

HEALTHY FAM



Upper Coastal Plain Healthy Food Access Mapping Project

*Understanding and Improving
Regional Healthy Food Access
in the Upper Coastal Plain Region of
Eastern North Carolina*

Edgecombe, Halifax, Nash, Northampton, Wilson Counties

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Kate B. Reynolds Charitable Trust

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THANK YOU to the approximately 350 residents and community representatives who participated in the surveys, interviews, and community engagements.

Project Stakeholder Organizations

A Better Chance, A Better Community (ABC2)	NC Department of Health and Human Services
Albemarle Regional Health Services	NC Cooperative Extension
AMEXCAN NC	OIC of Rocky Mount
Area L AHEC	Project Momentum
Black Cotton	Seeds of Promise
Boys and Girls Club of Nash and Edgecombe Counties	Southeastern Halifax Coalition
Center for Environmental Farming Systems	The Harriet Tubman Freedom Farm
City of Rocky Mount	The Hen and the Hog
City of Wilson	Turning Point Workforce Development Board
Conetoe Family Life Center	Unite Us - NCCARE 360
Croatan Institute	Upper Coastal Plain Area Agency on Aging
Down East Partnership for Children	Upper Coastal Plain Council of Governments
Franklinton Center at the Bricks, Inc.	Vidant Edgecombe Hospital
Golden Organic Farm	Vidant Health
Green Rural Redevelopment Organization (GRRO)	Weldon City Schools
Halifax Community College	Wilson Community Improvement Association
Harrison Family YMCA	Wilson County Government
Legal Aid of North Carolina	Wilson County Health Department
NC Association of Community Development Corporations	Wilson County Schools
NC Department of Agriculture	Wilson Forward
NC Department of Commerce	Working Landscapes

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Above and Beyond the COVID - 19 Pandemic

The inputs and results of this effort are due to an extreme commitment during an unprecedented time in our generation’s history. Shortly after the project began, COVID-19 changed almost everything for everyone. Those working in the food chain, health, economic, and community development professions found their personal and professional lives inextricably altered and at many times seemingly “out of control.”

Plans for this project involving community engagement, collaboration, research, and more had to be dramatically adjusted as the events of the pandemic unfolded. Partner priorities, rightfully, had to shift from planning and development efforts like this Healthy FAM project to emergency response and recovery as food systems (and all systems) broke down, especially in the most underserved, marginalized, and traditionally discriminated against residents and communities.

In spite of this daunting challenge, partners understood that it was disasters (natural, economic, social, war, health) that shake the resilience of communities at their core, often negating or entirely wiping out hard fought progress from many years past. Partners understood that this work must carry forward because it is critical to improving that resiliency, creating needed equity as well as community health and wealth for the most vulnerable.

To all of you who showed up during these unreasonably difficult times, on behalf of a grateful region, THANK YOU!

- Ron Townley, Planning & Development Services Director, UCPCOG

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Executive Summary

As articulated in the North Carolina Association of County Commissioners Presidential Initiative Task Force Report, *Resilience: Counties Strengthening NC's Food Ecosystem*, published June 2021, "Access to food is a basic human need and a critical component to a healthy society. Lack of access to affordable, quality food creates an unstable food system and results in food insecurity, which is defined as a lack of consistent access to enough food for every person in a household to live an active, healthy life." North Carolina, where 13.5% of households are food insecure, has the 10th highest state rate in the country according to Feeding America, a leading research and advocacy organization that tracks hunger in the United States .

Throughout the Upper Coastal Plain Region comprising Edgecombe, Halifax, Nash, Northampton, and Wilson Counties, food insecurity is more severe, with 20-24% of households in the five counties experience food insecurity. Low-income areas experience persistent challenges with access to fresh, affordable, and quality food. The local food system — consisting of smaller farmers, processors, value added producers, transporters, and end consumers — is underdeveloped compared to other areas of the state and nation. Additionally, regional stakeholders lack common understanding of tools with which to assess the current food system. Without an understanding of current food system conditions, it's difficult to support its development.

The COVID-19 pandemic exacerbated the numerous community challenges related to the local healthy food system and community access. *Healthy FAM: Understanding and Improving Regional Healthy Food Access in the Upper Coastal Plain Region* is a regional food access mapping and assessment effort that garners the collective power of key stakeholders and communities to improve understanding of the regional food system, including the challenges under-resources populations face in accessing healthy foods. It seeks to support a more equitable food system that increases healthy eating in low-income and rural communities while creating "new wealth and health" through the expansion of the system.

The core project team built a website highlighting elements of the region's food system that includes a storyboard, interactive asset maps, community voices videos, and more.

This detailed assessment of the region's food system includes more background on the region's food history, the Healthy FAM process, case studies on childcare and seniors, and a more extended analysis of the assets, resources, needs, gaps and strategic steps and opportunities to build upon the emerging local food system.

While the information in this report is both broad and deep, containing over 65 opportunities and recommendations in the areas of access, community development and planning, community gardens, urban agriculture, land-use, farms, finance, institutional purchasing and more, several findings and recommendations can be summarily drawn:

- The region's consumers have highly uneven access to healthy, local food. Access issues can be attributed to geographic gaps in food retail, lack of rural transportation services, financial barriers, lack of consumer knowledge of what is healthy, how to prepare the products, and more. These food access barriers in the Upper Coastal Plain contribute to pervasive and persistent food insecurity slowing economic and community development while contributing to personal health challenges and associated medical costs, as well as community productivity and quality of life issues. People of color in the Upper Coastal Plain are disproportionately impacted by barriers to healthy food access.

Solutions to access challenges, detailed in this report, include rural transit system service expansion, senior food service program enhancement, targeted BIPOC community investments, and incentives for farmers and markets. Community gardens are an important asset for leveraging community care and enhancing healthy food access for residents.

- The food agriculture sector is bifurcated: the region is home to large farms that are well integrated into national and regional markets, while small farmers — including many farmers of color — struggle to enter markets. Northeastern North Carolina, including the Upper Coastal Plain, is home to a higher proportion of minority-owned farms than other parts of the state and presents some unique opportunities. The significance attributed to gardens and food pantries reflects the reality that many regional residents are not acquiring food solely by purchasing it; they may also grow their own food or rely on donations..

Numerous opportunities exist to expand, grow, and support small and startup farmers. Investments in model programs can encourage local growers and link them to market opportunities. Pilot programs supporting processing capacity for small producers can be created and enhanced. This sector needs both technical and financial tools. Agritourism exists and is growing but needs deliberate programs support. Smaller farms can produce higher per-acre yields by expanding into

significant niche markets such as organics, specialty crops, and climate resilient products. Indigenous growers and food system entrepreneurs need well-resourced, culturally appropriate technical assistance.

- Local healthy food distribution is a key gap in the region's food system. The local farm-to-foodservice and institutional buyers value chain is significantly underdeveloped despite indicators of potential demand. The region lacks locally based farm-to-foodservice value chain intermediaries — entities such as distributors that could efficiently aggregate, store, and deliver local harvests to foodservice customers. Entrepreneurs, economic development officials, and investors need to be attentive to region-wide opportunities that add value to the existing set of agricultural businesses in the region and that prioritize healthy food. This includes food distribution and processing infrastructure that both large institutions and smaller retailers and restaurants can access.

Additionally, the Upper Coastal Plain is not functioning as an autonomous region. Rather, supply chains are closely intertwined with the neighboring Research Triangle region; none of the produce distributors identified by Upper Coastal Plain institutional buyers are based in the Upper Coastal Plain region. A potentially massive opportunity exists in building and enhancing new rural-urban distribution hubs. Further opportunity exists in supporting systems that expand the region's ability to be a bigger supply chain to the triangle and other densely population areas of higher income. Such systems may provide the economies of scale needed for development of the mid-size food farm space.

- A bright spot in the local healthy food sector exists in the community development and planning space. While still operating largely in silos, regional, county and community food networks are growing in both number and inter-connectivity. Food Policy Councils and youth interest are strengthening. Local food supporters, including stakeholders in the farm-to-table value chain and those with general community and economic development interests, should continue to network, partner, and grow. Where practical, local communities and the greater region should undertake additional planning work to enable the creation of a truly resilient local healthy food system.

This is just a small and generalized sampling of the many more specific opportunities and recommendations detailed in Section 5 of this assessment. The work outlined in this report seeks to identify economic opportunities and aims to sustain information for targeted investment and resource decisions into the foreseeable future. Partners on this project also hope this work contributes to other valuable local food assessment work going on in North Carolina and across the nation.

1. BACKGROUND

1.1 The Need for Food System Mapping in the Upper Coastal Plain

At a high and fundamental level, the region's rural towns and small city neighborhoods and communities, especially low-income areas that have been traditionally under-resourced, experience persistent challenges with access to fresh, affordable, quality food. This continues to result in disparities that impact both individual and community ability to develop socially and economically to build stronger "health and wealth."

In recent years, numerous partners throughout eastern North Carolina worked to form and activate the Just Foods Collaborative, support the start of a Wilson Food Council, create networks in Halifax and Northampton counties, and develop and support small farms and local food value chain businesses. These groups and other efforts identified local healthy foods as an actionable priority area. However, community-based efforts, healthy food ecosystem linkages, value chain development, as well as equitability and access expansion are hampered by a major challenge: there is no common, user-friendly, sustainable database with tools to visualize what the region has, assess what is needed, and to help guide policy, investment, and resource decisions. The Just Foods Collaborative recognized this by forming a "Farm to Table" workgroup focused on identifying, developing and strengthening the food value chains. There are also "Food Access" and "Public Education" workgroups.

Healthy FAM therefore aims to meet this need demanded by community-based groups for greater transparency into the regional food system's value chain.

1.2 Project Funding

Kate B. Reynolds Charitable Trust provided support for this project through a generous grant to the Upper Coastal Plain Council of Governments through its Healthy Places North Carolina Funding Opportunity focused on "Reducing Obesity in Rural, Eastern North Carolina." Healthy Places North Carolina is the Trust's signature place-based strategic initiative working closely with residents to improve the health and overall quality of life in targeted rural North Carolina counties.

Through this initiative, the Trust recognizes that, “like many parts of the state, rural Healthy Places North Carolina communities are working to address high obesity rates and food insecurity. To assist stakeholders in Nash, Edgecombe, Halifax, and surrounding counties build a more equitable health system, the Trust will support efforts aimed at collecting and analyzing data and creating locally relevant plans to coordinate effective interventions.” The goal of their grant opportunity is to increase healthy eating in low-income communities. Their strategy is to support community-based research efforts that engage residents in the process to identify gaps and opportunities and produce a community plan to build an equitable food system.

1.3 Major Project Partners and Community Stakeholders

Major regional endeavors are successful through proper funding support and strong collaboration of partners committed to the vision, goals, and objectives of the effort. Systemic change efforts should include, and have buy-in from, as large and diverse a group of stakeholders as practical. This Healthy Food Access Mapping (Healthy FAM) initiative is no exception.

While work can often be performed by a few specialists, consultants, or experts in a subject area, a cross sectional collaboration of stakeholders from a variety of backgrounds, cultures, education, professions, and incomes provides the diversity of viewpoints and skills needed to create initiatives with deep and lasting impacts. It is through this diversity of representation that a greater understanding of the needs and opportunities within a local healthy food system can be built and leveraged. “Nothing about us, without us, is for us!” is a popular refrain of the times.

This project includes a stakeholder group comprising organizations, leaders, and residents with various missions and interests in the food system as well as community and economic development. It includes public and private organizations focused on food and agriculture, health, employment, justice and equity, resiliency, and more.

Community health and local food councils and coalitions including the Just Foods Collaborative, the Roanoke Valley Community Health Initiative, and the Wilson Food Policy Council were instrumental in bringing people together for this project. Community participants represent a wide demographic spectrum from children to

seniors, farm owners to migrant workers, entrepreneurs to the unemployed and chronically, systematically disadvantaged.

Historically, some under-resourced communities have been the focal point of many studies and research projects where the community is left with little to no change or change that has been detrimental. A Just Foods Collaborative board member indicated in the grant application that we have witnessed firsthand the barriers and disadvantages of “outsiders and do-gooders who come into our communities to study us.” This effort seeks to change that process by demonstrating effective community engagement practices and garnering the collective power we have as a community to make change happen.

At the beginning of the development of the grant proposal to Kate B. Reynolds Charitable Trust, the Just Foods Collaborative requested support from the Upper Coastal Plain Council of Governments, itself a member of the Collaborative, to draft, submit, and administer the project on a regional scale. To support both partnering community development nonprofits, grant funds were shared with major project partners and contributors to cover staff time for research and development, community engagement activities and incentives, and other expenses. Some of the partners were tasked with very detailed and exhaustive work, and supporting grant funds were delivered through a performance contract with UCPCOG. This fiscal sharing strategy served to keep funds in the greater region while simultaneously supporting local organizational development, as opposed to hiring an outside contracted consulting firm or specialist.

Coordinating Team

The major contributors whose logos appear on page ii formed a “Coordinating Team” at the beginning of the project and were responsible for primary oversight and execution. The team included individuals representing a cross section of organizations and people with a diversity of professional and personal skills, including community engagement, agriculture, public health, research, planning and facilitation, and more.

A Better Chance, A Better Community (ABC2) has a core value of empowering the community. ABC2 led the community engagement effort supporting Healthy FAM’s work. ABC2 believes for this project to be successful it needs to reflect community needs and values and products need to be a resource that communities will utilize.

Croatan Institute is an independent, nonprofit research and action institute whose mission is to build social equity and ecological resilience by leveraging finance to create pathways to a just economy. With an initial pilot project focused on investing in the expansion of organic agricultural value chains in northeastern North Carolina, the Institute leads the Organic Agriculture Revitalization Strategy (OARS), a collaborative initiative that is re-envisioning organic food and agriculture as an inclusive economic development strategy for revitalizing rural places. The Institute is also a member of the Just Foods Collaborative.

North Carolina Association of Community Development Corporations (NCACDC) works with community development corporations and other community-based organizations in neighborhoods to strengthen the North Carolina economy and build a better tomorrow for all North Carolinians by catalyzing innovative, community-based economic development that creates opportunity-rich communities where North Carolina residents live and work. Since its inception, NCACDC has provided leadership in strengthening communities and increasing opportunities in North Carolina, bringing together residents, business leaders and government to provide data-driven solutions that benefit everyone. NCACDC is an active member of the Just Foods Collaborative.

North Carolina Cooperative Extension (NCCE) is a strategic partnership comprising NC A&T State University and NC State University, along with USDA, and state and local governments. Due to its strategic partnership, NCCE forms a vast network that aligns resources to address local needs, improve access, and provide solutions statewide. NCCE transforms science into everyday solutions for North Carolinians through programs and partnerships focused on agriculture and food, community and rural development, health and nutrition, and 4-H youth development. Faculty and staff work throughout the spectrum of innovation to deliver research-based solutions to local issues. NCCE has county staff in 101 local centers across the state who apply their knowledge to address the challenges facing residents in all 100 NC counties and the Eastern Band of Cherokee Indians (EBCI).

Northeastern North Carolina Partnership for Public Health, Partnerships to Improve Community Health: Healthy Foods Program (NENCPPH) was formed in 1999 to improve the health of people in the Northeastern region of North Carolina and to

maximize the available resources and service potential of local health departments by working together to address health needs. Under NENCPPH is the Partnerships to Improve Community Health, Healthy Foods Program whose mission is to improve access to fresh fruits and vegetables throughout Northeastern North Carolina by working alongside communities to increase control over their food system. The organization is an active member of the Just Foods Collaborative and supports other local food councils across northeastern NC.

Project Momentum is a licensed mental health and substance abuse organization. Services include outpatient substance use treatment, Alcohol and Drug Educations Training School (ADETS), DWI substance use assessments, community research focusing on health disparities and substance misuse in the county , youth employment, and more. Project Momentum stands firm on the mission to provide holistic services without excuse that treats the whole individual: mind, body, and spirit. As a 501(c)(3), Project Momentum has one goal: building healthy communities. It is also a member of the Just Foods Collaborative.

Upper Coastal Plain Council of Governments (UCPCOG) represents five (5) county and forty (40) municipal governments. Staff plans and administers a variety of federal, state and local programs and services. UCPCOG serves as the Federally Designated Economic Development District and facilitates a 5-Year [Comprehensive Economic Development Strategy \(CEDS\)](#). The CEDS 2022 challenges the region to galvanize economic and community development opportunities in the healthy, local, export, and value-added food clusters while adequately and affordably providing healthy food options to communities. UCPCOG also participates actively in the Just Foods Collaborative.

Working Landscapes is a nonprofit rural development organization based in Warren County, NC; it works to foster economic development approaches that build on the region's natural and cultural assets. The organization's primary programmatic focus to date has been on the development of sustainable regional food systems. Working Landscapes operates a food hub that focuses on value-added processing of local farm products, and its staff provide research and stakeholder engagement services to food system planning initiatives.

A clear **statement of commitment** between coordinating team members helped focus the diverse, cross-sector group over the long period of time. At the start of this project, partners willing to dedicate considerable time and effort committed to the

“establishment of a shared analysis and understanding of the regional food system, value chain links, and gaps, which create opportunities for larger and more coordinated development initiatives. Include value chain linkages among the region’s food system stakeholders including farmers growing food for local consumption, distributors, processors, aggregators/hubs, and outlets to build strong supply chains for the most at need communities and population struggling with healthy food access. Use geospatial analysis/asset/value chain mapping, key stakeholder interviews, social networks, and community focus groups’ input.”

Team members and partners further agreed to “engage underserved and under-resourced populations and the organizations that serve them in the design and implementation of this project.”

Stakeholder Group

From the outset of the Healthy FAM initiative, UCPCOG solicited participation from many organizations engaged in supporting the local health, food, economic and community development efforts. These initial partners and others added after the award constituted a broad “Stakeholder Group.”

At the beginning of the project, the group was gathered and briefed on the goals and objectives of the effort by members of the Coordinating Team. They were asked to provide general project oversight, assist with anticipated surveys, provide relevant data that they may hold, help garner participation in local community engagements, and forward the results and recommendations when the project was complete.

The group met approximately quarterly, with six convenings over the course of 18 months. They were provided project updates from the various teams conducting the

detailed work. The Stakeholders Group organizations are listed on page three.

Community Engagement Team

As part of the community engagement effort, ABC2 created a Community Engagement Team among a subset of the Coordinating Team partners with individual Community Health Champions (CHC) designated in each county. The purpose of the Community Engagement Team was to organize and coordinate local community outreach for surveying, convening focus groups, conducting interviews, and facilitating countywide listening sessions with people along the food value chain from producers to consumers with low access to healthy food. Data from the community engagement process aimed to support and inform the development of the asset maps, build regional food policy conversations, and gain a more detailed understanding of barriers to food access and opportunities that provide a “real world” outlook that builds upon already existing information of the five counties.

Community engagement was integral in aiding primary data collection. As a result of the genuine engagement with the community that ABC2 guided, the data collected for this project was rich in diverse ideas, perspectives and experiences. With such engagement from each of the five counties, the story that is told through this project is both personal and gives context as to why and how issues in our food system need to be addressed.

The Community Engagement Team was led by the Community Engagement Coordinator, Chester Williams of ABC2.

The Community Health Champions were “boots on the ground” individuals who lived and worked in their corresponding county and who were interested in helping the project connect with people in their own communities. Collectively there were 12, with a minimum of two representing each of the five counties covered in the Healthy FAM project. The CHCs were essential to the success of this project as they provided a vital understanding of community needs, challenges, and assets as they related to food system development and access to healthy food. The CHCs were community liaisons for the Community Engagement Team, providing two-way communication to the team and the community at large and helped collect information from local people via survey, focus group, interview and/or virtual convening.

The CHCs had the following responsibilities:

- Define a target population on which to focus (farmers, restaurant owners, distributors, low-resourced communities)
- Identify best means for data collection (surveys, focus groups, interview)
- Coordinate data collection methods
- Capture the ideas of the community in a way that is meaningful

The Community Engagement Team and CHCs, together, were responsible for assisting with planning and facilitating community engagement in their counties with the overarching goal of collecting data that informed the project outcomes and provided information on healthy food assets and opportunities in each county. The CHCs were valuable in attaining data and information that is up to date and usable. The Community Engagement Coordinator shared project updates with the Coordinating Team about the work of the CHCs, and vice versa with the CHCs about project updates, regularly through email and at least once per month meetings. The CHCs received training on basic facilitation, implicit bias, and other relevant topics to support their facilitation of community listening sessions.

A Data and Mapping Team provided research and technical expertise related to research methodologies, data collection and analysis, and ArcGIS mapping. Tirence Horne of the UCPCOG led this team, which included representatives from ABC2, Croatan Institute, Project Momentum, and Working Landscapes. A representative from NENCPPH's Partnerships to Improve Community Health also regularly participated in meetings on an advisory basis. Ultimately, this team developed the Story Map and associated asset maps of the food system within ArcGIS. These highly visual and interactive resources show access points to fresh and healthy local foods like community gardens and farmers markets and other community outlets. They display key value chain assets like local food farms, value-added processors, aggregators and distributors, restaurants and end market institutions engaged in the healthy and local food effort.

1.4 Goals and Objectives

Partners organized to deepen the understanding of the local food system, its impact on health and communities, and create opportunities for positive change. Colleagues in the Just Foods Collaborative, Roanoke Valley Community Health Initiative, Wilson Food Council, and others came together under the regional administrative and professional planning capacity within the Upper Coastal Plain Council of Governments to garner the collective power of key stakeholders and communities.

The team developed specific goals and objectives for the effort. Goals create a vision with a wide range; objectives focus on specific, achievable outcomes. Objectives are the deliverables that make the goals come to life.

Goals:

- Improve stakeholder understanding of the region's local, healthy food system.
- Describe how the challenges of accessing local, healthy foods impact the region's most underserved and under-resourced communities.
- Support an equitable food system that increases healthy eating in low-income and rural communities.
- Identify and increase strategic economic opportunities in the region's local, healthy food system.
- Visualize the regional value chain as a foundation for economic growth.
- Develop a relevant, usable, sustainable database for targeted policy, investment, and resource decisions.
- Help groups interested in providing more local, healthy food find opportunities for impactful involvement.
- Create new community wealth and health by expanding and improving access to local, healthy foods.

Objectives:

- Foster partnerships that empower communities, leaders, policy makers, farmers, entrepreneurs, and support organizations to meet the challenges, needs and opportunities the local healthy food system presents.

- Through trusted community partners, convene focus groups with people whose access to healthy, local food is limited to gain a detailed understanding of individual and community-wide barriers to access. Additionally, document opportunities participants see to build community health and wealth through improving healthy food access. Focus on communities to get relevant, real-world information to build upon and compile with existing information already held but perhaps not yet collated regionally or across sectors.
- Create case studies that illustrate and express challenges and opportunities in a real-world way. For example, producing short films to tell a nuanced story of healthy food challenges and opportunities in the region to motivate leaders, institutions, and policy and create meaningful engagement for sustainable long-term change.
- Build an interactive, public-facing, user-friendly website showing the local healthy food system that includes Story Boards and Maps showing assets, needs and opportunities.
- Develop an Assessment Report of the region's local healthy food system with an analysis of the assets, resources, needs, gaps and strategic steps and opportunities. Findings from meaningful community and public engagements will be combined with data and information to produce an accurate "Assessment with Gap Analysis" of the region's healthy local food system — the "local food asset value chain."

2. Research Methodology

2.1 Guiding Research Frameworks

This project relied on several frameworks for guiding research and analysis, including the Whole Measures for Community Food Systems Framework and the WealthWorks approach to regional value-chain development.

The [Whole Measures Framework](#) is an effort initially developed by the Community Food Security Coalition and the Center for Whole Communities to provide a values-based, community-oriented approach to evaluation and planning that incorporates six elements that shape a sustainable, healthy food system:

- 1) **Justice and Fairness** - Just and fair food and farms come from food systems deliberately organized to promote social equity, justice, worker rights, and health through all activities. Food systems that are just and fair recognize and dismantle unjust systems and work to create alternative systems.
- 2) **Strong Communities** - A strong food system builds strong communities across class, race, age, education, and other social categories. Cultivating leadership from within a community and forging relationships based on characteristics such as trust, respect, and transparency can strengthen resilience, build capacity, and enhance engagement for change toward a shared vision of the whole community.
- 3) **Vibrant Farms and Gardens** - Farms that contribute to whole communities often embody practices that eliminate or minimize pesticides, support biodiversity, promote humane treatment of animals, and provide safe, just working conditions. Vibrant farms are often “local farms” that shorten the gap between farmer and consumer and actively contribute to sustaining and revitalizing regional food systems and economies.
- 4) **Healthy People** - Community and individual health includes our physical, social, mental, emotional, and spiritual wellbeing. All of these dimensions are intrinsically connected to food and food systems. Growing food helps develop our physical and spiritual awareness as we connect to larger natural systems. Whole communities

need whole people and community food systems that increase access to healthy food while also cultivating broader dimensions of health.

- 5) **Sustainable Ecosystems** - Sustainable, balanced ecosystems are built upon interdependent relationships, depend upon clean air and water and healthy soil, and provide the foundation for all life. A sustainable food system depends upon a sustainable ecosystem and produces, processes, and distributes food in a way that supports and enhances rather than destroys ecological systems.
- 6) **Thriving Local Economies** - Thriving local economies depend upon the ecological integrity of the earth, its ecosystems, and species living within those ecosystems. Thriving local economies may utilize decentralized, participatory, and democratic processes designed to be informed by diverse community members and based upon a community's assets.

The Whole Measures Framework has been widely adopted by food system analysts around the country and across the state. It is one of the guiding frameworks of Community Food Strategies, a multi-organization initiative led by the Center for Environmental Farming Systems at NC State and NC A&T Universities.

Because healthy, local food systems are a key strategic priority for the region, as highlighted in the Upper Coastal Plain's Comprehensive Economic Development Strategy, the project also relied on insights, tools, and techniques from the [WealthWorks](#) approach to regional economic development. WealthWorks brings together and connects a community's assets to meet market demand in ways that build livelihoods that last. It offers a systematic approach that identifies enterprising opportunities in a region and engages a wide range of partners in turning those opportunities into results that both build and capture wealth. It can complement or incorporate traditional economic development methods, but intentionally focuses on creating more value that becomes rooted in local people, places and firms. WealthWorks consequently can help communities build regional resilience. Applying WealthWorks to food and agriculture value chains involves identifying food system assets, barriers, gaps, underutilized resources, and opportunities to build community wealth. Through this framework of value-chain analysis, the project particularly sought to identify regional demand partners such as retail and institutional buyers, transactional partners such as suppliers,

producers, processors, aggregators, and distributors, and support partners providing technical assistance, financing, policy expertise, and market development.

WealthWorks has strongly shaped the Organic Agriculture Revitalization Strategy's analysis of organic food and agricultural opportunities across the region, and it has informed the activities of the Farm to Table value chain working group of the Just Foods Collaborative.

2.2 Research Questions

These frameworks helped guide the development of the central research questions that the Healthy FAM project used to gather data for mapping and analyzing the region's local, healthy food system through a lens of equitable community economic development.

Data were collected to answer the following research questions in particular:

- I. What are the food system assets (physical/environmental, human, institutional) that exist in our region?
- II. What linkages exist among these assets (including but not limited to value chains)?
- III. What are barriers that people in our region face in terms of accessing healthy, local food?
- IV. What barriers do farmers and food suppliers (including food aggregators, distributors, processors, etc.) in our region face in terms of providing healthy, local food to consumers? How might they overcome these barriers?
- V. To what extent is this region's food system supporting the following priorities derived from the Whole Measures Framework: Healthy People, Justice/Fairness, Thriving Local Economies, Strong Communities, and Sustainable Ecosystems.
- VI. What policies/tools can this region use to build a more equitable and resilient food system?

2.3 Gathering Information from Regional Stakeholders

In assessing the region's food system and developing recommendations, the Healthy FAM team consulted with more than 400 stakeholders from North Carolina's Upper Coastal Plain region. Varied methods were used to collect information from people in

the region in ways that were convenient for them, as described below.

An important source of input from regional stakeholders were the four virtual community engagement sessions convened by the Community Engagement Team and Community Health Champions. Through these public sessions, we heard from residents of every Upper Coastal Plain county. Fifty-five participants in these sessions took part in 16 facilitated, small group discussions in which they were asked to identify local food system assets, challenges, and aspirations. Recordings of the discussions were analyzed to identify emergent themes, and those themes were ranked based on their prevalence across multiple groups. In addition to the community engagement sessions, team members conducted focus groups and interviews with specific subpopulations: consumers, farmers, restaurateurs, distributors, and institutions. These were also analyzed for emergent themes.

Two surveys were conducted as part of the Healthy FAM project: an organization survey and a consumer survey. The organization survey targeted representatives of organizations and businesses that carry out food systems work in the region; 38 organizational representatives responded. Data from this survey were used to better understand the operations of and relationships among food organizations in the region. The consumer survey targeted consumers across the region, with the aim of understanding how they access food and the challenges they face. The survey was completed by 312 consumers. Respondents were offered a chance at one \$100 gift card per county to incentivize participation. A parallel engagement process was designed to reach members of the region's Latinx community, including the development and implementation of Spanish-language survey and focus group instruments. Translation of input collected through this process is ongoing. Both surveys can be found in the appendix (Appendix 05 and 06).

2.4 Building the Regional Asset Map

Data were gathered from public sources and partner organizations to build an asset map of the region. These data sets were incorporated into the ArcGIS map and analyzed.

Mapping includes information on food access, food value chains, food deserts and insecurity, healthy food sources, and support services like food pantries, engaged

churches and more. The Data and Mapping Team compiled and overlaid available socio-economic data on income, health, transportation access, and other relevant demographics creating fine-grained analyses. This input can be used to pinpoint areas for priority action by key stakeholders, leaders, organizations, and agencies positioned to have meaningful impact.

The site and map hosts the local video, stories, social media links, resource providers, access points and anything deemed appropriate for the project. Information will be supported by a master database with map sets. The resource is intended to help quantify areas of specific need and opportunity, allowing communities, leaders, policy makers, farmers, entrepreneurs, and support organizations to engage in meeting the challenges, needs and opportunities communities present.

This tool is designed to be sustained and grown over time. This will be accomplished through the ability of the UCPCOG to accept simple form submissions available through the site or by mail that will allow new assets, programs, and other resources to be added quickly and effectively at no cost to the information provider or consumer.

3. The Upper Coastal Plain: The Role of Healthy Food from Past to Present

The Upper Coastal Plain region is made up of five contiguous counties in northeastern North Carolina: Edgecombe, Halifax, Nash, Northampton, and Wilson. The Upper Coastal Plain region was designated by the North Carolina legislature in 1972 when the Upper Coastal Plain Council of Governments, one of 16 regions in the state, was established. The Upper Coastal Plain region stretches approximately 50 miles east to west and 65 miles north to south, totaling 1.7 million acres.

The Upper Coastal Plain's southwestern counties lie just 30 miles east of Raleigh, the state capital, placing the region on the eastern edge of the Research Triangle region. The Research Triangle is one of the nation's fastest growing metropolitan areas and is known for its innovation economy and thriving food scene, with numerous nationally recognized, award-winning chefs and restaurants. Bisected north to south by Interstate 95, the Upper Coastal Plain also lies equidistant between Miami and Maine, making the entire eastern seaboard within a one-day drive.

Land use is primarily a rural mix of farmland, open space and forestry with suburban, and urban residential areas in small towns and cities with commercial and industrial development throughout. The region's waterways include two primary rivers: the Roanoke and Tar, and small portions of the Neuse and Chowan watersheds. There are 41 municipal governments in the region, the smallest of which is Leggett (population: 44) and the largest of which is Rocky Mount (population: 54,548). The region-wide population is 299,249 according to the Census Bureau 2019 American Community Survey.

According to the U.S. Bureau of Economic Analysis data, the region-wide median per-capita income is \$40,493, which is 28.3% lower than the national average. All five counties are currently designated by the North Carolina Department of Commerce as Tier 1 economically distressed, the most distressed of the three tier designation. Indeed, Edgecombe County is ranked the most economically distressed county in North Carolina and Halifax is the fourth most distressed. However, economic distress is not homogenous across the region's counties. With a ranking of 38, Nash is on the cusp of

being designated as a Tier 2 county.

According to Bureau of Labor Statistics data, the region’s 24-month average unemployment rate in June 2021 was 6.9%, compared to an NC rate of 4.6% and US rate of 5.9%. Edgecombe County had the highest unemployment rate at 8.2%, compared with the lowest rate in the region, Northampton County, at 6.1%. 20.3% of residents in the Upper Coastal Plain are living in poverty, compared to 13.6% across the state. Halifax has the highest percentage of persons living in poverty at almost 24% of the population.

According to Census Bureau data, there are 119,740 total households in the region, 65.8% of which are Family Households, and 29.9% are Living Alone. The average household size is 2.4 people. 46.7% of residents are age 45 or older, 22.2% are under 18, 46.7% are White alone, 46.1% are Black alone, 2.4% are two or more race groups, and 6.5% are Hispanic or Latino, 20.3% are living in poverty of whom 2.6% are over age 65.

Highlighting the need for access to healthy, local foods across the five-county region, the table below presents 2020 data from the [Robert Wood Johnson Foundation’s County Health Rankings & Roadmaps](#):

County	% Food Insecurity	Poverty Rate	Diabetes Prevalence	Overall Health Outcomes Ranking of NC Counties 1 (best) 100 (worst)
NC	14%	14%	11%	
Edgecombe	24%	21%	16%	97
Halifax	24%	24%	22%	95
Nash	18%	16%	15%	76
Northampton	23%	22%	22%	90
Wilson	20%	22%	14%	86

To create a foundation for “Understanding and Improving Regional Healthy Food Access In the Upper Coastal Plain Region,” it must be recognized and acknowledged that eastern North Carolina shares a long, complex history with the rest of the nation, southern United States, North Carolina, and the coastal plain region with regard to farming and land use.

The region's past is rooted in agriculture, but its agrarian history has been predominantly shaped by production of non-food crops for external markets. Under slavery, cotton planting dominated the regional landscape, and after the Civil War tobacco farming became a leading focus for growers.

Cities like Wilson and Rocky Mount established themselves as the nation's leading markets for bright-leaf tobacco. As the health impacts of smoking became increasingly apparent in the late 20th century, the region transitioned away from tobacco farming into a more diversified agricultural economy, with an increasing focus on areas such as poultry and sweet potatoes. Nevertheless, conventional commodity crops remain far more commonly grown across the region, which has come with both a human and social cost that continues to be reflected in healthy food availability and access to this day.

Since the early 20th century, wood products have also played an important role in the region, particularly in the northern counties of Northampton and Halifax. The region has been a "wood basket" for Southern Yellow Pine products, such as pulp, paper, and lumber. The eastern side of the region includes portions of the historic range of the coastal plain's longleaf pine, NC's state tree, but that has largely been displaced by faster-growing southern pine species for the timber mills. This long-standing dedication of land to pine timber plantations has also limited the availability of land for food production. It also opens fresh opportunities for more diversified working landscapes that bring farming and forestry together in innovative agroforestry systems such as silvopasture that integrate livestock into wooded landscapes, as was done historically.

With these basic historical and present-day facts and statistics, combined with today's understanding of the importance of fresh food in diet, challenges of access and affordability, and the importance of local food systems as a driver of local and community wealth, it is generally understood by area stakeholders that the Upper Coastal Plain Region and surrounding counties need to build a more equitable food system that supports increasing healthy eating in low-income and rural communities.

When assessed using the Whole Measures for Community Food Systems, the Upper Coastal Plain region's food system still has a long way to go. Thirty-eight food organization leaders evaluated the region's food system according to each measure in

Figure O1.

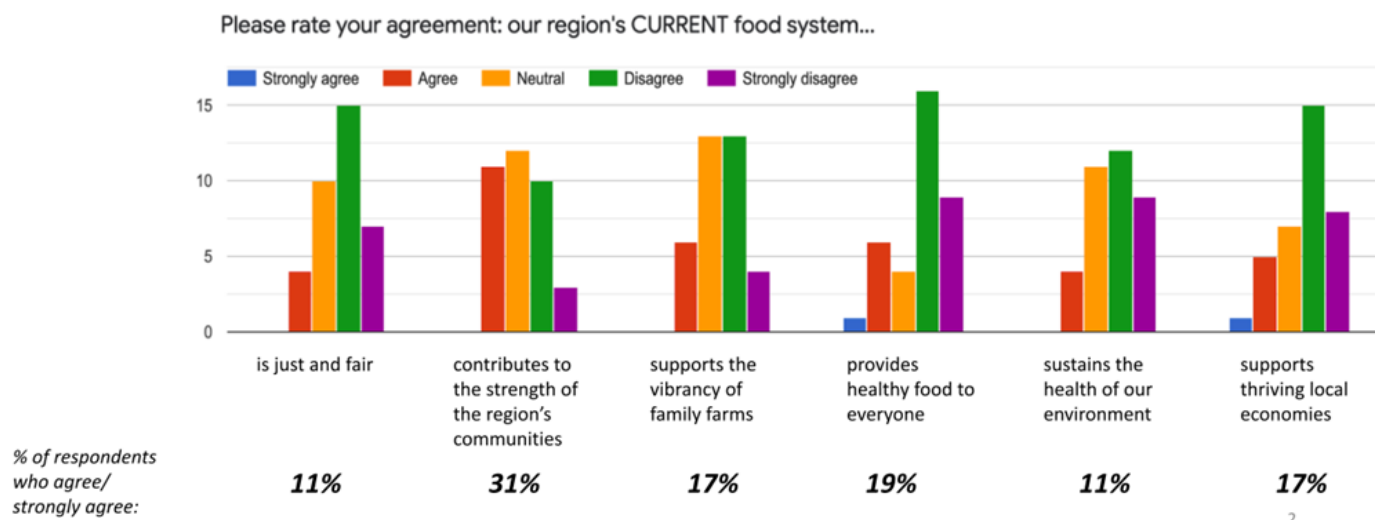


Figure O1. Assessment of the Upper Coastal Plain’s food system according to the Whole Measures for Community Food Systems. Data source: Healthy FAM survey of thirty-eight food organization leaders.

The food system scored low marks across the board. The statement with the highest proportion of agreement from respondents (31%) was that the food system “contributes to the strength of the region’s communities,” while the statement with the lowest proportion of agreement from respondents (11% in both cases) were that the food system “is just and fair” and “sustains the health of our environment.” Overall, this assessment paints a sobering picture: a food system in the region, despite its strong basis in agriculture, is not widely regarded as supporting justice, community vitality, family farm vibrancy, healthy food access, environmental quality, or economic vibrancy. Moreover, this appraisal was delivered not by a panel of disinterested critics, but rather by people who carry out food system work within the region every day.

Despite their critique of the status quo, these food leaders and their counterparts across the region have also provided numerous reasons for hope: they have launched a wide array of food initiatives across the region that, each in their own way, endeavor to make the food system work better for communities, farms, and the environment. These efforts, some which have been referenced in this report, are the seeds with which to grow a healthier future in the Upper Coastal Plain. They have guided us in identifying **opportunities and recommendations** for the regional food system development (see Section 5).

4. Findings and Results

4.1 Regional Food and Agriculture in Transition

Agriculture is a major part of the landscape of the Upper Coastal Plain; Wilson County, for example, has the highest percentage of its land area in farms (52.3%) of any county in the state (USDA 2017). The northern and southern portions of the Upper Coastal Plain differ in terms of the mix of crops being grown. While commodity crop production predominates throughout the region, produce cultivation is a much more significant part of the agricultural landscape in the southern part of the region. In Nash County, vegetable production comprises 22% of harvested cropland, the highest proportion of any county in North Carolina; percentages in Wilson and Edgecombe are 13% and 6% respectively. These three counties are part of a produce production cluster in the center of eastern North Carolina (see map in Figure 2). These counties are a national hub of sweet potato production, among other harvests. In Halifax and Northampton, by contrast, just 2% and 0.1% of cropland was devoted to vegetable production, a pattern more typical of northeastern North Carolina.

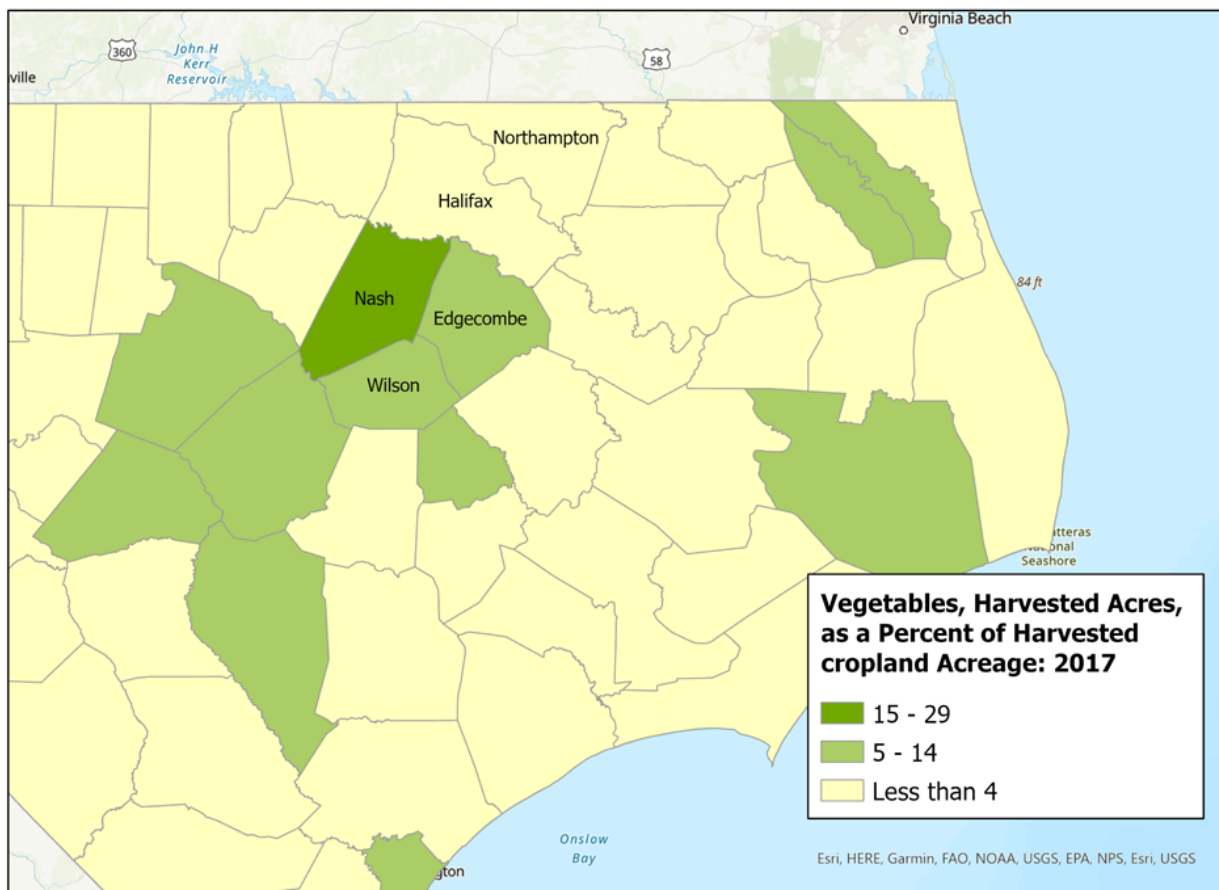


Figure O2 Acres of vegetable production as a percent of harvested cropland acreage.
Data: 2017 Agricultural Census.

Of the farms in the region, 37 farms are organic, 2 percent of all farms in the region and only 8 farms or less than 1 percent are certified Good Agricultural Practices (GAP). Of the organic farms in the region, 18 are in Nash County and 10 are in Wilson County. Figure O3, below, shows this distribution.



Sweet potatoes being sorted for distribution at Nash Produce. Photo: Gabriel Cumming/Working Landscapes.

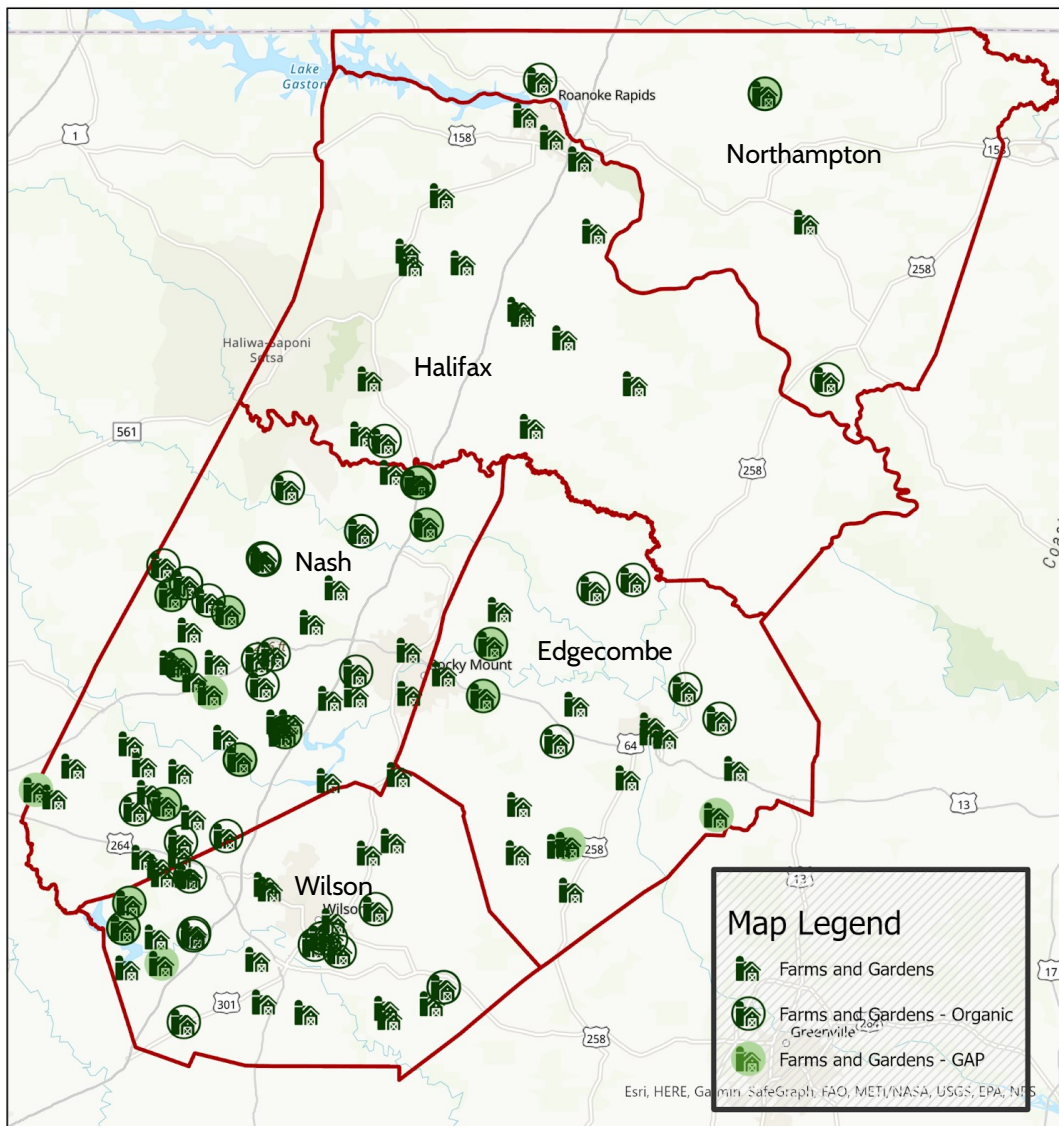


Figure O3. The Farms symbolized in this map do not represent all of the farms in the region.

When it comes to scale of farm operations, the landscape of food agriculture is bifurcated: the region is home to large farms that are well integrated into national and regional markets, while small farmers (including many farmers of color) struggle to enter markets.

This divide is reflected in Figure O4, which classifies farms in each Upper Coastal Plain county by sales (using categories from the 2017 Agricultural Census). In every county, the smallest farms (with sales less than \$10,000) are the most numerous; they represent a majority of the farms in both Halifax and Nash counties. In most of the counties, there is a much smaller number of farms in the broad middle category (\$10,000-\$250,000 in sales); indeed, in Edgecombe and Halifax counties this is the smallest of the three categories. This illustrates the divide between small and large farms in the region.

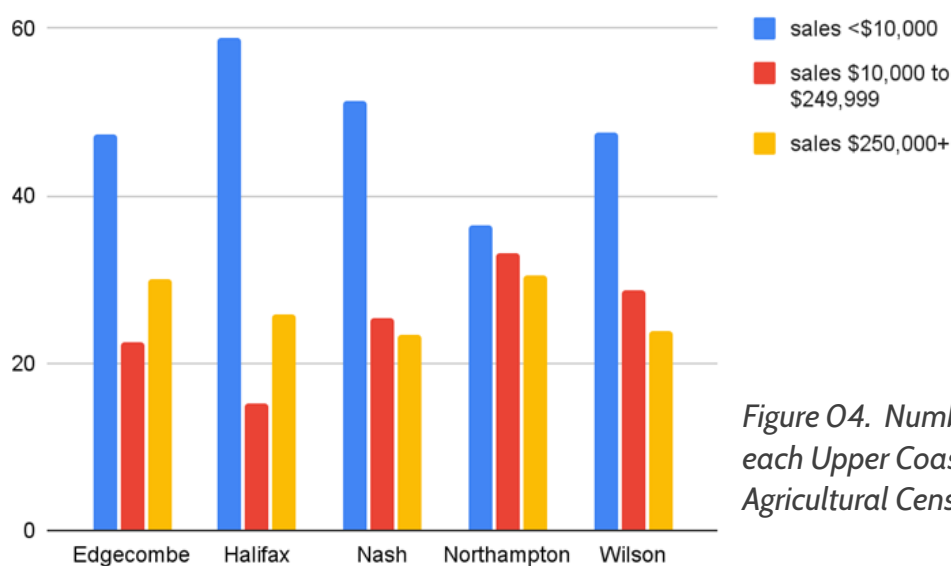


Figure O4. Number of farms by size class in each Upper Coastal Plain county. Source: 2017 Agricultural Census.

An example of a large-scale produce farm in the southern part of the Upper Coastal Plain region is Fresh-Pik, which raises a variety of vegetables on nearly 500 acres in Wilson County. Fresh-Pik supplies markets that range from national to local; farmer James Sharp estimates that 2-3% of the farm’s products end up within the Upper Coastal Plain region, with 10% remaining in eastern North Carolina more broadly. Fresh-Pik’s biggest customers are grocery stores, starting with Food Lion. The farm also reaches foodservice customers (e.g., restaurants) through Sysco and its fresh produce subsidiary Freshpoint. Locally, Sharp and his wife Courtney operate Dean’s Farm Market, a “country store” with an on-site kitchen, selling the farm’s produce and a wide array of value-added food products. Despite Fresh-Pik’s size and success, Sharp notes that it

remains an uphill struggle to convince foodservice customers and individual consumers to select fresh, local foods — especially if local products cost more than non-local alternatives.



Lettuce transplants at Fresh-Pik; produce for sale at Dean's Farm Market. Photos: Gabriel Cumming/Working Landscapes

At the other end of the size spectrum are the region's small-scale produce and livestock farms. These farmers are reaching customers through multiple direct-to-consumer channels, including farmers markets; roadside stands; and box programs (e.g., Community Supported Agriculture [CSA] programs), through which farm

harvests are delivered to or picked up by customers on a recurring schedule over a growing season. Box programs, in particular, have increased recently in the region; during the COVID-19 pandemic, they were used as a way of supplying local produce to food insecure consumers. Small farms have also had limited success entering foodservice markets, notably through working with dedicated farm-to-table restaurants like the Hen and the Hog in Halifax. Opportunities are emerging for small farms to supply institutions like schools, hospitals, and childcare centers.

Small farmers cite multiple barriers to entry into wholesale markets.

- Certifications needed to supply most institutional/wholesale markets, such as the USDA Good Agricultural Practices (GAP) certification
- Challenges of scaling up production to be able to consistently fill larger orders
- Inconsistency of orders — from restaurants, for example.



Edna Williams of Fourtee Acres Farm (Halifax County) grows produce in a high tunnel. Photo: Gabriel Cumming/Working Landscapes

This last point speaks to a broader dilemma facing small farmers: if they make the investments necessary to supply wholesale customers, how do they know those customers will consistently purchase their products?

Northeastern North Carolina, including the Upper Coastal Plain, is home to a higher proportion of minority-owned farms than other parts of the state. Black farmers, in particular, represent more than five percent of the growers in each Upper Coastal Plain county (see Figure O5). The farming population of Halifax County is the most diverse: 16% of Halifax farmers are Black, and the county is also home to the region's highest percentage of Native American farmers (1.2%).

The Black producers who are building farming operations across the Upper Coastal Plain include young farmers (e.g., Kendrick Ransome of Golden Organic Farm, Dallas Robinson of Harriet Tubman Freedom Farm), as well as retirees launching second careers as farmers on family land (e.g., Tyrone and Edna Williams of Fourtee Acres, Linette and Richard Hewlin of 4Ever Vista Farms).

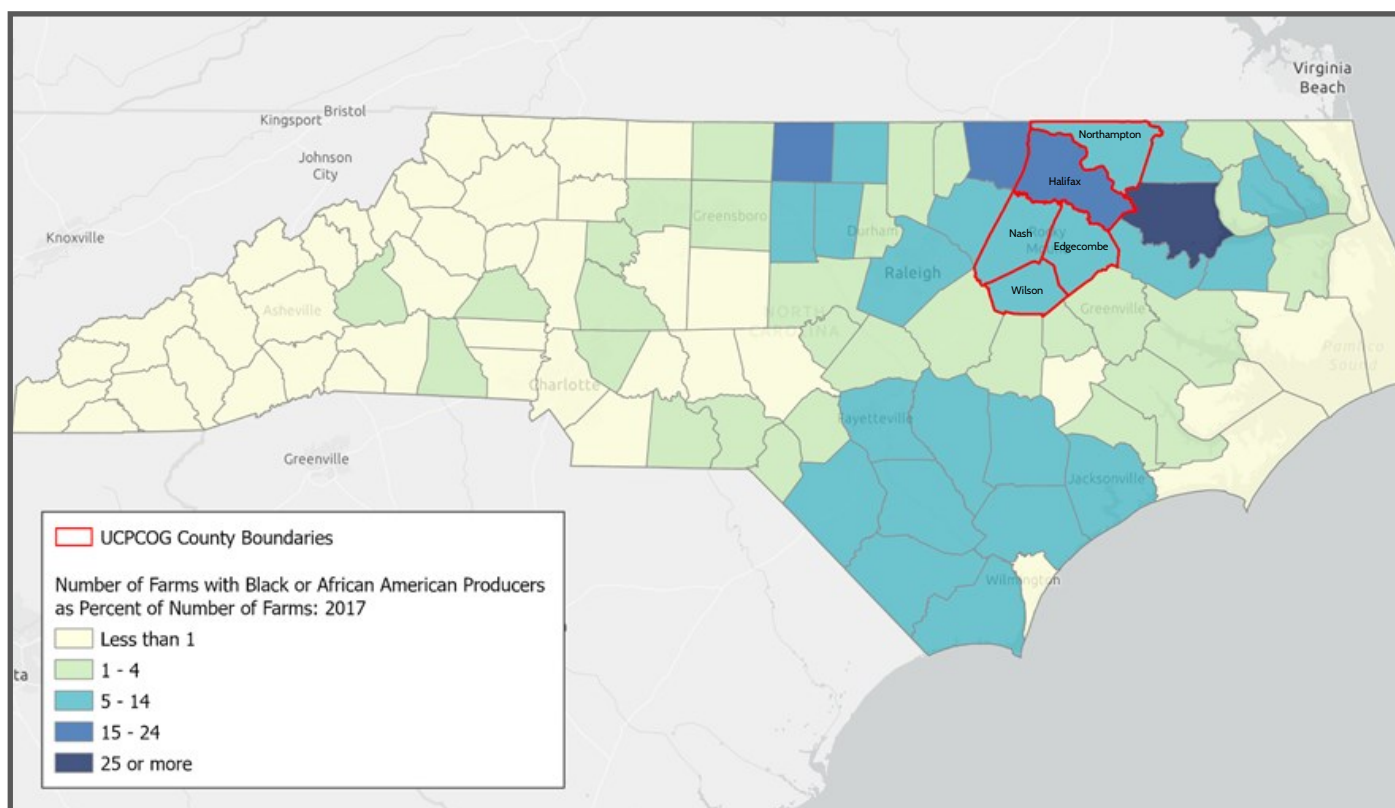


Figure O5. Percentage of farms with Black producers by county. Source: 2017 Census of Agriculture

Black farmers participating in Healthy FAM described how systemic racism has hindered the growth of their farm operations. One farmer said:

[W]e're a century farm.... We're 105 years strong right now, but I think that even in the good place that we are at this point.... historically because of some of the practices of the USDA and some of the other things, we are not as far along on our farm as we could have been.... When I look at other farms that have a similar history in terms of the number of years, and I look at the generational and sustainable wealth that they have created over that same period of time, then we should be much further along than we are.

Community gardens are also an important asset to leverage community care and enhance healthy food access for local residents. For example, A Better Chance A Better Community (ABC2) Community Farm works to build local food sovereignty and connects rural communities with resources to activate youth power and advocate for realistic solutions and community health. Furthermore, community gardens established by faith-based groups, such as Park Baptist Church community garden in Halifax, are an integral part of the local healthy food environment.

4.2 Fragmented Access to Healthy, Local Food

Just as farmers in the Upper Coastal Plain have highly varied levels of market access, the region's consumers have highly uneven access to healthy, local food. The 312 respondents to the Healthy FAM Consumer

Survey indicated that grocery stores were by far their most important regular source of food, distantly followed (in descending order) by restaurants, discount stores, farmers markets, and convenience stores (see Figure 06). The spatial distribution of these food retail establishments is uneven across the region, however.

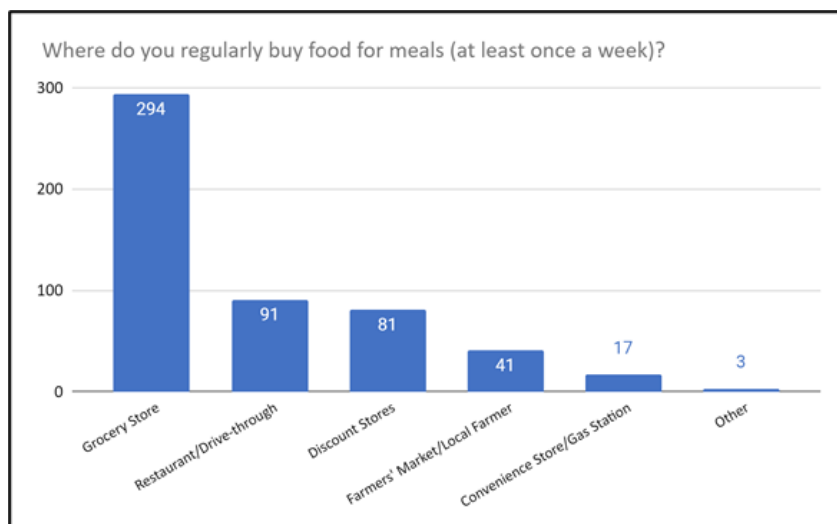


Figure 06. Where consumers buy food regularly. Data: HFAM Consumer Survey, 2021

It is important to understand that the most prevalent food options in the Upper Coastal Plain are not necessarily those that are most highly valued by the region's residents. When participants in Healthy FAM Community Meetings were asked to identify valued food system assets, the following four (in descending order) were the most frequently mentioned: farmers markets, gardens, grocery stores, and food pantries.

Farmers markets are particularly highly regarded; they are viewed as desirable indicators of a healthy local food system. Consumers not only value the quality of food available from these markets, they recognize the community benefits of patronizing them. One Nash County Healthy FAM meeting participant said:

For a farmers market, Nash County has a lot of farmers. A small group of farmers have come along, it is growing, and more and more people are recognizing the smaller farm and what it gives back to the community.

The value placed on farmers markets stands in contrast to their relatively low importance as regular food sources (according to Consumer Survey data). This may be because farmers markets are harder to access than other food retail sites: there are only seven in the region, and their operating season/hours are limited. However, farmers markets can also be designed intentionally to fill gaps in the food retail landscape: in establishing its farmers market, the town of Garysburg cited the lack of grocery stores and residents' reliance on dollar stores as motivating factors.

The significance attributed to gardens and food pantries reflects the reality that many regional residents are not acquiring food solely by purchasing it; they may also be relying on donations or growing their own. 125 survey respondents indicated that they received food from food pantries during the past year. Of the emergency food locations in the region, 41 percent are in Edgecombe County. The areas with the highest concentration of households receiving SNAP benefits are in Edgecombe, Halifax, and Northampton counties. These are also areas with majority Black communities. Figure 07 shows the distribution of emergency food resources within the Upper Coastal Plain region.

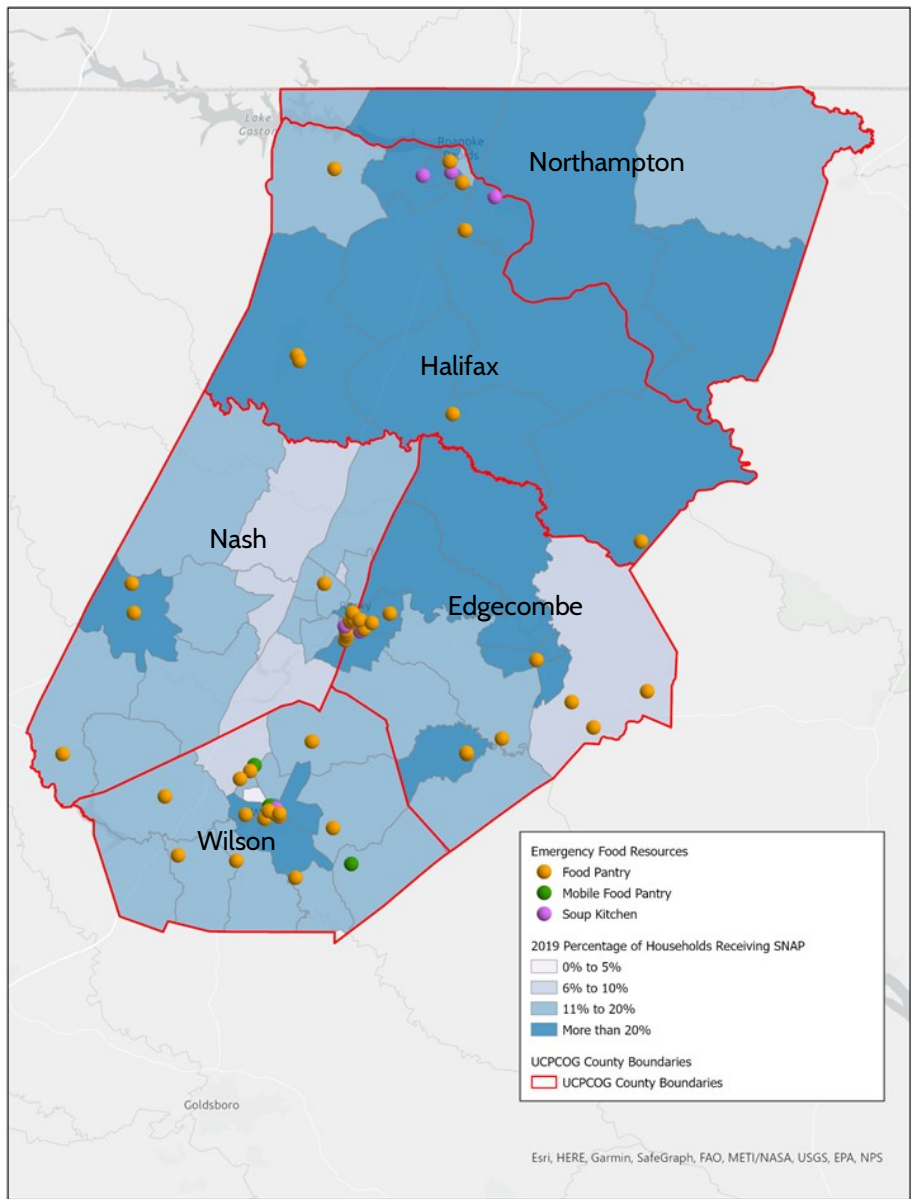
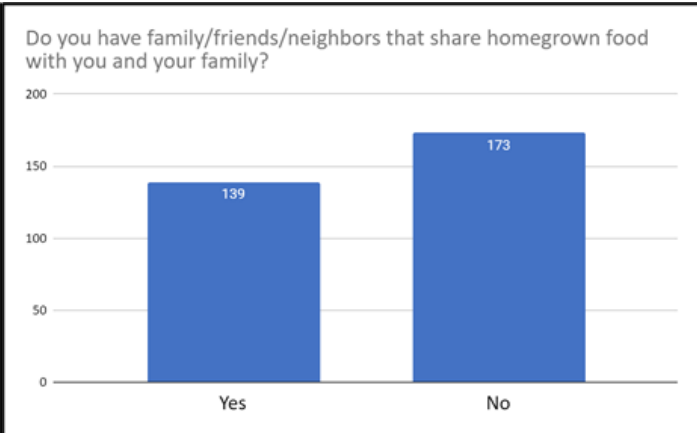
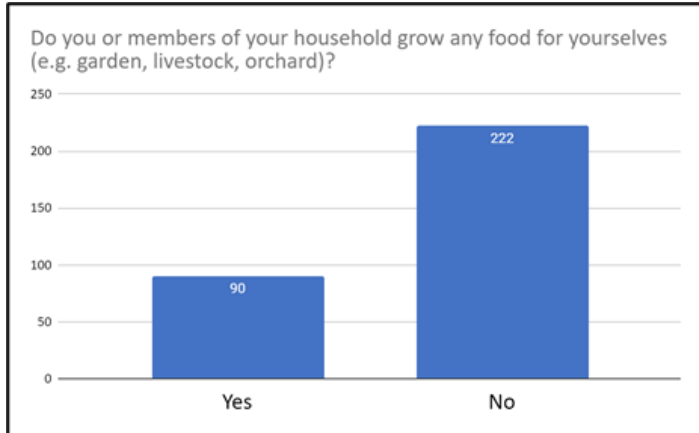


Figure O7. Emergency food resources in the Upper Coastal Plain region. Ninety respondents (29%) reported growing food themselves (gardens, orchards, livestock), while a larger number (139 respondents, 45%) reported receiving homegrown food from family, friends, and neighbors (see Figures O8-O9 below).



Figures O8-O9. Consumers who report growing food or receiving shared food. Data source: Healthy FAM Consumer Survey, 2021.

When it comes to brick-and-mortar food retailers, the central importance of grocery stores is acknowledged by local residents, but they are also aware that not all grocery stores are equal. Healthy FAM meeting participants discussed differences they have observed between grocery stores in more and less affluent areas – especially in the produce section. People know the difference between a wide selection of fresh produce and a paltry display of wilting produce. Whether at a farmers market or grocery store, the availability of fresh produce appears to be a key signifier of food system quality in the eyes of the region’s consumers.

This brings us to the other category of food retailer that the region’s consumers frequent but do not necessarily prize: dollar/variety stores. Their ubiquity makes them undeniably convenient, but they are not viewed as high quality food options, partly because of their lack of fresh foods. When asked about dollar stores in Rocky Mount, Reuben Blackwell responded:

Have one on every corner! Roses, Dollar Tree, Dollar General – several. It is what it is. They are employers. They provide services. They don’t provide quality and a clean environment. Food? Nothing fresh. Sweets, chips, creamer, detergent. Healthy local food? Nonexistent.

Multiple barriers limit Upper Coastal Plain consumers’ access to food. Healthy FAM meeting participants identified the following barriers (in descending order based on number of mentions):

- Lack of food options, including both concerns about the existence of food retail options at all (e.g., no food retailers in the area) and situations in which food retail exists, but is low quality (e.g., dollar stores or grocery stores with no or poor quality fresh produce, as discussed above)
- Financial barriers (mismatch between consumers’ means and food prices)
- Transportation barriers, including walkability
- Distance to food sources
- Consumer knowledge and skills (i.e., lack of familiarity with local/fresh foods and their preparation)

The distances people must travel to reach their primary food source vary greatly (see Figure 10, below). On average, survey respondents reported travelling 18 minutes to shop for food; Halifax residents traveled the longest (22 minutes).

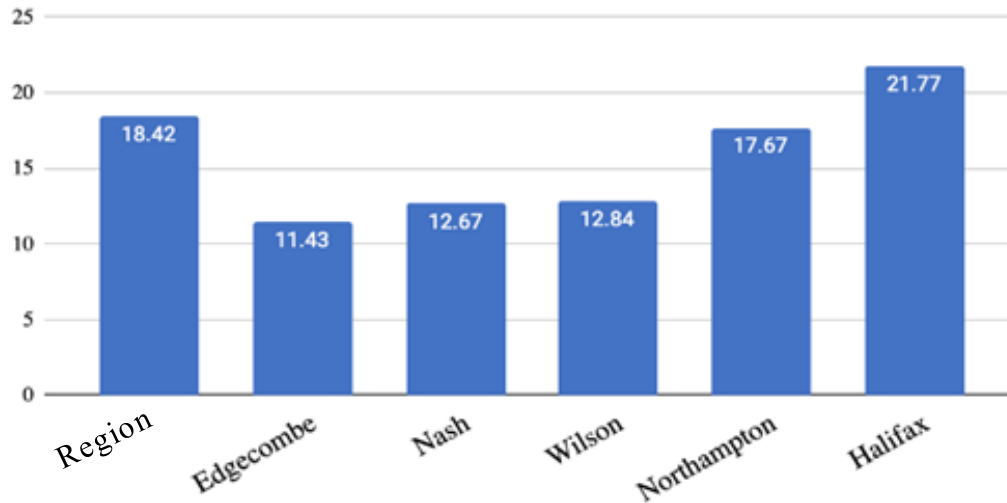
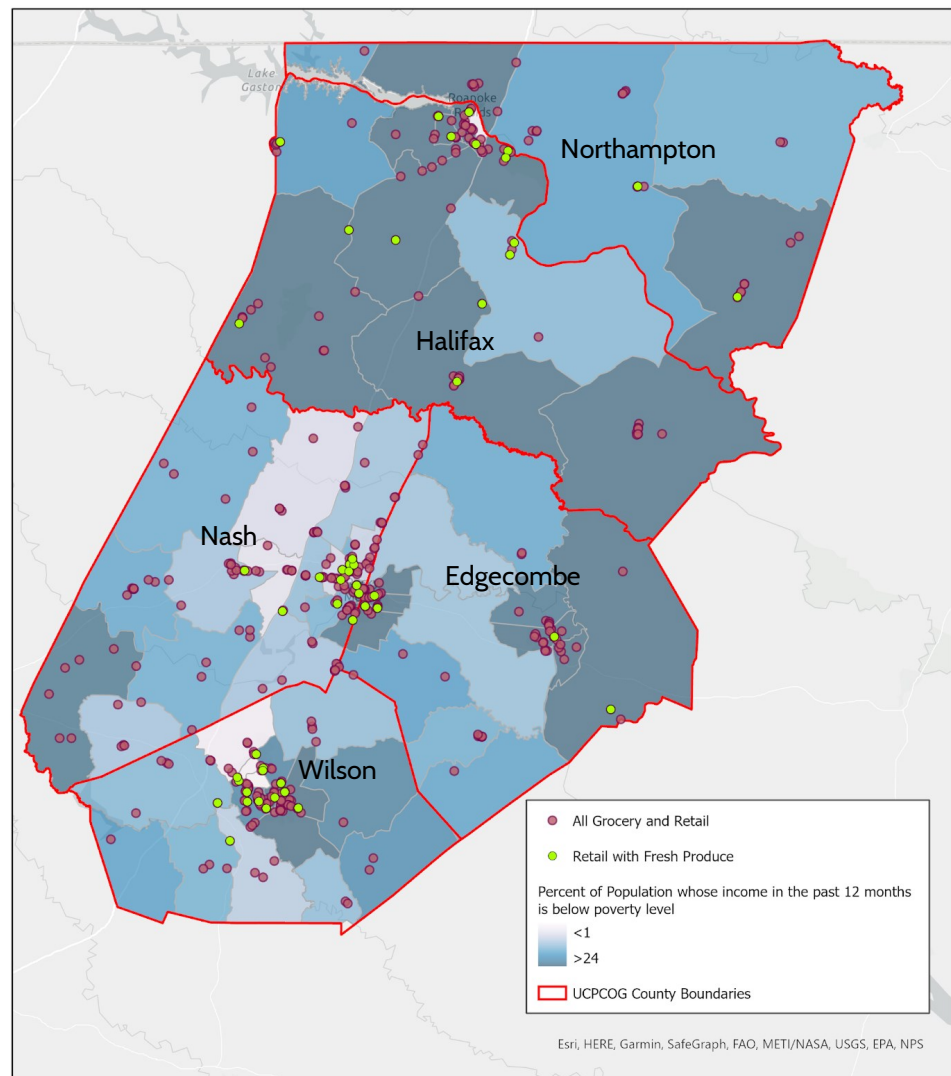


Figure 10. Distance consumers report traveling from their home to the place they most commonly shop for food. Source: Healthy FAM Consumer Survey, 2021.

Figure 11: This map shows all the grocery and retail locations in the region, the ones highlighted in green sell fresh produce. Here it is clear that areas with higher percent of the population with income below the poverty level typically have fewer fresh produce retail options.



Food access barriers in the Upper Coastal Plain contribute to pervasive food insecurity. The term “food insecurity” encompasses a number of experiences where one lacks consistent access to safe, affordable, culturally appropriate, and nutritious foods (Johns Hopkins 2021, FAO 2008). Based on their statements about their ability to consistently provide food to their households, 39% of Healthy FAM survey respondents experienced food insecurity during the past year.

During the Wilson County community engagement session on March 9, 2021, one Wilson County resident shared her experience of going from “being pretty food secure to for the first time being on shaky ground” regarding food security due to the challenges of the COVID-19 pandemic. The pandemic began while she was on maternity leave, which exacerbated her challenges. She and her family suddenly faced access, transportation, and convenience challenges for the first time. She used Facebook and connections with neighbors and friends to work through these challenges, for example, she would watch over someone else’s children and her own while the neighbor waits in line for food boxes in other communities. Both families would share the food boxes.

Lack of access to healthy food contributes to multiple chronic health conditions. In Rocky Mount, Reuben Blackwell describes his organization, OIC, as working to confront four of these conditions: diabetes, hypertension, asthma, and depression. “In all four categories,” he said,

“Food has an important relationship. What you put in your mouth makes a difference in how your body is able to react to things.”

4.3 Racial Disparities in Food Access Across the Region

People of color in the Upper Coastal Plain are disproportionately impacted by barriers to food access. Among survey respondents, American Indians had to travel the greatest distance to their primary food source: an average of more than 30 minutes, compared with an average of 18 minutes for the population as a whole. Black residents, meanwhile, experienced food insecurity at a rate of 52%, more than twice as high as white residents at 22%.

The Edgecombe County portion of the city of Rocky Mount was the example that Healthy FAM participants cited most frequently as an illustration of racial disparities in food access. Edgecombe County overall exemplifies the distinction between food access and healthy food access: the county has the highest number of food retail locations of any county in the region, but only 20% of those sell fresh produce —the lowest percentage in the region. This seeming paradox reflects the prevalence of dollar stores and convenience stores in the county.

Reuben Blackwell, leader of OIC and Rocky Mount resident, described the food landscape of inner-city Rocky Mount — in predominantly Black neighborhoods that were subject to white flight — as a place where, “it is easier to get something greasy and prepackaged and chemical-laden, versus fresh produce.” Dollar stores, as discussed previously, are “on every corner,” and there are a number of highly-successful fast food restaurants. One Edgecombe meeting participant described these convenient-but-unhealthy food establishments as sending a message to Black residents of Rocky Mount: “you all stay right here where you belong.” Meanwhile, healthy food options are scarce, with Food Lion being the only full-service grocery store. The best place to buy local produce is from farmers selling produce directly off the back of their trucks — but this is not consistently available.

The term “food apartheid” characterizes the systemic racism and under-investment in BIPOC communities that lead to disparities in economic conditions and food insecurity [Jackson E, Hardy M, Black Yield Institute. *Baltimore’s Strange Fruit: A Story of Food Apartheid and the Struggle for Sovereignty*.; 2018.]. The concept of food apartheid also emphasizes the power and potential of food sovereignty, or the right of people “to define their own food and agriculture systems” and to “healthy and culturally appropriate food produced through ecologically sound and sustainable methods.” [DECLARATION OF NYÉLÉNI - Nyeleni - Forum for Food Sovereignty. *Nyéleni*. Published February 27, 2007. <https://nyeleni.org/spip.php?article290>]. Food apartheid is especially important to understand when analyzing responses from Healthy FAM participants in Rocky Mount and Edgecombe County who see racism as driving patterns of disinvestment in their communities and food systems. This disinvestment contrasts sharply with other parts of the city and region, where significant investments in food business infrastructure are taking place. A great example of this is found in the investment taking place at Rocky Mount Mills in Rocky Mount.

Since the early 19th century, Rocky Mount Mills, one of the state's oldest and largest textile mill complexes, was established on the Falls of the Tar River. The Mills long provided a major market for the region's surrounding cotton farms, and a village gradually grew up around the mills. During the era of slavery, both farms and factory depended primarily on the labor of both enslaved and free Blacks, and after the Civil War, as the town of Rocky Mount was formally incorporated in 1867, a racially segregated pattern of living and working emerged. Like many large textile mills in NC, Rocky Mount Mills closed its operations in 1996. Since 2016, though, the site has been redeveloped based on principles of historic, adaptive reuse, with a mix of residential and commercial features. Food and beverage businesses are major components of the redevelopment, with farm-to-fork restaurants and a microbrewery incubator supported by Nash Community College. Hopfly, Koi Pond, Mythic, and Spaceway brewing companies are among the breweries that have located to the Mills. The Rocky Mount Mills Historic District is also home to the Nash County Farmers Market, managed by the county office of N.C. Cooperative Extension.

4.4 Farm to Foodservice Value Chains

The foodservice sector is central to the Upper Coastal Plain's food landscape. Foodservice refers to any business or organization that prepares meals outside of the home. This includes any institution that serves food — restaurants, school systems, healthcare facilities, childcare centers, nursing homes, prisons, etc. These institutions represent some of the largest purchasers of food in the region. Their food procurement decisions affect nutritional outcomes for thousands of consumers simultaneously, so foodservice providers are uniquely positioned to advance healthy, local food system development in the region. However, input from businesses and organizations that provide food in the region suggests that sourcing healthy, fresh, local food is only being done on a limited and ad hoc basis. A key gap is a lack of locally-based farm-to-foodservice value chain intermediaries — entities such as distributors that could efficiently aggregate, store, and deliver local harvests to foodservice customers.

There are 17 companies serving aggregation and distribution needs in the region (see Figure 12). Of these, five are focused on sweet potatoes, which pack and ship organic and conventional sweet potatoes across the country and internationally. Most of these

aggregators are in the three-county national hub for sweet potato production: Nash, Wilson, and Edgecombe counties. This three-county region has the greatest proportion of harvested cropland in the region and is part of a produce production cluster in the center of eastern North Carolina. The five fresh produce aggregators and distributors in the Upper Coastal Plain are therefore located in this hub — in Nash and Wilson Counties. 10 of these 17 aggregation and distribution companies are USDA organic certified.

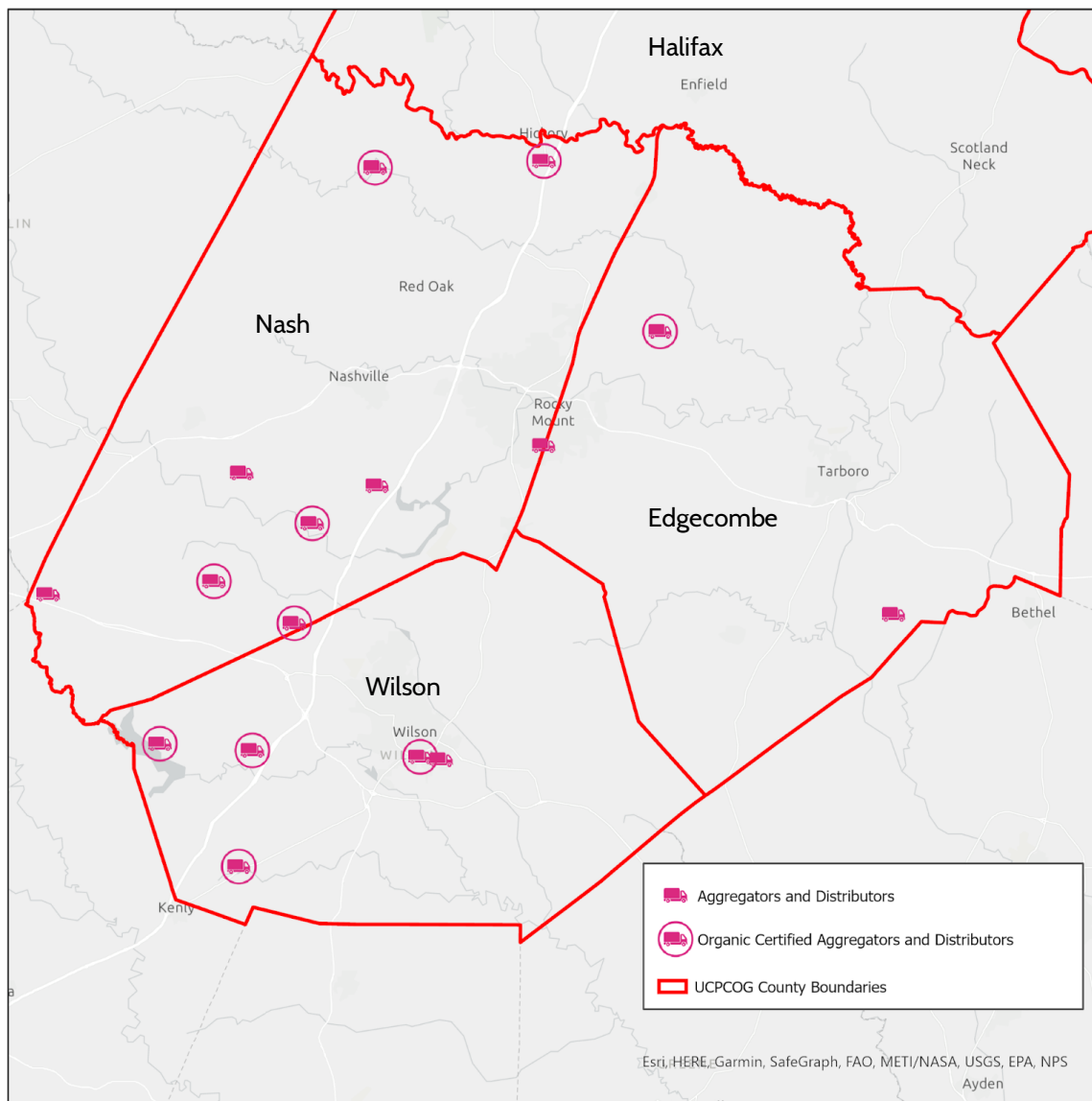
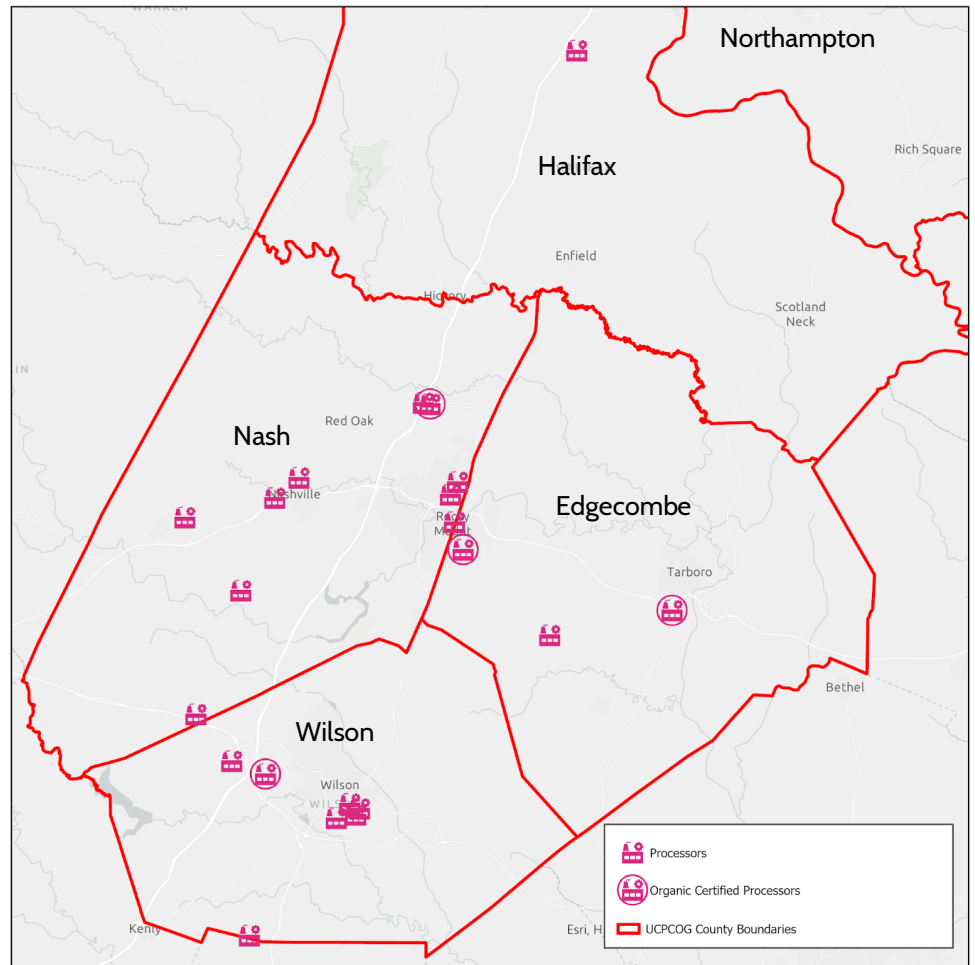


Figure 12: This map shows the locations of aggregators and distributors, including those certified organic.

There are also 32 processors across the region (see Figure 13), representing meat processors and slaughterhouses, grain millers, soybean processors converting soybeans into meal, oil and animal feed, nut roasters that make nut butters, dairy processors making cheese and butter, and other value-added companies making products like hot sauce and bakery items. Six of these processors are USDA Certified Organic.

Figure 13: This map shows the locations of processors, including those certified organic.



A survey of 31 organizations that supply food to Upper Coastal Plain consumers revealed that these organizations source food from both within and outside the region; this finding is consistent with individual interviews also conducted with foodservice personnel. When it comes to sourcing food, the Upper Coastal Plain is not functioning as an autonomous region; rather, supply chains are closely intertwined with the neighboring Research Triangle region. Of the food suppliers identified by each survey respondent, 62% were located within the Upper Coastal Plain region; 38% were located outside the region.

It is important to understand, however, that even the sources located within the region are not necessarily locally-based businesses and farms. Indeed, only 24% of identified sources were local growers. Instead, the most frequently cited “local” suppliers were large companies with retail locations within the region (e.g., Walmart and Food Lion). The external suppliers included both commercial distributors (led by Sysco) and food assistance providers (e.g., the Food Bank of Central and Eastern North Carolina), both of which are serving the region from Triangle region bases of operation.

Figure 14. Social network analysis of sourcing relationships identified by 38 food organizations in the Upper Coastal Plain.

Red nodes = organizations surveyed; grey nodes = suppliers identified by respondents but not themselves surveyed. If a respondent referenced another organization as a supplier, an arrow points from the respondents' organization to the supplier they referenced. Source: Healthy FAM Organization Survey.

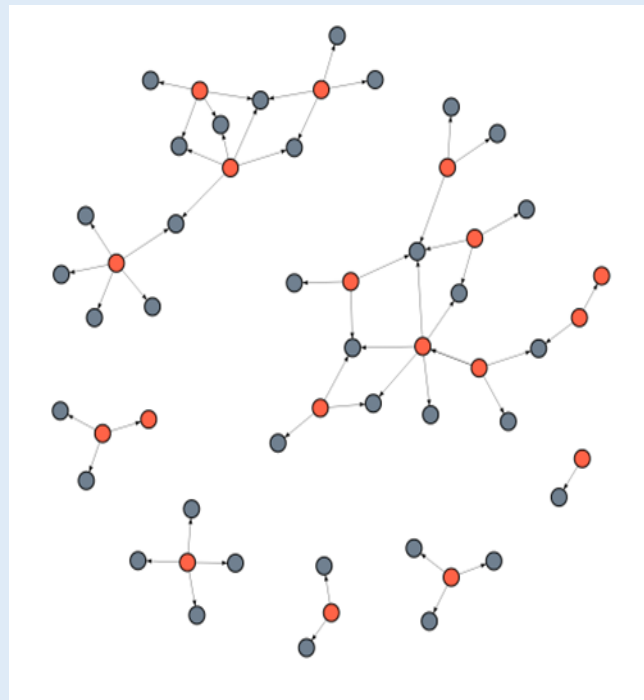


Figure 14 depicts the sourcing relationships identified by survey respondents in the form of a social network, with red nodes representing the responding organizations and grey nodes representing suppliers that each of them identified. A key attribute of this network is how fragmented it is. Some suppliers are shared by multiple organizations; however, a larger number are identified by only one organization. Indeed, the network is not actually a single network but a number of fragmented networks. This indicates that the region's food organizations are largely handling sourcing in isolation from one another, and it points to a lack of regional suppliers that could serve to more closely connect the region's food providers.

Distribution: a key gap in the region's food system

As discussed previously, Upper Coastal Plain farmers grow produce in abundance. This does not mean, however, that the region's fruits and vegetables are ending up on the menus of local foodservice providers. A key challenge for foodservice providers, even if they are interested in local sourcing, is finding efficient ways of procuring local produce. While some organizations source from individual local farms, this can be costly and burdensome for both the farm and the customer. Larger institutions (e.g., school systems, hospital systems, colleges) rely primarily on distributors to supply them with produce. One distributor was identified as the primary supplier by all the larger institutions we surveyed: Sysco (and its fresh produce subsidiary, Freshpoint).

None of the produce distributors identified by Upper Coastal Plain institutional buyers are based in the Upper Coastal Plain region; instead, their nearest locations are in the adjacent Triangle region. This does not mean these distributors cannot carry produce from Upper Coastal Plain farmers, and some definitely do — for example, Fresh-Pik (a Wilson County produce farm) supplies Sysco. However, creating markets for Upper Coastal Plain growers is not a top priority for these distributors. When they provide buyers with information about available products, local produce may be source-identified; however, it may also be listed alongside non-local product that may be less expensive. Even a small difference in price can lead budget-conscious foodservice personnel to select the non-local option.

The Upper Coastal Plain lacks distributors whose primary mission is to move produce (and food more generally) within the region, rather than into and out of the region. An exception is Ripe Revival Market, a distribution venture of Nash County-based Ripe Revival (a manufacturer of fruit/vegetable gummies). Created to help families receive food during the pandemic, Ripe Revival Market distributes both local and non-local produce. According to owner Will Kornegay, the company has already reached the limits of its cold storage and fleet capacity — he sees a need for more produce aggregation and distribution capacity in the region.

Smaller foodservice providers in the region — e.g., smaller restaurants and childcare centers — do not necessarily source primarily from existing distributors. Since they may only be able to purchase and store smaller amounts of food at a time, many do their shopping at food retailers: Walmart, Sam’s Club, Food Lion, etc. These businesses lack an efficient way of procuring local produce at a price they can afford. The case study below examines the challenges and opportunities facing childcare centers in Nash and Edgecombe counties.

Case Study: Farm-to-Childcare in Nash and Edgecombe Counties

Childcare centers are an important source of nutrition for young children in our region. In Nash and Edgecombe counties there are 3,048 children enrolled in these centers, of whom 1,768 are low-income. This represents 42% of all low-income children aged 0-5 in these counties.

Down East Partnership for Children (DEPC) is a Rocky-Mount based nonprofit organization dedicated to supporting children aged 0-8 and their families. DEPC is in the third year of Food to Early Education (FEED), a Kate B. Reynolds Charitable Trust funded initiative to increase consumption of local and fresh produce in childcare centers. During this initiative, DEPC piloted sourcing food from a small, local farm (Golden Organic Farm), and a local distributor (Ripe Revival Market) who supplied them with USDA Farm to Families Food Boxes, a federal food assistance program launched during the COVID-19 pandemic.

Based on their experience with FEED, DEPC staff identified a number of challenges that make procuring local food for childcare centers difficult, summarized below:

- Childcare centers vary greatly, so a single procurement strategy will not work for all of them
- Food distribution logistics are a major challenge. Though childcare centers collectively represent a significant food market, each individual center is small. Thus it is costly for an individual supplier (e.g., a farmer) to deliver to each individual center. It is also time consuming for childcare staff to pick up food from a distant location, and they are not able to leave the site during open hours.
- Though it would be more efficient for suppliers to deliver larger volumes at one time, childcare centers lack the onsite storage and cold storage to receive large volumes of produce.
- Local/fresh produce may be more expensive than alternatives like canned foods, especially when delivery costs are factored in.
- Procurement at some centers is overseen by third-party sponsoring organizations for the Child and Adult Care Food Program (CACFP), which makes it complicated for them to offer last minute menu changes and meet the sanitation guidelines for the sponsoring organization.

These challenges illustrate the difficulty of growing the Upper Coastal Plain region's local food system. Though both potential suppliers of, and potential customers for, local food exist within the region, developing efficient sourcing linkages between them can prove daunting.

One strategy under consideration would be the identification of one or more intermediaries who could connect local farmers to childcare centers. Possible intermediaries could include distributors, local food hubs, or central kitchens, but the

Upper Coastal Plain region is not currently well served by any of these entities. Different options are considered below and diagrammed in Figures 15-19.

- Locally based distributors of local produce help move food within the region. However, they are scarce in the Upper Coastal Plain. Produce distributors serving foodservice markets in the Rocky Mount area mostly operate out of the adjacent Triangle region. An exception is Ripe Revival Market, a mission-driven produce distributor based in Nash County (see discussion of distribution, above). Ripe Revival Market aims to connect “excess to access:” helping farmers find markets for crops that might otherwise go to waste by providing food to consumers in need.
- Food hubs are defined by the USDA as “businesses or organizations that actively manage the aggregation, distribution, and marketing of source-identified food products to multiple buyers from multiple producers, primarily local and regional producers, to strengthen the ability of these producers to satisfy local and regional wholesale, retail, and institutional demand.” The closest USDA-recognized food hub is operated by Working Landscapes, a nonprofit in adjacent Warren County. It is 45 miles from Rocky Mount. There are multiple food hubs in the Raleigh-Durham area. Working Landscapes’ hub focuses on fresh-cut vegetable processing, which aims to make local produce more convenient for foodservice kitchens by reducing the preparation time required. Pre-processing of local harvests could increase the feasibility of serving those products in childcare centers.
- Central kitchens are commercial catering kitchens that prepare complete meals on behalf of childcare centers, then deliver the meals to the centers. One potential benefit of this model, as identified by the Center for Environmental Farming Systems, is the efficiency of centralized procurement and preparation. A central kitchen can also handle CACFP compliance, thereby reducing the paperwork burden for centers. Chapel Hill-based Child Care Services Association has operated a central kitchen for more than 30 years. A central kitchen operation in the Rocky Mount area could be established in a new facility or could utilize an existing institutional kitchen in the area. Obviously, centralizing culinary operations would have implications for the staffing at individual centers; centers would have to consider this when deciding whether to participate. A central kitchen could work in tandem with a value-added processor, incorporating pre-prepped local produce into meals.

Figure 15

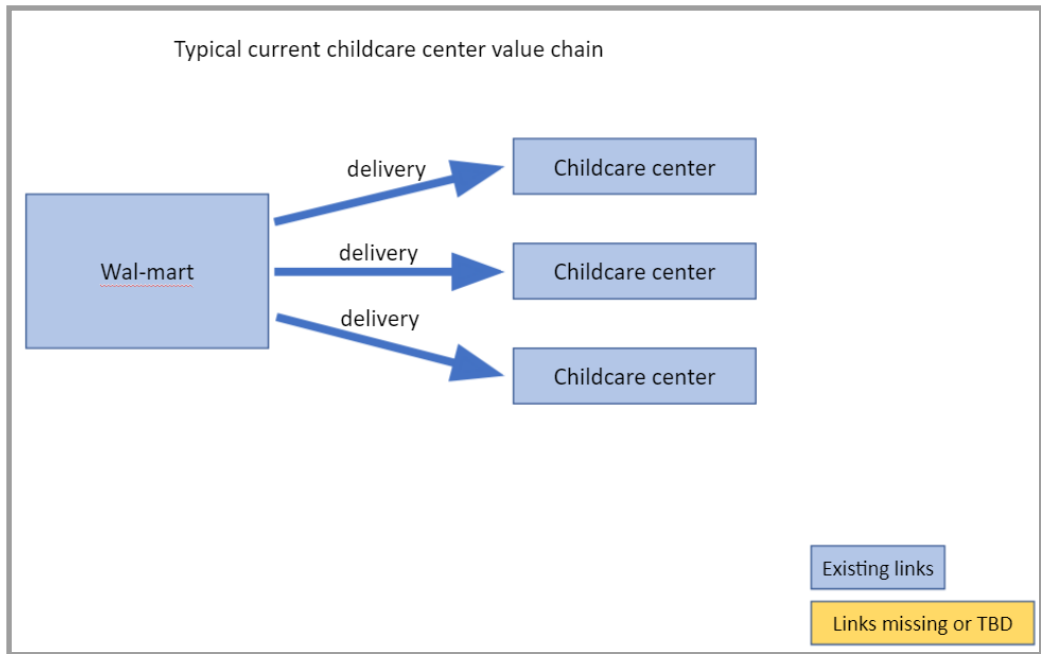


Figure 16

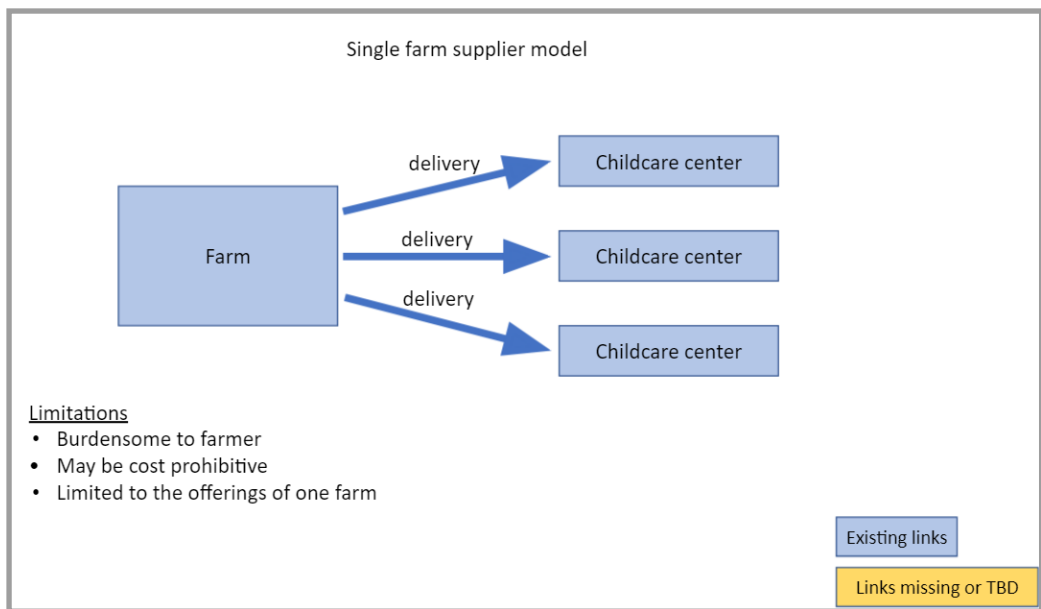


Figure 17

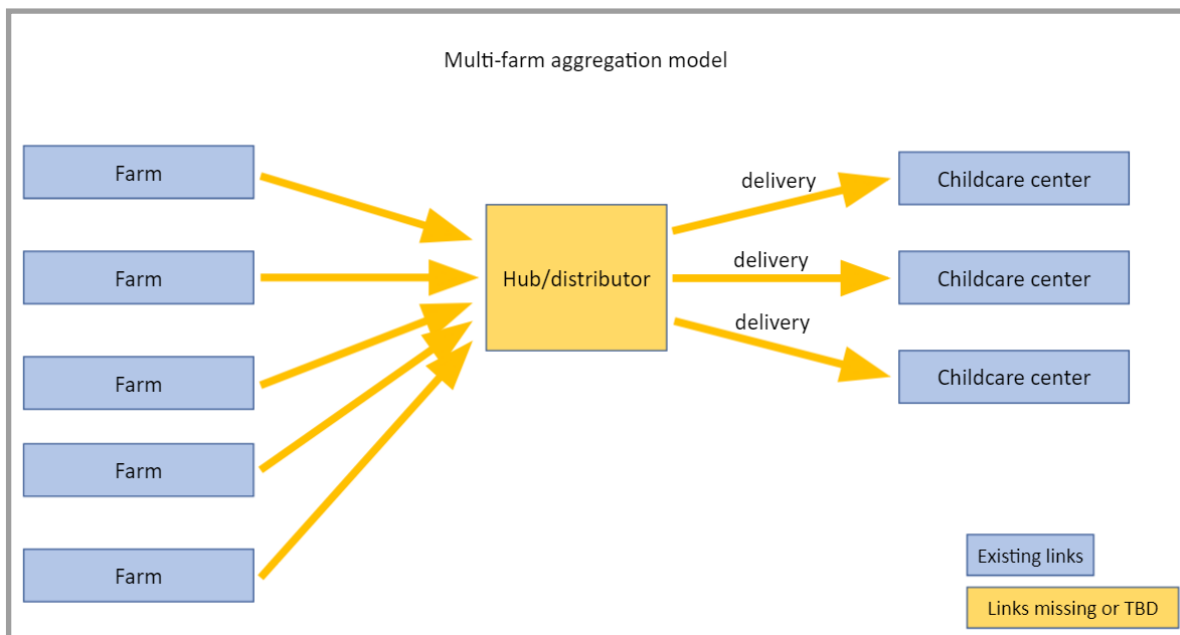


Figure 18

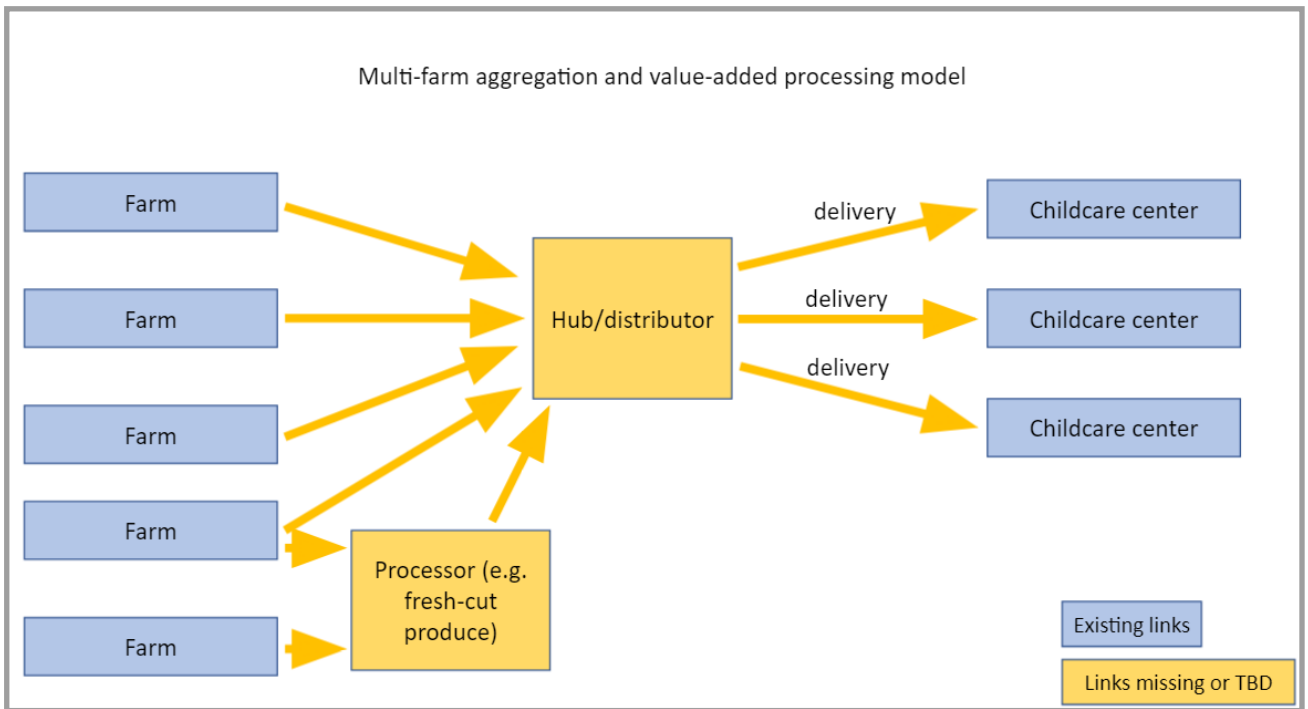
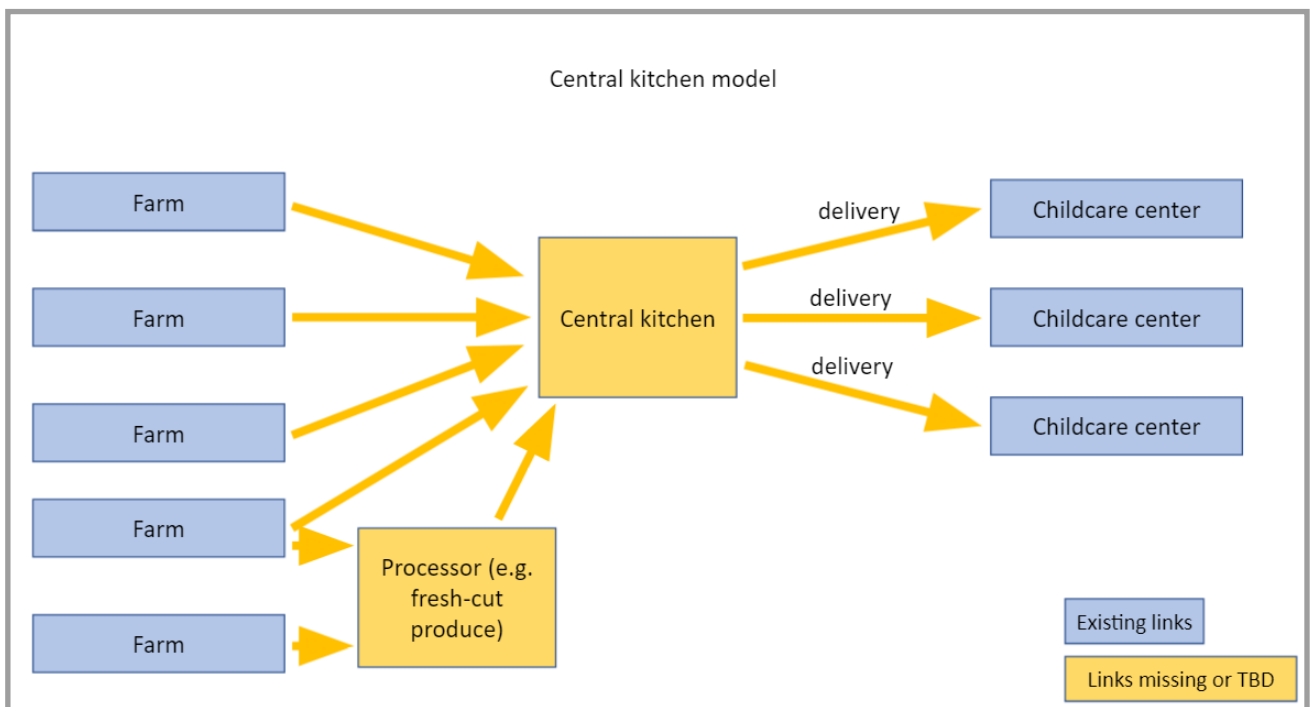


Figure 19



Regardless of which model was pursued, the FEED pilot suggests that a successful farm-to-childcare intermediary would need to:

- Either deliver directly to childcare centers or enable center personnel to pick up food from a central location outside of their centers' operating hours.
- Have sufficient cold storage capacity to hold food on behalf of childcare centers until they could receive it.
- Offer meals at a price centers can afford, including delivery costs.
- Purchase local harvests at a scale and price that is feasible for local farmers to supply.
- Meet CACFP requirements.

Benefits: If a viable farm-to-childcare value chain could be established in the Rocky Mount area, it could benefit:

- Childcare centers, by making it feasible to serve children fresh, local food;
- Children — especially low-income children — by providing fresh, nutritious meals; and
- Farmers — especially small-scale and minority farmers — by opening up a significant new market.

It is also likely that the value chain would have additional benefits to the region's food system. If childcare centers receive local food on a regular basis, they could potentially become healthy food pickup points for the families and communities they serve. Furthermore, the local food suppliers — farmers and intermediaries — who were collaborating to supply childcare centers would be well-positioned to supply other local markets (e.g., restaurants and institutions) as well. In short, a farm-to-childcare value chain could anchor an increasingly robust regional food system.

4.5 COVID-19 and the Upper Coastal Plain's Food System

The COVID-19 pandemic offered a unique opportunity to examine the food system of the Upper Coastal Plain region — revealing its deficiencies, to be sure, but also illuminating new areas for alignment among the region's food stakeholders. Each is discussed below.

Pandemic challenges to the food system

A primary effect of the pandemic on the Upper Coastal Plain region's consumers was that it made food access more difficult. Health concerns were a leading cause — people

were hesitant to visit food retail settings because of risk of infection. As one survey respondent wrote, this made it particularly challenging to eat healthy foods like fresh produce:

“As a result of the pandemic, not wanting to be around crowds, as in grocery stores, has caused me to go “without” much needed foods such as fruits and veggies at times. Because fresh foods tend to spoil much quicker, you must consume and buy more often.

The pandemic revealed that for many of the region’s consumers, food insecurity is not a remote risk — it is a line that can easily be crossed when life circumstances change. One Wilson community meeting participant described how having a baby at the beginning of the pandemic made her food insecure for the first time in her life. The increased time and financial burden of being a new parent made accessing food a challenge. She was able to get food boxes from food pantries, but those were not necessarily in her area; therefore, she had to coordinate childcare with neighbors: one parent would watch the children while another stood in the pantry line.

Local restaurant owners were also hit hard by the pandemic. They described how they had to innovate to survive. For example, they had to find new ways to bring food to customers, such as offering delivery or operating a mobile unit (food truck). Creative promotion has also been a necessity.

New food system opportunities created by the pandemic

Perhaps surprisingly, more community meeting participants described ways in which the pandemic increased their food access, rather than decreasing it. This does not necessarily mean that the pandemic did not create food access issues for them; it does signify, however, that new access opportunities stood out to them more.

The leading example of a new food access channel created by the pandemic was the rollout of food box programs — distributing boxes of produce and other foods to consumers in need. In many cases, these boxes were free of charge to the end consumer. Box programs included farm products from outside the region and local products. The former was exemplified by the USDA Farmers to Families Food Box Program, through which more than 173 million boxes of produce, dairy products, and

cooked meats were distributed nationwide. In addition to feeding Upper Coastal Plain families, these boxes also created new revenue streams for businesses (e.g., Ripe Revival and regional distributor Foster-Caviness) whose operations were impacted by the pandemic. Another box program with a local presence was the FarmsSHARE program established by Carolina Farm Stewardship Association. The box contents were sourced exclusively from regional farms and then distributed to Upper Coastal Plain residents by local nonprofits ABC2 and Working Landscapes.

Local farms that participated in the FarmsSHARE box said that it was valuable in accelerating the growth of their operations. For organizations like Working Landscapes, food box programs provided opportunities to work with farms they had never worked with before — effectively establishing new value chain linkages that may persist post-pandemic.

Box programs were not without their critics. One small farmer who is growing a CSA program explained how the rapid influx of non-local boxes from the USDA program had a suppressing effect on his own sales. When boxes were plentifully available for free, it was hard to build his market.

Case Study: COVID-19 Local Food Response for At-Risk Seniors

Due to COVID-19, area senior meal centers throughout the region supplying food and fellowship were forced to shut down for safety concerns. With senior meal sites closed, the meal delivery systems in the counties had to pivot to ensure seniors' nutritional needs continued to be met.

Through a \$202,000 nutrition award funded by the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Upper Coastal Plain Area Agency on Aging (AAA) executed a Request for Proposals (RFP) process deliberately designed to provide as much fresh local food as possible to as many seniors as possible. The Agency felt this was a better alternative to simply increasing the amount of long-term, shelf stable foods seniors were already receiving.

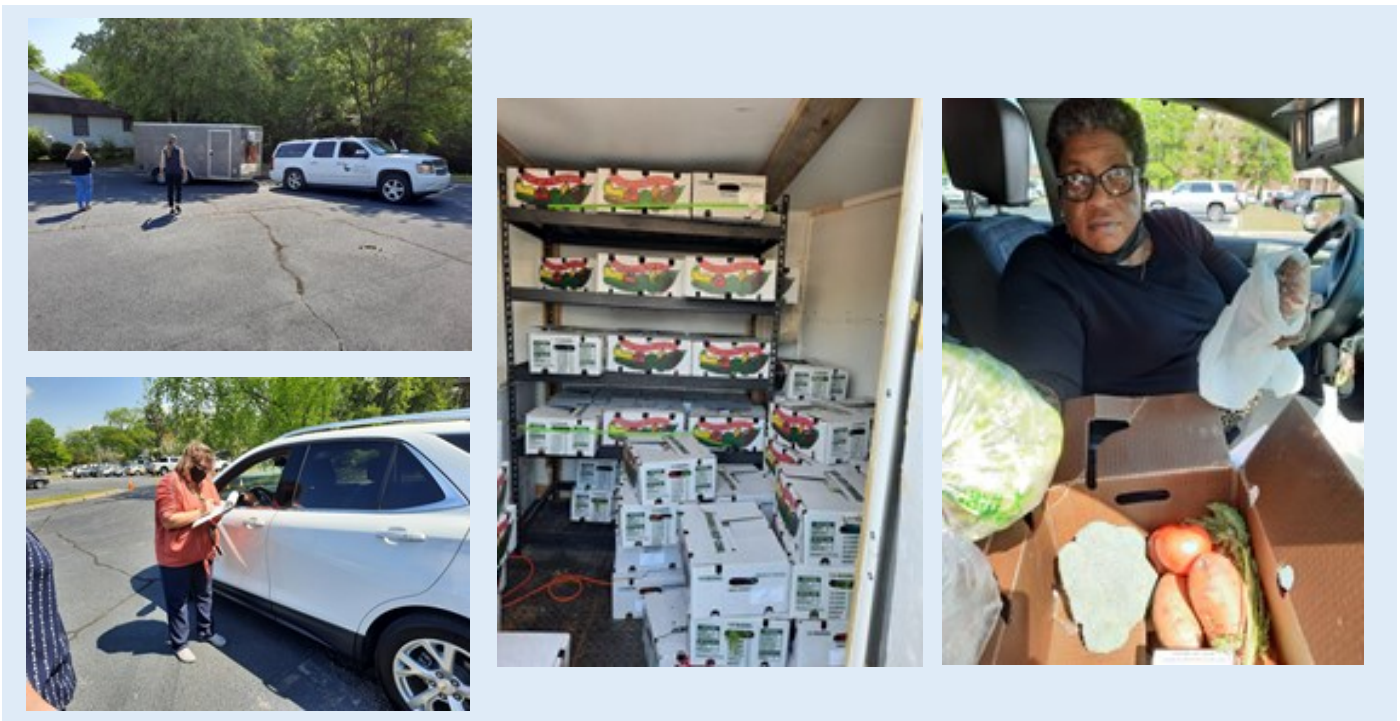
AAA awarded these funds to the Nash County Farmers Market to increase access to fresh produce for the region's senior citizen population (age 60 and over). Not only did the proposal meet the requirements of the RFP for seniors throughout the region, it

optimized its impact on the local food system.

The program is providing support to numerous small farms. The Nash County Farmers Market utilizes farmers and producers located in Halifax, Edgecombe, Nash, Northampton, and Wilson Counties for 100% of the boxes' contents to the greatest extent possible. Each box contains seasonal items in portions for at least two USDA recommended servings for one person. Items include a green vegetable, leafy green vegetable, yellow/orange/red purple vegetable, one vegetable compatible with longer storage, one fruit, one source of grain, and one source of protein.

The program also utilizes a small distribution provider working to expand operations. The Nash County Farmer's Market distributes a variety of locally grown vegetables, meats, eggs and other fresh goods in all five counties of the region. The distribution of food boxes began in April 2021 to select locations in each of the five-county region and will last through September 30, 2021. It provides over 250 boxes each week regionwide.

This program supports the region's vision for economic development and improved quality of life by assisting with the provision of nutritional foods to older adults and by supporting local agriculture. The partnership with the Nash County Farmers Market provided ½ of an FTE for the farmers market and supports more than 20 local farmers.



4.6 Food Policy Education & Information

Education on policy falls into three general geographic and regulatory categories: local, state and federal. Overall, the region's Food Council participants, farmers, local food businesses, as well as economic developers, planners and agricultural agents involved in local foods and health related issues should stay current with relevant policies and legislation.

For example, many wholesale markets like schools, hospitals, government entities, and grocery stores require their farm suppliers to have Good Agricultural Practices (GAP) certification. GAP certification can be expensive — farmers may need to purchase new equipment, and certification fees can cost upwards of \$1,200 every year. The Local Food Market Expansion Act (HB 737), now in session, would provide \$2 million over the next two years for grants and cost shares to help small and beginning farmers in North Carolina achieve GAP certification.

A set of examples are four recently introduced marker bills that will support healthy kids and healthy schools:

- Food and Nutrition Education in Schools Act, which would create more food educator positions in public schools
- Farm to School Act of 2021, which would triple funding and increase equitable access to the USDA Farm to School Grant Program
- Kids Eat Local Act, which would make it easier for schools to source local food for school meals
- School Food Modernization Act, which would provide the funding needed for schools to upgrade their kitchen equipment

Together, these complementary bills provide crucial support for schools, farmers, and underserved communities in rebuilding equitably from the pandemic while building on the progress we have made in connecting students with healthy food in schools.

Appendix O2 contains information about several food system-related bill that, in spring of 2021, were being considered in the NCGA assembled in part by the NC Alliance for Health.

During this same period, Governor Cooper’s American Rescue Plan Budget, *A Shared Recovery for a Stronger NC*, outlines detailed recommendations to aid Food Security for North Carolinians. In the UCP Region, local officials, nonprofits working on food access and security, and institutions serving at-risk populations should monitor budget proposals and, if adopted, be prepared to act at the local level to both implement and leverage efforts to optimize their impacts at the community level. The Governor recommends in his rescue plan budget:

Invest \$64 million to address food security and reduce food deserts across the state through a three pronged approach to improve access, affordability, and infrastructure for healthy, fresh food. These funds will bolster small farms, food systems infrastructure, and emergency food operations, strengthen local food systems, expand nutrition education, and reduce hunger on community college and university campuses.

Figure 20: Funding Allocations to Address Food Security

Bolster Small Farms, Infrastructure, and Emergency Food Operations	\$ 28,000,000
Small and Minority Farm Program	\$ 5,000,000
Healthy Food Infrastructure at Farmers Markets and Certified Roadside Stands	\$ 3,000,000
Aid for Food Banks, Emergency Feeding Organizations	\$ 20,000,000
Strengthen Local Food Systems and Expand Nutrition Education	\$ 32,000,000
Extension Programs	\$ 12,000,000
Grants for Community Organizations	\$ 20,000,000
Reduce College Hunger	\$ 4,000,000
Funding for Higher Education Institutions	\$ 4,000,000
Grand Total \$ 64,000,000	

More information about the Governor’s budget can be found in Appendix O3.

It should be reiterated that many of the Healthy FAM authors of this assessment, due to their government or 501(d)3 charters, neither endorse nor oppose any of the above examples.

5. Opportunities and Recommendations

There are many initiatives and improvements to the local food infrastructure that can support improved access to fresh, healthy, and local food in the region. The Healthy FAM project's analysis of the regional food system provides just one basis for the development of more comprehensive local and regional food plans, initiatives, and policies. Many other supporting projects and efforts exist and some are cited throughout this initiative.

The Upper Coastal Plain region, in the Council of Government's Comprehensive Economic Development Strategy, the Nash & Edgecombe County Just Foods Collaborative Action Plan, and other documents and initiatives have identified the healthy, local food and agriculture system as a strategic regional economic and community development priority. Opportunities exist to leverage economic and community development resources, funding, and partnerships to support the food system's continued development.

Based on the Healthy FAM efforts, the core team of partners' expertise, prior work of many, and input from the Stakeholders Group and hundreds of engaged community members, the following are general and specific recommendations for advancing the food ecosystem in support of a stronger, more resilient, and equitable food system. While healthy food system and access development work affect numerous categories, the opportunities and recommendations in this section have been categorized for the reader's convenience.



5.1 Access

- Expand the region's rural transportation systems to increase access to affordable, healthy food for the region's elderly, disabled, and vehicle-free residents.
- Expand the Upper Coastal Plain Area Agency on Aging local, healthy food box program to include prepared meals for qualified homebound and other senior citizen residents.
- Invest in low-income and BIPOC communities in order to improve access to affordable, fresh produce in the region. For example, invest in efforts led by BIPOC communities in the region to establish healthy food outlets and food enterprises that support local producers, especially historically disadvantaged and new and beginning farmers. Potential priority areas with low income and majority BIPOC with limited access to fresh produce include the northern part of the region, especially southeast Northampton County, southwest and southeast Halifax County, and north Edgecombe County. See Figure 21 on page 53 for a map of potential priority areas.
- Support the development of farmers markets that are designed intentionally to fill gaps in the food retail landscape. The Town of Garysburg in Northampton County cited the lack of grocery stores and residents' reliance on dollar stores as motivating factors.
- Support fruit and vegetable incentive programs at existing farmers markets and farm stands that increase the affordability of healthy food while maintaining or increasing the revenue stream for local farmers. An example of this type of programming are Double Up Food Bucks programs in which customers who receive SNAP can purchase double their dollars in fruits and vegetables.
- Work with farmers to determine opportunities to reach more markets that increase cash flow and give them flexibility to feed their communities while also maintaining a stable income.

- Increase capacity for local farmers markets and direct-to-consumer retail stores to accept SNAP benefits with programs that allow consumers to purchase more healthy food and stores to carry more healthy food without harm to their business.
- Support the [Medicaid Healthy Opportunities](#) initiative to cover the cost of necessary services related to food, among other needs, and encourage funds to be spent locally when applicable.

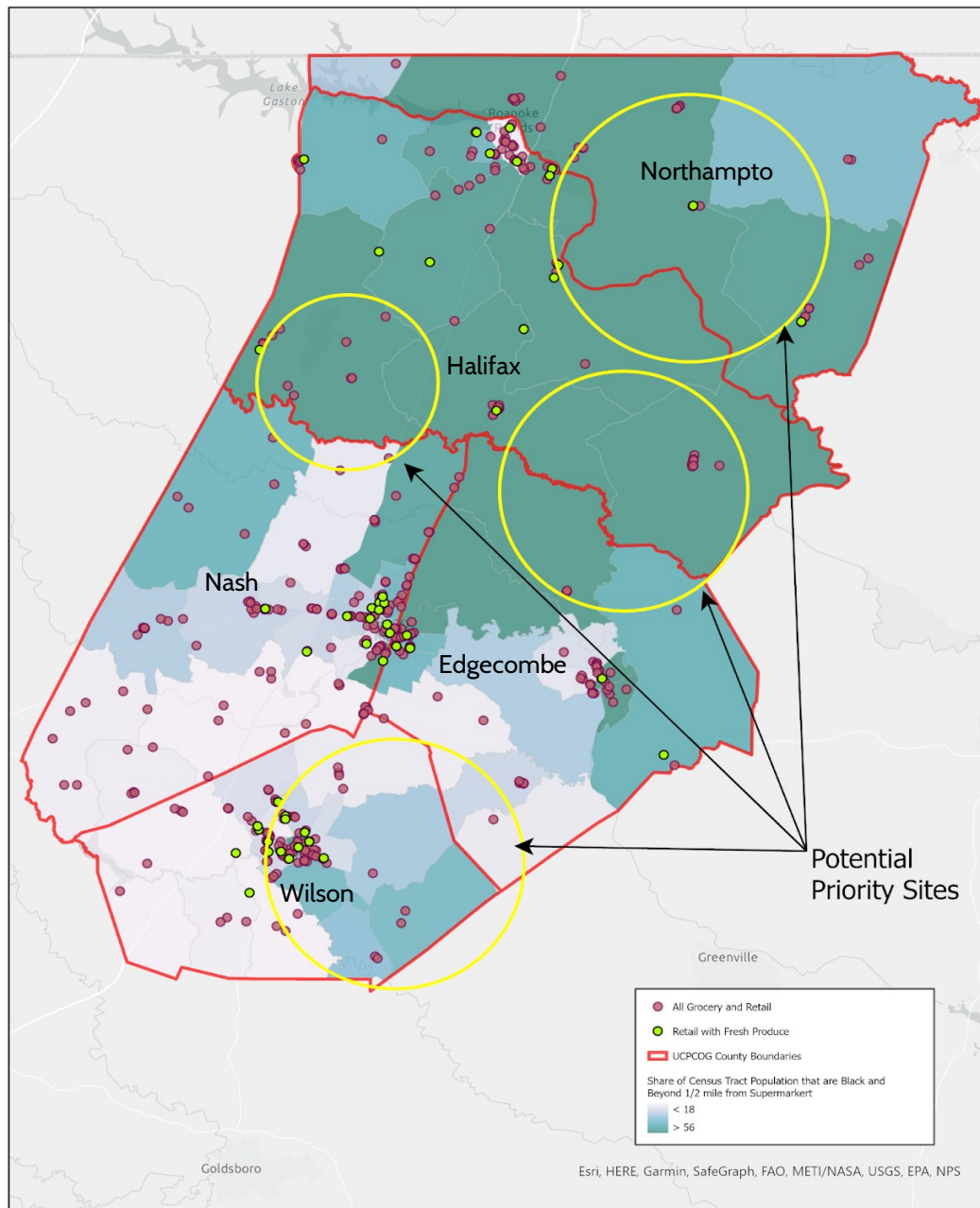


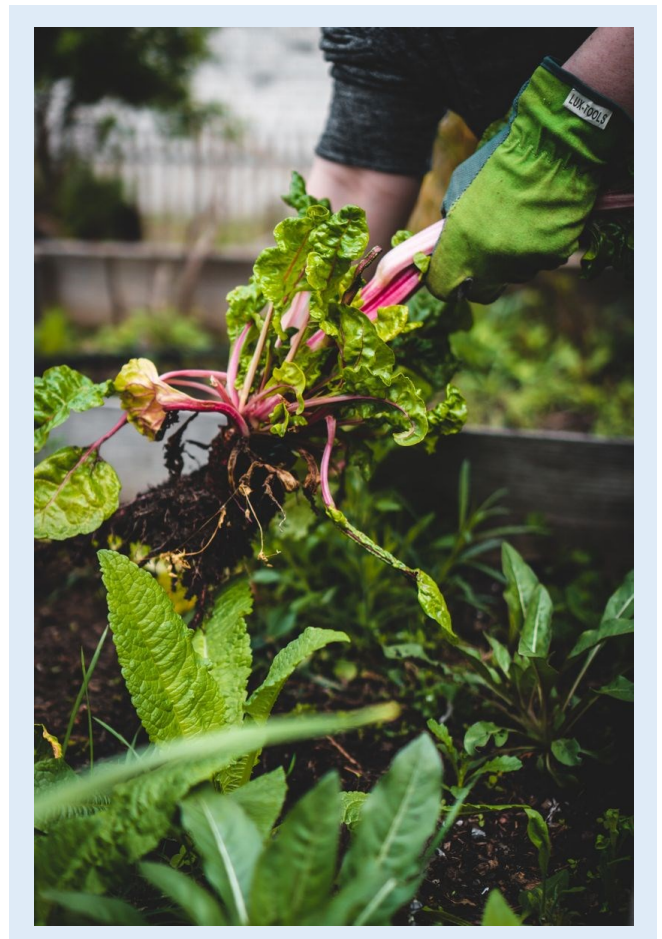
Figure 21: This map overlays the share of total tract population that are Black or African American beyond 1/2 mile from supermarket and poverty status to show high priority areas (indicated with darker green) with few to no fresh produce retailers. Source: Food Access Research Atlas 2019 and ACS Poverty

5.2 Community Development and Planning

- Regional, county, municipal, and community local food supporters should continue to network, partner, and grow. The groups should work to ensure a racially, economically, and professionally diverse set of stakeholders representing the various aspects of the local healthy food system. Examples include local and small farmers, value added producers, community nonprofits providing food access assistance, institutional buyers, representatives of underserved communities, public agency representatives associated with planning, community and economic development, and others deemed appropriate for the needs and tasks being addressed.
- Support the development, work and capacity of the Just Foods Collaborative in Nash and Edgecombe Counties, Wilson Food Policy Council, Roanoke Valley Community Health Initiative, and other local food councils' emerging in the region.
- Groups should consider utilizing the Whole Measures Framework or a similar model that centers a values-based, community-oriented approach. To reiterate, there are six elements that support a sustainable healthy food system: Justice and Fairness, Strong Communities, Vibrant Farms and Gardens, Healthy People, Sustainable Ecosystems, and Thriving Local Economies.
- Support the development and encourage adoption of locally-driven food access plans. When a food-specific plan is not feasible, encourage new or existing comprehensive planning efforts to further study food system needs across the region and to reference this planning process as a base.
- Facilitate regional planning by supporting a coordinator that promotes a collaborative approach to food systems development across the five county region so that there is reduced redundancy and maximized impact. Increased capacity for this collaboration will enable the creation of a truly resilient food system where cities, counties, and organizations work more in tandem and less in silos.

5.3 Community Gardens, Land-Use, and Urban Agriculture

- Further develop and support the growing of food within city limits and subdivisions governed by Homeowners Associations. Where appropriate, reverse past land use and zoning trends that currently limit the ability of residents to have things like front yard gardens or backyard poultry and other small-scale livestock.
- Municipalities can develop policies and programs to support community gardens, not only by making public vacant land available but also by awarding small grants, providing paid support staff and technical assistance, and integrating community gardens into the work of town and county parks and recreation departments. For example, the Just Foods Collaborative recognizes community gardens as a way for the City of Rocky Mount to repurpose vacant land and mitigate the food insecurity that many residents face and have expressed interest in creating an ordinance that would establish urban agriculture as a land use activity in Rocky Mount, creating the infrastructure for community gardens and other urban agriculture activities.
- Utilize [“Sowing the Seeds for Urban Agriculture in Rocky Mount, NC: An Analysis of Municipal Urban Agriculture Ordinances”](#) released April 2021 as a basis for how to address not only Rocky Mount’s needs, but other larger municipality needs in the region. This report can provide a foundation for local governments to foster urban agriculture.
- Nonprofits, businesses, and churches with access to underutilized land may develop community gardens with support and engagement from their employees and members.

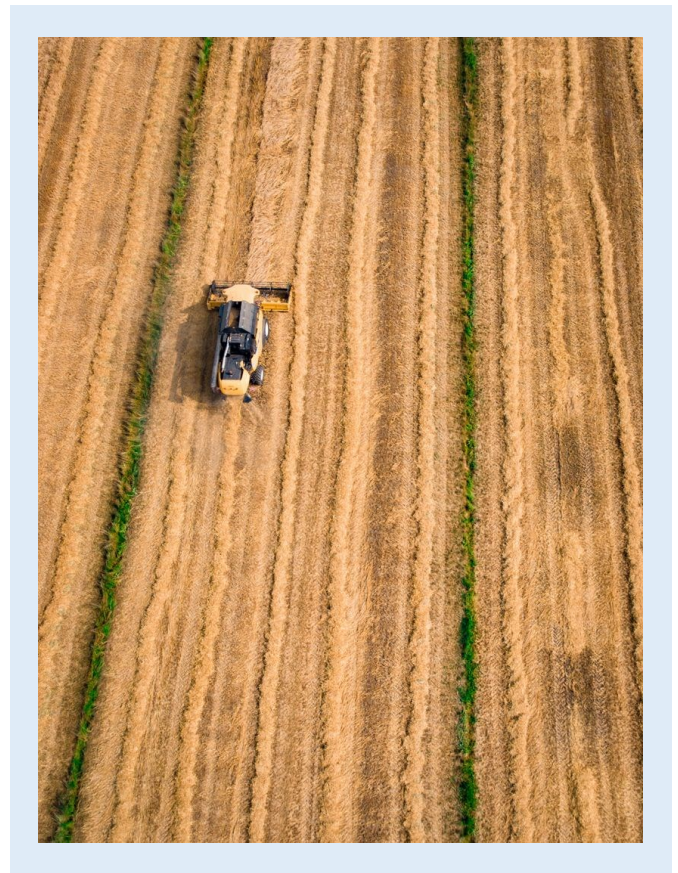


5.4 Farms

- Invest in model programs that encourage local growers and link them to local and regional market opportunities.
- Support pilot programs that provide processing capacity for those food and meat producers that are too small to serve commodity markets feasibly and effectively, but too large to sell directly to consumers.
- Connect local growers and food producers to the state's network of agriculture research stations.

- Develop programs and tools to address the need for more local food producers, farm land for local production and encourage healthy, higher-quality foods.
- Implement farmer mentorship/ apprenticeship programs and promote curriculum in schools that increase student exposure to farming.

- Connect youth interested in farming with the training, resources, land and equipment needed to begin (or stoke interest in) a farming career. An example is the [NC Simulation Station's](#) use of the Farming Simulator online game.



- Identify resources to support establishment of local foods as a viable small business opportunity, with focus on community college small business centers and training programs.
- Provide a broad spectrum of farm and food business startup assistance, as well as ongoing support for existing businesses to optimize and expand their operations.

- Support existing farms by enhancing their retail markets to sell fresh produce.
- Continue to expand, support, and market the use of the [Visit NC Farms app](#) throughout the region.
- Work with small fresh food farmers to join together in cooperative structures to better meet the needs of developing and implementing an increased and more reliable food-to-institutional-buyer supply chain.
- Study and develop a plan to support the region's fresh food farms' and local food system's ability to expand into nearby urban markets like the Research Triangle Park/Raleigh-Durham, Norfolk, VA, and NC's Piedmont Triad Region.
- Support the transition to and growth of organic farms in the region. In addition to being more environmentally sustainable, certified organic agriculture also demonstrates socio-economic benefits to rural areas where organic farms and value-chain businesses are concentrated. The [Organic Agriculture Revitalization Strategy \(OARS\)](#), led by Croatan Institute, has identified a series of specific recommendations for re-envisioning certified organic food in eastern North Carolina, including the Upper Coastal Plain.
- Support farms in adopting practices that increase their resilience in the face of the climate crisis and help to mitigate the effects of climate change, e.g. through carbon sequestration in soils.
- Provide programmatic support via financial and/or technical assistance, including funding opportunities, to farmers growing food using environmental and sustainable methods and/or that are serving low-income communities.
- Provide more well-resourced, culturally appropriate technical assistance for Black and Indigenous growers and entrepreneurs.

5.5 Finance

- Develop appropriately scaled financing solutions to support farms producing fresh fruits and vegetables, pastured meats, and healthy grains. This is especially needed to support mid-sized farms — a size category crucial to vibrant regional food system but underrepresented in the Upper Coastal Plain — especially in Edgecombe and Halifax counties.
- Utilize opportunities to develop “integrated capital” solutions to building resilient value chains, including mechanisms such as community development finance, impact investing, Slow Money, and new ways to finance regenerative, organic agriculture. Philanthropy has a critical role to play, alongside opportunities for private investment and public finance mobilization.
- Create and expand programs to help small and socially disadvantaged farmers and food-system entrepreneurs take fuller advantage of USDA programs providing debt relief and funding for local food initiatives.
- Create new investment tools and programs for efforts led by BIPOC communities in the region to establish healthy food outlets and food enterprises that support local producers, especially historically disadvantaged and new and beginning farmers.
- In areas that currently lack access to grocery stores, especially low-income and Black communities, provide incentives such as financial and marketing support to establish new retail locations that prioritize healthy and whole foods, including access to existing and emerging USDA programs providing grants, low-interest loans and guarantees, technical assistance, cost-share programs, and debt relief.

5.6 Food Value Chain, Economic, and Business Development

- Make filling the gaps identified in this assessment a regional and local economic development priority, in order to facilitate mutually-beneficial coordination in food procurement among the region’s organizations, businesses and farms.

- Address the identified gap regarding a lack of locally-based distribution capacity for delivering local produce to local restaurants and institutional buyers, through:
 - a. Incubating/building capacity of distributors based within the region.
 - b. Working with larger distributors that are based outside the region to source and feature Upper Coastal Plain Region products — especially when marketing to customers within our region.
 - c. Exploring opportunities for the development of food hubs that can serve as aggregation/distribution points for local food products. The most promising way to do this may be to enhance the capabilities of existing organizations to serve as food hubs, rather than starting from scratch.

- The UCPCOG should work with the region’s local governments and food system stakeholders to identify possible supply chain connections, using the findings of this report as a base. UCPCOG is the ideal connecting agency for county economic developers and state and federal agencies who are already focused on this work. When an appropriate supply chain gap is identified, stakeholders should study the feasibility of potential supply chain additions (for example, work with a qualified group to study the feasibility of a new cold storage facility that serves food producers in more than one county in the region). The UCPCOG should utilize regional economic development and transportation agency networks and the region’s robust community college system at a minimum to ensure all supply chain gaps are considered. Additionally, UCPCOG should consider increasing staff capacity to study the local, healthy food economy beyond the scope of this report.

- Agritourism and the Visit NC Farms App. The [N.C. Department of Agriculture & Consumer Services](#) launched the Visit NC Farms app in 2018 as a pilot program. Today over 52 communities and four state farmers markets are active in the app with approximately 1,050 assets. With the help of the NC Tobacco Trust Fund Commission, the initiative is expanding statewide to connect millions of residents and visitors with local farms and fisheries, local food and drink, farmers markets and u-pick, value-added through local shops, farm stays and lodging, tours and trails and special agricultural events across the state to include your county/region.

In the spring of 2021, UCPCOG was offered a grant from the initiative to aid Edgecombe, Halifax, Nash, and Northampton Counties with on-boarding up to 100 assets to the app and to conduct initial marketing efforts (Wilson County was already signed up to participate). Representatives from the UCPCOG and counties were provided training from the state and are cross referencing agritourism related assets like farmers markets, u-pick farms, restaurants that source local foods, and more that were identified during the Healthy FAM process. Counties agreed to budget for monthly maintenance fees associated with the app after the launch.

It is recommended that regional and local marketing efforts are maintained, new agritourism assets are added to the app when identified, and the UCPCOG asset map continues to be cross referenced with the Visit NC Farms app database on a regular basis to ensure continuity. It is also recommended that Counties maintain a budget line item for the maintenance and marketing of the app over the years and work both inter-departmentally (tourism, agriculture, economic development, etc.) and regionally with each other to grow the agritourism industry.



- Food system stakeholders should coordinate with the Turning [Point Workforce Development Board](#) to adjust or enhance workforce training and hiring programs, with focus on meeting the needs of the region’s agricultural sector. Access to the [NC Simulation Station](#) (specifically the Farm Simulator) for students, remote learners, and adult dislocated workers, can be expanded by acquiring or gaining access to additional devices capable of running training simulation games and/or by obtaining additional gaming licenses.
- Develop a certified commercial shared-use kitchen in the Rocky Mount area where locally-sourced meals can be prepared for smaller institutions (e.g., childcare centers). This would make it feasible for these smaller organizations to source fresh food locally, which is currently inefficient. Models for this include spoonFULL, the meals service of Triangle-based Child Care Services Association, and the DC Central Kitchen.

- Allow farmers to utilize the commercial kitchen to create value added items if needed where they can wash, chop, can, freeze, and/or package their products.
- Entrepreneurs, economic development officials, and investors need to be attentive to region-wide opportunities that add value to the existing set of agricultural businesses in the region and that prioritize healthy food. This includes food distribution and processing infrastructure that both large institutions and smaller retailers and restaurants can access.
- Invest in model programs that link local growers to existing and new local and regional market opportunities. In addition to markets within the Upper Coastal Plain region, there is a potential to address large markets in the adjacent Triangle region. Multi-farm collaboration or development of intermediaries (food hubs, regional distributors, etc.) will be helpful in connecting farms to these nearby urban markets.
- Develop incentives and tools for businesses that can stack functions, such as food retail, food processing for local products, cold storage, and prepared healthy foods.
- Support (pilot) programs and asset development that provide processing capacity for those food and meat producers that are too small to serve commodity markets effectively, but too large to sell directly to consumers.
- Continue economic development programs encouraging a transition away from tobacco into more diversified and organic rotational systems.
- Identify and/or create resources to support establishment of local foods as a small business opportunity.
- Assess the direct and indirect economic impacts of proposed projects to galvanize support from stakeholders across sectors and assure funds are used effectively and efficiently.
- Provide a broad spectrum of farm and food business startup assistance and ongoing support for existing businesses to optimize and expand their operations.

- Integrate specific recommendations and findings from Healthy FAM into its next 5-year Upper Coastal Plain Economic Development District Comprehensive Economic Development Strategy (CEDS), developed and implemented by UCPCOG.
- Support food businesses in adopting practices that address the climate crisis — e.g., through carbon footprint reduction — and increase the climate resilience of the regional food system.

5.6 Institutional Purchasing

- When feasible, institutions should prioritize sourcing from farmers and agricultural businesses in the region. Economic development and agricultural professionals should strengthen ties between local farmers and institutional food service purchasers in the region.
- Work with institutional food buyers — particularly the region’s hospitals, private and community colleges, school systems, and childcare centers — to develop and implement local procurement strategies.
- Support institutions in adopting the [Good Food Purchasing Program](#) as a guideline for purchasing local food that is fair and transparent.
- Establish mission-aligned aggregation and distribution businesses that can act as an intermediary between growers and foodservice customers. As mentioned in the section on childcare, there is a need for the “identification of one or more intermediaries who could connect local farmers to childcare centers.”
- Incentivize or mandate public institutions in the region to purchase locally, with upfront commitments (contingent on growers meeting their requirements). This will give growers the confidence to invest in crop production because markets are waiting at the end.
- Implement a NC 10% campaign where institutions source at least 10% of their food locally.

- Work with existing distributors that serve the region (e.g., Sysco/Freshpoint) to increase their local offerings and proactively market those offerings to their wholesale customers.
- Provide farmers interested in selling wholesale to institutional purchasers support and technical assistance to obtain any necessary certifications related to Good Agricultural Practices (GAP).
- Creating infrastructure for processing and milling diversified grains beyond soy and developing facilities, including ones certified for organic production, for adding value to produce are clearly needed. NC State agronomists have developed trials with organic stevia, for example, which can use tobacco growing infrastructure, such as trays and curing barns.
- In 2018, Working Landscapes invited 57 food system leaders who work in Upper Coastal Plain and adjacent counties to prioritize what is needed to build “strong, inclusive farm-to-foodservice value chains in northeastern North Carolina.” Priorities identified in the report *Growing Opportunities: Building Farm-to-Fork Connections in Northeastern North Carolina* included the following:
 - a. Incubating/building capacity of distributors based within the region
 - b. Improved communication, collaboration, and trust-building among value chain stakeholders and food organizations
 - c. Improved regional distribution infrastructure
 - d. Building equity, inclusion, and investment in marginalized communities into value chain development
 - e. Policy support for value chain development, e.g., by supporting institutional procurement
 - f. Supporting farmers in adopting (environmentally and financially) sustainable practices
 - g. Workforce training in food and agricultural careers

As these recommendations illustrate, the need to build farm-to-institution value chains is closely linked to other priorities identified by this project, like the importance of an equitable approach to food system development.

5.7 Regional Food Data and Map Maintenance

Councils of Governments across North Carolina have served as data and information resource centers for local governments and communities for decades, adjusting services as information technologies and area needs change. With numerous local food community and economic development efforts currently occurring in the region that created the demand for this Healthy FAM effort, the Upper Coastal Plain Council of Governments plans to maintain the datasets and maps developed during the project. Modifications to information will be periodically published to the website and related maps.

These maintenance modifications will be focused primarily on the changing local healthy food asset categories currently listed in the region under this project. **To aid this maintenance, UCPCOG has a simple submission form on the project website where anyone can submit new or changed information in the region.** For example, a new or changed food pantry, farmers market, value added producer, farmer, distributor, institutional purchaser, etc., can be entered onto the form and submitted for addition or modification to the database and map.

5.8 Conclusion

The findings, opportunities, and recommendations in this report and accompanying website, maps, and other products, are designed to be leveraged by a variety of stakeholders within and outside of the Upper Coastal Plain region as they work to further study, improve, or develop the local, healthy food system and value-chain. While numerous challenges exist in the current system, there is a growing awareness of the many opportunities to create a more resilient and sustainable system that supports both the community and economic development needs of the region. Diverse networks of stakeholders are growing and human, technical, and financial resources are being applied.

Additional work should be done with consideration given to the Whole Measures or

similar frameworks in an equitable way to build community wealth and health in underserved areas and create resilience against future disruptions including pandemics, natural disasters, climate change, economic downturns and disruptions, and more. Work should consider the current and historical perspectives of the racial disparities in food access and economics to ensure benefits do not contribute to further inequities of the region's most underserved populations.

In addition to the research, observations, and over 65 recommendations identified in this report, future efforts should also consider the value of this effort's locally engaged, community focused structure. Team members looked to the region's existing and emerging food system stakeholders to take a key role in developing this report. By focusing heavily on stakeholder identification and engagement throughout the process, this report was able to consider the impacts of the COVID-19 pandemic and describe an understanding of other longstanding food system shortfalls, inadequacies, and injustices. The path to final products may have been less uncertain without such an approach, but the community led process fulfilled the projects' purpose beyond expectations.

COVID-19, CARES Act, and the American Rescue Plan (ARP)

As referenced in Governor Cooper’s American Rescue Plan Budget, *A Shared Recovery for a Stronger NC*, “Many North Carolinians were struggling before the pandemic arrived and were in no position to weather the economic downturn. Pre-pandemic, North Carolina had the 12th lowest median household income in the country. Thirty-two percent of the population lives in households with incomes within 200% of the federal poverty line, including 14% with incomes below the poverty threshold.³ In the March editions of the Census Bureau Household Pulse Survey, 29% of North Carolinians reported they were having trouble covering the usual household expenses.⁵ The Census Bureau’s Household Pulse survey also found 8% of North Carolinians report food insecurity, with that number rising to 9% in households with children. As of April 27, 2021, NC Department of Health and Human Services, in partnership with the NC Department of Public Instruction, provided more than \$1 billion of groceries to more than a million children through the Pandemic Electronic Benefit Transfer (P-EBT) program. The Food Bank of Central & Eastern North Carolina, which serves 34 counties, reported a 38% increase in people requesting help in 2020 compared to the prior year.”

Local Government Use of ARP Funds for Local Food System Resilience

Funds from the recent federal coronavirus relief package, the ARP, are available to municipalities. The guidance cites food insecurity as one reason for distributing these resources, and states that funds may be spent “to respond to the public health emergency or its negative economic impacts, including assistance to households, small businesses, and nonprofits, or aid to impacted industries such as tourism, travel, and hospitality,” giving cities and towns an opportunity to make investments in the food supply chain to help ensure food security and better access to healthy food.

The local food system proved to be a critical resource in our region when national and global food supply chains were disrupted. All aspects of the food supply chain were affected by the crisis, from farms to distributors to consumers. Food insecurity remains high as many people continue to struggle to afford food. Investments in infrastructure, planning, and capacity building will ensure that food system businesses remain sustainable and households have access to nutritious food.

While each city and town has unique needs, municipalities should consider supporting the following ideas:

- **Local grants:** Municipalities could use ARP funds to support farms, processors, restaurants, healthy food retailers, other food businesses, and nonprofits by creating grant programs to support infrastructure or program needs. Grants could also support training and education opportunities for farmers and other food chain businesses and workers.
- **Community gardens:** Community gardens and urban farms help build food security, provide education and job skills training, build community, and protect and enhance natural resources. Municipalities can dedicate publicly owned land or acquire other vacant land to dedicate to these purposes, and fund infrastructure such as fencing, lighting, and water to support these projects.
- **Farmers markets:** Many farmers markets and mobile markets, particularly in low-income communities, need infrastructure support. Needs range from signage and parking, to sanitary facilities and payment processing systems. Another consideration would be to cover the costs of market fees for vendors who have been hard hit by the pandemic.
- **Processing and distribution:** Small farms and other food producers can benefit from regional food hubs that provide processing equipment to make value-added and shelf stable products, refrigeration, distribution, and other shared services.
- **Schools:** Support for school gardens will provide both immediate and long-term benefits to students, since learning about how healthy food is produced leads to better eating habits long term for both students and their families. Purchasing kitchen equipment for school cafeterias can help promote more “made from scratch” cooking and healthier foods for children.
- **Climate change:** Farms need support in adapting to the impacts of climate change and in adopting management practices that help mitigate those impacts for all. Investments in renewable energy resources, support for cover crops and no-till

practices, or payments for environmental services such as carbon sequestration can help them do so.

- **Emergency food system:** To facilitate food pantries' ability to provide fresh, healthy food to those who need it, refrigeration or delivery vehicles might be considered, or infrastructure for meal preparation for home-bound individuals. Support for food rescue and gleaning operations would also help create a more consistent stream of food for where it is needed.
- **Education:** Funds could be used for developing or acquiring and distributing existing resources to educate residents of any age about nutrition, culinary skills, gardening, or other issues that help reduce preventable dietary-related diseases.
- **Food waste:** Infrastructure for municipal and school composting programs would help divert food waste from landfills, reducing greenhouse gas emissions and producing compost that provides soil nutrients for farmers and gardeners.
- **Public transportation:** Any funds used to support public transportation should consider how those investments support ensuring access to healthy food sources for residents of areas with limited retail stores.

In considering these or other food system investments as possible projects, there are a number of things to keep in mind:

- Any project should seek to address systemic inequities in the food system that were exacerbated by the pandemic. Many communities were already poorly served by the food system prior to 2020, and the crisis worsened food access for them.
- Projects should be developed and implemented in partnership with community-based stakeholders, such as local food policy councils and other networks that represent residents. Municipalities should consider soliciting public input.
- These funds are not long-term, and so are best spent on capital infrastructure investments or capacity-building projects, rather than adding staff or other capacity that might be lost when the ARP money is exhausted.

- Note how the state is spending its share of ARP funds, since potential state investments in infrastructure such as transportation or rural broadband would allow cities and towns to spend their allotments on more locally-tailored programs.
- Guidance may still be finalized and any proposed expenditures should be carefully checked against permitted uses.

North Carolina General Assembly Food System Bills

As of spring of 2021, the following are being considered in the NCGA assembled in part by the NC Alliance for Health.

- [H5, \\$15/Hour Min. Pay for Noncert. Sch. Employees](#) - Requires the hourly rate of the minimum salary for noncertified public school employees (school nutrition program employees included) to be at least fifteen dollars per hour.
- [H14, Food Bank of Central & Eastern NC Funds](#) - Appropriates funds to the Food Bank of Central & Eastern NC for construction of a new food bank facility in the city of Wilmington.
- [H159: Education Law Changes](#) - This bill includes a provision to cap school nutrition program indirect costs at 8% of the program's annual budget. This bill passed the House on Thursday and has been sent to the Senate for consideration. Efforts are shifting to Capping indirect costs is one way to free up funding and create more capacity for local food purchasing by school nutrition programs.
- [H458, Food Desert Agriculture Incentive Zones](#) - Incentivizes healthy food availability in food desert zones.
- [H637: The Compost Procurement Act](#) - This bill deals with several issues to encourage more composting by the state and local municipalities.
- [H702: NC State Food Lab/Food Waste/COVID-19](#) - This bill supports several [food councils' budget](#) request for a one-time appropriation of 50k to NCSU's for prepared food recovery SOP development and trainings.
- [H737: Local Food Market Expansion Act](#) - This bill increases GAPs (Good Agricultural Practices) subsidization for more farmers.
- [H798: NC Healthy Soils Act](#) - This bill establishes a Healthy Soils Program in the Division of Soil and Water Conservation at NCDA&CS.

- [S67, Food Commercialization Funds](#) - Appropriates \$1 million and \$1.5 for 2021-22 and 2022-23, respectively, from the General Fund to the Department of Agriculture and Consumer Services to provide a grant to the Eastern NC Food Commercialization Center (Center) to provide matching funds for a federal construction grant and to provide working capital and equipment for the Center.
- [S657](#) and [S658](#) on SNAP eligibility and drug felony offenses - Both acts allow individuals convicted of controlled substance felony offenses to be eligible for the Supplemental Nutrition Assistance Program (SNAP).
- [S676, Hunger-Free Campus Initiative/COVID-19](#) - Establishes the hunger-free campus initiative for University of NC constituent institutions and community college campuses to respond to the impacts on students during the COVID-19 pandemic and appropriates funds from the Coronavirus State Fiscal Recovery Fund for the program.
- [S694, Black Farmer Restoration Program](#) - This bill creates several policies and programs to support Black-owned agricultural enterprises.

Governor Cooper's Budget - Food Related Items

Statement of Need

Investing funds to enhance food security and bolster farms across the state is critical to the health and well-being of North Carolinians. While the state received an additional \$3.7 billion in federal funds to address food insecurity, these funds do not sufficiently address known needs for small and minority farmers, North Carolina higher education systems, low-income and rural communities, and American Indian tribes.

- Meat processing plant, school, and restaurant closures due to COVID-19 disrupted the local food supply chain. Farmers had to dump fresh foods and euthanize animals, jeopardizing their economic well-being.
- By November 2020, the number of individuals experiencing at least one day a week without sufficient food increased from one in 10 to one in five.
- Nearly half of all college students struggle to afford balanced meals in the US. A recent survey found that one in 10 NC State students were either low- or very-low food secure.
- Demand for food assistance has increased 40% since the start of the pandemic.
Recommendation Detail Bolstering Small Farms, Infrastructure, and Emergency Food Operations
- Provides \$5 million to the Small and Minority Farm Program within the Department of Agriculture and Consumer Services (DACCS) to provide marketing, capacity building, and technological support to connect farmers with customers and increase economic security.
- Invests \$3 million in a new grant program within DACCS to assist vendors in implementing SNAP/EBT infrastructure and mobile market units at farmers markets and certified roadside stands. A portion of funds will also support marketing to increase awareness of the opportunity to use SNAP/EBT at these locations,

expanding the availability of local, fresh food to low-income individuals.

- Provides \$20 million to DACS for direct aid to food banks and emergency feeding organizations. Funds may be used to purchase food items, and purchase or repair infrastructure, such as refrigeration, that currently prevent emergency feeding organizations and food banks from meeting increased demand caused by the COVID-19 pandemic.

Strengthening Local Food Systems and Expanding Nutrition Education

- Provides \$6 million each to the Cooperative Extensions at NC A&T and NC State to expand nutrition education, implement innovative emergency food projects, and enhance local food systems through training and demonstrations. Funds will also provide technical assistance and small grants to farmers for equipment, technology, and cold storage.
- Distributes \$20 million through a competitive grant program administered by the NC Pandemic Recovery Office. Funds will be awarded to community-based organizations across the state to enhance food security and reduce the prevalence of food deserts. Projects may address student hunger, expand access to healthy, affordable food, and provide education and financial resources to farm workers and migrants.

Reducing College Hunger

- Invests \$2 million in the North Carolina Community College System and \$2 million to the University of North Carolina System to ensure that all students have access to fresh, affordable food. Funds may be used to start or expand on-campus food assistance programs such as food pantries and emergency food funds.

Expected Impact

- Provide direct technical assistance and up to \$1 million in grants to assist small and minority farmers with business development, technology upgrades, marketing, and cold-storage purchases.

- Address the increased need for food assistance at 10 emergency feeding operations, including all six food banks, across the state.
- Provide vendors at up to 99 farmers markets and 156 certified roadside stands with technology to accept SNAP/EBT, funding over 880 SNAP/EBT points.
- Reduce student hunger at the 16 University of North Carolina campuses and 58 community colleges by providing funds for refrigeration, equipment, and temporary staff to start or expand on campus food pantries or establish emergency food funds.
- Support up to 90 local community-based organizations in building sustainable, and accessible local food systems through \$20 million in competitive grant funding.”

Healthy FAM County Convening Facilitation Guide

Healthy FAM COUNTY CONVENING *FACILITATION GUIDE*

Objectives

1. Obtain input and feedback for use of Healthy FAM map.
2. Highlight a Community Food Project from local voices.
3. Discuss the local food system with a diverse group of residents through guided discussion, using the Whole Measures Framework as a guiding reference.

Agenda (shared via PowerPoint)

Agenda & Guidelines (5 min) (Chester)

[Explain the flow of the guided discussion and what participants can expect, Review the Guidelines. (Poll!)]

Introductions IN the chat

[Have participants share their name, where they live]

Context Setting (5min)

Project Preliminary Findings (20min)

Review Draft HFAM Map (5min)

Receive Feedback (15min)

Guided Conversation (30min) [Breakout Rooms]

Report Out (15min)

Next Steps (5min)

Results of the Project - When and how they will be shared

Ways to get involved with local food efforts now and in the future (survey!)

Thank you & Adjourn [submit breakout room recordings]

Parameters/Boundaries:

1. Create welcoming, inclusive space where attendees feel comfortable sharing their ideas and opinions.
2. Use the Guidelines and provide gentle reminder when group/individual strays from them.
3. Meet the group where they are at. Respect their time by beginning and ending on time.

Context

In January 2020, the Upper Coastal Plain Council of Government received funding from the Kate B. Reynolds Charitable Trust to map the food system in the region, covering Edgecombe, Halifax, Nash, Northampton, and Wilson Counties. Stakeholders from each county were convened to discuss the goals of the project and feedback on how the outputs could be used.

Since then, however, the project has been interrupted as the global pandemic developed in our state. Most activities were placed on hold until more was learned about COVID-19. As we continued to navigate the virus, we transitioned our original efforts to fit our current circumstances via virtual, online and telephone platforms.

With collaboration between A Better Chance, A Better Community, Working Landscapes, Partnerships to Improve Community Health, and Community Health Champions in each county, the project has collected information about our region's food system through farmer and resident focus groups, stakeholder and consumer surveys, and institutional interviews.

Today we are hoping to share a little about what we are finding in your county and the region and hear your perspectives on the current food system that we have, aspirational ideas of a future food system and ways you think we can get there. We would like for all of your voices to be heard in this project as we start to wrap up our findings.

The input, opinions, and experiences you share with us today about accessing fresh, healthy food will be part of this mapping project.

In order for us to start the conversation, ensure we are using shared language around what we mean when we use the term "equitable food system"?

Project Preliminary Findings

1. Healthy FAM Map - overview of assets in respective county and the ArcGIS platform (5min), Feedback (15min) - Any questions? How can this map be useful to you, your community or your organization? What farms, community gardens, grocery stores, or other food retailers are missing?

(ask them to answer in the chat).

Community Food Highlight

1. Community Health Champion Introduction
2. Community Food Highlight (10min)

“Food System” refers to everything from growing food to processing, serving, and consuming it. Our food system is a complex and interwoven network that includes food production, processing, distribution, access, consumption, and recovery.

An “Equitable Food System”, is a system that, from farm to table, from processing to disposal, ensures economic opportunity; high-quality jobs with living wages; safe working conditions; access to healthy, affordable, and culturally appropriate food; and environmental sustainability. – Policylink.org

“Equity involves trying to understand and give people what they need to enjoy full, healthy lives. Equality, in contrast, aims to ensure that everyone gets the same things in order to enjoy full, healthy lives. Like equity, equality aims to promote fairness and justice, but it can only work if everyone starts from the same place and needs the same things.”

SOURCE: “Embracing Equity: 7 Steps to Advance and Embed Race Equity and Inclusion Within Your Organization” By the Annie E. Casey Foundation

To learn more, watch this video by Community Food Strategies, a compilation of responses from attendees at the Statewide Food Council Gathering in North Carolina in December 2017.

Guided Conversation

With that basic, shared understanding, let’s begin the conversation. In the next questions, we want to talk about the *food system in this region*. *Reminder: food system refers to everything and everyone that is involved in getting food from farm to plate in our region, including farming, processing, distribution, and consumption.*

1. **What is something about your personal food system that you value?** (Example: a particular store you love, or something you love doing, like working in your garden)? (5 min)

Optional Follow-up Questions:

2. **What is something That is missing from your personal food system?** Something you wish you had access to but don’t? (Example: I Wish there was A store near me that sells healthy Food) (5 min)

Optional Follow-up Questions:

1) How has COVID-19 impacted you or your community in terms of food?

3. How well does our region's current food system ensure access for all community members to fresh, healthy, affordable and culturally appropriate food? (10 MIN)

Optional Follow-up Questions:

1) How well does the current food system help people to be healthy?

2) How well does the current food system help local farmers and gardeners to be successful?

3) How well does the current food system help create a strong economy for this region?

3. What would make the food system better for everyone who lives in our region? (10 min)

Optional Follow-up Questions:

1) What resources does the region need to improve the food system?

2) What do you see as your role in helping to build a just food system?

Healthy FAM Consumer Survey

Healthy FAM (Food Access Mapping) is a project of the Upper Coastal Plain Council of Governments (UPCOG), with funding support from the Kate B. Reynolds Charitable Trust. The goal of the project is to identify needs and opportunities for increasing access to healthy, local food in the Upper Coastal Plain Region, which encompasses Edgecombe, Halifax, Nash, Northampton, and Wilson counties.

To do this, we want to hear from you!

The survey

In this survey, you will be asked to share information about your food-related activities. We want to hear your perspectives; there are no wrong answers to the questions. The purpose of the survey is to inform and guide the regional assessment. You are asked to provide your name and contact information in the survey so that we can track participation and ask follow-up questions as needed. However, your name will not be publicly shared; responses will only be shared anonymously.

Use of information

UPCOG and its partners may share anonymous information collected through this project with the general public through online content, publications, reports, and presentations. UPCOG may also, at its discretion, give permission to other organizations or individuals to use anonymous information from the project for purposes that are educational, charitable, and/or civic in nature.

Contact information

If you have questions about this project, please contact project director Ron Townley at UPCOG:

rtownley@ucpcog.org | (252) 234-5965

If you have any questions about this survey or the use of information by this project, please contact research coordinator Gabe Cumming at Working Landscapes:

gabriel@workinglandscapesnc.org | (252) 257-0205

Email *

Your email _____

By checking the box below, you indicate that you understand and agree to the terms of the consent document above:

I agree to participate

In which county do you live?

- Edgecombe
- Halifax
- Nash
- Northampton
- Wilson
- Other: _____

Food

Where do you regularly buy food for meals (at least once a week)? Please select all answers that apply.

- Convenience store/gas station
- Discount store (Dollar General, etc.)
- Grocery store (Food Lion, Walmart, etc.)
- Farmers' market/roadside stand/local farmer
- Restaurant/drive-through
- Other: _____

How do you usually get to the places where you buy food? Please select all answers that apply.

- Get a ride with someone else
- My own personal vehicle
- Public transportation
- Walk
- Bike
- Other: _____

On average, how long (in minutes) does it take for you to travel from your house to the place where you most commonly shop for food?

Your answer _____

Do you have any difficulties buying food? If so, please select all answers that apply.

- It is hard for me to get to places that sell food
- Food is too expensive
- I don't have enough time to shop for food
- Places that sell food are not open at convenient times
- Other: _____

Do you have any difficulty incorporating fresh fruits and vegetables into your diet? If so, please select all answers that apply.

- They are not available in the places where I get food
- I cannot afford to buy them
- I do not have enough time to prepare them
- I do not know how to prepare them
- They spoil too quickly
- I have health issues that keep me from eating fresh fruits and vegetables
- Other: _____

For the next two questions, please read the statement and tell us whether this statement is often, sometimes, or never true for you.

“Within the past 12 months, I worried about whether my food would run out before I got the money to buy more.” Is this statement often, sometimes, or never true for you?

- Often true
- Sometimes true
- Never true

“Within the past 12 months, the food I bought just didn’t last and I didn’t have the money to get more.” Is this statement often, sometimes, or never true for you?

- Often true
- Sometimes true
- Never true

In the past 30 days, have you or anyone in your household used the following to get food?

	Yes	No
Supplemental Nutrition Program for Women, Infants and Children (WIC)	<input type="radio"/>	<input type="radio"/>
Supplemental Nutrition Assistance Program (SNAP) or Food Stamps	<input type="radio"/>	<input type="radio"/>
Food pantry	<input type="radio"/>	<input type="radio"/>
Gleaned foods (extra food salvaged from farms, gardens and grocery stores)	<input type="radio"/>	<input type="radio"/>
Farmers market vouchers	<input type="radio"/>	<input type="radio"/>

Have you received any other form of food assistance in the past 30 days? If so, please list it here:

Your answer _____

Has the COVID-19 pandemic affected your ability to get enough food for yourself and your family? If so, please explain how:

Your answer _____

Local food

Do you or members of your household grow any food for yourselves (e.g. garden, livestock, orchard)?

- Yes
- No

Do you have family/friends/neighbors that share homegrown food with you and your family?

- Yes
- No

Do you purchase/receive food that was grown by local farmers in this area?

- Yes
- No
- Not sure

If you DO purchase/receive food from local farmers, where do you purchase/receive it? Please select all responses that apply.

- Directly from the farm
- Roadside stand
- Farmers' market
- Store
- Restaurant
- Cafeteria at school, daycare, hospital, workplace, etc.
- Other: _____

If you DO NOT purchase/receive food from local farmers, why not? Please select all responses that apply.

- I do not want locally-grown food
- It is not convenient
- It is too expensive
- I do not know where to find it
- Other: _____

What do you think the government, community organizations, businesses, or individuals could do to make it easier for people in your community to buy and eat healthy, local foods?

Your answer _____

Would you be interested in receiving more information about organizations and initiatives that are working to expand access to healthy, local food in our region?

Yes

No

Demographic information

What is your zip code?

Your answer _____

What community or neighborhood do you live in?

Your answer _____

Are you of Hispanic, Latino or Spanish origin?

Yes

No

I prefer not to say

If YES, from what country?

Your answer _____

How would you describe yourself? Please select all that apply:

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Pacific Islander
- White
- I prefer not to say
- Other: _____

What is your age in years?

- Under 18
- 19-25
- 26-35
- 36-45
- 46-55
- 56-65
- 66 and older
- I prefer not to say

What is your gender?

- Female
- Male
- Other
- I prefer not to say

Contact information

If you are willing for our project team to contact you to learn more about your perspectives on food access in your community, to share updates about the HFAM project, or TO NOTIFY YOU IF YOU WIN ONE OF OUR PRIZES FOR SURVEY PARTICIPANTS, please provide your contact information below. Note: your name and contact information WILL NOT be shared publicly.

Your name

Your answer _____

Primary phone number:

Your answer _____

Mobile phone number (if different from above):

Your answer _____

Email address:

Your answer _____

Mailing address:

Your answer _____

Thank you so much for participating in this survey! The information you have provided will help us build a healthier region for everyone!

Proyecto de Mapeo de Acceso a Alimentos Saludables

Encuesta al consumidor

Healthy FAM (Mapeo de acceso a alimentos) es un proyecto del Consejo de Gobierno de La Llanura Costera Superior en Carolina del Norte (UPCOG en inglés), con el apoyo financiero de la Fundación Benéfica Kate B. Reynolds. El objetivo del proyecto es identificar las necesidades y oportunidades para aumentar el acceso a alimentos locales saludables en la región de la llanura costera superior, que abarca los condados de Edgecombe, Halifax, Nash, Northampton y Wilson.

Para hacer esto, **¡queremos saber de usted!**

La encuesta

En esta encuesta, se le pedirá que comparta información sobre sus actividades relacionadas con alimentos. Queremos escuchar sus perspectivas; no hay respuestas incorrectas a las preguntas. El propósito de la encuesta es informar y orientar la evaluación regional.

Se le pide que proporcione su nombre e información de contacto en la encuesta para que podamos rastrear la participación y hacer preguntas de seguimiento según sea necesario. Sin embargo, **su nombre no se compartirá públicamente; las respuestas solo se compartirán de forma anónima.**

Uso de la información

La UPCOG y sus socios pueden compartir información anónima recopilada a través de este proyecto con el público en general a través de contenido, publicaciones, informes y presentaciones en línea. La UPCOG también puede, a su discreción, otorgar permiso a otras organizaciones o personas para utilizar la información del proyecto con fines educativos, benéficos y / o cívicos por naturaleza.

Información del contacto

Si tiene preguntas sobre este proyecto, comuníquese con el director del proyecto Ron Townley en UPCOG: rtownley@ucpcog.org | (252) 234-5965

Si tiene alguna pregunta sobre esta encuesta o el uso de la información por parte de este proyecto, comuníquese con el coordinador de investigación Gabe Cumming en Working Landscapes:

gabriel@workinglandscapesnc.org | (252) 257-0205

Cuando complete esta encuesta, devuélvela a la persona que se la dio o envíela por correo a:

HFAM - Working Landscapes

108C South Main Street

Warrenton, NC 27589

Al marcar la casilla a continuación, indica que comprende y acepta los términos del documento de consentimiento:

Acepto participar

POR FAVOR CONTINÚE CON LA ENCUESTA EN LA SIGUIENTE PÁGINA

1. **¿En cual condado vives?**

Edgecombe Halifax Nash

Northampton Wilson Otro: _____

Camina

Bicicleta

Otro: _____

2. **¿Dónde compra habitualmente alimentos para sus comidas (al menos una vez a la semana)? Marque todas las respuestas que correspondan?**

Tienda de abarrotes/gasolinera

Tienda de descuentos (Dollar General, etc.)

Tienda de comestibles (Food Lion, Walmart, etc.)

Mercado de agricultores / puesto en la carretera / productor local

Restaurante/auto-servicio

Otro: _____

4. **En promedio, ¿cuánto tiempo (en minutos) le toma viajar desde su casa hasta el lugar donde habitualmente compra alimentos?**

3. **¿Cómo usted suele llegar a los lugares donde compra alimentos? Marque todas las respuestas que correspondan.**

Viaja con otra persona

Mi propio vehículo personal

Transporte público

5. **¿Tiene dificultades para comprar comida? Si es así, marque todas las razones que correspondan.**

Me resulta difícil llegar a lugares donde venden comida

La comida es demasiado cara

No tengo tiempo suficiente para comprar comida

Los lugares que venden comida no están abiertos en horarios convenientes

Otro: _____

6. **¿Tiene alguna dificultad para incorporar frutas y verduras frescas en su dieta? Si es así, marque todas las razones que correspondan.**

- No están disponibles en los lugares donde compro los alimentos
- No puedo permitirme comprarlos
- No tengo tiempo suficiente para prepararlos
- No sé cómo prepararlos
- Se echan a perder demasiado rápido
- Tengo problemas de salud que me impiden comer frutas y verduras frescas
- Otro: _____

7. “En los últimos 12 meses, me preocupo de que se me acabe la comida antes de tener el dinero para comprar más “. ¿Es esta afirmación a menudo, a veces o nunca cierta para usted?

- A menudo cierta
- A veces cierta
- Nunca cierta

8. “En los últimos 12 meses, la comida que compré

no duró mucho y no tenía dinero para comprar más”. ¿Es esta afirmación a menudo, a veces o nunca cierta para usted?

- A menudo cierta
- A veces cierta
- Nunca cierta

9. En los últimos 30 días, ¿usted o alguien de su hogar ha utilizado lo siguiente para obtener alimentos? Marque la casilla que sea cierta.

- Programa de nutrición suplementaria para mujeres, bebés y niños (WIC)
- Programa de asistencia nutricional suplementaria (SNAP) o cupones de alimentos
- Despensa de alimentos
- Alimentos recolectados (alimentos extra rescatados de granjas, jardines y supermercados)
- Cupones del mercado de agricultores

POR FAVOR CONTINÚE CON LA ENCUESTA EN LA SIGUIENTE PÁGINA

10. ¿Ha recibido alguna otra forma de asistencia alimentaria en los últimos 30 días? Si es así, indíquelo aquí:

11. ¿La pandemia de COVID-19 ha afectado su capacidad para obtener suficientes alimentos para usted y su familia? Si es así, explique cómo:

12. ¿Usted o los miembros de su hogar cultivan algún alimento para sí mismos (por ejemplo, jardín, ganado y huerto)?

- Si No

13. ¿Tiene familiares / amigos / vecinos que compartan comida de cosecha propia con usted y su familia?

- Si No

14. ¿Compra/recibe alimentos cultivados por agricultores locales en esta área?

- Si No

14(a). En caso afirmativo, ¿dónde compra / recibe alimentos cultivados localmente? Marque todas las respuestas que correspondan.

- Directamente de la finca
- Puesto de carretera
- Mercado de agricultores
- Tienda
- Restaurante
- Cafetería en la escuela, guardería, hospital, lugar de trabajo, etc.
- Otro _____

14(b). Si la respuesta es no, ¿por qué no compra/ recibe alimentos de las granjas locales? Marque todas las respuestas que correspondan.

- No quiero alimentos cultivados localmente
- No es conveniente
- Es demasiado caro
- No se donde encontrarlo
- Otro _____

15. ¿Qué cree que podría hacer el gobierno, las organizaciones comunitarias, las empresas o las personas para facilitar que gente de su comunidad compre y consuma alimentos locales saludables?

20. ¿Cómo te describes?

- Índio americano o Nativo de Alaska
- Negro o Afroamericano
- Blanco Asiático
- Nativo de Hawái o de las islas del Pacífico
- Otro _____
- Prefiero no decir

16. ¿Le interesaría recibir más información sobre organizaciones e iniciativas que están trabajando para ampliar el acceso a alimentos locales y saludables en nuestra región?

- Sí No

INFORMACIÓN DEMOGRÁFICA

17. ¿Cuál es el número de su código postal?

18. ¿En qué comunidad o barrio vive?

19. ¿Es usted de origen hispano, latino o español? Sí No Prefiero no decir

19(a). En caso afirmativo, ¿de qué país?

POR FAVOR CONTINÚE CON LA ENCUESTA EN LA SIGUIENTE PÁGINA

21. ¿Cuál es su edad en años?

- Menor de 18
- 19 – 25
- 26 – 35
- 36 – 45

- 46 – 55
- 56 – 65
- 66 o mayor
- Prefiero no decir

22. ¿Cuál es su género?

- Masculino Femenino Otro
- Prefiero no decir
- Male Female Other
- I prefer not to say

Si está dispuesto a que nuestro equipo de proyecto se comunice con usted para obtener más información sobre sus perspectivas sobre el acceso a los alimentos en su comunidad, para compartir actualizaciones sobre el proyecto HFAM o para notificarle si gana uno de nuestros premios para los participantes de la encuesta, proporcione su información de contacto a continuación. **Nota: su nombre e información de contacto NO se compartirán públicamente.**

Nombre: _____

Número de teléfono primario: _____

Número de teléfono móvil (si es diferente al anterior): _____

Correo electrónico: _____

Dirección de envío:

¡Muchas gracias por participar en esta encuesta! ¡La información que nos ha proporcionado nos ayudará a construir una región más saludable para todos!

H-FAM CONSUMER



SURVEY

Digital Survey link:
<https://forms.gle/gAkANKwcq23wEZon6>

- **Counties distributed to**
Wilson, Halifax, Edgecombe, Nash, and Northampton Counties
- **\$100 Visa card per county**
Surveys Completed by March 1, 2021 will be entered into a drawing for a chance to win \$100 Visa card per county

Project Website

The Healthy Food Access Mapping Project website contains links to the Healthy FAM Story Board, Asset Map, Community Voices interviews, and this assessment. You can access the website [at this link](https://healthy-food-access-mapping-ucpcog.hub.arcgis.com/):

<https://healthy-food-access-mapping-ucpcog.hub.arcgis.com/>