



FOOD FINANCING IN WASHINGTON, D.C.

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Food Financing in Washington, D.C.

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Disclaimer

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Honor Pledge

On my honor as a University of Virginia student, I have neither given nor received unauthorized aid on this assignment.

A handwritten signature in black ink that reads "Julian Payne". The signature is written in a cursive, flowing style.

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List of Acronyms

ANCs – Advisory Neighborhood Commissions

CDFI – Community Development Financial Institution

CSA – Community Supported Agriculture

HFFI – Healthy Food Financing Initiative

HHS – Department of Health and Human Services

SNAP – Supplemental Nutritional Assistance Program (formerly known as “food stamps”)

USDA – United States Department of Agriculture

WIC – Special Supplemental Nutrition Program for Women, Infants, and Children

Key Terms and Definitions

Community Development Financial Institution (CDFI) – A CDFI, is an organization whose mission is to provide low-income communities with financial assistance (*CDFI Fund, n.d.*).

Food Desert – Areas that are low-income with low-access to food stores (*Ploeg & Rhone, 2019*)

Food Insecurity – a situation in which residents of a household either do not have, or are unsure of having enough food to meet the needs of all members of the household (*Coleman-Jensen et al., 2019*)

Food System – All the economic activities that occur regards to food: production, processing, distribution, retail, and waste management (*Richman, 2011*)

Leakage – Spending and wealth that leaves a neighborhood as consumers go elsewhere to buy food, a way to measure unmet food demand (*DC Food Economy Study 2019, 2019; Gross et al., 2012*)

Low-Access – With respect to food deserts, the USDA defines low-access areas as census tracts where either at least 500 people or one-third of the population is farther than one mile from a supermarket (*Ploeg & Rhone, 2019*)

Low-Income – With respect to food deserts, the USDA defines low-income areas as census tracts with either a higher than 20% poverty rate or tracts where the median family’s income is “less than or equal to 80% of the metropolitan area’s median family income” (*Ploeg & Rhone, 2019*)

Normal Good – A good that as a person’s income increases their consumption of that good increases

Executive Summary

In 2018, 14 million American households were food insecure, meaning that at some point during that year they were unsure they would or were unable to meet the dietary needs of all members of the household (*Coleman-Jensen et al., 2019*). As of right now, an estimated 19 million low-income Americans live in an area without adequate access to fresh or affordable food (*Rhone, 2019*). Broadly, issues of food insecurity and food deserts (areas with low-income and low access to grocery stores) are closely tied to poverty and racial disparities. These issues are also associated with poor economic and health outcomes.

In the District of Columbia, one in seven households are food insecure and the areas that have low access to food disproportionately impact low-income and predominantly Black communities (*Hayes, 2017; Morgan, 2018*). Ward 7 and Ward 8 of D.C. are underserved as the result of an inequitable food system. Over three-quarters of D.C.'s food deserts can be found in Wards 7 and 8 (*Smith, 2017*). The lack of opportunity to access healthy, affordable food combined with the disadvantages of low incomes and high unemployment harms the community's health, economic, and equity outcomes.

Capital Impact Partners is in the process of developing a D.C. Food Initiative that will provide loans and technical assistance to entrepreneurs in these communities with the purpose of creating a more equitable food system. This report analyzes the following potential activities as focus areas for investment:

1. Food Retail Activities
2. Entrepreneurship Activities, Capacity Building, and Technical Assistance Activities
3. Farm-to-table Innovations and Supply Chain Activities

These alternatives were evaluated on the criteria of cost-effectiveness, equity, and community alignment. Effectiveness in this analysis focused primarily on the economic outcome of job creation. Equity focused on how well the alternatives increased food access in marginalized communities. Because food issues are so closely tied to poverty, an investment in the food system is doubly successful if it both increases healthy food access and job opportunities. Based on these criteria, the focus of the D.C. Food Initiative should be supporting Farm-to-Table Innovations and Supply Chain Investments (Alternative 3). This alternative in particular had the highest community alignment, suggesting that investments in these activities will thrive in the communities that are the most in need.

Client Mission

Capital Impact Partners is a Community Development Financial Institution (CDFI) dedicated to lifting up underserved communities through loans and investment. As a CDFI, Capital Impact has received funding for healthy food projects with the aim of improving overall community well-being through more equitable food systems. Capital Impact is hoping to serve Washington, D.C. by forming the necessary partnerships to create a fresh food fund (DC Food Initiative) that would finance projects at any level of the food system which in turn would address the problem by both increasing access and economic opportunity.

Currently, D.C. does not have a fresh food fund. Capital Impact would like to establish a public-private partnership to make the vision of a D.C. Food Initiative a reality. As highlighted in the background of this report, the D.C. food system is in need of investment in order to better serve the community.

“What we need is the recognition that food represents heritage, love, faith, healing and family pride. Food builds community and helps reduce social isolation.” (Bare, 2013)

PROBLEM STATEMENT

Washington D.C.'s food system leaves Ward 7 and Ward 8 underserved. One in seven households in D.C. are food insecure, with a disproportionate number of these households in Ward 7 and Ward 8 (*Hayes, 2017*). Over three-quarters of D.C.'s food deserts can be found in Wards 7 and 8 (*Smith, 2017*). The lack of opportunity to access healthy affordable food combined with the disadvantages of low incomes and high unemployment harms the community's health, economic, and equity outcomes.

Background

In 2018, 14.3 million American households were food insecure at some point (*Coleman-Jensen et al., 2019*). Food insecurity means that at some point in the year, members of a household either did not have, or were unsure of having enough food to meet the needs of all members of the household (*Coleman-Jensen et al., 2019*). In 2019, 19 million Americans lived in an area with low-access to a food store (*Rhone, 2019*). For many Americans, there is a significant amount of anxiety attached with the ability to procure and afford food.

INTRODUCTION TO FOOD DESERTS

Much of the recent policy attention has been focused directly on food deserts.¹ Food deserts are defined as areas that are both low-income and low-access [to grocery stores] (*Ploeg & Rhone, 2019*). Low-access for urban areas means that a significant portion of the population is more than one mile away from a supermarket or grocery store (*Ploeg & Rhone, 2019*). Low-income is defined as an area with a poverty rate that is higher than 20 percent or where the median family income is below 80 percent of the surrounding area's median (*Dutko et al., 2012*). Within this definition of food deserts, two unique phenomena are captured: both accessibility and affordability of food. Food deserts are a useful starting point to examine the phenomenon of difficulty with food access, however, there is a larger story of poverty behind the food desert phenomenon.

There are several other characteristics of areas that are food deserts worth noting. Most of these relationships are only confirmed as correlated, but it is important to note the factors that compound on food deserts.

- Worse health outcomes - One important relationship is that residents of food deserts tend to have worse health outcomes, with higher levels of obesity, higher risk for heart disease and other chronic diet-related illnesses (*Larson et al., 2008; Mobley et al., 2006; National Research Council, 2009*).

¹ See Appendix 1 for a discussion on the use of the term "food desert." I have chosen to use the term in this report as the technical term that USDA uses, but acknowledge the broader conversation surrounding food issues.

- **Poverty-** There is also a strong relationship between lack of access to food stores and poverty. Areas with higher levels of poverty are much more likely to be food deserts (*Dutko et al., 2012*). Residents of food deserts are more likely to receive welfare and more likely to be unemployed (*Dutko et al., 2012*).
- **Poor Infrastructure-** These same areas often lack other important resources including transportation, banks, healthcare, and parks (*Dutko et al., 2012*). Urban areas in particular tend to have stores with fewer healthy food options and that are relatively more expensive despite lower quality (*Walker et al., 2010*).
- **Racial inequity -** There are also inequitable racial and socioeconomic components to food deserts; minority neighborhoods are much more likely to be food deserts and predominantly Black neighborhoods specifically have less access to grocery stores (*Dutko et al., 2012; Walker et al., 2010*).

Food deserts encapsulate a broader phenomenon of poverty. This is important to note because these factors of poverty are often found together and compound on one another. For instance, a low-income household without access to affordable fresh food may then spend more of their limited searching for food (taking away from valuable time that could have otherwise been spent working). Alternatively, low-income household may choose easier to access food that is less healthy, resulting in poorer health outcomes and increasing medical expenses. In urban food deserts, unemployment is 60 percent higher than non-food desert areas meaning that even if residents wanted to buy fresh food, they may not be able to afford it, perpetuating this cycle of food insecurity, poverty, and poor health outcomes (*Dutko et al., 2012*). In order to break this cycle, food is a major way to make community-centered changes. Investing in the food system directly addresses both food security and economic outcomes by bringing both fresh food and jobs into underserved communities: one grocery store alone can create up to 200 jobs (*PolicyLink, 2001*). In this way, investments in the food system can both increase the overall health of a community both through job creation and bringing an essential daily resource to underserved communities. This report focuses on these important economic and community benefits of food system investments.

CAUSES OF FOOD DESERTS

Much of the discussion on the causes of food deserts focuses on limiting factors in the market. In a traditional economic model, usually demand and supply determine the price and quantity of a good that is appropriate for society. However, we can see that something about this model begins to fall apart with food deserts. Traditional economics would either say that there is not enough demand (consumers do not demand fresh food) or that there is some kind of disincentive for suppliers to serve certain areas. This debate has played out with regard to food deserts as well, but is very difficult to determine due to a lack of well-defined

information on both consumer preferences and supplier decisions (*Bitler & Haider, 2011; Ploeg et al., 2009*).

Consumer Side

On the consumer side, the economic model suggests that there is simply not a preference for healthy food. However, some researchers note that there are constraints on residents of food deserts such as time, information, and income which therefore may present their preferences as disinclined toward healthier foods (even if this is not the case) (*Bitler & Haider, 2011*). Some evidence suggests that when there is cheap fresh food, or additional fresh food space in markets, people consume more of it (*Bodor et al., 2008; Weatherspoon et al., 2013*).

Much of the policy concern on this consumer side is related to the benefits of healthy food, and the hope that an increase in healthy food habits would reduce obesity (so as to avoid some of the other health related issues associated with obesity). However, some research suggests that even if consumption of fruits and vegetables increases, this usually does not have an effect on peoples' health outcomes because there would need to be a greater reduction of less healthy foods as well (*Ploeg et al., 2009*). Unfortunately, this means that a significant aspect of this health specific problem is related to a community's overall knowledge of healthy food and deeply engrained habits. The most thorough and recent economic research on fresh food markets and food deserts concluded that only about 10 percent of nutritional changes comes from supply-side tactics (such as increasing availability and affordability of fruits and vegetables) (*Allcott et al., 2019*). The other 90 percent of nutrition habits is driven by the consumer (*Allcott et al., 2019*).

An in-depth qualitative study found that the highest barrier to fruit and vegetable consumption was taste (preference) for low-income African American residents in Philadelphia (*Lucan et al., 2010*). Other high salient factors were cost, health, convenience and availability (*Lucan et al., 2010*). Some research has experimented with Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) recipients in incentivizing and restricting choice to healthier foods. These kinds of programs were found to significantly increase fruit and vegetable consumption (*Bartlett et al., 2014*). Other research has focused on the consumers' price sensitivity, finding that when consumers in urban food deserts are presented with normally priced fresh produce they bought it (*Weatherspoon et al., 2013*). These findings seem to confirm the "affordability" aspect of the food desert problem, implying that if residents had more income, they might buy healthier foods. Healthy food is what economists call a "normal" good, meaning that as a person's income increases, they demand more of the good. Wealthy people tend to consume more of normal goods which means that suppliers of normal goods then move into wealthier areas. This then explains why higher income areas have more access to food stores (*Ploeg et al., 2009*).

Supply Side

On the supply (grocery store/food retail) side of the market however, there are still some failures. Some suggest that supermarkets simply lack accurate and necessary purchasing data in low-income communities so as to be able to properly serve these communities (*Ploeg et al., 2009; Weatherspoon et al., 2013*). There has also been some postulation that there are other barriers preventing grocery stores from moving into neighborhoods such as zoning laws and crime (*Bitler & Haider, 2011*). Other access related factors for residents have included assessments of public transportation and availability of vehicles (*Dutko et al., 2012*). Many of these studies have tried to establish some market failure in terms of why supply has not met a demand for fresh food. Other studies are less optimistic that the solution is as simple as increasing supply. Additionally, the hope that health outcomes would be improved simply by providing the opportunity to buy fresh food seems overly optimistic. A more holistic approach would look at improving the overall economic wellbeing of a community.

Due to the complex nature of this issue, many policy experts have begun to emphasize the importance of community-level food projects (*Dutko et al., 2012; Ploeg et al., 2009*). Projects oriented at the community specific level can address both the culture surrounding food consumption, supply side barriers, and also address these broader poverty issues.

FOOD DESERTS AND FOOD INSECURITY IN WASHINGTON, D.C.

Many of the compounding factors that occur with food deserts are also true of Ward 7 and Ward 8 of D.C. (Wards depicted in Figure 1). One recent report using 2015 census data estimates that only about 3.4 percent of D.C. qualifies as both low-income and low-access (and thus a food desert). However, once information about transportation is included, this number increases significantly to 25 percent (*Rhone et al., 2019*). Others estimate that 11 percent or 6.5 square miles of D.C. is a food desert (*Smith, 2017*). However, this is noteworthy as over 50 percent of that area is in Ward 7 and Ward 8 (*Smith, 2017*) (Figure 2).

Of the 72 grocery stores in the District, only three of them can be found in Wards 7 and 8 (*DC Food Economy Study 2019, 2019*)

Furthermore, Ward 7 and Ward 8 have characteristics resembling the average characteristics of other urban food deserts. Over 90 percent of the population of the area is Black. About 13.8 percent of the families are below the federal poverty line. The median incomes in this area are significantly lower than the rest of D.C. (*DC Health Matters, 2019b, 2019a*). The gap between household median income for white residents and Black residents in D.C. is close to a \$100,000 discrepancy (*DC Health Matters, 2020; Morgan, 2018*) (Median Incomes depicted in Figure 3). In addition, on average many of the outcomes used to assess equity are

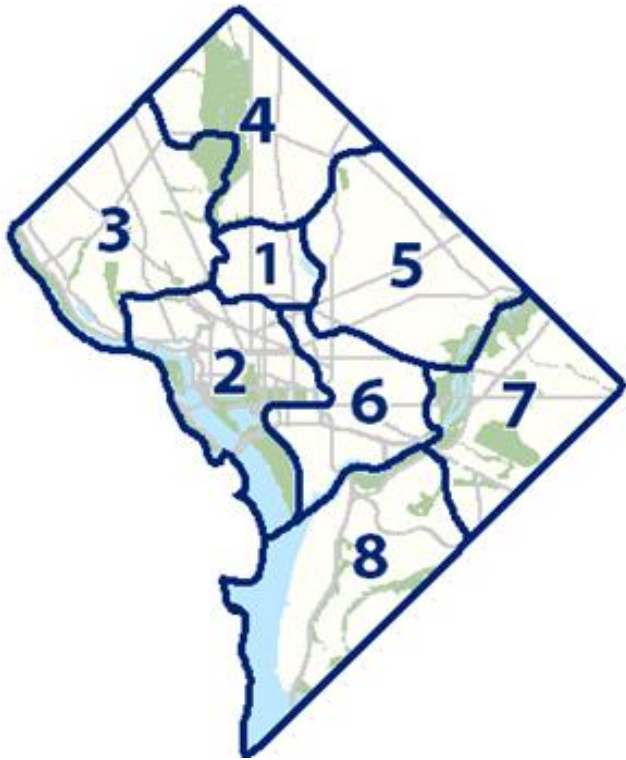
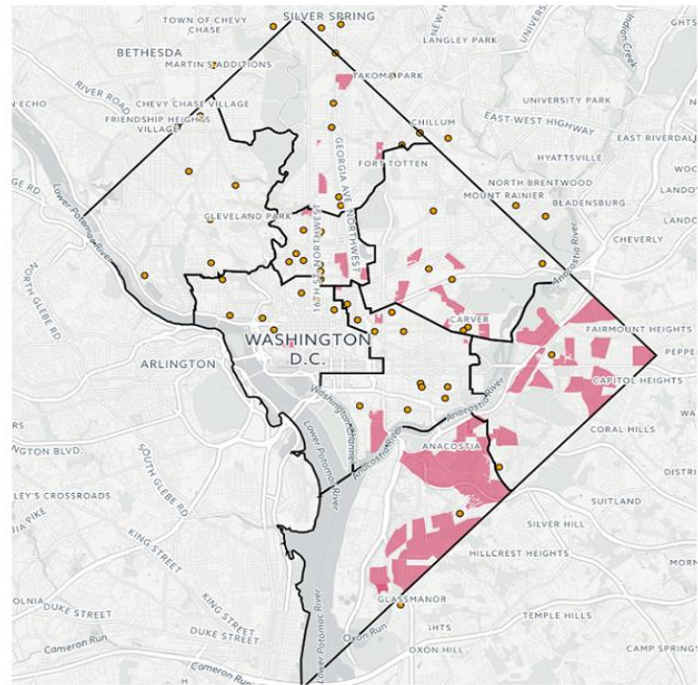


Figure 1: Ward Map of DC (DC Office of Planning)



Source: D.C. Policy Center

Figure 2: Food Deserts with grocery store location (D.C. Policy Center)

significantly lower in this area. Again, while these are not a *result* of food deserts, it is important to note the relationship between poverty and equity factors and the limited access and affordability of fresh food in the area. Wards 7 and 8 have the lowest life expectancy of any other area in D.C. (72 and 74 respectively) and is 15 years shorter than the wealthier areas of D.C. (the national average is 78.5) (Arno, 2019; Molieri & Sanders, 2016; World Bank, 2017). In terms of health, Wards 7 and 8 have the highest rates of diabetes and the highest rates of obesity (31.4 percent and 43.6 percent respectively) which is close to twice the DC average (Arno, 2019; DC Hunger Solutions, 2010) (Figure 4). Unemployment in the District of Columbia is also higher than the national average and was highest in Wards 7 and 8 with rates exceeding 20 percent and 30 percent in one neighborhood (Arno, 2019).

Taken together, these factors show that there is a significant amount of inequity, much of which interacts deeply with the community's ability to afford and access fresh food. Additionally, this disparity between Ward 7 and Ward 8 and the rest of D.C. seems to have been growing in recent years. One study that used characteristics such as unemployment, share of population with high school degrees, and share of single-mother households, researchers identified "challenged" neighborhoods in D.C. In 1990, 60 percent of the neighborhoods identified as "challenged" in the District were east of the Anacostia River. Now this number is closer to 80 percent (Schwabish & Acs, 2015). While the rest of D.C. has been improving, Wards 7 and 8 have had increasing concentrations of poverty. In D.C., approximately 14.5 percent of residents (1 in 7 households) are food insecure (Morgan, 2018).

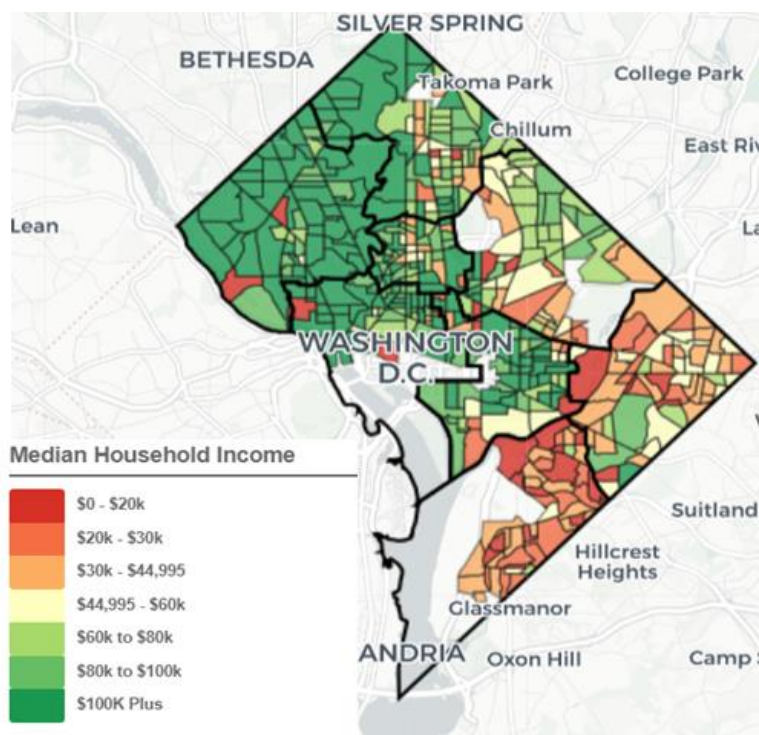


Figure 3: Median Household Income (D.C. Policy Center)

District Adults who were Obese by Ward, DC BRFSS 2017

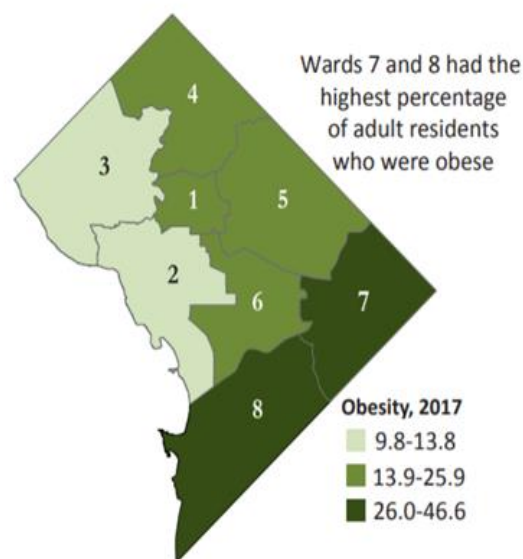


Figure 2: Adult Obesity (D.C. Behavioral Risk Factors Surveillance System, 2017 Annual Health Report)

More than a straightforward supply-side approach to providing food, an overall revitalization of a community's economic status would reduce food insecurity because as people have more income, they are better able to afford basic needs. Additionally, there is evidence that suggests this area has a demand for food that is not being met. In D.C., the demand for food and beverage exceeded supply by about \$75 million (*DC Food Economy Study 2019, 2019*). This suggests that there is a certain amount of “leakage” which is spending and wealth that leaves a neighborhood as a result of limited supply in that given neighborhood.²

Due to the many factors that are found with food deserts, it is important to look holistically at a community's food systems as a whole, and engage with the community on how to best to improve these systems. Food systems include all the economic activities with regards to food: production, processing, distribution, retail, and waste management (*Richman, 2011*). Many policy experts emphasize the importance of community-level food projects (*Dutko et al., 2012; Ploeg et al., 2009*). Projects oriented at the community specific level can address both the culture surrounding food consumption, supply side barriers, and also address these broader poverty issues.

“There is an untapped demand for fresh fruits and vegetables. Unlocking the demand requires understanding that food access is about relationships, not transactions. Also, price matters.” (Bare, 2013)

² See Appendix 2 for additional graphics that complement this section

Literature Review

As national attention drew toward food deserts and food access in the early 2000s and especially during President Obama's administration, policymakers came together with many innovative ways of supporting the overall food system. One policy centered around closing the "grocery gap" that occurs in food deserts was food financing. Food financing involves using public-private partnerships to bring fresh food into low access neighborhoods. One of the first of these programs was the Pennsylvania Fresh Food Financing Initiative. The success of this program subsequently led to the development of many more Food Financing programs (*The Food Trust, 2015*). Many food funds developed at the state and local level, but in 2011, the Obama Administration started at a national level the Healthy Food Finance Initiative (HFFI) (*The Food Trust, 2015; U.S. Department of Health and Human Services, 2019*). Maintained by the United States Department of Agriculture (USDA), the United States Treasury, and the Department of Health and Human Service (HHS), the HFFI was designed to address food deserts and bring fresh food into communities in need. In the program's first three years, over \$500 million in grants and tax cuts were dedicated to decreasing food insecurity (*U.S. Department of Health and Human Services, 2019*).

OVERVIEW OF FOOD FINANCING

Food financing combines a few key stakeholders to create an investment fund for a community's food system. These stakeholders usually include a government, a Community Development Financial Institution (CDFI), and a food access organization or associated food organization (such as a food policy council) (*Lang et al., 2013*). Typically, the government provides some form of seed funding to kickstart the program. The government then joins with the CDFI to secure the total amount for the fund (*Lang et al., 2013*). A CDFI, is a certified organization that operates essentially as a bank but for communities in need. CDFIs provide loans, grants, and technical assistance to local entrepreneurs and businesses who are helping to support overall community growth (*Richman, 2011*). As such, in the food financing model, these CDFIs are largely responsible for raising capital and determining which local entrepreneurs and businesses to invest in (*Lang et al., 2013*). The last partner is any kind of community advocate for fresh food that is established in the area (*Lang et al., 2013*). In some cases, this might be a non-profit, a local food policy council, or any other kind of organization that promotes healthy food in the area. Once the food fund is established, these partners conduct outreach and seek applicants for loans (*Lang et al., 2013*). These applicants are community members who are entrepreneurs or businesses involved in the food system, which includes food production, processing, distribution, retail, and waste management (*Richman, 2011*).

Components of a Food Fund



Government provides
seed fund



CDFI raises capital and
manages fund



Food policy council and community
provide input on program design

A CASE STUDY: THE PENNSYLVANIA FRESH FOOD FINANCING INITIATIVE

The FFFI was a public-private partnership between the Commonwealth of Pennsylvania and the Reinvestment Fund (a CDFI) that began in 2004 and ended in 2010 (*Lang et al., 2013; Reinvestment Fund, n.d.-a; The Food Trust, 2015*). The Reinvestment Fund, with help from private investors, put forward \$117 million dollars to match the State's \$30 million seed fund (*Evans, 2010*). The project created about 5,000 jobs, benefitted at least 27 different counties, and increased food access for more than 400,000 people (*Evans, 2010; PolicyLink, 2001*). Within Pennsylvania, Philadelphia in particular saw noticeable results. Much of attention on food deserts has also focused health outcomes, particularly childhood obesity. In recent years, childhood obesity has begun to decline; however, that decline has been very unequitable, disproportionately lagging in communities of color and low-income communities (*Robert Wood Johnson Foundation, 2013*). The only city to successfully significantly reduce obesity rates in these subpopulations was Philadelphia (*Bell et al., 2013*). It is difficult to say how much of the success is directly attributable to the FFFI, but the city did take a highly multi-faceted approach to improving its food system including Get Healthy Philly (a nutrition education and wellness activity initiative), community farmers markets, community gardens, healthier food options in bodegas, and the FFFI funding grocery stores in areas of need (*Bell et al., 2013*).

OPTIONS FOR INVESTMENTS

There are several community establishments, practices, and models that could increase fresh food access. Below several of these kinds of activities and solutions are highlighted, each of which is a potential model for investment under a food financing program. Included, is what kind of work has been done on these kinds of projects in D.C.

Grocery Stores

One way to invest very directly in healthy food is to build grocery stores. Some of the limitations of this option include land availability, time and complexity associated with construction, funding, and high requirements for a consumer base (*PolicyLink, 2001*). This

can be an intensive but also straightforward way to reduce food deserts and increase healthy options. Additionally, grocery stores can help boost the number of job opportunities in a community: one grocery store can create up to 250 new jobs (*Lang et al., 2013*).

In 2018, the D.C. City Council passed legislation incentivizing grocery store construction by increasing tax exemptions for grocery stores and sit-down restaurants built in Wards 7 and 8 (*“Food System Assessment 2018,” 2019*). The results of this policy are yet to be seen and further funding may be needed to actually establish grocery stores in the area. Currently, of the 72 grocery stores in D.C., only three are in Wards 7 and 8 (*DC Food Economy Study 2019, 2019*). This suggests that the tax incentive has not yet had an impact. However, it is clear that grocery stores have an overall positive economic impact on a community through job creation and overall economic activity (*Bell et al., 2013*).

Update existing corner stores

Other policies have focused on incentivizing partnerships that bring fresher and healthier food options to existing convenience and corner stores. Improving existing stores can also be a cost efficient way to improve access to healthy foods, sometimes only requiring less than \$100,000 in assistance for equipment (*PolicyLink, 2001*). This approach can also be aimed at making corner stores eligible to accept SNAP and WIC which requires carrying certain fresh foods items (*USDA Food and Nutrition Service, n.d.*). By upgrading these stores to accept these payments, consumers suddenly have more options that are closer to them (*Flournoy, 2010*).

In partnership with the DC Central Kitchen, DC has taken this approach and successfully doubled the number of corner stores with healthy options since 2013 (DC Central Kitchen, n.d.-c; *“Food System Assessment 2018,” 2019*) (See Figure 5 for current number of healthy corner stores). As a result, 64 percent of the customers reporting eating healthier (*“Food System Assessment 2018,” 2019*).

Co-ops

Co-ops are similar to grocery stores in that they are centered around food retail, but they are customer or worker owned and more democratically run (*Grocery Stores and Co-Ops, n.d.*).

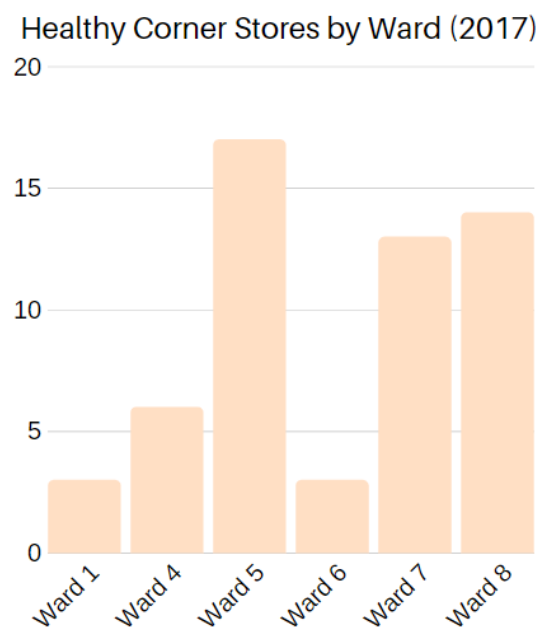


Figure 3: Healthy Corner Store Participants by Ward (Food System Assessment 2018)

These organizations are typically committed to supporting the community through additional education programs and partnerships with local farmers. This model for food retail gives a significant of autonomy back to the community that it operates in, but is very complex and requires a lot of capital and input from its members (*Grocery Stores and Co-Ops*, n.d.). Food co-ops seem not to have been widely implemented in D.C. (*LocalHarvest*, n.d.-b).

Central Kitchens

Central kitchens, food accelerators, and food incubators are all centered around the premise that businesses come together to use a central space in order to reduce start-up costs or retail space expenses. These shared spaces are large areas where food can be prepared and then are often taken elsewhere such as schools, pantries, or to seniors (*DC Central Kitchen*, n.d.-a; *FreshWorks*, 2018). One of the best examples of this is the DC Central Kitchen whose mission is to “combat hunger and poverty through job training and job creation” (*DC Central Kitchen*, n.d.-a). A central part of this model is the additional technical assistance and training offered in this join community space.

Mobile Markets

Mobile markets combine the idea of farmers markets with food trucks and other mobile food vendors (*Mobile Markets*, n.d.). These programs are frequently partnered with other kinds of technical assistance programs that help ensure the business models of these entrepreneurs are successful (*Mobile Markets*, n.d.).

An example of this in D.C. is the Arcadia Mobile Market which provides fresh, local food to underserved communities around D.C. (*Mobile Market*, 2019). This program offers additional support to community by accepting SNAP, WIC, Senior Farmers’ Market Nutrition Program (FMNP) vouchers, and additional Bonus Bucks program and the DC Produce Plus Program (*Mobile Market*, 2019). Additionally they engage in a variety of community engagement and education programs to help promote a more equitable food system (*Mobile Market*, 2019). These kinds of programs help move high quality and affordable food into areas that are otherwise underserved.

Farmers Markets

Farmers markets are a relatively low cost and low space option for increasing food availability (*PolicyLink*, 2001). Farmers markets can also be easily paired with food “bucks” incentive programs that can be spent only on fresh food. Farmers markets can strengthen economies by giving farmers and producers the ability to engage directly in food retail. Farmers markets can also be designed to accept SNAP or other food voucher programs.

In D.C., there are 62 farmers markets total, however many of them are only open for certain days and certain months (*“Food System Assessment 2018,” 2019*) (See Figure 6 for Farmers Markets by Ward). This somewhat limits the consistency of farmers markets’ service. However, they do also offer affordable options. Many of D.C.’s farmers markets partner with a “food bucks” program called Produce Plus. Produce Plus gives certain eligible residents (SNAP, Medicaid, TANF, Medicare, WIC, and SSI Disability recipients) up to \$20 a week to spend at farmers markets (\$10 for two visits) (*Produce Plus Program, n.d.*). In 2018, the program distributed \$877,185 and saw \$832,170 of that amount redeemed by over 9,041 different participants (*DC Greens, 2019*). Over half of D.C.’s farmers markets participate in Produce Plus and three-quarters accept SNAP and the Farmers’ Market Nutrition Program (*“Food System Assessment 2018,” 2019*).

Urban Agriculture and Community Gardens

Urban agriculture includes everything from smaller community gardens to large indoor urban farms. These kinds of projects can very directly bring food into a community, create jobs, or otherwise engage a community in the food system (*PolicyLink, 2001; USDA, 2016*). Community gardens have been widely used throughout D.C.: the number of community gardens doubled between 2010 and 2017 (*“Food System Assessment 2018,” 2019*) (See Figure 7 for Community Gardens by Ward). Additionally, urban agriculture has been a priority DC which has a tax credit program to encourage landowners to use property for agricultural

Farmers Markets by Ward (2017)

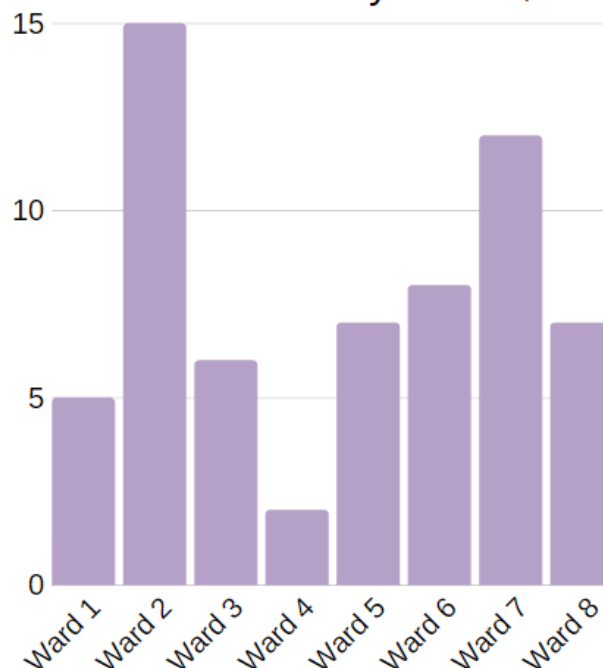


Figure 4: Farmers Markets in D.C. (Food System Assessment 2018)

Community Gardens by Ward (2017)

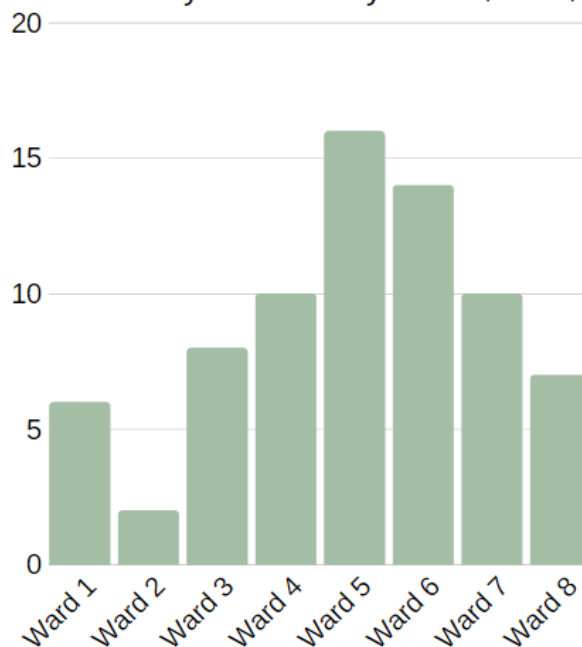


Figure 5: Community Gardens in D.C. (Food System Assessment 2018)

purposes (*Department of General Services, n.d.*). D.C. is also a member of the Milan Urban Food Policy Pact, which is an agreement to promote certain healthy food policies, including urban agriculture (*"Food System Assessment 2018," 2019; Milan Urban Food Policy Pact Home, n.d.*) (See Figure 8 for Urban Farms by Ward). However, D.C. has also experienced some of the typical difficulties with urban agriculture which includes proper land access, costs, soil quality, and infrastructure (*USDA, 2016*). In 2013, then Mayor Vince Gray announced a greenhouse project that would be built in Ward 8 (*Shank, 2013*). Unfortunately, after two years of road blocks including high costs and pollution, the greenhouse ended up being built in Culpepper, Virginia hurting both Ward 8's access to fresh food and opportunities for jobs (*Pipkin, 2016*). Otherwise, community gardens and urban agriculture are an innovative and sustainable method for bringing fresh food directly into communities in need.

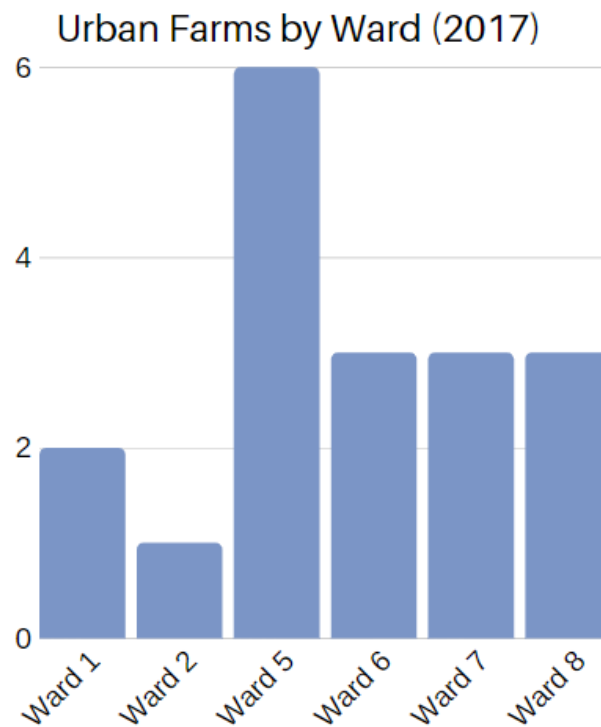


Figure 6: Urban Farms in D.C. (*Food System Assessment 2018*)

Community Supported Agriculture (CSA)

Community supported agriculture (CSA) is a way to form partnerships with local farmers. These operate as an association of consumers who buy food directly from producers (*Healthy Food Access, 2020*). This can be a successful way to support local producers but on the consumer side may involve higher costs with little control over what kind of food they receive (*Healthy Food Access, 2020*). Most of the CSA options available in D.C. come from farms in Virginia or Maryland (*LocalHarvest, n.d.-a*).

Food Hubs

A food hub is a business model that combines food aggregation, processing, and distribution in order streamline steps in the food system between producers and consumers (*Food Hubs, n.d.*). Food hubs are one way in which food can be brought into a community that has low-access to healthy options while also providing employment opportunities (*Clark et al., 2019*). Research on these kinds of business models has been very preliminary as they are a relatively new concept, but data shows that it is important for food hubs to have good data on

consumer preferences, high-quality financial data, and support from local partners (*Clark et al., 2019; Food Hubs, n.d.*). One example of this is Common Market in Philadelphia Pennsylvania. Common Market aggregates food from local farms and then distributes them to anchor institutions such as hospitals, schools, and grocery stores, at least 25% of which is aimed at serving communities in need (*Food Hubs, n.d.; The Common Market: About Us, 2020*). One of the DC Food Policy Council's 2019 priorities was to create some kind of similar supply chain processing center (like a food hub) which they had identified as an important need (*DC Food Policy Council, 2019*). The University of the District of Columbia's Center for Sustainable Development and Resilience has been pioneering Urban Food Hub models across D.C., focusing on food production, preparation, distribution, and waste and water recovery (*University of the District of Columbia, n.d.*).

INTRODUCTION TO ALTERNATIVES

The D.C. Food Initiative, if established, would have a main objective related to supporting community food system activities. While several of these activities are not mutually exclusive, I will be analyzing which of the following alternatives should be the highest priority for the D.C. Food Initiative. There are many different kinds of projects that would impact the food system and the community but I will be focusing on these three areas: 1) food retail investment, 2) entrepreneurship and capacity building, and 3) farm-to-table innovations.

Once a D.C. Food Initiative is established, Capital Impact will begin the process of outreach, creating a loan and assistance application, defining eligibility criteria, and developing the necessary complementary technical assistance for participants. Each of these materials will be clearly defined around a main objective.

After this mission has been defined, and applications have been submitted, Capital Impact is capable of providing support in the following ways: debt and loan offerings from \$5,000 to \$5,000,000, non-debt financial assistance, forming accelerator cohorts, one-on-one counseling and technical assistance, and facilitating peer-to-peer exchange and learning. Each of these activities fits within the main mission; however, some types of assistance may be more relevant than others.

Each of these proposed alternatives is a different central mission which will change the recruitment process for loan recipients and in turn will result in community members doing different activities. While there are several distinct kinds of activities, the specific organization and model will be created in conjunction with local community members and organizations. Capital Impact has already established itself within the D.C. community and has started the dialogue to determine what the community wants. This conversation will continue once a D.C. Food Initiative is established as community members and organizations apply for loans. However, Capital Impact also has the opportunity to focus investments on a main activity, which are broken down into the following alternatives.

Alternatives

ALTERNATIVE 1: SUPPORT FOOD RETAIL INVESTMENT

This alternative focuses on revitalizing a community through investing in food retail and grocery stores in underserved areas. The activities in this alternative includes building grocery stores, investing and updating local corner stores, and helping establish co-ops. These stores become an anchor for communities that promote fresh food and healthy eating, while also being run by community members. For this alternative, loans would be provided to local business owners in food retail.

Case Study 1: In 2013, The Reinvestment Fund funded the building of a ShopRite in West Baltimore, Maryland (opened in August 2014). This was a high need area lacking access to fresh food, with 20 percent of families in poverty and many without a car. In addition, this particular area also faced a leakage issue where an estimated \$60.9 million of spending on food annually happened outside the community. After \$14.65 million in financing, the ShopRite was built, providing fresh food (SNAP and WIC accepted), creating 250 jobs, and adding a health clinic and pharmacy into the community (*Reinvestment Fund, n.d.-b*).

Case Study 2: Capital Impact Partners reinvested in an Imperial Market in Detroit, Michigan. This project supplied \$6 million for a renovation that doubled the size of the store. This resulted in an increase in 50 new hires and additionally brought fresh food and a sense of community to northwest Detroit (*Capital Impact Partners, n.d.*).

While these two examples differed in scope, each one successfully increased access to fresh food while also granting a community more options and creating job opportunities. This alternative would be carried out by centering outreach and eligibility criteria around food retail and store investment.

ALTERNATIVE 2: SUPPORT ENTREPRENEURSHIP ACTIVITIES, CAPACITY BUILDING, AND TECHNICAL ASSISTANCE

This alternative focuses on giving entrepreneurs the support and expertise needed in order to be successful contributors to the healthy food system. Activities within this alternative can include capacity building, technical assistance, cohort building, and incubation. Specifically, this model includes ventures such as mobile markets, central kitchens, and food incubators. Loans would be provided for partners that specialize in these activities.

Case Study 1: LA Prep is a project that supports food entrepreneurs and young businesses by providing space and resources for start-ups. LA Prep partners with LA Kitchen, an organization that uses food that would otherwise be waste to create meals that then go to shelters, seniors, and other organizations. This model is based on the DC Central Kitchen.

The LA Prep project involved over \$20 million in investment, but resulted in 270 local jobs and significantly reduced startup costs for food entrepreneurs (*FreshWorks, 2018*). (Note: this project was also funded and managed in part by Capital Impact Partners)

Case Study 2: The Chef Space is an incubator in Louisville that helps develop and connect food businesses by providing kitchen space and counseling. This program has enabled over 65 entrepreneurs to start food related businesses, 12 of which have graduated to brick and mortar stores around Louisville. This project also helped create 400 full-time and part-time jobs. Funding information was not readily available (*Chef Space, 2019; Community Ventures, n.d.*).

The central activity in this alternative is supporting organizations that are interested in developing food entrepreneurs through a myriad of development activities. This would most directly help address equity by lifting up local community members by providing them with the support and expertise needed to make a lasting impact of the food system within their community. In addition, this alternative serves a broad range of people by lowering startup costs for food entrepreneurship so that entrepreneurs can serve the community with affordable meals. Central Kitchens also engage a higher number of community members in food creation, which then brings more food businesses into an area and gives people the necessary skills to fill the jobs created by these businesses. Likewise, the technical assistance and community support provided in the mobile market model helps ensure the success of these businesses who are then able to directly bring themselves and their food into underserved areas.

ALTERNATIVE 3: SUPPORT FARM-TO-TABLE AND SUPPLY CHAIN INVESTMENT ACTIVITIES

This alternative focuses on activities that address multiple levels of the food system (production, processing, distribution, retail, and waste management). These kinds of projects work up the supply chain to give communities more autonomy overall in their healthy food choice. Examples of activities that address multiple aspects of the food systems include farmers markets, urban agriculture and community gardens, Community Supported Agriculture (CSA), and food hubs. This alternative would provide loans to organizations at any level of the food system (not just food retail).

Case Study 1: The Colorado Enterprise Fund provides funding to a variety of businesses and activities that are within the fresh food system. This includes food production companies, stores, and agriculture projects. This is the broadest of these categories, but on average, the Colorado Enterprise Fund saw 8 jobs created per loan (*Colorado Enterprise Fund, 2020*). Through their Healthy Food Fund and investments all across the food supply chain, they

created an estimated 200 jobs through 53 loans totaling over \$3.5 million (*Foundation Healthy Foods Fund Receives Grant*,” 2018).

Case Study 2: Another example is the Haley House in Boston. This organization combines the services of a soup kitchen/food pantry, with a housing program, a partnership with urban farms, education and training, and a social community café. This organization encompasses many aspects of inequity and ties them together as one central unit that bolsters economic independence. This organization has been an establishment in the community since 1966, and serves over 36,000 meals per year (*Haley House*, 2014).

These kinds of activities are very disparate in their approach, but overall, this alternative would focus on applicants who are capable of working to improve at least two levels of the food system. This creates more overall autonomy over the entire food process, while bringing more healthy food options into the community.

TABLE 1: ALTERNATIVES SUMMARY

Alternative 1: Retail	Alternative 2: Technical Assistance	Alternative 3: Supply Chain
Grocery Stores	Central Kitchens and “Food Incubators”	Farmers Markets
Updating Corner Stores	Mobile Markets	Urban Agriculture/Community Gardens
Co-ops		Community Supported Agriculture (CSA)
		Food Hubs

Criteria

Cost Effectiveness:

The main effectiveness outcome of interest is the community's overall economic status because of the close association of food deserts and poverty. In order to measure economic status, this alternative examines the creation of job opportunities as an economic benefit in an area with high unemployment. Effectiveness, therefore, is measured by the number of jobs that the project creates as a tangible impact on a community's economic sphere. Costs is the amount spent on a project in dollars. Cost effectiveness is then the per dollar value per job created for each project. These cost effectiveness estimates are taken from a limited number of case studies so should be taken as rough estimates. Cost varies greatly with each program design and scale, so ultimately this criterion is ranked low, medium, high due to the variability and rough estimates of each case study. The total amount spent through the D.C. Food Initiative will be constant no matter what focus is selected; however, the dollar value of each job created may be different given the types of projects. Additionally, it should be noted that job creation is not the only benefit from these projects, but it is one of the highest priority outcomes as it has the most tangible impact on the community's economic wellbeing.

Equity:

One of the main identified issues within the food system is that there is an inequitable distribution of resources which excludes certain communities from being able to access and afford fresh food. Equity refers to ensuring that groups usually marginalized will be gaining better access to the food system than the current baseline. This criterion assesses each alternative on these two important factors (access and affordability) with reference to marginalized residents of Ward 7 and Ward 8 of D.C. This includes all those that are currently living in food deserts. This alternative is assessed qualitatively on a spectrum of low, medium, and high.

Community Alignment:

As an essential part of community development, it is important that the selected projects for the D.C. Food Initiative give the community autonomy over their own food systems. As a part of this Capital Impact is ensuring that this project aligns with the community's objectives and needs. Community alignment is essential for project success and empowering the community. Capital Impact seeks to place the community at the center of all of their projects and supply the necessary resources to achieve the community's goals. Capital Impact has already begun interviewing community members and stakeholders to assess the community's priorities. This criterion qualitatively assesses each alternative with reference to how well it fits with what the community has voiced as its needs and wants, and the amount of autonomy and flexibility that each alternative grants the community. Alternatives are ranked low, medium, and high.

Evaluation of Alternatives

ALTERNATIVE 1: SUPPORT FOOD RETAIL INVESTMENT AND ANCHOR STORES

Cost Effectiveness

Investments in food retail can happen at both very large scales and very small scales. At the larger scale, the Pennsylvania Fresh Food Financing Initiative made \$190 million of investment resulting in 5,023 jobs across for a cost effectiveness of \$52,700 per job (adjusted for inflation) (*Reinvestment Fund, n.d.-a*). At the smaller scale, the Imperial Market in Detroit case study had a cost effectiveness of \$132,300 per job (*Capital Impact Partners, n.d.*). Other estimates suggest that a full-service supermarket creates somewhere between 100-200 jobs (*PolicyLink, 2001*). These estimates are likely on the higher side as smaller investments in local corner stores would likely be less costly, but they would also have fewer jobs. Given these estimates, this alternative ranks **medium-low** on cost effectiveness.

Equity

Grocery stores tend to operate at very tight margins because major grocery store retailers have been able to drive down prices in ways that many local store owners are not able to (*Economy League | Greater Philadelphia, 2019*). In low-income areas, stores tend to have more expensive and lower quality food options (*Walker et al., 2010*). As a result, investing in food retail can have a significant impact on both access and affordability. Food deserts are defined by these factors of access and affordability in relation to supermarkets and grocery stores, so investing in food retail directly addresses the food desert equity issue (*Ploeg & Rhone, 2019*). In addition, food retailers can serve recipients of SNAP and WIC, which makes up a significant portion of Ward 7 and Ward 8 residents, further addressing the affordability aspect of equity. The main caveat to this alternative's ability to address equity is that increased access does not inherently equate to increased consumption of fresh food, whereas more heavily community-based projects may have more influence on community behavior (*Allcott et al., 2019; Dutko et al., 2012*). This alternative ranks **medium-high** on equity.

Community Alignment

While there was little mention of specific food retail activities on the DC Food Policy Council's list of priorities, establishing a Healthy Food Retail Investment Fund was their top priority (and will continue to be in 2020) (*DC Food Policy Council, 2019*). Any kind of investment done in this space would require a concerted effort to include the community in the process. Previous attempts at more corporate approaches of food retail have been met with some resistance and suspicion such as the new Lidl Grocery Store in a Ward 7 shopping center (*Goff & Neibauer, 2017; Miller, 2019*). Other more community-oriented stores such as

the Good Food Markets (which makes a point of only employing D.C. residents), have generated more positive reception (*Hayes, 2017; Simons, 2019*). There is additional support for these kinds of activities from the D.C. government. The city government has made incentive programs for both improving corner stores and offering tax breaks for building grocery stores or sit-down restaurants in Ward 7 and Ward 8 (*“Food System Assessment 2018,” 2019*). These representative bodies of the community suggest that there is some alignment between community members and food retail activities. This alternative ranks **medium** on community autonomy.

ALTERNATIVE 2: SUPPORT ENTREPRENEURSHIP ACTIVITIES, CAPACITY BUILDING, TECHNICAL ASSISTANCE

Cost Effectiveness

While it is difficult to directly estimate the effects of technical assistance and entrepreneurship activities, I have estimated the costs of central kitchen-type projects. These kinds of activities often come in the form of incubator kitchens that allow innovators the opportunity to start their businesses at a relatively low cost. These then in turn allow those innovators to hire more community members as their business grows. Based on case studies, the cost effectiveness of these kinds of activities can range from \$77,000 per job created to \$12,400 or \$1,100 per job created (*Aldrige, 2016; Crunchbase, n.d.; FreshWorks, 2018; Union Kitchen, n.d.*). From these rough estimates, we can see that this is relatively lower than costs incurred with direct food retail investment. However, it is important to note the relative longevity and internal costs of the projects associated specifically with the food incubator case studies selected. Some of these projects are costly to participants, and not all innovators will graduate to brick and mortar stores (*Chef Space, 2019; Community Ventures, n.d.*). This alternative ranks **medium-high** on cost effectiveness.

Equity

This alternative is less likely to directly address equity in access with just capacity building or technical assistance. However, based on the program design, many of these kinds of projects serve community members in need with the food created in their spaces. LA Prep, for instance, delivers food to seniors and people at shelters (*DC Central Kitchen, n.d.-a; FreshWorks, 2018*). This can help target both access and affordability by serving community members in highest need. However, this is not a flawless method for access as it may still exclude some community members just by the nature of how the food is distributed, which is an important tenet of access in equity (*Martín & Lewis, 2019*). Affordability of these kinds of program is also variable as they offer entrepreneurs ways to become more efficient, but may not necessarily create lower cost fresh food options across the whole community. The Mobile Market model more effectively addresses access by literally bringing food into a community

and can similarly help with affordability by accepting SNAP and other food vouchers. This alternative ranks **medium** on equity.

Community Alignment

One of the main needs that was noted in the convening that Capital Impact hosted was significant training and resources (Capital Impact Partners, 2018). Additionally, developing a DC Food Processing and Innovation Center “central kitchen” was on the DC Food Policy Council’s priority list (a solution which would potentially overlap with Alternative 3) (DC Food Policy Council, 2019). It should be noted, that two of these models are already operating in D.C. with both the DC Central Kitchen and Union Kitchen (*DC Central Kitchen, n.d.-a; Union Kitchen, n.d.*). These spaces empower entrepreneurs while also serving the community’s needs for fresh food. The priority from the DC Food Policy Council seems to suggest that there is room to expand these activities more broadly across the city. Depending on the model of the project, this alternative can involve numerous entrepreneurs, schools, and community members. As examples, the LA Prep space has 54 commercial kitchens available for use while the DC Central Kitchen graduated 104 people from the culinary training program last year (*DC Central Kitchen, n.d.-b; Elliott, 2015*). Other models are more exclusive and require paid membership. Overall, this because of the variability, this alternative ranks **medium-high**.

ALTERNATIVE 3: SUPPORT FARM-TO-TABLE AND SUPPLY CHAIN INVESTMENT ACTIVITIES

Cost Effectiveness

The activities in this alternative cover a very broad spectrum, as well as broad cost-effectiveness results. On the higher end, the case study from the Colorado Enterprise Fund had a cost effectiveness of \$175,000 per job (*Colorado Enterprise Fund, 2020*). Another grocery store investment that included broader food system investments, also had higher costs (*Hoban, 2015*). However, this alternative also included the most cost-effective project, the D.C. Union Kitchen case study, that engaged in both food accelerator activities (alternative 2) and food supply chain activities (such as distribution and processing- alternative 3) (*Crunchbase, n.d.; Union Kitchen, n.d.*). Other activities under this alternative also vary greatly in costs. Farmer’s markets, for instance, are one of the lowest-cost kinds of community food projects, although again, there is little job creation with this activity (*PolicyLink, 2001*). There are also significant cost-variant projects such as community supported agriculture (CSAs) and urban farms in which costs can depend on the size of the project (*PolicyLink, 2001*). These also have variant opportunities for jobs which may be low for CSAs and Farmer’s markets, but higher for projects like urban farms (*Pipkin, 2016; PolicyLink, 2001*). Given this wide variability, this alternative ranks **medium** on cost effectiveness.

Equity

Depending on the kind of activity, this alternative can be effective in increasing access in underserved areas. Evidence suggests that where food comes from matters to consumers. An investment in the overall supply chain would bring the kind of food that consumers want closer to them (*Economy League | Greater Philadelphia, 2019*). This is an important aspect of meeting the needs of underserved communities and offering desirable food. By bringing other parts of the food system into the community, you are granting more access to healthy food in the community. These programs can also help with affordability when paired with programs that give community members designated dollars to be spent at places such as Farmer's Markets (*Bell et al., 2013*). Good community-based projects under this alternative would serve the needs of low-income residents (*Kobayashi et al., n.d.*). Additionally, community gardens in particular have shown to increase the number of people eating the suggested amount of fruits and vegetables (*Alaimo et al., 2008; Litt et al., 2011*). This alternative is **medium-high** on equity.

Community Alignment

In the initial reports from stakeholders and community members, there has been a strong emphasis on both business ownership and amplifying community voices. This alternative offers a lot of flexibility with community autonomy. One example of this within the D.C. community is DC Greens, an organization that works on both the community side and producer side of the food system by giving residents dollars to be spent at Farmers Markets (*Capital Impact Partners, 2018; DC Greens: Home, n.d.*). DC Greens' top mission is food justice and giving marginalized communities a voice (*DC Greens: Home, n.d.*). Other programs such as CSAs and community farms are directly run and owned by the community members, granting community members a significant degree of autonomy (*Healthy Food Access, 2020*). Last year, both sustainable supply chains and urban agriculture were listed as top priorities for the DC Food Policy Council (*DC Food Policy Council, 2019*). These two activities fall under this alternative and align well with the local needs. Activities in this alternative grant community members more autonomy over their food options. This alternative ranks **high** on community autonomy.

These alternatives are assessed in the Outcomes Matrix below (Table 2). Each ranking is scaled to a number one through five (one for low and five for high). These numbers were added cumulatively such that the highest-ranking alternative has the highest score. Alternative 3, Supply Chain Investments, has the highest score.

Outcomes Matrix

TABLE 2: EVALUATION OF ALTERNATIVES

	Alternative 1: Food Retail	Alternative 2: Social Entrepreneurship	Alternative 3: Supply Chain
<i>Criteria</i>			
<i>Cost Effectiveness</i>	Medium-Low (2)	Medium-High (4)	Medium (3)
<i>Equity</i>	Medium-High (4)	Medium (3)	Medium-High (4)
<i>Community Alignment</i>	Medium (3)	Medium-High (4)	High (5)
Total Score	9	11	12

Scores scaled from 1 (low) to 5 (high)

Recommendation

I recommend Alternative 3: Support Farm-to-Table and Supply Chain Investments. This alternative aligns best with the community needs and will afford the most autonomy over its food system. This alternative is also relatively equitable, with a score of medium high, serving the communities most in need. While this alternative only has medium cost effectiveness, it is clear that there are many benefits to this alternative which will make these supply chain investments worthwhile.

This alternative also has lots of flexibility for forming strong community ties. The high ranking for community alignment suggests that this alternative has the potential to engage the most community members. This is an additional benefit to this alternative because the higher the number of people who can be incorporated into the food system (whether through community events, jobs, partnerships with schools, or trainings), the larger the impact will be. While some of the options with this alternative (such as community gardens and urban agriculture) might be more time intensive, they can also help bring together and empower community members.

It should also be noted that while these alternatives present unique projects within the community, there may be innovative ways to find overlap among these alternatives. For instance, many of the Central Kitchen and Mobile Market projects also work with local farmers or distribute food specifically to community members in need which blends together elements of multiple alternatives. While supply chain investments should be the priority for the fund, this will not limit the ingenuity of entrepreneurs who apply for funds. The success of this project ultimately hinges on the community partners who are recruited and who apply for loans. These partners may propose projects that combine together elements from one or all alternatives which will all begin to address the inequitable food system in D.C. The true priority will be ensuring that partners have the capital, training, and community support needed to succeed.

“What we need is experimentation with new ownership, supply chain and distribution models to disrupt the existing food systems. What we need is a Food Oasis Movement.” (Bare, 2013)

Implementation

In order to get the DC Food Initiative underway, there will need to be some institutional support from the D.C. Government. To accomplish this, there are many ways Capital Impact can bolster their community relations and engage stakeholders. It is hoped that this initiative will be included in the coming year's budget, but if not, these are some of the following steps Capital Impact can take.

FY2021 Budget and Current COVID-19 Situation

First, in order to get full backing for the DC Food Initiative, there needs to be seed funding included in the Mayor Muriel Bowser's budget. This process is nearing the end as the first vote on the Mayor's budget is set to occur on May 13, 2020. The scheduled budget release was March 19, 2020, however it seems that this has been set back due to COVID-19 (*Government of the District of Columbia Muriel Bowser, Mayor, n.d.*). The City Council hearings on the budget that were supposed to happen throughout March and early April have been canceled as well (*Council of the District of Columbia, n.d.*). It is likely that this process has been greatly disrupted by the current pandemic situation and that normal budgetary procedures have been halted. In the meantime, the Mayor has been using funds to respond to the health emergency. Mobilizing support for the DC Food Initiative right now may prove to be difficult. However, at the same time, the current crisis has exposed several of the weaknesses within the food system. The current moment has exposed many more Americans to the reality of food insecurity, and demonstrates the need for stronger community food systems.

As a result of the pandemic, the Mayor's office has released a list of resources of available food options to community members and many community providers have also jumped in to provide additional support (*Food Resources | Coronavirus, n.d.*). During this time as more people become jobless and in need, it is reassuring that there are many food assistance opportunities. It has also brought to light the importance of having good, healthy fresh food available, and how important a role that grocery stores can play when people are in need. This seems like a good way to make the case to the Mayor on the importance of expanding investment in the food system in particular.

That being said, there may be a delay in getting the necessary institutional support that the DC Food Initiative needs. During this time, I recommend Capital Impact pursue the following steps in order to put itself in the position to advance the DC Food Initiative once the pandemic is over.

Continue to Build Strong Relationships

Capital Impact should continue to build strong relationships with leaders in the community, including the DC Food Policy Council, DC Greens, DC Hunger Solutions, Martha's Table,

DC Central Kitchen, Good Food Markets, among others. Capital Impact has begun interviewing community members in hopes of gathering enough data to conduct a qualitative analysis of what the community would like to do with a DC Food Initiative. Some of these interviews have continued in the current situation, but a renewed effort on the ground will also be beneficial once stay home orders are ended. These interviews will be critical especially if the seed fund for the Food Initiative is not included in next year's budget. This way, Capital Impact can renew their request, but with additional data to make the need for DC Food Initiative clearer. If the process is delayed, Capital Impact can continue to engage with community members through interviews, focus groups, and at DC Food Policy Council meetings. Working with Advisory Neighborhood Commissions (ANCs) would also be a great place to gain insight to each neighborhood in the District. Additionally, I would recommend a snowball method for finding participants so that each meeting can lead to more data.³ This will ensure that my client is getting a wider range of views and perspectives.

Complete a Stakeholder Analysis

Additionally, if there is a situation in which the DC Food Initiative is not included in this year's budget, I would recommend completing a full stakeholder analysis. This would involve looking internally at Capital Impact's closest community partners and mapping the relative influence and interest of each group, as well as considering any stakeholders that would oppose the DC Food Initiative. This will then help Capital Impact develop a more focused strategy when communicating with D.C. government officials about the DC Food Initiative, and would also give insight to why it may not have been implemented yet. The analysis will help Capital Impact organize with partners who are most aligned with the DC Food Initiative in order to ensure this policy is included in the budget next year (FY2022). An example of a key stakeholder whose goals are well-aligned and who has very close ties with the DC City Council is the DC Food Policy Council (a fresh food fund is one of their top initiatives) (*DC Food Policy Council, 2019*). This would be a high interest and high influence stakeholder. DC Greens is another example of a stakeholder who has similar (if not broader) interests in the work that Capital Impact would like to do, and who has the advantage of having already partnered with the DC Department of Health (*Produce Plus Program, n.d.; What Is Produce Plus?, n.d.*). Completing a stakeholder analysis and mapping these partners and adversaries on a scale of interest and influence will give Capital Impact a better idea of how to leverage their own influence.

³ A snowball method involves asking each interviewee and contact for more potential people to interview, that way each interview leads to more data and trust within a community.

Align Initiative with Current Administration's Priorities

Last, it is important to have a knowledge of the current administration's priorities so that when Capital Impact presents the concept to the Mayor's office there is a clear alignment with policy goals. If the DC Food Initiative is not implemented this year, it may be because it was not clear how the DC Food Initiative's goals are aligned with the Mayor's priorities. However, there is good evidence to suggest that the DC Food initiative can be presented in such a way that supports initiatives already in action. For instance, the Office of Planning and Economic Development has been heavily involved in promoting growth in the "Opportunity Zones" identified in Figure 9 (most of which are in Wards 7 and 8) (DMPED, n.d.; *Opportunity Zones in Washington, DC* | Dmped, n.d.). Initiatives under this program have included supermarket tax incentives (a program designed to attract supermarkets to certain neighborhoods) and a neighborhood prosperity fund whose focus will be to reduce unemployment (*Neighborhood Prosperity Fund (NPF)* | *Great Streets*, n.d.; *Supermarket Tax Incentives* | Dmped, n.d.). Within these initiatives there was even a Healthy Food Grant program that put out a request for applications in 2019 (RFA - FY2019 Healthy Food Initiative | Dmped, 2019).

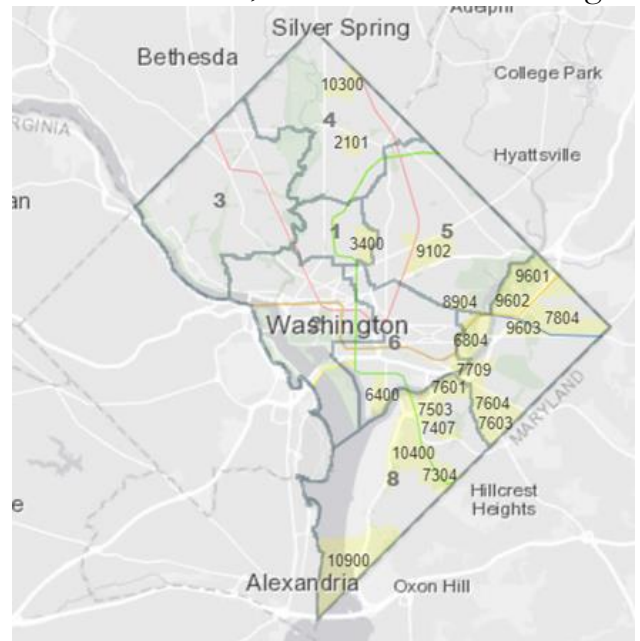


Figure 7: Highlighted Census Tracts are Opportunity Zones (Office of the Deputy Mayor for Planning and Economic Development)

The Mayor is clearly attentive to the issues and opportunities in Wards 7 and 8. Food has been in the past a priority for the administrative and most likely will continue to be. There is also opportunity here to demonstrate that the DC Food Initiative also supports the overall economic growth and job growth mission in this area. Presenting the DC Food Initiative as a broad effort that meets many of the current administration's priorities will help Capital Impact gain the support of the D.C. Government. Capital Impact may also leverage contacts with the DC Food Policy Council and DC Agencies (such as Health and Planning and Economic Development) to better understand how to best advocate for the DC Food Initiative. Capital Impact can also demonstrate that they have already secured funding and sponsors, which will hopefully make it more difficult for the City Council and the Office of the Mayor to ignore this fantastic opportunity.

Implementation of DC Food Initiative

Once Capital Impact has gained the necessary support for the DC Food Initiative, then they will complete the design of the program in conjunction with their consultant and other

lenders. As this process is already under way, this phase of implementation will likely be complete in the next year. After this phase then the second phase of outreach to applicants, selection, and lending begins. The DC Food Initiative is designed to run for five years.

“I wake up dreaming that my neighborhood has been given capital, has been given opportunity, has been given finance, that we can own our stores and businesses. Why is it that outsiders always have to come into our neighborhood to open a business? Why don’t people with capital come into my neighborhood and think about investing in the people who already live here? Give them the capital, give them the means of financial literacy, teach them how to invest, teach them how to own homes, teach them how to own businesses. Give them that chance, instead of coming in and changing the dynamics and the complexion of our neighborhood.”

-Karen Washington, activist and food advocate (Brones, 2018)

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Appendix 1: Food Desert Terminology

I want to more fully acknowledge the discussion around the term “food desert” in this appendix. I have chosen to use it in my report as the term that the USDA uses, and as a technical definition to describe a phenomenon. However, I also acknowledge the criticisms for the term from many food activists. Some of the common arguments against the term are as outlined:

- “Food desert” simplifies a complex issue of systemic and structural inequality (*Brones, 2018; Byrne, 2019*)
- “Food desert” anticipates that the simple solution is just building a grocery store, which is not necessarily the answer to the issue (*Byrne, 2019*)
- Too much of the discussion of food deserts is about how to define them and whether or not they exist. There is a real problem that needs to be fixed outside of what term we use to address it (*Bare, 2013*)
- Food deserts imply that something is lacking, rather than focusing on a community’s potential (*Brones, 2018*)

In this report, I have attempted to illustrate all of the surrounding and systemic issues that affect neighborhoods that are classified as food deserts. Additionally, my focus on community-oriented solutions recognizes how deeply important it is for community members to be involved in creating a better food system. However, if you wish to consider and adopt a term other than “food desert,” some suggest using “low-access communities” and “healthy food priority areas instead” (*Byrne, 2019*). Other activists prefer to more directly address the inherent inequality and deep systemic factors around the issue and use terms such as “food apartheid” and “food oppression” instead (*Brones, 2018; Byrne, 2019; ‘Food Deserts*,’ n.d.*). Any of these terms accurately name the issue, but ultimately the work that matters the most is figuring out how to address this problem and bring fresh, affordable foods into communities.

Appendix 2: Supplemental Figures

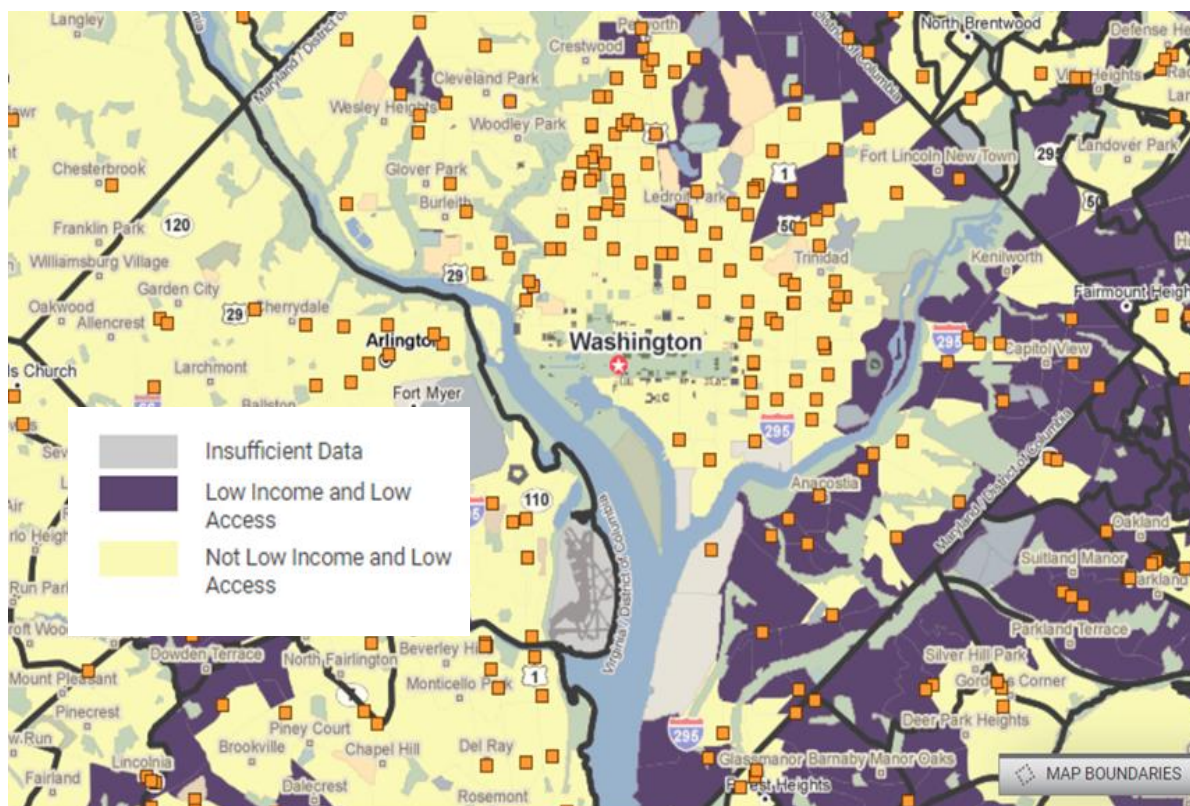


Figure 8: USDA Low-Income Low-Access Census Tracts with Food Store Locations (Policy Map)

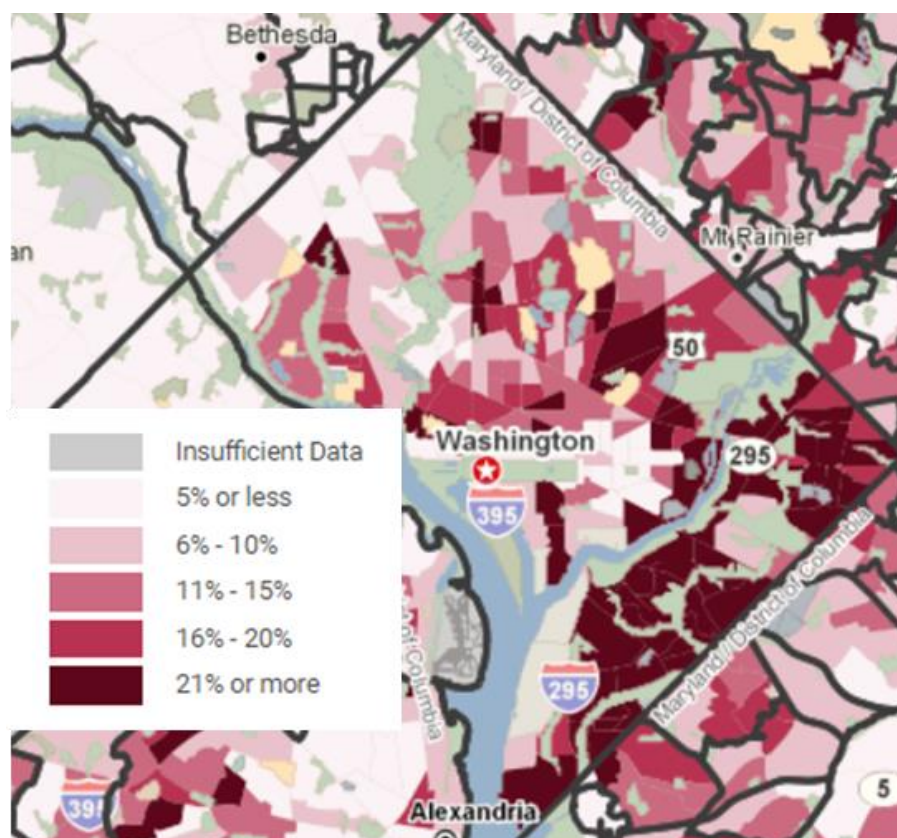


Figure 9: Percent of Persons in Poverty (Policy Map)

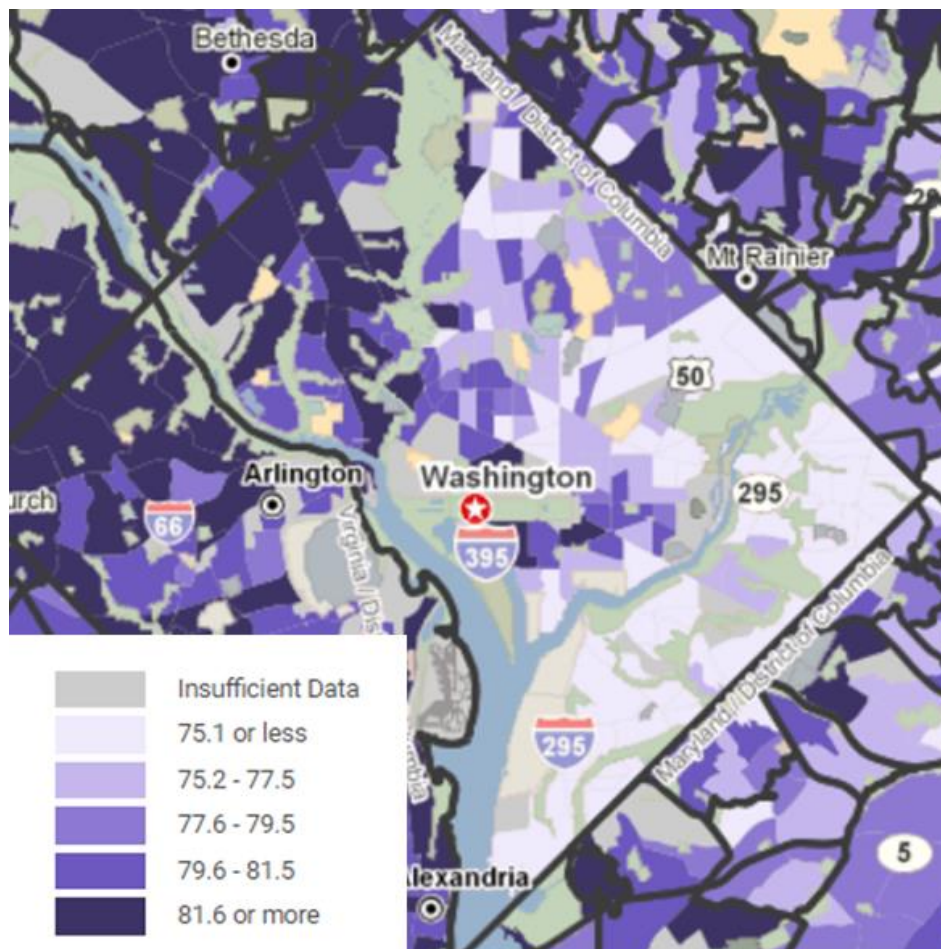


Figure 12: Life Expectancy (Years) (Policy Map)

Adults with Diabetes in D.C. by Race/Ethnicity

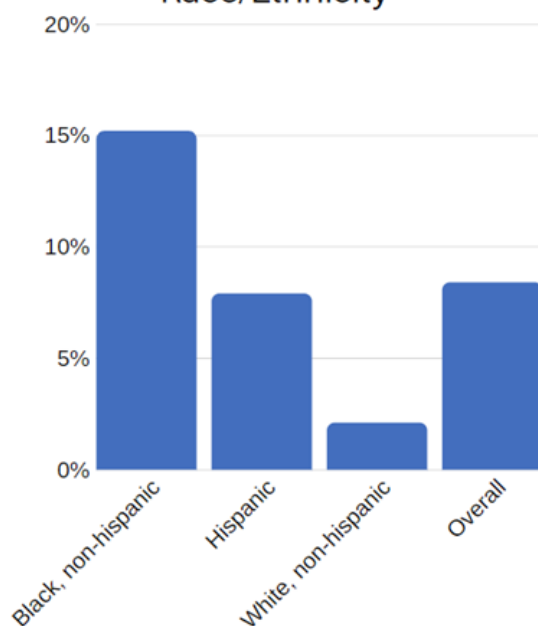


Figure 13: Diabetes Rate by Race/Ethnicity (DC Health Matters)

Unemployment for Population 16+ by Ward

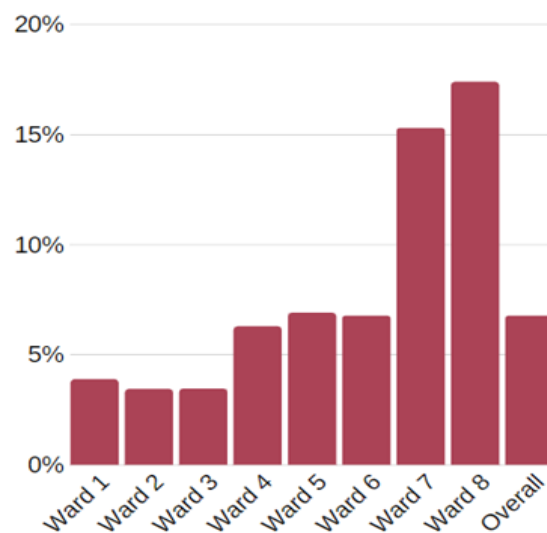


Figure 14: Unemployment by Ward (DC Health Matters)

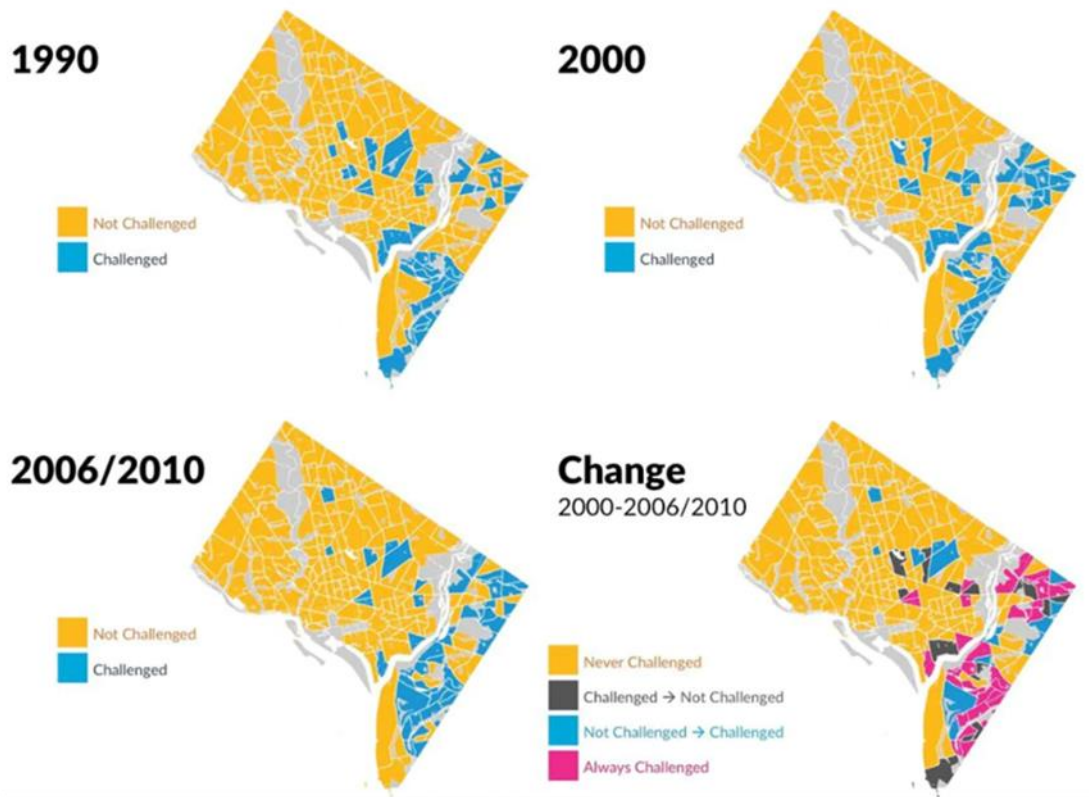


Figure 15: Challenged Neighborhoods (Urban Institute)

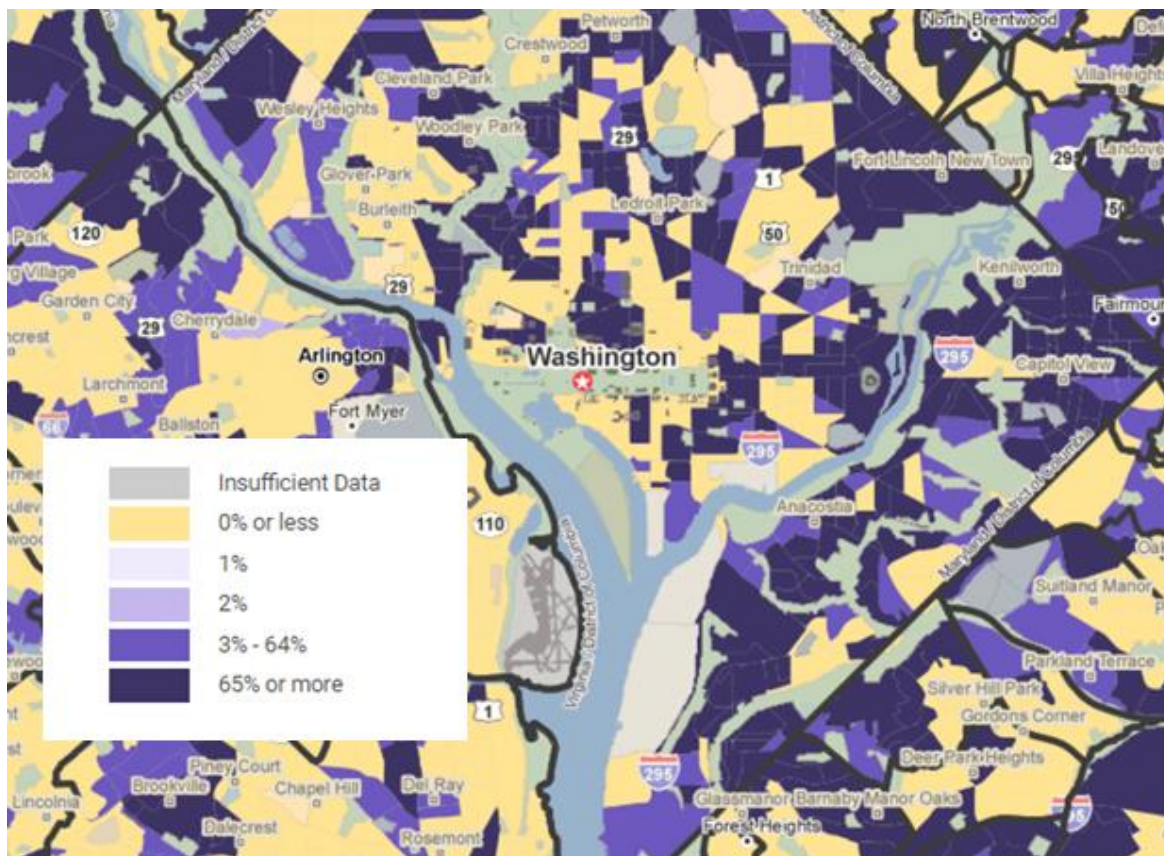


Figure 16: Food Spending Leakage Percentage (Policy Map)

Appendix 3: Cost Effectiveness Analysis

APPENDIX 1	Alternative 1			Alternative 2		Alternative 3		Alts 2 & 3
	Shoprite in Baltimore ⁴	Imperial Market Detriot* ⁵	Pennsylvania FFFI ⁶	L.A. Prep* ⁷	Chef Space ⁸	Colorado Enterprise Fund* ⁹	Vicente's Tropical Grocery ¹⁰	Union Kitchen ¹¹
Project								
Year	2013	2014	2004	2018	2015		2015	2012
CPI ¹²	230.28	233.92	185.20	247.87	233.71		233.71	226.67
Cost	\$14,650,000	\$6,000,000	\$190,000,000	\$20,000,000	\$4,500,000	\$35,000,000	\$19,000,000	\$1,000,000
Cost in 2020	\$16,411,652	\$6,617,016	\$264,657,073	\$20,815,276	\$4,967,200		\$20,972,624	\$1,138,116
Jobs Created	250	50	5,023	270	400	200	200	1000
Cost Effectiveness (Price per Job)	\$65,647	\$132,340	\$52,689	\$77,094	\$12,418	\$175,000	\$104,863	\$1,138
*indicates unsure of date								

⁴ (Reinvestment Fund, n.d.-b).

⁵ (Capital Impact Partners, n.d.).

⁶ (Reinvestment Fund, n.d.-a)

⁷ (FreshWorks, 2018)

⁸ (Chef Space, 2019; Aldrige, 2016; Community Ventures, n.d.)

⁹ (Colorado Enterprise Fund, 2020); (“Foundation Healthy Foods Fund Receives Grant,” 2018)

¹⁰ (Reinvestment Fund, n.d.-c)

¹¹ (Crunchbase, n.d.; Union Kitchen, n.d.)

¹² (CPI Home : U.S. Bureau of Labor Statistics, n.d.) (CPI-U January of each year used)