

QUENCHING FOOD DESERTS: RETHINKING WELFARE BENEFITS TO COMBAT OBESITY

BY: REBECCA LEE*

“Food deserts” are large areas, typically in low-income communities, where residents lack easy access to affordable and nutritious meals. This Note seeks to determine why food deserts continue to be prevalent despite attempts to eradicate them. First, this Note will examine what factors prevent individuals from utilizing nutritious alternatives in urban food desert environments. Next, it will explore whether there is a way to alter the implementation of welfare resources such as the Supplemental Nutrition Assistance Program (“SNAP”) to encourage low-income consumers to purchase healthier options. Finally, this Note will analyze how the benefit distribution structure of SNAP may be contributing to the proliferation of food deserts, and concludes with a proposed solution: increase the food distribution system in order to curtail the “food insecurity” that sustains food deserts. It also emphasizes that educational programs and tax benefit programs can provide SNAP participants with information about how to properly budget and create healthy meals.

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* Rebecca Lee, University of Southern California Gould School of Law, 2016; Dartmouth College, B.A. 2012. Special thanks to the editors of the Southern California Review of Law and Social Justice for their hard work and thoughtful edits, and to my parents who provided invaluable support and advice.

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I. INTRODUCTION

For Stephanie Ponce, getting groceries is a daylong trek around the greater Los Angeles area during which she visits three to five different grocery stores to get everything she needs for the week.¹ Ponce lives in the heart of South Central Los Angeles, where markets are located far from her residence, with more stores closing every year.² Because her surrounding neighborhood does not provide affordable, nutritious options in one easily accessible venue, she is forced to visit multiple locations to obtain food.³ Ponce’s experience is typical of those living in urban areas with limited access to grocery stores.⁴ In fact, Ponce’s experience is significantly more positive than some Americans who live where affordable and nutritious food is not readily available, called “food deserts.”⁵ Because she has access to her own car, she can drive to all five stores in one day.⁶

However, others living in food deserts as not as lucky, and must rely

¹ Stephanie Ponce, *The Sunday Grocery Routine*, BRIDGING S. CENT. (Feb. 1, 2015), <http://www.bridgingsouthcentral.org/the-sunday-grocery-routine>.

² Samantha Masunaga, *Fresh & Easy Closing 30 Stores in Southern California*, L.A. TIMES (Mar. 23, 2015), <http://www.latimes.com/business/la-fi-fresh-and-easy-20150323-story.html>; *Ralphs Announces Permanent Store Closures*, PR NEWSWIRE (Mar. 17, 2015), <http://www.prnewswire.com/news-releases/ralphs-announces-permanent-store-closures-72114122.html>.

³ Ponce, *supra* note 1 (noting that Ponce travels to different stores to get dairy, meats, poultry, household essentials, Latin food items, fruits, and vegetables).

⁴ Econ. Research Serv. et al., *Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences*, U.S. DEP’T AGRIC. 5 (June 2009), http://www.ers.usda.gov/media/242675/ap036_1_.pdf.

⁵ *Id.* at 1.

⁶ Ponce, *supra* note 1.

on public transportation, friends with cars, or bicycles or walking to obtain their groceries.⁷ Having to balance the time spent travelling from location to location to obtain food with work obligations, family obligations, and limitations imposed by public transportation, those living in food deserts often purchase foods with long shelf lives.⁸ While this behavior may cut down on the time spent going to the grocery store, consuming large amounts of canned, frozen, and pre-made food can have other insidious consequences. Often, the items being purchased are highly calorific, non-nutritive items, such as chips, sodas, and other junk foods.⁹ Frequent consumption of these products rather than nutrient dense fruits, vegetables, and fresh meats seems to correlate with the alarming rise of obesity rates.¹⁰

Obesity is one of the most rapidly spreading and prevalent health issues in the United States, with more than one-third (78.6 million) of adults maintaining a body mass index (“BMI”) of over thirty.¹¹ Various studies have tried to map trends between obesity and factors such as race, socioeconomic status, and gender. These studies show that obesity disproportionately affects individuals classified as racial-ethnic minorities, those with limited resources, and those with low education levels.¹² A common factor uniting individuals disproportionately affected by obesity is their lack of convenient access to healthy food options.¹³ The dearth of easily accessible, affordable, and healthy meal opportunities creates large swaths of areas called “food deserts.”¹⁴

The federal government has attempted to remedy the food desert problem by implementing nutrition programs such as the Healthy Food

⁷ Econ. Research Serv. et al., *supra* note 4, at 33.

⁸ Andy Weisbecker, *Few Healthy Food Choices in Urban Food Deserts*, FOOD SAFETY NEWS (May 21, 2010), <http://www.foodsafetynews.com/2010/05/few-healthy-food-choices-in-urban-food-deserts>.

⁹ Michael Correll, *Getting Fat on Government Cheese: The Connection Between Social and Welfare Participation, Gender and Obesity in America*, 18 DUKE J. GENDER L. & POL’Y 45, 59–60 (2010).

¹⁰ Adam Drewnowski & SE Specter, *Poverty and Obesity: The Role of Energy Density and Energy Costs*, 79 AM. J. CLINICAL NUTRITION 6 (2004).

¹¹ Cynthia L. Ogden et. al., *Prevalence of Childhood and Adult Obesity in the United States, 2011-2012*, 311 JAMA 806 (2014).

¹² Correll, *supra* note 9, at 57.

¹³ Michele Ver Ploeg et al., *Food Stamps and Obesity: Ironic Twist or Complex Puzzle?*, U.S. DEP’T AGRIC. ERS, (Feb. 1, 2006), <http://www.ers.usda.gov/amber-waves/2006-february/food-stamps-and-obesity-ironic-twist-or-complex-puzzle.aspx>.

¹⁴ Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246, § 7527, 122 Stat. 1651, 2039–40 (2008).

Financing Initiative, which awards loans and grants to food retailers that provide nutritious food access to underserved communities.¹⁵ Despite the time and money invested in restructuring the nutritional resources available to low-income communities, the practical use of the accessible and affordable produce remains dauntingly low.¹⁶

This Note posits that food deserts continue to be prevalent despite proactive attempts to eradicate them because the structure of welfare programs is inadvertently undermining progress. The main questions this Note will address are (1) What is preventing individuals in disadvantaged communities from learning about and utilizing the addition of nutritious alternatives in urban food desert environments?; and (2) Is there a way to alter the implementation of welfare resources such as the Supplemental Nutrition Assistance Program (“SNAP”) to encourage lower income consumers to purchase healthier options?

Inquiry into how to best serve these consumers and their communities is crucial because the cost of obesity created by food deserts is borne not only by the federal government, but also by the individuals who are part of the epidemic. In addition to being more at risk for heart disease, stroke, and type 2 diabetes, obese individuals spend, on average \$1429 more a year on medical costs than non-obese individuals.¹⁷

In 2011, the federal government attempted to tackle the obesity issue by allocating \$400 million to the Healthy Food Financing Initiative.¹⁸ More, it recently authorized a fund of \$956 billion to spend on nutritional programs over the ten-year period covered by the Agricultural Act of 2014.¹⁹ With high economic, physical, and psychological costs associated with obesity, it is now more important than ever to understand the effects of the national and local public health reforms in order to implement effective and sustainable remedies. By emulating programs that have already been successful and analyzing the reasons why other programs

¹⁵ Agricultural Act of 2014, Pub. L. No. 113-79, § 4206, 128 Stat. 649, 824 (2014).

¹⁶ Steven Cummins et. al., *New Neighborhood Grocery Store Increased Awareness of Food Access but Did Not Alter Dietary Habits or Obesity*, 33 HEALTH AFFAIRS 283 (2014).

¹⁷ Eric A. Finkelstein et al., *Annual Medical Spending Attributable to Obesity: Payer-And Service-Specific Estimates*, 28 HEALTH AFFAIRS 822, 825 (July 2009) (dollar amount taken from a study conducted in 2008).

¹⁸ U.S. Treasury Dep’t Office of Pub. Affairs, *Obama Administration Details Healthy Food Financing Initiative*, CENTERS FOR DISEASE CONTROL & PREVENTION (Feb. 19, 2010), http://www.cdc.gov/chronicdisease/recovery/PDF/Healthy_Food_Financing_release.pdf.

¹⁹ Letter from Douglas W. Elmendorf, Director of Congressional Budget Office, to Honorable Frank D. Lucas, Chairman of Committee on Agric. (Jan. 28, 2014), http://www.cbo.gov/sites/default/files/hr2642LucasLtr_0.pdf.

have failed, the federal government can utilize the designated funds in the most efficient manner possible.

Focusing on the cultural aspect of nutrition may be the key to bridging the gap between implementation of programs and their long-term success. While there has been extensive research into the correlation between obesity and food deserts with general socioeconomic factors, there has been very little investigation into the correlation between gender and obesity in an urban food desert environment. The few surveys that do concern gender, however, reveal a distinctly higher incidence of obesity in low-income women than in low-income men, all other factors being equal.²⁰ This note analyzes how the benefit distribution structure of SNAP may be contributing to the proliferation of food deserts. It proposes that a more frequent distribution system would curtail the “food insecurity” that is often seen in recipients of government nutrition benefits. Because many of the program participants lack information about how to properly budget or utilize the benefits to create healthy meals, this note also proposes an educational program directed at subsidy beneficiaries and high school students. By including high school students in the program, young people who may have to use the program in the future will be properly informed both about how to use the program and about how to make healthy choices in general.

A. WHAT ARE FOOD DESERTS AND WHY HAVEN'T THEY BEEN ERADICATED YET?

A food desert is an area in which there is limited access to affordable and nutritious food and is typically located in a lower-income community.²¹ While there may be easily accessible and low-cost options such as fast food outlets in closer proximity, fresh, high-quality food is often either outside the community's budgetary limitations or entirely lacking. Supermarkets, which generally offer more diverse and nutritious options than convenience or corner stores, tend to be located in middle- to high-income neighborhoods with predominantly white populations.²² This

²⁰ Correll, *supra* note 9, at 46; Cynthia Ogden, et. al., *Obesity and Socioeconomic Status in Adults: United States, 2005-2008*, CENTERS FOR DISEASE CONTROL & PREVENTION (2010) <http://www.cdc.gov/nchs/data/databriefs/db50.pdf> (noting that these factors include race, age, environment, and educational level).

²¹ Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246, § 7527(a), 122 Stat. 1651, 2039.

²² See Lisa M. Powell et al., *Food Store Availability and Neighborhood Characteristics in the United States*, 44 PREVENTATIVE MED. 189 (2007).

trend may help explain the occurrence of food deserts, especially in urban environments with poorly established public transit systems. Lack of effective and affordable public transportation forces low income communities to rely more on procuring groceries from small corner stores or convenience stores, which generally provide less fresh produce and healthy options than a large supermarket, if they stock them at all.²³ While these convenience stores may sometimes carry fresh fruits and vegetables, these outlets are not known for selling this type of food and thus mark the prices up.²⁴ Because it is more expensive for these convenience stores to carry these items than it would be for a larger supermarket with more resources, the added cost is passed on to the consumers.²⁵

While some of these consumers might be willing to travel further to shop at large supermarkets, the main attraction of supercenter grocery stores are their lower prices rather than their healthier food options.²⁶ Therefore, even when given the opportunity to purchase fresh produce with higher nutritive value than canned or processed goods, the shoppers travelling to other neighborhoods often chose to purchase the more calorically dense and less nutritive food products.²⁷ These consumers generally avoid fresh food items because fruits and vegetables are on average more perishable and more expensive than other options.²⁸ Individuals who lack private transportation and also live far away from supermarkets, such as people living in an urban food desert, are forced to choose long-term shelf life over proper nutrition in order to ensure that their groceries will last them until their next trip to the inconveniently located supermarket.²⁹

The effects of food deserts are best illustrated by obesity statistics. Compare, for example, two parts of Los Angeles: West Los Angeles and South Los Angeles. These neighborhoods are a mere half an hour apart

²³ Econ. Research Serv. et al., *supra* note 4, at 62 (explaining that large supermarkets generally have more nutritious food options but are farther away than corner stores, and therefore much harder to access).

²⁴ Christine Trang, *Lack of Fresh Food and Grocery Stores Concerns Many in South Los Angeles*, ANNENBERG MEDIA CENTER (Oct. 8, 2010), http://intersectionssouthla.org/story/lack_of_grocery_stores_causes_concern_among_many/ (“A food desert can also occur at a place where you buy fresh fruit at a convenience store, which is not known for selling that sort of food, so the store marks the price up on that particular product.”).

²⁵ *Id.*

²⁶ Michele Ver Ploeg et al., *supra* note 13, at iv.

²⁷ *See generally* Econ. Research Serv. et al., *supra* note 4, at 56.

²⁸ *Id.*

²⁹ *See generally* Weisbecker, *supra* note 8.

from each other. However, West Los Angeles has a much greater incidence of grocery stores with fresh fruits and vegetables.³⁰ The obesity rate among the adult population of West Los Angeles is 10 percent, while the obesity rate of the same demographic in South Los Angeles is more than triple that, with 35.4 percent of adults struggling with obesity.³¹

There have been attempts to bring larger scale supermarkets into food desert environments, funded by the federal government through programs such as the Healthy Food Financing Initiative.³² Unfortunately, these ameliorating efforts have been largely unsuccessful.³³ Recent investigation into a handful of failed stores in underserved neighborhoods has found a simple and discouraging answer to the programs' ineffectualness—shoppers simply did not want what the new stores were selling.³⁴ A myriad of explanations provide insight into the initiative's unpopularity: shoppers wanted more ethnic foods, the new stores did not accept the food stamp system, or the appeal of fast food overcame the appeal of more nutritious options.³⁵ Because the new stores were not marketed in a way that would appeal to the surrounding neighborhood, the stores could not generate enough sales or attract enough customers to cover their operating costs.³⁶ The frequent closures of chain supermarkets and general perception that there is not enough consumer interest to support a new store has deterred potential grocery stores from opening in underserved areas.³⁷

³⁰ Christine Trang, *Lack of Fresh Food and Grocery Stores Concerns Many in Los Angeles*, ANNENBERG MEDIA CENTER (Oct. 8, 2010), http://intersectionssouthla.org/story/lack_of_grocery_stores_causes_concern_among_many/.

³¹ *Id.*

³² Agricultural Act of 2014 (Healthy Food Financing Initiative), Pub. L. No. 113-79, § 4206, 128 Stat. 649, 824 (2014).

³³ London School of Hygiene & Tropical Medicine, *Better Access to Healthy Foods Not Enough to Tackle Obesity*, SCIENCE DAILY (Feb. 3, 2014), www.sciencedaily.com/releases/2014/02/140203171857.htm.

³⁴ Audrey Dilling, *Supermarkets Don't Go to 'Food Deserts'*, MARKETPLACE BUSINESS (Oct. 26, 2014) <http://www.marketplace.org/topics/business/why-supermarkets-dont-open-food-deserts>.

³⁵ *Id.*; Jerome Nathaniel, *Obesity Food Deserts Have Given Way to Food Swamps*, POLICY.MIC (Oct. 26, 2014), <http://mic.com/articles/7176/obesity-food-deserts-have-given-way-to-food-swamps>.

³⁶ *Ralphs Announces Permanent Store Closures*, PR NEWswire (Mar. 17, 2015), <http://www.prnewswire.com/news-releases/ralphs-announces-permanent-store-closures-72114122.html>.

³⁷ See Christopher Cook, *Covering Food Deserts: Tips for Bringing Context to a Complex Story*, REPORTING ON HEALTH (last visited Feb. 1, 2016), <http://www.centerforhealthjournalism.org/resources/lessons/covering-food-deserts>.

II. THE TRUE PROBLEM OF FOOD DESERTS

In 2008, the Food, Conservation, and Energy Act directed the Department of Agriculture to identify the defining characteristics of food deserts, determine how they affect communities, and provide potential solutions to address the problem.³⁸ After conducting a year-long study on the food consumption habits of individuals living in low-income communities, the Department of Agriculture recommended stocking convenience stores with healthier options, such as low fat milk, encouraging community level programs, such as farmers' markets, and providing subsidized supermarket shuttle services.³⁹ While these suggestions address the technical characteristics (namely affordability and accessibility) that lead to food deserts, they fail to provide solutions to the qualitative contributors to the problem. In addition to greater barriers to obtaining healthy food, individuals living in these communities suffer from a distinct lack of awareness about how their public assistance benefits can be used to cultivate a healthy lifestyle.⁴⁰

Many of the individuals living in low-income areas with limited access to healthy food rely on SNAP, formerly called Food Stamps, to obtain groceries. SNAP, which was established in the Food Stamp Act of 1964, sought to give low-income households "a greater share of the Nation's food abundance."⁴¹ While the Act was established under federal law, each State has the power to establish standards that determine the eligibility of applicant households within their boundaries.⁴² Over the years, legislation has expanded SNAP to include various definitions of a household, has added requirements that require adults to work a certain amount of hours to receive benefits, and has increased the program's budget.⁴³ However, the general intent of the program has remained the same: to provide low-income individuals the opportunity to purchase

³⁸ Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246, 122 Stat. 1651 (2008).

³⁹ Econ. Research Serv. et al., *supra* note 4, at 106–108.

⁴⁰ See Briana Banks, *What Is SNAP and Why Is It Important?*, CAPITAL AREA FOOD BANK (Feb. 16, 2012), <http://www.capitalareafoodbank.org/2012/02/what-is-snap-and-why-is-it-important/>.

⁴¹ Food Stamp Act of 1964, Pub. L. No. 88-525 § 2, 78 Stat. 703, 703 (1964).

⁴² *Id.* There are some limitations on the State's power, however. The State cannot distribute the benefits to anyone, but must comply with the maximum income limitations consistent with the income standards used by the administration of the federally aided public assistance program. There is also a limitation on the resources that would be provided to eligible household—for example, no alcohol benefits are redeemable.

⁴³ *From Food Stamps to the Supplemental Nutrition Assistance Program*, U.S. DEP'T AGRIC., FOOD & NUTRITION SERV. (last visited Mar. 22, 2015), <http://www.fns.usda.gov/sites/default/files/timeline.pdf>.

foodstuffs that promote healthy lifestyles.⁴⁴

Today, it is questionable whether SNAP benefits promote healthy American lifestyles. Although there is no definitive research on how many people relying on food stamps also live in food deserts, there is significant overlap between urban areas where a large percentage of the population relies on food stamps and urban areas with grocery stores that rarely carry fresh and nutritious foods.⁴⁵ Almost all of these benefits are being used at large supermarkets and grocery stores, rather than convenience stores or gas stations.⁴⁶ Notably, the smaller stores, are the establishments which occur more frequently in the food desert neighborhoods.⁴⁷ While the neighborhood corner stores may be much closer in proximity, and while they may accept SNAP benefits, the options offered at these convenience stores are often unhealthy, expensive junk foods.⁴⁸ Therefore, SNAP users residing in food deserts must decide between paying higher prices for less nutritive foods or sacrificing time and money by traveling almost four times the distance to a better-stocked supermarket.⁴⁹ Because they must travel so far, the deleterious consequences of a food desert again become apparent. In order to utilize their SNAP benefits most efficiently, participants often gravitate towards buying non-perishable canned, bagged, and preservative-filled food items rather than choosing fresher items.⁵⁰

The federal government has attempted to bring fresh food options right into the middle of the food deserts to try to eliminate the distance obstacle.⁵¹ With the Farmers Market Promotion Program (“FMPP”), the U.S. Department of Agriculture has allocated as much as \$10 million a

⁴⁴ Food Stamp Act § 2.

⁴⁵ Tess Feldman, *Re-Stocking the Shelves: Policies and Programs Growing in Food Deserts*, 16 PUB. INT. L. REP. 38, 40 (2010).

⁴⁶ Mustafa Karakus et al., *Nutrition Assistance in Farmers Markets: Understanding the Shopping Patterns of SNAP Participants (Summary)*, U.S. DEP’T AGRIC., FOOD & NUTRITION SERV. 2 (Oct. 2014), <http://www.fns.usda.gov/sites/default/files/FarmersMarkets-Shopping-Patterns-Summary.pdf>.

⁴⁷ *Id.*

⁴⁸ Feldman, *supra* note 45, at 41.

⁴⁹ *Id.*

⁵⁰ See Tracy Hampton, *Food Insecurity Harms Health, Well-being of Millions in the United States*, 298 JAMA 1851, 1851 (2007).

⁵¹ *Farmers Markets and Local Food Marketing*, U.S. DEP’T AGRIC., <http://www.ams.usda.gov/AMSV1.0/FMPP>, (last visited Mar. 24, 2015) [hereinafter *Farmers Markets*] (detailing that the FMPP attempts to develop, improve, and expand domestic farmers markets, roadside stands, community-supported agriculture programs, and other direct producer-to-consumer market opportunities).

year to increase access to locally produced agricultural products.⁵² This program allows individuals to use government benefits, such as SNAP, to procure food—however, frustratingly few SNAP benefit recipients are using them at these community farmers markets.⁵³ While the disparity in patronage between supermarkets and convenience stores is easily explained by the higher prices and fewer fresh options available at the smaller stores, SNAP participants’ avoidance of farmers markets is almost entirely based on a lack of information.⁵⁴ Only a staggeringly low 2.8 percent of SNAP users knew that they could use their benefits at farmers markets.⁵⁵ Although farmers markets may be more accessible than supermarkets, given their relative mobility, low-income shoppers tend to avoid them because they are perceived to be more expensive than a traditional grocery store.⁵⁶ Yet in reality, many farmers markets that participate in these programs allow SNAP users to double their benefits up to a certain amount.⁵⁷ This added incentive makes the seemingly costly farmers market one of the most affordable sources of nutrition available to the low-income families.⁵⁸

A. USING TAXES TO DETER AND EDUCATE POTENTIAL PURCHASERS OF NON-NUTRITIVE FOODS

Given the unsettling failure of such programs, critics have characterized the SNAP program as too lenient and “hands-off.”⁵⁹ Scholars suggest that much firmer legislative policies are needed in order

⁵² Agricultural Act of 2014, Pub. L. No. 113-79, § 1614, 128 Stat. 649, 711 (2014).

⁵³ Mustafa Karakus et al., *supra* note 46, at 2.

⁵⁴ *Id.* (explaining that almost 50 percent of farmers market nonshoppers would be likely to shop at a farmers market if they knew the incentive existed).

⁵⁵ *Id.*

⁵⁶ PETER LADNER, *THE URBAN FOOD REVOLUTION: CHANGING THE WAY WE FEED CITIES* 170 (New Society Publishers, 2011).

⁵⁷ Tim Carman, *Farm Bill Contains Farmers Market Program that Food Advocates for Poor See As Hopeful*, WASH. POST (Jan. 30, 2014) http://www.washingtonpost.com/lifestyle/food/farm-bill-contains-farmers-market-program-that-food-advocates-for-poor-see-as-hopeful/2014/01/30/b86c9b74-89e3-11e3-833c-33098f9e5267_story.html (noting that, while the incidence of double benefits redeemable at farmers’ markets may seem like a panacea, one must remember that currently the farmers’ markets are seasonal, temporary solutions. The supply of farmers’ markets is provided by a much smaller population of people and is therefore far more influenced by crop production and weather anomalies than is a large supermarket that is sources its fruits and vegetables from huge industrial farms.).

⁵⁸ *Id.*

⁵⁹ Paul A. Diller, *Combating Obesity with a Right to Nutrition*, 101 GEO. L.J. 969, 978 (2013).

to effectuate proper nutrition through the SNAP program.⁶⁰ Many critics identify lack of information, lack of incentive to abandon old habits, and an affinity for high-calorie and low-nutrient food as the main reasons why SNAP participants are not taking advantage of existing benefits.⁶¹ Higher taxes on non-nutritious foods or increases on insurance premiums have been suggested as remedies that could encourage SNAP participants to seek out healthier options and be more proactive in educating themselves about existing government benefits.⁶²

Levying taxes on activities considered detrimental to public health is not a novel concept.⁶³ Generally, when the government is able to identify a product as a known public health threat, it can increase a tax on the item to deter negative behaviors.⁶⁴ Conversely, it can encourage positive behaviors by providing incentives such as tax breaks and tax write-offs.⁶⁵ Taxes on cigarettes, for example, have been implemented to combat the demand for cigarettes and concurrently reduce the number of health problems associated with smoking, such as lung cancer.⁶⁶ Similarly, placing a tax on unhealthy foods would deter consumers, who are highly aware of the prices they are paying for their food, from buying certain items. In this sense, the tax would serve not only as a deterrent but also as an educational device. When a consumer recognizes that a food is taxed for being unhealthy, he or she will also realize that the specific items, and products like it, are not the most nutritive option that they could be incorporating into their diet. In addition to decreasing consumer demand for foods that are, for example, dangerously high in salt or contain trans fats, the tax would hopefully incentivize companies who manufacture the food items to change their offerings to include more nutritionally valuable options. In this way, a tax could not only change a consumer's mindset about what he or she should be eating, but also encourage food manufacturers to produce products with higher nutritional value.

Mayors of major cities in the United States have attempted to impose

⁶⁰ *Id.*

⁶¹ *Id.* at 983–85.

⁶² *Id.* at 983–84.

⁶³ LAWRENCE GOSTIN, PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT 3–4 (Univ. of Cal. Press, 2000) (explaining that ensuring the welfare of the public is under the “powers and duties of the state to assure the conditions for people to be healthy”).

⁶⁴ *Id.* at 31.

⁶⁵ *Id.*

⁶⁶ *Id.* at 37.

bans on buying sugary drinks with SNAP benefits.⁶⁷ Recognizing the adverse health effects that arise from overconsumption of drinks such as soda, the mayors of cities such as New York, Los Angeles, and Chicago (all cities with food desert problems) have attempted to curtail SNAP's usage in the interest of health.⁶⁸ Opponents of the push, who eventually succeeded in barring the mayors' proposed legislation from appearing in the most recent version of the Farm Bill, argued that restricting the use of SNAP benefits would be paternalistic and could possibly discourage needy individuals from receiving the subsidies that they require.⁶⁹

The Farm Bill is a collection of legislation concerning nutrition, agriculture and conservation that Congress passes every five years.⁷⁰ Encouraging the inclusion of a levy in the next Farm Bill might be more viable than a complete exclusion of certain food types. This way, SNAP users have the option of buying sugary beverages or unhealthy food if they want. The existence of the tax, however, would serve as a deterrent and an educational device. The higher price could signal to the potential buyer that the food is considered non-nutritious.

B. THE INSIDIOUS EFFECTS OF FOOD INSECURITY ON OBESITY

The psychological framework of individuals living in food deserts is another factor that is often overlooked in proposed legislative remedies.⁷¹ Food insecurity, which arises in individuals with limited or uncertain availability of nutritionally adequate and safe foods, seems to be a link between food deserts and obesity.⁷² Because those living in food deserts anticipate future caloric shortfalls, they compensate by over-consuming calorically dense foods and buying cheaper and less nutrient-rich foods with long shelf lives.⁷³ The infrastructure of the SNAP program seems to exacerbate the food insecurity problem, since the benefits are only

⁶⁷ *Limit Food Stamps for Sodas, 18 Mayors Ask Government*, CBS NEWS (Jun. 19, 2013), <http://www.cbsnews.com/news/limit-food-stamps-for-sodas-18-mayors-ask-government/>.

⁶⁸ *Id.* (Mayor Michael Bloomberg of New York argues in his statement, "Why should we continue supporting unhealthy purchases in the false name of nutrition assistance?").

⁶⁹ *Id.* (Every Farm Bill incorporates a section which amends SNAP benefits).

⁷⁰ René Johnson & Jim Monke, *What is the Farm Bill?*, CONGRESSIONAL RES. SERV. (July 23, 2014) <https://www.fas.org/sgp/crs/misc/RS22131.pdf>.

⁷¹ See Ver Ploeg et al., *supra* note 13.

⁷² See Mark Nord et al., *Prevalence of Food Insecurity and Hunger, by State, 1996-1998*, USDA ERS (1999), <http://www.ers.usda.gov/publications/fanrr2/fanrr2.pdf>.

⁷³ Correll, *supra* note 9, at 60.

provided on a monthly basis with no option to stagger the payments.⁷⁴

SNAP benefits are made available on the same date of every month, with no option to change this date.⁷⁵ The SNAP payouts come with information about which food items are eligible for purchase (alcohol is specifically excluded), as well as where to find retailers who accept SNAP benefits.⁷⁶ There is no nutritional education component to the benefits and unfortunately, for many SNAP participants, the nutritional value of their purchases is one of the last aspects that they consider when utilizing the benefits at the supermarket.⁷⁷ Some scholars argue that requiring SNAP users to budget for the whole month creates a tendency to avoid fresh produce, since they are more perishable and less calorically dense.⁷⁸ They suggest splitting benefit cycles into a bimonthly payout, which would mirror wage payments.⁷⁹ Proponents of this split argue that this simple alteration would generate a sense of greater stability while dramatically reducing improper budgeting, given the more manageable time frame.⁸⁰

Staggering the distribution of SNAP benefits may also have farther-reaching consequences on eliminating food deserts. A study conducted in Baltimore, applicable to all food desert cities with SNAP participants, shows that grocers face difficulties keeping their stores adequately and consistently stocked due to the nature of clustering SNAP benefit distributions.⁸¹ Business owners face a rush of demand during the times that the food stamps are issued.⁸² Almost all food stamp users redeem their

⁷⁴ *Monthly Benefit Issuance Schedule*, U.S. DEP'T AGRIC., FOOD & NUTRITION SERV. 1, <http://www.fns.usda.gov/sites/default/files/snap/california-issuance.pdf> (last visited Jan. 28, 2015).

⁷⁵ *Id.*

⁷⁶ *Eligible Food Items*, U.S. DEP'T AGRIC., FOOD & NUTRITION SERV., <http://www.fns.usda.gov/snap/eligible-food-items> (last visited Jan. 28, 2015); *SNAP Retailer Locator*, USDA FOOD & NUTRITION SERV., <http://fns.usda.gov/snap/retailerlocator> (last visited Jan. 28, 2015).

⁷⁷ Mary E. Kennelly, et al, *Strengthening Vendor Standards in the Supplemental Nutritional Assistance Program: Are Healthier Foods Within Reach?*, 16 J. HEALTH CARE L. & POL'Y 141, 180–81 (2013) (explaining that “one qualitative study of low-income women . . . found that very few participants chose stores based on their selection of healthy food. Instead, they based their decisions on other factors like price, quality, store environment, customer service, and neighborhood security.”).

⁷⁸ Hampton, *supra* note 50.

⁷⁹ Correll, *supra* note 9, at 76.

⁸⁰ *Id.*

⁸¹ Feldman, *supra* note 45, at 41–42.

⁸² *Id.* at 42.

benefits within two weeks of receiving them.⁸³ Therefore, during the second half of the month, sales plummet and the grocers can barely sustain their businesses.⁸⁴ For this reason, many grocers in the inner city may close or move into a “better neighborhood[s]” because the unreliable and ostensibly inconsistent demand makes it difficult to maintain business.⁸⁵ This phenomenon also causes potential grocers to be reluctant to open stores in food desert areas because they do not wish to start a new business in a financially unstable environment.⁸⁶

Although staggering payments may effectively ameliorate some of the factors leading to food insecurity, SNAP benefits recipients’ lack of awareness regarding how to shop for nutritionally valuable and non-perishable food significantly contributes to the food insecurity phenomenon.⁸⁷ Therefore, in addition to changing the infrastructure of the SNAP program, the educational aspect of the SNAP program should be expanded. Currently, the SNAP Nutrition Education (“SNAP-Ed”) program exists.⁸⁸ It functions to provide SNAP users with guidance about how to make healthy choices within a limited budget.⁸⁹ However, SNAP-Ed’s guidance through direct education in classrooms, brochures, and posters is frustratingly limited.⁹⁰ Only those who can be physically present in the location of the class or marketing media benefit from SNAP-Ed.⁹¹ Therefore, while the education component has produced positive behavior changes and gains in food security, only those with access to the education can benefit.⁹²

A potential avenue to reach all users of SNAP would be to transfer the in-person classes onto an internet-based tutorial. Much of the process of obtaining the SNAP benefits is accessible online.⁹³ Therefore, a simple

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ Cook, *supra* note 37.

⁸⁷ *A Review of Strategies to Bolster SNAP’s Role in Improving Nutrition as well as Food Security*, FOOD RES. & ACTION CENTER, <http://frac.org/wp-content/uploads/2011/06/SNAPstrategies.pdf> (last visited Feb. 1, 2016).

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.* (“Shopping practices commonly taught in SNAP-Ed (e.g. reading nutrition labels, shopping with a list) are associated with more nutrient rich purchases among SNAP participants”).

⁹³ *Supplemental Nutrition Assistance Program*, U.S. DEP’T AGRIC., FOOD & NUTRITIONAL

online module that educates SNAP recipients about how they can stock their pantries with affordable and nutritious food would provide invaluable knowledge to the consumers. By mandating that the benefits receivers read nutrition education material and including a short quiz at the end to ensure comprehension, the SNAP program can ensure that the participants are fully aware of the potential uses of their benefits. Placing the educational interface online, where the consumers are already going to access the benefits, overcomes the issue of limited distribution of education that SNAP-Ed currently faces. By modeling the information distribution module after previously implemented government educational interfaces, such as those seen in defensive driving courses, the SNAP program could make much larger strides in combating the obesity problem.⁹⁴

C. TAPPING INTO THE GENDERED ASPECT OF SNAP BENEFITS TO CHANGE THE FOOD LANDSCAPE

An oft-overlooked aspect related to food deserts is the nature of gender in food consumption.⁹⁵ While the number of men and women living in a food desert area is relatively equal, women are exposed to its effects at a significantly higher rate than men. Women are 1.8 times more likely to shop for groceries for a household⁹⁶ and are generally more likely to take advantage of social welfare programs such as SNAP.⁹⁷ Women who live in food deserts are often working mothers who devote much of their time to their jobs, bear responsibility for the majority of household chores, and are accountable for providing their families with a healthy diet within the confines of meager resources.⁹⁸ Many scholars agree that focusing on making federal benefits programs more accessible to low-income women is the most effective way to combat the food desert

SERVS., <http://www.fns.usda.gov/snap/apply>, (last visited Feb. 1, 2016) (noting that the potential consumer must apply online to be eligible for the benefits (if their state allows online applications); the status updates for benefit disbursement are also displayed online).

⁹⁴ See *Defensive Driving in Georgia*, DMV.ORG, <http://dmv.org/ga-georgia/defensive-driving.php> (last visited Jan. 28, 2015).

⁹⁵ Correll, *supra* note 9, at 46.

⁹⁶ Karakus, et al., *supra* note 46, at 1.

⁹⁷ Kari Wolkwitz, *Trends in Food Stamp Program Participation Rates: 1999 to 2005*, USDA FOOD & NUTRITION SERV. (June 2007) (showing that 4.5 million more women than men participate in the food stamp program and 21 million women versus 16 million men are eligible to partake in the program.).

⁹⁸ Correll, *supra* note 9, at 65.

problem since this is the population that is most affected.⁹⁹

Women who shop for their families, especially those with young children, play an extremely influential role in how their children may view nutrition for the rest of their lives. Parental influence and family environment have the potential to influence a child's eating habits from as early as infancy.¹⁰⁰ Because parents have almost complete control over what a child eats from infancy until they begin schooling, the choices that mothers make at the supermarket will create the touchstones of what future generations will consider adequate nutrition. Fortunately, the government has already implemented the Special Supplemental Nutrition Program for Women, Infants, and Children ("WIC").¹⁰¹ This sister program to SNAP places more stringent guidelines on the food that it provides by limiting the benefits to a specific food package.¹⁰² These food packages are designed to provide recipients with a nutritionally sound diet, and must include fruits, vegetables, whole wheat bread, whole grains, and low fat milk.¹⁰³ WIC, unlike SNAP, places quite stringent limitations on who may be eligible to collect the benefits.¹⁰⁴ In addition to the customary income requirements imposed by SNAP, WIC is further limited to women who are pregnant or breastfeeding infants less than one year of age.¹⁰⁵

In theory this program should help bridge the gap between nutritional and educational deficiencies. However, the effectiveness of the program has been severely hampered by many qualified participants' lack of understanding of the eligibility requirements.¹⁰⁶ Many women and children who are still eligible to collect the WIC benefits opt out of the program early largely due to a lack of communication between the program and the participants.¹⁰⁷ Although a large percentage (79.1 percent) of the WIC eligible mother-child pairs did participate in the

⁹⁹ *Id.*

¹⁰⁰ KEELEY C. DROTZ, *THE POISONING OF OUR CHILDREN: FIGHTING THE OBESITY EPIDEMIC IN AMERICA* 61 (TGBG Nutrition, 2012) (explaining that "a habit begun early is easier to establish and tends to remain longer than one started later.").

¹⁰¹ *Women, Infants, and Children (WIC)*, U.S. DEP'T AGRIC., FOOD & NUTRITION SERV., <http://www.fns.usda.gov/wic/women-infants-and-children-wic> (Sept. 2, 2015) [hereinafter *WIC*].

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ Alison Jacknowitz & Laura Tiehen, *WIC Participation Patterns: An Investigation of Delayed Entry and Early Exit*, 109 *ECON. RES. REP.* 25 (Dec. 2010), <http://www.ers.usda.gov/media/134411/err109.pdf>.

¹⁰⁷ *Id.* at 32.

program at some point between the start of the pregnancy to the child's first birthday, 17.6 percent did not enroll in the program until after the child was born and 22.9 percent had exited the program by the child's first birthday.¹⁰⁸ Early exits tended to correlate with the mandatory recertification that occurs when the child turns one.¹⁰⁹ After becoming recertified, the family no longer receives the infant food package of infant formula, but instead receives the child food package, which is worth significantly less than the infant food.¹¹⁰ Mothers may be choosing to exit the program because they believe they can obtain food for their children who no longer need baby formula more conveniently through other avenues.¹¹¹ In fact, when asked about why they had exited the program early, many mothers responded that the benefits are "not worth the time and effort to get."¹¹²

Therefore, there are three factors that influence a mother's utilization of WIC: (1) her knowledge that she is still qualified to receive benefits, (2) the accessibility of the WIC dispensaries, and (3) the effort necessary to obtain the benefits.¹¹³ WIC certainly employs a viable framework in terms of providing mothers and children with educational materials and mandated food requirements to ensure a balanced and nutritious diet.¹¹⁴ However, as suggested above with the general SNAP, it would greatly benefit users if they were required to read information about the program and were given nutritional information before they were able to receive their WIC benefits. In this way, the programs would be able to ensure a more complete communication of information to their users about guidelines and eligibility for benefits while also creating a foundation for nutrition education that hopefully continues long after the participants phase out of the program.¹¹⁵ WIC already has an educational program in place where WIC dispensaries have the option to display or hand out

¹⁰⁸ *Id.* at iv.

¹⁰⁹ *Id.* at iv-v.

¹¹⁰ *Id.* at v.

¹¹¹ *See id.* (because baby formula is so expensive in stores compared to non-formula products, mothers are more likely to utilize the WIC program regardless of inconvenience in order to offset costs).

¹¹² *Id.* at 25 (discussing the lack of transportation and scheduling problems as reasons why mothers opted out of the program).

¹¹³ *Id.*

¹¹⁴ *WIC*, *supra* note 101.

¹¹⁵ *Educational Material: General Information about WIC, Women, Infants and Children Program*, CAL. DEPT. PUB. HEALTH, <http://www.cdph.ca.gov/programs/wicworks/pages/wiceducationmaterials.aspx> (last visited on Jan. 28, 2015).

educational materials at their facilities.¹¹⁶ However, these educational materials are often in the form of posters, brochures, handouts, and fact sheets.¹¹⁷ Reading the materials is not required in order to receive benefits, and WIC dispensaries are not required to display them. While these materials are certainly better than no educational materials at all, there is little information about whether the participants of the WIC programs are even receiving them. Implementing a mandatory online reading and quiz component would create an interactive learning experience that could ensure that participants of the program are exposed to a nutritional education component at least once.

Another barrier of participation in WIC is the fact that it is so limited. While children from ages one to five may receive food options from the program, the mothers and other family members must find other sources of food.¹¹⁸ This explains why many households decide to stop participating in the program after they stop receiving the expensive baby formula benefit. Because WIC dispensaries are often not situated in the same location as stores where families can use their SNAP benefits, mothers who are trying to provide for many members of a family decide that going out of their way to obtain just one free meal is “not worth it” and exit out of the WIC program.¹¹⁹ One simple fix for this problem is to offer WIC benefits at SNAP participating stores. Of course, the costs associated with combining the programs have long been one of the biggest deterrent factors.¹²⁰ However, if taxes on unhealthy foods were levied, the revenue generated could help synchronize the two programs.

III. ANALYSIS AND POTENTIAL SOLUTIONS TO FOOD DESERTS

The current SNAP structure seems to be one of the greatest barriers to eliminating food deserts and addressing the accompanying obesity problem. While it does provide low-income families with the necessary funds to obtain food for their households, SNAP lacks a wide-reaching educational aspect that could greatly benefit its users. Thus, scholars suggest a heavy-handed approach of exacting economic penalties upon individuals for failing to educate themselves about healthy choices.¹²¹

¹¹⁶ *WIC*, *supra* note 101.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ Jacknowitz & Tiehen, *supra* note 106, at 25.

¹²⁰ Kennelly et al., *supra* note 77.

¹²¹ Diller, *supra* note 59, at 977–80.

While it may be an effective approach, penalization seems counterintuitive when an individual is not first provided with a learning opportunity. Because those in low income neighborhoods are bombarded with advertisements for fast food and often do not learn about nutrition through health education in school or the workplace, they may have little knowledge of how to create nutritious meal plans from the resources that they have.¹²² If, instead SNAP educated users by showing them how to create a healthy meal within their means through easily accessible educational tools, the majority of individuals located in a food desert would have the tools to combat their problematic environments.

One possibility is to reform the SNAP program to operate more like the WIC program. By stocking SNAP-participating stores (including convenience stores and corner stores) with the requisite food items, and mandating that the benefits could only be used within certain limitations, SNAP users almost certainly would change their eating habits.¹²³ Bringing the stricter nutritional mandates to the SNAP-eligible convenience stores would also mean that individuals may be less burdened by food insecurity, since their healthy food sources would be much closer than a suburban supermarket.

Of course, the greatest barrier to changing SNAP's structure is the risk that the costs associated with stocking more perishable food items at smaller convenience stores would be so burdensome that the stores would opt out of participating in SNAP altogether.¹²⁴ While studies have not yet been conducted on pairings between farmers' markets and convenience stores, building a co-operative relationship between the two vendors may be one way to provide a more affordable source of produce for their surrounding communities. The benefits of the partnership would be twofold in that it would provide affordable groceries at the corner stores, and subsequently the people who lived in the store's vicinity. It would also raise awareness about the SNAP benefits that could be redeemed at the farmers' markets themselves.

¹²² Nathaniel, *supra* note 35.

¹²³ See Karakus, *supra* note 46, at 25 (explaining that if given the opportunity to purchase more healthful food, shoppers were more than 60 percent more likely to do so).

¹²⁴ Kennelly et al., *supra* note 77, at 184.

A. BUILDING HEALTHY EATING HABITS THROUGH CHILDREN IN THE
PUBLIC SCHOOL SYSTEM

On February 2010, First Lady Michelle Obama launched the “Let’s Move!” initiative to create a foundation for healthy eating in children.¹²⁵ The initiative has encouraged children to become physically active outdoors, promoted healthier standards in school lunches, and motivated various companies to change the nutritional profiles of the food options they offer.¹²⁶ Unfortunately, many of these initiatives are either scattered sporadically throughout the United States or are presented in a way that does not help teach young children how to implement the lessons in their everyday lives.¹²⁷ While a school may implement more physical education classes or display MyPlate posters in a location where children can see them, children may not always understand the motive behind these changes.

By making it clear why these changes are implemented, and building the mind connection between physical activity and greater physical well-being, children are more likely to continue the healthy habits and incorporate them into their lifestyles in the future. Furthermore, if the children know why the schools are implementing certain programs, they might bring the knowledge back into their households to influence their parents and siblings to make better nutrition choices at home.

A viable avenue to reach students directly is a yearly one to two day long seminar on the benefits of incorporating nutritious foods in their diet. This model has been used and is currently being used in schools to provide public education about the detrimental effects of drug use and to promote safe sex.¹²⁸ Such programs have been successful at reaching young people because of the interactive component and thorough explanation of issues that occur in their lives everyday.¹²⁹ Setting aside specific school hours to

¹²⁵ *Let’s Move: America’s Movement to Build a Healthier Generation of Kids*, LET’S MOVE, <http://www.letsmove.gov/accomplishments> (last visited on Jan. 28, 2015).

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Drug Abuse Resistance Education: Teaching Students Good Decision-Making To Help Them Lead Safe and Healthy Lives*, D.A.R.E., <http://www.dare.org/about-d-a-r-e/> (last visited on Jan. 28, 2015); *State Policies on Sex Education in Schools*, NAT’L CONF. STATE LEGISLATURES, (Jan. 27, 2014), <http://www.ncsl.org/research/health/state-policies-on-sex-education-in-schools.aspx>.

¹²⁹ *Comprehensive Sex Education: Research and Results*, ADVOCATES FOR YOUTH, (Sept. 2009), <http://www.advocatesforyouth.org/storage/advfy/documents/fscse.pdf> (“Two-thirds of forty-eight comprehensive sex ed programs had positive effects including: 40 percent delayed sexual initiation, reduced the number of sexual partners, or increased use of condom or

promote discussion also signals to young people that the issues being discussed are extremely important. Furthermore, a concerted effort to reach children in school would promote nutrition, given that so many children who are prone to obesity often live in food swamp environments.¹³⁰ Food swamps, especially prevalent in low-income neighborhoods, are swaths of communities in which the most loudly advertised types of food are fast food or “junk food” establishments.¹³¹ The fast-food advertising particularly influences children since they are bombarded with the images so heavily throughout their everyday environment.¹³² A yearly food education program could be the first step to combating the incessant advertising that is prevalent in the communities most prone to obesity.

IV. CONCLUSION

Legislative reform is necessary to combat the obesity epidemic associated with food deserts. While the currently implemented SNAP program provides its users with the basic ability to purchase food, the structure seems to encourage overconsumption of high calorie, low nutrient items. Scholars and critics of the current SNAP initiative raise significant structural and cultural characteristics that suggest that simply placing more stores in a food desert will not be enough to eradicate the problem. A concerted effort must be made in order to properly educate SNAP benefit users about how to obtain affordable and accessible health foods. By starting the educational programs at a young age, children will be given the tools they need to build healthy lifestyles for themselves regardless of whether they need to rely on government benefits in the future. Furthermore, a tax on unhealthy food would both deter consumers from by the higher priced foods and educate them about which foods are better to avoid.

Given that the Agricultural Act of 2014 recently reached the one-year mark since its implementation, there is hope that the U.S. Agricultural Department can review the effects of the current SNAP initiative and incorporate their findings into future legislative reform. By incorporating unhealthy food taxes, educational measures, and more hands-on SNAP

contraceptive use; 30 percent reduced the frequency of sex, including a return to abstinence; 60 percent reduced unprotected sex.”).

¹³⁰ Nathaniel, *supra* note 35.

¹³¹ *Id.*

¹³² *Id.*

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regulations, the federal government could make big strides in eliminating food deserts and thus come closer to the Agricultural Act's original intent of promoting healthy households regardless of socioeconomic class.