

Community Involvement Needed: Food Deserts, Food and Nutritional Security

Christy Mannering

University of Delaware

This paper discusses food security, nutritional security, and the growing number of food deserts that exist in cities throughout United States. The paper first reviews current policies that aim to improve nutritional security and decrease the number of food deserts. These policies include the federal Supplemental Nutrition Assistance Program (SNAP), the National School Lunch Program (NSLP), and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The paper then presents new alternatives for eradicating food deserts and improving food security in ways that engage more members of the community in a sustainable manner.

These alternatives include 1) Small business tax incentives to encourage urban gardens, 2) Cooperative Extension agents and master gardener volunteers to provide agriculture training to currently unemployed community members, and 3) Enhancing current programs to provide better education families on how to prepare fruits and vegetables to create healthy, delicious, and cost effective meals. These policies also require community customization, which will call for a basic framework to be developed to make the programs replicable yet flexible.

Policy problem

Food and nutritional security

During the 1996 World Food Summit, the Food and Agriculture Organization (FAO) proclaimed that food security is achieved “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO, 2003, p. 28). Using the converse of this FAO definition, food insecurity can be defined as when the food intake of one or more household members is reduced and their eating patterns are disrupted at times during the year because the household lacked money and other resources for food (Coleman-Jensen, Gregory, & Singh, 2014).

Food insecurity is necessary, but not quite adequate enough to define nutritional insecurity. The FAO explains that access to a

nutritious diet must be “coupled with a sanitary environment, adequate health services, and care, in order to ensure a healthy and active life for all household members” (Jones, Ngure, Pelto, & Young, 2013, p. 2). In 2014, 14 percent of United States households were considered food insecure by the U.S. Department of Agriculture (USDA) (Coleman-Jensen et al., 2014). This amounts

Christy Mannering is a graduate student within the School of Public Policy and Administration at the University of Delaware. She is the chief operating officer of a local non-profit, 3B Brae’s Brown Bags and a Communications Specialist for the University of Delaware. Her research interests include issues of social justice, such as nutritional insecurity, community re-entry, and domestic violence. She also volunteers with her local school district and has a deep passion for education policy, as she believes many social injustices stem from inequitable opportunities in education.
Email: cmanneri@udel.edu

to 17.4 million households. Among households with children 18 years or younger, 19.2 percent were food insecure (Coleman-Jensen et al., 2014).

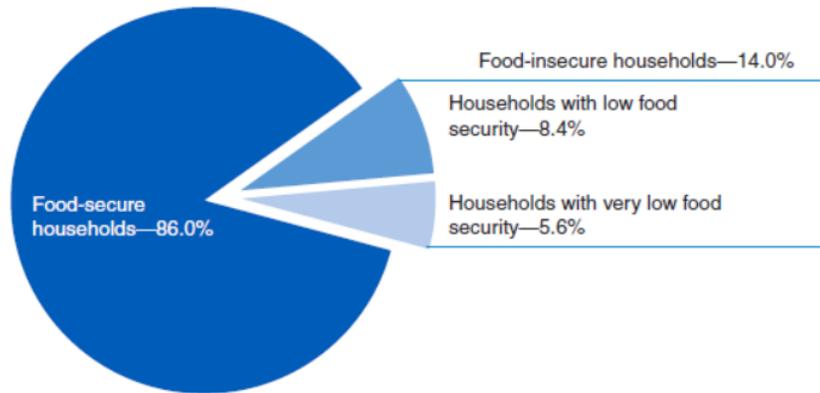


Figure 1. U.S. Households by food security status, 2014

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2014 Current Population Survey Food Security Supplement

Nutritional security is especially crucial for children. Malnutrition in childhood impairs intellectual functions. In fact, a diet high in fat, sugar and processed foods during childhood may be associated with reductions in intelligence quotient (Keatinge, Yang, Hughes, Easdown, & Holmer, 2011). For women who are pregnant, a nutritious diet is critical to their own health and the health of their baby. During the first trimester, a diet lacking in the proper vitamins and minerals can potentially cause “irrevocable fetal damage” (Keatinge et al., 2011, p. 494).

Demographics, location, age, and income all affect the likelihood of food insecurity. It is well known that food insecurity is strongly associated with lower income. For example, 39.5 percent of households with annual incomes below the federal poverty line were food insecure in 2014 (Coleman-Jensen et al., 2014). A household headed by a single woman has a 35.3 percent chance of being food insecure (Coleman-Jensen et al., 2014).

Several federal programs exist to combat these rates of food insecurity. The WIC program was created to safeguard the health of low-income women, infants and children up to the age of five years. In addition to nutrition education and social service referrals, WIC also provides supplemental food packages (Odoms-Young et al., 2014). The SNAP program allows participants to receive benefits for the purchase of food in authorized retail food outlets based on their income level (Ratcliffe, McKernan, & Zhang, 2011). The NSLP provides “nutritionally balanced, low-cost, or free lunches to children each school day,” (Gundersen, Kreider, & Pepper, 2011, p. 293).

Food deserts

Geographic factors can also contribute to food nutritional insecurity through the formation of what is termed a “food desert” (Walker, Keane, & Burke, 2010). The definition and measurement of food deserts varies across the literature. Some researchers have measured food deserts by the number of stores in a neighborhood, while others have defined food deserts as “poor urban areas, where residents cannot buy affordable, healthy food” (Walker et al., 2010, p. 1). Neighborhood income levels, as well as the location and accessibility of healthy food, all factor into the definition of a food desert. Thus, food deserts relate to both food and nutritional security.

The problem of accessing healthy food grows exponentially when considering a lack of transportation options. Community members who need to travel far or who lack transportation and

must walk are limited in the types of foods they will be able to obtain and bring home (Walker et al., 2010). As an example, if a person were able to afford fresh watermelon and the location of a fruit stand were within walking distance, this person would still need to be able to carry the heavy watermelon home.

Additionally, the food retail environment of food deserts has important health implications. Chain supermarkets typically offer a wide variety of food and more competitive prices on healthier foods, but these full-service stores are rarely found in poor urban areas, which instead often have smaller, non-chain grocery stores (Walker et al., 2010). In a smaller grocery store, the items stocked will likely reflect what the store owner knows will sell fastest, and any deviation from these offerings will result in higher inventory prices (Walker et al., 2010). The limited healthy options in many urban grocery stores leads to greater neighborhood food and nutritional insecurity.

Policy options

While the USDA's Economic Research Service collects data about food insecurity in the United States, their primary role pertains to measurement and support to scholars who research the topic (Coleman-Jensen et al., 2014). Their data and support have led to programs such as SNAP, NSLP, and WIC. A professor at the University of California at Santa Cruz, Julie Guthman, has students develop programs to tackle the issue of food insecurity from a social justice lens. She and her students have found that a lack of attention to the issue of privilege with regard to this topic is part of the problem when it comes to the success or failure of a food security program (Guthman, 2008). Three new alternatives would likely improve on the current data-driven policy approach towards food insecurity on a more state and local level.

These new policy options would likely decrease the percentage of food insecure households, improve nutritional security rates, and help communities with food deserts to flourish.

1. Small business tax incentive for urban gardening

The USDA has stated that community gardens can provide improved access to fresh foods on a local level. They have also cautioned that, when thinking about the socio-economic repercussions of food insecurity, it is important to acquire appropriate foods in socially acceptable ways (Corrigan, 2011). Rather than relying solely on mobile food pantries provided by non-profit organizations to bring healthy food options into poor urban communities, small business owners could be encouraged to develop urban gardening systems in their stores by way of a tax incentive. This would offer communities a way to leverage their own local resources.

Urban gardening methods like vertical gardening or rooftop gardening would allow small business owners to grow fresh produce with zero additional acreage (Specht et al., 2014). Community members who are able to buy fresh, local food, could feel good about their purchases by knowing they are providing a boost to their local economy and making wise food choices for their family. Food that does not end up selling could be donated to local food banks, shelters and soup kitchens as a tax write-off for the business owner. In cities where food banks and shelters may not need the donations during a given week, the leftover perishable items could be made into compost for fertilizing the next round of vegetables. Certain vegetables, such as carrots, will regenerate if you replant the stem; this practice will minimize food waste.

2. Cooperative extension outreach

Since World War II, cooperative extension services across the nation have helped in “developing the rural economy, training tomorrow’s leaders, disseminating knowledge, and pursuing sustainable agriculture” (Wang, 2014, p. 1). It is recommended that cooperative extension agents

work with the unemployed members of food desert communities to train and educate them on the upkeep of urban gardens. The small business owners who received a tax incentive to grow fresh food with urban gardening methods could then be encouraged to hire these new trainees. Hiring those in need in their own communities after training them could help to boost the morale in neighborhoods, create new community leaders and possibly reduce crime.

Unlike mobile programs, which can foster dependency, community gardening “provide[s] community members with self-reliant strategies for obtaining healthy and affordable food,” (Corrigan, 2011, p. 1234). In a study of the city of Wilmington, Delaware, an area in which food deserts exist, Payne (2013) found that while the neighborhoods were struggling and violence was prevalent, the residents still had a great pride in and sense of ownership of their community. With this knowledge in mind, offering local residents the opportunity to directly take part in growing fresh food for their own community would likely help to provide not only nourishment, but also hope and passion (Guthman, 2008).

This urban gardening strategy should also include delivery to populations such as elderly and disabled individuals, who are often unable to get to grocery stores on their own. This would allow residents to not only help in growing the food, but also in delivering the food to people who need it the most. Bringing rural cooperative extension efforts into urban areas would allow struggling communities to pour their pride into neighborhood gardens, empowering residents to improve their local food environment.

3. Educational demonstrations for healthy eating

However, simply improving access to healthy food might not be enough to increase nutritional security, as accessibility does not guarantee usage. Therefore, it is also recommended that educational demonstrations be offered at community centers, churches and schools, to educate individuals and their families on how to prepare fresh produce. Activities for these demonstrations should include opportunities to create and taste-test healthy snacks, canning and other food preservation techniques, and lessons on the best nutritional diet for certain age groups. There should also be educational opportunities for specific health implications like diabetes and heart conditions, as well as proper nourishment for pregnant women.

The three existing federal food security programs could all play a role in these above policy recommendations. SNAP and WIC already have staff trained in social services that make house calls and create plans for families in need of support (Odoms-Young et al., 2014). These educational demonstrations could become a routine part of home visits and program renewals for clients who need to renew their SNAP or WIC benefits. Likewise, the NSLP should provide take-home recipes to children in schools. The school menus already consist of balanced, nutritional meals, and that information could be sent home to spark creativity on how to prepare vegetables and fruits.

Implementation strategies

Funding needs

The USDA would likely need to provide funding to states in order to develop the recommended food desert urban agriculture program. The program applications would need to be handled on a statewide level in order to help ensure equitable funding to various locations in need. States would also need to work with local non-profit organizations that accept food donations, to make sure they have the storage necessary for any additional donations. Cooperative Extension programs throughout the nation already consist of family and consumer science experts and agricultural specialists who could aide in the development of training. These programs would need to be given an additional appropriation by the state in order to develop materials and pay for training

time. This money could come from the funds received by the state from the USDA in addition to funds raised by local and state government dedicated to social justice issues. For example, the State of Delaware's Criminal Justice Council was allocated \$2 million from the Department of Justice. Attorney General, Matt Denn said that this money should go to re-entry program in an effort to reduce violent crime (Delaware Department of Justice, 2016).

Advantages of the program

Apart from creating new avenues in which to purchase fresh, local food and creating new employment opportunities to help supplement income, there is still a need to know what to do with the produce and how to make it most cost-effective. Since urban agriculture does not rely on additional acreage or transportation, so the new program would already be cost-effective and environmentally friendly in that respect (Specht et al., 2014). For the small business receiving tax benefits, the new program is also more cost-effective in that they are now growing the food they will sell rather than depending on food from elsewhere.

This urban gardening initiative would likely bring other community benefits besides improved food security. Urban gardens have been found to increase community development, potentially provide additional access to green space, improve mental and physical health, and empower community members (Corrigan, 2011).

Limitations of the program

This urban gardening program may pose certain cost challenges for participating businesses and consumers. Fresh, local produce often has a short shelf life and can come with a higher price tag, both of which make it less accessible to customers (Specht et al., 2014). These issues could be offset by encouraging local restaurants to purchase food from the small business owners for their menus. These bulk food sales to restaurants could allow small business owners to discount remaining produce for the individual consumer. Additionally, the start-up cost for rooftop gardening can be quite high, while old, worn down buildings may not be able to withstand new construction (Specht et al., 2014). Food storage could also pose a challenge if the business owner would like to keep the produce rather than donate it to a local soup kitchen or food bank. These cost and storage issues would need to be taken into consideration if a small business owner decides to be part of this recommended program.

Conclusion

Food and nutritional insecurity represents a growing social injustice that must be tackled. The USDA's Economic Research Service has identified more than 6,500 food deserts in the United States (Dutko, Ver Ploeg, & Farrigan, 2012). Millions of Americans, across all ages and demographics, lack access to healthy food, which puts them at a socio-economic disadvantage and prevents them from living a healthy lifestyle. By enacting the recommended policies in this report that work with existing programs to engage community members and small business owners in local food solutions, the U.S. can take great strides towards eradicating food deserts and improving food and nutritional security.

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