left end represents a status quo approach where in which programs focus on alleviating immediate hunger needs, without working to impact the underlying causes of hunger in the community. The right end of the axis represents a radical approach where, in addition to increasing immediate food access, the program aims to transform existing power structures that are barriers to achieving food access for all.

Each program was plotted on the two-dimensional axes by the degree to which they are market based and the transformative impact of the program. Grouping the programs into models was an iterative process. The programs' position on the graph changed throughout the analysis, often meaning that the programs became a part of a different model or changed models altogether. Once the programs positions on the two-dimensional axes stabilized, proximate programs were grouped together. These groupings became the program models, which I named according to their attributes. Each program model is discussed in greater detail in Chapter 3. I used my familiarity with the programs to validate that the programs grouped were ideologically and structurally similar. The following chapter, Chapter 2, is a manuscript containing the primary results of this work. The final chapter, Chapter 3, contains additional findings, future work, and conclusion.

CHAPTER 2

SETTING THE TABLE FOR A NEW RURAL FOOD ACCESS APPROACH³

³ Darwin, Abigail. To be submitted to the *Journal of Agriculture, Food Systems, and Community Development*.

Abstract:

The Southeastern United States was built upon agriculture, but, paradoxically, its rural residents experience high rates of food insecurity due to numerous intersecting barriers. This food insecurity leads to higher rates of diet-related chronic disease in rural populations than their urban counterparts, further compounded by limited access to healthcare. Guided by the theoretical frameworks of Assets Based Community Development and the Culture-Centered Approach, this paper characterizes existing program models to guide the establishment of community-based programs to increase the availability and accessibility of locally sourced fruit and vegetables for low-income residents of rural Southeastern United States.

Data were collected through document analysis and semi-structured interviews with twelve community-derived food access programs. Using a framework approach, data was analyzed to identify and characterize current models by their structures and guiding values. Results include identifying four program models: Charity Model, Support Model, Restructure Model, and Market Model, which range from providing emergency food to restructuring the local food system. We present characteristics of each of these models, as well as the challenges faced and lessons learned shared by the included programs.

Introduction:

Over the past decade, produce prescription programs implemented in urban settings have been successful in significantly decreasing rates of food insecurity, diabetes, high blood pressure, and obesity within the program participants (Aiyer et al., 2019; Marcinkevage et al., 2019; Zhu, 2019). In addition to increasing program participants' access to fresh fruits and vegetables,

education is often provided on nutrition basics, kitchen skills, and recipes to maximize the benefits of the fresh foods (Cook et al., 2019; Joshi et al., 2019; Schlosser et al., 2019). Despite their success in urban settings, there is a lack of similar programming in rural communities.

Currently, there is limited data on programs that address rural food access, especially in the Southeastern region of the United States. In response to this research gap, this paper identifies and describes existing program models according to their key characteristics, and examines their suitability for increasing availability and accessibility of locally-sourced fruit and vegetable for low-income residents of rural Southeastern United States. Specifically, we examine grassroots food access programs, which may be diverse in approach, but united by the goal of increasing rural fresh fruit and vegetable access using a community-based approach.

Background:

According to a 2019 report by the USDA, food insecurity rates were at 16.0% in rural America compared to 13.3% in non-rural counterparts (Coleman-Jensen, 2020). Historically, and today, the proportion of U.S. residents living in poverty is higher in rural and nonmetro areas than their metro counterparts (Hoppe, 1991; Thiede et al., 2018). Additionally, 34% of rural Black Americans live in poverty, compared to 14% of rural white Americans (Bateman Driskell & Embry, 2006).

Although poverty is the most powerful barrier to food access, it is compounded by social and geographic barriers faced by rural residents. The U.S. Census Bureau defines "rural" as any population not in an urban classification zone of more than 2,500 residents. Based on this definition, 20% of Americans live in rural areas compared to 80% who live in urban areas.

However, this rural population is spread across 97% of the United States landmass. While most rural residents live in rural clusters, these clusters are rarely supported by full-scale grocery stores. More accessible food outlets, such as rural corner stores, Dollar Generals, and gas stations, have limited selection, higher prices, and often no fresh fruits or vegetables (Larson et al., 2017). In order to meet nutritional needs, rural residents must commute to the nearest city with a supermarket, yet these residents do not have consistent access to reliable transportation to make the commute that regularly exceeds an hour (Bauer & Dolan, 2011; Gantner et al., 2011; MacNell, 2018). Having managed the long commute, both low-income and rural shoppers strategically purchase shelf-stable, calorically-dense, nutritionally deficient foods rather than more expensive, perishable fresh fruits and vegetables (McGee et al., 2011). An additional hinderance to fresh produce purchases is a lack of time and practice to prepare quick, healthy, appetizing meals to suit all family members. This has been attributed to social and traditional preferences for food preparation techniques or limited access to educational material surrounding kitchen skills (Correa et al., 2016; Overcash et al., 2018).

The composition of the rural population is not as racially and ethnically homogenous as often perceived to be. Currently, 20% of rural populations are composed of Black, Indigenous, and People of Color (BIPOC), and that number is steadily rising as rural communities become increasingly diverse (James Cara et al., 2017). While there are many ethnic and racial groups living in the Southeast, the history of Black and Indigenous peoples' abuse has been consistent since colonial times, beginning with forcible removal and enslavement and continuing in through an agricultural economy that is still reliant on racial inequality (Orozco et al., 2018). The rural residents who grow our foods and manage our landscapes are alienated by food policy agendas,

such as the discrimination of Black farmers by the USDA (Orozco et al., 2018). In addition to experiencing higher rates of food insecurity, Black Americans continue to have less access to markets, capital, and education (Alkon & Norgaard, 2009). In spite of this, Black communities have used food production as a space for creative activism and resistance to the exploitative agricultural economy, of which many methods are now commonplace models, including co-ops and regenerative farming (Leslie & White, 2018).

Food access—and, therefore, food consumption—impacts many areas of health, including obesity, blood pressure, diabetes, heart disease and some cancers (Ahern et al., 2011; Wang et al., 2014). Within rural areas of the United States the rate of obesity is 34.2% compared to 28.7% urban areas, the rate of heart disease is 8.6% compared to 6.5% in urban areas, the rate of diabetes is 12% compared to 10.4% in urban areas, and the rate of hypertension is 38.1% compared to 32.6% in urban areas (*Health, United States, 2017: With Special Feature on Mortality.*”, 2018). In addition to having limited access to healthful foods, rural residents experience a lack of access to healthcare, a challenge exasperated for non-White residence by structural racism within the medical system (Apatu et al., 2019; Capalbo & Heggem, 1999; Gee & Ford, 2011). The decreased access to healthcare further magnifies the adverse health effects resulting from limited healthy food access. Health—and, therefore, autonomy over food choice—should be recognized as a key quality-of-life component. Furthermore, white and elite ideas of health do not account for the diversity of culture and foodways (Slocum, 2007). Resistant to mainstream ideologies, community-derived programs allow communities to define their own needs and foodways, focused on culture and preferences.

The status quo approach to hunger involves charity, where food is distributed at no cost, but with little agency among recipients. This approach often upholds established power structures associated with race and class, either intentionally or unintentionally, and does little to address systemic inequities (Guthman, 2008). To enact change, steps must be taken to transform the current system, beginning by addressing the intention of external partners. There is a need for rural food access programs that address the intersection of barriers faced by rural residents. Rather than developing programs that address single barriers, using a holistic, adaptable, community-driven approach presents an alternative to create transformative change for rural residents (Lorenzetti & Dhungel, 2020). As mentioned in the introduction, produce prescription programs appear to be a promising approach to addressing intersecting barriers; nonetheless, this model would need to adapt to account for the added complexity of implementation in a rural setting. This research aims at identifying further models grounded in community involvement that hold similar potential.

Theory:

Inspired by the mobilization of unique resources and networks within rural communities, our research is framed by the theories of Assets-Based Community Development (ABCD) (Kretzmann & McKnight, 1996) and the Culture Centered Approach (CCA) (Dutta, 2007). Both theories have similar objectives: acknowledging local lived-experience as expertise for identifying issues and solutions, returning power to the communities and individuals, and using the power, privilege, and abilities of external organizations to support communities-derived priorities and challenge current. Although these theories are traditionally used to guide the

creation of programs, here they are used to inform our inclusion criteria, data collection methods including the interview guide, and analysis.

The premise of ABCD is that communities can organize and drive their development by identifying their needs and community assets (Alison & Gord, 2003) Furthermore, this positions communities to engage in dialogue with local governments from a position of power, rather than one of need, by igniting self-efficacy and returning decision-making power to communities (Ennis & West, 2010). This reframes outside resources to support the in-situ community priorities. ABCD embraces neighbor-to-neighbor ties and traditions of community organization as the foundations upon which any efforts by external organizations should build (Kretzmann & McKnight, 1993). While community assets often go unrecognized or underutilized in a needs-based approach, ABCD focuses building and growing network ties as the bridge on which community development is built. The impact of applied ABCD can promote community development and opportunity that are transferable across generations (Ennis & West, 2010).

Similarly, CCA begins by working from within a culture (or community) to recognize self-identified problems and solutions (Dutta, 2007). A key element is CCA is introducing subaltern voices into discussions and places of decision making to increase their agency. "Subaltern" refers to groups and communities whose voices absent or are actively erased from discursive spaces, most notably marginalized racial groups or people with low incomes (Dutta, 2007, 2015). The CCA framework acknowledges that current structures sustain subalternity and that the status quo must be challenged concerning power dynamics and privilege (Dutta, 2007). This begins by seeking out and engaging with the absent voices as an entry point for external organizations to operate as coparticipants (Dutta, 2007, 2015).

Methods:

This work moving through several iterative stages of data collection and analysis (Figure 2.1). This research project breaks data collection and analysis into three stages:

Stage One focuses on document analysis and forms the foundation for Stage Two, which consists of semi-structured interviews. Stage Three integrates data from both stages to identify program models to be used as a foundation for establishing similar programs. Data

analysis is guided by the framework

approach, a common approach in qualitative research to describe and interpret the data produced in applied settings (Gale et al., 2013b). The framework approach involves five iterative phases of

Iterations of the Framework Approach through the Three Stages

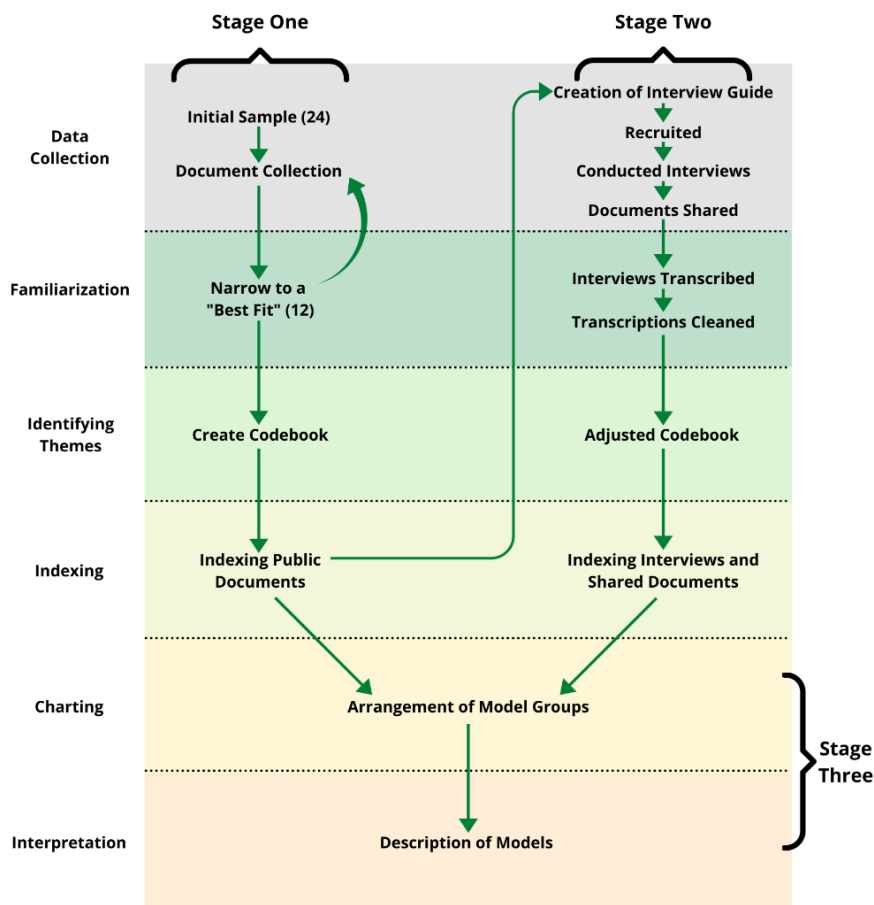


Figure 2.1 (above) illustrates the stages of the framework approach in relation to the iterative path of this work.

data analysis: familiarization with the data, identification of themes, indexing, charting, and interpretation (Smith & Firth, 2011).

Stage One: Sample Identification and Document Analysis

Stage One establish a sample and develop a base understanding of included programs to create a tailored interview guide for Stage Two. For this work, the term "program" was broadly defined to include nonprofits, local government, informal community networks, or collaborations. Guided by our theoretical framework, we established a set of inclusion, or prioritization, criteria:

- The program must aim to *increase fresh fruit and vegetable access* within a community; however, this does not need to be the sole focus of the program.
- Programs situated in the *rural Southeast* will be prioritized.
- Programs that are *community-derived* will be prioritized.
- Programs that *support local agricultural production* will be prioritized.

For this work, community-derived is defined by programs established by or with a community to address self-identified needs. Using these criteria, we identified programs through web searches, word of mouth, news outlets, and Instagram. We continued to identify programs until theoretical saturation was reached, meaning that newfound programs did not diversify the range of program structures. The initial search yielded twenty-four programs that appeared to meet the inclusion criteria. Documents were collected on these 24 programs through an online search, and they were further evaluated to select the programs that met the highest proportion of

the inclusions criteria. This resulted in 12 remaining programs that were a "best fit," of which all were community-derived programs situated in rural communities, eight being in the Southeast.

Documents related to these 12 programs were uploaded to ATLAS.ti (Scientific Software Development GmbH), a qualitative analysis software. These documents, 190 in total, were grouped according to their program and coded using both Structural and Open Coding for the programs' foundation, structural elements, and community characteristics (Saldaña, 2016). This phase of analysis served as familiarization with program characteristics, established a foundation of knowledge about these programs more generally, and identified knowledge gaps to support complementary data collection in Stage Two.

Stage Two: Interviews

Drawing on the foundational understanding of the programs established in the document analysis, we developed a semi-structured interview guide that allowed us to minimize interview time spent on the basic characteristics of the program and maximize discussion of richer topics not typically shared in public-facing documents, such as challenges faced and shared wisdom and advice for future programs.

We contacted leadership from the 12 programs included in the document analysis via email to request an interview, of which 14 representatives from 11 programs agreed to participate. (The one program that did not respond had publicly available interviews with the founder available on their website. Since these interviews addressed many elements of our interview guide, although in less detail, and they were included in our dataset.) Interviews lasted approximately an hour and a half and were conducted via phone or Zoom. Participants received a

gift card to thank them for their time. Participants were also invited to share any additional documents that would support our understanding of their program. Interviewees were most commonly program directors but also included board members, founders, and communications specialists. Interviews were audio-recorded, auto-transcribed, and cleaned by hand.

The interview transcripts and any shared documents were uploaded to ATLAS.ti. The codebook was expanded to include elements specific to the interviews, including challenges faced, keys to success, and wisdom shared. The interviews and shared documents were then coded to provide depth to the understanding of program characteristics.

Stage Three: Analysis

Drawing on the framework approach, the final stage of data analysis involved charting the programs to identify programs that shared characteristics and cluster them into model groups. These model groups created generalizable typologies of the programs, addressing the essence of the research questions. While coding focused on programs' specific structures and characteristics, charting provided an opportunity to step back and view the data through different lenses, drawing out the generalizable meaning.

Charting began by evaluating the structure of programs on two dimensions of interest: their adherence to a market-based approach and their intention to transform the local food system. These factors were chosen as several programs were self-aware of their position and identified themselves in these areas. The Y-axis addresses the degree to which a program was market based, program falling close to the intersection begin less market based, either purposefully or by the nature of the program structure, and more market-based programs being

further away from the axis intersection. The X-axis relates to the degree to which programs are working towards a transformative approach to addressing food access. Programs that fall closer to the axis intersection primarily provide emergency food while programs that fall further away from the intersection strive to impact transform local food systems more holistically by address the root causes of hunger. Programs were plotted according to their relationship to each theme and in comparison to one another. Once plotted, spatially proximate models were grouped together. We drew upon our qualitative understanding of these programs to validate that the programs grouped together were, in fact, similar in structure and impact. These groups became our program models and were named according to their attributes.

Results and Discussion:

Sample:

All programs included in this study were community-derived efforts to increase access to fresh food. Programs were distributed across Appalachia and the Deep South (Fig 2.2), with eight in Southern states and the remaining four in environments similar to the Appalachian South. Ten of the programs sourced locally grown food. Of these ten, seven programs had gardens on-site to supplement distributed food or act as a

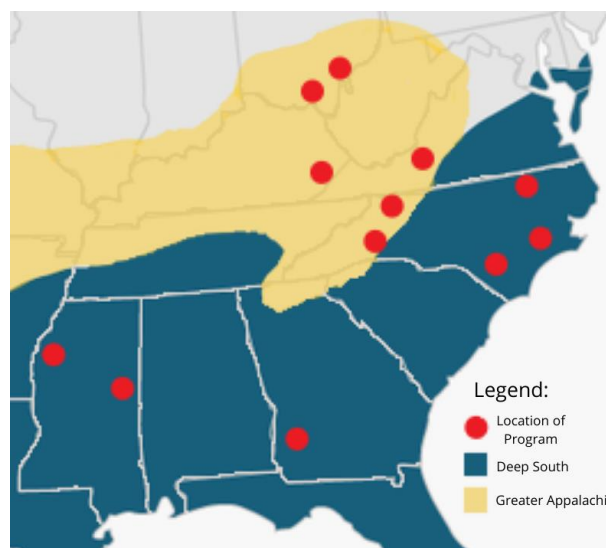


Figure 2.2 (above) illustrates the distribution of programs throughout the Southeastern U.S. and extending into the Appalachian Region.

teaching garden. At the time of the interviews, eight programs had educational components, with two more in developmental phases. Additionally, all programs defined their community by county boundaries; as such our use of "community" refers to the county in which the program is situated. Table 2.1 provided an overview of community demographics. Nevertheless, as one interviewee reminded us during data collection, we recognize that using such a broad definition of community can often leave many out or not accurately represent the multitude of overlapping communities that co-existent in a single space.

Table 2.1

Program:	Model:	Location:	County Population:	Racial Demographics:	Poverty Rate (% below the poverty line):
United States	NA	NA	328,239,523	76.3% White 18.5% Latino 13.4% Black 5.9% Asian 1.3% Indigenous	10.5%
Program 1	Charity	Appalachian Region	27,203	95.4% White	14.6%
Program 2	Charity	Deep South	34,823	44.6% White 38.9% Black 12.8% Indigenous	28.5%
Program 3	Support	Appalachian Region	15,749	95.5% White	11.4%
Program 4	Support	Appalachian Region	65,327 (stationed in an urban hub of rural area)	92.1% White 3.1% Asian 2.8% Black	26.6%
Program 5	Restructuring	Appalachian Region	18,069	96.4% White 5.5% Latino	14.2%
Program 6	Restructuring	Deep South	30,628	63.7% Black 34.2% White	36.6%
Program 7	Restructuring	Deep South	87,956 (stationed in an urban hub or rural area)	71.0% Black 26.3% White	27.6%
Program 8	Restructuring	Appalachian Region	21,553	98.2% White	28.9%
Program 9	Market	Deep South	335,509 (12,005 population for the city alone)	51.1% White 39.1% Black 12.1% Latino	18.0%
Program 10	Market	Deep South	29,118	58.8% White 21.3% Black 17.5% Indigenous	21.7%

Program 11	Market	Appalachian Region	14,508	92.4% White 3.8% Mixed Race 3.1% Black	15.7%
Program 12	Restructuring	Deep South	51,472	57.8% Black 39.7% White 5.0% Latino	21.0%

Table 2.2 provides a brief synopsis of key characteristics of each program included in this study. Programs range in age from four to 15 years. The formation column summarizes how and why the program was established. The structure of the program describe daily operations that increase food access. Guiding values captures the ethos that motivates the program, while the keys to success report on the elements that facilitated the success of the program, the absence of which would have created a challenge. Table 2.2 displays the demographics of the counties each of the programs derived from, including population, demographics, and the county poverty rate.

Table 2.2: Description of Included Programs

Identification	Environment	Formation	Year Est.	Structure	Guiding Values	Keys to Success
Program 1	Appalachian North Carolina	Created by residents to address immediate needs of a rural community	N/A	Food pantry and soup kitchen, sourcing most of the food from a national food bank. Previously had a program that provided gardening resources for individuals and families in lieu of a central community garden.	Guided by religious belief of serving neighbors	Local grants, core group of volunteers
Program 2	Southeast North Carolina	Food programs were adopted to benefit youth scholastic outcomes and assist families experiencing food insecurity.	2007	Food pantry and distribution food to network of churches. A community garden is used as a teaching tool and to supply fresh produce.	Guided by religious belief of serving neighbors	Support from regional churches
Program 3	Appalachian Southwest Virginia	Founded to provide a more formal pathway for community food sharing and support.	2011	Provides emergency food to county residents and operates a teaching garden. The food is sourced from the on-property garden, donations from gardens and local farms, and salvaging food.	Established community culture of sharing abundance between neighbors.	Land ownership, large volunteer network, integrated into the community
Program 4	Appalachian area of Southeast Ohio	Founded by a regional organization to connect emergency food operations to locally grown food and provide a safety net for farmers.	2007	Purchases locally grown food through community donations. Aggregates and distributes to local emergency food operations. Additional gleaning operation.	The belief that local food should be accessible to all community members.	Robust local food system, access to wholesale prices from produce auction, community donations

Program 5	Appalachian Western North Carolina	Created by community members to grow the produce needed for a local soup kitchen.	2009	Family style garden that provides produce to disperse through pop-up events and local emergency food organizations.	The community tradition of sharing garden harvests with neighbors to promote food as a right for all.	Guidance available through a network of community gardens, community volunteers
Program 6	Delta Region of Mississippi	Founded in partnership with a regional organization to improve community health and economy through food system revitalization.	2010	Youth education centered on agriculture, nutrition, and data collection; mobile market to address accessibility; and resources for local farmers to support direct sales.	Values community voice and direction, provides support and resources for community to drive its own change	Long-term relationships within community, history of agriculture in the area
Program 7	South Georgia	Established after a set of county wide goals were identified around revitalizing the food system.	2017	Operates a community garden that supplies produce for a mobile market, provide community education on growing food, and supports local farmers with direct sales.	Values increasing produce availability in an economically and environmentally sustainable manner.	Partnerships throughout the community and city government, deep agricultural history.
Program 8	Appalachian, Southeast Kentucky	Efforts were initiated by the collapse of the local coal economy to provide self-sufficiency through growing and selling food.	2013	A collection of programs working collaboratively to create a localized food system. Efforts evolved from teaching individuals how to grow food to supporting economic opportunities for new growers.	The programs aligned their values of health and increased access with the community value of economic self-sufficiency	Dedication and networking abilities of the spearheading individual, donation of a physical space
Program 9 The Sandhill Farmers and Heritage Market ⁴	Spring Lake, North Carolina	The organization was formed to preserve both land ownership and culture of the local African American community.	2006	The market provides an income opportunity for local landowners, increases access to produce, and acts as a platform for nutrition education and cultural events.	Values a system that allows community members to remain resilient, such as ownership of land and ties to traditional food ways.	The buy-in of the city council to adjust the city ordinance to allow a farmer's market.
Program 10	Central Mississippi	Founded to create local jobs by growing produce to sell to a casino's restaurants and staff cafeteria.	2013	Uses income from casino purchases to provides affordable produce for those on reservation. Has an educational component to encourage a renewed connection to foodways.	Values the wellbeing of tribal members, physically, mentally, and economically.	The support and shared values of the local casino
Program 11	Appalachian Ohio	Founded as an effort to increase the clientele base and provide financial security for local farmers.	2010	Aggregates and distributes local produce to corner stores. Also hosts produce pop-up stands.	Values the livelihood of farmers.	Wholesale produce prices from local produce auction.
Program 12	Eastern North Carolina	Founded through a local pastor's efforts to increase health and quality of living within a small community.	2007	Volunteers use church land to grow crops which are shared throughout the community, prioritizing those most in need.	Guided by religious and the desire to improve community health	Available land, church that brought together the whole community

⁴ The Sandhill Heritage and Farmers Market, Program 9, requested that its program name be recognized for its work and invaluable contribution to this research.

Four Models of Community-Derived Rural Food Access Programs

This research identified four different model types: the Charity Model, Support Model, Restructuring Model, and Market Model (Figure 2.3 below). The Charity Model provides emergency food assistance and sources from food banks. The Support Model also provides emergency food assistance, but sources locally from community members. The Restructuring Model increases food access for the whole community by redefining local food systems. The Market Model also increases food access for whole communities by increasing availability within the market.

Identification of Program Models:

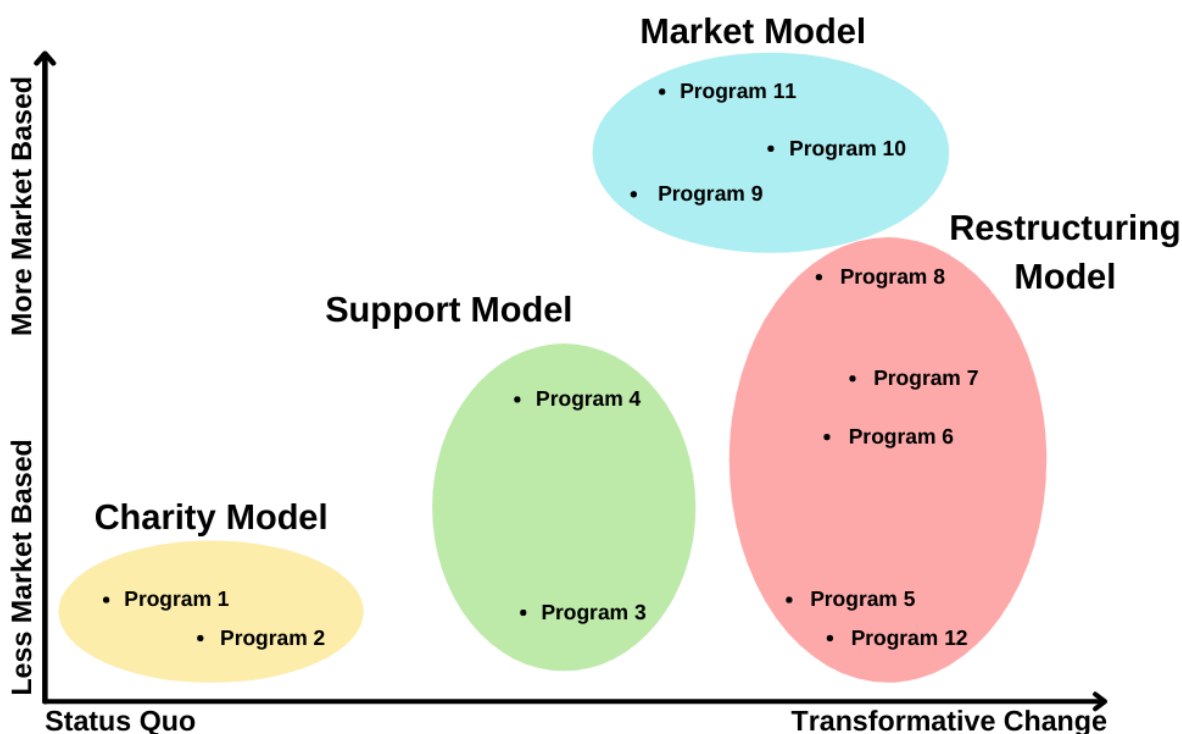


Figure 2.3 displays the grouping of individual programs into models.

Charity Model:

Programs in the Charity Model (Programs 1 and 2) temporarily increase food security by providing emergency food focus limited efforts on addressing the root causes of hunger and inequity. This model sources food through food banks and may or may not screen clientele for income, although those that do screen use it to keep track of their impact and to qualify for additional funding. Programs within this model are not directly associated with a church; nevertheless, partnerships with local churches were a valuable asset and assisted with funding, meeting volunteer needs, and food distribution. Additionally, the interviewees from these programs were guided and motivated by their religious beliefs, participating in their programs because they saw it as their responsibility to address the needs of their communities. This model is characterized by a distinct separation between those who serve and those being served. However, these programs are well received and supported by their respective communities. This is demonstrated through the communities' financial and volunteer support in addition to testimonies from clientele relayed by the interviewees.

Although this model appears to use the traditional centralized food bank to food pantry approach to emergency food provision, programs are still embedded in their communities needs and capacity. During their foundational stages, these programs assessed their community's needs and the capacity to address the needs before establishing the programs without any external assistance. Providing emergency food offers immediate assistance to communities and can produce effective outcomes from limited assets. Furthermore, it is challenging to prioritize long-term food system restructuring while members of your community are not having their immediate needs met. However, this model's capacity for the long-term work required for structural change is limited.

The lessons learned from this model often intersect with the challenges of a charity approach. For example, Program 1 demonstrated how efforts could be unsustainable if too "grant dependent." The program's attempt to establish home gardens as a rural alternative for community gardens relied solely on local grant funding. Funding was denied the second year which halted all operations. This challenge illustrates the need for diversity in funding sources and a means to sustain initiatives. Additionally, this illustrates the necessity of community engagement. While this effort was creative, home gardens were not a priority of their clientele. Had this been a collaborative effort initially, it may have yielded more impactful results and therefore received continued funding. Facilitating community engagement is also a challenge of this model. For example, Program 2's overarching goal is to provide resources to elevate its community from poverty, and the food pantry is one element of this work. Although there is strength in the interwoven elements of this program's work, its charity approach has presented challenges surrounding community involvement:

"We're noticing that all our services are completely free, but it's hard getting the community to engage with those services... How do we get the people to want these services when they know they need it?" – Program 2

The challenge of getting clientele to engage with services, even when offered by community members, was unique to the Charity Model. While community relationships in this model may alleviate some of the stigmas of charity work, the intended recipients of charity may perceive receiving charity as mentally and socially exhausting, as well as stigmatizing (Salonen, Ohisalo, & Laihiala, 2018). The lack of overlap between those served and those serving may have further impacted clientele's perception of these programs. Interviewees from programs in this model also

stated that they have difficulty securing national funding as it is challenging to set itself apart from larger agencies doing similar work.

Support Model:

Like the Charity Model, programs in the Support Model (Programs 3 and 4) focus on providing emergency food assistance; however, this model is deeply guided by a commitment to community engagement, giving it greater transformative potential. This model sources food locally through various methods, including purchasing directly from farmers, donations from local farms, individual donations, and gleaning. Local sourcing requires time and effort to build relationships and rapport within communities but can extend the benefits of a program by building the economic resilience of the local food economy (McEntee & Naumova, 2016). This model introduces education into its structure, either on gardening and growing techniques or nutrition and food preparation, as education is viewed as a tool to increase the impact of efforts and increase individuals' control over their food environment. Programs in the Support Model are driven by the goal of serving community through filling in gaps with available resources and capacity. Additionally, this model is characterized as deeply valuing individuals as agents in the local food system, including clientele, volunteers, and growers. Although it translated into different program structures, both programs within this model evolved from a community tradition of growing and sharing food as an act between neighbors.

The primary challenge of the Support Model lies in the inconsistency in the amount of food available for distribution, since fresh food has such a short shelf life and donations of both food and funds can vary week to week. Because of this, there is constant worry that the needs of clientele may not be met. This stress is furthered for programs that distribute food to individuals

rather than to organizations in bulk, because they want to ensure that all in need are offered the same resources. Program 3, for example, often has a difficult time providing an equal choice for all clients when the local donations they rely on are diverse and in limited quantities. The program addresses this by asking that clients take only what they need, such as taking a quart of strawberries and leaving a bag of plums for someone else, but this solution would not have been so successful without the shared culture of respect between all community members.

Lessons demonstrated by the Support Model include the value of maintaining trust and relationships within the community. As the program director for Program 4 emphasized, "cultivating relationships is key." Interviews associated with this model are filled with narratives illustrating how community relationships address challenges and needs. Within Program 4, ongoing financial donations demonstrate how the community values their local food economy in ways that align with Program 4's ideal of "local food for all." In Program 3, the program headquarters has become a gathering spot for the community to receive both food and fellowship, "feeding not just their bellies, but their sense of community, too" (Program 3). Within this program, the boundaries between volunteers and clientele are fluid, with many serving as both. Offering opportunities for involvement increases the awareness of the program's services and impacts for volunteers and donors alike. The program director of Program 3 illustrates this concept below:

"[Program Name] really is the favorite mascot of the nonprofits of the area. And I think it's because everybody gets to put their finger in it in some way at the end. And I think back to sustainability, it's about getting those tentacles out." – Program 3

Wisdom and advice shared by the Support Model relate to developing a plan for the future of a program. For example, due to Program 4's success, it faced external pressure to

expand or replicate the program in a nearby community. While the program director was unopposed to this, they also saw the danger of spreading too thin before the program was ready and were working to ensure that the program could "strike a balance between growth and sustainability." Furthermore, the program director was hesitant to expand into this new community as it may distract from prioritizing the needs of the program's current community. Similarly, Program 3 is working to establish internal guidelines and policies to ensure their longevity as a nonprofit, yet the program director expressed that the program was unsure of its future role in the community as true success would be achieving an environment where they are no longer needed:

"Our goal isn't to brag how many people we feed; we really would like to see our numbers go down. We really would like to help people overcome their barriers and poverty so they don't have to go to a food bank." – Program 3

Simplified, the Support Model exemplifies an ability to remain embedded within its community by addressing relevant needs and practicing flexibility when needs change. Although their methods may present as a status quo structure, the intention distinguishes this model. However, this approach is limited in its transformative capacity as it does not address structural issues that underlie the prevalence of food insecurity.

Restructuring Model:

Although it builds upon the intentionality commitment to community of the previous model, the Restructuring Model (Programs 5-8 and 12) differentiates itself by recreating or restructuring the local food system rather than filling gaps to increase food access within an established system. By challenging the dominant structures and ideas in place within a

community, the Restructuring Model goes beyond traditional approaches to food provisioning to address root causes of food insecurity and inequality of access.

Programs under the Restructuring Model spend significant time, often multiple years, holding conversations within the community to understand the needs, gaps, and barriers. Furthermore, it also works with the community to understand what is a feasible solution and how members are willing to contribute. A board member of Program 6 put it this way:

*I believe it is a huge part of the reason that we've gotten to where we've gotten, with very little money for seven or eight years was because it's never been about "Oh, Hey, we want to turn a great profit, making a great, shiny community food system." It's always been about, "We want to shift the long-term conversation in our communities."
– Program 6*

This in-depth understanding of community assets creates a secure foundation upon which these programs can build. Paradoxically, many of the programs within this model were established with external assistance. For example, Program 6 was established with the assistance of a national-level organization that was piloting approaches to local programming. Still, this external organization dedicated extended time to building a relationship with the community, soliciting continuous feedback, and respecting residents' agency and prior experience. This strategy resulted in flexible programs better suited to serve the evolving needs of their communities.

The Restructuring Model is further characterized by a holistic approach to the food system. This begins by understanding that an individual's food environment is influenced by unique barriers and personal preferences while also "look[ing] at the local food as a common denominator and a unifier for community" (Program 8). Furthermore, the Restructuring Model incorporates elements of "food justice" and "social justice." Specifically, within this model, the guiding value of "good food for all" is enacted through comprehensive efforts to strengthen the

local food economy while fostering approaches that elevate community members' agency of their own experience of food. This model uplifts community agency by providing education and supplementary resources surrounding growing food, as well as encouraging a community culture of sharing food to "challenge the idea of a transactional relationship" (Program 5). Food sharing has a deep history within these communities, often sustained as an act of community resilience and resistance. Programs 5, in particular, expressed its pride in their Appalachian history of sharing food between neighbors, rooted in the practice of the Cherokee Nation that once farmed that land⁵. This program drew from this cultural asset, even reviving cultural acts of food sharing lost during previous generations. In this context, food sharing is not meant to be limited to those who cannot purchase or grow their own produce, instead, it aims to strengthen the community with food access and culture at the core. Additionally, food sharing destigmatizes the act by stripping away the assumption that it should be transactional.

"We believe is that good food is a right and that we as a community have the resources to be able to grow this food and share it generously. And that when we share there's enough for everyone." – Program 5

While programs in other models reported a shared culture of food sharing, the practice was either sharing abundance among friends or viewed as an act of charity. In contrast, programs within the Restructuring Model expressly included all community members in this practice, not differentiating between those who can and cannot purchase local produce.

Notably, programs within the Restructuring Model are frequently in communities with the poorest health outcomes in their region and state. Often, programs in this model were

⁵ As this is a primarily White community, via my interpretation of the interviewee, food sharing was taught and exemplified by the Cherokee Nation to the colonizers who settled in that area. Many of the areas current residents can trace their ancestry back to the settlers and have adopted food sharing as an act of community.

founded to address community health—"with food being at the very core starting place of that" (Program 8). This model also includes efforts to bring joy into acts of growing and sharing food. Although no interviewee directly said these efforts were to improve mental health, there were many efforts to improve "wellbeing" and "community." These communities utilized the tight-knit comradery to encourage diet and lifestyle changes, such as hosting canning classes, implementing walking programs, and hosting community meals. Notably, this model also includes supporting the economic livelihood of local farmers as an important element of community health. The programs that worked closely with community youth also include efforts to demonstrate economic pathways in agriculture to reclaim cultural pathways and enhance community.

Several aspects of the Restructuring Model appear paradoxical. First, although the time investment required to implement this model can be a significant burden for many communities, both community members and funders may be looking for immediate results in return for their investments. Further, despite drawing on elements of their communities' diverse cultures, programs in this model experienced challenges in involving members of their distinct communities. Cultural differences including those associated with race or ethnicity, political views, or even church affiliation, can result in some community members being reluctant to participate in the program or interact with one another. The example below, about the program director's brother who works in the coal industry and attended a pickling class hosted by Program 8, illustrates this point:

He's partnered with somebody from the Sierra Club. And that would not be his choice if you said, "Do you want to partner with somebody who wants to save the environment?" You know, he would say, "I don't want to partner with somebody who wants to put everybody out of work." But they're then talking about how much spice to

put in their pickles. And you know they have a good conversation and meet each other as neighbors that live beside each other, that didn't know each other, and then meet each other. So, for me, it's a long way of saying the local food is as much about growing community as the food aspect of it. – Program 8

This challenge can be exacerbated in areas where the community is more heterogeneous and may be better represented as a set of communities sharing the same space with different histories and cultures. Yet, as the quote above illustrates, this challenge also presents an opportunity to bring together members of the broader community in new ways. While there can be elements of a program that appeal to the values of most communities, truly engaging and serving all of them may require extended efforts.

An overarching challenge of the Restructuring Model is that it is profoundly defined by its tight-knit communities and deep food culture. Without these two key elements, these programs may not have formed in this way or had the same impact. Interviews from these programs commonly acknowledged that their attempts could not be directly replicated elsewhere due to their community-focused approach. Additionally, these communities may have been highly motivated due to their desire to make positive change for themselves and their neighbors, as the most radical programs were derived from the communities with the most apparent need.

Market Model:

The Market Model (Programs 9-11) emphasizes building a network within the current market system that increases fresh produce availability within whole communities. Depending on the specific community's needs, resources, and capacities, some programs created entirely new markets, while others' buttressed systems already in place, such as providing aggregation and distribution services. In either case, this model aims to minimize the disconnect between growers and consumers. The Market Model uses its understanding of community culture and history to

frame its structure to align with community values. Within this model, the primary goal is to benefit the growers. While improving the wellness of the community is valued, it is a secondary goal.

*"Well, the number one goal is to have a place where the landowners, the gardeners, and the farmers will have a place where they can sell their produce. But at the same time, it gives access to locally grown foods for those people in the community" –
Program 9*

This set of values differs from other models identified in this work, but it directly reflects the values of the historical agricultural communities' where the programs in this model are situated. For example, Program 11 was situated in an agrarian community where the community highly values supporting farmer livelihoods. Because corner store owners already valued the livelihood of local growers, Program 11 did not have to compensate or incentivize owners to carry local produce. Additionally, this same community value encouraged consumers to purchase the produce, making it economically viable for the store owners while providing access to more vulnerable community members.

Within this model, potential markets are the most powerful asset. Programs 9 and 11 identified potential markets that would benefit their existing networks of growers. For example, Program 10 identified a local casino as a potential market and developed a growing operation to create jobs and support the local economy. This model uses education to inform customers of the benefits of eating locally, for both themselves and their local farmers, and to demonstrate cooking skills to empower consumers. Additionally, aligning the program with the community values and incorporating education helps market the programs.

The primary challenges faced by Market Model relate to pricing, marketing, and logistics. In many ways, these challenges go hand-in-hand. The challenge of price was

continuously brought up, particularly as there was often a disconnect between the economic value of produce to producers and its worth to consumers. For example, our interviewee from Program 10 explained that "in Mississippi, organic production is not very important to people." The perception that organic produce is overpriced is so detrimental that this program calls their produce "naturally grown" and allows consumers to "forget that it's organic." Similarly, despite the community's high regard for local produce, the price point of produce presented a specific challenge for Program 11 when partnering with corner store owners:

"But a corner store has "X" amount of real estate that they have to try to make money off of... And there really has to be some commitment from the store owner that he or she see the value that it [the fresh produce] brings to the community. And often it can be a loss leader for other products." – Program 11

Furthermore, the challenge of competing with cheaper produce is referenced by all programs within this model. Price competition existed from stores like Wal-Mart, Dollar General, and even from the low prices of processed foods carried by their partnering corner stores. It can be even more challenging for customers familiar with highly standardized products to accept "local produce that does not always look like produce from the global food system" (Program 11). These challenges were addressed by providing comprehensive education focused on health, nutrition, and food preparations. The education increases the impact of these efforts by improving community health, and, through experiencing this, consumers reassessed the value they assigned to produce. As the founder of Program 9 framed it, the interwoven educational components bring consumers to the food and encourage them to engage with it.

"I think by having all of these different things on the site, under that farmer's market shelter, it keeps them focused on the area, the food, the nutrition, the growers, and then the whole process of learning about why you need to eat fresh, locally grown food. I think that helps in terms of getting them to come to the market." – Program 9

Another strategy this model uses to combat the perception that local produce is unattainable is by accepting SNAP and EBT. Many programs within this model also incentivize SNAP purchases, such as doubling the first ten dollars spent.

Program 9, The Sandhill Heritage and Farmers Market, faced an unanticipated challenge of setting up their market. "We thought we could just go in if we owned the property, just set up a farmer's market. But you can't do that. You do have to get approval from the town and you have to get a business permit in order to operate." This was overcome by working with the town to amend policy and permit the market. However, when asked to share wisdom relevant to other programs, the founder advised being aware of an area's ordinances and "engaging every segment of the community at the very beginning to get them to buy in," particularly as programs will need broad support for their work if they request any amendments to public policy.

Regional Differences and Racial Healing:

In addition to identifying the four models, an unexpected result of this work was discovering important differences between programs located in the Appalachian Region and the Deep South, which reflects their divergent cultural histories. Although all programs support marginalized, underserved communities, the six programs within the Appalachian Region are organized by and serve majority-white communities. In comparison, the six programs within the Deep South are organized by and serve majority non-white communities, specifically Black and Indigenous communities (Table 2.2). The Appalachian programs are situated in communities with homogenized histories, generational ties to the land and one another, and the resilience that comes from thriving in the cold and sloping environment. Appalachian programs often draw on

the histories of small-scale, subsistence gardening and food sharing as a cultural asset without having to navigate a healing process within their communities.

In contrast, the Deep South has historically been dominated by the socially and ecologically extractive plantation farming practices, including histories of enslavement and sharecropping, along with contemporary large-scale monocropping and reliance on immigrants for farm labor. Our interviewees also emphasized that farming is commonly avoided by BIPOC communities because it represents being "back in the ways of labor work" (Program 10). In response to this fraught history, programs in the Deep South embraced local, small-scale farming as a means of resistance against the historical and ongoing injustices of large-scale agriculture and racial injustice. The founder of Program 12 describes this tension below:

"I didn't have a good experience with the soil growing up. My family, we were sharecroppers. We grew up eating from the garden. But it was more of a process of pain. I can literally see this guy getting out of this pickup truck, telling my father that he didn't make any money for the year. It was so painful to watch my father be oppressed, to watch him walk away with nothing. That's why I did not like the land. When I came back to the land, I had to deal with my anger. And I'm still coming through that process. But for me, working in the garden has been a healing place." – Program 12

The final line above exemplifies the restorative and healing process that these BIPOC programs embrace through their work.

A board member from program 6 stated that "in the Delta, farming is the last thing that any Black parent would want their child to even have an interest in." Before drawing on the community history of agriculture, Southern programs must also address and heal this collective trauma, within the program members themselves and then within the community. This is

commonly done through youth education because "kids teach the parents" (Program 7). Deep South programs, particularly those within the Restructuring Model, have educational components that not only teach growing skills but encourage youth to embrace the opportunity to "make a living growing food" and "the dignity in it and the way that it improves the community" (Program 6). These programs work to rewrite this narrative and redefine youths' relationships with growing food to illustrate the value of food system and food justice work. Teaching the history of suppression and resilience of Black growers in their region ignited the youth of Program 6 to reclaim agriculture as displayed through an increase in event participation. Below the founder of Program 9, the Sandhill Heritage and Farmers Market, discusses the holistic benefits of its educational component:

"And these are middle and high school teenagers who learn to go out on the farm and they learn to start with the seed. They actually plant the seeds, they grow the food, they harvest it, and then they bring it to the farmer's market... So we tried to go through that whole gamut to teach them how to grow food. And at the same time, keep their connection to the land so that they know this is where your food comes from. And this is what goes into the process of getting that food from the field to the table." – Program 9, Sandhill Heritage and Farmers Market

The theme of teaching community youth how to make a living through farming is critical across all the Southern programs in this study. Whether expressed or not, these programs understand that for this agricultural knowledge and culture to be sustained, the grower must also be economically sustained, particularly as cycles of poverty are persistent in these communities. Notably, while programs mention the necessity of healing this collective trauma, it is never framed as a deficit or a "barrier." More accurately, history is reclaimed and embraced as a resource. The role of Black growers as teachers and elders sharing their experiential knowledge

gained over their lifetime tending the land is a critical key to success within the youth education mentioned above. Embracing history as a resource is exemplified below:

"And then we also have what we call our African heritage diet, which goes all the way back to Africa to show the healthy way to prepare those same foods... So these are certified instructors that prepare foods in their church cafeteria or different places to promote healthy eating and still eat your heritage foods. Because to me, there are certain things that I like. I'm not a fancy eater. I've always loved my collard greens, my sweet potatoes, black eyed peas, stuff like that. I eat several, but these are the things that I love. And I just learned how to prepare them in a more healthier way." – Program 9, Sandhill Heritage and Farmers Market

Program 6 builds off the values of Black farmers in the area who "actually (farm) because they love the whole process of, that farming process and then helping their community get their product." This exemplifies resilience as an act of love for both the land and the community. Similarly, the founder of Sandhill Heritage and Farmers Market, which is established on a previous plantation site, tells the story of many of the areas farmers growing entire fields of produce to give it away to the community; specifically, produce with cultural value, such as sweet potatoes, are given by many growers around holidays. The theme of embracing the historical resiliency and compassion embodied by BIPOC growers is woven throughout all Deep South programs found during this work.

Operating within a tribal nation presented additional challenges for Program 10. Although founded by tribal members, the program was not initially accepted by the community as it had never seen an initiative like Program 10 before. The first few years of the program, operations were led by a white staff member who did not have the additional capacity to address the community perceptions while managing a farm. After noticing the lack of community engagement, an additional staff member was hired "to create a better relationship within the

tribal community so that people can know and see what they have right here under their nose."

This staff was a tribal member who could speak with the community's elders in their own language.

"We've noticed a lot of tribal members in general feel like they relate more to another tribal member. But we're hoping with me and some of the others, my coworkers that are tribal members, we can break that barrier feeling and bridge the gap." – Program 10

The increased community engagement encouraged Program 10 to create an educational component to the program that embraced growing food on the reservation again as "returning to our ancestral roots" and bringing "back the ability to do everything from scratch... make everything homemade." This is an example of how education is framed as "relearning" and "reeducation" across this model, referencing that education is readdressing historically-valued elements in the community culture, such as supporting local growers, self-sufficiency, and traditional and healthy foodways.

In our sample, the majority of programs using the Market Model and Restructuring Model were located in the Deep South (Figure 2.4). This may be because these two models offer alternative structures that increase community agency; thus, they may be preferred models for communities that have been historically marginalized by White dominant power structures. We believe that these models have the potential to make

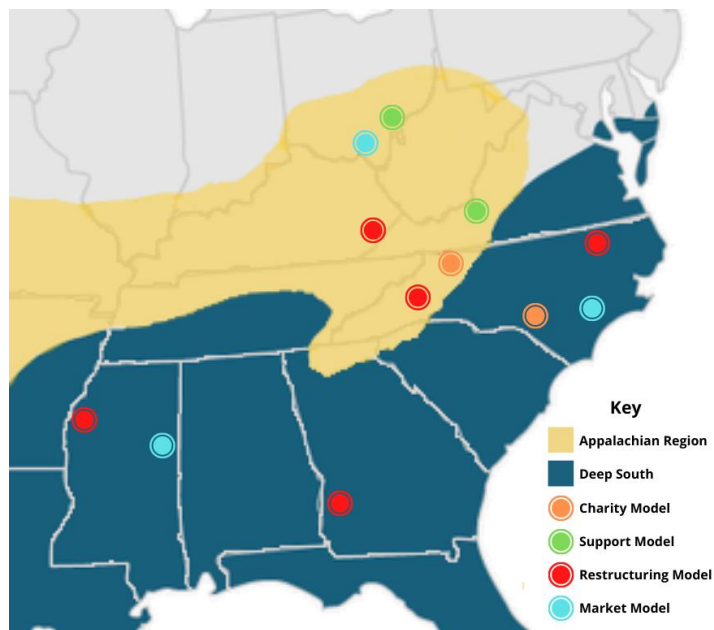


Figure 2.4 (above) shows the distribution of each program by model type.

whole communities more resistant to community hunger while being guided by and increasing the embracement of community culture. Furthermore, models that address emergency food only temporarily provide agency to clients while the Market and Restructuring Models strive to permanently increase agency for whole communities.

Validity and Limitations:

This study was not designed to assess the prevalence or distribution of rural food access program models in the Southeast. As a qualitative study focused on identifying and characterizing program models, we used purposeful sampling to identify the full range of rural food access programs operating in the Southeast. Because this study prioritized community-derived programs that fit within our theoretical model, it excluded many successful externally driven initiatives to address rural food insecurity, such as Feeding America. However, externally driven initiatives are the dominate example of food access work, and there is an extensive body of literature on the effectiveness and limitations of this work (McIntyre et al., 2016). Our research deliberately attempts to present an alternative approach. We conducted an exhaustive search for programs that met our research criteria at the time of data collection. Programs were identified and included in our sample until saturation was reached and additional programs did not introduce new program structures. Maintaining the small sample size allowed for depth in data collection through detailed document analysis and semi-structured interviews. Our analysis and interpretation was enhanced by the complementary data collections of Stage One and Two, which allowed for data triangulation and validation.

Our models were identified from descriptions of programs at a particular moment in time. However, because community-derived solutions are by definition responsive to community

priorities, we fully anticipate that individual programs may expand, contract, or evolve into other program models to better meet community needs, and in response to changing access to resources. Notably, data collection coincided with the COVID-19 pandemic (Fall 2019), meaning that all programs in the sample were engaged in efforts to address the immediate and changing needs of their communities during the pandemic. Thus, although this study specifically focused on pre-pandemic operations, all interviewees reflected on changes to their operations during the pandemic, and we acknowledge that COVID-19 will have long-term effects that may mean programs never return to pre-pandemic "normal" operations.

Conclusion:

By identifying four models of rural food access programs, this study aims to serve as a resource for other communities establishing similar programs. The Charity Model provides emergency food to the community by sourcing from food banks. The Support Model also addresses emergency food needs but utilizes community assets to source food locally. The Restructuring Model redefines or creates an entirely new local food system. Lastly, the Market Model utilizes the established market system to increase community food access. To our knowledge, there are no other studies of rural, community-derived food access programs, and this study provides achievable frameworks for communities to consider in building programs of their own. However, these models are only meant to act as inspiration for communities to develop programs that align with their needs, goals, and culture.

Each model has its strengths and limitations, but collectively we argue that community-derived models offer a strong approach to addressing the intersecting barriers of access to fresh produce in Rural America. By embracing food work as a "common denominator," "unifier," and

"starting place," these models have the potential to impact areas beyond food access, such as improving economic and health outcomes more broadly. Additionally, they may serve as frameworks for more generalizable community-derived work that embraces creative solutions and returns decision-making power back to communities.

Further work to increase support for rural, community-derived food access programs would involve examining how the impact of these programs differs from the impact of traditional, top-down approaches to food access. To support the use of models as guides for additional communities, resources should be developed, beginning with a resource that helps communities identify which model may be their best fit based on their assets, needs, and guiding values. Finally, creating an informal network to share both experiential wisdom and academic finding would increase the accessibility to these pockets of knowledge.

Next steps in this work should include developing resources for community-derived programs. Conversations with interviewees echo the need for the transmission of shared knowledge between rural communities. An interviewee summarized this by stating, "we don't have to reinvent the wheel, if we help each other out." (Program 1) The same barriers that impact rural communities' access to fresh foods can also impact their access to knowledge while also creating pockets of rich, localized knowledge (Vandebroek, Reyes-Garcia, de Albuquerque, Bussmann, & Pieroni, 2011). This separation has meant that rural communities may be continually working through challenges already solved by their neighbors.

Acknowledgments:

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CHAPTER 3

Higher Order Themes

Introduction:

In addition to identifying four models of community-derived work outlined in Chapter 2, this work identified several themes that highlight the strength and guiding values of community-derived food access work at large across models. These themes including the evolution of programs over time, the importance of centering agency of clientele, and the impact of Covid-19 on program operations, which are discussed below. This chapter concludes with logistical advice for program operations shared by interviewees.

Cross-Cutting Themes:

1. Program evolution

Many programs had missions evolve from the original stages. Program evolution is important throughout all programs as it demonstrates adapting to the changing needs, desires, and assets of a community. Furthermore, the community-derived approach is well suited to adapt to emerging needs and priorities as it involves a continual loop of communication with communities, opposed to an external organization with an imposed mission. Paradoxically, many of the programs included in this study were not originally established to address food insecurity; instead, program stakeholders gravitated towards food security work when they witnessed its unintended benefits. For example, Programs 8-11 were founded to focus on the economic impacts of providing jobs or supporting farmers. After witnessing the impact of increased availability of fresh produce on community health, the programs' missions were adjusted to

incorporate food access and security. Program 11 was originally founded to increase the market for local producers by aggregating and delivering produce to corner stores. Once program coordinators witnessed the benefits to residents, they intentionally worked to increase fresh food access by partnering with stores that accept SNAP, providing educational material for consumers, and hosting additional produce pop-up markets throughout the community. Similarly, Program 10 was intended to create jobs for tribal members by farming the land and selling the produce to the nearby tribal-owned casino restaurants. Additionally, the program director convinced the casino, the largest employer on the reservation, to source fresh, local produce for purchase by the staff cafeteria. After observing the staff's response to consuming food that was grown on their own land, the program redefined its mission to focus on increasing fresh food access on reservation. The casino continues to support Program 10 by purchasing food at a higher price to subsidize the cost of the program providing food to other tribal health initiatives. As an example of evolution, Program 3 recognized that connections it was making with other community organizations could benefit its clientele more directly. Due to this, the program began a resource and referral service that connects clientele to external community resources. In addition to better serving the community, this further strengthened the collaboration between community organizations, such as the local Agency on Aging expanding its van route to assist more seniors in accessing the services of Program 3.

The examples above illustrate the importance of the local food system as a nexus for community programming. Many programs within this work found food to be a keystone for their services because it is connected to many other elements: health, economics, culture, and the physical space. The founder of Program 8 identifies food as the "very core starting place" for community work because the impacts "can't really be separate... because you need to look at the

balance of all the benefits." For example, Program 9 established a farmers' market to benefit landowners economically, but it was also aware that the market would increase access to cultural foods and impact community health. Additionally, interviewees from Programs 11 and 8 mentioned the synergy of program impacts in reviving the local food systems, renewing community pride, and redefining the local economy, which now includes an abundance of farm-to-table restaurants, bed and breakfasts, and local performances.

2. Centering Agency

A second theme spanning program models was the importance of providing clientele with a sense of agency over their food choices, or striving to provide community members with choice related to their dietary preferences. While the theme of agency spanned programs across all four models, it varied from providing client agency in a particular setting, such as free choice from a food pantry, to holistically increasing client agency of their food system as in the case of the Restructuring Model. Agency is engendered in emergency food programs by giving clientele choice over food received; however, this approach does little to challenge existing structures that limits clients' agency. Within the Charity Model, Program 2 emphasized the importance of agency through the naming of their food pantry: "And the reason why we like to say 'food pantry' instead of the food bank because we think of a food pantry as something that you have in your home, and our house is open to anyone." This interviewee further explained the value of clientele feeling comfortable walking in and choosing what is best for them. Program 3 of the Support Model functions like a store, where clientele "shop" for their preferences. Additionally, the program intentionally sources a wide variety of food, including meals that can be prepared quickly, to meet the needs of clientele. The Market Model and Restructuring Model begin to disrupt the structures that limit client agency by increasing food access for whole communities,

making fresh produce more affordable, and educating clients on ways to grow and prepare fruits and vegetables. Within the Market Model, Programs 9 and 11 provide produce at an affordable price point and accept SNAP transactions. Making fresh produce available and affordable eliminates barriers that restrict clientele's food purchasing choices. Within the Restructuring Model, programs' centering of agency aligns with the guiding values of food sovereignty. For example, Program 12 empowers youth by teaching growing techniques while simultaneously providing a reliable source of healthy and culturally important foods to vulnerable community members. Furthermore, Program 8 is working to establish a local food system where agency is not hindered by lack of access:

"It's not like I love kale and think everybody should have kale, but what I do think is everybody should be exposed to kale, everybody should have the choice to kale, everybody should have access to kale." – Program 8

Agency is not limited to the treatment of program clientele but is interwoven in the community-derived nature of these programs from their foundations. Increasing internal agency may be a product of the community-derived nature of these programs, while external agency also may result from the unifying the community identity of those involved. Notably, the power held by the historically marginalized community in directing the formative focus of the program must be sustained through continued dialogue between communities and their programs. Additionally, working toward community agency and engagement requires ongoing work and commitment; they are not achieved if it is only an intention without the continued follow through. The results of the extended formative years of Program 6 exemplifies this process. Program 6 is facilitated by a board of local community members and growers and has conducted in-person needs assessments at the beginning of any new program component to ensure it aligns with the

community's needs and values. One interviewee of Program 6 shares advice on how to continue the conversation:

*"A lesson I have learned is that we need to spend the time when any of the group changes, reviewing our shared values, our agreements with each other, what's the focus and the agenda for the project, which has to be community, not individual." –
Program 6*

There is also a cyclical pattern of a program centering the agency of its community, receiving an influx of community support, and increasing its ability to provide more services. This cycle is illustrated by Program 8. The program's original focus was to teach those previously employed by the coal industry techniques to grow vegetables, hoping to alleviate some financial stress through household food production. However, this initiative was so successful that the community offered the program a space to host a farmer's market and provide an income stream for these new growers. This cycle repeated, with Program 8 establishing a commercial kitchen and multiple health initiatives, including a produce prescription program, in response to community priorities and with the community's support. Agency within a local food system is a foundational step to providing agency in other quality of life related areas, such as health.

COVID-19 Impact:

This study was developed in 2019 but conducted in 2020 during the COVID-19 pandemic. In response to the COVID-19 pandemic, all programs experienced a sudden increase in demand for food assistance within their communities. As an unprecedented experience, programs did not have a response plan in place; instead, they built upon the structures and networks already established. Many programs urgently scaled-up what they were already doing;

others pivoted to meet emerging needs. For example, Program 8 took the funding it received to provide summer lunches for school children and pivoted to provide weekly groceries for families with children. Program 3 put its in-store browsing on hold and began packing bags based on households' orders, sustaining clientele's agency while keeping them safe. Many programs found ways to address the increased needs in a way that supported the local economy. Overwhelmed by the increased demand for produce that their programs could not address, Programs 6 and 7 drew upon their networks and assembled food boxes, similar to CSA boxes, sourced from local growers. The local sourcing passed an economic benefit to local growers and increased their resiliency during uncertain times. Programs 10 and 11 resorted to a similar model, but with produce grown by the program.

Throughout the response to the pandemic, program resilience has been sustained through flexibility. Depending on COVID restrictions, emerging community needs, and available resources, the daily operations of programs were changing week by week. For programs outside of the Charity Model, adapting often involved temporarily pausing their focus on systems change in order to prioritize more urgent needs of the community. For example, both Programs 3 and 9 began receiving food from a national level food bank to meet the community demand for food during the pandemic. While this decision conflicted with the programs' commitment to local sourcing, in the context of COVID these programs prioritized their community's well-being—a higher core value. In addition to the daily operations of the programs, COVID has impacted programs' long-term planning. Program 6 was the intended recipient of a yearly local grant. However, in response to the pandemic, the community decided to reallocate a large portion of those funds. While challenged by the lack of anticipated funding during a period of increased

need, Program 6 responded by diversifying local funding sources and prioritizing a core set of actions, such as distributing food boxes.

Importantly, COVID has provided an opportunity to reassess values within local food systems (Shanks, Hingle, Parks, & Yaroach, 2020). The program director from Program 5 explained, "I think it also has revealed to people the importance of this idea of community food security. It just doesn't look like individual food security." The program director looked forward their program's future with the community's rekindled value for community food security. For Program 10, this reassessment resulted in a new program mission:

Interviewee 1: When COVID hit, it really made us start thinking, we really need more food security, you know, on the reservation.

Interviewee 2: And at that time, we decided to come up with a new mission statement and a new strategic plan. So now we are geared more towards education. We want to teach farming. We want to try to bring farming back. We want to show people how to eat healthy. – Program 10

By stepping away from its pre-COVID daily operations to address immediate food needs, Program 10 discovered a new mission in response to the reservation's high rates of infection and death from COVID-19, and its isolation from food sources. Although our interview was conducted during a transitional period, Program 10 now intends to focus on increasing the resilience of the reservation's food system and increasing the health of the community as preemptive measures against any future disconnects from global food supply-chains.

Logistical Advice:

Throughout interviews, interviewees shared tangible advice and lessons learned through the challenges they faced. While many of these challenges may be unavoidable, and solutions are never one-size-fits-all, interviewees shared their advice to help other communities realistically

consider their program goals in the context of their resources and prepare for the logistical challenges they might face.

Owning the space where the program operates was repeatedly listed as a key to success. This allowed programs to invest in their physical space, adjust it to suit their needs, and create long-term plans. Programs that had created succession plans were situated in a space they owned, such as Program 3, 10, and 12. This builds on the idea of land as an asset. Alternatively, many programs that did not own their space cited that as a challenge. The program director of Program 5 illustrates this below:

"I'll say the one last thing that kind of also throws a curve at us is that we don't own land. And we've been at the whim of private landowners, which has made our job incredibly hard over the last six years to understand, to really fully live in our capacity, and to be able to make investments in our operation." – Program 5

Regardless of ownership, **adequate space** is needed to complete program goals. Programs that aggregated and distributed produce, such as programs 3, 4, and 11, often needed more space to deal with perishable produce. These programs worked within a limited window of which produce had to be aggregated, distributed, and consumed. Some programs extended the shelf-life of their produce by investing in coolers, but only when space for coolers was available. By partnering with corner stores that are already limited on space, Program 11 faced a unique challenge. Store owners were hesitant to bring in a product with a limited shelf-life and even more hesitant to bring in bulky coolers to extend the shelf-life. This was resolved by beginning with small displays and expanding gradually as the store owners' confidence that the produce would sell increased.

Preparing for inconsistent availability of produce presented a challenge for many programs. Due to the seasonality of food production, programs in the Appalachian region

experience lulls in the availability of fresh produce during the winter but not a lull in need in the community. Depending on available freezer space, these programs try to freeze produce for distribution during the winter months. Program 3 and 4 both mentioned butternut squash as an alternative to frozen food, but even that has its challenges:

"And it's very, it gets to be very warm in here during the winter and it starts stinking because the squash start rotting—because we don't have any place to store vegetables like that. We need that kind of cool storage, because our coolers are very full. We just run out of space. So, storing food is it is an issue." – Program 3

Even in other seasons, produce availability waxes and wanes and is impacted by seasonality, drought, disease, and donations. This experience requires adaptability and flexibility, opposed to being reliant on consistently available, shelf-stable foods.

Valuing personnel, including staff and volunteers, was another to success for many programs. Programs that relied on volunteers to assist with logistics showed their appreciation by hosting volunteer events, such as lunches, and having a system to receive and enact volunteer feedback. Additionally, many of the full-time staff members expressed their gratitude that they were economically sustained by their work. This has allowed full-time staff to dedicate themselves to their position and have the additional capacity to enact change that would have been difficult for someone in a part-time or volunteer role. This lesson was exemplified by the founders of Program 5, who "learned very early on that they needed somebody who is responsible, and in some ways paid- in a paid position to take responsibility of the day to day."

A final piece of advice related to **educating partnering organizations** in food safety and produce handling decreased the amount of produce wasted. This was the case for Programs 4 and 5, which provided produce to local food pantries, as they found that some partners were unfamiliar with perishable produce and ways to keep it fresh and safe, such as storing it in

coolers. Program 11 also found that educating store owners on produce handling and staging increased store owners' confidence in stocking produce.

Table 3.1 (below) briefly lists the prevalence of many of programs' shared elements and keys to success.

Table 3.1

Program:	Model type:	Full time/ paid staff:	Ownership of space:	Volunteers:	Educational component	Program run garden:
Program 1	Charity	No	No	A small group of core volunteers	None	No
Program 2	Charity	Yes	Yes	No	gardening, nutrition	On site
Program 3	Support	Yes	Yes	A large network of volunteers	nutrition	On site
Program 4	Support	Yes	No	No	nutrition	No
Program 5	Restructuring	Yes	No	A large network of volunteers	gardening	On site
Program 6	Restructuring	Yes	No	Community youth	gardening, nutrition, economics	Through partnerships with local farms
Program 7	Restructuring	Yes	No	Community youth	gardening, nutrition, economics	Through partnerships with local farms
Program 8	Restructuring	Yes	Yes	No	Nutrition, economics	No
Program 9	Market	Yes	Yes	Small group of core volunteers	gardening, nutrition, economics	On site
Program 10	Market	Yes	Yes	No	gardening	No
Program 11	Market	Yes	No	No	nutrition	On site
Program 12	Restructuring	No	Yes	Whole community participates	gardening	On site

Reflections for Future work:

It was common for participants to express that they were happy and proud to have been included in this research and commonly emphasized how needed this work is. Many participants stated that their reflection process during the interview was therapeutic and rewarding. The

interview process provided multiple participants the opportunity to step back from the daily program management and admire their accomplishments from an outsider's perspective. Notably, interviewees in this study named improving quality of life as a primary motivation for their programs, citing how their communities had disproportionately high poverty and diet-related disease compared to their state average and often to neighboring counties. While the existence of poverty and diet-related disease in a community is not a requirement for a community-derived food access program, perhaps the determination and dedication of the community to enact change in these areas is a key to the success of these programs. This dedication may have also impacted the high response rate for interview requests.

There is a need for continued work in this field. On a practical level, many interviewees identified the need for a platform to share knowledge, wisdom, and advice surrounding community-derived food systems work, even if only in an informal setting. Many programs, such as Program 5, 6, and 10, already share information and guidance with neighboring communities, but they also recognize that a direct replication of their program structure would not be the best fit for another community.

If given a chance for follow-up interviews with program stakeholders, I would focus on previous attempts to address community food insecurity. The intention of this would be to better understand how the current program fit into past efforts, perhaps learning from past mistakes or building on previous attempts. Lastly, I would ask if successful initiatives, even in unrelated areas, acted as guide stones for the current program. These questions would further contextualize the formation stage of the programs.

As this work is generally focused on the Southeast, research that identifies models in the other regions of the U.S. would establish additional place-based frameworks and allow for

comparison across regions. Additionally, these models will need to be updated as new community-derived approaches are developed. To further the effectiveness of models as guides for additional communities, resources should be developed, beginning with a resource that helps communities identify which model may be their best fit based on their assets, needs, and guiding values. Furthermore, there is a need to create an open-access platform for community-derived food access programs, despite the model, to ask for advice and share wisdom and resources.

Conclusion:

This study analyzed rural, community-derived food access programs to identify four overarching program models. The Charity Model provides emergency food to the community by sourcing from food banks. The Support Model also addresses emergency food needs but utilizes community assets to source food locally. The Market Model utilizes the established market system to increase community food access by offering a new produce source or addressing a logistical gap in the supply chain. Lastly, the Restructuring Model redefines or creates an entirely new local food system. Furthermore, this study has illustrated that there is no universal, one-size-fits-all approach to community-derived food access work. A program, its structures, and its impacts reflect its unique community assets and priorities. To my current knowledge, this is no other work on rural, community-derived food access programs; therefore, this work is intended to serve as a foundation for further academic research in the area. Additionally, this work is meant to provide a resource for rural communities building community-derived programs of their own. However, models are only intended to serve as inspiration. The community-derived focus of this work offers an alternative to top-down approaches to community development. Even the

community-derived Charity Model has significant benefits over an externally driven charity approach while also holding the potential to evolve into another community-derived model as community needs and assets change.

For this study, the definition of “community-derived program” was guided by the theory of Assets Based Community Development and a Culture Centered Approach. ABCD encourages the community to identify assets, including social assets, that would likely go unutilized by external organizations. This resists the "deficit approach" that can result in community members believing they must rely on external help to address their needs. Communities that identify and mobilize their assets are reclaiming power and reframing external organizations as co-participants. CCA complements this by including subaltern voices in community decision-making spaces, creating a more holistic ability to identify community needs, assets, and solutions. Additionally, this theory embraces a community's cultures and priorities, resulting in programs that may be more accepted by members from the community from which they derived.

The strengths of community-derived work make it an appropriate approach for the many intersecting barriers to food security faced by rural residents. The distance to grocery stores, limited transportation, high poverty rates, and many other factors limit rural residents' access to fresh fruits and vegetables. This has contributed to the disproportionately high rates of diet-related disease among rural residents, where healthcare is often limited by the same factors that restrict food access. While food access in rural America is often overshadowed by its urban counterpart, rural residents make up a significant portion of the U.S. population. These four models of food access programs identify a foundation for the development of holistic, adaptable, community-derived programs that can address the unique and intersecting barrier of rural fresh food access.

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APPENDEX A

Codebooks:

Below are the codebooks used for this work. The first is a set of codes used to code during the document analysis. Second is the set of codes used to code the interview transcripts. While the second codebook is very similar to the first, it is adjusted to include elements only included in the interviews.

Codebook for the Document Analysis

Code	Definition
Additional Operations	Other missions or goals of the programs not directly related to food access, but indirectly affect the impact of the program. Ex. a youth development program that builds community gardens/ increasing land ownership.
Community Contributions	Program elements that very specifically derived from communication with the community about their needs, identified solutions, and assets.
Community Culture	Characteristics that illustrate the cultural norms of the community, including the community history. This is to add contextualization and identity to the community as well as highlight some of the unique/key community characteristics. Many community derived elements may intersect or be derived from Community Culture. Also, have chosen to include race as an element of community culture. This is not meant to overlook the impact of both racism or the resilience in Black communities, but to highlight that these lived experiences as equally as influential as any other community culture.
Decision Making	Relates to the process of how decisions are made and priorities are set within the program.
Defining Barriers	Barriers relate to what is inhibiting the community from accessing what they need. Most commonly is defined by the community, but would be open to including additional, potentially unrecognized barriers, such as complex policy affecting access.

Economic Environment	Income characteristics of both community as a whole and the group targeted by the program
Economic Sustainability	Relates to BOTH the program's efforts to sustain itself as well as how the program contribute to an economic system that sustains the local farmers.
Education	Relates to the programs educational impact.
Environmental Sustainability	Relates to steps taken to preserve/better the environment for food production and beyond.
Food Environment	Focuses specifically on food access, but can also include all community access topics, including lack of access or ease of access. Ex. cannot access grocery store but can access corner store. Relates to physical location, economic environment, and barriers faced by residents. "access" is also used to encompass availability and affordability
Formation	Relates to the beginnings of the program or how it came about. May include community derived elements of organization and mobilization, process steps, barriers to overcome, and inspiration for the program.
Goal	Goals are the specific action items set by organizations (either accomplished or in action) as ways of supporting their overall mission.
Great Quote!	Great quotes that truly embody an important element of the program (ex: inspiration, values, navigating limitations, sustainability, impact) or the program as a whole
Guiding Values/Mission	Relates to the ethos behind the program and the decisions/prioritizations that were made. The real 'why' behind the programs and how they run. It is important to understand the "community culture" as it relates to the formation of values and vice versa.
Health and Wellness	A) The preexisting health and wellness characteristics of the community. It could be grouped under "needs" code, but as we are specifically looking at the relationship between access and health, it deserves its own code. B) The changes of community/individual health and wellness as an impact of the program. Both relationships to the code include mental health and the health of community relationships and society.
Identifying Needs	Relates to how the community defines and prioritizes their needs. Can differ from the prioritization of the program. Also, may be defined in a formal manner, such as a needs assessment, or in a less formal manner.

Identifying resources/assets	Relates to how community members identified the resources and assets for the program. Could be through already established networks (direct or indirect). Also relates to how far outside of the community was reached to meet all of needs.
Increased Access	Relates to the measurable ways the program has increased food access within the community/target population
Key to Success	Critical elements who's absence would have either hindered or limited the success/impact/sustainability of the program.
Navigation of Limitations	Relates to the challenges faced, how they were navigated (including both solutions and those not successfully navigated/abandoned). Draws on the resilience of the program. Also, may relate to the decision-making process if limitations are prioritized, therefore the allocation of limited resources must be considered potentially resulting in the abandonment of lesser influential or unchangeable limitations.
Paradox	Relates to paradoxes presented
Partnerships and Synergies	Relates to examples of partnerships and synergies with the program, both locally and beyond. Is used to also highlight the values of the partnerships and how they align with the programs. May commonly intersect with resources/assets as social networks are a type of capital.
Physical Location	Relates to the literal physical location, as physical location often relates to barriers/community/assets. For programs NOT in the rural Southeast, the code may be used to draw parallels to the Southeastern environment. Ex: Rural v Peri urban, Southeast v not, geography: Appalachian, farmland, Delta
Policy Environment	Relates to both direct and implicit references to the effects of policy. Policy environment (local, state, and national) is very broad and affects the allocation of resources, food apartheid, social services, housing affordability. Note if there is a relationship between policy environment and decision making. Also relates to governance and rules in place and how they facilitate the program's actions (in either a positive or negative way, i.e. SNAP)
Power Dynamics	Relates to who (individual or organization) in both the community and beyond holds the social and political power and to what extent. Ex. church, mayor, school board, state government. Also may interact with decision making.
Program Operations	The nuts and bolts of the program. How the nitty gritty works, including distribution, sourcing, marketing, eligibility, target market.

Social Sustainability	Relates to the social sustainability of the program, including effort to increase social sustainability as well as successes. For this work, Social sustainability relates to how the program is accepted into the community, how it is supported, and how it is valued by community members and partners. Social Sustainability also relates to social/community resilience when relying on neighbors and social ties.
Words of Wisdom	Relates to pieces of advice given to other programs, often lessons learned. relationship to 'Sustainability'.

Codebook for Interview Transcripts

Following are the codes used to index the interview transcripts. Underneath the code itself is information about how a code was changed from the document analysis codebook above. If blank, there has been no change. If the code is an adjusted version of a previous code, it will note which code it “evolved” from. If a previous code was collapsed into a current code, it will note which code(s) it “includes.” If a code is a new addition to this iteration of the codebook, it will note that it has been “added.”

Code	Definition
Challenges Not Overcome (evolved from “Navigation of Limitations”)	Related to the challenges that could not or have not been overcome, the reasons why and lessons learned, and what done to navigate the barrier. Includes current and ongoing challenges.
Challenges Overcome (evolved from “Navigation of Limitations”)	Relates to the challenges faced, how they were navigated (including both solutions and those not successfully navigated/abandoned). Draws on the resilience of the program. Also may relate to the decision making process if limitations are prioritized, therefore the allocation of limited resources must be considered potentially resulting in the abandonment of lesser influential or unchangeable limitations.

Community Culture (Includes previous “Physical Location”)	Characteristics that illustrate the cultural norms of the community. Includes communities' history, community health, and physical location/environment that impacts the norms of the culture (including barriers/assets). This is to add contextualization and identity to the community as well as highlight some of the unique/key community characteristics. Also, have chosen to include race as an element of community culture. This is not meant to overlook the impact of both racism or the resilience in Black communities, but to highlight that these lived experiences as equally as influential as any other community culture. When intersecting with "Community Engagement" it exemplifies how the culture impacts acceptance and engagement. When intersecting with "Community Engagement" it exemplifies how the particular culture impacts acceptance and engagement.
Community Engagement (evolved from “Community Contributions”)	Encompasses how the community interacts with the program. Includes community derived elements (identifying needs, barriers, assets) and how the community contributes currently (volunteering/ giving feedback/ receiving services). When intersecting with "Community Culture" it exemplifies how the culture impacts acceptance and engagement. When intersecting with "Sustainability" it may highlight a correlation between the level of community engagement and the long-term sustainability of the program.
COVID (Added)	Relates to the new need of the community/program, barriers to addressing them, and adjustments caused by COVID-19. It also includes anecdotes, examples, and silver linings. Often interacts with "Challenges Not Overcome" as there are many ongoing challenges presented by covid.
Defining Barriers	Barriers relate to what is inhibiting the community from accessing what they need. Most commonly is defined by the community, but would be open to including additional, potentially unrecognized barriers, such as complex policy affecting access.
Evolution (Added)	Demonstrated how the program has changed from its formative state. This could relate to a change in mission or goals, or just be a maturing through experience.
Food Environment (Includes previous “Economic Environment”)	Focuses specifically on levels of food access, but includes all community access topics, including lack of access or ease of access. Ex. cannot access grocery store but can access corner store. Relates to physical location, economic environment, and barriers faced by residents. "access" is also used to encompass availability and affordability.

Formation	Relates to identifying the need for the program and the beginnings of the program or how it came about. May include community derived elements of organization and mobilization, process steps, barriers to overcome, and inspiration for the program.
Great Quote	Great quotes that truly embody an important element of the program (ex: inspiration, values, navigating limitations, sustainability, impact) or the program as a whole
Guiding Values/Mission	Relates to the ethos behind the program and the decisions/prioritizations that were made. The real 'why' behind the programs and how they run. It is important to understand the "community culture" as it relates to the formation of values and vice versa. Can be exemplified by individual/community/organization's values.
Identifying Needs	Relates to how the community defines and prioritizes their needs and can differ from the prioritization of the program. Also, may be defined in a formal manner, such as a needs assessment, or in a less formal manner. Note if there is a discrepancy between the needs identified by the community and the needs/barriers being prioritized by the program. Ideally, there will be very little.
Identifying Resources	Relates to how community members identified the resources and assets for the program, includes physical, social (partnerships/ synergies) and the interactions of both. Could be through already established networks (direct or indirect). Notes how far outside of the community was reached to meet all of needs and if the values of the partnerships a line with the programs.
Impact: Economics (Added)	Relates to the program's efforts to economically sustain itself as well as how the program contributes to an economic system that sustains the local farmers.
Impact: Education (Evolved from "Education")	Relates to the programs educational impact. Includes: health, cooking, and gardening education.
Impact: Health and Wellness (Evolved from "Health and Wellness")	The changes of community/individual health and wellness as an impact of the program. Include mental health and the health of community relationships and society.
Impact: Increasing Access (Evolved from "Increased Access")	Relates to the measurable ways the program has increased food access within the community/target population

Key to Success	Relates to resources or situations that enabled the success of the program. A cornerstone or critical piece that the other pieces would not exist without. They can be self-identified by the interviewee or deducted.
Looking Forward (Added)	Relates to the future of the program, often identified by the interviewee. Specifically future goals, action items, or challenges. Can be planned or speculated.
Paradox	Illustrates any paradoxes present.
Policy Environment	Relates to both direct and implicit references to the effects of policy. Policy environment (local, state, and national) is very broad and affects the allocation of resources, food apartheid, social services, housing affordability. Note if there is a relationship between policy environment and decision making. Also relates to governance and rules in place and how they facilitate the program's actions (in either a positive or negative way, i.e. SNAP)
Power Dynamics (Includes previous "Decision Making")	Relates to who (individual or organization) in both the community and beyond holds the social and political power, and to what extent, as well as how decisions are made and priorities are set within the program. Ex. church, mayor, school board, state government.
Primary Goal (Evolved from "Additional Operations" and "Goals")	Primary goals are the top prioritized action items set by organizations as ways of supporting their overall mission.
Program Operations	The nuts and bolts of the program. How the nitty gritty works, including distribution, sourcing, marketing, connecting to target market.
Secondary Goal (Evolved from "Additional Operations" and "Goals")	Secondary goals are the action items that are identified or completed to support the primary goals. Although the goals may be prioritized by the community/organization, the impact of both is equally as important for this work. However, impacts from secondary goals may be less sustainable long term if they evolve to no longer support the primary goal.
Sustainability (Includes previous "Social Sustainability," "Economic Sustainability," and	Relates to the actions the program is taking to either ensure the sustainability of their work or to address the needs permanently so that their work is no longer needed.

“Environmental Sustainability”	
Words of Wisdom	Relates to pieces of advice given by stakeholders, often lessons learned. Cross coding with "sustainability" demonstrates advice that is meant to increase the long-term impact or success of a program.

APPENDIX B

Semi-Structured Interview Guide:

Consent and introduction:

The purpose of this interview is to better understand the work that your program does, as well as how your program was established, to promote the success and prevalence of similar programs. We are interested in key community characteristics, community-derived elements, identification of needs and assets, and navigation of limitations. This interview is not meant to evaluate your program, but, rather, it is an opportunity to share the lessons learned along the way to support the success of other similar programs.

The interview is meant to flow naturally, beginning with an overview and introduction, moving to the program formation and reflection, and concluding with the response to today's current environment and projections for the future. I have topics that I would like to cover, but, please include any information that you believe would be beneficial for other communities and programs.

You have been sent a consent form via email. Have you had the opportunity to read over it? If so, with your consent, this interview will be recorded. Data from responses will be aggregated with no link to either you or your program. Also, you may skip any questions that you wish. Do you have any questions at this time? If any questions arise during the interview, please feel welcome to ask them. Let's begin!

Introduction:

- To begin, tell me about your program! (in broad brush strokes)
- What are the goals/mission of this program?
 - o What does it hope to accomplish? Who does it serve?
- What's your role in the program?
 - o How did you become involved?

Formation/Process:

- How did the program come about?
 - o Why? Motivations? Initial goals?
- How does it reflect the unique culture & values of the community?
- How was the need for this program identified?
 - o Who participated in this process (and how)?
- How were resources/partnerships identified or established to support the program?
 - o (Local vs. non-local) Did you need to go beyond your community to access the resources needed for this program?
- What local, state, or national level policies impacted the shape of your program?

Established:

- Now that I'm familiar with the program, please walk me through the nuts and bolts of how it works.
 - o Where does the food come from?
 - o How does it get to community members?
- How do people learn about the program? Who qualifies?
 - o Are there other program elements that support increasing food access? (youth leadership programs/ community gardens)
- How has the community reacted to the program?
 - o What does participation look like?
 - o What feedback have you received?
- How does your program stay connected to community needs?

Reflection:

- How do you measure the success of the program's work?
- What is your long-term plan for sustaining the change and impacts of this program?
- Programs like these can often complement one another, or build on successes and opportunities. Can you reflect on any synergies in your program?
- Conversely, programs often have to navigate competing priorities. Can you reflect on this?
- What have been the most important lessons learned or challenges to overcome?
- How have the program's goals changed over time?
- Looking forward, what would you like to improve or expand upon in the future?

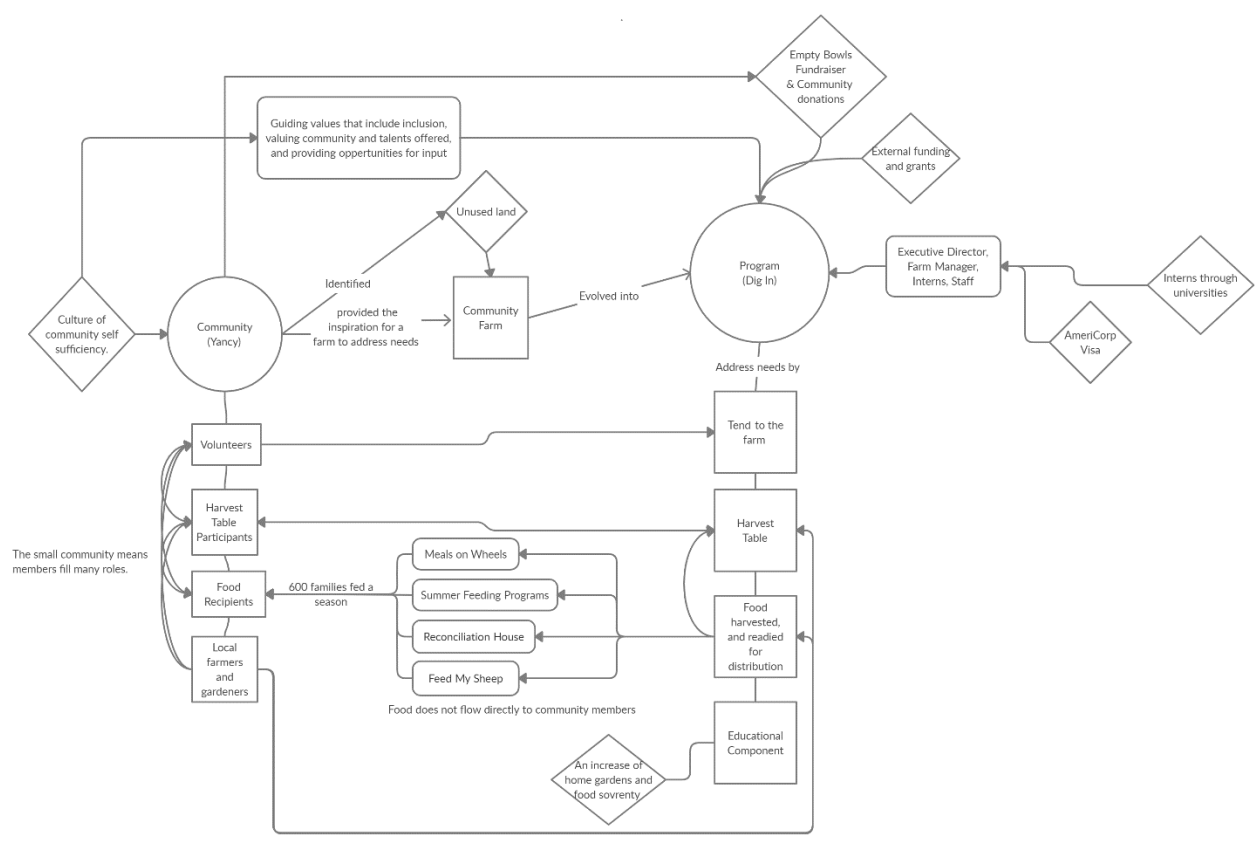
Current/Future:

- The last few months have been tumultuous. How, if at all, have current events affected your program?
 - o Its day-to-day operations?
 - o Its goals/objectives?
- Have any silver linings emerged?
- What does the future look like for your program?
 - o What challenges or opportunities do you see on the horizon?
- What advice do you have for other communities trying to establish these kinds of programs?
- Is there anything else I need to know?

APPENDEX C

Concept Map

Below is an example of the concept mapping process I used to help me visualize programs with complex systems and elaborate networks. In the maps I particularly note the flux of food, money, and community involvement. In addition to providing clarification, this process helped me identify gaps in these flows that could be addressed during the interview process. Additionally, after the interviews I would adjust the maps, noting how my initial interpretation of the program based on public facing documents evolved.



Above is a concept map representing Program 5.