Feeding the Masses

America's Food Crisis

America is not so much in the midst of a food crisis as in the midst of multiple food crises. Despite being the wealthiest nation in the world, millions of people in America struggle to get enough food or to afford high quality, nutritious food. Access to food and the quality of food available in various communities, cities, and towns is related to broader patterns of investment and infrastructure. It is largely a product of the corporatization of the American food industry. Coupled with wage stagnation and income inequality, the rising cost of food has meant that more Americans are unable to achieve a healthy diet. This leads to a variety of medical and mental health issues that place a further strain on individuals and families. On an even broader scale, climate change and global instability disrupts production, distribution, and cost and threatens to make access to food more problematic over the longer term.

A Core Dysfunction

In the Colonial era in America, nearly all the food that colonists ate was grown locally. From the Native Americans, the colonists learned to cultivate and to eat maize, sweet potato, tomatoes, pumpkins, squash, watermelons, beans, grapes, berries, pecans, peanuts, and many other foodstuffs still common across the Americas. However European agriculture was already a global endeavor. Common European crops like apples, peaches and grains like spelt and wheat were originally native to Asia before they were carried around the world to become key crops in Britain. Americans brought these same crops to the Americas, cultivating them alongside native crops. When it came to meat, the Americas provided a wealth of edible animals, from the thousands of species of fish in the seas, rivers, and lakes, to deer, buffalo, and hundreds of varieties of other wild game. The colonists also brought cattle, pigs, sheep, chickens, and goats to the new world and they cleared millions of acres of forests and prairies to establish grazing land.[1]

From the very beginning, food in America was not only used to sustain those who needed to eat but it also became the core of the new American economy. The trade in crops, flowers, and spices fueled the rise of empires and kingdoms, and the decision to establish the American colonies was part of the effort to marshal power in the global culinary trade. The nation's first successful colony in Jamestown, Virginia, was an economic endeavor, planned and executed by a corporation that wanted to profit. Exports of Native American crops like tobacco, potatoes, and corn fueled the rise of America's first wealthy elite class, while deepening the pockets of the British aristocracy as well. Men like Thomas Jefferson and George Washington

became wealthy by utilizing slave labor to grow massive plantations that shipped crops like tobacco and hemp back to England as well as supplying the growing millions of colonial laborers.[2]

The corporate origins of American agriculture have dominated the nation's relationship to food ever since. In the colonies most food was grown locally. Without the ability to freeze and ship food over long distances, it was simply more practical to eat what was grown in one's immediate area. Many Americans lived as farmers and would eat what they were able to grow on their own farms, supplemented by food they purchased or traded at local and regional agricultural markets. While these early European Americans lacked culinary variety, their food was fresher and healthier than much of what Americans consume in the twenty-first century. Nevertheless, the distribution of food was anything but egalitarian.

While the Washingtons and Jeffersons of the New World were wealthy enough to eat the finest of what was available, many of those who arrived in the Americas left poverty in Europe to try their fortunes in the New World, or were forcibly transported as convict laborers or slaves. For individuals at the low end of the totem pole, affording food was tough. Cornmeal pudding, porridge, and potatoes made up the bulk of the diet for many in the working classes, who could not afford game or fresh vegetables. For those too poor to afford porridge, a watered-down version, known as "gruel," could be eaten to provide sustenance, but it had little nutritional value. Slaves were often fed gruel as well and forced to eat food of the same quality as that given to pigs and goats, left over agricultural products not suitable for sale.[3] The mortality rate among the poor, especially children, was high until recently in history. Fewer than half of American-born children survived to adulthood until well into the 1800s. Children, especially, suffered inordinately from poverty and famine in the early history of America.

The Industrial Revolution—which brought new advances in technologies related to food production, storage, and distribution—was the beginning of one of the most damaging inventions in the history of American life, processed foods.

As America became more complex and urbanized, many no longer had direct access to farms and markets where fresh products were sold. Obtaining food became more difficult and companies met this need with prepackaged foods. Meats, legumes, and vegetables were precooked, mixed with chemicals and "filler" ingredients, and then stored in cans. Cans could be stored for months, and the food only needed to be reheated rather than cooked. Convenience was the key goal for the early packaged food corporations, and they achieved this goal, but at the cost of quality and nutritional value. Precooked foods contain only a portion of the vitamins and minerals that would be found in fresh versions of those same foods. Companies increasingly began offering food items that were more "filler" than actual food. This enabled them to sell less product for higher cost, but this profit came at the expense of the health and welfare of the American people.[4]

Over time, companies learned that Americans respond more to flavor than to quality. By adding salt, sugar, and spices, companies marketed foods made from little more than agricultural waste. Packaged potato chips, grain cereals, and soft

drinks require very little material to produce but remain popular because they carry strong flavors and textures. These foods can be extremely low in price. Those in the laboring class therefore increasingly depended on these low-quality foods. The success of low-quality packaged foods led to the growth of massive multi-state corporations, and these companies tended to put smaller markets, agricultural outlets, and independent grocers out of business.

While the processed food industry gradually replaced small-scale agriculture and food providers, Americans also imported more of their food products from overseas, as the cost of doing so was cheaper than the cost of producing foods locally. Mass agricultural programs in many countries increased the yield of crops by adding hormones and chemicals that increased growth rate but often had a deleterious impact on nutritional content as well. As these foods began to flood the American market, the quality of food declined across the entire spectrum so that even fresh vegetables purchased from a store might be laced with chemicals, insecticides, and hormones and might lack the nutritional value that the same basic food contained centuries earlier.[5]

Americans in the twenty-first century live in a food environment dominated by corporate profit and centered around the product of mass quantities of low-quality food products. This transformation has not gone unnoticed, and even in the early 1800s some Americans protested the food industry and campaigned to improve the quality of food. Ultimately, farmer's markets and health food stores emerged to counter the mass food market, and these outlets provided a way for Americans to still obtain high quality and fresh foods. However, as the cost of living increased and real wages stagnated, better quality foods became more difficult to afford and eventually became a niche market available primarily to the affluent. The drive for better and more "natural" foods ultimately led to the birth of corporations like Whole Foods and Wild Thyme, which marketed healthier, organic, and more nutritious options. While these chains began out of an earnest effort to counteract the declining quality of available mass-produced foods they became more corporate and succumbed too many of the same problems plaguing the mass grocery market as a whole.[6]

The Many Facets of a National Problem

America's food problem is ultimately part of a deeper problem, wage and income inequality. Between the ten 10 years since the Great Recession of 2008–09, proactive economic recovery policies enacted by the Obama administration helped to stem unemployment and led to an increase in absolute wages. But the gains that the economy made were not evenly shared. In 2020, the highest earning 20 percent of Americans made more than half of the nation's income combined. Over the past half century, this share of Americans, have increased their share of income dramatically. In 1968, for instance, the top 5 percent of wealthy Americans earned 16 percent of all income in the nation. By 2018, they earned nearly 23 percent. The gap in wealth between the rich and poor more than doubled over the years from 1990 to 2016 and middle- and working-class incomes have grown at an exceedingly slow

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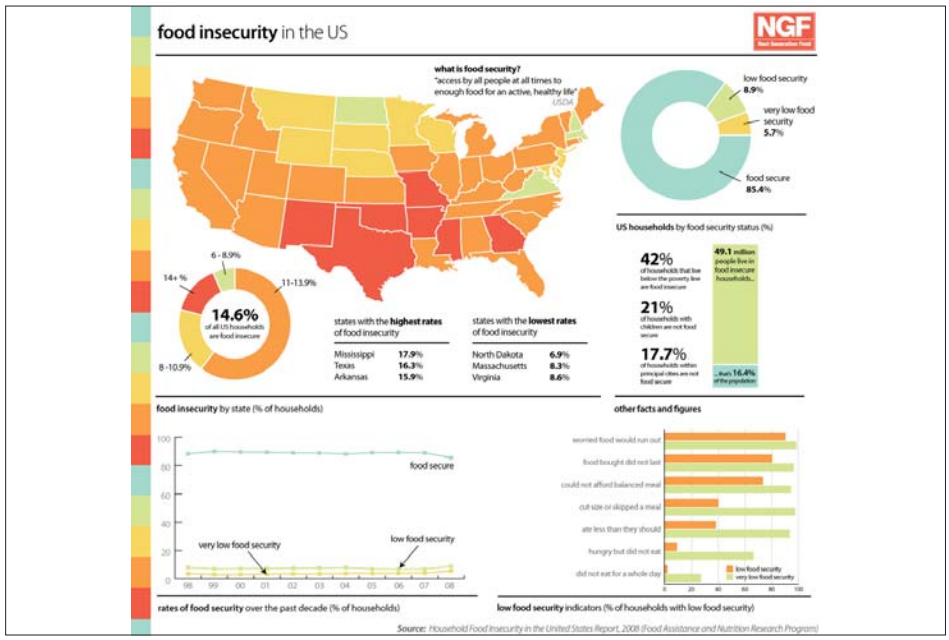
Poverty, Unemployment, and Underemployment



By Tiffany Farrant, via Wikimedia.

Food insecurity in the United States.

The Economic Dimension of America's Food Problems

One of the primary drivers of hunger and food insecurity is income. Individuals who live in poverty, those who live just above this level but are still underemployed, and even those who earn barely enough to cover their needs all face problems obtaining adequate food or, at least, adequate nutrition. Ultimately, food insecurity and hunger can be considered a dimension of the broader struggle with wealth.

The Income Inequality Problem

Despite being the wealthiest nation in the world, the United States also has the highest level of income inequality of the Group of Seven (G7) nations, an informally recognized group of trading partner countries that also includes France, Germany, Italy, Japan, the United Kingdom, and Canada.[1] The wealth of the United States and the nation's economic inequality are interrelated. America is wealthier than the other nations because it is a larger nation and rich in natural resources. If the United States was smaller, or if it had, like Canada, vast tracts of territory unsuitable for farming, the United States would not now be the wealthiest nation in the world.

The American people have also embraced a free market economic system that emphasizes personal wealth over public welfare. While free market capitalism is excellent for creating wealth, the degree to which capitalist systems benefit consumers depends largely on whether or not the members of that society can mitigate the impact of greed and can protect citizens trying to work their way through the system from those who have already amassed wealth and power.

Consider, for instance, the medical industry. American hospitals attract some of the finest medical students in the world because physicians can earn far more working in the United States than in many other countries and because the United States invests heavily in the medical industry. Although spending on medicine outpaces many other nations, the United States has some of the worst health outcomes in the Western world.[2] America's medical system works on a for-profit basis and so those without economic advantages receive lower quality medical care. Even individuals who are economically stable may be thrown into financial disarray by the high price of medical care if they encounter an unforeseen medical issue. By contrast, many other European nations have adopted socialized medical systems in which collective taxation pays for the nation's healthcare. The American system produces more top-tier physicians than medical systems in many allied Western nations but this high-quality healthcare is available disproportionately to the wealthy.[3]

For those who don't have access to inherited getting ahead in America can be very difficult. Since the 1970s, the wealthiest 20 percent of Americans have increased

their wealth nearly 60 percent, but income growth for the middle and lower classes has been stagnant. The wealth gap, which is the difference in compensation between the wealthiest and poorest families, has more than doubled since 1989. Studies have shown that the modest increases in income seen by those in the middle and working class have been insufficient to constitute real wage advancement. This means that purchasing power for the vast majority of Americans has either remained stagnant or has actually decreased since the middle of the twentieth century.[4]

Social scientists have completed many studies and economic analyses that suggest that the most significant issue affecting income mobility in the United States is unfair compensation. Corporate profits are primarily distributed to investors and upper management. Income rates at lower levels are frequently insufficient for an individual or family to accrue savings, invest in equity, or to engage in other measures that might ultimately allow them to advance within the income spectrum.

When it comes to combating hunger, wage stagnation is at the core of the issue. In twenty-first century America, affordable food tends to be processed and mass produced, and this kind of food also tends to lack nutritional value. As mass-produced food became the core of the American food market, nutritious and organic food options have increasingly become luxury goods. Because of wage stagnation, Americans in the working class have been priced out of access to quality food. Insufficient nutrition contributes to a wide variety of health and wellness issues, and this complicates the difficulties faced by those lacking resources in America. Hunger and the overall equity of the American economy are two sides of the same coin, and thus any effort to solve America's ongoing hunger problem is complicated by the overarching income inequality problem in the United States.

Underemployment

In America poverty is set at a level of $70 per day for a family of four. A family that earns $80 dollars a day may not be considered to be officially "in poverty," but they can afford little more than a family that does fall below this threshold. Being poor is also not only a matter of official designation. Every individual faces a unique set of challenges, and the majority of Americans struggles to meet their financial responsibilities. Affording food is nearly impossible for those in poverty and is only slightly more attainable for those on the periphery of poverty; affording good and nutritious food is another matter altogether. Nutrition can be difficult to afford, depending on one's location and community, and many Americans, not just those officially living in poverty, have difficulty maintaining a nutritious diet.[5]

Unemployed people may face hunger, but hunger also impacts the "underemployed"—individuals unable to find full-time employment and those who can only find positions that pay less than they need to meet their financial obligations. Underemployment has increased dramatically during the COVID-19 pandemic with so many businesses closing and others operating on limited hours.[6] The unemployed have always struggled with hunger, but increasing food prices have exacerbated the problem. Over the past decade, the cost of food rose by more than 2 percent per year, while average income did not increase in concert. As a result, food has become

increasingly difficult to afford, even for the fully employed. For those who are insecure in their earnings or who struggle to find enough work to meet their needs, hunger is a constant risk.

Food Security and Insecurity

While some in the United States struggle with hunger, meaning that they cannot obtain enough food from day to day, others suffer from a more nuanced condition typically called "food insecurity," which the U.S. Department of Agriculture (USDA) defines as "a household-level economic and social condition of limited or uncertain access to adequate food."[7] Families in which parents can feed their children but often go without or with less food themselves fall into the broad category of the food insecure. Families in which the food available is nutrient-poor also fall into this category. Families consuming nutrient-poor diets are more likely to suffer from obesity, heart disease, hypertension, diabetes, and other chronic diseases. People in this category may also have problems managing nutritional disease, like diabetes. Food insecurity also refers to situations in which an individual or family must choose between affording food and other essential needs.

Low-income individuals are most likely to be food insecure, but food insecurity sometimes affects those in the middle class as well, especially those insecure in their employment or who face changes in job status. Overall, a 2014 estimate found that more than 14 percent of Americans were food insecure.[8] Food insecurity is, however, much more difficult to measure because many individuals and families may experience episodes of insecurity while generally having access to food most of the time. Studies have also shown that food insecurity can have lifelong impacts on children, because inadequate nutrition is a contributor to long-term mental health problems, lower levels of educational attainment, and developmental delays. This means that food insecurity is not just an economic issue but a child welfare issue as well. Legislators have attempted to address the food insecure by expanding access to Supplemental Nutrition Assistance Program {SNAP) benefits, but this provides little remedy for those living in some areas or communities. Because food insecurity involves access to nutritious, sustaining food, and not just food in general, addressing the problem is more difficult than simply providing the ability to purchase food. Food insecurity is an issue that also involves nutritional education and raises concerns about the quality of local food markets.

A Preponderance of Issues

It is common for Americans to imagine that hunger is a matter of individual or family income, but the problem is much deeper. The entire American food industry has emphasized convenient, cheap, low-quality foods over more nutritious fare. Generations of children have been raised in environments centered around these lower-quality food options and many lack experiences with healthier diets. There are limited resources available to teach children and parents about nutrition, or to help them learn how to obtain nutritious diets. Nutritious ingredients are also more

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Supplementing Nutrition

By United States Department of Agriculture, via Wikimedia.

School lunch programs assure at least one nutritious meal a day for many children. These Maryland students participate in a school lunch program in 2013.

Supplementing Food for Families and Children

States attempt to alleviate hunger, malnutrition, food insecurity, and child neglect through programs that provide funds to families to supplement their food budgets. These programs typically focus on the welfare of the marginalized, including children and mothers. Over the years, supplementary nutrition programs have become controversial because some Americans object to contributing to such programs indirectly through taxation and argue that they encourage individuals to avoid finding employment. Others see providing assistance for families and children as a matter of utilizing the collective resources of a society to limit the disadvantages of those at risk.

The School Lunch Dilemma

Until the late 1800s, education in many parts of the country was still voluntary and almost no states had a public education system. Instituting free, public education was perhaps the greatest progressive accomplishment in American history in terms of addressing class inequality, but it was an evolution that took well over a century and the benefits of educational reform were not evenly distributed. Predictably, the idea of using federal tax funds to pay for education met with a chilly reception from libertarian-minded individuals who tend to oppose any effort to increase taxation. Parents who obtained little education were often skeptical about the need for education, and preferred for their children to enter the workforce as soon as possible. Corporations were typically happy to have younger workers fueling their profits as well and so campaigned against the public education system. Business owners in many cases find it desirable to employ uneducated or undereducated individuals, as workers lacking in education are less likely to advance to new positions or new jobs.[1]

Nevertheless, the idea of public education has considerable pedigree. There had been a movement for free public education within the religious reforms in England prior to the establishment of the first American colony, and religious groups pioneered free education in America as well, setting up territory-run schools. Massachusetts was the standout pioneer in public education, with the Massachusetts Bay Colony passing a law in 1647 that gave the state government the power to require towns under their control to establish tax-funded schools. Many of the nation's most passionate progressives, like Thomas Jefferson and Benjamin Franklin, saw public education as a great leveler to the inequities of the class-based system that had existed in England. Thomas Jefferson famously said of education:

> Educate and inform the whole mass of the people. Enable them to see that it is their interest to preserve peace and order, and

> they will preserve them. And it requires no very high degree of education to convince them of this. They are the only sure reliance for the preservation of our liberty…[2]

In 1900, only 34 of the 45 states had laws requiring children below the age of 14 to attend school, and there was little in the way of assistance for parents. Though some states funded public schools, the decision to do so was up to the state. The movement to create a federal law that would make education compulsory didn't really get started until the 1920s, when the Smith-Towner Bill was used to establish the National Education Association. The federal government began providing states with resources to establish and run public education systems and also made education for children under the age of 14 mandatory. Though many Americans were dismissive of this idea and criticized the amount of funding being provided for educational systems, public education lifted countless millions out of a cycle of generational poverty and is directly responsible for the diversity of American industry and academia today, much more so than private or religious education.[3]

The inequities that public education was supposed to address also extend into the home and to the ability of families to provide adequate nutrition for school-age children. This was the motivation behind the nation's first school lunch programs, instituted in the cities of Philadelphia and Boston in the late 1800s. These were not state-sponsored programs but the product of charitable private movements. The Women's Educational and Industrial Union in Boston was at the center of the movement to provide nutrition to school-aged children, while the Starr Center Association in Philadelphia began providing meals to high school students for the price of a single penny in 1894. Press coverage of these pioneering programs was overwhelmingly positive, and both teachers and parents in Philadelphia and Boston opined that providing lunches to students had resulted in positive results, both on a physical and mental level. More and more schools began adopting similar programs, organized through local charitable organizations.

In the early 1900s, parent-teacher organizations took a leading role in managing school lunch programs. But in many rural areas a lack of resources made it difficult to effectively provide for students. Along the way, the school lunch program movement became quite innovative. In some areas, parents participated in mass cooking programs to provide food for students at local schools. In some high schools, students in home economics classes would jointly prepare lunches for students at lower levels. The problem with allowing states and independent organizations to manage school lunches was that the benefits were unevenly distributed. Students in poor communities often had no school lunches, and this compounded the disadvantages already faced by families and students in these areas.[4]

The Great Depression was the turning point for federal involvement in school lunches. Under Franklin D. Roosevelt's New Deal program, the federal government purchased surplus crops from farmers and created a massive program to employ thousands of cooks to prepare and serve food to students. This solution not only provided a benefit to struggling families but also created a boom in employment and provided funding for struggling farmers. By 1941, every state in the union had a

school meal program, but the program fell into disarray during World War II, when scarcity of resources saw the federal government abandoning the program. Activists in Congress saw this as a major loss for the nation's struggling students and parents, and bills were drafted to revive the program.

The campaign to restore school lunches took several years but resulted in the passage of the National School Lunch Act of 1946. According to the official bill:

> It is hereby declared to be the policy of Congress, as a measure of national security to safeguard the health and well-being of the nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grant-in-aid and other means, in providing an adequate supply of food and other facilities for the establishment, maintenance, operation and expansion of nonprofit school lunch programs.[5]

The federally funded school lunch program was popular with parents and teachers but fell victim to Ronald Reagan-era efforts to slash the federal budget. School lunches were one of the biggest cuts made by Reagan, whose administration removed $1.5 billion in part by reducing the number of poor children eligible for subsidized lunch and by shrinking portions of food. During the debate over the issue in the 1980s, the Reagan administration was heavily criticized for claiming that tomato ketchup should be considered a vegetable for the purposes of determining whether subsidized lunches met nutritional standards.

Reagan's critics accused the administration of quite literally taking food from the mouths of hungry children, but the administration countered with inaccurate claims that lunch programs were an example of bloated government waste. There was an earnest attempt to reform the system under the Obama administration, resulting in a significant increase in healthier food being provided through public schools, but the reforms met with staunch criticisms from the same groups that have long opposed school lunches, viewing them as "handouts" for the poor at the expense of taxpayers.[6]

Subsidized school lunches remain as controversial in the 2020s as in the 1980s, largely thanks to increasingly polarized views on how to spend tax revenues and a shift in conservative attitudes about the welfare of children. In many districts around the country, school lunches are paid for by families and government subsidies are meagerly distributed. Numerous articles and studies have looked at how this affects struggling families and have explored the emerging issue of "school lunch debt" that affects more families around the country. Ultimately, the students who lack access to adequate nutrition during the day are the ones who suffer. Many studies have found the adequate nutrition is essential to mental and physical functioning and have found that behavioral and performance issues in schools can often be linked to hunger and nutritional deficits. Further, because the lunches afforded to students are based on family income, the school lunch system has become an area of income stratification. For children, needing supplemental assistance has become a mark of shame and yet another instigator for bullying and conflict within school groups.

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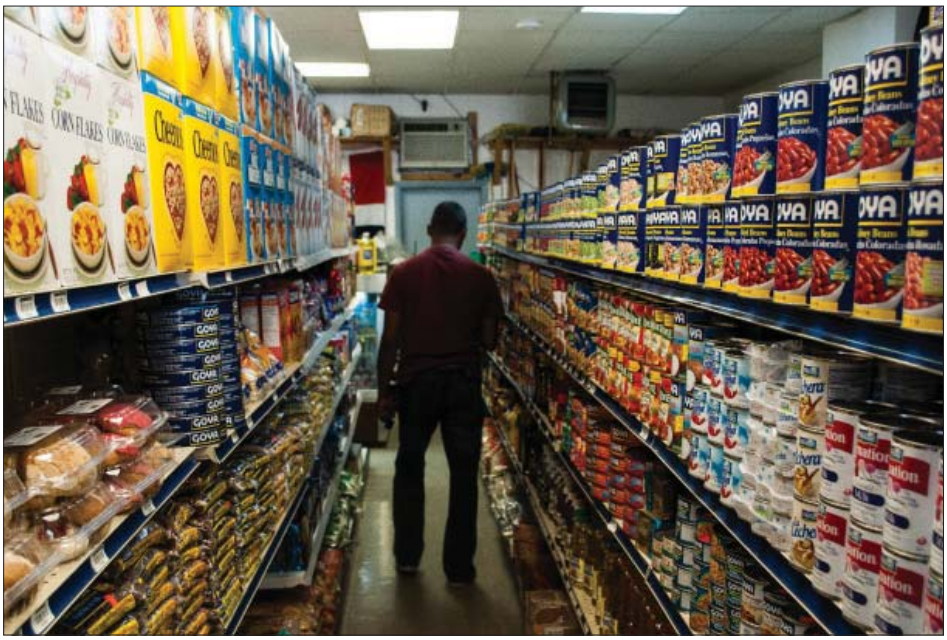
Finding Food



By Elvis Batiz via Wikimedia.

Food aisle in small urban market with less nutritious dried/processed foods.

Food Deserts and the Search for Nutrition

Food deserts are areas in which people lack easy access to food or to nutritious and affordable food. These areas of low availability can be contrasted with the incidence of a food oasis, where food is more plentiful and affordable. The development of food deserts is multifaceted, involving many factors including income and wage stagnation, the influence of corporations, and municipal planning. Researchers have found substantive links between food deserts and numerous other public welfare problems, such as obesity and malnutrition-related disease.

What Is a Food Desert?

A food desert is, simply, an area in which it is difficult to obtain food or nutritious food. Food deserts can appear in any area. Some are urban, others suburban, and others are rural. The food desert can be contrasted with the "food oasis," which is an area in which residents have access to a variety of food or to nutritious and affordable food. Food deserts often form in areas near where major chains have been established or where demographic changes, changes in the cost of living, or changes in the cost of real estate have resulted in limiting local food options. Food deserts can also be created when new housing developments are established in areas lacking access to sufficient food resources.

Officially, the definition of a food desert differs depending on whether the area in question is urban or rural. For urban areas, the U.S. Department of Agriculture (USDA) defines a food desert as a region in which at least a third of the population lives more than a mile from a supermarket. A rural area is considered a food desert if the nearest grocery store is at least ten miles away from the population. Utilizing this definition, around 19 million people in America live in a food desert. Poorer neighborhoods are less likely to have grocery stores within the 1- to 10-mile radius and so are more likely to be classed as food deserts.[1]

Why Are Food Deserts a Problem?

The economic challenges facing working class Americans are well known and have been thoroughly explored by researchers in a variety of fields. One of the economic challenges that Americans face is in maintaining a healthy, functional diet and those in food deserts experience additional difficulties in doing so in comparison to those living in areas with convenience access to nutritious food.

Residents who live in food deserts face additional logistical or financial difficulties in trying to feed themselves or their families, and this can contribute to a variety of other problems facing low income families and individuals. Research has shown, for instance, that students who lack access to adequate food or nutrition

have higher levels of difficulty with concentration and other cognitive processes and this can contribute to educational problems. In 2014, researcher Seth Frndak found a correlation between living in a food desert and poor academic achievement. Frndak, of the University of New York, Buffalo, analyzed 200 urban and suburban school districts and located food deserts within this area. Then he correlated these with fourth grade test scores and health data on students. He concluded that individuals living in areas where nutritious, affordable food was more difficult to obtain had increased difficulty with achievement measures in school.[2]

For people of all ages, living in a food desert can be a significant source of stress and can lead to anxiety and contribute to other mental health issues.[3] A lack of access to affordable, nutritious food can contribute to a number of physiological conditions as well and may have severe impact on the health of individuals with existing medical conditions. Elderly individuals living on fixed incomes or struggling with physical and mental health challenges may be especially vulnerable when living in a food desert and may experience additional difficulties in trying to compensate for the lack of local foods available in their area. A 2018 study found that the criteria used to define food deserts by organizations like the USDA may in fact underestimate the impact of the food desert phenomenon with regard to the aging and elderly populations. For older individuals, the 1 to 10 miles they might need to traverse in order to reach a supermarket can pose an additional logistical problem when it comes to retrieving and returning food to the home.[4]

Many analysts have noted that African Americans are disproportionately likely to live in a food desert and racial prejudice may play a role in the formation of food deserts. It has been noted that discrimination at the agricultural level, and at the municipal level, contribute to the nutritional difficulties in poorer African American neighborhoods and this links the food deserts issue to broader issues involving social justice.[5]

The Factors That Contribute to Food Deserts

One of the biggest factors influencing the creation of food deserts is the loss of local, independent businesses. For much of American history, there were no supermarkets or "big box" stores. Individuals obtained food by visiting local markets or grocery stores and meats were often obtained from a local butcher. Local markets and shops typically purchased their goods from local farmers or butchers and thus the local markets and shops formed part of a local ecosystem that supplied residents with groceries while also supporting local agriculture and production. The shift to industrialization and to the global food market changed the landscape of American communities and this created the food deserts that are now the focus of public health advocates.

Supermarkets, like the "big box" retail stores and like massive online merchants like Amazon, keep costs low by purchasing in large quantities and by purchasing from overseas, especially from countries where labor and production costs are lower or where the strength of the local economy, in comparison to the United States means that U.S. purchasers enjoy an advantage. This means that larger chains can

provide savings and this draws in consumers, who value the ability to shave costs from their food budgets. When this occurs, local stores and groceries cannot compete in price and if even a small percentage of a local grocer's customers opt for the supermarket option, local groceries can quickly lose profitability and often quickly go out of business. In many cases, local shops that remain have little choice but to shift to offering lower quality packaged foods, because purchasing high quality or local options provides too little profit to sustain their businesses. The spread of big retail grocery stores therefore puts smaller markets and stores out of business or sees them shift to offering the same low-quality options that might be found at larger stores. Nutritious options and local options increasingly become luxury commodities available only through specialty stores. Supermarkets also disrupt this market, as many have shifted to offering "organic" or higher quality variations on their products. Because these large chains can purchase in bulk, they are typically able to offer these higher quality goods at a more competitive price than a local health food store or organic grocer.

Walmart is an example of one of the large chains that officers both home goods and groceries. Numerous studies have found that the establishment of a Walmart is correlated by the loss of local businesses and, ultimately, a decline in local and sustainable employment opportunities.[6] The fact that shopping at the supermarkets and big box chains is damaging to local communities has matriculated into mainstream consciousness, but residents in many areas cannot afford to make alternate choices, either financially or in terms of expending the extra effort that might be needed to shop at independent or local stores as opposed to obtaining all of one's goods at a Walmart or similar store.

Interestingly, activists who are trying to combat the food desert issue often advocate for opening more large grocery chains in vulnerable neighborhoods. While this seems to solve the problem for residents in terms of food availability, and provides affordable food, the establishment of a large-scale grocery store can put further pressure on local shops, convenience stores, and grocers and can ultimately exacerbate the problem. Further, those who lack the financial resources to afford specialty grocery items might find that the establishment of a supermarket chain in their neighborhood provides access to food, but doesn't improve their capability to obtain higher quality or nutritious foods. Further, when a large chain is established in a community, and drives out remaining local options, the community becomes increasingly dependent on one or a few local retail options. If a Walmart moves into a community, followed by the closure of local competitors, the community is then extremely vulnerable to disruption if the Walmart in their area closes. If this happens, the community not only becomes a food desert, but residents may be worse off than they were before the large supermarket retailer was established in the area.

The goal of establishing grocery chains in food deserts has also proven extremely difficult. Though supermarket chains are designed to appeal to consumers at a variety of income levels, corporations operating the chains are often reluctant to try and establish stores in areas that are classified as food deserts. This is because these areas typically have lower levels of income, or lower population density, or other

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The World's Problem

By Bob Nichols, USDA, via Wikimedia.

A Texas cornfield impacted by severe drought, a byproduct of climate change.

Global Factors Contributing to Hunger

The interconnectedness of the modern world means that there are few major issues that affect just one country. This is especially true for countries like the United States, which has never truly been independent and isolated from the rest of the world. The United States began as a globalist endeavor, with Europe seeking to gain an advantage in the global trade for spices and other food resources, and the nation has remained closely linked to global trade partners ever since. Nearly 1 out of every 5 Americans is employed in jobs that would not exist without foreign trade, and the $5.6 trillion in trade outside of the United States props up the entire economy. Any change in the global economy has the potential to impact people living in the United States, and the strength of the U.S. economy is linked to the strength of the global economy.[1]

The U.S. food industry is also heavily dependent on foreign trade. In total, around 15 percent of all food consumed in the United States is imported, and this includes over 50 percent of all fruit and more than 30 percent of vegetables, which constitutes much of the healthy food in American supermarkets.[2] Foreign trade agreements and the strength of foreign economies thereby play a major role in determining the cost of food in the United States, and this impacts hunger and food insecurity. The efforts of legislators and activists to reform the U.S. economy and food industry to protect consumers cannot succeed without some consideration of how U.S. imports and exports impact food prices and availability.

There is another way in which the interconnectedness of the world makes hunger and poverty global issues: all nations depend on the resources of a single planet. The availability of those resources depends on whether or not countries engage in sustainable resource development and on the state of the global climate and environment. Millions around the world face hunger because of climate change and its effect on agriculture. As the climate continues to change, leading to more frequent and prolonged resource shortages, military and diplomatic conflicts are more likely to emerge, potentially impacting the global economy. In the twenty-first century, the world has seen numerous military conflicts, like the ongoing civil war in the Sudan, that are directly the result of climate change creating shortages in food and water and leading to violence. As climate change limits agricultural productivity, this can increase food costs and reduce availability. This affects America's global agricultural commodities, both in terms of imports and exports, but also impacts the domestic agricultural industry.

A Dependent Economy

The welfare of the American people is, in many ways, impacted by the health of the global economy and America's involvement in foreign economic systems. For

instance, in the United States, politicians and economic analysts have long bemoaned that the nation is heavily dependent on foreign oil. This dependence has come with a significant cost. The United States has been involved in wars, fraught diplomatic conflicts, and has engaged in colonialist military aggression, for the sake of maintaining the nation's oil supplies.[3] The effort to maintain access to foreign oil not only plays a dominant role in shaping American foreign policy, but also impacts the entire national economy as the cost of oil is a major factor in household finances as well. Likewise, the cost of gasoline figures into whether or not individuals can afford to travel greater distances to obtain food, and also impacts the cost of processing, storing, and distributing food throughout the country. Moreover, because the fossil fuel industry is the number one driver of climate change, U.S. involvement in the foreign oil market is contributing to environmental changes that are ultimately contributing to agricultural decline and so increasing food costs in America and contributing to the problems of hunger and poverty.

One of the issues emerging from the global food economy is the idea of "food security," which refers to whether a population has reliable access to affordable and nutritious food. Food security is often discussed as if it is a local or at least domestic issue, but in reality there are strong links between food security in the United States and the global economy. The United States can never achieve full food security, for instance, without considering the contributions of other nations to the U.S. food supply. Global distribution systems, foreign trade and diplomatic agreements, and complex global financial relationships also play a major role in determining what kinds of food will be available to U.S. consumers, as well as how much food will cost. This is true not only for imported foods, but also for domestic foods because the strength of America's international financial connections can determine the cost of domestic goods as well, through its influence on taxation, the cost of oil, the cost of labor, etc.

While the relationship between the global economy and hunger in America is complex, there are several factors that stand out as important features. Speculation on commodities—the way in which investors essentially bet on increases or decreases in food prices—can impact supply and demand systems for various commodities. This, in turn, can have a dramatic impact on nations depending on importing or exporting certain food products. Restrictions on imports and exports, tariffs, and other trade policies likewise impact hunger and food security by causing prices to fluctuate. Further, the nations of the world have created a system that contributes to uneven investment in agriculture. Products sought by those in wealthy countries are produced in abundance, which keeps costs low but also limits food security by creating populations of agricultural workers dependent on just a few crops. The United States subsidizes agricultural workers to compensate for fluctuations in supply and demand, but many nations cannot do this. Agricultural workers in many poorer nations are highly dependent on continued demand. Something as simple as a "food trend" among affluent Americans can have a dramatic impact on small farming communities in other nations. When a trendy food falls out of favor, thousands can fall into destitution.[4]

Some Americans also see global food market instability and global hunger as important issues from a human rights perspective. Global hunger is a major humanitarian issue, with more than 800 million around the world either undernourished or malnourished and many in developing economies living in or below poverty, with little access to nutritious food. America's role in the global economy and the global trade in agricultural products can play a major role in global hunger and poverty. It is an important goal to shape U.S. foreign policies whenever possible to alleviate global humanitarian issues.[5]

The Changing World

Another major factor impacting global hunger is climate change. Scientists working around the world have gathered sufficient data to prove that that the average temperature of the world is increasing, and that this will have a devastating impact on every population. Climate change is now considered the single greatest driver of global hunger, and it is accelerating over time.

Extreme weather events, like tornadoes, tsunamis, floods, and droughts, can decimate agricultural regions and communities. Climate change not only causes more extreme high temperatures during hot or dry seasons but also causes extreme temperature drops during the winter and can cause extreme rainfall during wet seasons. As the average temperature climbs, familiar weather patterns are thrown into chaos and, over time, this leads to unpredictable weather patterns and makes it difficult for agricultural communities to adjust. Over the past 30 years, extreme weather events have doubled in frequency and increased in intensity. The Atlantic hurricane season has been increasingly destructive and prolonged over the past decades, leading to a major humanitarian and economic crisis in the United States. Similar patterns are occurring around the world, leading to a reduction in agricultural productivity and the loss of key agricultural crops in areas dependent on agriculture for survival.[6]

Further, nearly a third of the world's arable land has already been degraded to the point of losing productivity. This trend will accelerate as increased heat and frequent droughts further deteriorate remaining farmable territory around the world. As temperatures rise, deserts and other arid landscapes will increase in size. Deciduous forests, scrub land, and fertile prairies will decrease. The loss of farmable land isn't only a matter of climate change and also involves factors such as industrial pollution, erosion, and unsustainable agricultural practices, but climate change will accelerate this process. As arable land is diminished, many more communities will face food shortages, increased hunger, and diminished food security. The loss of farmland also comes as the demand for food is increasing exponentially due to unchecked population growth.[7]

Perhaps the most direct impact of climate change on hunger will be seen in water shortages. There are parts of the United States in which residents are frequently asked to ration water use to avoid running out of minimum supplies. This problem is increasing due to lower levels of annual rainfall and higher average temperatures. Water shortages also lead to limited agricultural productivity, and the threat

5
Finding Solutions

By Linda, via Wikimedia.

Urban farms are one possible solution to food insecurity and lack of access to fresh produce. Above, an urban farm in Chicago.

Efforts to Combat Hunger and Food Insecurity in the United States

Food insecurity and hunger have been recognized as among the most significant problems in the United States for decades, and there have been many efforts to enact reforms. But most efforts fall short of the mark of eliminating hunger. To be clear, there is enough food to go around. A research report from the *Journal of Sustainable Agriculture* released in 2012 found that the world's farmers in that year produced enough food to feed 10 billion people, while the population of the world was around 7.5 billion.[1] The problem has never been that there isn't enough food, but rather that efforts to feed the hungry are complicated by the effort to profit from the production and distribution of food. For societies to end hunger, there needs to be a broad commitment to reduce food waste and to redistribute food to those in need. However, while large-scale efforts could, if handled correctly, have an important role to play, experts studying the issue have repeatedly noted that independent, local solutions are often more effective and produce additional beneficial impacts within communities.

Creating Food Oases and Meeting Community Needs

In the early days of American culture, independent churches and outreach organizations were most involved in combating hunger. The first "soup kitchens" and "homeless shelters" were organized by religious activists who saw, in their faith, a directive to help the less fortunate. This kind of organized social welfare has been at the core of America's efforts to combat problems, and local movements can be tailored to the specific needs or challenges faced by individuals in a specific community.

For many, the struggle to obtain adequate nutrition is more complicated than the process of finding adequate food. Affordable food outlets offer more affordable fare, but much of what the company produces is processed food, lacking in both freshness and nutrition. Though healthier options can be found in supermarket chains, such items come at a higher cost. Individuals operating on low-income budgets might therefore feel that they are unable to afford the healthier food options available. Further, many residents in low-income areas may lack the knowledge to make healthier choices and may lack the skills to prepare healthier and more nutritious meals. Years of reliance on processed, low-quality foods have created a schism in which access to and familiarity with healthier options has increasingly become a luxury lifestyle.

One of the proposed solutions for dealing with these issues is the establishment of neighborhood or community food co-ops. A co-op is business owned not by a corporation or group of investors but by members and employees. When making

decisions about how the co-op will spend its resources or how the organization will function co-ops utilize a democratic model with members voting on various proposals. There are many types of co-ops, from industrial manufacturing to fishing, but the system is best known in the field of agriculture and, specifically, as a community-oriented substitute for the standard grocery store business model.[2]

In terms of combating hunger and food deserts, food co-ops have many advantages. Co-op's can, for instance, make purchasing decisions based on the desire to provide good quality food rather than through a cost-benefit analysis. Co-op members can also make decisions based on factors like sustainability or may shape their organization to focus on food produced locally, thereby utilizing the organization's resources to support other local businesses. These are decisions that large corporations typically do not make, because such decisions may limit profitability. Further, co-ops can and often do provide rudimentary nutritional guidance for customers, which can be accomplished by hiring employees who share a desire to promote better nutrition and well-being. In other cases, co-ops might offer other cooking classes or programs that teach consumers how to better utilize their food and avoid waste.

Co-ops are funded through the membership fees paid by members. If properly run, co-ops can keep costs low, but the cost of involvement is an impediment for some at the lower end of the income spectrum. One of the ways that states and the federal government can help to close this gap is through providing subsidies and other advantages to co-ops. Tax breaks and other subsidies can help co-ops to meet the mission of providing sustainable and nutritious food and can help to close the wealth gap in marginalized communities.

Food co-ops are just one of many ways in which local, community organizations and institutions can help with the hunger problem. Charitable organizations and groups that provide free meals or groceries for individuals or families in need fill an important niche in American society, helping to compensate for the nation's limited social welfare efforts at the federal and state level. Numerous studies have found that Americans donate more to charities than in most other nations, but this is largely because Americans are aware that the poor and destitute have no suitable options outside of charitable donations and service. In many nations in Europe, where social welfare systems are better developed and where rates of hunger and homelessness are lower overall, citizens feel less compelled to donate to charities directly because their tax revenues already support a number of state-run efforts to accomplish the same goals.[3]

Another local way to address hunger and food insecurity is by establishing local grocery stores. Unlike large retail chains, local stores can cater to an immediate community and can become part of that community, employing local individuals and drawing community members together. The high cost of food means that many smaller grocery store chains cannot compete with large-scale operations in terms of food costs, and this is one of the primary reasons that local grocery stores have been gradually disappearing from America's cities and towns. However, local grocery options can be restored and expanded through a combination of community investment and federal or state assistance. This is one of the arenas in which local

and state policies can make a significant difference. States often provide subsidies to large grocery chains agreeing to establish outlets in low-income or underserved areas, but subsidies may be better directed toward independent stores. A 2019 bi-partisan proposal in Kansas sought to provide subsidies to independent grocery stores operating in areas designated as "food deserts" around the country. Though the bill failed to pass through Congress in either 2019 or in 2020,[4] the idea of subsidizing independent grocery options has the support of a number of national hunger relief organizations and has managed to draw bi-partisan support in Congress. Such proposals could not only supplement food availability but also create opportunities for employment in vulnerable areas.

Addressing Larger Issues

While local solutions may be most effective in combating hunger locally, what can be done on the larger scale to address the underlying factors that contribute to food insecurity? One of the big ideas that has become popular in the 2010s and 2020s is the idea of reviving underutilized and "neglected" crops to fill empty niches in the food market.[5] For instance, in 2018 the BBC reported on a farmer in Malacca who was growing a berry called kedondong, a berry that was once used in Malaysian cuisine, as a preserved food or fresh, but that has been largely forgotten as produce markets shifted toward more familiar crops, most of which have a foreign origin. The global research enter in Malaysia known as the Crops for the Future (CFF) organization has embraced the mission of reviving forgotten crops to create more sustainable local agriculture and to provide work for a new host of farmers who can help bring these alternative crops to the market. One of the most important factors in this effort is that many of the crops grown at the CFF are local and thus agricultural programs based on those crops can be more sustainable.[6]

Evidence suggests that shifting to local crops can also benefit local plant and animal populations, which means that the cultivation of forgotten local produce and other food products can become an environmental boon, encouraging the preservation of ecosystems and animal populations to aid in the rapid production of these unusual food products. Even without the cultivation of forgotten crops, shifting from imported to local agriculture and food production can result in lowered costs for higher quality food and can reduce reliance on mass import and export systems that are unsustainable and ecologically destructive. Another flourishing area of research deals with how to use sustainable technology to manufacture food in vulnerable areas while simultaneously combating climate change. Combining efforts to fight climate change with efforts to expand sustainable food distribution is a noble goal that, if successful, would satisfy two important needs simultaneously. While this is a field that is just developing, it is likely that climate smart agriculture (CSA) might become a significant strategy of the future, especially as climate change devastates more of the world's agricultural communities while population growth intensifies the demand for food.[7]

There have been many other proposals for how global nutrition might be improved through innovative means. It has been suggested, for instance, that insects

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Action Against Hunger

www.actionagainsthunger.org

Action Against Hunger is one of the world's largest and most important international nonprofit organizations in the fight to end world hunger and malnutrition. The organization began in France, but now has headquarters around the world, including in the United States. As of 2020, the organization is active in more than 50 countries and provides food aid for more than 13 million global citizens. Action Against Hunger also collects and publishes data to raise public awareness about hunger around the world and about the potential solutions that could be used to combat hunger.

Feeding America

www.feedingamerica.org

Feeding America is a domestic nonprofit organization, headquartered in Washington D.C., that operates food banks and other outreach organizations around the country. Feeding America was established in 1979, under the name Second Harvest, and has grown into the nation's leading food rights advocate organization. Many of the nation's private and community food outreach organizations receive funding and assistance through Feeding America and the organization lobbies at the state and federal level for legislation to protect children and families struggling with hunger.

The Food and Agricultural Organization of the United Nations

www.fao.org

The Food and Agriculture Organization of the United Nations is an international organization that promotes sustainable development and agriculture around the world. The organization also funds and supports efforts involving recycling, urban agriculture, and poverty reduction. FAO researchers produce a number of studies looking at different aspects of the international agriculture system and the organization distributes funding to private organizations working on programs designed to alleviate hunger and to promote nutrition in underserved communities.

Food Tank

www.foodtank.com

The Food Tank is an American nonprofit headquartered in New Orleans that organizes and manages annual "Food Tank Summits" in various states across the nation, each of which features a different theme related to the food industry or to

Index

Abbott, Greg, 52
Adams, Eric L., 149
adults, 10, 18-19, 21, 23, 33, 63-64, 84, 88-91
Africa, 22, 106
African American, 60
agricultural research, 107
agricultural waste, x
agriculture, ix-xi, xiii, 5, 9, 13-14, 17, 21, 25, 34-37, 43, 48, 53, 59-60, 65, 72, 78, 82, 89, 97-99, 101, 103-105, 107-113, 117, 123-127, 130, 137, 140-141, 143, 145-147, 149
agroecology, 137
agronomists, 107
American Farm Bureau Federation, 113
American Soybean Association, 113
animals, ix, 14, 136-137
aquaponics, 147
arable land, 99, 101, 147
Argentina, 142
Asia, ix, 22, 106, 141
Asian, 22, 89, 109-110

babies, 21, 23
balanced meals, 14
Bangladesh, 141-142
Barks, Brian, 114
Barrett, Christopher, 113
Black, 10-11, 66, 88-89
black communities, 66
Brazil, 142
Bush, George W., 32

cafeterias, 53, 90
calorie requirements, 133
Cameron, Don, 140, 145
Campesina, Via, 137
Canada, 3, 106, 109
cancer, 67, 142
carbon, 139-140, 144-145
carbon footprint, 140
cardiovascular events, 39-40
Caribbean, 22, 134
Cayman Islands, 134
Centers for Disease Control and Prevention, 65
Central America, 106
charities, 16, 89, 124
charity, 16, 134
chemical emissions, 108
chemicals, x-xi, 137, 139, 143
child care, 15, 89
children, x, xii-xiii, 5, 9-10, 15, 18, 21-23, 25, 27-31, 33, 40, 43-44, 46, 51-55, 64, 67, 70, 77, 82-86, 88, 90-92, 106, 114, 117, 140
China, 109-110, 112, 114
Cho, Eugene, 87
Chrisinger, Benjamin, 130
climate change, ix, xiii, 95, 97-101, 103-108, 125-126, 139-142
climate events, 14
climate resilience, 134
climate smart agriculture (CSA), 125
Clinton, Bill, 32, 109
Cohen, Alison, 90
commercial interests, 130
commodity trading, 137
communities, ix, xii-xiii, 5, 9-10, 21, 28, 54, 60-62, 66-67, 72-73, 75, 98-100, 104-106, 123-125, 130-131, 133-134, 137, 148-149
Community Eligibility Provision (CEP), 44, 50-51, 55
community garden, 67
compost, 145
consumers, 3, 31, 61, 63, 66, 97-98, 100, 124, 139-140, 145-147
convenience stores, 61, 65, 69, 130
Cook, John, 15
cooperatives, 129-131
corn, ix, 103, 108, 115, 142-144