

JEFFERSON REPORT

FOOD DESERTS STILL COMMON BUT COMMUNITIES FIGHT BACK

SITUATION IN ERIE REGION REFLECTS GLOBAL ISSUE
AND RESOLVE TO FIND SOLUTIONS

By Julia Guerrein



JEFFERSON
EDUCATIONAL SOCIETY

JEFFERSON

EDUCATIONAL SOCIETY

The Jefferson Educational Society will periodically publish reports on issues important to the Erie region. This report was written by Julia Guerrein, a former Jefferson intern and current student at Vermont Law School

JES MISSION

The Jefferson Educational Society was created as a Pennsylvania nonprofit organization on Sept. 29, 2008 and on that same date received tax-exempt status by the Federal department of the Treasury under Employment Identification Number 26-3460486. The Jefferson operates under a 501 (c) (3) educational nonprofit charter, though it does not offer degrees or programs for formal academic credit. The Jefferson was founded to stimulate community progress through education and research activities. Its mission also includes a commitment to operate in a non-partisan, non-denominational manner without a political or philosophical bias. As such, the Jefferson intends to follow the examined truth wherever it leads and is neither liberal nor conservative, Democratic nor Republican in philosophy or in action.

OUR BUILDING PARTNERSHIP

The Jefferson Educational Society of Erie and the Brith Sholom Congregation of 3207 State Street entered into a shared-use building agreement in October 2008. Under the terms of this arrangement, the Jefferson utilizes facilities in the Southern Wing, which houses an adult education facility in order to offer lectures, courses, seminars, and sponsored research. The Brith Sholom Congregation continues to use the building's Northern Wing for religious and congregational purposes. The Jefferson Educational Society purchased the building in August 2013 and has invested in its renovation.

3207 STATE STREET
ERIE, PENNSYLVANIA 16508-2821

FOOD DESERTS STILL COMMON BUT COMMUNITIES FIGHT BACK

SITUATION IN ERIE REGION REFLECTS GLOBAL ISSUE AND RESOLVE TO FIND SOLUTIONS

By Julia Guerrein

Fact: All living organisms struggle to find a proper energy source. Although people have prided themselves in refining agriculture since nomads began to settle in one place, a reliable food source remains a demanding problem throughout the world. Food deserts – geographic areas where residents lack access to nutritious and affordable food, also known as “food vacuums” and “areas of low food access” – have become a recognized political issue over the past 50 years. The U.S. Department of Agriculture (USDA) specifically designates a food desert as an area where at least 33 percent of residents live one or more miles from the nearest grocery store or supermarket. These deserts exist in both urban and rural areas due to a number of factors. The food desert issue is also closely tied to the issues of poverty, distribution of food resources, and suburbanization, all of which are complex issues themselves.

Erie County has 10 food deserts, seven of which are located in the City of Erie, according to the Erie County Department of Health. It is reported that access to healthy, affordable food is a problem for more than 22,000 residents living in Erie food deserts and 77,000 residents living in areas surrounding one. By looking at the movement of people over time within this region, Erie proves to be a classic example of a food desert.

Without proper attention, food deserts will become more prevalent, not less so. Residents and those in charge of city government publicly recognize that food deserts are a problem, but one that can be solved. In order to garner a deeper understanding of this issue, however, studies that look directly into the causes of food deserts are of great importance. Once the general problem is better understood, similarities can be drawn between places that have already been the focus of formal studies and Erie, which has not been formally studied. Using information regarding how other areas have addressed food deserts, it is our hope that Erie can better tailor its efforts to make nutritious food more accessible and affordable for Erie’s marginalized population.

The mission of this report is to bring up to date all of the issues involving food deserts – the terms, definitions, local and global successes and obstacles regarding solutions, and steps that can be taken to improve the situation. It is part fact-check, update, and an analysis of the challenges that lie ahead.

Multifaceted issue

Several key factors are responsible for the creation of food deserts. The movement of more affluent people from urban cores to the surrounding suburbs is often the starting point. The movement of these people leaves an urban core that predominantly houses lower-income people who are less able to leave their neighborhoods. The movement of people outside of the city dovetails with the supermarkets that primarily choose to locate in high-traffic suburban areas. Such a scenario puts more pressure on small, locally owned stores that cannot compete with the variety, hours, and size of these larger stores. There is often no space within a city to build a large supermarket, and supermarket chains, in particular, are not interested in building urban stores. The inevitable closing of stores within the city has traditionally created a lack of affordable, accessible, and nutritious food for people who live in these areas.

The situation is often made worse by the fact that city dwellers find it difficult to find or afford transportation to the large supermarkets outside of the urban core. In certain cities especially, public transportation is not reliable, does not go to the new stores, or is too expensive for the already cash-strapped people left within the city. This leaves these people with limited food options, which are often “junk food” heavy, or high in fat and sugar content and low in nutrients. This often perpetuates health issues within these populations, potentially causing increased medical bills, which act as a positive feedback loop that creates a festering problem as people are pushed further into poverty.

Complicating matters, the inequality in income is often an inequality between races. Several studies have analyzed the disparities between communities of color and whites in access to quality food. A study published in 2005 in the *American Journal of Public Health*, “Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit,” compared access to food in neighborhoods where African-Americans resided to white neighborhoods. It found that the most impoverished black neighborhoods were, on average, 1.1 miles farther from the nearest supermarket than the most impoverished white neighborhoods. This segregation of races is caused by institutional racism and can be traced back to the United States history of openly condemning people of color to living in worse conditions than white people. As the paper states,

“Nevertheless, institutional racism—specifically racial residential segregation – confined African-Americans to Detroit neighborhoods that began losing employment opportunities, particularly in the manufacturing industry, in the 1950s.”

Like many other cities, Detroit experienced “white flight” – the moving of white people into the suburbs, which caused many neighborhoods in the city to transition from white to African-American neighborhoods. This negatively impacted the economy and caused many businesses to shut their doors, only making it harder for residents to find a job and therefore deepening the divide between the white and African-American people of Detroit.

Poor diet

This discrepancy in income and access to nutritious food leads to other inequalities between communities. A poor diet is often a driving factor behind poor health, which can lead to a number of diseases, such as diabetes and heart disease. As a result, inequalities in food access also lead to inequalities in health, which lead to increased medical expenses for the people who are already struggling. It is widely observed by researchers, as discussed in “Disparities and access to healthy food in the United States: A review of food deserts literature,” that “minority neighborhoods are disproportionately affected by increased rates of morbidity, mortality, and adverse health outcomes.” It has also been noted that low-income, urban areas often have a higher number of fast-food restaurants and corner stores.

Educational factors

Lack of education regarding making proper dietary choices is also an issue when assessing food deserts. A study done in 2000 in the U.K. conducted a series of interviews to identify the causes of food poverty, which included personal factors such as lack of education, poor eating habits, poverty, income inequalities, lack of transportation, and limited foods available at the local convenience store. This in turn helped the researchers target ways to address these issues, including improving food access through food and health education, trying to encourage residents to demand healthier food options at their local stores, and transforming public transportation to better serve the people who rely on it.

Food Policy

Policy plays an important role in establishing access to nutritious and affordable food. The USDA, a federal executive department made up of 29 agencies, provides “leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management,” according to the USDA website. It was signed into law in 1862 by President Abraham Lincoln, who referred to it as “The People’s Department” in his final address to Congress.

The two agencies under the USDA that focus on nutrition are the Center for Nutrition Policy and Promotion (CNPP) and the Food and Nutrition Service (FNS). The CNPP “works to improve the health and well-being of Americans by developing and promoting dietary guidance that links scientific research to the nutrition needs of consumers.” CNPP is most known for issuing dietary guidelines, including the formerly used “Food Pyramid” and the currently used “My Plate.” These dietary guidelines have recently received criticism from medical experts for recommendations regarding red meat consumption. Dr. Walter Willett, chairman of the Department of Nutrition at Harvard School of Public Health, told the *Erie Times-News* that “the current system opens the guidelines to lobbying and manipulation of data.” He added, “The USDA’s primary stakeholders are major food producers and manufacturers.” The dietary guidelines are to be taken with some skepticism considering the influence they receive from big business.

FNS is the agency through which people can apply for the Supplemental Nutrition Assistance Program (S.N.A.P.) and Women, Infants and Children (WIC) program. Both of these benefits are obtained through a local office. S.N.A.P. is the formal name for what is commonly referred to as the Food Stamp program. These benefits help eligible low-income households buy food. S.N.A.P. can also pay for seeds and plants that eventually grow produce. Under the Food and Nutrition Act of 2008, S.N.A.P. cannot pay for beer, wine, liquor, cigarettes or tobacco, nonfood items such as pet food, soap, paper products, household supplies, vitamins, food that will be eaten in the store, and hot foods. This Act does not include soft drinks, candy, cookies, snack crackers, ice cream, seafood, steak, and bakery cakes, which are all eligible for purchase with S.N.A.P. benefits. WIC targets low-income populations that are nutritionally at risk, including pregnant women, breastfeeding women up to the infant’s first birthday, nonbreast-feeding postpartum women, infants up to their first birthday, and children up to their fifth birthday.

The USDA offers several grant programs to help address food insecurity through the Hunger and Food Security Programs. The USDA outlines being

food secure as including “readily available, nutritionally adequate, and safe foods” and “assured ability to acquire personally acceptable foods in a socially acceptable way.” Specific programs under the food security umbrella include the Community Food Projects Competitive Grant Program (CFPCGP) and the Food Insecurity Nutrition Incentive (FINI) Grant Program. The 1996 Federal Agriculture Improvement and Reform Act (F.A.I.R.) gave the authority for federal grants to support community food projects. The Farm Security and Rural Investment Act of 2002 re-authorized the program. According to the USDA, the program is designed to help low-income people by increasing their access to fresher and more nutritious food, helping communities become more self-reliant for their food needs, encouraging responses to related issues, meeting the needs for infrastructure improvement, planning for long-term solutions, and marketing in a way that helps producers and consumers. FINI’s goal is “to increase the purchase of fruits and vegetables among low-income consumers participating in [S.N.A.P.] by providing incentives at the point of purchase. Currently S.N.A.P. benefits can be used at participating farmers markets. This creates two unique opportunities: qualifying individuals have greater access to local food, and local growers have more customers.

Another key piece of food policy that plays a role in access to food is the federal Bill Emerson Good Samaritan Food Donation Act, passed in 1996. This act provides protection from liability when donating food, as long as the donating party believes the food is safe to eat.

Erie Specific

One of the key factors in the creation of a food desert is the movement of affluent people from within a city into the surrounding suburban areas. A large percentage of white residents from the City of Erie moved into the suburbs to places such as Millcreek, Fairview, and Harborcreek townships in search of more space and larger homes. With this came the building of supermarkets in the county, including chains such as Wal-Mart, Wegmans, and Giant Eagle, that outcompeted the small Mom and Pop stores within Erie, contributing to most small stores closing. People living in the city near these stores often lost their main source of food, and the people running those stores lost their livelihood.

Community and Urban Gardens and Community Supported Agriculture (CSA)

Erie is becoming part of the boom in community and urban gardens seen around the U.S. The area has also caught on to the idea of Community Supported Agriculture (CSAs), which are farms from which people can buy food shares.

The Sisters of Saint Joseph Neighborhood Network (SSJNN) operate an urban farm program at various locations throughout the city. This includes various urban gardens and urban orchards located on empty lots. Many of the lots are located in Little Italy, which is defined as West 12th Street south to West 26th Street and between Sassafras Street and Cranberry Street. One of the gardens is tended by neighborhood teens and overseen by Gretchen Durney. The teens are able to take some of the produce and also make a small salary from working in the garden. This helps provide fresh produce to them and their families and for the farmers market, and also gives them valuable work experience.

The nearby International Flavors Garden is home to plots that people in the neighborhood can use to grow their own food. Each raised bed is marked with a name and people can plant what they want. Along 18th Street is a garden full of raised beds for Bhutanese immigrants and refugees. Gary McEnery, one of the main garden tenders, works closely with all of the gardens, but working with the Bhutanese was particularly challenging because of the language barrier. When the gardens were first planted, McEnery bought seeds in bulk, but realized that there weren't photos on the bags and that the Bhutanese couldn't read the English on the bags. He printed out photos to go with the different seeds, but the Bhutanese intentionally mixed all the seeds together and threw them into the plots. McEnery found this particularly amusing since they did not need the photos he printed.

Near the SSJNN building are two urban orchards. One is older and has various fruit trees and the other contains plants. The newer orchard has fig trees that are very small, but they grow fast. All of the gardens maximize space by using fences as trellises for various vine plants, such as beans.¹



At top: SSJNN Little Italy Garden. Below: SSJNN International Flavors Garden





Above: Bhutanse garden; Below: Urban orchard.



There are a number of other community gardens run by various organizations in Erie, such as the Multicultural Resource Center, the Martin Luther King Jr. Center, and Erie Insurance. These gardens support various groups, whether that be to residents in the area, the centers themselves, or to a soup kitchen in Erie.

French Street Farms, located on French Street, takes up three lots on one side of the street and one on the other side. Carrie Sachse, the owner and primary farmer, operates the farm as a CSA, selling food shares, and also sells at farmers markets in the area. Sachse is largely self-taught, and grows a variety of produce, such as arugula, radishes, cucumbers, kale, lettuce, collard greens, broccoli, peppers, herbs, and tomatoes. She has worked diligently to maximize the output of her farm for the space she has. Through putting her farm together, Sachse faced problems with zoning laws (which were changed in 2017) and being able to financially support the farm. Sachse was able to receive a grant to get her farm off the ground. She also runs workshops that teach participants how to make various things, like kimchi, kombucha, and sauerkraut.¹



French Street Farm

The important thing to note from these operations are that they are doing two major things: addressing food insecurity and employing locals.

Farmers Markets

There are several farmers markets around Erie that attract farmers and consumers from near and far. These markets help to bridge the gap between where food is produced and accessing that food in urban Erie.

SSJNN hosts a weekly market on Mondays during the summer in Little Italy. This market is where the neighborhood teens who work in the garden are able to sell their produce and connect with the community. A number of other farms also sell their produce from Erie and Crawford Counties. The available produce depends on what is in season, and a table at the market is dedicated to teaching people how to use the produce and what is in season when. At the market, people on S.N.A.P. can double their money, which is an incentive to get people to buy local and eat healthier.¹

Every Saturday morning during the summer there is a market in the Colony Plaza on West Eighth Street, close to Presque Isle State Park. Farmers are able to set up at the market and sell their produce and other products, such as honey. One farm that regularly sells is No Dirt Farm, located in Fairview.



Photo: The Colony Plaza Farmers Market.

No Dirt Farm is a hydroponic farm and grows everything in a nutrient solution in PVC. The owner, Amanda Hines, and her father operate the farm. The farm is fairly new, but Hines has big dreams of expanding the farm at the current location and someday opening another farm in an abandoned factory in Erie. Plants grown hydroponically can produce year-round, therefore keeping more of the food supply local while providing jobs in the community.

Some of the other sellers that take part in the Colony Plaza farmers market include Meadballs, a shop that sells premade food made from local produce; Post Apple Farm; Conscious Food Project, a shop from Meadville that sells many different products; Life and Learn Farms, a farm in Edinboro; and Palma's Sweet Treats, a bakery in Edinboro.¹

The Oasis Market is an indoor market at Ninth and State Streets, only a few blocks from Perry Square and right in the middle of downtown Erie. The market opened in February 2019. Faith Kindig and John D'Silva, the main brains and brawn behind the Oasis Market, faced a series of roadblocks in opening the market, but after several delays were finally able to open. The market is in one of the city's seven food deserts and offers locally grown produce year-round.¹

Food suppliers and donating food

In Erie, the Second Harvest Food Bank of Northwest Pennsylvania and multiple soup kitchens provide food for food insecure individuals and households.

The Second Harvest Food Bank is located on Grimm Drive and is the only major food bank in the region. The Food Bank receives, inventories, stores, and distributes food to nonprofits. The food is free, and its website reports that recipients "include unemployed and underemployed workers, the homeless, senior citizens, individuals with disabilities, families in crisis situations and children. One in four people in northwestern Pennsylvania rely on the services of Second Harvest."

There are three soup kitchens in Erie: Emmaus Ministries Soup Kitchen on East 11th Street, the Erie City Mission Soup Kitchen on East 11th Street, and the Sisters of St. Joseph soup kitchen on East Ninth Street. The soup kitchens provide cooked meals and have volunteers

from the community to help them provide the meals. The Erie City Mission reports on its website that it works with several local restaurants to recover food that would otherwise be wasted and use it to help feed the hungry. Emmaus Soup Kitchen serves about 200 meals each day, and its food pantry serves about 600 families each week.

Zoning ordinances that help/hinder

In June 2017, the City of Erie's zoning laws were updated to include urban gardens and market gardens. According to the zoning document released by City Hall, urban gardens and market gardens are able to exist on vacant lots in the Medium Density Residential (R-2), High Density Residential (R-3), and Residential Limited Business (RLB) districts, given specific requirements.

In order to sell produce from the land at a stand on the land, the Zoning Hearing Board must approve it after public notice and a public hearing.

Health Department

The Erie County Health Department has played a key role in promoting eating healthier. The department funded the organized billboards around Erie that advertise the farmers markets in an effort to attract more visitors. Research regarding food deserts in Erie County has also been done through the Health Department and is being used to guide decisions regarding food access issues.

Recommendations

Stakeholders agree that several key pieces to the puzzle in the fight against food insecurity need to be pursued. The biggest one is education, whether of the people living in the food deserts, farmers, politicians, community advocates, or the everyday person who may not recognize they are being affected.

This translates most concretely into how urban areas are zoned in order to best encourage urban farms. Additionally, addressing how food deserts are talked about and looked at is important. Lastly, and most broadly, there needs to be a shift in attitude about urban areas from a "concrete jungle" perspective to a green and sustainable view.

This green attitude needs to be worked in at all levels, from the mayor and city planner to local businesses and neighborhoods.

Continuing Education

Teaching people about nutrition, food preparation, and how to shop, particularly on a budget, is essential to fighting the food desert battle.

The Erie School District is already recognized for its farm-to-school program. The program began in 2013 and includes multiple school gardens throughout the district. All of the district's schools have their own piece of land to grow produce. The district received a planning grant through the USDA to continue working on the farm-to-school curriculum and implementation. The goal is to hold classes in the gardens for all grade levels and to include education about nutrition and gardening, both in and outside of the classroom. Since the gardens are relatively small compared to the amount of food necessary to feed students, the district is also planning to work more with local farmers to provide food for school lunches.

In an article from the website FoodService Director, Erie public schoolteacher Doreen Petri discussed the importance of the plan to integrate the gardens into school programming. "We want to hit it from all sides," she said. "We want to do some educational pieces in the classroom, pick [the produce] in school gardens and then taste them in the cafeteria."

The work being done by the Erie School District is not going unnoticed. This relatively new program has the potential to revolutionize the way students, and hopefully their families, look at food. More work like this should be done in other schools in the area and in other places in order to reach a wider audience.

What's in a name?

While researching and writing this essay and talking to many people throughout the community, I heard a remark again and again – whether the term "food deserts" is helping, hindering, or has no effect on the issue. One community member suggested that they be called "food swamps," which has grown to be part of the conversation on food

access and health. Food swamps, as written about in the Boston Globe and the Atlantic magazine in late 2017, refer to areas where there isn't a lack of food, but rather a lack of healthy food. There is plenty of food that is generally deemed "unhealthy," including chain fast food restaurants, such as McDonald's, Taco Bell, and Wendy's, and various convenience stores, whether that be the neighborhood corner store or stores attached to gas stations. These places often offer convenience with a price: the consumer's health.

This focus on the food swamp, rather than just the food desert, takes into account the choices that consumers are given combined with the proximity of stores. A study published in 2014 in the International Journal of Environmental Research and Public Health addressed the effect of food swamps on adult obesity rates, with food swamps being defined as "areas with a high-density of establishments selling high-calorie fast food and junk food, relative to healthier food options." The paper emphasizes that low-income populations have a higher rate of obesity than socially advantaged populations, which is seen clearly by the geographic distribution of wealth and obesity.

In other words, referring to "food deserts" as "food swamps," when appropriate, may help to better convey the different factors at play when looking at food and health. This, in turn, could help guide personal decisions, regulations, and community initiatives that look at these issues in a more holistic way.

Zoning Reform

A report issued by the Center for Law and the Public's Health at Johns Hopkins and Georgetown universities in 2005 details the use of zoning in limiting fast food as a strategy to combat obesity. Given this study and the study mentioned above regarding food swamps, there are two major ways that cities can encourage healthy eating and discourage unhealthy eating through zoning: (1) Limit the number of fast food restaurants and (2) incentivize healthy eating options, whether that be grocery stores, "fast food" places, or sit-down restaurants.

Limiting the number of fast food restaurants has been done in a number of ways around the country. As detailed in the report "The City Planner's Guide to the Obesity Epidemic: Zoning and Fast Food,"

the use of banning specific type of restaurants has been used, such as in Concord, Mass., where fast food restaurants and “drive-in” services that fit certain criteria. Other cities have decided to ban fast food restaurants from certain areas, rather than throughout the entire municipality. In San Francisco, this limit is justified by being used to protect the small business sector, therefore creating a better environment for entrepreneurs. Quota systems and regulation of the density of fast food restaurants have also been used in Berkeley, Calif., and Los Angeles.

This same approach could be used to regulate the number of convenience stores and to help increase the number of stores and restaurants that offer healthy and affordable options. The aforementioned zoning laws have been upheld and deemed constitutional on the basis that the government has a legitimate government purpose if the law relates to promoting public health, safety, morals, or general welfare. The laws would therefore be deemed unconstitutional if they are arbitrary or not related to a legitimate government interest.

Zoning laws can also be used to encourage local food production. The 2017 change in the Erie zoning law is a start to adopting an evolving view of land use possibilities within urban areas.

Focus on greening the city

Erie’s move into being a visibly “greener” city is not going unnoticed, but more can be done to ensure that residents have more access to local produce year-round. The City of Erie is home to a number of vacant lots and empty buildings that could be utilized for maximizing food production and local job creation.

The Erie Redevelopment Authority owns many vacant lots throughout the city that are able to be sold to individuals or agencies as long as they are used to meet the national objectives set by the Department of Housing and Urban Development, such as eliminating blight, creating jobs, and providing housing or other benefits to low- to moderate-income individuals and families. The use of vacant lots for urban gardening and farming is becoming increasingly popular, as seen by Carrie Sachse and her farm. These empty properties are being taken advantage of in Detroit, and the organization Detroit Future City (DFC) has awarded thousands of dollars in grants to grassroots organizations in order to push forward with vacant land revitalization.

Greening vacant lots, rather than building more infrastructure and housing, breaks up the developed areas. These lots also serve as important habitat for birds, insects, and various plants and help mitigate stormwater runoff. In Detroit, DFC is incentivizing stormwater infrastructure projects by introducing a Stormwater Credit Track. Mitigating stormwater decreases the discharge from tributaries and also increases water quality.

The other untapped resource for food production is the many buildings that sit unused, whether they be former factories, old homes, or something in between. These structures, given that they are sound and do not need to be torn down completely, could be repurposed into indoor growing facilities. Especially in places that have relatively short growing seasons because of cold weather, including Erie, indoor growing facilities can give residents a local food source year-round. These facilities create job opportunities for people locally, while also reducing the amount of energy needed to ship food. Since these facilities are able to be controlled, there is also the opportunity to grow produce that is not normally grown in this region. Cities such as Detroit and Chicago have jumped on the indoor growing train, particularly adopting the hydroponic technique. No Dirt Farm in Erie uses this type of growing, which involves putting the plants' roots in a nutrient growth medium. This type of growing maximizes space since plants can be stacked vertically on shelves with grow lights.

As the City of Erie and organizations like the Erie Downtown Development Corporation (EDDC) plan and fund the growth of the city, the green possibilities should be kept in mind.

Conclusions

In general, the problem of food deserts is complicated, but not unique. Given the success of other cities comparable to Erie's size in enhancing access to healthy food, increasing educational opportunities regarding nutrition and food preparation, and improving the overall health of citizens, tackling this issue is entirely doable. Already a number of people in the Erie community are working on this issue, and increased awareness and attention will only help.

There is also a component of personal responsibility in regard to food choice. Fresh and healthy food is available for many people who

instead choose to eat unhealthy food that is detrimental to their health. Hopefully increased education and awareness can help steer people in the healthy direction, but at the end of the day people have free will and make their own dietary decisions.

Acknowledgments

Thank you to everyone who took the time to talk to me about their work and helped direct me during the writing and development of this topic. Even though I am a lifelong Erie resident, working on this essay opened my eyes to the tremendous amount of strength, willpower, and hope residents of our community possess.

About the author

Julia Guerrein is a first-year law student at Vermont Law School. A former Jefferson intern, Guerrein earned undergraduate degrees at Penn State Behrend, where she also served as editor of the college newspaper, “The Beacon.”

Sources

All paragraphs with a “1” superscript at the end denotes that the information was obtained directly through interviews with people from those organizations in 2018 and 2019.

“About the U.S. Department of Agriculture.” *USDA*, www.usda.gov/our-agency/about-usda.

“Agencies.” *USDA*, www.usda.gov/our-agency/agencies.

Center for Nutrition Policy and Promotion (CNPP). *USDA*, www.fns.usda.gov/cnpp/center-nutrition-policy-and-promotion.

Community Gardens and Farmer’s Markets, Erie County Department of Health, www.eriecountypa.gov/county-services/health-department/health-news/community-gardens-and-farmers-markets.aspx.

Cooksey-Stowers, Kristen, Marlene Schwartz, and Kelly Brownell. “Food swamps predict obesity rates better than food deserts in the United States.” *International journal of environmental research and public health* 14.11 (2017): 1366.

Detroit Future City, Detroit Future City, dfc-lots.com/.

“Erie City Mission | Erie, PA.” *Erie City Mission | Erie, PA*, www.eriecitymission.org/.

Flowers, Kevin. “Oasis Indoor Marketplace Opens in Downtown Erie.” *GoErie.com*, GoErie.com, 28 Feb. 2019, www.goerie.com/news/20190228/oasis-indoor-marketplace-opens-in-downtown-erie.

Gingerella, Benita. “Growing a Farm-to-School Program.” *FoodService Director*, FoodService Director, 16 Jan. 2019, www.foodservicedirector.com/operations/growing-farm-school-program.

Hendrickson, Deja, Chery Smith, and Nicole Eikenberry. “Fruit and vegetable access in four low-income food deserts communities in Minnesota.” *Agriculture and Human Values* 23.3 (2006): 371-383.

Hester, Jessica Leigh. “Turning Detroit’s Abandoned Homes Into Greenhouses.” *The Atlantic*, Atlantic Media Company, 11 Oct. 2016, www.theatlantic.com/magazine/archive/2016/11/the-greenhouse-effect/501143/.

“Historical U.S. Food Policy Information.” *United States Department of Agriculture*, www.nal.usda.gov/fnic/historical-us-food-policy-information.

Kieffer, Edith C., et al. “Reducing disparities in diabetes among African-American and Latino residents of Detroit: the essential role of community planning focus groups.” *Ethnicity and Disease* 14.3; SUPP/1 (2004): S1-27.

Mair, J.S., M.W. Pierce, and S. P. Teret. “The use of zoning to restrict fast food outlets: a potential strategy to combat obesity.” *The Center for Law and the Public’s Health at Johns Hopkins and Georgetown Universities* (2005).

Mair, J. S., M. W. Pierce, and S. P. Teret. “The city planner’s guide to the obesity epidemic: zoning and fast food.” *The Center for Law and the Public’s Health at Johns Hopkins & Georgetown Universities*. (2005).

Mallach, Alan. *The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States*. Lincoln Institute of Land Policy, 2018.

Morland, Kimberly, et al. "Neighborhood characteristics associated with the location of food stores and food service places." *American journal of preventive medicine* 22.1 (2002): 23-29.

Noble, Breana. "Indoor Farms Give Vacant Detroit Buildings New Life." *Detroit News*, 16 Aug. 2016, www.detroitnews.com/story/business/2016/08/15/indoor-farms-vacant-buildings-detroit/88813972/.

Oasis Market, theoasismarket.com/.

Reisig, V. M. T., and Ann Hobbiss. "Food deserts and how to tackle them: a study of one city's approach." *Health Education Journal* 59.2 (2000): 137-149.

Sanger-katz, Margot. "Giving the Poor Easy Access to Healthy Food Doesn't Mean They'll Buy It." *The New York Times*, The New York Times, 8 May 2015, www.nytimes.com/2015/05/09/upshot/giving-the-poor-easy-access-to-healthy-food-doesnt-mean-theyll-buy-it.html.

Second Harvest Food Bank of Northwestern Pennsylvania, nwpafoodbank.org/.

Sisters of St. Joseph of Northwestern Pennsylvania, ssjerie.org/.

USDA ERS - Documentation, www.ers.usda.gov/data-products/food-access-research-atlas/documentation/.

"USDA Food and Nutrition Service." *USDA*, www.fns.usda.gov/.

"Vacant Lots for Sale." *Vacant Lots and Fixer Uppers*, Erie Redevelopment Authority, www.redevelopeerie.org/properties_for_sale/vacant_lots_and_fixer_uppers/.

Walker, Renee E., Christopher R. Keane, and Jessica G. Burke. "Disparities and access to healthy food in the United States: A review of food deserts literature." *Health & place* 16.5 (2010): 876-884.

Zenk, Shannon N., et al. "Neighborhood racial composition, neighborhood poverty, and the spatial accessibility of supermarkets in metropolitan Detroit." *American journal of public health* 95.4 (2005): 660-667.

JEFFERSON
EDUCATIONAL SOCIETY

3207 STATE STREET
ERIE, PENNSYLVANIA 16508-2821