



Farmers Markets: Alternative Food Security for Low-Income Communities

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Natural Systems Management: Application in Tucson, Southern Arizona, and the Border

Abstract

Forty million of the more than eight hundred million people who experienced hunger in 2018 are Americans. Due to urban expansion, the impact of climate change, and impoverishment, the most affected by food insecurity are urban residents of racial and ethnic minorities, disadvantaged seniors and children, and adults with disabilities. International and local policy-makers have revamped an ancient place of trade, the food market, as a means of giving low-income communities access to healthy food as an alternative to the big chain grocers. The food system is complex, and a multi-stakeholder approach is necessary to reduce food insecurity. That could include education, the promotion of food markets, the establishment of community food gardens, and food rescue.



Community Food Bank Market at Mercado San Agustín. Photo credit: Hiram Peña-Bonilla.

1 million people in Arizona experienced food insecurity in 2016

137,540 people were living in Pima County at the time

Of those, 46,370 were children

Source: (Walendorf, 2016)

Introduction

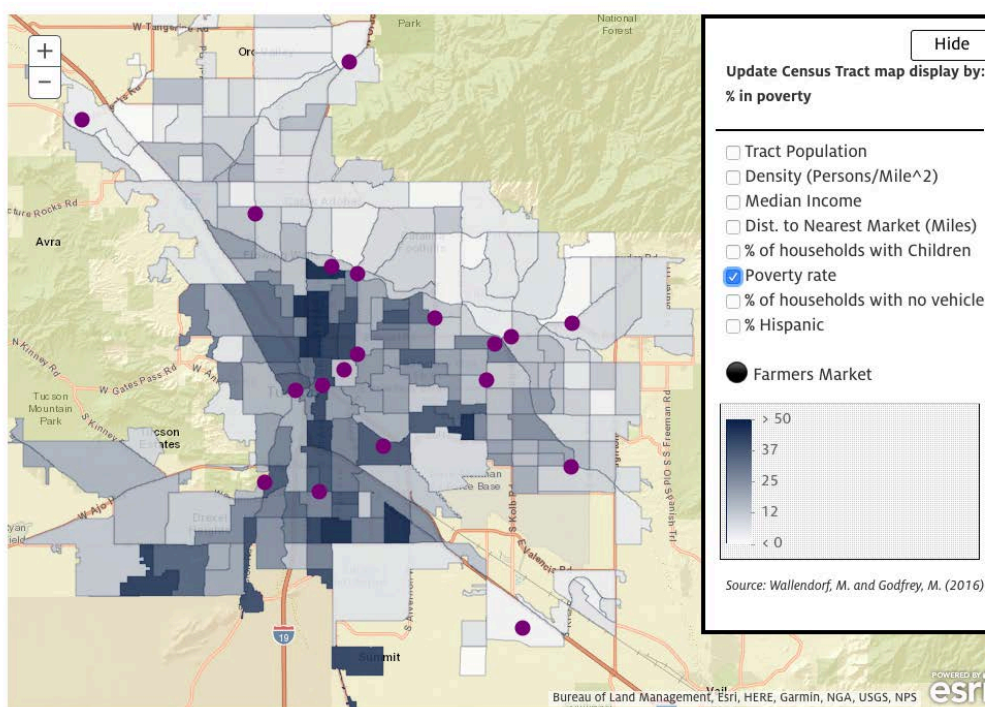
More than 820 million people in the world experienced food insecurity¹ in 2018. Even though Africa has the highest hunger rates, Asia, Latin America, and the Caribbean are experiencing the most significant increases (Food and Agriculture Organization of the United Nations [FAO], 2019). Food insecurity is not just a problem for developing countries; more than 40 million Americans faced food insecurity in 2017 (Feeding America, n.d.). The most affected by food insecurity in America are urban residents of racial and ethnic minorities, socioeconomically disadvantaged seniors, children, and adults with disabilities (United Health Foundation, n.d.). Also, these groups are the most vulnerable under the increasing climate change stressors due to their limited capacity to adapt. The Intergovernmental Panel on Climate Change, IPCC, reports that the magnitude and frequency of extreme weather events are disrupting the food system. In addition to the fall in production, and the price increase, the nutritional quality of crops could also experience declines due to higher levels of CO₂ (Intergovernmental Panel on Climate Change, [IPCC], 2019). In addition, urban expansion and the more than 4 billion people who live in cities now play a significant role in the food system, modifying its production and supply means, increasing carbon and land footprints, and creating food deserts² (IPCC, 2019).

Reevaluating an ancient place of trade

Food policy councils in the US are leading efforts to address the rise in food insecurity. By consulting community, tribal, regional, county, and state-level stakeholders, councils ensure food safety, including food system labor issues. In the last 20 years, several strategies have emerged to reduce food waste and food loss. Composting, food donation, responsible shopping, and the promotion of food markets are some examples.

The IPCC is betting on local food markets to reduce greenhouse gas emissions, and as a climate change adaptation strategy by reducing reliance on global trade, international food price spikes, and food speculation (IPCC, 2019). Farmers' markets are framed within the

Figure 1. Farmers market location in Tucson, Arizona and socio-economic data by poverty rate (2016).



Source: Wallendorf, M. and M. Godfrey. (2016)

Food Sovereignty Framework, which establishes the ability of local communities and nations to build food systems, including diversified crops and indigenous and local knowledge. The farmers' market approach is just one of twenty policy areas IPCC suggests can shape agriculture production (IPCC, 2019).

Furthermore, IPCC's framework echoes the Zero Hunger goal established by the United Nations Development Program, UNDP, in 2015. The Zero Hunger goal aims to end all forms of hunger and malnutrition by 2030. One of the strategies is the support of small-scale farmers and the guarantee of equal access to markets (United Nations, 2019).

Laying the foundations for the establishment of local food markets

At the local level, the Arizona Hunger Advisory Council is advancing policies and legislation aimed at helping local economies and labor within a sustainable framework by expanding the accessibility to locally produced food. The main goal is to create more retail sales opportunities for small and mid-size food producers by establishing food hubs. Processing and packaging are done locally, impacting the economy of the population, business community, and government. Small-scale farmers have the opportunity to sell fresh produce to grocers, restaurants, social institutions, and other retail outlets (Carney, M.A. and Krause K. C., 2019).

International and local food experts suggest combining the promotion of local food markets with other policies such as education for changes in dietary patterns in low-income families is vital to improving urban food security.

Pima county established protecting and promoting local food system resiliency as a strategy in its Sustainable Action Plan 2018-2025 (Pima County, 2018). With local Arizona farms providing roughly 30% of Arizona's food supply, and the city of Tucson employing 39,000 people (14 percent of the city's jobs) in the food industry, the county aims to help small and mid-size Arizona farmers struggling to compete in the marketplace. The Farmers Market Coalition affirms that farmers' markets provide one of the only low-barrier entry points for new farmers, ranchers, and food entrepreneurs to start small and test new products (Farmers Market Coalition, 2019; Carney, M.A. and Krause K. C., 2019).

UNESCO gave the city of Tucson the title of City of Gastronomy in 2015 (the first in the US).

Source: <https://en.unesco.org/creative-cities/tucson>

Farmers Markets in the Tucson Metropolitan Area

Southern Arizona comprises a variety of local food organizations and entrepreneurs committed to supporting the local food system. The goal is to produce, distribute, and consume local food. Food banks such as the United Food Bank, St. Mary's Food Bank Alliance, Yuma Community Food Bank, and the Community Food Bank of Southern Arizona, are helping to promote the use of farmers' markets to address food insecurity (Nabhan, Mabry, Johnson, & Ferrales, 2018). The Community Food Bank of Southern Arizona (The Community Food Bank) founded in 1975, provides hunger relief, health, food production, nutrition education, and community development assistance in 5 counties in Southern Arizona, including Pima County. (Community Food Bank of Southern Arizona, 2013)

The number of farmers markets has increased in both size and number in the Tucson Metropolitan Area (Wallendorf, 2016). The Community Food Bank operates two of the 22 farmers markets in Pima county and the Tucson Metropolitan Area. The Santa Cruz River Farmers Market, located at Mercado San Agustín, 100 South Avenida del Convento, is the biggest one, carrying 40 cultivated food species sold as transplants, 36 as food and 3 wild edible species as food (Nabhan et al., 2018).

Abigail Plano, Farmers Market Coordinator for the Community Food Bank, mentions that in the last 4 years, the food bank has shifted the perspective of what it means to do food banking. She explains that they are looking at the root causes of poverty and plan to address it more holistically. As an example, she says that instead of providing emergency food to people, they recognize that hunger is just one symptom of poverty. Abigail points out that there is a need to bring more people to the decision-making table. "[We are] in the process of developing an advisory committee for the market... made up of various stakeholders... to help inform in a more formalized way input from these stakeholders," Abigail says. She adds, "Over the past few years, we realized that the people that should be making the decisions about the market are the people that are the most affected by it." (personal communication, September 26, 2019).

Benefiting low-income families

Farmers markets help both consumers and producers' low-income families. On the one hand, low-income families have the choice to use food assistance benefits such as SNAP, WIC, and FMNP to buy at the Community Food Bank markets. Also, 10 out of the 22 farmers' markets in Pima county accept WIC and SNAP electronic benefit transfer (EBT) cards, and four accept community-supported agriculture programs (CSAs). The Community Food Bank reports 24% of its sales on the farmers' market come from public benefits including SNAP and WIC, and that 17% of customers have received assistance from the Department of Economic Security (Community Food Bank of Southern Arizona, 2013).

The Community Food Bank also helps small-scale farmers, including local backyard gardeners and small farmers, by purchasing their produce as consignment and selling it at a stand at the market. At a farmers market, 100% of the sales go to the local farmer, whereas only 15 cents of every food dollar that consumers spend at traditional food outlets go to farmers and ranchers. Data from the Community Food Bank of Southern Arizona show 50% of vendors and 38% of consigners self-identified as low-income, and that 34% of the consigners sometimes or often depend on money from the consignment program to make ends meet (Community Food Bank of Southern Arizona, 2013).

Challenges

A study found that between 1985 and 2016, 46 out of 64 farmers markets that opened in Tucson, AZ, had to close after one or two seasons of operations. The Community Food Bank, for example, has opened six farmers' markets, of which two remain in operation today. Most of the farmers' markets operating currently in the Tucson Metropolitan Area are temporary and semi transient and located in areas with relatively low rates of poverty and low proportions of Hispanic and Latino residents (Wallendorf, 2016). The opening of some of these farmers' markets expanded residents' access to locally-grown organic produce but not for all. In reality, the study mentions, farmers' markets, on the whole, do not contribute to eliminating food deserts.

"Farmers markets [are] a place for community members to have a chance to come together in a lively environment... providing food access, education, and community development..."

Abigail Plano, Farmers Market Coordinator for the Community Food Bank of Southern Arizona

Nevertheless, there is an understanding of the importance of farmers' markets, not just as a means to give low-income families access to healthy food but to build community. As Abigail Plano points out, "Farmers markets [are] a place for community members to have a chance to come together in a lively environment... providing food access, education, and community development..." Farmers markets, together with community gardens, grocery rescue, and other programs, help give visibility to the multi-layered problem that represents the food system.

Conclusions

Farmers markets can bolster food security and reduce the risk of hunger in the surrounding community if framed within a multi approach policy, including education to reduce carbon-intensive food demands and tackle issues of accessibility to address food deserts.

Endnotes

¹The United States Department of Agriculture [USDA] defines food insecurity as "a household-level economic and social condition of limited or uncertain access to adequate food" USDA (n.d.). Definitions of food Security. Retrieved from <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>

²The USDA defines food deserts as "parts of the country void of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers' markets, and healthy food providers." USDA (n.d.). Retrieved from <http://americannutritionassociation.org/newsletter/usda-defines-food-deserts>

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Decision-makers should promote the participation of small-scale farmers in governance structure research and the design of food systems. Bodies such as councils or committees, as well as open forums that bring various stakeholders to the table, are vital.

Farmers markets could be an alternative for low-income families to obtain healthy food if managed properly. Urban and peri-urban farmers could benefit from getting involved in farmers markets.

Farmers markets create a sense of community. Also, they increase access to fresh, nutritious food and support resilient communities by contributing to improving urban food security, reducing greenhouse gas emissions, and adapting to climate change impacts.