

Battling Cracks in a Deluge: Food Insecurity in America

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I would like to start with three statements followed by a related question that is central to tonight's essay. The first statement is that the United States is a top 2 producer of agricultural products in the world. Only China produces more, though we are number 1 on a per-capita basis. The second statement is that the United States is the world's largest exporter of food products. Top! Number one! And third, depending on who you ask, about a third of the food produced in the US goes to waste. A third! Some estimates go as high as 40 percent. We waste an incredible amount of food in every stage of the supply chain. According to the non-profit Feeding America, food gets wasted in farms, where crops are left in fields due to demand-supply imbalances; in transportation, in restaurants, in grocery stores when food items do not meet standards for color and appearance and, worst of all, in homes. According to research published in the National Geographic magazine, food is the number one material sent to landfills in the US. It is ahead of paper and plastics.

So, these are the three statements. We produce a lot of food, we export a lot of food and we waste a lot of food. Then how come, how is it possible that over 10 percent of households in the US experience food insecurity? That is 13.5 million households. Almost 35 million people! These numbers are according to an annual survey conducted by the US Department of Agriculture. They exclude people who are homeless and whose numbers should be tallied as well. With so much food being produced, how does food insecurity happen in this country? Why do we even have this problem? To circle back to the essay's title, we have a deluge of food available. Food insecurity is the crack in that deluge that needs to be sealed because food insecurity is immoral and unnecessarily shameful.

Bear in mind also that the country already invests significant resources to alleviate the problem. There are literally thousands of food banks and pantries offering free food to those in need. These are non-profit organizations, generally assisted by volunteers. For example, Feeding America is a non-profit national network of 200 food banks and 60,000 food pantries. They provided more than 5 billion meals in 2021. We also have major government-funded programs. The Food Stamp program, now known as SNAP (Supplemental Nutrition Assistance Program), is the largest one. There is an additional program for women and children, another for school lunches, and several others.

With all of these resources available, why do we have food insecurity? Who is food insecure? Where are they? In this essay, I will present an overview of food insecurity in America. My personal journey of discovery to learn about a problem I knew so little about. Initially, I will look at some issues with definitions. I am not super fond of definitions as an after-dinner topic of conversation, but believe me, a minimum is necessary in this case to pin down the issue at hand. I will then look at sources of both government and private assistance. The next logical step is to explore barriers to food security, focusing in particular on four of them: low income, access to benefits, and the roles of poor information and stigma.

Definitions

Definitions are boring. Yet in this case, while refraining from reading definitions of food insecurity, it is important to acknowledge some key differences among the many available, because the definitions offered by players in this space vary greatly in both breadth and time span. Food insecurity can be defined narrowly enough to be equated with starvation - something we do not have -, and broadly enough to include nutrition; that is the concept that a state of food insecurity exists even when there is enough food, provided that the food is not considered nutritious enough. One just ate, but if it was junk food it doesn't count. The size of the problem can balloon depending on

the definition. Definitions also vary in a time dimension. Food insecurity can be, and often is, a temporary state. It is not necessarily an enduring state, though it can be. Are you food insecure if you skip one meal? I should be clear about the fact that I am not belittling the importance of this problem. It is serious and it needs to be battled. But we need to be clear-eyed about its true dimension.

Let's begin with the US Department of Agriculture's (USDA) 2021 survey of household food security. Households are classified as having Low Food Security (LFS) when (1) there are food acquisition problems and (2) when there is reduced diet quality. However, there is little, if any, reduced food intake. An occasionally skipped meal at most. This condition happens, on average, in 7 months out of the year. However, there is a more severe condition. In about one-third of the LFS cases, households report reduced food intake and disrupted food patterns. In these cases, which are labeled as Very Low Food Security (VLFS), typically an individual does not eat a whole day in three or more months of the year. The 10 percent figure quoted at the beginning of the essay refers to Low Food Security. Not Very Low Food Security, which is the one where there actually is reduced food intake. VLFS affect 3.8 percent of households. Thus, by these USDA definitions, food insecurity is as much a matter of nutrition and a temporary state as it is an enduring lack of anything to eat.

The USDA household survey leaves out an important component of the population; homeless people. According to the National Bureau of Economic Research, on any given night there are about 600,000 homeless people in the US, about one-third of whom are sleeping on the streets and two-thirds in shelters. In a related paper, researchers in the Journal of Health and Human Behavior elaborated on the relationship between homelessness and food insecurity. To them, food insecurity is a matter of obtaining enough food for an active, healthy lifestyle. Note the absence of

the word nutrition. The researchers asked the homeless to list their top concerns. The results are surprising. I expected food insecurity to be a top concern. It turns out that it ranked sixth, behind other concerns such as finding a job, finding shelter, healthcare and affordable housing.

Food insecurity among the homeless is defined in three levels: chronic, episodic and transitional. These levels mark a progression in terms of the number of homeless spells in their lifetime and the length of the current one. About one-third of homeless people are chronically so. These three levels differ in the depth of food insecurity experienced. Predictably, the chronically homeless skip more meals, fast more days, and rely more often on subsistence eating, which means turning to trash cans and relying on handouts. One in eight homeless people rely on subsistence eating. As expected, the rate of food insecurity among the homeless is higher than that of the housed poor.

Other definitions, while agreeing that food insecurity is principally a matter of enough food, differ on additional dimensions. Some simply talk about enough food for the needs of the household. The USDA, as mentioned above, includes adequate nutrition as a component of food security. The United Nations' Food and Agricultural Organization agrees. Others, like the United Nations and some non-profits, hedge by including nutrition and adding wording for food preferences and socially acceptable foods. These are clearly inconsistent. Preference and nutrition do not necessarily go together. For many, the food they prefer is not necessarily nutritious. Preference is a matter of culture and habit more than it is nutrition. Finally, there are plenty of narrower definitions in the literature that limit the scope of food insecurity to the concept of enough food, regardless of nutrition and preference.

This issue of including wording for nutrition and food preference to define food insecurity is very important, because it goes to the heart of the problem one is trying to solve. Lack of food

means being hungry. This is different from nutrition and preference. These are all important but distinct problems. Hunger is not cultural. However, choosing food on the basis of nutrition or preference depends on an individual's culture and habits. Given a choice, many will go for preference, and not necessarily for nutrition. We eat what we like regardless of someone else's recommendation or even plea!

An interesting and well-done paper by three Tulane University professors in 2013 illustrates this point of preference sidelining nutrition. They conducted a survey of low-income New Orleans residents to collect data on their consumption of fruits and vegetables, and whether or not they owned a car. They also measured the availability of fruits and vegetables in stores near the residences of those surveyed, knowing that nearby stores had a lower availability of fruits and vegetables. The goal was to see if car owners would drive farther to acquire fruits and vegetables. They did not. Car ownership had no impact on the consumption of fruits and vegetables. The car gave them better reach and possibly access to lower prices, but had no effect on the consumption of fruit and vegetables. I came across two other independent studies making the same point. Yet the government includes nutrition in the definition of food insecurity.

Sources of Government and Private Assistance

The United States is blessed with a plethora of non-profit organizations providing meals to those who need them. These organizations receive food donations from manufacturers, retailers, individuals, and other sources, and then distribute them to local food pantries, soup kitchens, shelters, and other community-based agencies. According to Food Bank News, a specialized publication, there are over 300 food banks in the US. The largest is Feeding America. As mentioned before they provided 5 billion meals in 2021. Other sources of private food assistance include meal programs, faith-based organizations - of soup kitchen fame - and private charities such as the

Salvation Army and local community organizations. One example of such organizations is “Meals on Wheels.” They employ volunteers to deliver meals to individuals in their homes, many of them seniors, who are unable to purchase or prepare their own meals. Meals on Wheels delivers about 250 million meals a year.

Another resource is government programs. The three main ones are SNAP (Supplemental Nutrition Assistance Program), which was previously known as the Food Stamp program, a program for women, infants, and children known as WIC, and the National School Lunch Program. SNAP provides eligible low-income individuals and families with electronic benefit cards. Like regular debit cards, these can be used to purchase approved food items in participating stores. SNAP is open to US citizens, legal residents, and refugees. According to the Pew Research Center, in fiscal 2022 the federal government spent about 120 billion dollars on this program, benefitting more than 40 million people in 22 million households. That translates to about 1 in 8 people in America.

The WIC program provides nutritional assistance to low-income pregnant women, breastfeeding mothers, non-breastfeeding postpartum women, infants, and children up to 5 years old. The program provides both nutritious food and nutrition education. Interestingly, this one is also open to immigrants regardless of legal status. This program costs nearly 6 billion a year and benefits 6 million women and infants. The National School Lunch Program provides meals for free or at a reduced cost for low-income children attending public and non-profit private schools, as well as residential childcare institutions. The Department of Agriculture reports providing 4.8 billion meals to 30 million children in fiscal 2022 at a cost of approximately 20 billion dollars. And there are other programs. One provides funding for the children of people needing temporary assistance, there is another, similar to SNAP, for Native Americans, and several others. Overall, the federal government spends over 183 billion dollars a year on food and nutrition assistance.

Barriers to Food Security

And so, where are we? After all is said and done; the food we produce, ship away and waste, after all the government and private assistance, according to the Department of Agriculture we are still short because approximately 10 percent of the population is in a state of Low Food Security and about 4 percent of which are in a state of Very Low Food Security. What does that mean in terms of quantifying the shortage? How many more meals do we need in order to do away with this problem? I am suggesting that a very modest increase in the number of meals served in this country might actually solve the problem. There is hope. Using a “back-of-the-envelope” type calculation, I estimate that we need about 8.5 billion more meals a year, which represents an increase of only 2.6% on the number of meals we currently produce.

Let me explain. It is estimated that 10.2% of the population is in an LFS state. Which means that 89.8% are food secure. That equates to a little over 300 million people who are food secure. If they eat 3 meals a day for 365 days a year, we can estimate that the nation serves about 329 billion meals a year. Let’s now turn to the almost 35 million people with LFS. Feeding America estimates that LFS people are short an average of 250 meals a year. That is the upper bound of a range they provide. This translates to a shortage of 8.5 billion meals a year (250×35 million). That equates to 2.6 percent more meals. This is hopeful and should be manageable. By the way, if we repeat this calculation to address VLFS, the increase in meals served would be less than one percent!

The next question is who are the people in need of those 8.5 billion meals? And where are they? What is preventing them from getting to these meals? One could argue that there are four main reasons barring people from adequate food: income, access, information and stigma. These are, of course, related, but easier to address separately.

But first, let's go over some key statistics about Low Food Security. The USDA survey of households suggests that about 30 percent of low-income households experience low food security, the largest group of people. Next come households with children led by a single female, at about 25 percent. Single-parent households led by men, at 16 percent, are only slightly better than women-led. African-American households are at 20 percent of the sample, only slightly ahead of Hispanic households with 17 percent. There are many other factors at or under 10 percent: women or men living alone or with an elderly, people living in low-income areas, both urban and rural, and elderly living alone. And here is a data point that was a major surprise to me. Shocking actually. A study by the Urban Institute revealed that 17% of college students, especially in 2-year colleges are food insecure.

Some further contributors to LFS warrant mention. Disability affects job opportunities and imposes healthcare-related expenses that reduce food budgets. Lack of transportation reduces access to supermarkets and keeps people closer to more expensive and lower-quality food available in convenience stores. Finally, lack of access to a refrigerator reduces access to supermarkets and to nutritious food.

The Relationship Between Income and Food Insecurity

Poverty is defined by the federal government at about \$15,000/year for individuals and double that for a two-income family. That number results from working 40-hour weeks at the federal minimum wage of \$7.25 for 50 weeks a year. Eligibility to SNAP benefits extends to low-income households up to 130% of the poverty level.

Low income clearly affects the affordability of food, but the relationship is not limited to that. It affects resources in general. Time spent by single parents on the job reduces the time

available to procure and/or prepare food. People without cars or refrigerators have less access to sources of food.

One of the interesting issues to come out of this research is that much of the literature on the issue is rather emotional in nature, with calls for the government to eliminate food insecurity by eliminating poverty. This would do the trick for the most part, but is not practical. Tackling food insecurity should not wait for a problem as big as poverty to be solved.

Another Department of Agriculture survey sheds some light on barriers to adequate food intake faced by beneficiaries of the SNAP program and some of the coping mechanisms they adopt. The key issue in obtaining food is affordability, as reported by six in 10 participants in the survey. An additional 2 in 10 report a reach issue where stores were too distant, or lack of transportation hindered access to them. There are also food preparation issues. Lack of time to prepare food is one, which surprised me, as did not knowing how to prepare healthy foods. Lack of equipment, storage space and disability are also factors.

How do respondents to this Department of Agriculture survey cope? The most common answer is to shop for affordable foods or select lower-cost brands. More drastic measures, other than skipping meals, are financial or social in nature. Some delay paying bills, borrow money, or even delay paying rent. A few, but still substantial number skip medicine or health care. Overall, social mechanisms such as getting food from family and friends are less common.

Access and Food Insecurity

If we recall that the supply of food is sufficient, lack of access to it is central to the food insecurity issue. It happens for a number of reasons. Food deserts are zones where the availability of fresh, healthy foods is scarce, largely due to the absence of nearby grocery stores or markets. They exist in both urban and rural settings. The homeless, particularly those without access to a shelter,

lack access to food. Lack of transportation, be it car ownership or poor public transportation, makes the journey to secure food even more challenging. While food banks provide a crucial service, in some cases their operating hours might not be convenient for those in need. Many are closed on weekends, for instance.

Food deserts are officially recognized by the government as Low-Income, Low-Access areas (LILAs). LILAs are demarcated by census tracts. They are defined as areas where the population resides further than one mile (for urban areas) or 10 miles (for rural areas) from the nearest supermarket. As of 2015, about 9,000 of the nearly 73,000 census tracts in the U.S. (12.7 percent) were classified as LILAs. Around 6 percent of the population, 18.8 million people, reside in LILAs. That number would rise to 17 percent if the distance is reduced to a half-mile. LILAs typically are in low-income neighborhoods, including minority communities, inner cities, Native American communities, and some rural communities. There are also post-industrial areas, regions that have faced economic decline due to the closure of industries and businesses that moved away.

It has been shown in a paper published by the University of Connecticut that vehicle ownership makes it less likely that a household will experience VLFS, though the results are less clear about LFS. Lack of public transportation is also a factor in food access. Long and irregular waiting times for buses disincentivize low-income individuals from traveling farther to get healthier or more affordable food. A University of Pittsburgh paper demonstrated that the exit of public transportation options in a food desert decreases the number of yearly trips to grocery stores and increases the number of trips to drug and dollar stores. This leads to the concentration of consumption activities in local areas. These findings imply that low-income consumers tend to eat the food that is readily available in their own neighborhoods. In contrast, as mentioned earlier, there

are studies showing that improved access to grocery stores does not significantly improve the quality of food choices; and that the major impact seems to be in the cost of transportation.

Information, Stigma and Food Insecurity

Together with the previously mentioned factors of income and access the lack of information and prevailing stigmas surrounding government and private assistance can significantly deter individuals and households in need from accessing them. Many people are unaware of the existence or location of local food banks, or they misunderstand the eligibility criteria, believing they do not qualify for assistance. Additionally, the social stigma attached to seeking help can be a powerful deterrent. The perception that patronizing a food bank is a sign of personal failure or an admission of poverty can prevent those in need from reaching out.

A sociological study conducted in San Francisco in 2016 sheds some light on the information issue. It confirmed that potential beneficiaries of food pantries lack information about their availability and location. Some low-income individuals also fail to seek food pantries believing that these institutions are geared towards people in worse conditions than them and therefore believe falsely that they are ineligible. Lack of information is also common among people with difficulty gathering information, such as cases of disability, mental health, drug use, or advanced age. This result about the elderly is confirmed by another study conducted in Colorado. Many elderly do not know what they are eligible for and how to access it.

Stigma, the real or perceived belief that one is being looked down upon and reduced to a stereotype is another factor preventing eligible individuals from accessing government and/or private assistance. It is real when it comes from staff responsible for enrolling and providing service. Stigma can also be internalized when individuals feel shame about their condition. Stigma affects people's willingness to enroll in benefit programs. While eliminating the stigma problem is a major

challenge, it has been shown that “de-stigmatizing” messages can have an effect. For example, changing the name of the Food Stamp program to SNAP did increase interest.

Conclusion

So, let’s tie this up with the beginning. Why is there food insecurity in America? To go on this journey of exploration, we considered different definitions of the problem, checked sources of government and private assistance, and then explored four different but interrelated barriers to food security: low income, access, information and stigma.

What was learned? First of all, the problem of food insecurity depends on the definition of it. Definition significantly affects the size of the problem. Second, the fact that there are many definitions out there brings a lack of clarity on the goal to be achieved. Are we fighting hunger? Sponsoring nutrition? Both? Should we feed people what they actually want to eat or should we use food insecurity to educate people on nutritious eating habits? Third, the problem might be more manageable than thought, if we really are about 8.5 billion meals a year short, given that we currently already serve 329 billion. Fourth, if the number of additional meals needed, at 2.6 percent, is compared to the roughly one-third of the food supply that we currently waste. This is further cause for hope. And finally, while low income is a major driver of food insecurity, there are many other interrelated factors contributing to it; challenges such as disability, mental health, and drug use; demographics such as single parenthood and advanced age, and other factors such as lack of transportation and stigma. Lack of information about entitlements and sources of food is also a major factor.

And then, of course, there are policies the country might pursue to address the problem, but we will stop short of proposing that now. This is another story for another day. Thank you.