



Combating America's Food Deserts

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Introduction

The health of America's citizens is an important topic coming to the forefront with our record rates of obesity and heart disease. What many people fail to realize is that there is a clear equity issue in people's ability to access healthy food. Areas, typically low-income, that lack easily accessible grocery stores and other providers of healthy foods are commonly referred to as food deserts. Foodispower.org (2010) defines food deserts as "geographic areas where residents' access to affordable, healthy food options (especially fresh fruits and vegetables) is restricted or nonexistent due to the absence of grocery stores within convenient travelling distance." Cities around the country are recognizing food deserts within their communities and are actively supporting programs to increase residents' access to healthy food. In 2008, New York City implemented the Green Cart Initiative, a program that provides permits for carts that sell fresh fruits and vegetables to neighborhoods designated as lacking healthy food access. This paper will address the effectiveness of this program at conquering the equity issue of food deserts as well as compare it to other programs combating the issue, including the Philadelphia Fresh Food Initiative and President Obama's Healthy Food Financing Initiative. Lack of access to grocery stores and other suppliers of healthy food is a problem that is not going to disappear unless action is taken to improve conditions. Programs like New York's Green Cart Initiative are ways to provide low-income neighborhoods with the sustenance they need to live a healthier and happier life.

Background

The direct connection between obesity and socio-economic status is hard to ignore, and it all comes down to one factor – lack of access. This is a lack of access to green space and safe places to exercise, but more importantly it is access to nutritional foods like fruits and vegetables. Supermarkets have been fleeing inner city neighborhoods for decades now, drawn to the open land and clientele of the suburbs (Pothukuchi 2005, 232). Since supermarkets are the prominent provider of food for a neighborhood, this creates a number of difficulties for the residents. Convenience stores are the most accessible alternative; however, many residents end up paying higher prices for a poor selection and a lack of healthy options, specifically fresh fruit and vegetables (Pothukuchi 2005, 232). Because convenience stores are in the same classification system as grocery stores according to the North American Industry Classification System (NAICS), food deserts may not be easily recognized despite the discrepancy in products offered (“Food Deserts” 2010). People also end up turning to fast food restaurants that line low-income neighborhoods for their affordable but nutrition-free options. If a food desert resident wants more than what the neighborhood convenience store or fast food joint can offer, this means that travel to a grocery store is involved, demanding a sacrifice of both time and money. Those that travel from low access areas are more likely to have their children with them than other shoppers, which only adds to the stress of travelling (“Access to Affordable and Nutritious Food” 2009, 33). Once supermarkets abandon a neighborhood, the access to food, and not just healthy food, instantly becomes a legitimate concern to residents.

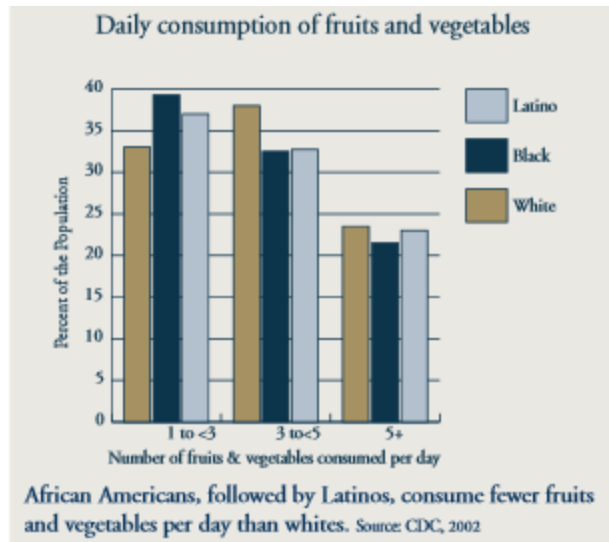
The lack of a supermarket symbolizes more than just insufficient access to healthy food; it signals a disinvestment in the community as a whole. It means a lack of job opportunities which is especially detrimental in low-income neighborhoods since supermarkets are large employers of unskilled workers. The entrepreneurship associated with grocery stores is lost as is support of community activities since a grocery store is a popular area of socialization. Supermarkets are also ideal anchors for retail development, so without them, the market appears unattractive to new businesses. This disinvestment whether justified or not puts the community as a whole at a significant disadvantage. (Pothukuchi 2005, 232)

It should not be surprising that there is a direct association between socio-economic status, which encompasses both income and race, and access to healthy food. The Department of Agriculture's Economic Research Service (2009) found that "23.5 million people live in low-income areas that are more than 1 mile from a supermarket, which represents 8.4 percent of the total U.S. population" (p. 35). Similarly, Pothukuchi (2005) wrote that areas with a higher proportion of people receiving public assistance not only have fewer but also smaller grocery stores (p. 233). One study cited that wealthy districts have three times as many grocery stores as poorer ones and that white neighborhoods have four times as many grocery stores as African American neighborhoods ("Food Deserts" 2010). It is even noted that the grocery stores that are present in African American neighborhoods are less likely to sell healthy items such as fruit, vegetables, and low-fat snacks ("A Place for Healthier Living" 2004, 4). These statistics depict a serious equity and social justice issue that is causing harmful repercussions to its residents.

This lack of access to supermarkets has produced a serious health risk to low-income residents and those of color. Obesity is one of the nation’s leading health problems; it is an epidemic linked to a shorter life span and a higher risk of heart disease and diabetes. It is not surprising that the most obese citizens are African Americans, Hispanics, and people living in low-income neighborhoods. According to the Center for Disease Control (CDC), in 2006, 34.9% of blacks and 38% of Mexican Americans are obese compared to only 30.7% of white American children (Walsh 2008). Even more disturbing is the discrepancy based on socio-economic status. 22.4% of 10-to-17-year-olds below the poverty line is obese compared to 9.1% of those whose families earn at least four times that amount (Walsh 2008). Similarly, in New York City, the adult obesity rate triples when you cross north of 96th Street and head into Spanish Harlem from the predominantly white Upper East Side (Walsh 2008). Connected

with the high obesity rates of these demographics is the risk of diabetes and its higher rate of escalation. Native American youths and African American and Hispanic Americans of all ages suffer from significantly higher

Figure 1 . Fruit and Vegetable Consumption by Race



Source: A Place for Healthier Living (2004)

rates of type 2 diabetes than whites (“Food Deserts” 2010). As discussed, these are the groups that are the most likely to live in food deserts. Foodispower.org (2010) cites a study of Chicago that found that the death rate from diabetes in food deserts is twice that

of areas with easily accessible grocery stores. Clearly, there is a correlation between healthy food access and health related diseases, specifically obesity and diabetes.

There are a number of environmental factors connected to food access that contribute to the health risk of low-income and minority residents. These include the lack of grocery stores that carry healthy foods, the higher availability of unhealthy foods like junk food and sodas, a shortage of green space and other recreational facilities like playgrounds, and safety (“A Place for Healthier Living” 2004, 2). The Department of Agriculture’s Economic Research Service (2009) references studies connecting access to grocery stores with a reduced rate of obesity and access to convenience stores with an increased risk of obesity. What people eat is correlated to the types of food they have access to. Americans already have a bad track record with healthy eating; less than one out of four Americans eat the recommended five servings of fruit and vegetables, and this number is even worse for African Americans and Latinos (“A Place for Healthier Living” 2004, 3). Without the grocery store, processed foods with high calorie levels are what is available, mainly because they are cheaper (Walsh 2010). One study found that shoppers who switched to a grocery store that opened in their low-income neighborhood increased their average fruit and vegetable intake and reported better psychological health (“Access to Affordable and Nutritious Food” 2009, 53). The food served to children during school is also a cause for concern with high calorie soft drinks and vending machines with candy readily available. Because obesity and the severe health risks that stem from it are such rampant problems affecting Americans particularly those that are low-income and minorities, it is time for cities to start addressing the issue of healthy food access.

New York City's Green Cart Initiative

New York City is one of the places that has initiated a plan to combat the deficit of grocery stores and other healthy food providers in its low-income and minority neighborhoods. Obesity is a major problem for New Yorkers with over half of adult residents of the city classified as either obese or overweight (Gordon, Ghai, Purciel, Talwalker, and Goodman 2007). Not surprisingly, poor neighborhoods in the city have a higher obesity rate than higher income neighborhoods. For example, 31% of adults in East Harlem and 27% in Central Harlem are obese, compared to the neighboring Upper East Side which has a 9% obesity rate (Gordon et. al. 2007). This high obesity rate also corresponds to areas that lack access to fresh fruit and vegetables (Behar). Behar cites a 2004 study that found that 58% of Upper East Side bodegas and grocery stores sold fruits, vegetables, and other healthy foods, compared to 18% of Harlem stores. Similarly, in the Bedford-Stuyvesant and Bushwick neighborhoods in Brooklyn where bodegas dominate their food options, apples, oranges, and bananas were carried in only 21% of bodegas opposed to 83% of grocery stores (Graham, Kaufman, Novoa, & Karpati 2006). Even worse, only 6% of bodegas carried leafy green vegetables (Graham et. al. 2006). New York has clear inequity in terms of food access that the city needed to address.

In 2006, the Citizens' Committee for Children of New York, Inc. (CCC) set out to prove the connection between lack of access and poor health by creating a fact sheet and report of different policy options intended to expand the quality, accessibility, and affordability of food in New York City's food deserts ("Green Cart Implementation: Year One" 2010). The report led to the creation of focus groups in two identified food deserts in the South Bronx and Brooklyn to gain information on how residents made their food

choices, to test different policy options, and to measure the interest and demand for healthy and affordable foods (“Green Cart Implementation: Year One” 2010). Vendors of fruits and vegetables were also questioned through focus groups to better understand the logistics, needs, and challenges of the job. This research corresponded with a proposal by the Health Department to elevate the cap on mobile food vending licenses for vendors who sold only fresh fruits and vegetables and would locate in areas of need (“Green Cart Implementation: Year One” 2010). This is when the Green Cart Initiative was officially born.

Armed with the CCC’s research and focus group data, the Mayor and City Council announced their sponsorship of legislation promoting Green Carts in December of 2007. The legislation was signed into law in March 2008 with much support from local governments, community activist organizations, and the media (“Green Cart Implementation: Year One” 2010). It created 1,000 permits for a new class of street vendors called Green Carts that would sell only fresh fruit and vegetables (Leggat, Kerker, Nonas, and Marcus 2012). The Laurie M. Tisch Illumination Fund initially funded the project with a grant of \$1.5 million. Each borough was allocated a specific number of carts based on population that could roam freely within the designated food desert areas, those with a low consumption rate of fruits and vegetables and high rates of diet related disease (Leggat et. al. 2012). There were five target areas identified by the Department of Health and Mental Hygiene (DOHMH), which consisted of the majority of the Bronx, North/Central Queens, Northern Manhattan and East/Central Harlem, Western Queens, and Northern Staten Island (“Green Cart Implementation: Year One” 2010). Leggat et. al. (2012) cited 477 active Green Cart permits in May 2012 with 200 in

the Bronx, 142 in Brooklyn, 91 in Manhattan, and 41 in Queens (p. 937). These target areas are where at least 14% of residents said they had not eaten any fruits or vegetables the previous day (Leggat et. al. 2012, 937). These areas also correspond to neighborhoods with a lack of grocery stores per capita and an abundance of corner stores (Leggat et. al. 2012, 937). The idea behind the Green Cart Initiative is that if residents lack access to healthy food then fruits and vegetables must be brought to them; thus by increasing availability, they are increasing consumption.

In order to evaluate the success of their project after its first year, the CCC put out a report detailing the impact of the Green Cart Initiative in the areas of East and Central Harlem, North and Central Brooklyn, and the South Bronx. They orchestrated focus groups of constituents as well as vendors and even canvassed these neighborhoods speaking to people on the streets along with working vendors. Overall, the feedback from both residents and vendors were positive. From the constituent side, the CCC collected seven findings. First, those surveyed still relied heavily on grocery stores for their shopping but listed Green Carts as their second or third most frequent shopping option. Secondly, those that knew about the Green Carts were more likely to use them. Of the constituents surveyed, 40% had seen or heard some type of advertisement about Green Carts. Thirdly, for Green Cart users, location is the key to consumer usage. Over two-thirds of customers listed their primary reason for shopping was the convenient location of the cart. However, there were also constituents who chose the Green Carts for the quality of fruit and vegetables offered. Fourthly, once someone has used a Green Cart once, they are likely to become loyal Green Cart patrons. More than half of the constituents purchased fruit or vegetables daily or weekly from the Green Carts. Fifth,

Green Carts received a good to excellent rating on the quality and variety of the fruits and vegetables offered. Sixth, limited access to high quality and affordable meats, fish, and produce still worried the members of the focus group. Finally, constituents still want a variety of solutions to improve their lack of access to healthy, affordable foods. From the constituent side, those that lack access to grocery stores are utilizing the Green Carts and are being provided quality produce.

One of the keys to the success of the Green Cart Initiative is the vendors and their hard work to power the project. Luggart et. al. (2012) cite that Green Carts provide motivated individuals with an economic opportunity to start their own small business at a low-cost while supplying their neighborhood with a much needed service (p. 937). The Illumination Fund (2013) recorded that there are currently 500 active Green Cart vendors throughout the city, and that this has created approximately 900 jobs since many vendors sell with family members or hire employees. Each year of the Initiative has seen a growth in vendors as word of the Initiative spreads and new vendors join the program (“NYC Green Cart” 2013). The Green Cart Initiative also provides a unique opportunity for immigrants who run the majority of the carts (Bornstein 2012). Because the start-up cost is low, only \$1,800 to \$3,000, it is a very appealing venture (Bornstein 2012). In an effort to support these small business enterprises, the city brought in Accion USA to provide low-interest loans and Karp Resources, funded by The Illumination Fund, to give consulting services (Bernstein 2012). Karp Resources hosted over 80 workshops, providing both current and potential vendors technical and business assistance as well as gave over 90 vendors access to Electronic Benefit Terminals (EBT) so they can accept food stamps (“NYC Green Cart” 2013). The vendors are also supporting the local

movement by getting their produce from farmers' markets ("NYC's Green Cart Initiative" 2012). The best vendors are those who want to work in their own neighborhoods because they know the best location and can relate with their customers on a personal level.

The CCC's Year One Implementation report (2010) also included feedback from active Green Cart vendors and narrowed those down to ten findings. The first is that vendors worked at a wide range of locations, mainly those with heavy foot traffic including shopping centers, subways, schools, and hospitals. Over two-thirds of vendors said that they stayed in that same location all day. The second finding is that once vendors selected a location, they remained there. This is especially important since visibility is necessary for the success of the program; the community needs to recognize



Source: <http://www.openideo.com>

the persistence of the carts within their neighborhood. The third finding is that the majority of vendors operated more than just the standard five days a week. Fourthly, vendors reported selling a wide variety of

produce at a variety of price points. Apples, bananas, and oranges are the most common offerings, but over half of the carts additionally carried grapes, plums, peaches, tomatoes, nectarines, and pears. Over 80% of vendors also sold avocados and peppers. The fifth finding and one of the most important is that vendors are actually reaching their intended target. Almost 60% of vendors reported that children and families purchased from their carts the most. The following four findings are all requests for ways the Initiative can be

improved to make it an easier and more successful process from the vendor perspective. Because vendors stated they are interested in efforts to reach more poor and working poor people, they requested the ability to accept EBT to effectively reach this demographic. In the seventh finding, vendors wanted more advertising for the Green Cart program to improve their recognition and sales. Vendors also asked for help in storing and transporting their cart since it means extra costs incurred by the vendors. Additionally, assistance in purchasing the fruits and vegetables was requested as most were using some sort of middleman that dictated the prices. Finally, vendors reported their willingness to continue their Green Cart business even with the start-up costs. Vendor feedback demonstrates their dedication to the cause and their desire to reach even more people within the community.

Sean C. Lucan, Andrew Maroko, Renee Shanker, and William B. Jordan (2011) conducted a study of the effectiveness of Green Carts in the Bronx, the poorest borough in New York City. The researchers scanned the neighborhood both via bus and via car to identify locations of Green Carts throughout the borough. They found 61 Green Carts and 8 Green Cart clusters, identified as a minimum of 3 carts within a half-mile per cluster. The presence of these clusters illustrated the unequal distribution of the Green Carts with the 8 clusters surrounding shopping centers, hospitals, schools, recreation centers, and transportation hubs. The authors worry that this clustering is keeping the vendors from reaching the neighborhoods most in need of their services. However, they did not conduct any vendor interviews and therefore were not able to collect data on their sales, profits, or customers. They do mention that it is possible that low-income residents are able to access the Green Carts even if they are not located in direct proximity to

where they live. More studies like this one need to continue to be conducted to evaluate the Green Cart Initiative's effectiveness in specific neighborhoods.

Though the Green Cart Initiative is far from a perfect solution to a serious equity and health problem, it is making a positive impact in combating food deserts in New York City. One of most important indirect benefits of Green Carts is that it is causing supermarkets and corner stores to improve their supply of fruits and vegetables to be able to compete with the Green Carts ("NYC's Green Cart Initiative" 2012). Leggat et. al. (2012) wrote that, "the proportion of food establishments selling both fruits and vegetables tended to increase in Green Cart precincts but not in comparison precincts" (p. 938). Similarly, more markets selling fruits and vegetables are popping up as well as local restaurants supporting the Initiative by purchasing their produce from Green Carts ("NYC's Green Cart Initiative" 2012). To gain more exposure for the Green Carts, the DOHMH and the community organization, City Harvest's Healthy Initiative, hosted 36 cooking demonstrations in 2011 in the Bedford-Stuyvesant neighborhood and in the Bronx ("NYC Green Cart" 2013). Additionally, the Montefiore Medical Center incorporated Green Car vendors into their nutrition education programs, and the WHEDco in the South Bronx includes Green Cart vendor recruitment and training as a part of their workforce development program ("NYC's Green Cart Initiative" 2012). Another organization, Vamos Unidos, offers legal advice and serves as their advocate when issues arise ("NYC's Green Cart Initiative" 2012). The success of this initiative in New York City has inspired cities around the country to use mobile vendors to help combat their own food deserts. Washington, DC, Chicago, Los Angeles, Philadelphia, San Jose, and Madison, Wisconsin have all developed food cart programs ("NYC's

Green Cart Initiative” 2012). The Illumination Fund is also doing its part to see the continued success of the program it funded by creating the NYC Green Cart Cookbook and more recently, the NYC Green Cart Fresh Food Pack, which is a collection of 20 recipes using produce found in Green Carts (“NYC Green Cart” 2013). The Aperture Foundation supported the project through the NYC Green Cart Photography Commission which sends five photographers to the streets to get to know street vendors and their families; the photographs were featured in the Museum of the City of New York, attracting 90,000 people (“NYC Green Cart” 2013). The Green Cart Initiative is working to become an integrated part of every day life in New York City.

A program like the Green Cart Initiative has great potential to positively affect food access in New York City; however, this program can only be successful in certain areas. This initiative is dependent on high-density locales where people use public transit or walking as their primary means of transportation. Large cities like New York City, Chicago, and Washington, DC are places that fit the high-density criteria and could support a program like the Green Cart Initiative. These places are supportive of vendors in general, so the process to receive permits would not be a difficult one. Additionally, this program is completely infeasible in combating rural food deserts. The rural equivalent may be fruit and vegetable stands, but it is doubtful these could be sustainable enterprises like Green Carts. Additionally, cities like Atlanta that are overrun with suburban sprawl, making the car the dominant form of transportation would have a more difficult time with a program like the Green Cart Initiative. Areas like the Sweet Auburn neighborhood that is within close proximity to downtown could potentially support a Green Cart since the area is walkable and near a heavy rail transit stop. However, finding

an adequate place for a Green Cart in more isolated low-income neighborhoods could prove difficult since there needs to be an area in the neighborhood with high foot traffic. Without the visibility provided by a high-density area, a Green Cart could never be prosperous. Though the Green Cart Initiative is an excellent solution for large cities like New York, it is not replicable for many of the food deserts around the country.

Pennsylvania Fresh Food Financing Initiative

Another program to address the issue of food deserts is the Pennsylvania Fresh Food Financing Initiative (FFFI). Unlike the Green Cart Initiative which saw the mobile distribution of fruits and vegetables as the solution, the FFFI goes after the source of the food desert in the first place – the lack of grocery store investment in low-income neighborhoods. The goal of this program is to provide statewide financing to incentivize grocery stores to locate in underserved areas both urban and rural (Fox 2010, 1). The FFFI represents a public-private partnership between the Commonwealth of Pennsylvania, The Reinvestment Fund (TRF), The Food Trust, a nonprofit advocacy organization that fights to provide nutritious food to low-income communities, and the Urban Affairs Coalition (UAC), an organization that works to bring opportunities to minority workers. The program began in 2004 with \$10 million in state funding. With the state funds in place, TRF acquired \$120 million in private funds to support the project (“Fresh Food Access” 2012). The FFFI works by employing a number of different strategies to attract grocery stores to the areas that need them most, including grants to operators or developers, TRF’s Core Loan Fund, and the federal New Markets Tax Credit (NMTC) program (Fox 2010, 2). In order to qualify for a grant with the FFFI, a grocery

store must reside in a low- to moderate-income tract as well as in an underserved trade area (Fox 2010, 2). The Core Loan Fund is made up of a \$40.5 million pool strictly for the funding of supermarkets. The money is used for acquisition, construction, renovation, equipment, leasehold improvements, and energy-efficiency efforts (Fox 2010, 3). As of December 2010, the FFFI received 206 applications, approved 93 of them, and allocated \$73.2 million in loans and \$11.9 million in grants (“Fresh Food Access” 2010). The project is projected to create 5,023 jobs and 1.66 million square feet of commercial space (“Fresh Food Access” 2010). Though it is recognized that there is a higher cost associated with running an urban grocery store, the Pennsylvania Fresh Food Financing Initiative gives developers and current operators the financial incentives to invest in these food deserts.

In order to evaluate the effectiveness of the FFFI, The Reinvestment Fund (2012) worked with a consulting group, Econsult, to look specifically at the effect of supermarkets on economic activity, employment, earnings, tax revenue, and real estate values. The TRF saw its funding going toward helping grocery store operators recover the extra costs they accrue from investing in low-income areas. These extra costs come from employees who require seven times more training than their suburban counterparts as well as from extra security and higher real estate costs. However, the results of this study prove that the benefits of investing in low-income neighborhoods are worth these costs, especially concerning the employment, earnings, and real estate prices. For an urban store, employment increased by 660 jobs while the earnings to the county grew by \$12,466,000. These employees are also receiving comparable wages to suburban grocery stores and others in the industry as well as equivalent wage increases. The most benefit

came to the real estate prices as the opening of a grocery store delivered an immediate rise in prices to nearby houses. Finally, the study found that the grocery stores funded by the TRF served as retail anchors for the community. This study (2012) provides concrete data on the effectiveness of the FFFI in addressing the lack of access of low-income, urban communities to grocery stores.

Additionally, the TRF looked at different case studies to see the impact of their financing on rural grocery stores. Though food deserts are mostly thought of as an urban issue, rural communities experience this same lack of access since individual communities may reside in a place where their closest grocery store is miles away. This particular study (2012) looked at the Northern Tier and Southwest/Southcentral counties in Pennsylvania who received financing through FFFI. They found that many stores used the funds to renovate their store, so that they could expand their supply of produce as well as offer more products to the

community. The Cassville Country Store for example bought two produce coolers so that they can carry fresh fruits and vegetables all year-round and seasonally carry local products. When this particular store was purchased, Cassville had no

Cassville Country Store



Source: <http://raystown.org>

grocery store with the closest in the town over 15 miles away. They also offer prepared meals using local produce which has helped boost business in the small town. Additionally, five out of six of the stores researched used the funding to hire employees

from the community. These case studies prove that the Fresh Food Financing Initiative is an effective tool in combating rural food deserts as well as urban ones.

Unlike the Green Cart Initiative, Pennsylvania's FFFI is a program that is not dependent on high-density, walkable areas and has proven successful in addressing food access in both urban and rural low-income areas. All this program needs are developers willing to open a grocery store in a low-income area or a current business-owner with the potential to benefit from the expansion of their store to include the means to provide fresh fruit and vegetables. As discussed above, there are significant additional costs that come with opening a grocery store in low-income neighborhoods from higher property taxes, to higher security costs to combat shoplifting and vandalism, and more time and effort to train workers. However, supermarkets are beginning to see the benefit of locating in inner-city areas. Because the suburban market is basically saturated, urban areas are recognized as a new frontier with a legitimate buying potential (Pothukuchi 2005 234). Pothukuchi (2005) also reports that, "inner-city residents typically spend a higher proportion of their household income on retail items, especially food and apparel, than do other households" (p. 234). By essentially covering the extra costs that come with an inner-city grocery store, the FFFI gives developers the incentive they need to invest in a low-income neighborhood. While the Green Cart Initiative is designed for a certain type of area, the FFFI is a solution that can be applied to any type of low-income neighborhood – urban or rural.

Though the FFFI is a well-developed program that has seen success in multiple areas throughout Pennsylvania, its major set-back is the amount of funding that it requires. It utilizes a number of different funding methods through a public-private

partnership; however, it does require millions of dollars each year. The Green Cart Initiative acquired private funding to get the program off the ground, but then the cost is delegated to individual vendors who are eventually able to profit from their enterprise. The sheer scale of funding makes the FFFI difficult to replicate; nevertheless, as discussed above, this program has the potential to make a significant impact in a deep equity issue. As long as there are private organizations willing to support the program, the Fresh Food Financing Initiative is a sustainable model for conquering food deserts in both urban and rural areas.

Healthy Food Financing Initiative and Other Programs

Because of the success of the Pennsylvania Fresh Food Financing Initiative, The Reinvestment Fund, Food Trust, and Policylink developed the national Healthy Food Financing Initiative (HFFI). Like its Pennsylvania predecessor, the HFFI tackles food deserts by providing loans and grants to food retailers to build new stores or renovate existing stores that are serving areas that lack access to healthy foods. President Barack Obama proposed the allocation of \$345 million to the Department of Agriculture, the Department of Health and Human Services, and the Department of The Treasury in the Fiscal 2011 budget (“Fresh Food Access” 2010). The Treasury Department will support the initiative through the New Markets Tax Credits and approved community development financial institutions (CDFIs) and the Department of Agriculture by promoting economic development in rural areas, supporting nutrition assistance programs, and creating business opportunities for farmers (“Fresh Food Access” 2010). Finally, the Department of Health and Human Services plans to give competitive grants

to Community Development Corporations and other non-profit organizations that are providing nutritious food through the financing of grocery stores and farmers' markets ("Fresh Food Access" 2010). Though the HFFI is still a work in progress, it is gaining support especially in conjunction with First Lady Michelle Obama's Let's Move campaign to fight childhood obesity ("Fresh Food Access" 2010). It is important that the food desert issue is recognized at the federal level as an equity issue that requires serious action.

There are also a number of community-based programs designed to combat food deserts. As discussed previously, when grocery stores are not present in low-income areas, bodegas and corner stores become the primary source of groceries. The Healthy Bodega Initiative engaged 1,000 bodegas to offer low-fat milk and 450 to supply fresh fruits and vegetables ("Access to Affordable and Nutritious Food" 2009, 106). The Health Bucks program provides \$2 coupons toward fruits and vegetables at farmers' markets and was recently extended for Supplemental Nutrition Assistance Program (SNAP) participants who receive an extra \$2 Health Buck for every \$5 spent using EBT at farmers' markets ("Access to Affordable and Nutritious Food" 2009, 107). Finally, the Community Food Projects Competitive Grant Program (CFPCGP) addresses the issue of "community food security" by supporting creative demonstration food projects that create food system changes within a specific community ("Access to Affordable and Nutritious Food" 2009, 91). The Food Stamp Act of 1977 created the CFPCGP so that community food projects are federally funded with \$5 million annually through 2012 ("Access to Affordable and Nutritious Food" 2009, 91). The CFPCGP funds three types of programs, planning projects for communities initiating programs to combat their food security

issues, training and technical assistance projects, and community-based food projects. These food projects include food policy councils, urban agriculture, youth projects, food assessments, and entrepreneurial food and agricultural projects (“Access to Affordable and Nutritious Food” 2009, 97-98). These programs all take different approaches to combating food deserts but are all significant steps in improving this serious equity issue.

Policy Debates

The topics of food deserts and food access have become very popular in the last few years. In general, there is little policy debate over the legitimacy of the claim that higher income neighborhoods have more access to higher quality food providers like large grocery stores than their low-income counterparts. Even though there is an argument out there that the lack of supply of fruits and vegetables symbolize a lack of demand, the different sources cited previously disprove this view. The real opposition to the Green Cart Initiative specifically comes from their competition, actual food retailers. Storeowners feel they will lose patrons as a result of Green Carts while they are the ones paying rent and utilities to maintain their facility (Black 2012). When passing the initial Green Cart Initiative bill, Mayor Bloomberg had the support of a number of different organizations and the media due to the demand for action to deal with the food desert issue, especially in New York City. Similarly, President Obama’s Healthy Food Financing Initiative House resolution is bipartisan legislation. Though its progress is currently stalled, the bill will be reintroduced with the hope of passage. Because of the popularity of this topic of food deserts combined with supporting evidence, the demand for policies addressing this equity issue is high and generally supported.

Recommendations for Improvement

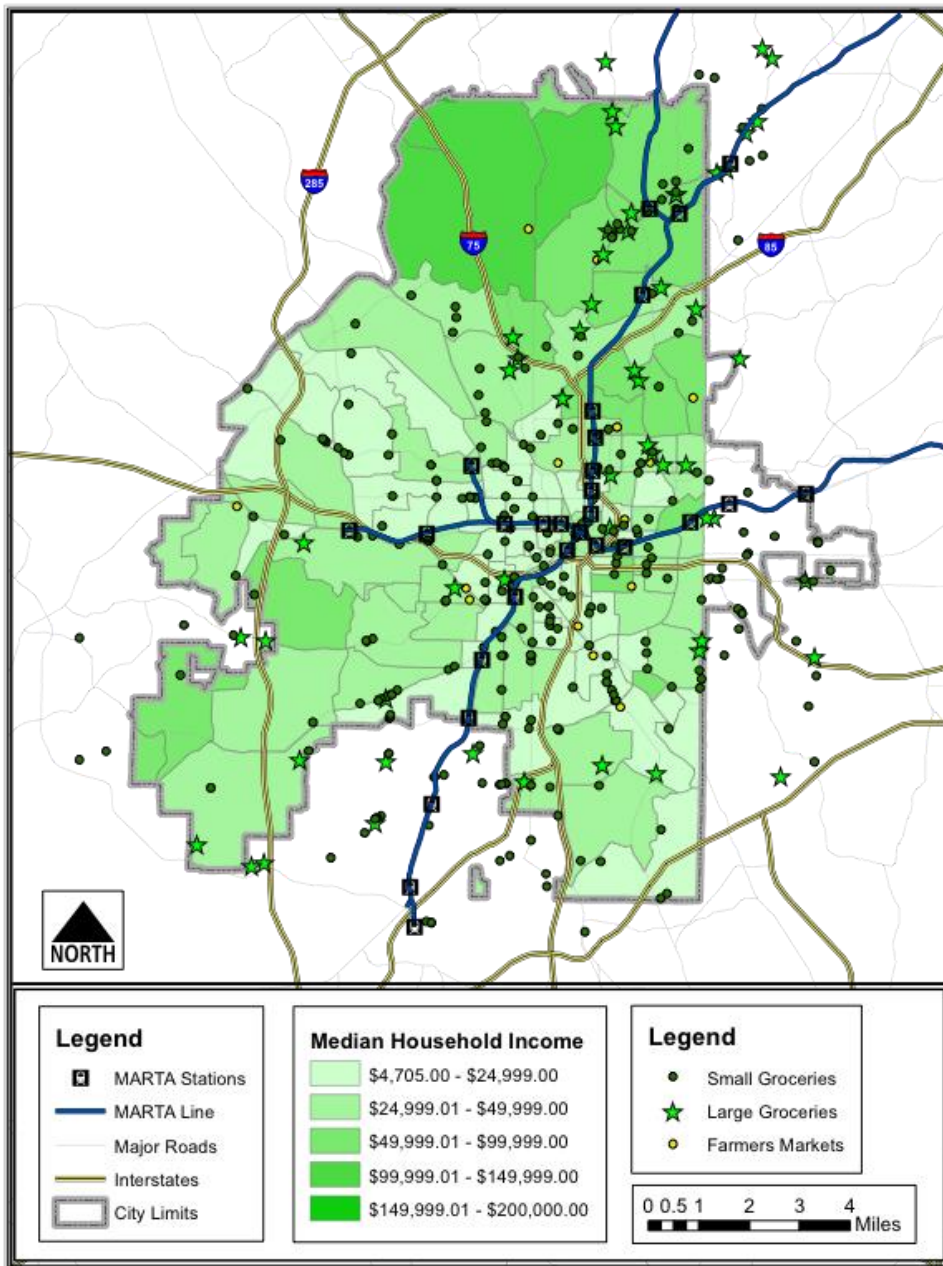
Overall, the Green Cart Initiative has proven to be a successful means to address the food desert issue in New York City. However, there are a number of actions that can be taken to improve the program's reach and sustainability. The biggest improvement that will address equity concerns is the availability of all vendors to take payment through EBT, electronic benefit transfer, so that low-income residents can use Supplemental Nutrition Assistance Program (SNAP) vouchers (Lucan et al. 2011, 980). As discussed above, this is one of the requests that came out of the feedback from the Green Cart vendors during the CCC's Green Cart Implementation Year One evaluation. With funding from more private groups like Karp Resources, this service can be standard for all Green Cart vendors. This is one way to guarantee that those with the most need can access fresh fruits and vegetables. Another solution recommended by Lucan et al. (2011) is a greater cooperation with community groups to recruit community members to become Green Cart vendors for their own neighborhoods (p. 980). This will create a higher investment on the part of the vendor as well as the added benefit of the existing relationship with customers. Additionally, these community organizations can assist in training for new vendors as well as advertisement and promotion of the program. The city can also do its part to facilitate the success of Green Cart vendors. This includes easing up on the ticketing for minor infractions and allowing Green Cart vendors to sell nuts, dried fruit, and bottled water to help their business (Bornstein 2012). This issue of overnight storage of carts that was brought up by Green Cart vendors is one that the city has already made an effort to address by expanding the number of places Green Carts can

be stored (Bornstein 2012). All of these recommendations give Green Cart vendors more of a chance to succeed while making sure that the target population is benefitting from this program.

Another way to improve the equity concerns of food access is for cities to look individually at their area and identify where food deserts are, so that planners and other government officials can develop specialized plans. For example, in Atlanta, food access may be connected to race as well as socio-economic status. Helling and Sawicki (2003) compared corresponding census tracts in Atlanta controlling for everything except race to analyze the accessibility to shopping and services, including quality food establishments. They (2003) found that affluent African American tracts are less accessible via five minute commute to all types of grocery stores, restaurants excluding fast food franchises, and movie theaters than affluent white tracts with the similar incomes (p. 87). Similarly, when travel time and convenience are emphasized, the black tracts were also less accessible to chain grocery stores (Helling and Sawicki 2003, 90). After discussing different reasons for this discrepancy, they (2003) ruled out all different explanations except what they describe as, “the existence of inaccurate or stereotyped marketing profiles for black neighborhoods or racial bias in business decision making” (p. 97). In Helling and Sawicki’s study, they found that a lack of food access is as much of a racial issue in Atlanta as it is a class based one.

To take look further, Census data of Atlanta and data on different food providers from the Reference USA database were used to analyze food access at the local scale. Figure 2 divides Atlanta by median household income and evaluates the placement of small groceries, large groceries, and farmers’ markets. Small groceries are spread out

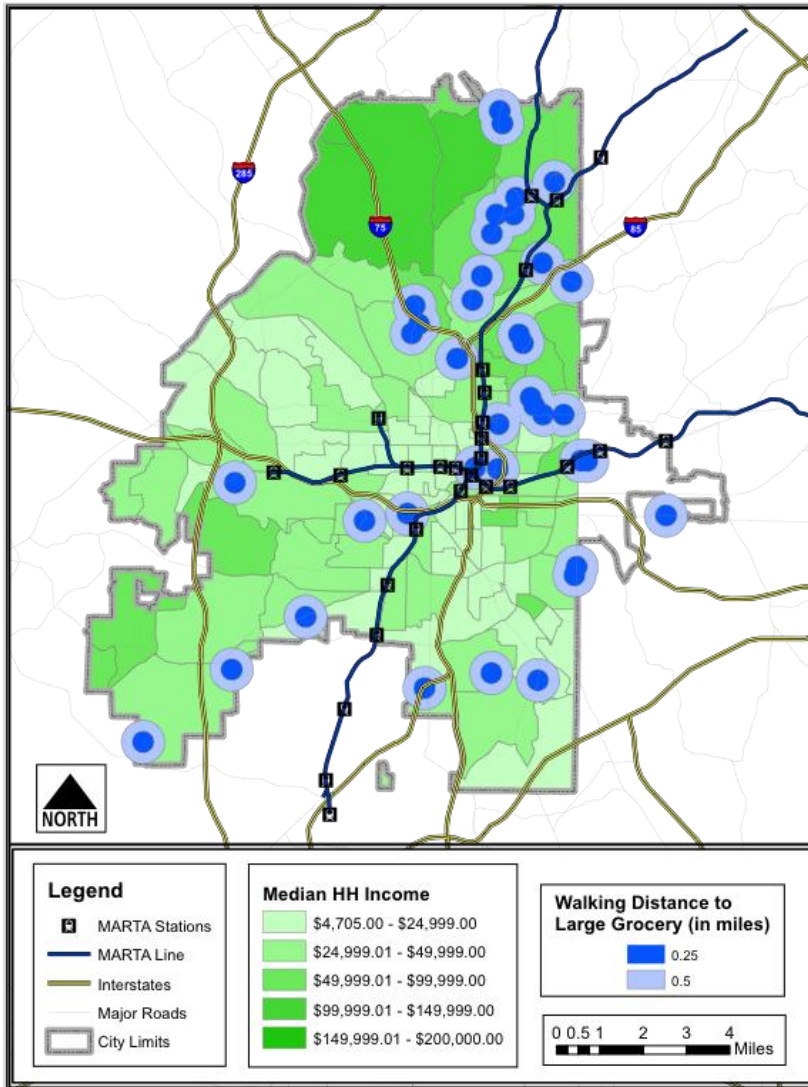
Figure 2: Food Providers by Household Income in Atlanta



throughout census tracts; however, the large grocery stores and farmers' markets are significantly less prevalent in the lowest census tract. This is especially true of downtown Atlanta and the lowest income census tracts in the western area of the city where there is not one large grocery store. These small groceries represent corner stores that most likely do not provide healthy eating options like fresh fruits and vegetables

because of cost. Figure 3 examines the walkability of the large groceries by creating quarter and half mile buffers around the large grocery stores. This is especially important

Figure 3: Walkability of Large Grocery Stores



since people living in the lowest income census tracts are least likely to have a car. Again, large portions of the lowest income tracts are not within walking distance from large grocery stores. This figure makes the lack of large grocery stores in general more apparent especially in the central corridor of the lowest income census tracts that runs diagonally through the city from the West through downtown and to the Southeast.

Though these figures only represent the city in terms of income, areas of concern are clearly identified. The next step is to take this analysis further and see if the data also corresponds with the race in Atlanta. All of this data will allow planners in Atlanta to recognize the food deserts, so that a specialized plan can be developed.

This type of analysis is essential for every city or county to produce in order to construct a specialized plan that addresses their specific needs. This will aid in deciding which type of program will make the most impact. Are the area's food deserts located in places where a program like Green Cart Initiative would be the best solution? Or is the area more rural and a program more like the Fresh Food Financing Initiative going to be a better fit? Additionally, a program on a smaller scale like the Healthy Bodega Initiative may be an ideal solution. These are all important questions and considerations that can be answered through an evaluation and recognition of the locations of food deserts.

Another key to success is a public-private partnership. As discussed above, initiatives like the FFFI require a good deal of capital which could prove problematic. By partnering with private organizations and foundations, the investment is secured, and non-profits or the government can take care of the implementation. This type of collaboration allows the program to have the support it needs to make a significant impact.

Conclusion

Food deserts represent a serious equity issue that is not going to disappear as time passes; active steps must be taken to establish programs that get to the root of this health concern. New York City's Green Cart Initiative is a creative measure to physically bring

fresh fruits and vegetables to low-income people who lack access to grocery stores and other providers of healthy foods. This type of program works well for large, high density cities like New York; however, it is difficult to apply to more spread out cities and rural areas. The Pennsylvania Fresh Food Financing Initiative addresses this concern by providing funding and loans toward the opening, renovation, and equipment acquisition of grocery stores in underserved urban and rural areas. Table 1 represents a comparison between the two programs, picturing both programs' strengths and weaknesses. Though

Table 1: Program Comparisons

<u>Program</u>	<u>Urban vs Rural</u>	<u>Entrepreneurship</u>	<u>Cost to Funders</u>	<u>Job Creation</u>
Green Cart Initiative	Urban ONLY	YES	LOW	HIGH
Pennsylvania FFFI	Urban and Rural	YES	HIGH	MEDIUM

neither program is without flaws, both are successful solutions, addressing food deserts in their specific area. Cities and regions should be assessing their food deserts, so that they can develop their own specialized solution. The lack of access to grocery stores is a serious equity concern that is disproportionately affecting low-income and minority individuals. With the obesity rate becoming alarmingly high, especially amongst this demographic, it is important that food access be recognized as a primary cause. Cities need to do their part to develop solutions in order to give low-income residents the opportunity to lead longer, healthier lives not only for themselves but for their children.

Works Cited

(2012). Fresh Food Access, The Reinvestment Fund: 8.

(2012). The PA Fresh Food Financing Initiative: Case Study of Rural Grocery Store

Investments, The Reinvestment Fund.

Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences. (2009). *United States Department of Agriculture Economic Research Service*. Retrieved February 3, 2013, from <http://www.ers.usda.gov/Publications/AP/AP036/AP036fm.pdf>

A Place for Healthier Living: Improving Access to Physical Activity and Healthy Foods. (2004) (pp. 1-9): The Joint Center for Political and Economic Studies.

Behar, E. How Far Can the City Push the Green Cart Initiative? : Hunter College.

Black, J. (2012). Green Carts put fresh produce where the people are. *The Washington Post*. Retrieved April 20, 2013 from http://articles.washingtonpost.com/2012-04-17/lifestyle/35451714_1_green-carts-fruit-and-vegetable-carts-tisch-illumination-fund

Bornstein, D. (2012). Conquering Food Deserts With Green Carts, *The New York Times*. Retrieved February 25, 2013 from <http://opinionator.blogs.nytimes.com/2012/04/18/conquering-food-deserts-with-green-carts/>

Food Deserts. (2010). *Food Empowerment Project*. Retrieved March 13, 2013, from http://www.foodispower.org/food_deserts.php

Fox, M. A. (2010). Pennsylvania Fresh Food Financing Initiative. H. A. Committee.

Gordon C, Ghai N, Purciel M, Talwalker A, Goodman A. Eating Well in Harlem: How Available is Healthy Food? New York, NY: New York City Department of Health and Mental Hygiene, 2007.

Graham R, Kaufman L, Novoa Z, Karpati A. Eating in, eating out, eating well: Access to healthy food in North and Central Brooklyn. New York, NY: New York City Department of Health and Mental Hygiene, 2006.

Green Cart Implementation: Year One. (2010) (pp. 1-23): Citizens' Committee for Children of New York, Inc.

Helling, A., & Sawicki, D. S. (2003). Race and Residential Accessibility to Shopping and Services. *Journal of Planning Education and Research*, 14(1 and 2), 69-97.

Lucan, S., Maroko, A., Shanker, R., & Jordan, W. (2011). Green Carts (Mobile Produce Vendors) in the Bronx-Optimally Positioned to Meet Neighborhood Fruit-and-Vegetable Needs? *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 88(5), 977-981.

Leggat, M., Kerker, B., Nonas, C., & Marcus, E. (2012). Pushing Produce: The New York City Green Carts Initiative. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 89(6), 937-938.

NYC Green Cart. (2013). *The Laurie M. Tisch Illumination Fund*. Retrieved February 3, 2013, from <http://www.lmtilluminationfund.org/impact/green-carts/>

NYC's Green Cart Initiative. (2012). *Food, Nutrition & Science*. Retrieved March 13, 2013, from <http://www.foodnutritionscience.com/index.cfm/do/monsanto.article/articleId/655.cfm>

Pothukuchi, K. (2005). Attracting Supermarkets to Inner-City Neighborhoods: Economic Development Outside the Box. *Economic Development Quarterly*, 19(3), 232-244.

Walsh, B. (2008, June 12). It's Not Just Genetics. *TIME Magazine*. Retrieved 13 March 2013, from <http://www.time.com/time/magazine/article/0,9171,1813984-4,00.html>