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DRAFT

EXECUTIVE SUMMARY AND RECOMMENDATIONS: ACCESS TO AFFORDABLE HEALTHY FOOD

Many studies have linked disparities in public health to food access and consumption. In particular, researchers have found that people living in food deserts, which are low-income areas lacking large grocery stores, supermarkets, or supercenters, tend to have a less nutritious diet and poorer health outcomes than those living in other communities. In Tennessee, 21% of the state's population lives in areas considered food deserts—15% in urban food deserts and 6% in rural food deserts.¹ While not always limited to food deserts, a variety of policy alternatives have been implemented in states and communities around the US to both improve access to and encourage the consumption of healthy food, including improving transportation to and from healthy food retailers, bringing the food to the customer through mobile markets or food delivery, providing vouchers for fruits and vegetables, emphasizing education to encourage healthy eating, and offering grants to give residents healthier options for food and exercise.

But because food deserts by definition lack large grocery stores, supermarkets, or supercenters, researchers and policymakers, including recent legislative efforts in Tennessee, have tended to focus on improving access to healthy food by opening or expanding retail establishments in these communities. Although the use of government incentives can help encourage the development of food retailers in food deserts, it is unclear whether simply opening or expanding stores in these communities leads to measurable changes in diet or health. Public Chapter 795, Acts of 2018, directed the Commission to study the benefits and costs of creating a special reserve fund in the state treasury for the sole use of funding grants and loans to encourage the financing and development of supermarkets, grocery stores, and farmers markets in food deserts and submit its report to the General Assembly no later than February 1, 2019. The bill sponsors also asked the Commission to identify and evaluate other alternatives for improving access to healthy food and encourage healthy eating.

The primary barrier to opening grocery stores in many food deserts is that expected revenues are not great enough relative to costs. According to industry representatives, for-profit grocery stores typically operate on

Food deserts are low-income areas lacking large grocery stores, supermarkets, or supercenters where residents tend to have a less nutritious diet and poorer health outcomes.

The primary barrier to opening grocery stores in many food deserts is that expected revenues are not enough relative to costs.

¹ The USDA has developed multiple definitions for food deserts. Under the definition used in this report, a food desert is a low-income census tract where 100 or more households lack access to a vehicle and live further than half a mile or at least 500 people or 33 percent of the population live more than twenty miles from the nearest large grocery, supermarket, or supercenter with at least \$2 million in annual sales that stocks all major food departments found in a traditional supermarket, including fresh meat and poultry, produce, dairy, dry and packaged foods, and frozen foods. United States Department of Agriculture 2017b.

Community development financial institutions, because of their emphasis on encouraging development in underserved and low-income communities, are well-placed to participate in public-private partnerships for healthy food financing grant and loan programs.

margins of between 1% and 3%, and start-up costs for a medium-sized store of 30,000 square feet range from approximately \$740,000 to \$5 million. To offset the start-up or renovation costs for grocery stores or similar food retailers located in food deserts, governments and private entities have offered grants, loans, or other incentives. These include multiple federal programs and those adopted by several states. No such state program has been established in Tennessee.

Public and private efforts to finance grocery stores for food desert relief: How are they structured, and how are they funded?

The grants and loans proposed in Public Chapter 795, Acts of 2018, would have been administered by the Tennessee Department of Economic and Community Development (ECD) and would have been funded by a percentage of the revenue generated by the existing sales tax on food collected from the sale of sugar-sweetened beverages. That would have generated approximately \$26,000 per year, according to estimates by staff of the Fiscal Review Committee.

Only 12 states have passed legislation creating healthy food financing programs. Eight of these states directed state agencies to administer the programs by awarding and distributing grants, loans, or both. Alabama and Mississippi assigned their programs to agencies similar to ECD; Louisiana, Minnesota, North Carolina, and Oklahoma use their departments of agriculture; and California and Michigan have assigned theirs to their departments of treasury.

The other four states—Florida, Massachusetts, New York, and Ohio—chose private entities known as community development financial institutions (CDFIs) to award and distribute grants and loans. CDFIs are “specialized community based financial institutions with a primary mission to promote economic development by providing financial products and services to people and communities underserved by traditional financial institutions, particularly in low income communities” and include “community development banks and credit unions and non-regulated institutions such as non-profit loan funds or venture capital funds,” according to the CDFI Coalition, a national advocacy organization for CDFIs. Because of their emphasis on encouraging development in underserved and low-income communities, CDFIs are well-placed to participate in public-private partnerships for healthy food financing grant and loan programs. A 2014 amendment filed but not raised in committee for House Bill 2182 by Representative Rich and Senate Bill 2278 by Senator Dickerson would have required the Tennessee Department of Human Services (DHS) to contract with at least one CDFI or other qualified nonprofit organization to provide

grants and loans to private businesses for food desert relief through a public-private partnership.

Beyond these state programs, private sector organizations—including CDFIs—have helped finance the development of grocery stores and other food retailers in food deserts across the country, both in the states that have created programs and in those that haven't. In Tennessee, a CDFI has invested in at least one development project that includes a grocery store located in a food desert—The Curb Market at Crosstown Concourse in Memphis.

Existing sources for financing the development of grocery stores in food deserts include those available through the private sector and a variety of federal incentives; some states have chosen to supplement these sources with state funding. Private sector funding sources include not only investment and loans, but in some cases nonprofit organizations have made large donations to food desert relief projects. For example, the Kansas Health Foundation and the Colorado Health Foundation—nonprofit organizations that work to improve the health of the residents in their states by using their resources to prevent diseases—both provided several million dollars in seed money to support private food desert relief in their states.

Federal funding to address food deserts is substantial and includes the federal Healthy Food Financing Initiative (HFFI), which provides grants to private entities through two separate programs that have awarded more than \$209 million to more than 100 recipients since 2011. The largest HFFI grants have been made to CDFIs. For example, the US Department of Treasury, which manages one of the two HFFI programs, has awarded \$157 million to 35 different CDFIs since 2011. Awards have ranged from \$250,000 in 2014 to a CDFI in Maine to a maximum award of \$3 million, which has been awarded to multiple CDFIs across several states.

Ten of the 12 states that have passed laws creating healthy food financing programs have appropriated their own funds to finance the development of food retailers in food deserts. In these states, funding has ranged from \$150,000 (Minnesota in 2015) to approximately \$5 million (Michigan beginning in 2018). Although they have not passed legislation creating their own state programs, four other states have appropriated funds to CDFIs for use in financing food desert relief projects: Pennsylvania appropriated \$10 million in 2003, 2004, and 2005; New Jersey appropriated \$3 million in 2009; Illinois appropriated \$10 million in 2012; and South Carolina appropriated \$250,000 in 2016.

No state has chosen to provide funding through a dedicated revenue stream like the one proposed in Public Chapter 795, Acts of 2018. The Tennessee Department of Revenue raised concerns associated with

Existing sources for financing the development of grocery stores in food deserts include those available through the private sector and a variety of federal incentives; some states have chosen to supplement these sources with state funding.

Recent studies found that despite a new, closer store, many people continue shopping at the stores they previously used.

updating its systems to account for the dedicated revenue stream proposed for study in the 2018 Act. Similar concerns have been raised by stakeholders representing food retailers, which would likely incur some costs associated with updating their systems for remitting sales taxes.

Other federal, state, and local incentive programs generally used to promote local development are also available to fresh food retailers in Tennessee. Examples of federal incentives include the New Markets Tax Credit and the new Opportunity Zone program. At the local level, at least one community in Tennessee is already using payment in lieu of tax (PILOT) agreements agreed to by both city and county officials to attract healthy food retailers to low-income and underserved neighborhoods.

It is unclear whether financing the development of food retailers in food deserts leads to improvements in diet or health.

Despite increased investment in food retailers resulting from public and private healthy food financing efforts, research has not consistently demonstrated that simply opening new or expanding existing stores results in measurable improvements in diet and health or reduces the actual costs of obtaining healthy foods for residents of food deserts. For example, although a report summarizing the accomplishments of a CDFI that received \$30 million in appropriations from Pennsylvania as seed money for food desert relief projects found that it financed the development of 88 retail locations and “improved access to healthy food” for 400,000 Pennsylvanians, only two studies have evaluated the dietary and other health effects of any of these 88 projects. Neither found a direct link between opening a new retail store and changes in diet and health. Similarly, in 2015, both a nationwide study and a study evaluating the introduction of a new grocery store in two New York City neighborhoods found that living closer to a large grocery store or supermarket does not consistently lead to healthier eating or outcomes. Studies in 2013, 2014, and 2015 found that despite a new, closer store, many people continue shopping at the stores they previously used. Some research also indicates that without an emphasis on education and community outreach, just being closer to nutritious food is less likely to lead to citizens purchasing, properly preparing, and consuming it.

Other programs exist for improving access to and encouraging the consumption of healthy foods including price subsidies for consumers and education.

Other approaches and resources for improving access to healthy food and encouraging healthy eating are already available to communities and individuals in Tennessee. Some of these programs encourage participants

to purchase healthy foods by subsidizing their cost. Federal programs include the USDA's Food Insecurity Nutrition Incentive (FINI) grant program, which supports projects to increase the purchase of fruits and vegetables by low-income consumers participating in the Supplemental Nutrition Assistance Program (SNAP) by providing incentives at the point of purchase. A 2017 report by the Farmers Market Coalition found that a majority of those receiving incentives through the FINI program either reported increasing their consumption or purchasing of fruits and vegetables as a result of the program. Projects supported by the USDA's FINI program available to SNAP participants in Tennessee include SNAP Double-Up—which allows SNAP users in communities with participating farmers markets to double up to \$20 worth of fruits and vegetables—and the Fruit and Vegetable Prescription Program—which is currently operating as a pilot project in northeast Tennessee and provides vouchers for fruits and vegetables. This program provides \$1 per day per household member in produce prescriptions redeemable for fresh produce at farmers markets and grocery stores. Similarly, the federal Farmers Market Nutrition Program attempts to improve the eating habits of families receiving assistance through the Women, Infants, and Children (WIC) program and senior citizens by giving them vouchers to purchase locally grown fresh produce. In 2013, a review of the Farmers Market Nutrition Program literature found some evidence of an increase in fruit and vegetable consumption, but health outcomes were mixed or not measured. Another study in 2018 found that these programs increase farmers market shopping among SNAP recipients.

There are also federally supported food education programs. SNAP-Ed, administered by Tennessee's DHS, is the nutrition promotion and obesity prevention component of SNAP. It works through coalitions of state and local stakeholders to promote nutrition and physical activity through activities including marketing campaigns and nutrition education classes. A 2013 report from the USDA that evaluated the nationwide SNAP-Ed program found an average increase of fruit and vegetable consumption between .24 and .52 cups per day per participant. The recommended amounts are two cups for fruit and two and a half cups for vegetables. In Tennessee, two state agencies help implement SNAP-Ed—Tennessee State University Cooperative Extension and the University of Tennessee Agricultural Extension Service. They also implement the Expanded Food and Nutrition Education Program, which works to change nutrition and physical activity behaviors of low-income families through staff visits to the home of participants, particularly the homes of families with young children. A 2017 annual report from the Family and Consumer Sciences Department in the Institute of Agriculture at the University of Tennessee Extension reported that 86% of participants in the SNAP-Ed program improved healthy food choices.

Other approaches and resources for improving access to healthy food and encouraging healthy eating are already available to communities and individuals in Tennessee.

Education and outreach have also been used as components in some food retailer development programs. For example, the Illinois Facilities Fund—a CDFI that provides grants and loans for grocery stores and similar entities in several Midwestern states—requires that each of its projects include “a community engagement component through which the grocer will establish relationships outside the store with community institutions or other groups, in order to engage the community in improving shopping and eating habits and establish mutually beneficial events and activities that bring informed and interested shoppers into the store.” It is unclear whether the education and outreach requirement has resulted in greater consumption of fruits and vegetables. A smaller program in Tennessee—the Department of Health Access to Health through Healthy Active Built Environment Grant program—is designed to make healthy food options more accessible and promote outdoor physical activity by enhancing public spaces across the state. In 2018, the program awarded the town of Unicoi \$85,000 for the construction of a farmers market pavilion and nutrition program on the grounds of the town’s existing Mountain Harvest Kitchen, which in 2018 received a Tennessee Municipal League Excellence in Entrepreneurial Leadership Award, and a walking campaign that pairs educational seminars with outdoor activity. It is too soon to determine the success of this program. See table 1 for a list of programs already described as well as others available to help improve access to healthy foods.

Although access to healthy food remains an issue for some communities in Tennessee, establishing a state-funded grant and loan program to encourage the development of grocery stores and other food retailers is but one of many options for assisting residents in these areas. **Given the costs of opening and renovating grocery stores and other similar food retailers and the complex relationship between improved access to healthy food sources and measurable improvements in diet and health, state efforts should focus on leveraging the variety of public and private resources that are already available to assist communities in crafting solutions tailored to local needs. A state program for encouraging the development of grocery stores and other food retailers in food deserts may not be necessary, but if Tennessee were to adopt such a program, the state should**

- **structure the program as a public-private partnership with one or more CDFIs, or similar entities, to take advantage of existing federal programs and to maximize private investment and**
- **incorporate consumer education and outreach into the program.**

Table 1. Examples of Resources Available to Help Improve Access to Healthy Food

Vouchers for Fruits and Vegetables				
Source	Funding		Eligibility	Additional Information
	Resource	Amount		
United States Department of Agriculture	Food Insecurity Nutrition Incentive Grant Program (FINI) ^a	Grant funding ranges from \$100,000 over one year to \$500,000 over no more than four years.	Government agency or nonprofit may apply for the grant to run the program.	Only SNAP recipients participate in the program.
United States Department of Agriculture	Women, Infants, and Children-Farmers Market Nutrition Program (WIC-FMNP) in Tennessee ^b	Checks are for \$5 and participants get a total of \$20 per year.	Participants must be residents of Coffee, Hickman, Knox, Lincoln, Madison, Maury, Moore, Rutherford, and Sullivan counties in Tennessee and meet gross household income guidelines.	Household Income Eligibility Guidelines 185% of Federal Poverty Limit <ul style="list-style-type: none"> • \$22,459 household of one • \$7,992 per additional family member Only WIC recipients participate in the program.
United States Department of Agriculture	Seniors Farmers Market Nutrition Program (SFMNP) in Tennessee ^c	SFMNP gives seven \$5 checks to about 15,000 seniors each year.	Participants must be residents of Davidson, Dyer, and Shelby counties and participate in the Commodity Supplemental Food Program or be a resident of Hamblen or Warren county in Tennessee and meet gross household income guidelines.	Household Income Eligibility Guidelines 130% of the federal poverty limit <ul style="list-style-type: none"> • \$15,782 household of one • \$5,616 per additional family member.

^a United States Department of Agriculture. “Food Insecurity Nutrition Incentive (FINI) Grant Program.”

^b Tennessee Department of Health. “WIC Farmers Market Nutrition Program;” United States Department of Agriculture 2018b.

^c Tennessee Department of Health. “Senior Farmers Market Nutrition Program;” United States Department of Agriculture 2018a.

Education to Encourage Healthy Eating				
Resource	Funding		Eligibility	Additional Information
	Source	Amount		
United States Department of Agriculture	Expanded Food and Nutrition Education Program (EFNEP) ^d	Funding for 2017-2018 was \$2,003,899 for the University of Tennessee Knoxville and \$130,998 for Tennessee State University. Total program funding varies by year.	EFNEP serves families and youth with limited income, particularly families with young children.	The University of Tennessee Knoxville and Tennessee State University provide free lessons to low-income residents on how to choose and prepare healthy foods. EFNEP also combines hands-on learning, applied science, and program data to improve program effectiveness, efficiency, and accountability.
United States Department of Agriculture	Tennessee Nutrition and Consumer Education Program (TNCEP) ^e	Funding for 2018-2019 is \$6,112,630. Total program funding varies by year.	Individuals and families who participate or are eligible to participate in the Supplemental Nutrition Assistance Program (SNAP).	The TNCEP helps SNAP recipients learn how to choose and prepare healthy foods and feel empowered to move toward self-sufficiency.

^d University of Tennessee Knoxville. “Expanded Food and Nutrition Education Program (EFNEP).”

^e University of Tennessee Knoxville. “Tennessee Nutrition and Consumer Education Program (TNCEP);” United States Department of Agriculture. “SNAP-Ed Estimated Allocations for FFY 2019.”

Development Incentives				
Resource	Funding		Eligibility	Additional Information
	Source	Amount		
United States Department of the Treasury	Healthy Food Financing Initiative—Financial Assistance Grant (HFFI-FA) ^f	Total program funding varies by year.	Community Development Financial Institutions that received a financial assistance award through the CDFI Program may also receive an HFFI-FA grant.	The HFFI-FA grant program provides flexible financial assistance and specialized training and technical assistance to CDFIs that invest in businesses that provide healthy food options.
United States Department of Health and Human Services	Community Economic Development—Healthy Food Financing Initiative Grants ^g	Total program funding varies by year.	Private, nonprofit organizations that are community development corporations, including faith-based organizations, and Tribal and Alaskan Native organizations.	Support projects that finance grocery stores, farmers markets, and other sources of fresh nutritious food.
United States Department of the Treasury	New Markets Tax Credit (NMTC) Program ^h	Nationwide total is \$3.5 million per year.	Must be a certified community development entity—a domestic corporation or partnership that is an intermediary vehicle for the provision of loans, investments, or financial counseling in low-income communities.	The NMTC Program incentivizes community development and economic growth through the use of tax credits that attract private investment to distressed communities.
United States Department of the Treasury	Opportunity Zone/ Opportunity Fund Program ⁱ	No limit for tax incentive.	Tennessee has designated 176 census tracts that are eligible for the tax incentive. Any company or individual can invest unrealized capital gains into an Opportunity Fund.	Encourage long-term investment in low-income urban and rural communities nationwide by providing a tax incentive for investors to reinvest unrealized capital gains into Opportunity Funds.
United States Department of Agriculture	Community Food Projects (CFP) Competitive Grant Program ^j	CFP—not to exceed \$400,000 over four years—matching funds required. Planning Projects (PP)—not to exceed \$35,000 and not to exceed three years—matching funds required.	Public food program service providers, tribal organizations, or private nonprofit entities, including gleaners that are experienced, competent, willing to share information, and collaborate with others.	Designed to increase food security in communities by bringing the whole food system together to assess strengths, establish linkages, and create systems that improve the self-reliance of community members over their food needs.

^f Community Development Financial Institutions Fund. “CDFI Program.”

^g United States Department of Health and Human Services. “About the Community Economic Development (CED) Program.”

^h Community Development Financial Institutions Fund. “New Markets Tax Credit Program;” Community Development Financial Institutions Fund 2018.

ⁱ Tennessee Department of Economic and Community Development. “Opportunity Zones.”

^j United States Department of Agriculture 2017a.

Development Incentives <i>(continued)</i>				
Resource	Funding		Eligibility	Additional Information
	Source	Amount		
Hope Enterprise Corporation (a CDFI)	Mid-South Healthy Food Initiative ^k	Total program funding varies by year.	Applicants must operate in HOPE’s service area—Arkansas, Louisiana, Mississippi, or greater Memphis, Tennessee.	Applicants must plan to open a self-service supermarket or other grocery retail outlet primarily selling fresh produce, seafood, meat, dairy, and other groceries; renovate and substantially improve a store’s ability to stock and sell a variety of fresh fruits and vegetables; or develop a real estate project that will lease space to a grocery retail tenant. Provides financing at below-market pricing to support grocery development.
Local Government	Payments in Lieu of Tax Agreements (PILOTs) ^l	Amount is determined by local governments.	While their ability to directly abate property taxes is limited, local governments in Tennessee can lease government-owned, tax-exempt property to businesses, providing them with a form of indirect abatement under Tennessee Code Annotated, Section 7-53-101 et seq.	PILOTs are indirect property tax abatements that are used by industrial development boards and their affiliated local governments to encourage economic development.

^kHope Credit Union Enterprise Corporation. “Mid-South Healthy Food Initiative Program Summary.”

^lTennessee Advisory Commission on Intergovernmental Relations 2018.

SOME COMMUNITIES HAVE LIMITED ACCESS TO HEALTHY FOOD.

Many studies have linked disparities in public health to food access and consumption. In particular, researchers have found that people living in food deserts, which are low-income areas lacking large grocery stores, supermarkets, or supercenters, tend to have a less nutritious diet and poorer health outcomes than those living in other communities.² In Tennessee, 21% of the state’s population lives in areas considered food deserts—15% in urban food deserts and 6% in rural food deserts.³ While not always limited to food deserts, a variety of policy alternatives have been implemented in states and communities around the US to both improve access to and encourage the consumption of healthy food, including improving transportation to and from healthy food retailers, bringing the food to the customer through mobile markets or food delivery, providing vouchers for fruits and vegetables, emphasizing education to encourage healthy eating, and offering grants to give residents healthier options for food and exercise.

But because food deserts by definition lack large grocery stores, supermarkets, or supercenters,⁴ researchers and policymakers, including recent legislative efforts in Tennessee, have tended to focus on improving access to healthy food by opening or expanding retail establishments in these communities. Public Chapter 795, Acts of 2018, directed the Commission to study the benefits and costs of creating a special reserve fund in the state treasury for the sole use of funding grants and loans to encourage the financing and development of affordable healthy food retailers—referred to in the Act as food desert relief enterprises. Although the use of government incentives can help encourage the development of food retailers in food deserts, it is unclear whether simply opening or expanding stores in these communities leads to measurable changes in diet or health.

² Centers for Disease Control and Prevention 2014; Ghosh-Dastidar et al. 2014.

³ United States Department of Agriculture 2017b.

⁴ United States Department of Agriculture 2009.

How does the United States Department of Agriculture define food deserts?

In 2008, the federal Food, Conservation, and Energy Act defined food deserts as areas “with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower-income neighborhoods and communities” and directed the United States Department of Agriculture (USDA) to prepare a report to Congress assessing their incidence and prevalence. In preparing the report, the USDA developed several ways to measure food deserts—varying in distance to a large grocery store, supermarket, or supercenter for a given census tract.¹ While the USDA acknowledges that “it is likely that even the smallest food retailers stock foods that have nutritional merits,” it says that large grocery stores, supermarkets, and supercenters uniformly offer a variety of affordable fruits and vegetables, providing access to healthy food that smaller grocers and convenience stores, which are more prevalent in low-income communities, may not be able to sell.² Under the USDA definition used in this report, a food desert is a low-income census tract where 100 or more households lack access to a vehicle and live further than half a mile or at least 500 people or 33% of the population live more than twenty miles from the nearest large grocery, supermarket, or supercenter. To count as a large grocery, retailers must have at least \$2 million in annual sales and must stock all major food departments found in a traditional supermarket, including fresh meat and poultry, produce, dairy, dry and packaged foods, and frozen foods.

¹ United States Department of Agriculture 2009.

² United States Department of Agriculture 2009; and Mayer 2016.

Start-up costs and the cost of acquiring and selling produce are two main barriers that make expanding healthy food access to food deserts difficult.

Barriers to Healthy Food Retailers in Food Deserts

There are two main barriers that make expanding healthy food access to food deserts difficult—start-up costs and the cost of acquiring and selling produce. A representative of the Tennessee Grocers and Convenience Store Association explained that based on estimates provided by grocery store owners, a medium sized grocery store (30,000 square feet) would cost a total of \$1.9 million to open.⁵ This includes \$1.2 million (\$40 per square foot) to build and equip. This could be more or less depending on departments and whether one uses some mix of refurbished or leased equipment. Adding inventory would cost on average \$600,000 (\$20 per square foot). Training, permits, licenses, supplies, packaging, small wares, signage/décor, and grand opening marketing would add another \$100,000. He said that the national chains would spend about \$5 million to open a location. Alternatively, Save-A-Lot advertises a model for a grocery store with total start-up costs ranging from \$740,000 to \$1.5 million.⁶ An organization concerned with food access in north Memphis is working to open a small grocery and said that the project will cost around \$850,000.⁷ High start-up costs are an issue in part because of the slim margins—for-profit grocery stores typically operate on margins of between 1% and 3%, according to industry representatives.⁸

While the primary barrier to opening a grocery store anywhere is start-up costs, the barriers faced by smaller retailers can be different. For example, the National Association of Convenience Stores (NACS) reported in 2015 that 62.8% of convenience stores are single-store operators, making bulk purchases difficult.⁹ Interviews with corner store owners in Pennsylvania and New Jersey found that “owners/managers described many challenging aspects of running a small store, including obtaining high-quality produce at a good price and in small quantities.”¹⁰

A Tennessee example of a grocery store that previously served residents of nearby food deserts is Buehler’s Market, a long-time fixture in downtown Chattanooga. Before 1988, profits were donated to provide housing to senior citizens. After the store was purchased in 1988 by a new owner, the store remained profitable but no longer contributed to senior housing. Buehler’s Market closed in early 2017; according to the owner, the market was still profitable at the time of sale.¹¹ Since the closure of the grocery, the building

⁵ Email correspondence with Rob Ikard, President, Tennessee Grocers and Convenience Store Association, July 23, 2018.

⁶ Save-A-Lot. “Estimated Start-up Costs.”

⁷ Email correspondence with Deveney Perry, Project Manager, BLDG Memphis, June 15, 2018.

⁸ Email correspondence with Rob Ikard, President, Tennessee Grocers and Convenience Store Association, July 23, 2018.

⁹ National Association of Convenience Stores 2015.

¹⁰ Mayer et al. 2016.

¹¹ Telephone interview with Charles Morton, Former Owner, Buehler’s Market, September 19, 2018.

has remained vacant. The costs associated with an increase in property values in the revitalizing downtown area may make opening a grocery in the same location more difficult. The property is in a heavily trafficked area, only .4 miles from the Tennessee Aquarium, and is surrounded by downtown businesses, entertainment, dining, and lodging.¹²

Encouraging Food Retail Development in Food Deserts

One approach to encourage the development of food retailers in food deserts where it is not economical for them to operate has been to offset their start-up or renovation costs by offering grants, loans, or other incentives.¹³ While these incentives are most commonly used to open grocery stores, in some cases they have also been used to open farmers markets as well as to expand offerings of fresh fruits and vegetables at existing retailers, including convenience stores.¹⁴ A variety of private sector and federal resources are already available to support these efforts. Some states have also implemented their own programs and provided state funding to supplement private and federal resources. Although Tennessee has considered implementing a grant and loan program, it has not done so.

Previous Efforts to Encourage and Finance the Development of Healthy Food Retailers in Tennessee

Multiple bills and amendments have been introduced in the General Assembly to establish programs to address food deserts in Tennessee. In 2010, House Bill 3094 by Representative Fitzhugh and Senate Bill 2976 by Senator Berke would have authorized the Tennessee Local Development Authority (TLDA) to issue revenue bonds to develop property for food desert relief enterprises that are unable to secure private sector financing and to make loans up to \$500,000 under the Food Desert Relief Development Loan Program. In 2011, Representative Fitzhugh and Senator Berke introduced very similar legislation—House Bill 1385 and Senate Bill 1176.

In 2014, Senate Bill 2278 by Senator Dickerson and House Bill 2182 by Representative Rich proposed that the commissioners of the Tennessee Department of Economic and Community Development (ECD) and the Tennessee Department of Health (DOH) conduct a study of issues relating to food deserts and the lack of access to healthy food in rural areas of this state. An amendment was filed that would have created the Healthy Food Financing Act and the Healthy Food Financing Fund, to be administered by the Tennessee Department of Agriculture (DOA). It would have allowed DOA to contract with one or more qualified nonprofit organizations or Community Development Financial Institutions (CDFIs) to provide grants

A variety of private sector and federal resources are already available to support efforts to encourage food retail development in food deserts.

¹² Google Maps. "Tennessee Aquarium to 429 Market Street."

¹³ Rosenberg and Cohen 2018.

¹⁴ Centers for Disease Control and Prevention 2014.

Earmarking revenue from the existing sales tax collected for sales of sugar-sweetened beverages would generate approximately \$26,000 for a new Fresh Food Financing Fund.

and loans to private businesses for food desert relief through a public-private partnership. Yet another amendment proposed requiring the Tennessee Department of Human Services (DHS) to contract with one or more qualified nonprofit organizations or CDFIs. CDFIs are “specialized community based financial institutions with a primary mission to promote economic development by providing financial products and services to people and communities underserved by traditional financial institutions, particularly in low income communities” and include “community development banks and credit unions, and non-regulated institutions such as nonprofit loan funds or venture capital funds,” according to the CDFI Coalition, a national advocacy organization for CDFIs.¹⁵

In 2014, House Bill 2080 by Representative Love and its companion Senate Bill 2082 by Senator Norris were filed and if passed would have established a grant and loan pilot program, creating a fund to be known as the “Fresh Food Financing Fund” and earmarking the revenue generated from six-hundred twenty-five ten thousandths percent (.0625%) of the tax revenue from the existing tax collected for retail sales of sugar-sweetened beverages that are taxed as food at 4%.¹⁶ The bill was never brought before a subcommittee or committee. In 2018, Representative Love and Senator Norris refiled the legislation as House Bill 2120 and Senate Bill 2634. The Fiscal Review Committee, in recently revised estimates, calculated that the earmarked revenue from the existing tax for sugar-sweetened beverages would generate approximately \$26,000 for a new Fresh Food Financing Fund.¹⁷ The Tennessee Department of Revenue has raised concerns associated with updating its systems to account for the proposed dedicated revenue stream.¹⁸ Similar concerns have been raised by stakeholders representing food retailers, which would likely incur some costs associated with updating their systems for remitting sales taxes.¹⁹ The General Assembly passed an amended version of the legislation, Public Chapter 795, Acts of 2018, which required the study leading to this report. See appendix A for a copy of the Act.

Other states use state agencies or CDFIs to award grants and loans to expand fresh food to food deserts.

Twelve states have passed legislation creating healthy food financing programs (see table 2).²⁰ While the proposed legislation in Tennessee

¹⁵ CDFI Coalition. “CDFIs in Tennessee.”

¹⁶ Tennessee Code Annotated, Section 67-6-228(a).

¹⁷ The original fiscal note, which had estimated revenue of approximately \$730,000, applied the .0625% to the entire sales of sugar-sweetened beverages instead of applying it to the revenue generated from the sales tax on sugar-sweetened beverages, which are taxed as food at 4%.

¹⁸ Interview with Tennessee Department of Revenue Staff, July 13, 2018.

¹⁹ Telephone interview with Rob Ikard, President, Tennessee Grocers and Convenience Store Association, on May 17, 2018.

²⁰ Alabama, California, Florida, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, New York, North Carolina, Ohio, and Oklahoma.

would have focused on opening or expanding grocery stores or farmers markets in low-income and underserved communities, some states have made funds available for a variety of smaller retailers, which allows the solution to be specific to the community.²¹ For example, Alabama awarded seven grants in 2018, but only one was awarded to renovate and upgrade a grocery store—the rest ranged from “reopening a grocery store to building and equipping mobile food trucks, delivery vehicles and produce stands to serve both rural and urban communities.”²² Some states—Louisiana, Mississippi, and Ohio—make clear in statute that funding is not limited to interventions with supermarkets, grocery stores, and farmers markets.²³

Existing state-level healthy food financing programs are administered in a variety of ways. Of the 12 states with programs, eight have assigned state agencies to award and distribute grants, loans, or both. Alabama and Mississippi do this through an agency similar to ECD; Louisiana, Minnesota, North Carolina, and Oklahoma use their departments of agriculture; and California and Michigan use their departments of treasury.

The other four states that have passed legislation—Florida, Massachusetts, New York, and Ohio—chose CDFIs to award and distribute grants and loans. Because of their emphasis on encouraging development in underserved and low-income communities, CDFIs are well-placed to participate in public-private partnerships for healthy food financing. An example of this is the Healthy Food for Ohio (HFFO) program,²⁴ established in 2016. The Ohio Department of Job and Family Services partnered with the Finance Fund Capital Corporation (FCAP), a CDFI, and provided it with the initial funding for the program. FCAP was involved in the early planning stages of the project and helped to identify areas of need. It already had “experience in leveraging public and private capital to fund healthy food projects in low-income communities” prior to partnering with the state on the HFFO program. Through HFFO, grants and loans are awarded to a wide range of eligible retail projects including grocery chains, individual grocery stores, neighborhood food stores, co-ops, farmers markets, and food hubs.²⁵

Some states have made funds available for a variety of smaller retailers, which allows the solution to be specific to the community, and some states—Louisiana, Mississippi, and Ohio—make clear in statute that funding is not limited to interventions with supermarkets, grocery stores, and farmers markets.

²¹ Centers for Disease Control and Prevention 2014.

²² State of Alabama Office of the Governor 2018.

²³ La R.S. Section 3:296 and House Bill 1 (2016); Mississippi Code Annotated Section 57-10-701; and Ohio House Bill 64, Section 305.53 (2014).

²⁴ The Food Trust works with community leaders across the state to promote the program and assist applicants.

²⁵ Finance Fund. “Healthy Food for Ohio Program Overview.”

Table 2. Food Desert Relief Programs Established through State Legislation

State	Name of Program	Year Enacted	Incentives Awarded through a State Agency vs. CDFI	Organization that Distributes the Money
Alabama	Alabama Healthy Food Financing Act	2015	State	Department of Economic and Community Affairs
California*	California Healthy Food Financing Initiative Council	2011	State	Department of Treasury
Florida	Florida Healthy Food Financing Initiative	2016	CDFI	Florida Community Loan Fund
Louisiana	Louisiana Healthy Food Retail Act	2009	State	Department of Agriculture and Forestry
Massachusetts	Massachusetts Food Trust Program	2014	CDFI	Local Enterprise Assistance Fund
Michigan	Michigan Strategic Fund Act and Neighborhood and Commercial Corridor Food Initiative	2018	State	Department of Treasury
Minnesota	Minnesota Good Food Access Fund	2016	State	Department of Agriculture - Good Food Access Program Advisory Committee
Mississippi*	Mississippi Small Business and Grocer Investment Act	2014	State	Mississippi Development Authority
New York	New York Healthy Food and Healthy Communities Fund	2009	CDFI	The Low Income Communities Fund and The Reinvestment Fund
North Carolina	North Carolina Healthy Food Small Retailer Program	2015	State	Department of Agriculture and Consumer Services
Ohio	Healthy Food for Ohio	2016	CDFI	Finance Fund
Oklahoma	Oklahoma Healthy Food Financing Act	2017	State	Department of Agriculture, Food, and Forestry

*California and Mississippi have not allocated funding to their programs.

Source: TACIR staff analysis of other states' laws.

Private, federal, and state funds have been used to provide food retail in food deserts.

Existing sources for financing the development of grocery stores in food deserts include the private sector and a variety of federal incentives, and some states have chosen to supplement these sources with state funding. Some of these resources are limited to the development of food retailers in food deserts, but others include incentives that can be used for various projects in underdeveloped communities.

Private

Private-sector funding sources include both nonprofit and for-profit organizations. In some cases, nonprofit organizations have made large donations to food desert relief projects. For example, the Kansas Health

Foundation and the Colorado Health Foundation—nonprofit organizations that work to improve the health of the residents in their states by using their resources to prevent diseases—both provided several million dollars in seed money to support private sector food desert relief efforts in their states.²⁶ The funds helped establish the Kansas Healthy Food Initiative, which provides technical assistance to strengthen access to healthy foods as well as financing through a mix of loans and grants to healthy food retailers, and the Colorado Healthy Fresh Food Financing Fund, which finances small and innovative fresh food retail.

Other nonprofits—including CDFIs—have helped finance the development of grocery stores and other food retailers in food deserts across the country both in the states that have created programs and in those that haven't.²⁷ In Tennessee, a CDFI has invested in at least one development project that includes a grocery store located in a food desert—The Curb Market at Crosstown Concourse in Memphis.²⁸ Another CDFI working in the Memphis area is Hope Enterprise Corporation, which operates the Mid South Healthy Food Initiative and provides financing at below-market pricing to support grocery development. Hope's service area includes Arkansas, Louisiana, Mississippi, and greater Memphis, Tennessee. Applicants must plan to open a self-service supermarket or other grocery retail outlet primarily selling fresh produce, seafood, meat, dairy, and other groceries; renovate and substantially improve a store's ability to stock and sell a variety of fresh fruits and vegetables; or develop a real estate project that will lease space to a grocery retail tenant.²⁹

Federal

Federal funding includes several programs limited specifically to food desert relief efforts and general development incentives and is substantial. The federal Healthy Food Financing Initiative (HFFI), established in 2011, brings together the USDA, the US Department of the Treasury, and the US Department of Health and Human Services (HHS) to provide funding to communities to increase access to healthy foods. The HFFI provides grants through both the Healthy Food Financing Initiative-Financial Assistance (HFFI-FA) program and the Community Economic Development-Healthy Food Financing Initiative (CED-HFFI), which together have awarded more than \$209 million to more than 100 recipients since 2011.³⁰

Federal funding includes several programs limited specifically to food desert relief efforts and general development incentives.

²⁶ Kansas Healthy Food Initiative 2018; Colorado Health Foundation 2018.

²⁷ Other state examples include Green Zebra Grocery in Oregon and Janesville Festival Foods in Wisconsin. See New Markets Tax Credit Coalition 2016.

²⁸ New Markets Tax Credit Coalition 2016.

²⁹ Hope Enterprise Corporation. "Mid South Healthy Food Initiative Program Summary."

³⁰ United States Department of Agriculture. "CED HFFI Grant Awards;" Community Development Financial Institution Fund. "State Awards."

A variety of other federal incentives can be used to finance the development of food retailers, though they are not limited to food desert relief efforts.

Healthy Food Financing Initiative-Financial Assistance Grant

The largest HFFI grants have been made to CDFIs through the HFFI-FA—the US Department of the Treasury awarded \$157 million to 35 different CDFIs from 2011 through 2017.³¹ Awards have ranged from \$250,000 in 2014 to MaineStream Finance of Maine to a maximum award of \$3 million, which has been awarded to multiple CDFIs across several states. The Department of the Treasury awards an average of \$22 million to CDFIs each year. See appendix B.

Community Economic Development-Healthy Food Financing Initiative Grant

Every year, the Office of Community Services within the HHS awards Community Economic Development-Healthy Food Financing Initiative (CED-HFFI) grants to community development corporations, “non-profit organizations that are created to support and revitalize communities, especially those that are impoverished or struggling.”³² Community development corporations may qualify to become CDFIs. The CED-HFFI grant has awarded \$51.9 million to community development corporations in 30 states from 2011 through 2016, including two Tennessee businesses: Conexion Americas in Nashville and The Works, Inc. in Memphis (see appendix C).³³ Each organization received \$788,673. Conexion Americas used the funds to finish constructing and equipping a commercial kitchen to be used by community-based food entrepreneurs to produce and sell healthy and affordable food to residents in food deserts.³⁴ The Works, Inc. used the funds to open a farmers market and a grocery store within a food desert.³⁵ The grocery store includes a community education component that facilitates access to healthy food and provides nutrition advice to customers.

Other Federal Incentives

A variety of other federal incentives can be used to finance the development of food retailers, though they are not limited to food desert relief efforts. Examples include New Markets Tax Credit (NMTC), the Opportunity Zone (OZ) program, and the Community Food Project Competitive Grant Program (CFPCGP). All three have the potential to improve access to healthy food retailers.

As a way to encourage private investment in low-income and underserved communities, the federal government annually allocates up to \$3.5 billion in NMTCs—providing a tax credit against federal income taxes in exchange for investment in eligible low-income communities, which includes food

³¹ Community Development Financial Institution Fund. “State Awards.”

³² National Alliance of Community Economic Development Associations 2014.

³³ United States Department of Agriculture. “CED HFFI Grant Awards.”

³⁴ United States Department of Health and Human Services 2013a.

³⁵ United States Department of Health and Human Services 2013b.

deserts. Since 2003 in Tennessee, at least two awards have helped finance development projects located in food deserts that include grocery stores—the already mentioned Curb Market at Crosstown Concourse in Memphis as well as the Mazfresco Market at Plaza Mariachi in Nashville. Individuals or businesses can invest in low-income communities in exchange for a tax credit equal to 39% of the original investment, which can be claimed over the course of seven years.³⁶

The Community Food Project Competitive Grant Program (CFPCGP) provides “funding to assist low-income individuals and communities in developing local and self-reliant food systems.”³⁷ Each project can receive up to \$400,000 over four years and requires a dollar-for-dollar match in resources. Three Tennessee organizations have received CFPCGP grants, two of which primarily used it to improve healthy food access and education in rural communities,³⁸ and the other one went to Vanderbilt University in 2009 for a study aimed at improving access to healthy food in Middle Tennessee and Metro Nashville Davidson County.³⁹

An Opportunity Zone is another federal incentive designed to drive economic investment to low-income communities—established through the Tax Cuts and Jobs Act of 2017. In exchange for taking investment earnings that would otherwise be taxed and reinvesting them in low-income communities that have been designated as opportunity zones, an investor can pay no taxes on these earnings if they remain invested in the opportunity zone for at least 10 years.⁴⁰ This tax incentive is still in its first year but may provide an avenue for additional investment in food deserts.

State

In addition to private and federal funding sources, several states have appropriated their own funds to finance the development of food retailers in food deserts. Although the program proposed in Public Chapter 795, Acts of 2018, would have relied on a dedicated revenue stream, other states have used the general appropriations process to fund retailers. Twelve states have passed laws creating healthy food financing programs, though only 10 of the 12 have funded them. In these states, funding has ranged from \$150,000 in Minnesota in 2015 to approximately \$5 million in Michigan in 2018. Although they have not passed legislation creating their own state programs, Illinois, New Jersey, Pennsylvania, and South Carolina have appropriated funds to CDFIs to finance food desert relief

In addition to private and federal funding sources, several states have appropriated their own funds to finance the development of food retailers in food deserts.

³⁶ New Markets Tax Credit Coalition 2016.

³⁷ United States Department of Agriculture 2017d.

³⁸ 2009 award to Appalachian Native Plants, Inc. Mountain City, Tennessee; 2013 and 2016 awards to Rural Resources, Inc. Greenville, Tennessee. United States Department of Agriculture. “Current Research Information System.”

³⁹ United States Department of Agriculture. “Farm Fresh Music City.”

⁴⁰ Tennessee Department of Economic and Community Development. “Opportunity Zones.”

projects. While seven of the states that have appropriated funding require follow-up reporting or evaluation, not all do.⁴¹ See table 3.

Table 3. Funding Provided by State Governments to Finance the Development of Food Desert Relief Projects

State	Amount	Program Created by State vs. CDFI	Requires Follow Up Reporting?
Alabama	\$300,000 in 2018	State	Yes
Florida	\$500,000 in 2016	State	Yes
Illinois	\$10 million in 2012	CDFI	No
Louisiana	\$1 million in 2016 \$1 million in 2017	State	Yes
Massachusetts	Will launch the program with \$2 million in 2018	State	Yes
Michigan	\$5 million in 2018	State	No
Minnesota	\$150,000 in 2017 and \$250,000 for 2018 and 2019	State	Yes
New Jersey	\$3 million in 2009	CDFI	No
New York	\$10 million from Empire State Development	State	Yes
North Carolina	\$250,000 in 2015 and \$250,000 in 2016	State	No
Ohio	\$2 million in 2016	State	Yes
Pennsylvania	\$10 million in 2004, 2005, and 2006 (\$30 million total)	CDFI	No
South Carolina	\$250,000 in 2016	CDFI	No

Source: TACIR staff analysis of other state’s laws and budget documents.

⁴¹ TACIR staff analysis of other state’s laws.

There are other incentives for retail development in Tennessee, including payments in lieu of taxes (PILOT). As explained in a 2018 Tennessee Advisory Commission on Intergovernmental Relations report, PILOT agreements can be used to “reduce or eliminate a business’s tax obligation on real or personal property or both.”⁴² Using PILOT agreements to encourage the development of food retailers in food deserts may not be feasible in every community because state law, as recommended by the Commission, requires cooperation among all affected local tax jurisdictions when considering PILOT agreements for retail businesses. However, some communities in Tennessee are already doing so. Memphis and Shelby County—through the Economic Development Growth Engine of Memphis and Shelby County (EDGE)—are currently using PILOT agreements to encourage the development of food retailers in food deserts. EDGE offers a Community Builder PILOT designed “as a tool to help spur revitalization of distressed neighborhoods, by attracting retail, office, industrial, or other commercial projects.”⁴³ Under this program, four⁴⁴ of the eight recipients are pursuing the opening of a grocery store in a food desert. In one instance, a PILOT was approved to fill a vacant grocery store building. Southgate Shopping Center in Memphis entered into a PILOT agreement with EDGE to address a vacancy rate of 39%, which includes the recent closing of a supermarket. Consistent with EDGE policy, the owners of the property received 75% property tax abatement for 15 years, which totaled \$1,159,291.

Healthy food financing incentives in other states have encouraged investment in grocery stores and similar food retailers in food deserts.

Efforts to encourage investment in healthy food have resulted in the opening of healthy food retailers in food deserts. A report summarizing the accomplishments of a CDFI that received \$30 million in appropriations from Pennsylvania as seed money for food desert relief projects found that it financed the development of 88 retail locations and “improved access to healthy food” for 400,000 Pennsylvanians.⁴⁵ Healthy Food for Ohio, through a CDFI, funded 12 projects with a total investment of over \$5 million.⁴⁶ The state of Minnesota provided \$250,000 in 2018—awarding 14 grants. Unlike Ohio, Minnesota’s program has “focused on upgrading and expanding existing infrastructure rather than building new retail

Using PILOT agreements to encourage the development of food retailers in food deserts may not be feasible in every community because state law, as recommended by the Commission, requires cooperation among all affected local tax jurisdictions when considering PILOT agreements for retail businesses. However, some communities in Tennessee are already doing so.

⁴² Tennessee Advisory Commission on Intergovernmental Relations 2018.

⁴³ Economic Development Growth Engine for Memphis and Shelby County. “Community Builder Payment-in-Lieu-of Tax (PILOT).”

⁴⁴ The four PILOT recipients are MLB Uptown, Binghampton Gateway Center, Frayser Gateway, and Southgate Center.

⁴⁵ The Food Trust 2012.

⁴⁶ Email correspondence with Anne Geggie, Vice President of Lending, Healthy Food for Ohio, Finance Fund, August 24, 2018, and Cara Penry, Communications Manager, Healthy Food for Ohio, Finance Fund, August 27, 2018.

Residents of food deserts don't necessarily shop at new stores after they open.

locations (likely due in part to the limited funding available),” according to a 2018 report by the Minnesota Department of Agriculture. The average award amount for 2017 was \$18,750.⁴⁷

It is unclear whether opening new or expanding existing food retailers in food deserts leads to improvements in diet or health.

Despite increased investment in food retailers resulting from public and private healthy food financing efforts, research has not consistently demonstrated that simply opening new or expanding existing stores results in measurable improvements in diet and health or reduces the actual costs of obtaining healthy foods for residents of food deserts. For example, a 2014 study of one grocery store opened in a food desert in Philadelphia found that it “did not lead to changes in reported fruit and vegetable intake or body mass index,”⁴⁸ and a 2015 study of a grocery store opened in a Pittsburgh-area food desert concluded that it was unclear whether observed changes in diets in the community were directly associated with the new store.⁴⁹ While these studies analyzed only two projects, neither found a direct link between opening a new retail store and changes in diet and health—Commission staff found only two studies that have evaluated the dietary and other health effects of any of the 88 projects in Pennsylvania.

Also in 2015, both a nationwide study and a study evaluating the introduction of a new grocery store in two New York City neighborhoods found that living closer to a large grocery store or supermarket does not consistently lead to healthier eating or outcomes.⁵⁰ Moreover, residents of food deserts don't necessarily shop at new stores after they open. Studies in 2013, 2014, and 2015 found that although residents had access to a new closer store, many people continued shopping at the stores they previously used.⁵¹

In addition to studies evaluating the opening of grocery stores, the Centers for Disease Control and Prevention (CDC) conducted an evaluation of the Communities Putting People to Work Nashville Corner Store Initiative, which aimed to increase availability to healthy food in Nashville, Tennessee by selecting five corner stores and working with them to develop a healthy food strategy. The study found that corner stores in Nashville made only modest improvements to produce offerings, and few people purchased these fresh fruits and vegetables.⁵² A representative for the Food Trust,

⁴⁷ Hugunin 2018.

⁴⁸ Cummins, Flint, and Matthews 2014.

⁴⁹ Dubowitz et al. 2015.

⁵⁰ Rahkovsky and Snyder 2015; Elbel et al. 2015.

⁵¹ Sadler, Gilliland, and Arku 2013; Cummins, Flint, and Matthews 2014; and Elbel et al. 2015.

⁵² Larson et al. 2013.

the nonprofit organization that runs the program, said that participants in the Healthy Corner Store Initiative usually receive a grant, need technical assistance, and need to be held accountable to ensure they keep fresh food on the shelves, adding that it takes them longer to become sustainable.⁵³

Other Means for Increasing Access to and Promoting the Consumption of Healthy Food

While food desert relief efforts generally focus on encouraging the development of food retailers, there are a number of other alternatives available to improve food access and encourage healthy eating. Efforts include making food more accessible through transportation to a store or bringing the food to the consumer, subsidizing the cost of fruits and vegetables for consumers, and promoting nutrition education. Some research indicates that without an emphasis on education and community outreach, simply having access to nutritious food is less likely to lead to citizens purchasing, properly preparing, and consuming it.⁵⁴

Transportation

Several stakeholders who were interviewed by Commission staff said that a lack of transportation is an important issue for many living in food deserts.⁵⁵ There is little analysis of transportation initiatives. The extra distance people living in food deserts travel to reach grocery stores represents added travel expenses and time. But there is research that shows over 90% of those in low-income areas (not just food deserts) find a ride to the store at least once a week, regardless of distance.⁵⁶

An article by Ver Ploeg and Rahkovsky in 2016 says that “efforts to bring down the cost of transportation to stores or home delivery may accommodate store choice more efficiently than installing a new supermarket.”⁵⁷ Examples of transportation initiatives include Ride Guide in Madison, Wisconsin, which provides a ride guide that indicates routes that will get a rider to over 20 grocery stores in the city.⁵⁸ Duluth, Minnesota has the S1 Grocery Express, which provides a dedicated grocery store bus

While food desert relief efforts generally focus on encouraging the development of food retailers, there are a number of other alternatives available to improve food access and encourage healthy eating.

⁵³ Phone interview with Brian Lang, Director, National Campaign for Healthy Food Access, the Food Trust and Cassandra Williams, Senior Vice President, Community & Economic Development, Hope Enterprise Corporation, March 28, 2018.

⁵⁴ Larson et al. 2013; Ghosh-Dastidar et al. 2014; and Brinkley, Raj, and Horst 2017.

⁵⁵ Interview with Jason Adkins, Environmental Coordinator, Trevecca Nazarene University, May 17, 2018; Dr. David Padgett, Professor of Geography/Environmental Justice, Tennessee State University, April 6, 2018; Daniel Aisenbrey, Public Health Education, Knox County Health Department, March 29, 2018; and Emily Bidgood, Executive Director, Appalachian Resource Conservation and Development, April 19, 2018.

⁵⁶ Testimony by Jackie Yenerall, Population Health Economist, Tennessee Department of Health, at the TACIR May 4, 2018 commission meeting.

⁵⁷ Ver Ploeg and Rahkovsky 2016.

⁵⁸ City of Madison 2018.

Initiatives in several states have attempted to address the food access issue by bringing fresh fruits and vegetables directly to the consumer, sometimes in the form of a mobile farmers market or a grocery delivery service.

route.⁵⁹ The Ride to Groceries in Genesee County (Flint), Michigan also provides a transit authority bus to pick people up and take them to various grocery stores for \$3.50 each way and is discounted to \$2.25 for seniors.⁶⁰ Though these initiatives are innovative, it is unclear whether they have improved health outcomes.

Mobile Market and Food Delivery

Initiatives in several states have attempted to address the food access issue by bringing fresh fruits and vegetables directly to the consumer, sometimes in the form of a mobile farmers market or a grocery delivery service. For example, the Grown to Go Mobile Market in Richmond, Virginia operates “as a partnership between Shalom Farms and the Richmond City Health District” and “serves communities across Richmond by selling fresh, affordable, locally-grown produce to community members who have limited access to healthy food.”⁶¹ Grown to Go Mobile Market operates a predictable and consistent schedule at 11 different locations throughout Richmond. Another urban initiative is Freshest Cargo San Francisco, California, which brings locally grown fresh fruits and vegetables to communities in the form of a mobile farmers market.⁶²

In rural Opelika, Alabama, the owner of Wright’s Market⁶³ has been a leader in mobile grocery delivery and is one of nine companies involved in the new Supplemental Nutrition Assistance Program (SNAP) online ordering program, which serves the homebound and elderly.⁶⁴ Wright’s Market offers curbside pickup, delivery of groceries, and provides a shuttle service to and from the grocery store in their 15 passenger van.⁶⁵ This may be particularly useful for rural communities where populations are less dense.⁶⁶

Although mobile food markets and delivery brings fresh food to consumers and has been perceived as helpful for those individuals, some efforts to implement this type of intervention have not been sustainable. A mobile market started by a graduate student at Vanderbilt University in Nashville did not continue after a year of service because the cost of doing business was too high. The Nashville Food Project struggled to provide regularly scheduled hours and locations. Its representatives said that consistency and reliability over time are critical to success.⁶⁷

⁵⁹ Duluth Transit Authority 2018.

⁶⁰ Mass Transit Authority Flint, Michigan. “Ride to Groceries.”

⁶¹ Shalom Farms 2018.

⁶² Fresh Approach 2018.

⁶³ Wright’s Market 2018.

⁶⁴ United States Department of Agriculture 2017c.

⁶⁵ Nickel 2016.

⁶⁶ Ramirez et al. 2017.

⁶⁷ Interview with Nashville Food Project staff—Malinda Hersch, Associate Director; Booth Jewett, Food Donations Coordinator and Christa Ross, Meals Director, April 4, 2018.

In Dayton, Ohio and Atlanta, Georgia, farmers markets are set up at or near major public transit centers. These include The Market at Wright Stop Plaza in Dayton, Ohio and The Fresh MARTA Market in Atlanta, Georgia, which hosts produce stands at four of their MARTA transit locations. Each offer some additional services like cooking demonstrations or 2-for-1 SNAP bucks.⁶⁸

Newer models of food delivery include the new SNAP pilot program, where home-bound and elderly SNAP recipients are eligible to use their SNAP dollars to have their groceries home-delivered. Currently, Tennessee is not a participating state.⁶⁹ Retail grocers, including Amazon Whole Foods, Kroger, and Publix, are beginning to offer home-delivery. Also, services offered by independent shopping and delivery companies, including Shipt and Instacart, provide home delivery and are continually expanding their service areas.⁷⁰

Vouchers for Fruits and Vegetables

Some programs encourage participants to purchase healthy foods by subsidizing their cost. Federal programs include the USDA's Food Insecurity Nutrition Incentive (FINI) grant program, which supports projects to increase the purchase of fruits and vegetables among low-income consumers participating in SNAP by providing incentives at the point of purchase. In Tennessee, these are SNAP Double-Up, which allows SNAP users in communities with participating farmers markets to double up to \$20 worth of fruits and vegetables, and the Fruit and Vegetable Prescription Program, which recently operated as a pilot project in northeast Tennessee and provided vouchers for fruits and vegetables.⁷¹ This program provides \$1 per day per household member in produce prescriptions redeemable for fresh produce at farmers markets and grocery stores.⁷²

Included in the 2014 Farm Bill, the FINI grant program is designed to empower SNAP recipients to make healthy choices when shopping for groceries. Between 2014 and 2018, \$90 million in grant funding was made available, which required a dollar-for-dollar match.⁷³

Grants are awarded

- up to \$100,000 for pilot projects not to exceed one year,

Some programs encourage participants to purchase healthy foods by subsidizing their cost.

⁶⁸ Homefull Solutions 2018 and Marta. "The Fresh MARTA Market."

⁶⁹ Participating states include Alabama, Iowa, Maryland, Nebraska, New Jersey, New York, Oregon, and Washington. United States Department of Agriculture 2017c.

⁷⁰ Shipt 2018 and Redman 2018.

⁷¹ Tennessee Department of Human Services 2017.

⁷² Wholesome Wave 2018.

⁷³ Fitzgerald 2018.

Programs like SNAP Double-Up and the Fruit and Vegetable Prescription Program encourage low-income residents to purchase healthy food.

- up to \$500,000 for multi-year community-based projects not to exceed four years, and
- \$500,000 or greater for multi-year large-scale projects not to exceed four years.⁷⁴

FINI grant projects include the ability to process SNAP purchases at farmers markets, double up programs that allow SNAP recipients to purchase twice as many fresh fruits and vegetables, a mobile market to deliver fresh fruits and vegetables, a fruit and vegetable prescription program, and several other projects.⁷⁵

Farmers markets help both farmers and consumers.⁷⁶ Programs like SNAP Double-Up and the Fruit and Vegetable Prescription Program encourage low-income residents to purchase healthy food. A 2017 report by the Farmers Market Coalition found that those receiving incentives through the FINI program either reported increasing their consumption or purchasing of fruits and vegetables as a result of the program.⁷⁷ Another farmers market voucher-based program operated through the Tennessee DOH is the federal Farmers Market Nutrition Program, which attempts to improve the eating habits of Women, Infants, and Children (WIC) families and senior citizens by giving them small vouchers to purchase fresh produce—limited to fruits, vegetables, and herbs grown in Tennessee. WIC families receive four \$5 vouchers per year, and senior citizens receive seven \$5 vouchers per year.⁷⁸ In 2013, a review of the literature on the Farmers Market Nutrition Program found some evidence of an increase in fruit and vegetable consumption as a result of this program, but health outcomes were mixed or not measured.⁷⁹ Another study in 2018 found that these programs increase farmers market shopping among SNAP recipients.⁸⁰

Education to Encourage Healthy Eating

Some attempts to address the needs of people living in food deserts have included incorporating education and community outreach when supporting the development of food retailers. For example, the Illinois Facilities Fund—a CDFI that provides grants and loans for grocery stores and similar entities in several Midwestern states—requires that each of its

⁷⁴ United States Department of Agriculture 2015.

⁷⁵ Ibid.

⁷⁶ United States Department of Agriculture 2016.

⁷⁷ Farmers Market Coalition 2017.

⁷⁸ Tennessee Department of Health. “Farmers Market Nutrition Programs.” WIC participants in the FMNP must be a resident of Coffee, Hickman, Knox, Lincoln, Madison, Maury, Moore, Rutherford, or Sullivan county in Tennessee and meet gross household income guidelines. Senior participants in the FMNP must be a resident of Davidson, Dyer, or Shelby county and participate in the Commodity Supplemental Food Program or be a resident of Hamblen or Warren county in Tennessee and meet gross household income guidelines.

⁷⁹ Byker et al. 2013.

⁸⁰ Freedman et al. 2018.

projects include “a community engagement component through which the grocer will establish relationships outside the store with community institutions or other groups, in order to engage the community in improving shopping and eating habits and establish mutually beneficial events and activities that bring informed and interested shoppers into the store.”⁸¹ It is unclear whether the education and outreach requirement has resulted in greater consumption of fruits and vegetables.

There are also federally supported food education programs. SNAP-Education, for which the Department of Health and Human Services is the administering agency in Tennessee, is the nutrition promotion and obesity prevention component of SNAP. It works through coalitions of state and local stakeholders to promote nutrition and physical activity through activities including marketing campaigns and nutrition education classes. A 2013 report from the USDA that evaluated the nationwide SNAP-Education program found an average increase of fruit and vegetable consumption between .24 and .52 cups per day per participant.⁸² The recommended amounts are two cups for fruit and two and a half cups for vegetables.⁸³ A 2017 annual report from the Family and Consumer Sciences Department in the Institute of Agriculture at the University of Tennessee Extension reported that 86% of participants in the SNAP-Education program improved healthy food choices.⁸⁴ Two state agencies help implement SNAP-Education—Tennessee State University Cooperative Extension and the University of Tennessee Agricultural Extension Service. They also implement the Expanded Food and Nutrition Education Program, which works to change nutrition and physical activity behaviors of low-income families through staff visits to the home of participants, particularly the homes of families with young children.⁸⁵

SNAP-Education works through coalitions of state and local stakeholders to promote nutrition and physical activity through activities including marketing campaigns and nutrition education classes.

Access to Health through Healthy Active Built Environment Grant Program

A smaller program in Tennessee—the DOH Access to Health through Healthy Active Built Environment Grant program—is designed to make healthy food options more accessible and promote outdoor physical activity by enhancing public spaces across the state.⁸⁶ In 2018, the program awarded the town of Unicoi \$85,000 for the construction of a farmers market pavilion and nutrition program on the grounds of the town’s

⁸¹ Illinois Facilities Fund. “Healthy Food Access Fund Program Guidelines and Loan Application Form.”

⁸² United States Department of Agriculture 2013.

⁸³ United States Department of Health and Human Services and United States Department of Agriculture 2015.

⁸⁴ University of Tennessee Knoxville 2017.

⁸⁵ United States Department of Agriculture. “Tennessee State SNAP-Education Program.”

⁸⁶ Tennessee Department of Health. “TDH Announces Communities Funded by Access to Health through Healthy Active Built Environment Grants.”

already existing Mountain Harvest Kitchen, which in 2018 received a Tennessee Municipal League Excellence in Entrepreneurial Leadership Award,⁸⁷ and a walking campaign that pairs educational seminars with outdoor activity.⁸⁸ It is too soon to determine the success of this program.

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⁸⁷ Tennessee Municipal League 2018.

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