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A Localized Sourcing Model for the Supplemental Nutrition Assistance Program (SNAP)

Claire H. Burrus

Trinity University, cburrus@trinity.edu

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A Localized Sourcing Model for the Supplemental Nutrition Assistance Program (SNAP)

Claire Burrus

A departmental senior thesis submitted to the Department of Environmental Studies at Trinity University in partial fulfillment of the requirements for graduation with departmental honors.

13 April 2018

Dr. David Ribble

Thesis Advisor/Department Chair

Michael Soto, AVPAA

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Executive Summary

Sustainability efforts are essential to the survival of humanity in the long-term.

Unsustainable human activity not only harms the environment, but also harms humans. In the current food system, unsustainable production practices harm the environment, and a degraded environment harms production capacity. A sustainable food model is necessary for the protection of humanity. A local food system is sustainable in that it cuts down on food transportation needs, reduces the need for preservatives and excessive processing, and allows for greater diversity in food production.

Food insecurity is a pervasive problem in the United States. Individuals and households facing food insecurity struggle to meet their food needs due to limited resources or barriers to food access. Data shows relationships between income level, food insecurity rates, access to nutritious food, chronic illness rates, and crime rates. Public food programs have the potential to address these public problems by addressing food insecurity.

The Supplemental Nutrition Assistance Program (SNAP) is a federally funded public food program that combats food insecurity by providing credits to SNAP recipients for the purchase of food products. SNAP is effective in addressing hunger, a symptom of poverty, but is ineffective at addressing nutritional inequity, another symptom of poverty, and is also ineffective at addressing the roots of poverty itself.

I propose a localized sourcing model for SNAP which addresses both the symptoms and roots of poverty by improving the capacity of the policy to address nutritional inequity and economic injustices. The localized sourcing model benefits the communities in which SNAP dollars are spent and the local foods industry, while supporting SNAP retailer businesses. The model also lays the groundwork for the expansion of a sustainable local foods system without impeding economic efficiency.

Food Sustainability

Sustainability as a philosophical movement is concerned with the longevity of social, economic, and ecological systems. In the 1987 World Commission on Environment and Development, sustainable development was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission, 1987). Sustainability entails the success and prosperity of life from the present into the future. In recent history, the notion of sustainability has gained importance in social dynamics, politics, and public policy discourse (Hu et al., 2011).

Sustainable development is key to effective environmental protection and to the maintenance of human well-being. In a time at which the human impact on the earth exceeds the earth’s natural capacity for the regeneration of resources, sustainability movements are necessary for the survival of humanity (Farmer et al, 2017). Food, essential to life, is an important part of this issue. A majority of the earth’s resources used for human activity are dedicated to agricultural production for food (Farmer et al, 2017). Humans are dependent on a functioning agricultural system for food access. Likewise, agricultural production is dependent on human environmental stewardship.

Agricultural production is impacted by climate change, air and water pollutants, and landscape changes due to deforestation and the infringement of urban development, among other human-caused environmental factors. These pressures contribute to the risk for a global food crisis (Moustafa, 2015). Communities with less wealth are likely to be most negatively affected by such an event. In the present, the globalized food system remains cheap and fast because of the exploitation of labor in food production and because of the relatively low price of oil needed for food transportation (Ladner, 2011). Oil production, however, is not indefinitely dependable,

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and wages worldwide are increasing. As these factors become less reliable, food costs are likely to rise (Hu et al., 2011). Those who can afford to pay more for food will maintain their lifestyles, and those who cannot afford to pay more for food will be left struggling.

Agricultural production affects the environment, and the environment can in turn affect agricultural production. Between 20 and 30 percent of greenhouse gas emissions in the Western world are attributed to food production and consumption (Farmer et al., 2017). Agricultural production contributes to soil erosion and water pollution in addition to greenhouse gas emissions (Ladner, 2011). Environmental degradation due to food production is not accounted for in the price of food products. The environmental costs are externalized, and the consumer thus does not pay the true price of the food product purchased. A study performed in the United Kingdom conservatively estimated that food products would cost around 12% higher if environmental externalities were internalized in pricing (Ladner, 2011).

Some food products have a deeper ecological footprint than others. A hamburger, for example, could cost as much as \$200 if all external costs were charged to the consumer (Ladner, 2011). This is a more significant increase than would be seen in most other food products if externalities were internalized. The price increase implies the profound negative impact that the production of this food product has on the environment. If hamburgers cost \$200, they would likely be far less popular. However, the full impact of the food product can be ignored by customers in the current food system.

Consumers tend to prefer immediate gratification to long-term benefits and therefore are unlikely to make changes in their food choices for the sake of the needs of the future (Farmer et al., 2017). People tend to focus on dramatic changes in the short-term rather than gradual changes over a longer time period. Thus they separate themselves from ecological processes,

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which are long-term. Americans in particular seem to be under the false impression that humans are independent from the environment, which leads to a harmful cycle of environmental degradation and pressure on resources needed by humans (Robinson and Farmer, 2017).

The impending food crisis is likely to most negatively impact less wealthy communities, and continued environmental degradation from unsustainable food production is also likely to most negatively impact less wealthy communities. In the United States, wealth is closely correlated with race. Racial minorities are disproportionately affected by poverty. African Americans have the highest poverty rate of any racial group in the United States, followed closely behind by Hispanic Americans (Economic Policy Institute). Likewise, the negative effects of climate change such as extreme weather events disproportionately affect communities of color in the United States, particularly African Americans. The National Association for the Advancement of Colored People (NAACP) reports, “the six states with the largest proportion of African-Americans are all in the Atlantic hurricane zone, and all are expected to experience more severe storms as a consequence of global warming” (NAACP, 2015). African Americans, who bear the burden of climate change more than any other group, also contribute 20 percent less carbon dioxide, a leading climate change-causing greenhouse gas, per year than the average American (NAACP, 2015). This minority group is punished by the negligence of the whole. Poverty, race, and environmental injustice are intimately intertwined in the United States.

A sustainable food model is needed in order to address the impending food crisis, to improve the global environment, and to address economic and racial inequity in the United States. A sustainable food model not only sustains the health of the environment, but also sustains the health of the social welfare system. Environmental conservation must be done within the bounds of economic reason and food distribution must be mindful and compassionate

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(Moustafa, 2015). A sustainable food model is one that provides both environmental justice and food justice. Local food systems offer a practical answer to the sustainable food concern (Robinson and Farmer, 2017).

Shipment of large quantities of food incredibly long distances is “indisputably offside and ridiculous in a post-carbon era” (Ladner, 2011). With concerns about fuel consumption and climate change-causing greenhouse gas emissions on the rise, transportation of goods over long distances should be minimized. A study in Iowa found that food imports from the global food market required between 4 and 17 times as much fuel for transportation and released between 5 and 17 times more carbon dioxide than did local and regional food imports (Ladner, 2011). A study in California found that food imports from the global food market which required transportation by plane produced 45 times the harmful air pollution and 500 times the greenhouse gas emissions than did local and regional food imports (Ladner, 2011). Reduced transportation needs reduce greenhouse gas emissions and pollutants. Thus, local and global environmental issues are addressed in part by the model.

In addition, reduced travel time for food products requires a lesser emphasis on their shelf-life, and thus a reduced use of additives and preservatives in food production and reduced cooling in preservation. This translates into reduced costs in the long run (Robinson and Farmer, 2017). Further, many local farmers’ values align with environmental concerns, and their business models incorporate sustainable practices (Robinson and Farmer, 2017).

A localized food model cuts down on food transportation needs, reduces the need for preservatives and excessive processing, and allows for greater diversity in food production. Food production on a local scale “promotes sensitivity to local and regional biodiversity” (Robinson and Farmer, 2017). Farmers selling to local markets do not require the massive scale of the farms

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exporting goods into the global market. They are able to specialize to the land they are working and take care to maintain the quality of the soil, and in turn, the capacity for production and the health of surrounding ecosystems. Large-scale food production, often monocrop plots grown for mass export, requires the homogenization of agriculture, which degrades the land. In order to keep up with the high demand of the global food market, farmers turn to pesticides, fertilizers, and other chemicals to increase yield (Robinson and Farmer, 2017). This pressure is eliminated in a local market, in which a larger number of food producers contribute a smaller quantity of products and there is reduced need for food preservation.

In order to be sustainable for human needs, it is essential that the local food model reflect the geography of the area in which it is implemented. Some areas have the potential for dense agricultural production that easily meets the nutritional needs of the locality, while others require a vast area of land to meet local nutritional needs, and thus must be supplemented with imports (Hu et al., 2011). Considerations of the local agricultural potential of a given region are necessary in the construction of a local food model.

A movement toward a local food system as a sustainable food model requires the definition of what constitutes local food. The definition of local food differs from source to source. Some define local only in terms of distance, but this is not applied universally because distance only tells part of the story of local foods. In their 2017 book *Selling Local*, Robinson and Farmer define the locality of foods in terms of time, nutritional value, scale, accountability, environmental stewardship, relationship building between buyers and sellers, and opposition to the mainstream food system. Distance provides “part, but only part, of what it means to be local” (Robinson and Farmer, 2017).

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Local food systems place importance on people rather than profit. Relationship building strengthens accountability between actors in the system, and more direct connection to the land contributes to increased environmental stewardship. Movements toward local foods “can become an activist tool for change” (Robinson and Farmer, 2017). Business decisions are not always based in rational, profit-centered thinking. Placing importance on people enforces the radical idea that “people matter” (Robinson and Farmer, 2017). This notion is essential to sustainability, in which social, economic, and environmental issues are considered.

Human social and economic systems in their current state cannot sustain the earth or its inhabitants in the long-term. A shift toward sustainable practices must occur in order to ensure the maintenance of ecological systems and the survival of humanity. Because of its massive environmental impact and its significance to human life, the food system must be reformed immediately. A local food system would not only be sustainable, but it would also promote compassionate human interaction and economic equity.

Food Insecurity

Food insecurity is defined as a state in which an individual is not receiving an adequate quantity or quality of food to feed themselves and their dependents. In 2011, an estimated 13 percent of United States citizens lived in households in which food insecurity was an issue (Ladner, 2011). This problem continues to worsen. The 2016 Map the Meal Gap report by Feeding America estimates that one in seven Americans are food insecure - 14 percent, or around 46.2 million people. Children are disproportionately affected by this problem. The average rate for child food insecurity in America is even higher than the overall food insecurity rate, at 20.9 percent, or about one in five (Feeding America, 2014). In 2011, the child food insecurity rate was

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estimated to be 18 percent (Ladner, 2011). More and more children are going hungry, and this problem has yet to be adequately addressed.

Texans face an even higher rate of food insecurity than the average American - the second highest of any state in the country - with approximately 25.6 percent of families unable to adequately provide the right quantity and quality of food to themselves and to their children (Feeding America, 2014). In Bexar county, where the city of San Antonio is located, 23.4 percent of residents are food insecure (Feeding America, 2014). These individuals cannot meet their own or their families' food needs due to a lack of financial or other necessary resources, including geographic barriers and a lack of information, among other factors. Frequently barriers to food access relate to poverty or the symptoms of poverty.

There is not only a lack of food in low income communities, but there is also a lack of nutritionally adequate food. A 2006 study by Baker et al. found that high-poverty areas were less likely than higher-income communities to have access to foods that contribute to healthy diets. Similarly, in their 2012 study, Aggarwal et al. found a correlation between the nutritional content of diets and the level of expense. Their results showed that people of lower socioeconomic status consume less nutritious diets. Measures of high nutrition included fiber, folate, iron, potassium, calcium, magnesium, beta carotene and the vitamins A, C, D, E, and B12 and measures of low nutrition included added saturated, trans fats and added sugars (Aggarwal et al., 2012). Adequate diets are a privilege in the current food system, rather than a right. Given that the consumption of foods of high nutritional value is required to prevent or alleviate chronic disease and promote individual health, high-poverty communities continue to be structurally disadvantaged with regards to public health risks (Baker et al., 2006).

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One especially prominent public health risk that low-income communities are subjected to is obesity. The Centers for Disease Control and Prevention (CDC) has declared obesity in the United States to be a “public health epidemic”. According to most recent studies, 68 percent of American adults can be classified as overweight and greater than 34 percent can further be classified as obese. These numbers are predicted to rise (Farmer et al., 2017).

Bexar county public health statistics reflect the relationship between food access and diet-related chronic illness. In addition to high food insecurity rates, Bexar County also faces astonishing rates of diabetes and obesity, both major diet-related chronic diseases. The diabetes rate in Bexar County rose from 11.4 percent in 2012 to 14.2 percent in 2014. A large proportion of the county residents are classified as either overweight or obese, with 71 percent of the population overweight and 32 percent further classified as obese (Texas Department of State Health Services, 2017).

There is a relationship between income level and chronic disease among residents in Bexar County. Low income adults, earning less than \$25,000 per year, face a diabetes rate of 24 percent and an obesity rate of 42 percent, both of which are considerably higher than the rates for individuals earning \$50,000 or more per year, who face a diabetes rate of only 8 percent and an obesity rate of 29 percent (Texas Department of State Health Services, 2017). Based on this data, it can be surmised that low-income individuals are not only at a higher risk for food insecurity in Bexar County, but are also at a higher risk for chronic illnesses related to diet.

Food insecurity and its associated public problems, although pervasive and hugely problematic, are preventable. Food security entails not only food access, but access to quality food. A wide array of studies have shown that healthy diets prevent chronic diseases among individuals across all age groups (Ladner, 2011). Food security is also a preventative measure

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against crime. In fact, reduced police costs as a result of public spending on food resources outweighs the cost of the public spending itself (Ladner, 2011). Providing food services to those in need actually saves public dollars in both healthcare spending and criminal justice spending. Public services are essential to preventing food insecurity. An example of such a program is the Supplemental Nutrition Assistance Program (SNAP).

The Supplemental Nutrition Assistance Program (SNAP)

The Supplemental Nutrition Assistance Program (SNAP) is a federally funded program under the United States Department of Agriculture (USDA) Food and Nutrition Service intended to provide a nutritionally adequate source of food to low income Americans facing food insecurity (Texas Department of Health and Human Services, 2018). The mission is to supplement the income of struggling individuals and families with credits which assist them to afford nutritionally beneficial food (TDHHS, 2018). Programs like SNAP are necessary to combat food insecurity.

Made permanent under President Johnson in 1964, SNAP, previously named Food Stamp Policy (FSP), was designed to address the problems of poverty and hunger in the United States and to help low-income Americans become more self-sufficient (USDA, 2012). In 2008, the name of the federal policy was changed to the Supplemental Nutrition Assistance Program (SNAP), in order to reduce the stigma surrounding the program and the words “food stamps” (USDA, 2012). This name change initiated a shift in the political narrative surrounding the policy which was essential to its survival and success. The policy was framed as a safety net of last resort for the deserving poor, rather than a system of dependency for the lazy unemployed.

SNAP not only provides access to food to its intended target populations, including low-income individuals and families, the working poor, the elderly, and legal immigrants, but also

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contributes to the economy. According to the 2011 SNAP Community Partner Outreach Toolkit, every five dollars spent in SNAP generates over nine dollars in community spending. The dedication of federal funds to SNAP leads to more spending on food, adding to the profits of SNAP retailers, and cycling back into the economy at large.

SNAP is managed under the United States Department of Agriculture (USDA) Food and Nutrition Service. However, not all of the responsibilities of the implementation of the program occur at the federal level. SNAP programming responsibilities are divided between the national and state levels of government, with the states providing certifications and issuing SNAP, and the federal government funding benefits and authorizing retailers and wholesalers (USDA, 2014). National funds are administered at the state level, where state Departments of Health and Human Services determine recipient and retailer eligibility (Blackwell, 2012).

My objective in this analysis is to analyze if SNAP is meeting its intended policy goals. Scholars have identified problems with SNAP and have made several policy recommendations to address its downfalls. In this analysis I first review two of these policy recommendations and then conclude with a case for the implementation of my own policy recommendation for a localized sourcing model.

In its current state, SNAP alleviates hunger in its target populations, but it fails to effectively address nutrition or poverty, all of which are aspects of the program's intended goals. The three alternatives presented in this paper fill some of the gaps that the current policy has failed to adequately fill, namely the supplementation of nutrition in SNAP recipients' diets and the poverty experienced by these groups.

SNAP provides more food options to low-income Americans, and it stimulates the economy by increasing spending on these items (USDA, 2011). However, SNAP is ineffective in

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that it includes a wide array of food items that do not supplement nutrition, which have in fact been designated as “foods of minimal nutritional value” (Blackwell, 2012). Additionally, although SNAP stimulates spending, the dollars often leave the communities in which they are spent. This means the effects of the economic stimulation born from SNAP spending are unlikely to positively affect the low income individuals and families SNAP intends to serve.

The first policy alternative is the Healthy Incentives Model. The Healthy Incentives Model was piloted in 2011 to 2012 in Massachusetts with positive results. This policy alternative to SNAP uses a financial reward system to increase the demand for and consumption of fruits and vegetables by its recipients. It is possible that this alternative would create an incentive for SNAP retailers to stock a higher quantity of fruits and vegetables, which would benefit the public health of the community overall, not just for SNAP recipients.

In the pilot, SNAP recipients were financially rewarded for purchasing fruits and vegetables. A designated group of SNAP recipients received 30 cents for every one dollar of SNAP benefits they spent on targeted fruits and vegetables, including fresh, frozen and dried fruits and vegetables without added sugars, fats, oils, or salt, and excluding white potatoes, mature legumes like beans, and fruit juice (USDA, 2014). The pilot was intended to test whether an incentive system would be effective in increasing SNAP recipients’ purchase of healthy foods. In the end, the pilot showed a 26 percent increase in the purchase of targeted fruits and vegetables in the HIP group compared to the non-HIP group (USDA, 2014).

A permanent implementation of Healthy Incentives within SNAP would help SNAP to more effectively fulfill its goal of nutritional supplementation. SNAP recipients use SNAP benefits to purchase a large quantity of foods which do not supplement their nutrition, failing to meet one of their program goals; to supplement nutrition. The most popular SNAP purchases

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include sugary drinks, milk, cheese, potato chips, beef, cold cereal, bread, desserts and junk foods (O'Connor, 2017). Fruits and vegetables are purchased less frequently than these low-nutrition food groups (O'Connor, 2017). The Dietary Guidelines for Americans 2010 recommended that half of one's plate at any given meal should be filled with fruits and vegetables, and the Healthy Incentives policy encourages the purchase of these foods. In their 2012 study of the nutritional quality of fruits and vegetables, Slavin and Lloyd found that "fruits and vegetables supply dietary fiber, [which] is linked to lower incidence of cardiovascular disease and obesity." Additionally, they found that "fruits and vegetables supply vitamins and minerals to the diet and are sources of phytochemicals that function as antioxidants, phytoestrogens, and antiinflammatory agents" (Slavin and Lloyd, 2012).

The Healthy Incentives policy could be implemented and budgeted at the national level in the USDA Food and Nutrition Service, with management occurring at the state level, within the individual Departments of Health and Human Services. A limit would be set on the maximum incentives any individual SNAP recipient could redeem, so as to limit exploitation of the program.

Potential benefits of the long-term implementation of Healthy Incentives include an increase in the consumption of fruits and vegetables in SNAP recipients, as was the case in the pilot of the program in Massachusetts. The program could also incentivize SNAP retailers to stock more targeted fruits and vegetables (TFVs) as sales of these products increase. The policy change would improve the effectivity of SNAP in addressing the supplementation of nutrition in SNAP recipients' diets. This would increase overall accessibility of healthy foods to all people who shop at SNAP retail stores, SNAP recipients and otherwise.

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The wide-scale implementation of the Healthy Incentives model has a few weaknesses. One potential disadvantage of the long-term implementation of the Healthy Incentives Program is the possibility of inconveniencing or slowing down the check-out process at SNAP retailers. However, this was not found to be the case in the 2011-2012 Healthy Incentives Pilot. The program would also be costly, as it requires an increased SNAP budget with additional funds needed to be allocated. However, the savings in health expenses compensate for the additional costs in the budget. Diet related diseases come at a high medical price. Obesity, for example, is estimated to account for \$147 billion of medical expenses each year (Blackwell, 2012). Decreased consumption of high-sugar and high-fat diets have the potential to alleviate this medical burden in part.

Many groups and institutions are invested in the future of SNAP. Stakeholders who would likely support the implementation of Healthy Incentives include cities, states, and medical groups concerned about the nutritional health of the communities they serve. Anti-hunger advocacy groups would also likely support this plan. SNAP retailers would benefit from the plan, as it would contribute to more purchases and higher profits in their stores.

Some groups, however, would likely oppose this policy change. For unknown reasons, the USDA did not implement Healthy Incentives following the pilot run in 2011-2012, despite its success. The reason is likely political; many political groups oppose increased allotted funding to welfare programs. This is often due to the political narrative surrounding welfare, a narrative that paints welfare recipients as freeloading, lazy individuals unwilling to contribute to society.

However, Healthy Incentives would undoubtedly make SNAP more successful in achieving its policy goal to supplement nutrition, and the long-term implementation of this program would offer a better alternative to the current state of affairs. With the Healthy

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Incentives policy recommendation in place, SNAP recipients would purchase more fruits and vegetables, as demonstrated by the pilot of the Healthy Incentives program in Hampden County, Massachusetts (USDA, 2014).

The second recommendation reviewed is the restriction of foods designated as “foods of minimal nutritional value” from the list of foods available for purchase with SNAP benefits. This alternative would likely decrease the consumption of these unhealthy foods, and potentially lead to a shift in what SNAP retailers stock in their stores. While the Healthy Incentives model offers positive reinforcement for healthy behaviors to SNAP recipients, giving them a nudge in a healthier direction, the restrictive model provides negative reinforcement for unhealthy behaviors by forcing customers to pay out of pocket for particularly unhealthy foods. With this model, foods of minimal nutritional value (FMNVs) would be cut from the list of reimbursed foods available for purchase with SNAP benefits (Blackwell, 2012). This model would more effectively meet the nutritional supplementation goal of SNAP than does the current model.

Laura Blackwell, in her 2012 policy analysis of SNAP, reported that “controlling the consumption of foods of minimal nutritional value is especially important in youth who are building their eating patterns.” Household foods are an especially important target for keeping the consumption of FMNVs controlled, given that most FMNVs consumed by youth are consumed in the home, not at school (Farley and Daines, 2010). Blackwell argued that this poor purchasing pattern “bolsters the case for the elimination of FMNV purchases with SNAP funds,” as SNAP purchases are used to feed families at home.

Food restrictions on federally funded programs have the power and influence to shift larger scale food stocks. For example, the National School Lunch Program excluded sugar-sweetened beverages from its options, which garnered enough support from schools that many

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have chosen to remove sugar-sweetened beverages from their campuses altogether (Blackwell, 2012). It is possible, based on this example, that restrictions of foods of minimal nutritional value such as sodas and high sugar juices from SNAP purchase options would initiate a shift away from keeping these items in stock at SNAP retail stores. Other potential benefits of this restrictive model include an improvement in overall public health. Stanford researchers predicted that banning sugary drinks from SNAP would improve public health, significantly reducing obesity and diabetes (O'Connor, 2017).

This policy change would be implemented at the national level in the USDA Food and Nutrition Service, and executed by the individual state Departments of Health and Human Services. Potential disadvantages of the restrictive model include high administrative expenses and an inconvenience to SNAP retailers. Initiating this new system would require training employees on what is now accepted and not accepted for SNAP purchase, and would potentially cause a shift in demand for certain products in SNAP retail stores, causing their stock estimates to be a bit off the mark. This may lead to minor profit losses in the short-term. Because of the potential for profit losses, SNAP retailers would likely oppose the implementation of this model. However, if the plan were to be given a long transitional timeline, adjustments to stock needs and training could be done ahead of time, making for a smoother transition and less opposition.

The junk food industry would vehemently oppose this plan, as it would cut into their consumer market and decrease their overall profits. Historically, PepsiCo, Coca-Cola, Kraft Foods, the Snack Food Association, the sugar industry and the beverage industry have lobbied in opposition to restrictions on their products within SNAP (O'Connor, 2017).

The most popular purchase with SNAP benefits are sweetened beverages such as soft drinks, sugary juices and energy drinks, making up 5 percent of the SNAP dollars spent on food

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(O'Connor, 2017). A 2012 study by Andreyeva et al. found that “sugar sweetened beverages accounted for 58 percent of refreshment beverage purchases made by SNAP households.” SNAP recipients consume 40 percent more sweetened beverages than any other consumer group (Blackwell, 2012). Additionally, “SNAP benefits paid for 72 percent of the sugar-sweetened beverage purchases made by SNAP households” (Andreyeva et al., 2012). Alarming, they estimated that “nationwide, SNAP pay[s] at least 1.7 to 2.1 billion dollars annually for sugar sweetened beverages purchased in grocery stores [alone]” (Andreyeva et al., 2012). This is more than the entire budget at the Centers for Disease Control for the prevention of diet-related illnesses such as obesity, diabetes, coronary heart disease, stroke and cancer (Farley and Sykes, 2015). Through SNAP, the federal government is subsidizing foods that it warns Americans to consume less of in the federal dietary guidelines (O'Connor, 2017). Since 2004, many cities and states have attempted to cut sugary drinks from SNAP reimbursed foods, but the USDA has denied every request made, likely due to the power, money and lobbying influence of the soda industry (O'Connor, 2017).

Anti-hunger and anti-poverty advocates have also expressed opposition to plans to limit options within SNAP, even if the limited products are harmful to the recipients. These groups have expressed concerns that a plan such as this would lead to welfare cuts overall, and have argued that restricting what poor people can purchase is patronizing, discriminatory, and infringes upon the liberties of recipients (Shenkin and Jacobson, 2010).

Many stakeholders, however, would likely support the restrictive model. Cities, states, and medical groups concerned about the health of their communities would likely express support. For many cities and states, such as New York, this policy change would represent a win in a long, standstill battle against the junk food industry (O'Connor, 2017).

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With the current policy, SNAP recipients are purchasing a large quantity of foods of minimal nutritional value, which negatively affect their health. This is not consistent with the goals of SNAP. Banning foods of minimal nutritional value from the list of reimbursed foods for purchase with SNAP benefits would completely eliminate government subsidies of foods that do not supplement nutrition and would discourage SNAP recipients from purchasing foods of minimal nutritional value. This would likely encourage SNAP recipients to purchase foods with higher nutritional content, which would further the intended goal of the program to supplement the nutrition of SNAP recipients' diets.

SNAP, in its current state, is effective in addressing hunger, as it expands food access for individuals and families experiencing food insecurity. It is ineffective, however, in addressing nutritional concerns and alleviating poverty. The Healthy Incentives model and the restrictive model limiting foods of minimal nutritional value improve the existing model by enhancing the nutritional supplementation goal of the policy. Neither of the aforementioned models, however, address poverty.

A Localized Model

I propose a final policy recommendation to address the intended goals of SNAP. In this section, I propose a localized sourcing model, in which a certain portion of foods available for purchase with SNAP benefits are limited to food products purchased from local food producer in the region in which the SNAP benefits are spent. This alternative would address not only nutritional concerns, but also economic issues. The recommendation would provide local economic stimulation, bringing resources to communities who receive SNAP benefits.

SNAP is intended to address not only hunger, but poverty as well. In its current state, SNAP addresses hunger by improving food security, however it only acts as a safety net to

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alleviate the effects of poverty, rather than addressing any of the roots of the poverty problem itself. Every five dollars spent in SNAP generates over nine dollars of community spending (USDA, 2011). However, this economic stimulation is not seen in the impoverished neighborhoods which SNAP is intended to serve; profits are rather made by national or international corporate food vendors. If SNAP dollars were spent on local food products, SNAP would support the individual local economies in which SNAP recipients spend their benefits (Ladner, 2011). In order to qualify as a recipient for SNAP, one must be below a certain income bracket and indicate a sufficient need for support. The areas in which SNAP benefits are frequently spent are low-income communities, which need more economic stimulation than do mega corporations.

In order to expand the local foods industry in low income communities, so that the benefits of the industry connect back to the people living in these communities, I have proposed a localized sourcing model for the Supplemental Nutrition Assistance Program. Under this model, federal dollars, distributed at the state level, would be spent on local foods at SNAP certified food retailers. These dollars spent at local businesses would multiply through the local community, stimulating the local economy and providing economic security, higher profits, and job market expansion. These benefits would materialize in the localities in which SNAP dollars are spent.

A localized sourcing model provides a strong policy alternative to the current state of affairs in SNAP policy. Within this alternative model, SNAP retailers are required to stock local food products in order to maintain certification as SNAP retailers. This model would benefit the health of the SNAP recipients, stimulate the economy of the communities in which SNAP benefits are spent, and promote a sustainable food system. This policy recommendation

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addresses the nutritional and poverty SNAP policy goal failures by increasing access to foods necessary for a healthy, sustainable diet and fueling local economic stimulation in the areas that need it most. As local foods are arguably “the only verifiably dependable source of healthy food” (Ladner, 2011), this policy would ensure access to larger quantities of healthful products in the SNAP system.

Further, local food production provides opportunities for community-building, education, increased safety, and recreation, among other benefits. Local food production encourages and enforces healthy living habits among community members of the locality. A local food system ensures the presence of fresh foods in areas that might otherwise lack access to such products.

Improving self-sufficiency in low-income neighborhoods through local foods combats poverty by providing higher income and more career opportunities. Community-supported agriculture, usually through farmers’ markets or direct purchases between customers and local farmers, builds relationships between producer and consumer in the local market. Ongoing purchasing relationships stabilize income for local food producers, and make farming and food production a profitable industries. As ongoing purchases are made, farmers are able to expand their capacities to grow more and sell more to local markets (Robinson and Farmer, 2017). As the industry becomes more profitable, the job market will expand.

Local foods are often perceived as unaffordable, or luxury food products (Robinson and Farmer, 2017). Thus, low-income individuals have historically been less likely to purchase from the market. Low-income communities often have limited access to the local food market in the first place, as they are not the target consumer market for local goods. Low-income communities suffer without access to the local foods industry, and local foods industries struggle to stabilize without access to the full potential market. If local farms were provided a consistent and steady

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market for their goods, these farms would be able to expand, lower prices, and diversify their products, making their goods more accessible for all. Local farms have struggled to get a foothold in the market when pitted against industrial farms, in which a lack of market access leads to a need for high prices for local foods and high prices leads to a limited market (Ladner, 2011).

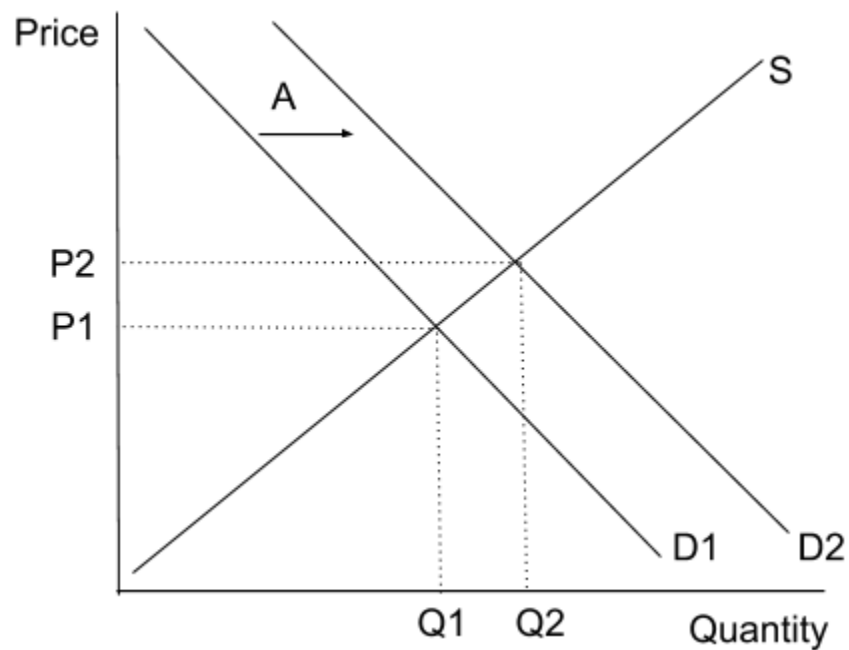


Figure 1. Demand for local food products increases.

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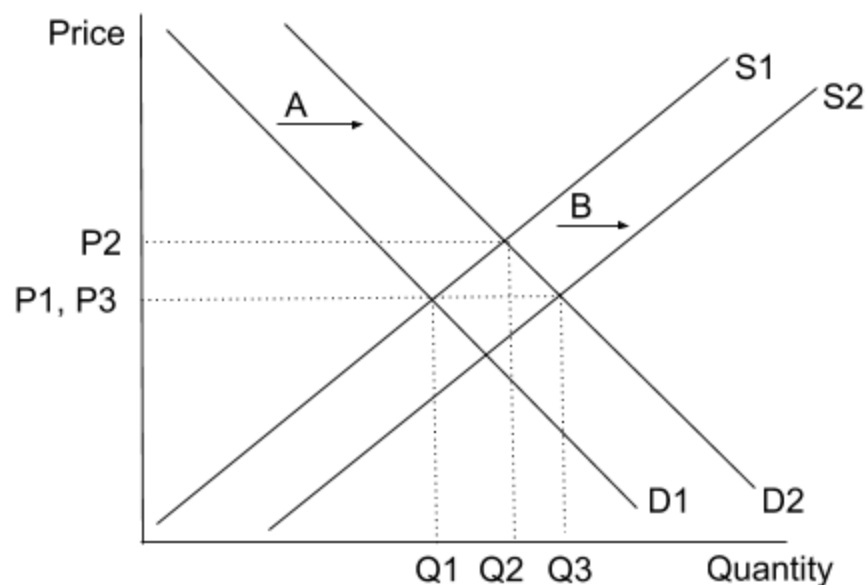


Figure 2. Supply of local food products increases following an increase in demand for local food products.

The shifts in the supply and demand of local foods in the market as a result of the implementation of my proposed model can be seen in Figures 1 and 2. In these figures, supply (S) refers to the supply of local food products into the market from local food producers, and demand (D) refers to the demand of SNAP retailers for local food products. As demand for local foods increases, I argue, supply for these products will increase in turn and the market will stabilize without a drastic price increase.

In Figure 1, demand for local foods increases, as indicated by shift A, an outward shift of the demand curve. Shift A from D1 to D2 along the S1 curve results in an increase in the quantity of local foods in the market from Q1 to Q2 and an increase in the price of local food products from P1 to P2. Prices of local foods increase in the short run.

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Figure 2 adds onto shift A as seen in Figure 1 with shift B, an outward shift in the supply curve following shift A in the demand curve. Shift B from S1 to S2 along the D2 curve results in a further increase in the quantity of local foods in the market from Q2 to Q3 and a decrease in the price of local food products from P2 to P3. Figure 2 simplifies the change in price from P2 to P3 by showing P3 as equal to P1. In reality, the price of local foods after the increase in demand and supply in the market would unlikely be the same as the starting price. It is possible that P3 could be even lower than P1. It is also possible that P3 could be higher than P1. All that is certain is that P3 and P1 will both be lower than P2, and that the quantity of local foods in the market will increase significantly from Q1 to Q3 after shifts A and B. Although there may be a short run increase in the prices of local foods as a result of the implementation of the localized sourcing SNAP model, prices will decrease after local foods producers are given time to expand capital and thus reduce production costs.

The localized sourcing model does not rely exclusively on local foods sales from SNAP recipients. The model simply requires that these products be stocked by SNAP retailers. Other customers of SNAP retailer stores also benefit from increased access to local food products as a result of the policy implementation, and these products can be sold to any customers of the SNAP retailer store. Consumers have shown increasing preference for local food products. Local foods are the “fastest-growing sector of the retail food market” (Ladner, 2011). According to the National Restaurant Association and Walmart, ‘locally grown’ is a top food trend (Robinson and Farmer, 2017). If SNAP retailers stocked their stores with local foods, they would likely find a market for the products due to the trendiness of local products.

Money spent in the local market tends to continue to circulate through local businesses. Thus, participating in the local foods market has a deep economic impact. This phenomenon is

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referred to as the “multiplier effect”. Spending money at a local business has an estimated impact between two to four times as strong as would spending the same amount for an imported good (Ladner, 2011). Studies in Seattle, the Chesapeake Bay, Oklahoma and Michigan have estimated massive economic stimulation as a result of local spending.

The Seattle study estimated a \$1 billion per year economic impact of a 20 percent shift of food spending on local foods. Regional farmers generate \$1.70 per dollar for food exports, but generate \$2.80 per dollar for local sales (Ladner, 2011). A study in Detroit estimated the creation of nearly five thousand jobs and \$20 million in tax revenues from the same 20 percent shift in the city food market to local foods. A 20 percent local food market is not an extreme shift, and is perfectly feasible in either city. A study performed in Chesapeake Bay estimated a massive impact from an even smaller shift toward local foods. A 15 percent increase in the purchase of local foods was estimated to have an economic impact in farming communities three times the weight of the impact federal subsidies brought to farmers in the region (Ladner, 2011). Local moneys multiplied in the local market, while federal moneys fell flat. Researchers in Michigan estimated that doubling or tripling the produce sold by farmers in the state to the local food market would create nearly two thousand jobs and would generate as much as \$187 million in income in the local foods market (Ladner, 2011). Analysis of data from the USDA shows a potential for a \$2.1 billion economic impact in the central Oklahoma agricultural industry if Oklahoma City were to switch to the local foods market for the purchase of “eggs, poultry, meat, vegetables, flour, and milk and dairy products” (Ladner, 2011).

The potential economic impact of a shift toward local foods is significant. Not only would the expansion of the local food market stabilize and increase the profits of already active local farmers, but it would also expand the job market for such positions. The expansion of the

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agricultural job market in urban and near-urban areas is crucial to communities facing high poverty and high unemployment rates (Ladner, 2011). Farms in urban and near-urban areas are likely to be smaller than industrial farms, due to the inability for these areas to sustain large agricultural businesses. Small farms require more workers per square unit for their maintenance. Investment in local agriculture is investment in urban job stimulation.

In addition to urban farms, prison farms benefit the agricultural industry. Prison farms are worked by inmates and are used to supply food resources for use by the prisons. Large prison farms provide crucial business to local farm supply companies, strengthening relationships between local businesses and enhancing the multiplier effect of local dollars circulating through the local foods system (Ladner, 2011). More importantly, however, prison farms offer farm job training to inmates, some of whom might seek employment in the industry after release. Felons often struggle with finding employment in the reintegration process. Unemployment among felons is linked to poverty and recidivism, both of which contribute to public safety concerns. Prison farms offer vital training to potential future farm workers, and the local foods industry provides a job market to these former inmates (Ladner, 2011). A local foods system thus provides economic benefits through economic generation, expansion of small business capital, and expansion of employment opportunities.

The designated locality radius for each region and the required portion of local foods within the SNAP localized sourcing model would be determined by the individual state Department of Health and Human Services, considering the availability of each of the four USDA designated staple food categories - fruits or vegetables, dairy products, meat, poultry or fish, and breads or cereals - produced within the region. The states would hold responsibility for determining these specific guidelines. Limited availability of certain necessities locally would

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warrant further exceptions to the localization model in order not to prevent access to any of these goods to SNAP recipient individuals and families. These decisions will be left to the individual states, which already have power over providing SNAP certifications and determining SNAP retailer eligibility.

In this policy recommendation, I do not suggest a shift toward total local sourcing for all SNAP eligible foods. Local food markets are not guaranteed to include all of the staple food categories required for SNAP retailer eligibility. Additionally, fully localized systems reflect protectionist values, which have historically proven to be economically inefficient on both the producer and consumer ends (Ladner, 2011). A fully localized model for SNAP would not help to alleviate the roots or the symptoms of poverty.

Alternatively, I recommend a partial localized sourcing model, with proportions determined at the state level. This model is not entirely radical. Cities have set proportionate goals for localized food production and sourcing at the municipal level. For example, Toronto has set a 25 percent target for localized produce sourcing by the year 2025 (Ladner, 2011). Partial localized sourcing improves community resilience in a widely import-dependent market by protecting against the anticipated rise in food transportation expenses and the unpredictability of the global market (Ladner, 2011). It provides support to an alternative system to the global food market and aids in the transition toward an increasingly localized food system.

Localizing SNAP sourcing is sustainable because it decreases the miles of travel required to bring food from its source to where it is sold. In its 2007 policy report, the Natural Resource Defense Council warned that “how far [one’s] food travels has serious consequences for your health and the climate.” The fresher and more local the food, the higher the nutritional value and the lower the implicit greenhouse gas emissions. Because climate change disproportionately

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affects high-poverty populations, SNAP is responsible for minimizing its contributions to climate change causing greenhouse gas emissions, as it is intended to alleviate poverty.

Potential benefits of the localized sourcing SNAP model include improved nutrition and overall health in SNAP recipients, increased economic stimulation in high-poverty areas, and an increasingly sustainable and just food system. Many groups would likely support localization of SNAP sourcing. Cities, states, and medical groups concerned about the health of the people they serve would likely support a plan that would ensure that fresh, local foods were available to disadvantaged individuals and families. Environmental justice advocates, minority rights groups, and anti-poverty groups would also likely support this plan, as it promotes sustainability, alleviates some of the issues that arise with environmental and food injustice, and makes quality food more accessible for low-income individuals and families.

Potential disadvantages to the policy change include complicated initial implementation, and an extension of the responsibility states have with regards to SNAP allocations. Not only would state departments be required to determine recipient and retailer eligibility, but also product eligibility for each individual SNAP retailer. This would be an extensive process, and would likely require a greater budget than what is currently allocated to these departments. At the national level, the USDA Food and Nutrition Service would be responsible for enforcement of the implementation of the new sourcing guidelines.

The same groups that would oppose the restriction of foods of minimal nutritional value would likely also oppose the localization model. Junk food industries and the institutions that these industries have influence over, such as the USDA, would not support such a model. Localization of SNAP threatens these groups' profits and cuts their access to one of their major consumer markets. Some social advocacy groups might find the policy to be discriminatory, as

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has been the case in the past when restrictive models have been proposed (Shenkin and Jacobson, 2010).

Unlike the Healthy Incentives model and the Restriction of Foods of Minimal Nutritional Value, the localization of SNAP retailer sourcing not only addresses nutritional needs, but also addresses poverty and sustainability. These are all issues that concern low income communities in the United States, the community that SNAP is intended to assist. The localization of SNAP encourages self-sufficiency of low-income families and individuals, one of the primary goals of SNAP, by providing them with options grown in their local areas.

This policy alternative would benefit the communities in which SNAP dollars are being spent more directly by keeping the money spent through the program in those communities. SNAP is intended to help low-income communities become more self-sufficient. In order to do so, it must stimulate those economies, not the economies of communities elsewhere, possibly outside the state or even outside the country in which the dollars are being spent. This alternative would eliminate many of the foods of minimal nutritional value currently being sold under SNAP, would eliminate the need for long-distance transportation of foods, and would provide economic stimulation to the communities who need it most, the low income communities who have less access to nutritional foods (Aggarwal et al., 2012 & Baker et al. 2006).

Members of Congress would likely support this policy change, due to the economic benefits. According to the 2011 SNAP State Outreach Toolkit, every \$1 billion of retail food demanded by SNAP recipients generates 3,300 farm jobs. The creation of jobs could be used as a political platform for reelection strategies. Under the amended SNAP system, these newly generated jobs would be in the communities in which the SNAP dollars were being spent, within the constituencies to which members of Congress campaign. They could guarantee to their

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constituents that their tax dollars going toward SNAP are staying in their communities, and not leaving their state.

The localized sourcing model for the Supplemental Nutrition Assistance Program has massive potential to improve the policy's ability to meet its intended goals. This would not only make the policy more efficient, but would also benefit the lives of the tens of millions of people served by the program, and the millions more who visit SNAP retailer stores. Additionally, the model lays the groundwork for the expansion of a sustainable local foods system. Such a system is increasingly essential in the changing global economy and climate.

Applications in San Antonio, Texas: A Case Study

Eddie's Fruit and Vegetable Outlet is a family owned corner store in Los Jardines that provides produce and other food products to customers at reasonable prices. Los Jardines is a low-income, majority Hispanic neighborhood within the Inner West Side area of San Antonio, Texas. Residents of Los Jardines get by with little and have few resources available to them. Poverty and the symptoms of poverty, including poor access to education, food insecurity, and hunger affect the population. Eddie's is the closest and most accessible market for produce to residents of Los Jardines and residents of other Inner West Side neighborhoods to the west of Los Jardines, some of which contain no grocery stores at all. Produce sold at Eddie's is sourced locally by Fernandez Produce Express, a local food vendor located only four miles from Eddie's. Eddie's is a SNAP retailer, and gets a good amount of business from SNAP purchases (Personal communication, March 29, 2018).

According to City Data records, Los Jardines falls below the Texas state average with regards to median household income, the median property value for houses, and the percentage of the population with higher education. The population lacks access to education and wealth. It

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is a majority minority neighborhood with a Hispanic majority by a wide margin, with over 95 percent of residents identifying as Hispanic (City Data, 2018). The poverty rate of the population of Los Jardines is around 30 percent, nearly twice that of the state population (City Data, 2018). There appears to be limited mobility out of the neighborhood when compared to neighborhoods across the state, as the amount of time spent in a given home after moving in is significantly higher in Los Jardines than in Texas at large. Food insecurity is a problem in Los Jardines - just over 30 percent of households in the neighborhood received SNAP funds in the past year (City Data, 2018).

In the West Side of San Antonio, in which Los Jardines is located, grocery stores with reliable produce availability are rare. This creates food access problems for residents of the area, some of whom do not have access to personal transportation and cannot easily travel outside of their immediate neighborhood in search of food. Parts of the Los Jardines neighborhood have been designated as “low [food] access” by the United States Department of Agriculture (USDA, 2017).

Like most corner stores, Eddie’s Fruit and Vegetable Outlet sells snack foods, beer, cigarettes, lottery tickets and soft drinks. Eddie’s is unique in that it also serves as a small-scale local grocery store, with fresh produce, canned goods, and other food products in stock at all times. On March 29, 2018, the store’s produce section was stocked with avocados, yellow and white onions, tomatoes, lemons, potatoes, jalapenos, apples and bananas. Also for sale at the store were bags of rice, pasta, sugar, canned soups, condiments, canned beans, corn, and pickled jalapenos, eggs, pre-packaged sliced meats and hot dogs, and ready-to-eat meals. Eddie’s is evidently a family-oriented store. The store is owned, managed and staffed by a single family,

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and caters to family households (Personal communication, March 29, 2018). Parents can pick up meals for their little ones and pet food for their family cat or dog all at Eddie's.

Eddie's serves as an excellent case study for the potential of a localized SNAP sourcing model. It is located in an area with low food access adjacent to a food desert, it is already a certified SNAP retailer, it relies on business from SNAP users, and it sources a sizeable portion of its stock from a local food producer.

The prices of the produce sold at Eddie's are important to consider when using the store as a case study for the potential of the implementation of a local sourcing SNAP model.

Although SNAP users do not have to pay for qualifying foods from SNAP retailers out of pocket, they still must budget their SNAP credits in order to maximize the amount of food they can get within their limited allowance.

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Table 1

Comparison of produce prices at Eddie's with prices at the nearest proximity grocer, Arlan's

<u>Produce item</u>	<u>Eddie's price</u>	<u>Arlan's price</u>	<u>Difference</u>
Avocado	\$1.25 each	\$0.99 each	\$0.26 each
Lemons	\$0.33 each	\$0.40 each	- \$0.07 each
TOTAL			\$0.19 one each
Yellow onions	\$0.99 per lb	\$0.58 per lb	\$0.41 per lb
White onions	\$0.99 per lb	\$0.59 per lb	\$0.40 per lb
Salad tomatoes	\$1.29 per lb	\$0.99 per lb	\$0.30 per lb
Roma tomatoes	\$0.99 per lb	\$0.88 per lb	\$0.11 per lb
Potatoes	\$0.49 per lb	\$0.30 per lb	\$0.19 per lb
Bananas	\$0.59 per lb	\$0.50 per lb	\$0.09 per lb
TOTAL			\$1.50 one lb each
NET DIFFERENCE			\$1.69 one unit each

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Table 2

Comparison of produce prices at Eddie's with prices at the city's leading grocer, H-E-B

<u>Produce item</u>	<u>Eddie's price</u>	<u>H-E-B's price</u>	<u>Difference</u>
Avocado	\$1.25 each	\$0.58 each	\$0.67 each
Lemons	\$0.33 each	\$0.33 each	\$0.00 each
TOTAL			\$0.67 one each
Yellow onions	\$0.99 per lb	\$0.88 per lb	\$0.11 per lb
White onions	\$0.99 per lb	\$0.68 per lb	\$0.31 per lb
Salad tomatoes	\$1.29 per lb	\$0.98 per lb	\$0.31 per lb
Roma tomatoes	\$0.99 per lb	\$0.98 per lb	\$0.01 per lb
Potatoes	\$0.49 per lb	\$0.39 per lb	\$0.10 per lb
Bananas	\$0.59 per lb	\$0.44 per lb	\$0.15 per lb
TOTAL			\$0.99 one lb each
NET DIFFERENCE			\$1.66 one unit each

Table 1 compares the prices of produce sold at Eddie's to the prices of produce sold at Arlan's, the nearest proximity grocer to Eddie's. Table 2 compares the prices of produce sold at Eddie's to the prices of produce sold at H-E-B, San Antonio's leading grocer. Eddie's has a positive net difference in pricing when compared to both Arlan's and HEB. Eddie's prices are, overall, higher. When compared to its competitors', Eddie's produce is more expensive. It would thus be more cost effective for SNAP recipients to spend their SNAP dollars at Arlan's or at HEB than at Eddie's.

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Eddie's has no incentive to inflate its prices beyond the market price. One can assume that Eddie's sells its produce at the lowest profitable price possible based on the price it buys its produce from its supplier, Fernandez Produce Express. The lower the prices, the better business Eddie's will get in Los Jardines. It is thus the supplier from which Eddie's sources its produce that affects the prices at which they sell. It is true, within this case study, that local food prices are higher than market prices for equivalent foods not locally sourced.

In the current system, local food producers must charge high prices in order to compensate for low demand and continue to stay in business. I argue that the implementation of a localized sourcing model for SNAP would result in the expansion and stabilization of the local foods market, and in turn, a reduction of local foods prices. If there is a wide enough market for local foods, local food prices can compete with leading stores' market prices.

Although produce prices at Eddie's are slightly higher than they are at competing stores, the business remains profitable and produce continues to be stocked. SNAP certified retailers must sell either fruits or vegetables in order to maintain their certification, however stocking a wide variety of fresh produce is not a qualifier for SNAP retailer certification (USDA, 2018). Canned vegetables would suffice for certification. Eddie's sells produce because there is customer demand for it.

There is not only demand for fresh food products in San Antonio, but also significant supply. Bexar County, in which the city of San Antonio is located, is home to an extensive agricultural system. According to data found by the Texas State Historical Association, the county contained 2,385 farms and ranches, mostly pastures and cropland, extending over 441,206 acres, in 2002. Bexar county farmers and ranchers made an average income of nearly \$34,000, well above the livable wage level for Bexar county, most of which was made off of

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crop sales alone (Long, 2017). Major agricultural sales in Bexar county were attributed to livestock feed, grains, beef, peanuts and vegetables (Long, 2017). Bexar county has the potential to source the local market with these food products.

Eddie's Fruit and Vegetable Outlet in San Antonio, Texas as a case study demonstrates the capacity for the success of a local sourcing model for SNAP. Eddie's already meets the requirements for a localized model, and if the model were to be implemented, it would not have to change its normal stock in order to remain within the requirements for SNAP certification. Despite being located in a low-income, high poverty neighborhood with low food access, and despite charging higher prices for produce than its competitors, Eddie's is successful within the bounds of the model.

If the localized SNAP model were to be implemented, other SNAP certified retailers which do not yet source foods locally could begin to do so by purchasing from local food producers such as Fernandez Produce Express, where Eddie's buys its produce. Implementation of a localized sourcing model would expand the market for local foods in Bexar county, which would result in an expansion of local food production, and an increase in local food producers' profits, without a significant increase in sale prices. The local economy would be stimulated, jobs created, and businesses thriving.

Conclusions

The localized sourcing model for the Supplemental Nutrition Assistance Program improves upon the existing policy by more adequately addressing sustainability concerns and the symptoms and causes of poverty, thus further aligning the policy with its intended goals. My proposed model provides a dependable market for the local foods industry, allowing for its expansion and development, and allowing for increased access to local foods, even among

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disadvantaged populations. The local foods industry offers a more sustainable alternative to the currently unsustainable food system, as localization reduces the need for long distance transportation, long term preservation, and large scale regulated food production. The model not only addresses hunger and nutritional inequity, two major symptoms of poverty, but also addresses the economic problems that cause poverty, such as the political power of corporations and the issue of unemployment.

In its current state, SNAP fails to address the roots of poverty. Rather, it provides short term relief to its recipients by alleviating hunger. The existing system leads to wide scale reliance on the program because it offers no solution to the poverty problem that led people to need the program in the first place. My proposal for a localized sourcing model, by injecting federal dollars into struggling economies on the local level and supporting local industry, provides a ladder out of poverty for SNAP recipients. In the long run, the implementation of the proposal could result in a reduced need for the program as poverty is slowly alleviated.

If implemented, the proposed local sourcing model would benefit local food producers, other local businesses, the unemployed, SNAP recipients, customers of SNAP certified retailer stores, and would lower reliance on unsustainable programs and systems. It would thus reduce social inequalities with regards to food access and environmental risk. My model thus promotes sustainability in all philosophical facets - the environmental, the economic, and the social.

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References

- Aggarwal, A., Monsivais, P., & Drewnowski, A. (2012). Nutrient intakes linked to better health outcomes are associated with higher diet costs in the united states. *Plos One Open Access*.
- Andreyeva, T., Luedicke, J., Henderson, K. & Tripp, A. (2012). Grocery store beverage choices by participants in federal food assistance and nutrition programs. *American Journal of Preventative Medicine*.
- Baker, E. A., Schootman, M., Barnidge, E. K., & Kelly, C. D. (2006). The role of race and poverty in access to foods that enable individuals to adhere to dietary guidelines. *Preventing Chronic Disease*.
- Blackwell, L. (2012). Supplemental nutrition assistance program: A policy analysis of restricting foods with minimal nutrition value. *Texas Medical Center Dissertations*.
- Breunig, R., Dasgupta, I., Gundersen, C., & Pattanaik, P. (2001). Explaining the food stamp cash-out puzzle. *Food Assistance and Nutrition Research Program*.
- Chappelka, M., Oh, J., Scott, D., & Walker-Holmes, M. (2017). Food for thought: Analyzing public opinion on the supplemental nutrition assistance program. *Bloomberg Data for Good Exchange Conference*.
- City Data. (2018). 78237 zip code detailed profile.
- Dundar, B., Costello, C., & McGarvey, R. G. (2017). Robust optimization evaluation of reliance on locally produced foods. *Environment Systems and Decisions*.
- Farley T, Daines R. (2010) No food stamps for sodas. *The New York Times*.
- Farley, T., Rice, J., Bodor, J. N., Cohen, D., Bluthenthal, R., & Rose, D. (2009). Measuring the food environment: Shelf space of fruits, vegetables, and snack foods in stores. *Journal of Urban Health*.
- Farley, T., & Sykes, R. (2015). See no junk food, buy no junk food. *The New York Times*.
- Farmer, A., Breazeale, M., Stevens, J. L., & Waites, S. F. (2017). Eat green, get lean: Promoting sustainability reduces consumption. *Journal of Public Policy & Marketing*.
- Feeding America. (2014). *Map the meal gap 2014*.
- Feeding America. (2016). *Map the meal gap 2016*.

LOCALIZED SOURCING MODEL FOR SNAP

Hu, G., Wang, L., Arendt, S., & Boeckenstedt, R. (2011). Analyzing sustainable, localized food production systems with a systematic optimization model. *Journal of Hunger & Environmental Nutrition*.

Ladner, P. (2011). *The urban food revolution: Changing the way we feed cities*.

Long, C. (2017). Handbook of Texas online: Bexar county.

Moustafa, K. (2016). Food and sustainability challenges under climate changes. *Science & Engineering Ethics*.

National Association for the Advancement of Colored People (NAACP). (2015). *Coal blooded: Putting profits before people*.

Natural Resource Defense Council. *Health facts: Food miles*.

O'Connor, A. (2017). In the shopping cart of a food stamp household: Lots of soda. *The New York Times*.

Poverty quick facts. Economic Policy Institute.

Robinson, J. M., & Farmer, J. R. (2017). Why local and why now? *Selling local: Why local food movements matter*.

Shenkin, J. D., & Jacobson, M. F. (2010). Using the food stamp program and other methods to promote healthy diets for low-income consumers. *American Journal of Public Health*.

Slavin, J. L., & Lloyd, B. (2012). Health benefits of fruits and vegetables. *Advances in Nutrition*.

Taras, H. (2005). Nutrition and student performance at school. *Journal of School Health*.

Texas Department of State Health Services. Texas behavioral risk factor surveillance system.

United States Bureau of the Census. (2014). *Bexar county*.

United States Department of Agriculture. (2011). Supplemental nutrition assistance program (SNAP) community partner outreach toolkit.

United States Department of Agriculture Economic Research Service. (2017). Food access research atlas.

United States Department of Agriculture Food and Nutrition Service. (2012). *Building a healthy America: A profile of the supplemental nutrition assistance program*.

United States Department of Agriculture Food and Nutrition Service. (2014). *Evaluation of the Healthy Incentives Pilot (HIP) final report*.

LOCALIZED SOURCING MODEL FOR SNAP

United States Department of Agriculture Food and Nutrition Service. (2014). *SNAP training guide for retailers*.

United States Department of Agriculture Food and Nutrition Service. (2018). Supplemental Nutrition Assistance Program: Is my store eligible?

World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.

Texas Department of Health and Human Services. (2018). SNAP Food Benefits.