

**Financing Fresh Food:
Retail Solutions to North Carolina Food Deserts**

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April 20, 2012

EXECUTIVE SUMMARY

Food deserts, or “areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet” (Centers for Disease Control and Prevention 2010), contribute to nutrition-related diseases and undermine economic prosperity in low-wealth communities. North Carolina has over 171 food deserts across 57 counties, impacting over 410,000 state residents.

Current research points to various models of small-scale food distribution points as potential solutions for food access problems in food deserts. This project seeks to draw on experiences of existing small-scale retailers in North Carolina and examine potential public funding mechanisms to support Self-Help’s exploration of the food justice lending space.

Interviews

To understand successes and challenges faced by existing players in the fresh food retail space, I interviewed representatives from private, nonprofit, and government-driven healthy food initiatives in North Carolina. Interview participants include:

- Guenevere Abernathy, Chief Executive Officer, LoMo Market
- Diane Beth, Nutrition Manager, Physical Activity and Nutrition Branch of the Division of Public Health
- Herbert Johnson, President, Bull City Urban Market
- Kathryn Spann, South Durham Farmers’ Market
- Jeff Stern, Director of Special Projects, Triangle Residential Options for Substance Abusers
- Diana Vetter Craft, Access to Healthy Foods Coordinator, Communities Putting Prevention to Work, Pitt County Health Department

Key Themes and Lessons Learned

Although each interview participant drew on different experiences with food desert alleviation, an analysis of interview content reveals several consistent key themes: challenges pertaining to scale, importance of providing nutrition assistance benefits, securing initial funding, access to retail expertise, community engagement, and policy constraints.

Observations concerning each of the above themes illuminate “lessons” that could inform Self-Help’s approach to food justice lending going forward. I recommend the organization take the following suggestions into account when evaluating potential lending opportunities:

- Be aware of scale-related challenges.
- Accept nutrition assistance benefits.
- Think beyond the bricks and mortar “corner store” model.
- Align borrower’s business model with community needs.
- Small business ownership expertise is crucial for store sustainability.
- Don’t forget about local farmers.
- Align retailer activities with mission.
- Stay tuned for future state-level initiatives funded through the United States Department of Agriculture Farmers Market Promotion Program and the Community Transformation Grant awarded to the North Carolina Division of Public Health.

Policy Question

How can Self-Help best leverage state-level policies and programs to finance sustainable, small-scale solutions to food deserts in North Carolina?

Food Deserts, Briefly

The Centers for Disease Control and Prevention (CDC) defines “food deserts” as “areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet” (2010). This lack of access usually stems from long distances between communities and retailers that offer the above components of a healthy diet, exacerbated by low access to the modes of transportation necessary to travel those distances.

Client

Self-Help is a “community development lender, credit union, and real estate developer that works with individuals, organizations and communities traditionally underserved by conventional markets” (www.self-help.org). Its stated mission is: “Creating and protecting ownership and economic opportunity for all, especially people of color, women, rural residents and low-wealth families and communities.” Because food deserts directly impact many of the demographic groups Self-Help serves, and health is so closely tied to economic prosperity (Strauss and Thomas 1998), it is logical that the organization consider strategies to deploy funds for healthy food distribution points in the communities where it currently lends. Steve Saltzman, a Loan Officer on the Self-Help Commercial Lending Team, will be the primary client contact for this project.

Specifically, Self-Help would like to understand experiences of other entities working for healthy food provision in the state, as well as current state-level funding mechanisms that it could leverage to finance small-scale healthy food retailers in North Carolina food deserts. Based on these findings, it hopes to develop an internal lending approach that will boost loans that draw on its credit union loan funds with state subsidy and/or loan guarantees.

Project Background / Literature Review

Nutrition-related Public Health Issues

Public health researchers over the past decade have identified poor nutrition as a driver behind many diseases that translate to significant public health problems. According to a Centers for Disease Control and Prevention report, chronic “(d)iseases related to poor nutrition – such as diabetes, heart disease, stroke, and some cancers – are among the leading causes of disability and death in the United States” (2004). Obesity, another consequence of inadequate nutrition, is also a costly public health issue. Finkelstein et al. found that 6% of all adult health care, 7% of Medicare, and 11% of Medicaid expenditures in North Carolina are due to obesity (2004).

Access to Nutritious Food

The prevalence of these diet-related diseases raises the question: why are people not eating more nutritious food? According to many public health researchers, *access* to nutritious food is a critical issue, especially in low-income communities. In “Access to Affordable and Nutritious Food,” the United States Department of Agriculture (USDA) reports that 4.1% of the United States population, or 11.5 million people, lives in low-income areas located more than one mile from a supermarket, and that these areas have high levels of racial segregation (Ver Ploeg 2009).

Furthermore, Powell et al. found that low-income neighborhoods have only 75% of the number of chain supermarkets - key distribution points of nutritious foods - that exist in middle-income neighborhoods. Further, racial concentrations of neighborhoods impact supermarket availability; African American neighborhoods have 52% of the supermarket availability found in white neighborhoods, and Hispanic neighborhoods have only 32%. Additionally, low-income communities face transportation and safety challenges to nutritious food access. Bader et al. (2010), and Hallet and McDermott (2011) note that low-income individuals often do not have reliable access to private and public transportation (which are crucial components of food access if healthy food retailers are located more than a mile away from their homes), and that neighborhood safety issues also impact healthy food retailer prevalence (Bader et al. 2010).

While low-income neighborhoods of color do not enjoy the same access to supermarkets that white, middle- to upper-income neighborhoods do, non-chain supermarkets have a more prominent presence (Powell et al. 2007 and Raja et al. 2008). An “extensive network of small (non-chain) grocery stores” exists in these neighborhoods (Raja et al. 2008). Unfortunately, these smaller stores do not necessarily offer nutritious food, and the food they do offer is often more expensive than that at chain supermarkets (Ver Ploeg 2009). Still, Raja et al. suggest that the prevalence of small grocery stores in low-income neighborhoods of color may present an opportunity to support healthy food availability in these communities. Given their existing retail infrastructure, small grocery stores’ currently nutrient-poor inventories could be infused with quality, nutritious food to enhance food access. “Rather than soliciting supermarkets,” they suggest, “supporting small, high-quality grocery stores may be a more efficient strategy for ensuring access to healthful foods” (2008). This strategy offers the premise for Self-Help’s interest in lending to healthy food enterprises, and therefore the basis for this project’s analysis.

Walker et al. (2010) offer a nice summation of research in the food desert space thus far, which proved consistent with the review of literature conducted for this project. In a meta-analysis of 31 empirical studies of food deserts, they identify four key “statements” concerning the food desert problem: access to retailers that offer nutritious food, racial/ethnic disparities in food deserts, income/socioeconomic status in food deserts, and differences in chain versus non-chain stores. The Walker et al. study also demonstrates that much of the conversation about food deserts centers around *chain supermarket* access rather than alternative food sources (such as small, non-chain stores), but emphasize these alternative food sources are an important component of community food environments.

Desirable Policy Mechanisms

Bearing the above research detailing the existence of food deserts in mind, the next items to explore are proposed policy solutions. Most proposals in the literature are vague and offer few specifics, but do provide guiding principles for evaluating potential solutions. Ver Ploeg asserts, “understanding the market conditions that contribute to differences in access to food is critical to the design of policy interventions that may be effective in reducing access limitations” (2009). Consistent with this assertion, Ashe and Feldstein (2007) suggest five possible focus areas for change: school environment, the “built environment,” community facilities, point of sale environment, and earmarking taxes and fees (reduce consumption of unhealthy products, source of funding for nutrition policy work). The three areas most relevant to this project are the built environment, which would involve addressing zoning restrictions on sidewalk obstructions (ie,

food carts) and urban agriculture, the point of sale environment, and taxes and earmarks that could finance healthy food activities.

Research also points to the viability of a policy approach not dependent on chain supermarket development. Bodor et al. (2010) suggest that small stores comprise a solution superior to supermarkets because, though supermarket development has been the primary approach to food desert alleviation, it is complex from a city planning perspective and there is already an existing network of small, non-chain stores in many of the communities in question. Small stores have the flexibility and community investment to participate in public health initiatives, and Bodor et al. also found that low-income community members expressed demand for nutritious food at these retailers.

In order to finance these smaller supermarket alternatives, funding, of course, is key. Ver Ploeg highlights funding as a key issue in increasing healthy food availability, and identified commercial banks with community development subsidiaries and federal grant and loan products (eg, Community Development Block Grants) as potential financing sources. In addition to securing financing, small stores wishing to increase healthy food offerings must overcome unique challenges to stocking such food: stores that want to place small orders with distributors have trouble meeting minimum order requirements, negotiating competitive prices, and managing financial loss risk due to spoilage (Healthy Corner Stores Network 2010).

Finally, certain political factors play an important role in addressing food deserts, especially in a rural context. Research concerning rural food deserts in Iowa (Morton 2005) and Minnesota (Smith 2009) found that civic engagement was crucial for improving nutritious food availability. Due to the lack of retailer competition, low-income rural residents often face limited food selection, and high prices for the food that is available. To address this, “food access may be improved in communities where civic engagement is strong, and where local organizations join in providing solutions to decrease barriers of food access by increasing access to the normal and food safety net systems and by creating informal alternatives, such as community gardens and informal transportation networks, or enhancing federal programs through greater volunteer involvement” (Smith 2009). It is evident that a combination of financial, political, and infrastructure-related factors is necessary for successful food desert alleviation efforts.

Efforts in Other States

Other states have implemented statewide initiatives to address healthy food access. Descriptions of the seemingly most prominent such initiatives are below.

Pennsylvania Fresh Food Financing Initiative: A \$120 million public-private partnership with The Reinvestment Fund, The Food Trust, and the Greater Philadelphia Urban Affairs Coalition. This initiative reports to have reached 500,000 underserved individuals, created or preserved 5,000 jobs, and funded 88 “fresh-food retail projects” since its genesis in 2004. Funding is provided via grants and loans, and projects have primarily been in the form of supermarket development (The Food Trust 2010).

New York City Healthy Bodegas Initiative: Promotes healthy food availability at bodegas, or small corner stores, in the South Bronx, North and Central Brooklyn, and East and Central

Harlem. The Health Department provides technical support to bodega owners who begin offering low-fat milk, fresh fruits and vegetables, low-sodium and low-sugar canned goods, and food grown by local farmers (New York Department of Health and Hygiene 2011).

Green Cart Initiative: Public-private partnership between New York City and the Laurie M Tisch Illumination Fund that funds loans and technical assistance for Green Cart operators, who sell only raw fruits and vegetables. There are 1,000 Green Cart permits, with limits on carts that may operate in each borough (New York Department of Health and Hygiene 2011).

California Fresh Works: A \$264 million public-private partnership between local and state government, philanthropic funds, and corporate sponsors that invests in “bringing grocery stores and other forms of healthy food retailers to underserved communities.” It was designed to align with the Department of Health and Human Services’ Healthy Foods Financing Initiative, which supports expanding availability of nutritious food nationwide.

Initial state-level policy research also revealed the Illinois Fresh Food Fund (Illinois Food Marketing Task Force 2004), Louisiana Healthy Food Retail Act (Giang 2011), and the New Jersey Food Access Initiative (New Jersey Economic Development Authority 2009), all of which are collaborations with The Reinvestment Fund and focus on supermarket development and renovation in low-income neighborhoods.

Brief North Carolina Nutrition and Food Security Review

According to recent Economic Research Service (ERS) data, North Carolina is not immune to the food desert phenomenon (Breneman 2011). There were 171 food deserts across 57 counties as of the last ERS estimate in September 2011. Of these, 90% are in urban areas and the remaining 10% are considered rural. Further, the obesity rate in the state has grown by 80% over the past 15 years to 29.4% and the state is now ranked the 14th most obese state in the US (Trust for America’s Health 2011). Consistent with findings reported above, North Carolinians with the highest obesity rates are the same demographic groups that are most likely to live in food deserts: African Americans have a 42.4% obesity rate, and over 33% of adults with annual earnings less than \$15,000 are obese, compared to 24.6% of adults with annual earnings greater than \$50,000 (Trust for America’s Health 2011).

Fortunately, activities across the state indicate openness to increasing nutritious food access. The NC Department of Health and Human Services launched a “corner store initiative” pilot in May 2011 to work with convenience store owners to increase nutritious food offerings (Henry 2011). In the non-profit space, the Triangle Residential Options for Substance Abusers (TROSA) opened a corner store that offered groceries and fresh produce in East Durham (Bouloubasis 2010), and the organization Farmer Foodshare (www.farmerfoodshare.org) collects fresh, local produce to distribute to hunger-alleviation organizations in six counties. Other nonprofit efforts include the Inter-Faith Food Shuttle (www.foodshuttle.org) and Feast Down East (www.feastdowneast.org). Still, I have not found evidence of concerted state-supported retail initiatives to address the food desert problem, and retail initiatives from Self-Help could expand the presence of healthy food provision activities in North Carolina.

Project Parameters

Based on my literature review and Self-Help's objectives, I have decided to narrow the scope of this project to focus purely on healthy food *access*. While education and behavior modification efforts may be important for ensuring that newly accessible healthy foods are actually purchased and prepared, they are beyond the scope of Self-Help's mission. Therefore, this project will focus primarily on the supply side of the North Carolina food provision system.

Additionally, for purposes of this project, I have decided to use the definition of "healthy food" in the US Department of Health and Human Services' guidelines for the federal Healthy Foods Financing Initiative: "...whole foods such as fruits, vegetables, whole grains, fat free or low-fat dairy, and lean meats that are perishable (fresh, refrigerated, or frozen) or canned as well as nutrient-dense foods and beverages encouraged by the 2010 Dietary Guidelines for Americans" (US Department of Health and Human Services 2010). This will allow for incorporation of the intellectual energy behind local food economies in North Carolina, but will not limit nutritious foods provided via potential Self-Help financing initiatives as such.

The working definition of "food desert" for this project will narrow the CDC's definition cited on page 1; using the USDA ERS's description, "a food desert (is) a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. To qualify as low-income, census tracts must meet the Treasury Department's New Markets Tax Credit (NMTC) program eligibility criteria. Furthermore, to qualify as a food desert tract, at least 33% of the tract's population or a minimum of 500 people in the tract must have low access to a supermarket or large grocery store." The USDA defines "low access" as being more than one mile from a supermarket or large grocery store in urban areas, and being more than ten miles from such a store in rural areas.

Interview Participants

To understand successes and challenges existing players in the fresh food retail space face, I interviewed representatives from private, nonprofit, and government-driven healthy food initiatives in North Carolina. Brief descriptions of interview participants are below.

Guenevere Abernathy is Chief Executive Officer of LoMo Market, a soon-to-be-launched mobile market that will connect local farmers and food entrepreneurs to communities in the Triangle. While increasing local food accessibility and convenience, LoMo Market also aims to offer an additional outlet for local producers to market their meat, produce, and specialty foods. It does not target low-wealth customers but offers an interesting food distribution model.

Diane Beth is the Nutrition Manager in the Physical Activity and Nutrition Branch of the Division of Public Health (within the North Carolina Department of Health and Human Services). She is involved in the implementation of the \$7.4 million US Department of Health and Human Services' Community Transformation Grant that the North Carolina Division of Public Health received in late 2011.

Herbert Johnson is President of the Bull City Urban Market and program director at Feed My Sheep, a nonprofit that serves Northeast Central Durham. Bull City Urban Market, located in the Golden Belt complex, will provide healthy food to low- to moderate-income families. It will house a supermarket with "everyday" nonperishable items and a farmers market with affordable produce, meats, seafood, and dairy. It will also offer job training programs, an entrepreneurial education program for students at local elementary schools, an aquaculture facility, small distribution area dedicated to connecting local chefs to vendors, and urban gardening training to area homeowners.

Kathryn Spann is currently spearheading the upcoming launch of the South Durham Farmers' Market. The South Durham Farmers Market will increase access to South Durham residents for which the current Durham Farmers Market is not convenient, and will provide local producers with another outlet for their goods. She and her husband also own and operate Prodigal Farm, where they produce cheese, bread and other specialty products centered on their pastured goatherd. The South Durham Farmers Market does not target low-wealth customers, but its recent launch process demonstrates good practices for potential future farmers market initiatives that serve low-wealth communities.

Jeff Stern is Director of Special Projects at Triangle Residential Options for Substance Abusers, Inc. (TROSA). He oversaw the TROSA Grocery, a retail operation serving an East Durham area designated as a food desert. *Note:* The interview was conducted prior to the store's closing in early April, when most of the analysis for this report was already complete. A follow-up interview was not possible given time constraints for project completion.

Diana Vetter Craft is the Communities Putting Prevention to Work Access to Healthy Foods Coordinator for the Pitt County Health Department. She oversees the Healthy Corner Stores Initiative, which provides equipment and marketing support to convenience and corner store owners. There are currently three participating stores, with an additional one likely to sign on to the program in the near future.

Key Themes from Interviews

Although each interview participant drew on different experiences with food desert alleviation, an analysis of interview content reveals several consistent key themes: scale, nutrition assistance benefits, initial funding, retail expertise, community engagement, and government. This section highlights relevant insights from participants pertaining to each theme.

Scale

As initial project research suggested, small corner stores face significant competitive disadvantages due to the limited scale of their retail offerings. TROSA Grocery Director of Special Projects Jeff Stern explained that because minimum orders from distributors are based on a dollar value, small food retailers simply cannot receive the same low prices that larger, conventional grocery stores negotiate with distributors. Therefore, it is difficult for small retailers to offer their customers prices competitive with what they may find at a conventional grocery store. This raises challenges when small stores work to attract the price-sensitive consumers that often populate food deserts. Because these target customers have limited food budgets, they may prefer to take a bus to a conventional supermarket rather than paying more per item at a small grocer within walking distance from their home. Additionally, minimum order requirements can result in financial losses due to spoilage, as the store must order more produce than it will likely be able to sell. The combination of inventory loss and competition from conventional supermarkets therefore strains small retailer viability (Stern 2012).

This competitive pricing challenge particularly threatens mission-driven retailers. While distributors may occasionally make exceptions for smaller retailers, such as permitting minimum orders twice a month instead of requiring the typical once weekly order, Stern pointed out that the stated mission of TROSA Grocery is not to negotiate competitive order agreements with grocery distributors. He explained that the grocery's primary mission is offering vocational training opportunities to TROSA residents, and the secondary mission is bringing a full range of grocery items to an area that is designated as a food desert. While TROSA Grocery spent significant time and effort during its start-up phase negotiating prices and minimum order requirements, it did not make sense for the store to take on continual negotiations past those initial inquiries. If TROSA Grocery spent such energy routinely negotiating lower volume agreements with distributors, it would take resources away from supporting the store's core missions. As a result, it makes more sense to raise philanthropic funds to subsidize inventory than it does to commit substantial time to distributor outreach and negotiations (Stern 2012).

Herbert Johnson of Bull City Urban Market, however, said that he plans to negotiate with distributors for competitive prices on items sold in the supermarket. He said that if he is not able to get a competitive price on something, he simply will not sell it (Johnson 2012). As affordable pricing is a key component of Bull City Urban Market's mission, and because Feed My Sheep will directly operate the supermarket, the energy spent on connecting with distributors willing to support the Market's social mission better aligns with its business model than it does with TROSA Grocery's.

Typical corner stores often overcome scale-related challenges by selling higher margin items, such as alcohol, tobacco, lottery tickets, and check cashing (The Food Trust 2011). For example, small groceries participating in Pitt County's Healthy Corner Store Initiative do sell these higher

margin items, and selling produce as part of the Initiative has not threatened their economic viability (Vetter-Craft 2012). Because their primary purpose is still to offer typical convenience store items, which traditionally include these types of goods and services, and they are for-profit entities without a social mission directive, adding produce to their inventories does not distract from their core business models. Enterprises created to expand healthy food availability, however, may not want to include these higher margin items in their inventories. The underlying reasons for increasing healthy food availability concern chronic disease reduction and affordable access in underserved communities. Alcohol and tobacco undermine strategies to improve physical health, and expensive lottery tickets do not support underserved families' financial health.

Nutrition Assistance Benefits

Interview participants also highlighted issues with accepting nutrition assistance benefits, i.e., Supplementary Nutrition Assistance Program (SNAP), Women, Infants and Children (WIC), and Electronic Benefit Transfers (EBT). Stores must meet ongoing USDA inventory requirements to be eligible for the programs, as well as have the technology to accept EBT. This by definition puts smaller enterprises, which already struggle with scale and inventory competitiveness, at a disadvantage. Stern described a recent loss due to expired baby formula. To accept WIC, TROSA Grocery needs to carry baby formula, but the minimum amount that distributors make available is more than the store will be able to feasibly sell before the formula expires. The grocery unfortunately had to dispose of \$400 worth of expired formula in March (Stern 2012).

Farmers markets in North Carolina also have difficulties with accepting nutrition assistance benefits due to technology requirements. While there is a nationwide initiative to provide assistance to farmers markets wishing to accept benefits, not all markets in North Carolina accept EBT. Any new markets opened in or near food deserts would drastically increase fresh food access by accepting EBT. Spann imagined that one potential opportunity to increase EBT acceptance at farmers markets would be to include instructions at the periodic seminars that the North Carolina Department of Agriculture holds for market managers. The state could also potentially offer a cost-sharing program for markets that want to establish the infrastructure necessary to accept benefits (Spann 2012). The only state-level support currently evident is the 21st Century Farmers Market Program, a partnership between Leaflight and the North Carolina Department of Agriculture and Consumer Services. It provides grantee farmers markets with card processing terminals and training, but it began in 2009 and only works with select markets during each grant cycle (Butner 2009).

The nutrition assistance benefits question is also part of the statewide policy discussion about healthy food provision. Diane Beth of the North Carolina Division of Public Health maintained that SNAP (also known as the Food and Nutrition Services program in North Carolina) acceptance is something important to consider for retailers seeking to offer healthy food access, and the effort to become authorized and install the SNAP/EBT technology is worth the trouble if it means reaching more low-income customers. From a state funding perspective, however, small enterprises that accept USDA benefits like SNAP or WIC may complicate the policy discussion: WIC Cash Value Voucher reimbursement rates for convenience stores are higher (due to higher food costs) than at larger, conventional grocery stores, so if any state or local program begins to

drive more WIC clients to use their benefits at smaller retailers, WIC would not be able to accept as many clients because they would have fewer dollars to spend (Beth 2012).

These responses indicate that accepting nutrition assistance benefits should represent a key component of any retail operation that seeks to comprehensively expand access to healthy food in underserved areas, but the volume and technology challenges small retailers face hinder their ability to accept the benefits. As Stern explained, “We can’t say that we’re a full grocery store and not carry baby formula. And we can’t say we’re serving this community and not accept WIC. But to do those things we have to have a certain number of jars of formula and every few months will have to dispose of expired product” (2012). As the statewide policy discussion continues, making SNAP/WIC/EBT requirements more amenable to smaller operations should comprise an important part of the conversation. In the meantime, Self-Help should consider crucial nutrition assistance benefits as both missional and logistical components of any business plan they may underwrite.

Initial Funding

Start-up funding sources that the interview participants described fell into one of three categories: philanthropic or nonprofit grants; local, state, or federal government funding; or personal capital. None of the interview participants utilized debt when launching their respective enterprises.

Table 1. Types of funding mentioned in interviews

Retailer / Initiative	Funding Source(s)
TROSA Durham	<ul style="list-style-type: none"> • Various private philanthropic sources • City of Durham
Bull City Urban Market	<ul style="list-style-type: none"> • Federal community development funding (via Feed My Sheep) • Vendor fees • Opening day fundraiser • City of Durham
South Durham Farmers Market	<ul style="list-style-type: none"> • RAFI Start-Up Grant (private philanthropy) • Vendor fees
LoMo Market	<ul style="list-style-type: none"> • Self-funded through sale of prior business • Applied for NC IDEA Grant (private philanthropy)
Healthy Corner Stores Initiative (Pitt County)	<ul style="list-style-type: none"> • Communities Putting Prevention to Work (federal grant awarded to state)
NC Division of Public Health	<ul style="list-style-type: none"> • Community Transformation Grant (federal via state) • Farmers Market Promotion Program (federal) • Blue Cross Blue Shield Foundation (private philanthropy)

While there was interest in small business loans among interview participants, many discussed the fact that grant funds made more sense for their business models than would debt. The South Durham Farmers Market and Bull City Urban Market have priced vendor fees to cover costs of the enterprises once they are operational, so their biggest costs concern initial promotion and build-out (Spann 2012 and Johnson 2012). The Bull City Urban Market, for example, solicited in-kind donations for the equipment necessary for warehouse space up-fit (with the exception of refrigerators), and it covered its initial capital needs with resources from Feed My Sheep, its

parent 501(c)(3) organization that already had received federal community development funding, and support from the City of Durham (Johnson 2012). The South Durham Farmers Market's highest costs pertained to the market launch, and it received an \$8,500 grant from Rural Advancement Foundation International (RAFI) to offset those. Further, the Market started out with no collateral at all, so a grant was more useful than a loan product would have been (Spann 2012).

Jeff Stern of TROSA said that a loan product simply does not fit TROSA Grocery's business model because of the integral role philanthropic funding plays. Due to its scale challenges, it needs to subsidize some of its grocery items in order to offer the community competitive pricing, so charitable gifts make the most sense for that funding source. Also, similar to Bull City Urban Market, TROSA Grocery's parent 501(c)(3) organization, TROSA, has existing funding to support these costs. TROSA Grocery also initially benefitted from a \$200,000 broader building revitalization grant awarded to the building owner, backed by both City of Durham and private funding, to reduce crime at the corner of Angier and Driver Streets by restoring the building that it now occupies. Its location is also on the schedule for a City of Durham streetscape renewal initiative to take place over the upcoming year (Stern 2012).

A for-profit model might be a better candidate for a small business loan product. Guenevere Abernathy said that she might have considered using debt to start LoMo Market, but her previous career in real estate led her to assume that tight capital markets would not be open to financing her enterprise. Rather than pursuing debt, she is using personal capital from the sale of her prior business and has applied for an NC IDEA grant. She indicated that as her business develops and scales she would likely have an interest in a small business loan product if it existed, but currently plans to raise equity for expansion once the model is proven (Abernathy 2012).

Finally, the Healthy Corner Store Initiative in Pitt County and other state-level efforts to address food deserts use federal funding to support their activities, and could represent examples of leverage opportunities for Self-Help. The Healthy Corner Store Initiative in Pitt County is made possible by a Communities Putting Prevention to Work grant, funding from the Centers for Disease Control and Prevention to support community-driven efforts to reduce obesity and tobacco use. North Carolina received a state-level grant, and Pitt County then applied for funding from the state (Vetter-Craft 2012). In addition to improving fresh produce access in food deserts via the Healthy Corner Store Initiative, Pitt County is establishing farmers markets and expanding community supported agriculture programs (Centers for Disease Control and Prevention 2010).

The Farmers Market Promotion Program (FMPP) is another federal funding source already utilized in North Carolina (Beth 2012). This program "offers grants to help improve and expand domestic farmers' markets, roadside stands, community-supported agriculture programs, agri-tourism activities, and other direct producer-to-consumer market opportunities" (USDA 2012). A variety of entities are eligible to apply, including nonprofit and economic development corporations. In fiscal year 2011, five of the 142 grants were awarded to initiatives in North Carolina (descriptions in Table 2), and \$10 million in FMPP grants are available in fiscal year 2012 (USDA 2012). Judging from the variety of 2011 grant recipients and their goals, Self-Help

could potentially leverage future funding for food justice lending, assuming it is open to financing farmers markets or similar enterprises.

Table 2. Fiscal Year 2011 Farmers Market Promotion Program awards in North Carolina

Grantee	Amount	Description
North Carolina State University	\$95,052	“Increase the access to healthy local food of residents of two North Carolina food desert areas, increase sales of local food by farmers in two other areas, and develop a model of local food distribution that could be applied around the nation.”
Watauga County Farmers Market	\$81,605	“Enhance the capacity of the Watauga County Farmers Market to meet the increasing demand for locally grown produce by implementing a comprehensive marketing and infrastructure improvement plan.”
Sandhills Farm to Table Cooperative	\$75,900	“Expand its sales, membership, infrastructure, and service area, allowing local residents better access to nutritious local food and local farmers an improved likelihood.”
Appalachian Sustainable Development Project	\$74,641	“Increase opportunities of small farmers in the Southern Appalachians to grow and market locally produced nutritious food through an expanded network of CSA programs.”
North Carolina Public Health Foundation	\$66,462	“Increase the access to healthy local food of residents of five North Carolina counties who reside in identified food deserts, through the use of mobile farmers markets.”

Source: USDA 2012

The other large piece of federal funding poised to address food deserts is the \$7.4 million Community Transformation Grant that North Carolina received from the U.S. Department of Health and Human Services. The grant will fund community-level efforts across the state to “reduce chronic diseases, promote healthier lifestyles, reduce health disparities, and control healthcare spending,” and a portion of the grant will support farmers markets and increasing healthy foods in convenience stores (Beth 2012 and NC Department of Health and Human Services 2011). Because the grant was awarded in late 2011, it is still in very nascent stages of implementation. There may be opportunities for Self Help to partner with local health departments who will convene local partners to address small retail stores or farmers market enhancements.

Retail Expertise

All interview participants emphasized the importance of retail grocery expertise to successful healthy food provision efforts. Diane Beth said that the NC Division of Public Health did most of the legwork on access to healthier foods in convenience stores when a staff person with corner store expertise joined the Chronic Disease and Injury Section staff. That person was responsible for developing a primer for community-level entities interested in working with corner stores to improve healthy food offerings, but when she left the Division, the state’s corner store-focused efforts to address food deserts lost some traction. Other staff have their own areas of expertise and keep busy simply fulfilling their own roles (Beth 2012). Having key people with expertise driving the policy discussion is crucial for meaningful change.

Diana Vetter-Craft described a steep learning curve regarding the type of equipment that Pitt County could purchase to best serve existing convenience store owners. After gathering storeowner feedback that indicated having an appropriate cooler was the biggest barrier to fresh produce, the Healthy Corner Store team faced the challenge of learning about different types of coolers. In addition to deciding on a cooler size that could hold enough produce but fit within existing store infrastructure, the team had to match cooler voltage with the store's existing wiring, ensure that stores had drains placed in the cooler's vicinity, and purchase coolers specifically built to hold produce, since (as they learned) beverage or ice cream coolers actually accelerate produce spoilage.

Once coolers were purchased for participating stores, Vetter-Craft worked with store owners to think through optimal cooler placement, signage, and best practices observed in other stores to ensure project sustainability after the grant term ends. She has also educated store owners about requirements for selling certain produce types by count or by pound, and developed a method of tracking produce sales if stores do not have electronic tracking systems sophisticated enough to do so (Vetter-Craft 2012). Thus, entrepreneurs interested in entering the food justice space must ensure that they understand the many components of fresh food retail activities. Vetter-Craft said she is working on a "toolkit" to share with other initiatives so that they will not have to climb the same learning curve.

Jeff Stern said that TROSA Grocery managers had to quickly learn effective retail promotion strategies to correct initial community misconceptions. The Grocery staff discovered via a neighborhood survey that most community members either thought the Grocery was only a "health food" store or was purely a convenience store that did not sell a full range of groceries. The survey also indicated that potential customers thought that grocery items were "too expensive." TROSA Grocery then changed its weekly promotions to include one meat item, one produce item, and one "non-healthy" item such as soda to communicate that it was a full grocery (Stern 2012). Additionally, the Grocery has found that "switching costs" are high; people tend to prefer familiar stores and shopping routines, and the amount of marketing necessary to get them to alter these routines is significant.

Stern also wondered if a more specialized model could work for future healthy food retailers. For example, entrepreneurs could lessen the severity of scale and volume issues if they focused only on meat and produce instead of trying to compete with other large, conventional grocery stores on price and inventory (such as offering shoe polish, e.g.). By finding a niche – and fully understanding how to promote specialized products – they could operate within a narrower market with fewer competitors. Retailers would still need to offer food at an affordable price in order to serve the community, of course, but would have less pressure to carry non-perishables that larger stores can sell for a lower price. Again, Stern noted that TROSA Grocery's mission is not to develop specialty retail expertise, and the full service grocery, albeit smaller scale, is the best way it can serve the surrounding community at the present moment (Stern 2012).

On the opposite end of the learning curve spectrum, the two interview participants behind LoMo Market and the South Durham Farmers Market had prior experience with business development, and said that understanding how to promote their enterprises has been crucial for their launch processes. They also had personal experience in local food distribution systems, so this enhanced

their ability to understand their vendors as well as the customers their enterprises target (Abernathy 2012 and Spann 2012). Thus, both LoMo Market and the South Durham Farmers Market may touch on Stern's speculation about the advantages of specializing. Though neither specifically target food desert residents, neither seemed to face scale challenges because they are situated in such a narrow market with few competitors; LoMo Market will be the only mobile local food retailer in the Triangle, and the South Durham Farmers Market will be the only such market in South Durham.

Community Engagement

Community engagement was the most consistent thread throughout the interviews. Both Bull City Urban Market and TROSA Grocery emphasized that serving their surrounding communities was a primary driver in their enterprises. Herbert Johnson said that strengthening the Northeast Central Durham community will be central to all of the Market's activities; for example, it will offer job training in both manufacturing and culinary arts, allow students at Eastway and Hope Elementary Schools to sell the food they grow in their school gardens, and train homeowners in urban gardening to grow their own produce to sell at the market. Of course, it will also provide an alternative food distribution point to residents who currently must take a bus to reach a full-service grocery, which Johnson explained can be an inconvenient "all day affair" (Johnson 2012). Similarly, Jeff Stern advised that the most crucial question for retailers who serve food desert residents to ask themselves is, "How do you make it affordable for the community *and* promote a sense of community ownership?" (Stern 2012). Neighborhood partnerships and buy-in are critical both to ensure the community takes advantage of healthy food availability, which in turn sustains the business in order to continue the healthy food provision model.

Community engagement also surfaced in conversations about state- and county-level efforts to address food deserts. Diana Vetter-Craft said that Pitt County wanted to ensure that food desert residents desired and would benefit from increased fresh produce access, so the team conducted a community health assessment and behavioral risk surveillance before applying for the CPPW grant. They also conducted customer intercept surveys (to understand baseline customer demographics and shopping patterns) and survey of food quality and affordability before implementing the Healthy Corner Stores program. Additionally, the county-level CPPW Access to Healthy Foods team decided to focus on corner stores because they serve more of a "general store" purpose in Pitt County, and will effectively reach more individuals due to the frequency with which community members visit the stores (Vetter-Craft 2012).

Rather than focusing on a community in a specific geographic location, an important part of LoMo Market's mission is to build a new virtual community around local food. Because it will be a mobile enterprise, it will build community by creating an atmosphere of curiosity about food through Twitter, Pinterest, a recipe network, and blogs containing stories about seasonal produce, North Carolina agriculture history, soil and water conditions behind the crops that grow well in the region, and North Carolina food culture. Thus, people who have an interest in local food but lack the scheduling flexibility to attend regular farmers markets will develop new relationships with others in the same situation (Abernathy 2012).

Kathryn Spann also said that being intentional about community outreach was an integral part of planning the South Durham Farmers Market. The reception was so strong that community

members set up a Yahoo group and generated positive news coverage, which was helpful for pre-launch market promotion. In addition to engaging the community of potential customers, Spann also deeply involved the local farming community when creating bylaws for the Market. Fifty producers, along with key community members and one extension agent, participated in designing market governance. This collaborative approach offered ownership to the community surrounding the Market and the producers who will sell at the Market, and helped ensure a “great pool” of vendors and support throughout the city planning commission approval process (Spann 2012).

Spann’s engagement with farmers raises one particularly important component of community engagement that interview participants mentioned: connecting with local food producers. Both Diana Vetter-Craft and Jeff Stern expressed the hope that their enterprises can at some point serve as points of local food distribution. Vetter-Craft said that she believes distribution environment change will be key for sustainable fresh food access in underserved communities, and the Healthy Corner Stores committee has begun conversations about how to link local growers to participating stores (Vetter-Craft 2012). Stern also said that an ideal TROSA Grocery business model would include partnerships with local growers and suppliers and that they will continue to keep the option on the table as they tweak their model (Stern 2012).

Both farmer-focused models this project examines of course give local grower promotion priority, but each has been very thoughtful about how best to do so. Abernathy recruited an advisory group of producers to participate in LoMo Market planning and design, and a large component of the enterprise’s mission is to expand the market for emerging food entrepreneurs. If entrepreneurs make consistent sales via LoMo Market, they will be more likely to qualify for loans to fortify and expand their businesses. For example, LoMo Market’s seafood vendor is currently located two miles off of the water, which poses an inconvenience to fishermen who want to work with the vendor. If the seafood vendor qualifies for small business financing, it could relocate its facilities closer to the water, which will benefit its business in the long term (Abernathy 2012).

South Durham Farmers Market’s genesis stemmed from a desire to advocate for local food by creating a new venue for growers to sell their product. Existing farmers markets were saturated with vendors, and a new market in South Durham met both community needs for fresh food and grower needs for a distribution point. It was after both needs were identified that Spann engaged with local farmers as described above (Spann 2012).

Policy Constraints

Working within the framework of existing local, state, and federal policies – and making necessary changes – will be an important component of increasing healthy food access. For example, one of the biggest challenges that the South Durham Farmers Market has faced is zoning restrictions. They had a signed Letter of Intent with one landlord, but then were informed that the location was not permissible due to zoning. Subsequently, the Market planning team sat down with the City Planning Director and his staff to collaboratively settle on a potential location that would meet both the Market’s and city’s criteria. Kathryn Spann also said that she has researched policy papers from other jurisdictions and is using them to work with the City to make the current zoning code more farmers market friendly, but that the process will be too

lengthy to be completed by the time South Durham Farmers Market is scheduled to open (Spann 2012).

Diane Beth also mentioned that the federal definition of “food desert” (described on page 7) has been challenging for state-level policymaking. After working with different community partners it is evident that the definition does not necessarily include all eligible neighborhoods. One community the Division of Public Health is working with is not designated as a food desert under the federal definition because it is a rural area, and the definition for rural areas specifies that the majority of the population lives ten miles from a supermarket, opposed to the one mile rule used in the urban food desert definition. However, the community is a fifteen-minute drive away from the nearest Wal Mart, so community members without transportation still struggle with access to healthy food. Conversely, university campuses are often designated as food deserts because they are “low-income” – students often do not have incomes – and there is not a full service grocery within a mile. Still, students at universities rarely have problems accessing healthy food. Beth noted that the USDA has acknowledged that the definition is limiting, but it needed a starting point to address healthy food access problems (Beth 2012). Thus, until the federal definition is more comprehensive, entities working to address fresh food access should use a more flexible definition when identifying target areas in which to work.

The state of North Carolina seems to be in early stages of deciding if and how it will encourage enterprises that bring healthy food to food deserts. Beth suggested that the policies most likely to make a difference – given that the retailers involved have strong business plans – will be direct financial incentives, such as loans or grants given to store owners for improvements, indirect financial incentives, such as tax credits based on healthy food inventories, and land use and zoning regulations friendly to small healthy food retailers. State-level policy conversations also involve targeting certain locations within food deserts, such as convenience stores near schools or stores in more population dense areas (Beth 2012).

Lessons Learned

After assessing interview responses, key “lessons” emerged that I recommend Self-Help consider if the team moves forward with developing a loan product for small healthy food retailers. Experiences shared through interviews indicate that the following considerations should be in place for sustainable enterprises:

Be aware of scale-related challenges. Most small-scale retailers cannot offer customers prices competitive with conventional supermarkets without subsidizing prices with philanthropic funding or another income source. Make sure the business model accounts for this. While Jeff Stern was not interviewed after the TROSA Grocery closing, TROSA CEO Kevin McDonald explained in a Herald Sun article that the store had difficulty competing with “big box” stores that can provide lower prices due to their ability to buy products in bulk (Oleniacz 2012).

Accept nutritional assistance benefits. Many residents of underserved communities designated as food deserts depend on federal and state assistance to purchase groceries. Accepting these benefits is crucial for offering a comprehensive approach to increasing healthy food access. However, building in the infrastructure and inventory necessary to accept benefits can complicate a business plan, so Self-Help should ensure that potential borrowers have planned for this.

Think beyond the bricks and mortar “corner store” model. While LoMo Market does not specifically target food deserts, it demonstrates a business model that could potentially translate to enterprises focused on healthy food provision in underserved communities. Mobile produce provision is not a new idea: “produce trucks” have been a viable business model for southern farmers who take their produce to communities without easy produce access since the mid-twentieth century (Korstad 2012). So, the idea of taking produce directly to communities without access, and having the ability to reach multiple neighborhoods via a mobile storefront, could sidestep the scale and store infrastructure challenges that come along with permanent retail space (Arcadia Center for Sustainable Food and Agriculture 2012).

Additionally, mobile markets lend themselves to business models open to incorporating initiatives such as Farmer Foodshare’s Pennies on the Pound program. As you have learned through your work with Margaret Gifford, Pennies on the Pound connects local farmers’ excess food with low-wealth communities. A mobile market could dedicate certain visits per week to take their farmer partners’ excess produce to designated communities (suggested by Abernathy 2012), or could center its business model solely on engaging with area farmers to distribute their excess food at below-market prices.

Another model that featured prominently among groups who received federal Farmers Market Promotion Program funds is the concept of Community Supported Agriculture (CSA), or community members that buy “shares” of a farm’s output each growing season, that targets underserved communities. Based on interview participant’s comments on the importance of local food distribution and potential for specialized niche marketing, it is feasible that a small business could be built around engaging with a collaborative of local farmers to route fresh food to communities in food deserts. By combining food from a number of farms, the business could

provide more competitive prices (by achieving economies of scale) and, like a mobile model, would avoid the high costs of retail space.

Align borrower's business model with community needs. Diane Beth maintains that for small retailers to effectively address healthy food access in food deserts, three prongs must be in place: 1) a willing business owner who understands that selling healthy foods may increase his or her business' profitability, 2) a community who wants and will then use their food dollars to purchase the healthy foods, and 3) awareness building, marketing, and nutrition education through community engagement.

Small business ownership expertise is crucial for store sustainability. Interview participants continually cited the importance of a strong retail business model, as well as a robust marketing strategy. Because fresh food can be a relatively low-margin business, business owners must deeply understand pricing and marketing strategies to effectively reach the communities they seek to serve. Self-Help may need to offer technical assistance or small business expertise to potential food justice borrowers, just as it does for child care, charter school, and nonprofit borrowers.

Don't forget about local farmers. Most interview participants emphasized the importance of connecting local farmers to enterprises that address food deserts. In addition to providing communities with fresh, healthy food, including local farmers in the business model deepens the sense of community and serves a rural economic development purpose (or urban agriculture development, in the case of Bull City Urban Market). Figuring out points of local food distribution also puts less stress on enterprise owners to negotiate with large food distribution companies.

Align retailer activities with mission. Make sure the borrower has a clear theory of change model, and that key revenue sources align with the desired organizational activities.

Stay tuned for future state-level initiatives funded through Community Transformation Grant (CTG) and Farmers Market Promotion Program (FMPP) funding. Opportunities for collaboration with private or nonprofit funding recipients may emerge as state-level staff decide how to allocate the CTG funds, and as future rounds of FMPP grant funds are disbursed.

Appendix: Key Resources for Federal and State Nutrition Assistance

Supplemental Nutrition Assistance Program (SNAP)

Store eligibility requirements: Retailers must consistently provide certain categories of “staple foods” in order to be authorized by the USDA Food and Nutrition Service to accept SNAP benefits.

Website: <http://www.fns.usda.gov/snap/retailers/store-eligibility.htm>

Electronic Benefit Transfer (EBT): Retailers must have the equipment and authorization necessary to accept SNAP benefits via EBT.

Website: <http://www.fns.usda.gov/snap/retailers/accepting-benefits.htm>

Accepting SNAP at Farmers Markets: Farmers Markets that wish to accept SNAP benefits via EBT must have necessary infrastructure (point of service equipment, accounting procedures, e.g.) installed and maintained.

Download “how-to” document here: <http://www.fns.usda.gov/snap/ebt/fm.htm> (select “SNAP EBT Handbook for Farmers’ Markets on right side of page)

Women, Infants and Children (WIC)

Store eligibility requirements: Requirements for WIC authorized retailers are determined at the state level. Permanent Rule 10A NCAC 43D .0706 determines inventory requirements for retailers in North Carolina.

Download text here: <http://www.nutritionnc.com/wic/vendor.htm>

Farmers Market Nutrition Program (FMNP) in North Carolina: The FMNP provides WIC participants with coupons redeemable for fresh produce at farmers markets in the state. The FMNP website contains the updated guidelines for participating farmers markets.

Website: <http://www.nutritionnc.com/wic/fmarket.htm>

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