

Food Deserts:

Finding a Permanent Oasis for the Urban Drought

Adrienne, Brandy, Heather, and Jesus

Prof. Baird

English 2010

July 15, 2014

Abstract

This project discusses the various individual issues in food deserts. The paper compares food deserts to a modern day drought. Food deserts are areas where residents have little access to fresh foods. They are typically located in urban areas (sometimes rural) in which it is difficult, almost impossible, to buy affordable, good-quality fresh foods. The proposal offers comprehensive solutions on how to create permanent oases for residents that are plagued with health and financial disparities.

keywords: food deserts, socioeconomic discrimination, fresh produce

Position

Food deserts are a serious issue experienced mainly by those living in that US in areas of over 30% poverty. To cure this drought, there must be a multifaceted approach with the major pillar being education. America is in the spotlight of environmental and political controversies about global issues, such as climate change. While the majority of attention is being focused on "popular issues," there is a social injustice happening in our own backyards, a growing concern that is not getting enough attention. It is located in both urban and rural areas and in many countries; this alarming issue is the food desert. In American society, we are at an all time high of consumerism. Some argue that food deserts do not exist, particularly in the US. Meanwhile, outside of middle and upper class areas, people are living their life day to day in a new kind of environment they may not even know about, the food desert. Food deserts are a modern day drought, located in areas where residents have little access to fresh foods. They are typically located in urban areas (sometimes rural) where it is difficult, almost impossible, to buy affordable good-quality fresh foods. In some parts of the US, food desert occupants have to commute over one hour, generally on public transportation, to purchase fresh fruits and vegetables. Imagine taking your daily or weekly trip to the grocery store at a mini-mart or a convenience store that is lacking selection. We will examine the following: consumer's choice, socioeconomic discrimination, and health impacts on the residents living in these areas.

Food deserts are present because of consumer choice and the reason these areas do not have markets with fresh produce is because the locals in these areas do not want to purchase fresh produce. If the consumer never had any other options to choose from, how does one know that it is the "consumer's choice?" As with any business plan, knowing your demographic is the

key to being successful. The potential retailers must understand their customers’ needs and preferences when selecting the type of produce to be sold.

Table 1 confirms that food desert residents have similar tastes in fruits and vegetables when compared to the national ranking. This table reflects that the number one popular fruit is a banana and vegetable is a tomato, these are also the number one ranking items nationally. With so many common preferences, it would be easy for the retailers to stock produce in any of their stores, food desert or otherwise. The data also proves that if the options are there, the consumer can make the “right” choice.

Table 1: Fruit and Vegetable Ranking by Daily Frequency of Purchase at Peaches & Greens, National Rank, Quantity and Pricing.

Rank	Fruit					Vegetable				
		National Rank ^a	Q	\$/unit	National \$/lb ^c		National Rank ^a	Q	\$/unit	National \$/lbs ^c
1	Banana (one)	1	21.93	0.27	0.45	Tomato (lbs)	1	1.68	0.76	0.99
2	Apple (one)	2	7.59	0.53	1.07	Pepper (one)	9	1.01	0.56	2.13
3	Orange(one)	4	8.85	0.46	0.57	Lettuce (one head/ bunch)	3	1.93	1.18	2.94
4	Grape (lbs)	5	4.89	1.78	1.68	Cucumber (one)	8	1.62	0.5	N.A.
5	Pear(one)	9	5.95	0.55	1.04	Garlic (one clump)	^b	1.04	0.33	N.A.
6	Lemon (one)	^b	5.46	0.43		Sweet potato (one)	^b	1.67	0.73	0.9
7	Plum(one)	^b	9.13	0.52	1.24	Carrot(1 lb bag)	6	2.08	1.36	0.77
8	Strawberry(1.25 lb bag)	6	2.37	2.31	2.28	Cabbage (one)	10	2.51	0.58	0.62
9	Peach (one)	7	10.82	0.48	1.84	Celery (2 lb bag)	^b	1	1.27	0.9
10	Kiwi (one)	^b	5.53	0.37	1.8	Corn (one ear)	5	2.9	0.34	1.8

^aNational Rank is from A.C. Neilson 2004-2006. ^bThese items were not nationally ranked. ^cUSDA, Economic Research Service (2012), 2008 estimated average prices

Fig. 1 (Witherspoon, 2012.)

In the US, you will find the majority of food deserts in inner cities and low-income neighborhoods, a demographic that is commonly overlooked by Americans.

Many government agencies are collaborating to pinpoint the issues of food deserts through heavy use of data from the Census and American Community Survey.

Researchers have found direct correlations between food deserts and education

levels, lower income and high dependency on public transportation. As of 2006, Economic Research Service (ERS) identified over 6500 Census tracts that met the definition of a food deserts (Dutko, 2012).

A study of 1094 Northern Ireland households showed that the situation of food deserts "is likely to worsen as the full effects of the retail revolution are realized" (Strugnell, et. al, 2003), this is also a reality in the United States. Many consumers in low-income areas cannot afford a car or do not have the time to travel (on public transportation) to large shopping plazas or complexes to purchase their groceries. Figures 2 and 3 reflect a direct correlation of food deserts (no car and no supermarket store within a mile) and the poverty line within the US. As you can see in Figure 2, there are pockets of poverty all over the country. Observe Eastern Louisiana and Western Mississippi, where the population is between 31-63.9% impoverished.

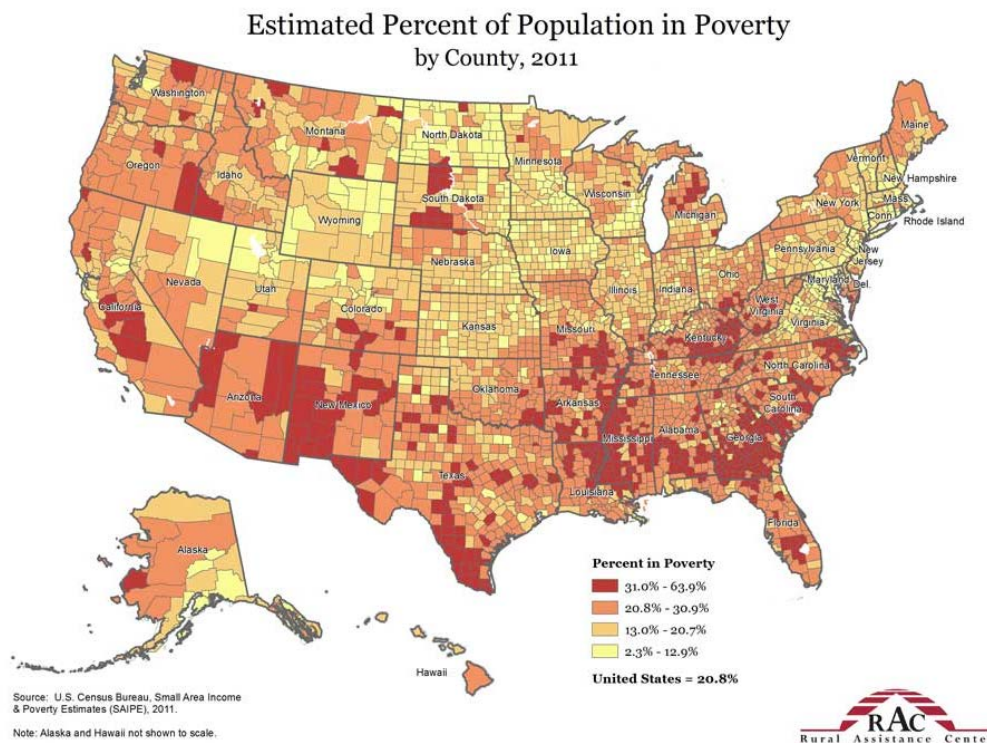


Fig. 2 (U.S. Census Bureau, 2011).

In Figure 3, we look in that same area and it is very common to have 5-10% of the population not have a grocery store within a mile and in many cases more than 10% of the population is not within an easy walking distance to both go to a grocery store and walk back carrying their groceries.

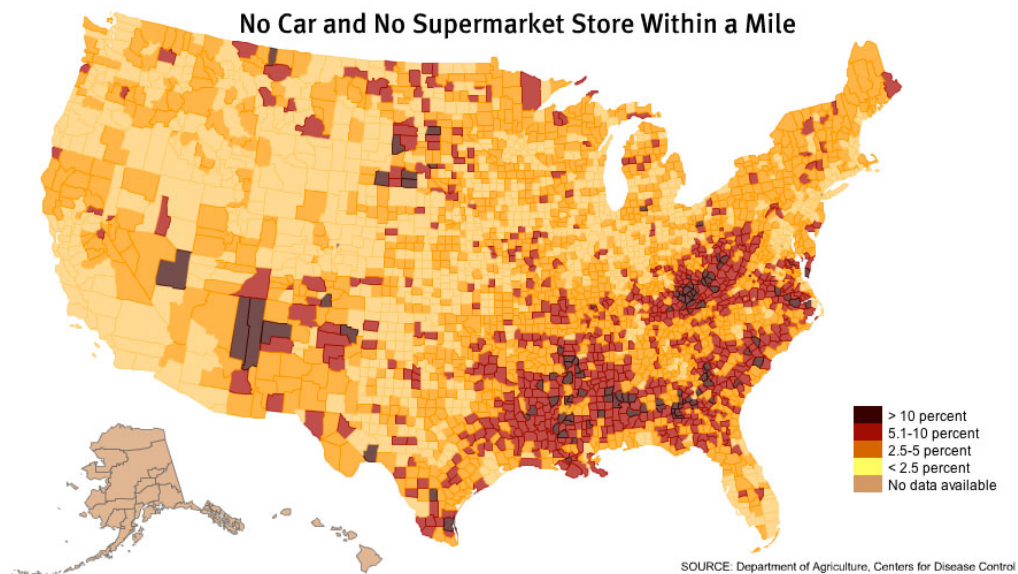


Fig. 3 (US Department of Agriculture, Centers for Disease Control, 2013).

Many food desert inhabitants are plagued with diseases that can be prevented, or even cured, by a healthy well-balanced diet. A steady increase in illness is a major concern for residents of these dry lands, especially children and elderly. The group that is most vulnerable in a food desert are the school children, whose numbers are rapidly increasing in childhood obesity. "Studies show that the presence of supermarkets in the neighborhood is associated with a lower incidence of childhood obesity, while the presence of convenience stores is associated with higher incidence of childhood obesity" (Alviola, et al, 2013). This is not only a concern for the child's physical health, but their mental well-being and self-confidence.

It is not abnormal for adults, especially the elderly, to include diabetes and heart disease in their health concerns in food deserts "A 2011 Food Trust geographic analysis of income,

access to grocery stores, and morbidity rates concluded that people who live in metro Atlanta food deserts are more likely to die from nutrition related sicknesses like diabetes and heart disease" (Burns, 2014). There is an increase in the number individuals with these diagnoses where ever there is a lack of access to healthy food.

There is also the viewpoint that a lot of illnesses and health-related issues are due to stress of living in poverty; the rise in childhood obesity would negate this viewpoint. Generally, children are not going to experience enough of a stress level over their parents' income that would lead to poor health. For an extreme view of how the lack of fresh food leads to poor health and wellness, we need to look no further than the ailments that exist in a malnourished country. Both places are missing the key ingredient for good health, which is fresh food. Children are taught how to shop, select, and prepare their food from their families. If an entire family is not educated on the power that lies in food, the desert will never become an oasis, even when fresh food is readily available. The solution to overcoming this social injustice is integrating education regarding fresh food choices, as well as education on how to prepare meals. There is not a food that can magically make one healthy; the goal is to incorporate a variety of healthy foods cooked in healthy ways, and make these habits a new lifestyle for food desert residents.

Proposal

There is no single approach that will create a permanent oasis. An interdisciplinary approach with the key emphasis on education is the only way to address the problem. To ensure a lasting affect many facets must be addressed and new habits must be formed by educating the population to create the demand for fresh food. Retail developments are essential in town planning and together with the control of retail monopolies in these deserts, the community can

encourage retailers that promote healthy eating at a reasonable cost. A main street approach is needed in these isolated communities, such as local markets that carry fresh food; how to make these retail establishments last is by creating demand. Not only will new markets bring fresh food options to these communities, they will create job opportunities and a much-needed increase in household incomes. As Figure 1 showed us, there is a demand for the nation's most common fruits and vegetables within food deserts. The demand is already present, now we must encourage retailers to expand their businesses to these locations. Creating main street markets will increase not only fresh food options, but also jobs and incomes.

Healthy Food Financing Initiatives (HFFI) have drawn many big name retailers to these lower income neighborhoods. Some retailers maybe concerned about investing in these types of neighborhoods; however, Walmart has seen success from their involvement in the alleviation of food deserts. When HFFI was introduced, Walmart developed a smaller store that caters specifically to food desert residents in urban areas. Walmart's "Neighborhood Market" is bringing fresh and affordable produce, as well as much needed jobs into these communities. (Walmart, 2011).

A high poverty rate can be a deterrent for most stores, due to a larger portion of the population having low purchasing power. However, the possibility of accessing support programs such as SNAP or the Special Supplement Nutrition Program for Women, Infants, and Children (WIC) could represent alternative sources of income for poorer households and a source of demand which could appeal to some food stores. (Bonanno, 2012.)

To gain and maintain the large corporations and independent markets, HFFI and other programs must continue until the urban drought is eradicated. The health disparities of food desert

residents should be enough motivation for the government to remain involved. Saving on health care related costs of obesity alone would be enough to keep HFFI in place.

The power of education cannot be overlooked in helping to prevent diseases that cost this country billions every year. As identified in Figures 2 and 3, the states suffering from obesity are the states with the most food deserts and the highest poverty rate. Teaching residents how to select and prepare healthy foods is necessary.

The estimated annual medical cost of obesity in the U.S. is \$147 billion (USD); the medical costs for people who are obese were \$1,429 higher than those of normal weight. By state, obesity prevalence ranged from 20.5% in Colorado to 34.7% in Louisiana in 2012. No state had a prevalence of obesity less than 20%. Nine states and the District of Columbia had prevalence between 20-25%. Thirteen states (Alabama, Arkansas, Indiana, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Ohio, Oklahoma, South Carolina, Tennessee, and West Virginia) had a prevalence equal to or greater than 30%. (CDC, 2014).

Educating residents of these places is key to driving demand and instilling these healthy habits for generations to come.

Healthy food initiatives in schools and the workplace that are subsidized or incentivized by the government need to be instituted to increase the demand for healthier options. Changes to Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) that would limit what type of foods recipients can purchase or encourage the purchasing of fresh and healthy options which would increase demand. For larger companies, there is a concern that low-income areas do not have enough purchasing power to create a profitable market for their business.

SNAP changes would increase food desert residents' ability to spend on fresh food, which saves the consumer money and drives profit for local businesses.

This situation is likely to worsen, unless there are continual changes over a period of years that will change the perspective and have a lasting effect on these communities. If the public is not educated on the long term effects of eating unhealthily, there will never be a demand in these areas for fresh food.

Culinary education for food desert residents must be a priority. Many residents are single-parent homes that are on (low) fixed incomes and tight budgets. Teaching someone how to prepare a family meal for \$10-\$20 will not only change their health, it will change their lives. Free classes are offered at supermarkets in some food deserts, creating a positive change in the community. Supermarkets offer educational tours on how to select produce and healthier food options. They offer helpful tips such as, rinsing canned vegetables before preparing them to remove extra sodium and how to extend 100% fruit juice with water, rather than paying for the water that is often added as the first ingredient in many brands. Keeping health simple is what creates success in any food or exercise plan. This is what the Winn-Dixie chain is doing in partnership with Florida Introduces Physical Activity and Nutrition to Youth (FLIPANY). They shared their success in a recent article in the Miami Herald, which offered an overview of the program, and an inside look at how it is affecting the community:

A survey based on more than 60 tours and courses offered in 2012 indicated that more than 50% of 230 participants were more likely to use labels to find healthier ingredients or better deals after a market tour. The results were even better when the tour was combined with a cooking course — 97% of 685 participants said they read labels more often (Miami Herald, 2014).

This illustrates that if you educate a population on making considerations of what they are eating, and show them how to eat healthfully; they will do just that. This program is a shining example of “if you teach a man how to fish”.

Food deserts are a growing concern locally and globally, outside of the middle and upper class areas. The urban drought is an issue that must be addressed immediately, with a blend of education and healthy food initiatives. Health, dietary and culinary education needs to be a top priority when addressing food deserts. By educating young children on healthier food habits and choices, we will create a demand for better food options. Teaching adults and children how to shop for and prepare healthy foods will create the changes needed to reduce illness and obesity that can be prevented with overall wellness. Support of healthy food initiatives from local government, employers, businesses, and schools make the permanent oasis a reality. Without public demand for these options, no solution will remain in place. Anyone can make a difference by volunteering in an impacted community, raising awareness about this social injustice, and educating residents of food deserts on how healthy foods lead to a full, rewarding life.

References:

- Alviola, P. A., Nayga, R. M., & Thomsen, M. (2013). Food Deserts and Childhood Obesity. *Applied Economic Perspectives & Policy*, 35(1), 106-124.
- Bonanno, A. (2012). Food Deserts: Demand, Supply, and Economic Theory. *Choices: The Magazine Of Food, Farm & Resource Issues*, 27(3), 1.
- Borns, P. (2014). Food Desert Residents get Supermarket Shopping Tips for Healthier, Under-\$10 Meals. *Miami Herald*. Retrieved from http://www.miamiherald.com/2014/05/08/4105836_food-desert-residents-get-supermarket.html
- Burns, R. (2014). Stranded in Atlanta's Food Deserts. *Atlanta*, 53(11), 104.
- Centers for Disease Control (CDC). (2014). Adult Obesity Facts. *Overweight and Obesity*. Retrieved from <http://www.cdc.gov/obesity/data/adult.html>
- Dutko, P. (2012). Food Deserts Sufer Persistent Socioeconomic Disadvantage. *Choices: The Magazine Of Food, Farm & Resource Issues*, 27(3), 1.
- Strugnell, C., Furey, S., & Farley, H. (2003). Food deserts – an example of social exclusion?. *International Journal Of Consumer Studies*, 27(3), 229-230.
- US Department of Agriculture (USDA), Centers for Disease Control (CDC). (2013). [Image]. Retrieved from <http://www.ers.usda.gov/>

U.S. Census Bureau. (2011). [Image] Retrieved from

http://www.raconline.org/racmaps/mapfiles/poverty_county.jpg

Walmart Corporate - Walmart to Open up to 300 Stores Serving USDA Food Deserts by 2016;

More than 40,000 Associates Will Work in These Stores. (n.d.). *Walmart Corporate -*

Walmart to Open up to 300 Stores Serving USDA Food Deserts by 2016; More than

40,000 Associates Will Work in These Stores. Retrieved from

<http://news.walmart.com/news-archive/2011/07/20/walmart-to-open-up-to-300-stores-serving-usda-food-deserts-by-2016-more-than-40000-associates-will-work-in-these-stores>

Weatherspoon, D. J. (2012). Will Long Term Food Desert Consumers Purchase Fresh Fruits and

Vegetables?. *Choices: The Magazine Of Food, Farm & Resource Issues*, 27(3), 1.