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"What we raise ourselves": Growing food sovereignty in the Mississippi Delta

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Abstract

This paper employs the concept of food sovereignty, as conceived by La Via Campesina and developed by First Nations in North America and peasant farmer groups around the world, as a lens to assess the level of local control over the production, distribution, and consumption of food in the Mississippi Delta. We present research conducted through site visits, participant observation, focus groups, and surveys of communities affiliated with the Delta EATS public school garden program currently operating in three Mississippi public elementary schools. Our findings demonstrate low levels of food sovereignty but high levels of agency and ingenuity in accessing and obtaining desired foods, along with abundant interest in preserving and passing on traditional foodways. Community members express the desire to exert greater local control over food production, distribution, and consumption through community gardens, farmers markets, and cooking and food preservation classes. While food sovereignty is constrained by the current agri-

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food system of the Delta, programs such as Delta EATS and farmers cooperatives are enhancing local food sovereignty through farm-to-school programs that strengthen relationships between farmers and the community.

Keywords
Food Sovereignty, Mississippi Delta, School Gardens, Food Justice, Farm-to-School, Community Food System

Introduction

The concept of food sovereignty has emerged in recent years as a critique of globalization in agriculture and food distribution. Like the movements for political recognition and sovereignty among indigenous communities with which it is closely associated, food sovereignty is a response to the history of settler colonialism, structural racism, and exploitation that underlie the global food system. In brief, food sovereignty means that a community of people (defined nationally, culturally, and/or geographically) should control the mechanisms of food production, distribution, and consumption, along with policies related to food, rather than corporations (La Via Campesina, 2009). It is closely related to the right of self-determination and economic autonomy in post-colonial movements and emphasizes the right not just to access culturally appropriate and affordable nutritious foods, but to control their production and preparation, often through traditional means. As reaction and resistance to globalization in the agri-food sector, movements for food sovereignty can now be found all over the world (Ayres, 2013; Patel, 2012). What these movements share is the aim "to institutionalize equity in and control over the food system . . . by people who have been marginalized by mainstream agri-food regimes" (Cadieux & Slocum, 2015, p. 3). Food sovereignty "prioritizes local production of food" through which "members of the community themselves are leaders in shaping the local food system" (Ayres, 2013, p. 104).

Food sovereignty is closely related to movements for food justice, a term used more frequently in North America to critique how the agri-food system is structured to disempower and exploit economically disadvantaged and historically marginalized communities, whether as labor (farmworkers, food processors, grocery workers) or as consumers whose access to food is largely determined by neighborhood (Alkon & Agyeman, 2011; Broad, 2016; Gottlieb & Joshi, 2010; Institute of Medicine & National Research Council, 2009; New York Law School Racial Justice Project, 2012; Sbicca, 2018). While food justice and food sovereignty have distinct origins and histories (Cadieux & Slocum, 2015), each is invoked by advocates to contest the way power is unequally distributed in our food system and to develop stakeholder input and local control. In practice, both food sovereignty and food justice movements work to increase local or regional control over the production, distribution, and consumption of food by prioritizing the most marginalized members of those communities. As such, food sovereignty and food justice movements are also political efforts to build collective power and agency within a community that has been historically disempowered by settler colonialism, as in the case of First Nations, or by white supremacy and the legacy of plantation-style agriculture, as in the case of Black Americans in the U.S. South.

Our research employs the theoretical framework of food sovereignty, as conceived by La Via Campesina and developed by First Nations in North America and peasant farmer groups around the world, as a lens to assess the level of local control over the production, distribution, and consumption of food in the Mississippi Delta. Our primary focus is on the communities affiliated with the Delta EATS (Edible Agriculture Teaching Students) school garden program, a curriculum that connects fifth grade students with an on-site school garden used as an outdoor classroom for gardening and cooking lessons (Holmes et al., 2020). This school garden program is situated in the historical and geographical context of the Delta region. In order to assess the level of food sovereignty in these communities, we conducted site visits and carried out participant observation, focus groups, surveys, and interviews to determine the degree to which residents of these Delta communities are able to find and afford healthy, desirable, and culturally appropriate foods. Our research findings give insight into the ways that people access food in the Delta, their food traditions and food preferences, and the new food projects that they would like to see implemented. What emerges from our research is a picture of communities with little control over their current food sources but high levels of agency in procuring food in spite of numerous barriers. Moreover, we found strong desire for innovative food projects that would enhance food sovereignty in the Delta region. New food projects such as farmers markets, food preservation workshops, and community gardens will complement the school gardens and farmers cooperatives that are already present in the region.

Food Sovereignty in the Mississippi Delta

The Mississippi Delta has long been a site of power struggles around access to food and food sovereignty, what Bobby Smith calls "food power" (Smith, 2019a, 2019b). Although the Delta region is one of the largest crop producers in the country, residents today often struggle to access healthy food (Haggard et al., 2017; Meter, 2012).

The Delta is a diamond-shaped geographical region between the Mississippi and Yazoo rivers, stretching 200 miles from Memphis to Vicksburg (Saikku, 2005). The area was first settled by mound-builders and their descendants, the Quapaw, Tunica, Chickasaw, and Choctaw, whose population was decimated by European contact. White settler occupation of the land began in earnest in the 19th century, using the labor of enslaved Africans and their descendants to clear the alluvial forests for the purposes of large-scale plantation-style agriculture, primarily to meet the growing demand for cotton (Baptist, 2014; Cobb, 1994). After the Civil War, the rich soil of the Delta attracted newly emancipated African-Americans who hoped to work their way into land ownership but instead became trapped in systems of sharecropping and peonage (Hinson & Robinson, 2008). Attempts by African-Americans to assert political and economic agency during Reconstruction and under Jim Crow segregation were met with violent repression by the white planter class and their allies (Cobb, 1994; Irons, 2010; Woods, 2017).

In the Civil Rights era, this repression took the form of economic coercion by local White Citizens Councils and the legal authority of the Mississippi State Sovereignty Commission (MSSC), which used intelligence gathering and surveillance of citizens in order to resist federal desegregation directives (Irons, 2010). Bobby Smith has described how Mississippi's segregationist Senators Stennis and Eastland and Representative Jamie Whitten collaborated with the MSSC in order to manipulate President Johnson's anti-poverty programs, such as food assistance, to favor white grocers in the Delta, while directing substantial agricultural subsidies to the white planter class (Smith, 2019b). This "war against the war on poverty" succeeded in undermining the civil rights activist leadership of federal programs such as Head Start and in reinforcing the racialized divisions of Delta society that persist today (Irons, 2010; Smith, 2019b). As one informant told us, "we live in a divided society" (personal communication, November 30, 2018).

At the same time, the Delta has been the site of some of the most innovative attempts to secure food sovereignty, what Smith calls "emancipatory food power" (Smith, 2019a, p. 35). While independent Black farmers throughout the U.S. have faced discrimination by the USDA and in their local markets and have suffered extensive land loss (Gilbert et al., 2002), Black farmers in the Delta have continued rich agrarian traditions along with sustained economic models of cooperative development and support. Fannie Lou Hamer's Freedom Farm Cooperative (FFC) in Ruleville is perhaps the best-known example of efforts to reclaim agriculture as a site of freedom and self-determination. Hamer's cooperative farming project, which lasted from 1969 until her death in 1977, prioritized growing food for people to eat (through a pig bank and vegetable gardens), decent housing for former sharecroppers, education, social services, and skills training (Smith, 2019a; White, 2019). Hamer considered cooperative ownership of land the foundation for survival and freedom through food production and political self-determination (Smith, 2019a). Although FFC came to an end after a series of droughts and floods, and the death of Hamer impacted the cooperative's ability to fundraise, FFC remains a model of food sovereignty: the cooperative was the means through which the people most affected by food insecurity—displaced sharecroppers and farmworkers—built the collective power to meet their own food needs (Smith, 2019a; White, 2019).

Similar projects in the Delta also use the model of cooperative self-determination to secure food sovereignty. For instance, during the 1960s residents of Bolivar County built on a legacy of Black independence in Mound Bayou to organize the North Bolivar County Farm Cooperative (NBCFC) in response to farmworker displacement by mechanization (White, 2019). NBCFC was part of a larger movement of Black farmer cooperatives organizing across the south in the 1960s and 1970s that joined together under the Federation of Southern Cooperatives (FSC) umbrella organization (Bethell, 1982). Today, the FSC continues its movement building for collective agency through economic cooperation, protection of the landholdings of Black family farmers, skills training, and advocacy (Federation of Southern Cooperatives, 2020; White, 2019). Among the farming cooperatives active in the Delta today, the Mileston Cooperative Association traces its origins to a New Deal Resettlement Administration program for displaced sharecroppers. The Mileston farmers grow commodities as well as produce for their community, operate a farmers market, and lead a youth training program (Alcindor, 2009; Hossfeld & Mendez, 2018).

These projects shape the wider Delta context of our food sovereignty study, which is more narrowly focused on three communities (Shaw, Leland, and Hollandale) associated with the Delta EATS school gardens program. Although residents of the Delta live with the legacy of segregationist manipulation of food power and the constraints of the current agri-food system, they also share a heritage of cooperation, resilience, and participation in transformative food projects that can enhance food sovereignty.

Applied Research Methods

Our research was undertaken to assess the level of food sovereignty in communities associated with the Delta EATS school garden program (Holmes et al., 2020). In the fall of 2018, Holmes and Campbell contracted with Betz and the Delta Health Alliance to carry out a food sovereignty study as part of USDA-NIFA CFP Grant Award # 2018-33800-28450, the Delta EATS Community Foods Planning Project. The aim of our study was to measure the degree to which Delta residents affiliated with school garden communities have control over the production, distribution, and consumption of food in their communities. The results of the study were used to inform culturally appropriate next-steps for Delta communities, researchers, and advocates who aim to alleviate food insecurity, hunger, and malnutrition, while increasing food knowledge, food choices, and community control over their food systems.

Our study used a modified version of the Food Sovereignty Assessment Tool developed by the First Nations Development Institute (First Nations Development Institute, 2015) and it was guided by the framework of food sovereignty presented in the paper "Towards Food Sovereignty" by Michel Pimbert (2009). We are deeply indebted to the First Nations Development Institute for their work connecting the right to self-determination of tribal communities in North America with movements for food sovereignty in post-colonial, indigenous, and peasant communities around the world. While this approach does not map directly onto majority Black communities in the Mississippi Delta without modification—for instance, these communities do not have the same ceremonial connections to the land, nor do they, with some exceptions,[1] have the right to self-determination on their sovereign land—the need to assess community access to and control over food is similar. Both communities have been disempowered and deprived of land access by white supremacist power structures. As white people committed to dismantling these structures, including in our own research, we looked to the First Nations Food Sovereignty Assessment Tool for inspiration in designing our study. We gratefully acknowledge that our research was carried out on the traditional land of the Tunica, Choctaw, and Quapaw Nations, and that our university, and therefore our writing and teaching, is situated on the traditional territory of the Chickasaw Nation. As white researchers, we are aware of the risks of cultural appropriation in adapting this assessment tool. Our aim, however, is to honor the resilience of First Nations communities, including in the area of food sovereignty, as we work to promote justice in the Mississippi Delta.

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[1] See the history of Mound Bayou, founded as an autonomous Black community by former enslaved persons in 1887, and the New Deal Resettlement community of Mileston (Alcindor, 2009; Cobb, 1994; White, 2019).

The research team consisted of Campbell, an applied anthropologist and an associate professor of anthropology in the Department of Behavioral Sciences at Christian Brothers University, and Holmes, a theologian and professor in the Department of Religion and Philosophy, also at Christian Brothers University, with four years of experience conducting ethnography of food research in the Delta. Betz is a 16-year resident of the Mississippi Delta, with a public administration and social entrepreneurship background, who served as the program manager of Delta EATS 2015–2021 and contributed to the study design, recruited participants for focus groups, and distributed surveys.

We conducted four focus groups with 28 participants and administered 43 semi-structured surveys to Delta residents between November 30, 2018, and February 13, 2019, all with informed consent. Participants were recruited from school communities affiliated with the Delta EATS school garden program with flyers and announcements from the schools. We held focus groups in three public elementary schools that have existing school gardens and at a local conference center; we administered the surveys after each focus group as well as through distribution to parents of children who attended the schools we visited, with permission from the schools. The survey was used to collect demographic information, food preferences, and attitudes towards food procurement, traditional foodways, and food practices such as sharing, barter, and hunting as well as community food needs. In addition, we conducted two in-depth interviews with Delta residents after the focus groups, and we spent time in participant observation to better understand the context of food in the Delta, purchasing and eating food from grocery stores, gas stations, and restaurants, and visiting agricultural sites such as farms and school gardens.

We used IBM SPSS to analyze the quantitative data, Microsoft Word to build tables, and text analysis for qualitative data. The research was approved by the Christian Brothers University Institutional Review Board. All participants are adults and signed informed consent forms. Focus group participants were given a \$10[2] Walmart gift card. Surveys completed outside the focus groups were not compensated.

While there is a demographic range of participants, the majority were African American females, aged 40 or above, employed, and residing with two, three, or four others. Because our population sample was limited to school communities affiliated with the Delta EATS school garden program, the majority of our focus group and survey participants are parents of schoolchildren or employees of the schools. All are residents of Delta communities with active school gardens.

Results: Focus Group Findings

In the focus groups we asked eight open-ended questions, with follow up questions as needed. The first question was, *What do people typically eat?* Frequently mentioned items include baked chicken, fried chicken, pork chops, turkey, and fish, as well as rice and gravy, potatoes, spaghetti, vegetables such as green beans, lima beans, lettuce, greens, squash, okra, corn, tomatoes, and Brussels sprouts, along with grits and eggs, bacon, and sausage. Children were thought to prefer burgers, hot dogs, pizza, wings, French fries, rice and gravy, chicken strips, and fried foods, although some participants said their children preferred home-cooked foods. Several people described the typical Delta diet as "soul food" or "old folks' food," which they explained includes foods such as pig's feet, neck bones, and chitterlings in addition to items such as greens, rice and gravy, and sweet potatoes.

The second question was, *Where do people get their food?* Nearly everyone described driving to a different town for shopping at a full-service grocery store with an average of 20 to 30 minutes of travel time, with a range from ten minutes to an hour. Participants decide where to shop and what to buy based on weekly sales, prioritizing frozen and shelf-stable items, but they weigh the savings against the cost of gasoline to drive. Some will drive an hour to buy items on sale, or they combine grocery shopping with other trips: "It depends on how far it is to drive, I'll go to Spain's for chicken wings on sale, but it's an hour from here, I'm not fooling with you. If I'm in Jackson, then I'll shop in Jackson." People frequently rideshare or pay for rides—for example, $20 roundtrip—because there is no public transportation.

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[2] All currency in this paper is U.S. dollars.

Participants also described how people purchase prepared foods ("highway food") at gas stations and convenience stores, considered a major food source in the region. They said that hot foods such as fried chicken, baked chicken, hot wings, mashed potatoes, rice and gravy, and side vegetables are available at most gas stations. These are convenient and affordable foods for people working on farms to obtain a quick breakfast or lunch.

The third question was, *Where does food come from? How far does the food travel to get to the grocery store?* Most participants were unsure, unless it was a question of food safety: "I only know it comes from a grocery store, unless it's a recall. Not where it's produced. But then I would know." They said that food arrives on trucks from distribution centers in Jackson, and prior to Jackson from around the world. Some people said that bread is stocked more frequently, and that certain distributors bring meat or produce on different days.

Regional large farms were recognized as sources of jobs but not as sources of food: "A lot of things are grown in the Delta but the majority is being shipped out. The majority is not food, it is biofuel, corn, soy." Participants lamented the closing of a nearby catfish processing plant, which increased the price of locally raised catfish. No one expected to find locally grown fruits or vegetables in their grocery store. Walmart was singled out as not being supportive of local farmers because of their power to set their own prices and to sell produce grown locally to other regions. While many people would like to see farmers markets, there was also the recognition that there may not be enough supply from local farmers to meet community demand.

The fourth question was*, How much does food cost? Do you know how much money people in your community spend on food?* Participants reported that costs depend on family size. They noted the high costs of feeding children, especially over the summer months and when kids are out of school. A couple might spend $40 per week, while at the upper end, a family of four might spend as much as $150 per week. Others spend considerably less, around $200–$300 per month for a family of four, or as low as $50–$60 per month for a single person who raises her own garden. One participant said that for a large household of seven to eight people, cost affects the quality of food: "$100 to eat healthy per week, or it's less healthy, and you are cutting corners." Many participants described enjoying cooking. A few mentioned relying on convenience foods such as ramen noodles, hot dogs, and pizza for children. Many use coupons and savings apps, along with weekly promotional flyers, to maximize savings at each store. One participant gave a detailed account of her shopping habits: "One week I buy meat, the next I get canned goods, if I'm out in Greenwood, I visit the dollar aisle. I find blueberry muffin mix and spent $30. I hide it from the kids, I don't give them all their snacks at once or they'll eat them all. When they go over to Granny's or Auntie's during the week, they get Gatorade or chips. At Stop-n-Shop, I just get meat. The side stuff is expensive. I spend more at Walmart." Participants said that many people pay for their food with SNAP benefits, "that plus a little extra."

Participants described buying fruit in a mixed bag on sale and discounted vegetables to save money. They recognized that vegetables and fruits in particular are expensive in the Delta because they are mostly imported: "Vegetables and fruits get expensive. All of it's trucked in, lettuce is $3. There are no vegetable farms or fruit here, it doesn't grow in this area." Others noted that even if vegetables can be grown in the region at a large scale, there is an additional problem of labor: "They can't get it harvested, the problem is labor, it has to be hand-picked." Participants said that the price of produce depends on the season, and fruit in particular varies dramatically in price. Some described eating more frozen or canned vegetables than fresh during winter.

In question five, we asked about food insecurity and hunger relief programs, *Do you know or think people in your community are hungry? Are there existing programs to assist people who experience hunger?* Participants overwhelmingly agreed that hunger is a problem in their communities: "Yes, there is. I have seen people. They have knocked on my door. A man said he was hungry, asked for a sandwich, I fed him. Yes, in every town." They also described the shame that surrounds hunger and the problem of food waste: "I have seen it, it truly broke my heart. There was a boy scooping up all the snacks and taking food home. People are secretive about it, they don't want people to know. He was taking snacks to his brothers and sisters. I said, let them take plates of food home. . . . I don't want to make a judgment call that there is a hungry child and we threw food away." Others worried that people kept their hunger secret out of shame: "What goes on in the house, it stays in the house. That includes hunger, food insecurity."

One participant was familiar with food insecurity statistics for Shaw but noted the difference in perspectives as to what counts as food: "It's one in three in the county, 32 or 31 percent. But none of the kids think they are food insecure. If they have a pack of ramen at home, they think they have food. The definition isn't relatable to kids and families." The reality of food insecurity in the communities was heartbreaking for participants to describe: "During the bad weather days, we only closed the school for one, because at home kids don't have heat, they don't have food, they need to be able to come to school. We stayed open all day for the kids, the school is the only hub for hot food for students." Another participant said, "Those kids are the healthiest in the household, who eat in the cafeteria, but their meal still comes out of a big processed can." When asked which groups are more at risk for hunger, participants named people who live in the smaller towns in the Delta, "older people who choose between medicine and food and high utility costs" and "kids who live with grandparents who can't afford to feed them the way they should be fed."

Participants mentioned a few hunger relief programs in the Delta, including the Mississippi Food Network, which distributes through food pantries in churches, but noted that access to food pantries can be difficult, depending on the county of residence. Other programs are the USDA-funded summer feeding programs and supper programs for children, in addition to school breakfast and lunch. Participants also mentioned the Alcorn Experiment Station, which gives out sweet potatoes and greens, as an occasional source of free food. Participants described the close connection between hunger and the inability to concentrate in school, and poor health outcomes in the region such as obesity, diabetes, high blood pressure, and malnutrition. They recognized the stress on families from not knowing where to get food, and the stress on children not knowing when they are going to eat.

Our sixth question asked about alternative food sources such as hunting, fishing, and home gardens. None of our participants reported hunting or fishing for themselves, but they all know people who do. The overwhelming perception, however, is that people in the Delta primarily hunt and fish for recreation, rather than for food. Hunting was associated with white people and high socioeconomic status and identity, with people who go to hunting cabins for sport. Those who do hunt primarily target deer and rabbit, although raccoon, fox, turtle, and alligator were also mentioned. Many participants knew of nearby deer-processing facilities.

When asked about fishing, participants immediately raised concerns about the quality of the water. They are concerned about agricultural runoff and high mercury and DDT levels. There was deep suspicion about the safety of the water as a source of food: "I wouldn't trust it."

We asked how many people have home gardens; only one participant said that they supplement their groceries with "what we raise ourselves, and have in our deep freezer," foods such as greens, okra, tomatoes, beans, and squash. Another participant named the best foods to grow in the Delta as "okra, tomatoes, greens, peas, butterbeans, cucumbers, squash, and watermelon." Even if the majority of our participants did not grow food themselves, almost all knew of community members who raised gardens and shared their produce: "There aren't too many now, but one man in Shaw does, and anybody who wants to come get greens, he shares with the community"; this was described as a "sharing garden" rather than a community garden. There was agreement that the practice of keeping a home garden or kitchen garden is not as common as it used to be, and gardening is only continued by older people who own their homes and have access to land: "Not a lot anymore, just a handful, you used to see a lot. Older people have them. Mostly older people raised gardens." Some lamented the quality of soil and the challenges of growing vegetables in the Delta climate. Others expressed interest in raising chickens or hogs, but expressed discomfort with killing animals. All participants were interested in the concept of community gardens, however, and mentioned the local school gardens as an important new resource.

In our seventh question, participants were asked to describe traditional Delta foods. They named "soul food," chicken, rice, greens, sweet potatoes, spaghetti, catfish, cornbread, black-eyed peas, smoked neck bones, ham hocks, turkey necks, hot tamales, and cabbage greens. We asked about food traditions that are no longer commonly practiced. Several mentioned gardening, and some of our participants spoke of hog killing: "My father and grandfather raised hogs, we used to watch them slaughter the hogs, we would salt the meat, preserve for months at a time, I miss that. There were parts of the pig that you can't get any more. There is a store in Oktibbeha county that has the stomach, which is so good. . . . My aunt can take a hog head and make souse. My family is big on food. My grandparents taught me how to cook. They had to raise animals, not go to stores. Now people buy food from convenience stores, which is not healthy, fresh food. And sometimes you get to the store and it is already gone."

Despite the demise of community-based food practices like hog killing, participants were proud of the community support found in the Delta, the fact that people take care of each other, and if someone is hungry, they will be fed: "The Delta is the place that has the most community support. It's related to the people, we have a strong sense of community, and the churches are very involved. If they know someone doesn't have food, the pastor will drop off food." This experience of community includes access to fresh foods shared from home gardens and greens grown in publicly accessible places for anyone to pick. Participants thought that for parents in particular to have access to gardens and local food would be better for their children.

Question eight asked about ownership of and access to land, which participants described as a barrier: "A lot of older generations own their land, some young people have their own land, or are buying a house, but a lot of people rent, and wouldn't be able to raise a garden if they're renting. We have to do more community gardens, because we don't have access to land." In the abstract, there was recognition that "We have the land, there is the land, and vacant space" on which to grow food; but when pressed, the people we spoke with shared the belief that the land did not belong to them: "It's hard for anything new to come into Leland because the farmers own all the land around Leland, and they won't sell." Asked how land is used, participants said it is used to grow commodity crops that are exported from the region. Asked if they know people working on the big commodity farms, one participant said, "Everybody. People are working in the fish plant, processing farmed fish, driving tractors. We used to be out there in the field with a hoe. Chopping cotton."

To our last focus group question, if people have control over their food system, responses were mixed. A participant said, "I don't think they have control, like in Tchula, they have to travel, Mr. Head is over the co-op, but they still have to travel 35 miles to get food. They only have a gas station, convenience store. A lot of people have to travel to a grocery store. If they don't have transportation, they cannot control what they eat. Some communities are trying to do a small farmers market on weekends, they are trying to give more options." Farmers markets in Moorhead and Cleveland were mentioned as examples. Participants said many people in the Delta, however, exercise control over what they eat by shopping around, comparing prices, and travelling to get the best deals. They felt that they had a great deal of control over their diets but acknowledged that others in their community lacked transportation to grocery stores and were left with gas stations as their primary food source. Participants recognized that as a result some people in their communities were going hungry.

In addition, some participants suggested that "you don't need a terrible amount of space to grow fruits and vegetables. There are nooks and crannies to be able to do something, especially on school land." They expressed interest in using the land available to them, in small yards or at schools, to grow food: "If only we can get more gardens; you know about the new school garden in Hollandale?" They suggested that the extension program could help the school gardens to teach people how to grow their own food; whether they were referring to the Mississippi State University Extension in Greenville or the Delta Research and Extension Center in Stoneville was not specified. They also suggested more inter-generational programs as a way to pass on food traditions: "The only reason children don't eat vegetables is because they haven't been introduced to it. I love it when grandparents and aunts come with kids to the garden in the summer, because they get everything." One participant's son was inspired by his school garden to plant a home garden with his father to grow his own vegetables.

Results: Survey Findings

Forty-three respondents completed a survey adapted from the Food Sovereignty Assessment Tool that consisted of open-ended and closed-ended questions, a Likert scale, and a series of multiple response questions or statements, such as *Identify three traditional foods*. As with the focus group participants, all survey respondents reside in the Delta and are affiliated with schools, as parents or employees, that have active Delta EATS school gardens.

The survey data was consistent with the focus group responses. First, participants rated the importance of fifteen social structures, organizations, or shopping options for food procurement in their specific communities (not necessarily for themselves) using a five-point Likert scale of Very Important, Somewhat Important, Not Very Important, Not at All Important, and Does Not Exist in My Community. They were asked, *How important are the following sources of food for people in your community, region, or neighborhood? That is, how much does your community rely on them as a main source of food?* The highest percentages of "Very Important" food sources are churches, grocery stores, gas stations, and SNAP (Table 1).

The choice "Does Not Exist in My Community" was also an option for the question, and people chose it for grocery stores (4 participants), family garden or farm (4), farmers market (9), food co-op (12), community garden (9), school garden (1), hunting and fishing (3), trade/barter (5), food sharing (2), food pantry (6), SNAP (1), and food banks (5). Consistent with focus group data, this data demonstrates that some communities have a grocery store while others require travel for 15–60 minutes to a grocery store.

When asked, *Who do you consider to be the leaders in solving food problems in your community, region, or neighborhood?* participants could choose as many options as they liked. Of the seven choices, local government scored the highest, followed by community non-profit groups, federal state or health agency staff, volunteers, schools and universities, religious groups, and federal or state cooperative extension staff. Next, participants were asked, *Which of the following equipment or methods for food preparation and stor-*

Table 1. Percentages of Food Procurement Type by Very Important, *n*=43

Type	%
Churches	86.0%
Grocery Stores	83.0%
Gas Stations	83.0%
SNAP	83.0%
Convenience Stores	68.0%
Food Sharing	63.0%
Food Pantry	63.0%
School Garden	59.0%
Food Bank	56.0%
Community Garden	45.0%
Family Garden	45.0%
Farmers Market	33.0%
Food Co-op	32.5%
Hunting and Fishing	29.0%
Trade or Barter	29.0%

age do you use in your home? Gas or electric stoves, microwaves, refrigerators, and freezers each scored the highest. People reported that people in the community used a grill or barbeque, with a few people reporting use of canning, hotplates, or a food dehydrator.

We also asked participants, *Please circle any activities or projects that you would like to see in your community.* Of a list of 32 options, participants are most interested in having farmers markets and community gardens in their communities (Table 2). While many of the other options had at least a 20% score, participant comments help explain the choices. For example, hunting and fishing classes scored only 16%, but one person commented that the costs of firearms, fishing poles, and licenses might be prohibitive. Focus group data suggests that some people already know these skills, thus not needing a class, some are not comfortable fishing in local waters because of concerns over water quality, and some do not have access to hunting land or to processing services.

Some participants reported having used food assistance programs in the last month: 28% used SNAP, 12% used WIC, 33% used the National School Lunch Program, 23% used School Breakfast programs, 7% used Meals on Wheels, and 5% used a food pantry or food bank. Some people use multiple programs, while 42% reported not using any food assistance. For those who do use assistance, 25% report using it 12 or more days a month. These numbers are consistent with the fact that most participants are employed, and many have children enrolled in the local schools.

We asked several questions about food traditions, practices, skills, and passing on food knowledge. Asked, *How many people do you know in your community who are skilled in traditional farming, hunting, and/or the uses of traditional foods?,* 39% reported not knowing anyone who participates in these activities. Asked if the community is interested in learning traditional food practices, 64% answered yes; however, many expressed concerns that people, especially young people, will not take the time to learn. Participants are concerned that these skills are not taught in the home because parents and grandparents have been disconnected from the practice of food traditions in the Delta. Asked for suggestions about how to get young people involved in learning about traditional foods, the overwhelming response was to use school curriculum, social activities, and school gardens.

Table 2. Activities or Projects that You Would Like to See in Your Community, *n*=43

Activity	%	Activity	%
Farmers Markets	67.0%	Weekly Traditional Meals	27.0%
Community Gardens	61.0%	Fishing Classes	27.0%
Traditional Food Cooking Classes	56.0%	Natural Poultry Production	27.0%
Greenhouses	49.0%	Healthy Alternatives	26.0%
Nutrition Classes	49.0%	Seed Donations	26.0%
Fruit Tree Donations	47.0%	Natural Beef Production	23.0%
Vegetable Growing Classes	47.0%	History Culture Classes	21.0%
Youth/Elder Workshops	42.0%	Fish Farming	21.0%
Organic Gardening Classes	37.0%	Container Gardening Classes	19.0%
Food Co-op	37.0%	Garden Tilling Service	16.0%
Food Preservation Classes	35.0%	Hunting Classes	16.0%
Traditional Cookbook	32.0%	Community Compost	16.0%
Monthly Traditional Meals	32.0%	Natural Pork Production	16.0%
Food Fair	30.0%	Container Gardening	14.0%
Gardening Food Library	30.0%	Compost Classes	14.0%
Seed Saver Exchange	27.0%	Wild and Edible Food	9.0%

Participants also listed traditional agriculture or food related practices used today; canning, home gardens, kitchen gardens, and raising hogs and chickens are still common but are not being passed down to the next generations. We asked from whom respondents learned to prepare food, and the overwhelming majority (97%) learned from a relative. Participants told us that learning about food in the home is essential for passing on food knowledge, yet people may not have access to the foods they want to prepare, the money to buy them, or to youth who are interested in learning.

We asked about food preferences, through a series of open-ended questions. Asked to state three staple foods, vegetables, chicken, and fruit were the most common. Asked to list three traditional Delta foods, chicken, greens, and rice were the most listed. The following foods were also listed at least once: baked chicken, beans, catfish, chicken tenders, chitterlings, cornbread, dinner rolls, fish, fried chicken, fried okra, fried pork chops, fried vegetables, fruit, hot chicken wings, hot dogs, Kool-Aid pickles, mac and cheese, mashed potatoes, neck bones, peas, pinto beans, pork, spaghetti, sweet potatoes, tamales, turnip greens, and vegetables.

Participants also listed a wide range of foods that they would like to include more in their diets (Table 3). The list shows an emphasis on foods that are fresh, organic, more expensive, local, and healthy.

Table 3. Foods Wanted in Diet, *n*=40

Avocados	Local Eggs
Beef Ribs	Local Meats
Carrots	No GMOs
Catfish	Pacific Cod
Cherries	Parsnips
Domestic Seafood	Salad
Fresh Fruit	Roast
Fresh Vegetables	Shrimp
Green Beans	Spinach
Greens	Starfruit
Japanese Wagyu Steak	Sweet Potatoes
Lean beef	Turkey
Lean meat	Vegetarian
Lobster	Whole Wheat Breads

The last question was open-ended and asked participants what they would like the government to know about food and hunger issues in their community. Themes in the answers include concern with feeding the "hungry" people in their communities. Several respondents said that families and the elderly struggle to meet food needs; according to one participant, "Hunger issues in Mississippi look different from the hunger issues among third-world countries. We don't have the pictures of starving children, but hunger issues still exist but aren't as visible." A second theme is the need for nutrition and food preparation education. A participant said about food choices, "The people in my community need more than one option. They don't know they are killing themselves." Respondents would like to see programming about cooking healthy meals, teaching young people how to cook and how to make healthy food choices at an early age, and SNAP recipients educated about buying healthy foods on a budget. Participants would also like access to food pantries, community gardens, and better food choices: "Fresh fruits and vegetables and lean meat are expensive," "Our grocery stores here have lower quality produce and food choices," "Not many options for shopping for quality foods."

Economic development for local farmers and food producers in the Delta is also important. Participants would like to see investment in growing new farmers, including direct financial and cash incentives to local farmers, as well as equitable land reforms which would allow families to compete with large agribusiness. Participants were deeply concerned with poverty and economic struggles in the Delta, involving low wages and the high costs of foods in grocery stores: "It is unacceptable that families live in poverty and hunger."

Discussion

The people of the Mississippi Delta are acutely aware of their lack of food sovereignty in terms of access to food; the variety, quality, cost, and distance to food; locally produced and distributed food; and influence on food policy. While agriculture is seen as a source of jobs in the region, most local agriculture is not a source of food. Commodity crops such as the field corn and soy that dominate the landscape are harvested for export, and while catfish and rice are consumed locally and considered traditional foods of the Delta, they are also primarily for export. Land ownership remains largely in the hands of the white planter class, inhibiting large-scale food production by the Black residents of the Delta.

However, Delta residents exercise agency within the constraints of the larger food system. Residents employ pragmatic decision making through combinations of comparison shopping, using SNAP and other benefits such as WIC, and using the school lunch and breakfast programs. Participants identified churches, gas stations, grocery stores, and SNAP benefits as very important sources of food, along with convenience stores, food sharing, food pantries, school gardens, and food banks. During the site visits, the research team observed several gas stations that sell hot meals made on site, as well as convenience stores stocked with shelf-stable meals; gas stations have a long history as a safe source of food for Black communities in the rural south (Ganaway, 2021). But we did not anticipate that churches would be as important a source of food to the community as gas stations and grocery stores, so there were no follow-up questions about the role of faith-based organizations. We recommend further investigation into how religious institutions might contribute to community food sovereignty.

Many informants worry about people in the community experiencing hunger and would like to see relief efforts. They expressed confidence in the strength of community ties but recognize the widespread problem of food insecurity, particularly among the elderly. Many participants were concerned about the high costs of fresh vegetables and fruits in particular, and due to having to travel long distances to shop might not be able to afford fresh produce as often as they would like. They would like to see more full-service grocery stores in their region. They would also like to see more community and school gardens that make the most of limited access to land.

Residents would like local government to take the lead in solving food problems in the community, followed by non-profit organizations and federal, state, and health agency staff. They would also like to be part of the planning process. The projects and activities that most people would like to see in the community are farmers markets, community gardens, and classes on cooking traditional foods. Residents want access to locally grown fruits and vegetables and reasonable prices for all foods. They also want foods that are consistent with their preferred diets, such as chicken, greens, rice, fruit, fish and more expensive items like seafood, imported fruits and vegetables, and food that is organically grown. They would like farmers to benefit more from local food production as well as to provide more choices for consumers by selling at local markets or through institutional buying programs such as farm-to-school.

Delta residents are proud of their food traditions. Participants acknowledge and lament that food traditions are being lost, and overwhelmingly rely on local school curriculum and teachers to engage younger generations in Delta foodways. School gardens were mentioned as not only an important source of food but as a transgenerational learning opportunity as well. This observation indicates the importance of schools as stable community institutions in rural regions like the Delta, as well as the success of the Delta EATS program in promoting school gardens as incubators of food sovereignty.

These findings are supported by other recent research documenting increased interest in local foods throughout Mississippi. For instance, the Mississippi Food Policy council has surveyed development officials statewide to assess the potential economic impact of a more robust local food system. Researchers cite rising consumer demand for locally produced and sustainably grown foods and the economic opportunity that this demand presents for the state, which currently imports 90% of its food (Johnstone & Woodruff, 2016). They argue that the time is ripe to pursue local food initiatives as an economic development strategy. Hossfeld and Mendez (2018) reach a similar conclusion from the perspective of those suffering from food insecurity. Highlighting community-based food projects, they recommend strengthening local food systems to improve the food environment. Our research contributes to these economic, policy, and public health recommendations by amplifying the voices of Delta residents in the development of local food projects.

Limitations and Recommendations for Further Research

Obvious limitations to our research include our small sample size and its affiliation with existing school garden programs. While we believe it is important to situate these communities within the larger cultural context and history of the Mississippi Delta, this population may not be representative of other Delta communities in their food preferences, food access, and interest in local food projects. Future research might fruitfully survey other Delta communities, both those with ties to historic food sovereignty projects (such as the cooperatives discussed above) and those without, to assess their current level of food sovereignty.

There is also need for additional research into the ways the Delta EATS school garden program includes the larger historical and cultural context of food sovereignty in the Delta region in their curriculum. For instance, what are the effects of school field trips to the Mileston Cooperative Association in Tchula or to the site of Fannie Lou Hamer's Freedom Farm Cooperative in Ruleville on student perception of their own work growing food in school gardens? How do students understand their connection to these food projects in nearby Delta communities and to the land, ecology, and climate of the Delta? How does the school garden curriculum incorporate the history and food culture of the Choctaw, Chickasaw, Tunica, and Quapaw in their curriculum? What relationships currently exist or might be forged between the Delta EATS school garden program and the Mississippi Band of Choctaw Indians? How might researchers facilitate and amplify these relationships in order to contribute to greater food sovereignty across the entire Delta region? These questions deserve further attention but lie outside the scope of our initial research.

Conclusion

Our initial results were shared with the Delta EATS USDA Community Foods Project Planning Committee, a group formed to plan expansion of school garden–related activities and to strengthen the farm-to-school network in the Delta. This committee was organized in the Delta EATS school communities and included stakeholders in the Delta food system such as farmers, school cafeteria workers, FoodCorps members, nonprofit leaders, local government officials, and USDA employees. To examine and respond to our initial research findings, planning committee members engaged in a "data walk" activity (Murray et al., 2015). Display stations were organized according to the four pillars of food security—availability, access, use, and stability—with posters showing tables and charts from our survey and focus group results. As committee members examined the data around the room, they considered questions such as, What sticks out to you and why? Is this what you expected, and why or why not? Is any other data needed, and if so, what? Participants wrote their responses on sticky notes and engaged in discussion at each station. The walk was followed by an open discussion with the full group.

Planning committee members were struck just as the researchers had been by the importance of gas stations and convenience stores relative to grocery stores as food sources. They recognized the traditional Delta foods named, along with the desire for more fresh fruits and vegetables, and they were not surprised by the problems of food insecurity or the distances Delta residents have to travel to procure food. They recognized the massive importance of the school lunch and breakfast programs and the role that school gardens can play in meeting community food needs. Most of all, they were intrigued by the widespread interest in innovative food projects such as cooking and food preservation classes, farmers markets, and community gardens, and they were inspired to see that "a lot of what people want can be done at the local level."

Over the next year, 2019–2020, the community-led planning group identified four strategies to strengthen their local food system: build the farm-to-school network to support cafeteria contracts with local farmers, organize school-led family cooking nights to pass on skills and traditions, add chicken coops to the established school gardens to enhance garden education, and create a coalition of school and community garden boosters. Before the COVID-19 pandemic, implementation began of the first three strategies. Because our research demonstrated the need and desire for greater food sovereignty in the Delta, the planning committee was able to coalesce around these specific food projects. Project implementation meant that our survey and focus group participants had a direct impact on the local food system in which they are embedded. Through this process of partnership, feedback, and implementation, we hope that this research provides a model of community-engaged scholarship that partners with practitioners in the field to effect change in our food system.

Although sovereignty was a concept historically invoked by white supremacists in Mississippi in order to uphold racist policies of segregation, this concept can be reclaimed to apply to local food initiatives, such as Delta EATS[3] school gardens and farmers cooperatives, that are being implemented in majority Black Delta counties. By applying the concept of food sovereignty to these food justice initiatives, we are working to redefine sovereignty in Mississippi in light of democratic values of equity, justice, and the right to self-determination of all people. Food sovereignty asserts that community members most impacted by the inequities of our current agri-food system are the ones best equipped to advocate for and to meet their own food needs.

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[3] As this article was being prepared for publication, the authors received word that the Delta Health Alliance has terminated the Delta EATS school garden program, effective December 2021.

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