

Ending Hunger: How COVID-19 Revealed a Path to Food Access for All

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ABSTRACT This article explores how a devastating hunger crisis, which seemed destined to accompany the COVID-19 pandemic in the United States, was thwarted by historic federal emergency food policy interventions. We outline the vital public policy innovations in food access launched during the COVID-19 pandemic as well as the nonprofit emergency food network programs designed to implement and accompany these policies. In particular, we focus on innovations that addressed hunger for two vulnerable groups, children and the elderly, and we describe how these innovations increased food access. Finally, we advocate for the continuation of COVID-19 anti-hunger pandemic policies in the “next normal” because they reveal a path to end hunger that preserves people’s dignity and provides healthy and affordable food access for all.

A haunting image from the outset of the COVID-19 pandemic is seared into our collective conscience: miles-long lines of cars on roads in towns and cities across the United States waiting at emergency food access points for the food people desperately needed to stave off hunger (Arango 2020). At the outset of the pandemic, almost 20 million Americans found themselves suddenly out of work, leaving them and their families newly at risk for hunger (Minter 2022). The elderly and children were particularly vulnerable to pandemic-induced hunger. Many seniors became homebound due to their susceptibility to the most severe consequences of COVID-19, exposing them to pandemic-related hunger (Graham 2020). At the same time, one in three families with children experienced hunger early in the pandemic (Picchi 2020). For many families, the closure of schools meant the loss of critical school breakfasts and lunches for children. Lauren Bauer, a food policy expert at the Brookings Institute, said of the hunger crisis created by the COVID-19 pandemic, “What’s happening right now is unprecedented in modern times” (Arango 2020).

Experiencing hunger causes a multitude of adverse outcomes that impact people’s physical and psychological well-being (Block et al. 2011; Bublitz et al. 2019). If hunger had been allowed to continue to escalate as the COVID-19 pandemic ravaged the United States, it could have triggered a devastating and deep hunger crisis on par with that of the Great Depression. Instead, historic federal emergency food policy interventions, together with programmatic innovations throughout the nonprofit emergency food network, worked in tandem to avert this disaster. Specifically, the policy and programmatic innovations we document are sustaining innovations, defined as getting better at what they were already doing and improving existing capabilities in existing markets (Satell 2017). How did this occur? After a public health emergency (PHE) was declared at the outset of the pandemic, federal policy makers authorized and directed unprecedented levels of financial and food assistance to hungry Americans, more than doubling US spending on food aid (Choi 2021). In effect, “The pandemic triggered a country-wide policy experiment aimed at keeping families fed” (Bottemiller Evich 2021).

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In this article, we delve into this policy experiment and the nonprofit program innovations that accompanied it to document how these policies and programs dramatically reduced hunger during the pandemic. In doing so, this work advances the body of consumer-centered public policy research focused on how policy innovation and investments promote consumer welfare (Block, Vallen, and Warlop 2022) and adds to the growing understanding of how the COVID-19 pandemic transformed hunger in America (Bublitz et al. 2021). Furthermore, we demonstrate how systemic federal policy is a powerful tool for combatting hunger while preserving people's dignity and, in turn, fundamentally improving the well-being of individuals and society.

The overwhelming majority of Americans support funding federal anti-hunger programs (Lubrano 2019). Yet, for decades, a faction of commentators and political figures have vilified the people experiencing hunger, suggesting that people receiving assistance from federal hunger relief programs—the overwhelming majority of whom are employed and often working multiple jobs (Loveless 2020)—will not work “because they're doing too good with food stamps” (Rosen 2015). The reality is this: Federal antihunger programs adhere to strict quality control systems that direct benefits to eligible families who most need assistance, and they aggressively pursue any bad actors, including retailers, who purposely commit fraud. As a result, fraud rates are less than 1% (USDA 2022e). Fully funded federal nutrition programs offer unmatched power to reduce hunger while creating positive economic returns and supporting local economies (Canning and Stacy 2019). In this research, we explore the substantive positive impact of COVID-19 federal policy investments in hunger relief and advocate for the permanent adoption of these anti-hunger policies.

We begin by offering a conceptual overview of hunger and food well-being as it existed pre-pandemic, an overview grounded in academic research from the consumer research and marketing literatures. We include a primer describing how hunger is addressed in the United States that highlights the vital roles of federal public policy and the community-based, nonprofit emergency food network. Next, we address food-related issues raised and exacerbated by COVID-19 followed by a discussion of several of the public policy and nonprofit programmatic innovations put in place in response to the pandemic and describe how these innovations reduced hunger. These innovations, or new ideas and methods, include a variety of process and service innovations, as well as supply chain and business model innovations (Kahn 2018). In particular, we examine innovations that enabled food access

for two vulnerable groups: children and the elderly. Finally, we advocate for a continuation of these COVID-19 anti-hunger pandemic policy innovations, which must prevail in the “next normal” to end hunger and provide healthy and affordable food access for all.

THE STATE OF HUNGER PRE-COVID-19

Even brief, short-term experiences with hunger can have a devastating impact on an individual's and a family's well-being (Borsch and Kjaernes 2016). As Bublitz et al. (2019, 138) describe, the experience of hunger “begins with a worry about not having enough food, progresses to a reduction in the quality of food consumed, and, finally, results in the consumption of an inadequate quantity of food.” It is vital to note that hunger includes not only the devastating hardship of struggling to provide a sufficient quantity of food for oneself and one's family, but also worry and anxiety about the prospect of running out of food. In response to this worry, families ration the food they have by serving meager meals of poor nutritional quality in order to stretch food dollars, which compromises health and well-being (Harvey 2016; Bublitz et al. 2019). Hunger is often progressive as individuals and their families move through and pivot among these experiences.

In food-abundant countries such as the United States, it has long been the lack of access to affordable, healthy, nutritious food rather than a dearth of available food that causes millions of people to experience hunger (Dreze and Sen 1989). In 2016, prior to the COVID-19 pandemic, approximately one in eight households in the United States did not have stable food access, leaving them vulnerable to hunger (Coleman-Jensen et al. 2017). In the United States, two systems work both jointly and independently to ameliorate people's hunger by providing food access: (1) federally funded public nutrition programs and (2) a network of nonprofit organizations—the emergency food network—that includes food banks and food pantries located in communities across the country. We introduce each here, in turn.

The US Department of Agriculture (USDA) administers 15 federally funded public nutrition programs that are designed to reduce hunger (USDA 2022a). Table 1 lists and briefly describes these programs. The most prominent among them is the Supplemental Nutrition Assistance Program (SNAP), which traces its origins to the first federal Food Stamp Program in 1939 and provides benefits to low-income families and individuals that enable them to buy groceries in their neighborhood grocery stores. People using SNAP receive monthly funds through an electronic benefits transfer

Table 1. Federally Funded Nutrition Assistance Programs Offered by the USDA

Program acronym, name	Brief summary	Website address
SNAP: Supplemental Nutrition Assistance Program	Dollars as electronic benefits (EBT), can be used to buy a wide variety of food in most grocery stores	https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program
WIC: Special Supplemental Nutrition Program for Women, Infants, and Children	Dollars as electronic benefits providing access to specific foods (e.g., dairy, eggs, whole grains, formula, juice, fresh fruit and vegetables)	https://www.fns.usda.gov/wic
FMNP: WIC Farmers' Market Nutrition Program	Vouchers provide WIC participants access to fresh, unprepared, locally grown fruits and vegetables	https://www.fns.usda.gov/fmnp/wic-farmers-market-nutrition-program
SFMNP: Seniors Farmers' Market Nutrition Program	Vouchers provide low-income seniors access to locally grown fruits, vegetables, honey and herbs	https://www.fns.usda.gov/sfmnp/senior-farmers-market-nutrition-program
TEFAP: The Emergency Food Assistance Program	Food purchased by the USDA is distributed by state agencies to income-eligible Americans at no cost	https://www.fns.usda.gov/tefap/emergency-food-assistance-program
CSFP: Commodity Supplemental Food Program	USDA food provided to income-eligible seniors (60+) in coordinated boxes administered locally	https://www.fns.usda.gov/csfp/commodity-supplemental-food-program
FDPIR: Food Distribution Program on Indian Reservations	USDA foods provided to income-eligible, Native American households	https://www.fns.usda.gov/fdpir/food-distribution-program-indian-reservations
NSLP: National School Lunch Program	Federal assistance to schools for providing nutritionally balanced, low-cost or free lunches	https://www.fns.usda.gov/nslp
SBP: School Breakfast Program	Reimbursement to states to operate breakfast programs in schools and residential childcare	https://www.fns.usda.gov/sbp/school-breakfast-program
SMP: Special Milk Program	Reimbursements for milk to children in schools and childcare institutions	https://www.fns.usda.gov/smp/special-milk-program
SFSP: Summer Food Service Program	Reimbursement to program operators who serve free healthy meals and snacks to children and teens in low-income communities during summer break	https://www.fns.usda.gov/sfsp/summer-food-service-program
CACFP: Child and Adult Care Food Program	Reimbursements for nutritious meals and snacks at childcare centers, daycare homes, and adult daycare	https://www.fns.usda.gov/cacfp
USDA Farm to School Program	Grants, research, and assistance to encourage child nutrition providers to incorporate local foods	https://www.fns.usda.gov/cfs
USDA Foods in Schools	Funds purchases of 100% American-grown foods by schools and institutions	https://www.fns.usda.gov/usda-fis
FFVP: Fresh Fruit and Vegetable Program	Funding to elementary schools to encourage children to try new fruits and vegetables	https://www.fns.usda.gov/ffvp/fresh-fruit-and-vegetable-program

(EBT) card, similar to a debit card; the level of benefits they receive each month depends on their income and family size. In addition to SNAP, there are a number of federal assistance programs specifically targeted at reducing hunger among vulnerable groups—primarily children and the elderly. For example, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)—which dates back to the 1960s—provides food benefits to low-income pregnant and postpartum women and their children up to age 5 years; the National School Lunch Program (NSLP) supplies reduced-cost or free lunches to low-income school children each day; and the Commodity Supplemental Food Program (CSFP) provides a monthly box of food to low-income seniors (USDA 2019a, 2019b, 2021a). These federal hunger-relief programs serve an estimated one in four Americans each year (USDA 2022a). The USDA estimates that for every \$1 billion the US government invests in SNAP, food spending in local economies “increases GDP by \$1.54 billion, supports 13,560 jobs, and creates \$32 million in farm income” (Canning and Stacy 2019).

In addition to these federally funded efforts, a decentralized network of nonprofit emergency food providers serve as a supplemental food safety net. Emergency food providers include community food pantries and food banks, soup kitchens, and other emergency services that often offer food donated from corporate, private, and governmental sources. “Severity of food hardship is strongly correlated with food pantry use” among families experiencing hunger (Bartfeld and Collins 2017, 541). To understand the relationship between federal nutrition programs and nonprofit hunger relief organizations in the United States, it is vital to recognize that 90% of food banks and pantries were established after 1981, when a series of major legislative cuts to federal hunger-relief programs spurred the need for a dramatic expansion of the emergency food network (Walter 2012). This striking figure illustrates the inextricable link between federal food policy and food access. In the early 1980s, when policy makers cut back on federal food programs, hunger did not disappear. Instead, a patchwork network of community-based emergency food providers emerged to fill this gap, providing food to people experiencing hunger due to federal funding cuts.

It is also vital to note that between 2010 and 2019 average monthly SNAP benefits decreased from \$133.79 to \$129.83 per person (USDA 2022c). The Bureau of Labor Statistics’ Inflation Calculator estimates that to maintain food buying power over this 10-year period, 2019 food benefits should have increased to \$159. In 2019, just prior to the start of the COVID-19 pandemic—and as food prices increased and

SNAP benefits decreased—35.2 million people in the United States were already growing increasingly vulnerable to hunger (Coleman-Jensen et al. 2020). Next we describe several ways that COVID-19 transformed hunger in America.

ISSUES RAISED BY THE COVID-19 PANDEMIC

Hunger was a problem pre-COVID; the pandemic exacerbated this situation. At the start of the pandemic, millions of workers who lost their jobs, and thus their incomes, began visiting food banks for the first time to feed themselves and their families. Meanwhile, those most at risk from COVID-19, seniors—many of whom had previously relied on food banks—found themselves homebound and thus unable to venture out for food. Also impacted were school-aged children who had relied on school breakfast and lunch programs to meet their nutritional needs.

These problems demonstrated the critical importance of the way hunger has been addressed in recent years in America: the collaboration between state and federal governmental agencies and emergency food networks. Under such collaborations, the federal government sets funding levels and rules, and state governments ensure compliance with federal regulation while subcontracting with nonprofit and community-based organizations to distribute food, ensure local program compliance, and design and execute programs. Such an approach would prove to be vital during the pandemic given that emergency food providers generally cannot on their own handle escalating hunger during a crisis, whereas fully funded federal programs offer unmatched resources and buying power for food (Bublitz et al. 2021).

Consider, for example, that in 2021, and facing escalating need as the pandemic raged, Hunger Task Force (HTF)—Wisconsin’s largest emergency food provider—could not have come close to meeting its community’s food needs had federal programs been severely cut or halted. Note that in 2021, HTF distributed \$10.3 million worth of food in Milwaukee County over the course of 12 months (Hunger Task Force 2022b), whereas in the same year an average of nearly \$62 million in SNAP benefits were issued in Milwaukee County, Wisconsin each month (Wisconsin Department of Health Services 2021a).

In the next section, we document how innovations, including unprecedented increases to federally funded food programs during the COVID-19 pandemic addressed food vulnerability, dramatically reducing hunger and ensuring healthy and dignified food access for all. We also describe how innovations by the emergency food network contributed to this massive hunger relief effort. In doing this, we offer

programmatic examples from HTF, a leader in these efforts. HTF is a nationally recognized anti-hunger nonprofit organization that serves more than 50,000 people in Wisconsin each month. In addition to its role as a food bank, HTF is also a leading advocate at the local, state, and federal level for public policies designed to reduce—and ultimately eliminate—hunger. We begin our review of the unprecedented COVID-19 food access innovations by outlining changes to federally funded nutrition programs.

PANDEMIC INNOVATIONS TO THE SNAP PROGRAM

When the COVID-19 pandemic created an emergent hunger crisis, the US federal government via the USDA took action to strengthen food access and reduce hunger. The most vital pandemic innovations by the USDA involved changes to SNAP, the long-time cornerstone program in the fight against hunger.

Increased Benefits

During the pandemic, the federal government authorized emergency food allotments to families, increasing average SNAP food benefits by \$200 per household per month (USDA 2022b). Figure 1 illustrates the change in SNAP household food benefits from 2019 to 2022. This increase in emergency benefits via SNAP allowed people to shop for their own groceries and purchase food appropriate for their families’ dietary needs and taste preferences. During the pandemic, as

SNAP benefits and participation increased, food pantries and food banks across the nation experienced a significant reduction in food pantry visits, offering evidence that the increase in SNAP benefits significantly reduced hunger. Figure 2 provides a timeline illustrating how pantry traffic in Milwaukee County decreased by half—from more than 40,000 people per month to just more than 20,000 people per month in 2021 after SNAP benefits increased (Hunger Task Force 2022a). During this period, the number and capacity of Milwaukee’s food pantries remained constant.

Also significant is the fact that prior to the pandemic senior citizens received only \$16 a month in SNAP benefits and many cobbled together food and food support from a variety of different sources, including other federal nutrition programs such as the Commodity Supplemental Food Program (CSFP/Senior Stockbox), charitable programs such as Meals on Wheels, and local food pantries. Complicating the issue is the fact that diabetes, heart disease, and cancer are more prevalent among seniors, making consumption of healthy, nutritious food—such as fresh fruit and vegetables—of paramount importance. Although canned fruits and vegetables cost significantly less than fresh, they also contain added sodium and sugar to make them shelf stable and last longer—ingredients that do not align with recommended diets for seniors with chronic health conditions. During the pandemic, seniors living on a fixed income became eligible for a full share of SNAP benefits, lifting their benefits from a meager \$16 to \$243 per month. Benefits also increased for families

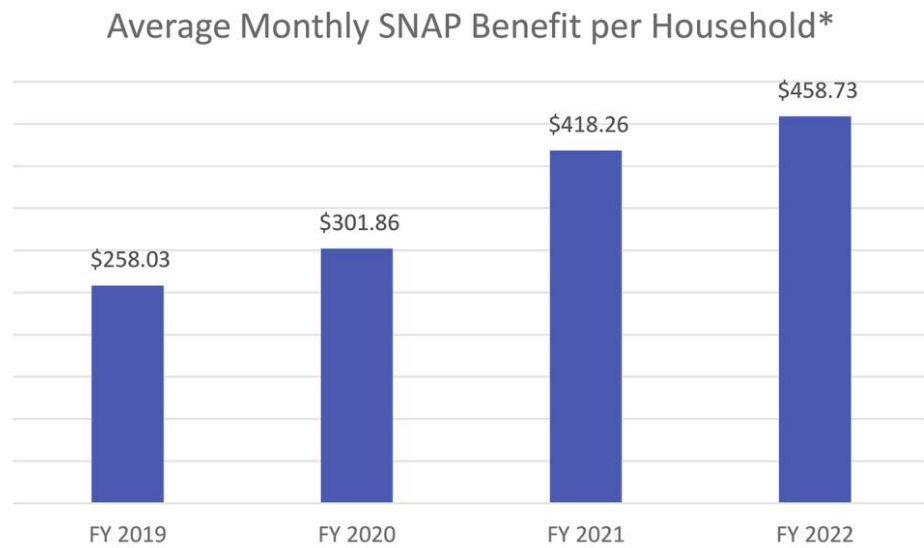


Figure 1. Average monthly SNAP benefit per household increased during the pandemic. SOURCE: USDA (2022b) Supplemental Nutrition Assistance Program, April 8, <https://fns-prod.azureedge.us/sites/default/files/resource-files/34SNAPmonthly-4.pdf>.

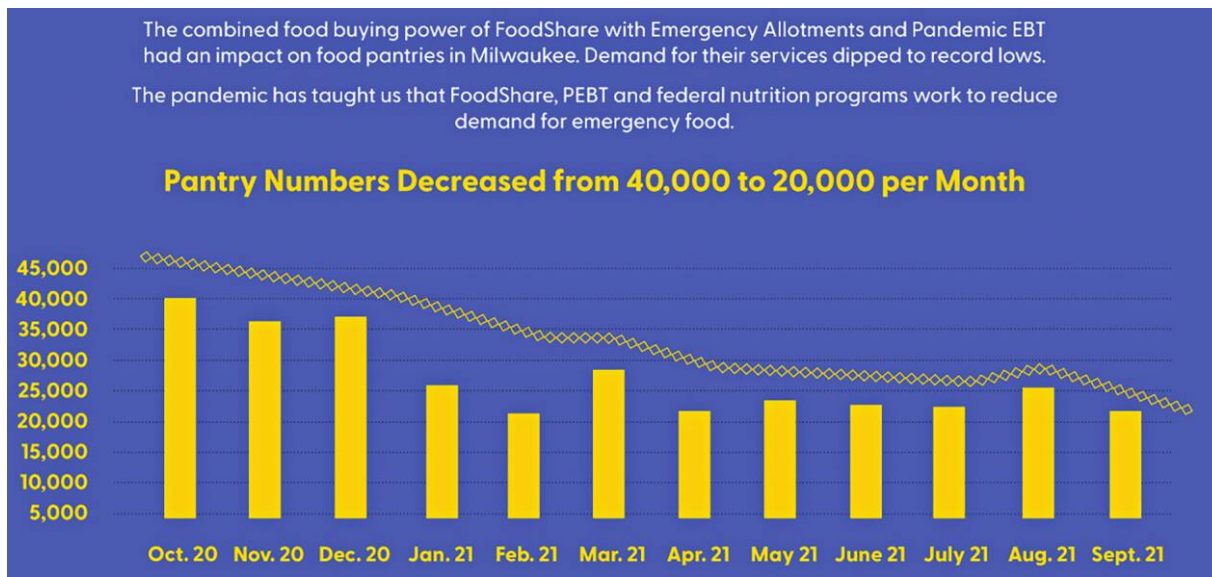


Figure 2. Demand for food pantry services dipped to record lows during the pandemic after SNAP benefits increased. SOURCE: Hunger Task Force (2022a) Supplemental Nutrition Assistance Program, April 8, <https://fns-prod.azureedge.us/sites/default/files/resource-files/34SNAPmonthly-4.pdf>.

with children who, due to school closures, could no longer rely on school breakfast and lunch programs. The USDA recognized this hardship and responded with additional support in the form of Pandemic EBT (P-EBT), a temporary federal nutrition program that provided parents with extra grocery benefits designed to replace the value of missed school meals due to virtual learning and COVID-related absences.

New Eligibility Waivers and Streamlined Applications

In addition to increasing SNAP benefits, the USDA also issued a series of eligibility waivers to help more people access SNAP to purchase food. As a result, new groups of people became eligible for SNAP. For example, prior to the pandemic, most college students were not eligible for SNAP. However, in January 2021, the USDA issued waivers that allowed students enrolled at least half time in higher education institutions to participate in the SNAP program if they were “eligible for work study or have an expected family contribution (EFC) of \$0 in the current academic year” (USDA 2021b). The USDA also streamlined the SNAP application process to reduce barriers to food access for families in need and give people experiencing hunger during the pandemic access to vital SNAP benefits much more quickly.

Online Shopping

Finally, the SNAP program pivoted to allow people, including seniors, to begin shopping online with their SNAP EBT

cards. Because seniors with health or financial constraints and those who live in rural communities often struggle with transportation access (Shay et al. 2016), the option to shop for groceries online expanded their food access. It also preserved seniors’ dignity, allowing them to shop online for their groceries just like millions of consumers navigating marketplace changes brought on by the COVID-19 pandemic. By January 2022, almost every state offered online grocery purchasing with SNAP dollars. HTF’s SNAP outreach and food advocacy staff noted how online shopping impacted seniors, describing them as “really happy. [seniors] appreciated the flexibility. They didn’t have to use [food pantries], while they previously had been monthly or more [frequent] users.”

Additional Impact of These SNAP Innovations

These SNAP innovations—increased funding, increased eligibility, a streamlined application process, and the ability to shop online—led to more people having the financial means to shop for groceries, which both reduces hunger and stimulates, rather than burdens, local economies. As figure 3 illustrates, these investments by the federal government in SNAP trickle down into local economies because program participants purchase their groceries at local food retailers. In addition, outreach and advocacy staff at agencies such as HTF saw a reduction in hunger—not just in numbers but also in stories from their clients. One HTF client stated, “I went

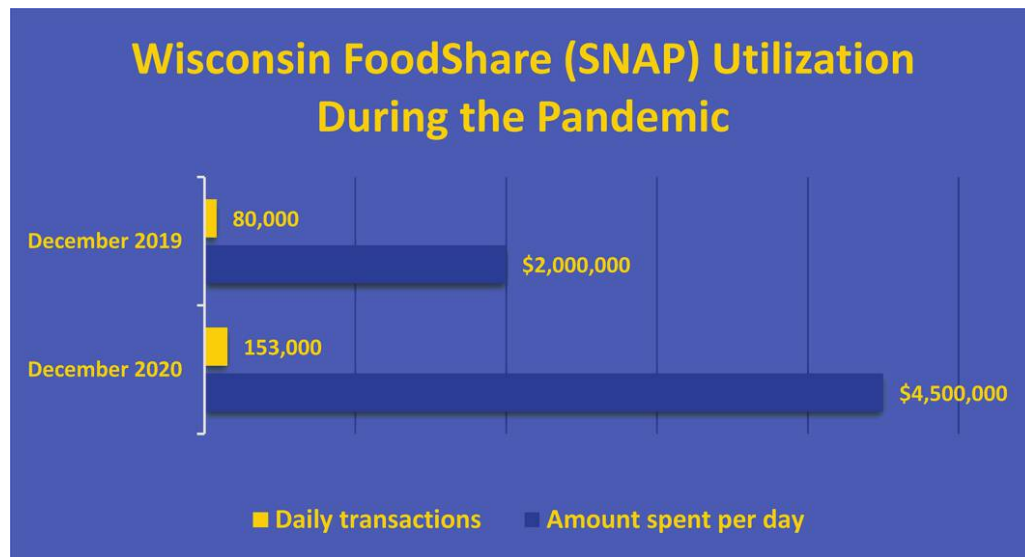


Figure 3. FoodShare (Wisconsin’s name for SNAP) increased people’s food purchases in their local grocery store, offering a positive impact on the local economy. According to the Office of Gov. Evers (<https://content.govdelivery.com/accounts/WIGOV/bulletins/2ccb761>), “FoodShare households spent an average of \$2 million each day on food in Wisconsin over approximately 80,000 transactions. A year later, that figure increased 220%, with households spending \$4.5 million at their local retailers across more than 153,000 transactions.”

from having a single can of green beans in my house to having a full pantry.” Another explained, “Being able to make what you want to make to eat creates mental calmness.” These statements demonstrate how increasing SNAP assistance, in EBT dollars that allow people experiencing hunger to purchase food with dignity, has a positive impact on both food access and well-being. As a community advocate who works at HTF explains, “People don’t want to go to a food pantry; they don’t want to say they need help.”

COLLABORATIVE PANDEMIC INNOVATIONS

As stated above, a significant issue that surfaced during the COVID-19 pandemic was the need for close collaboration between federal nutrition programs and nonprofit hunger relief organizations. In part, that was because changes to federal policy that increased access to food for people experiencing hunger also created challenges for the nonprofit emergency food network. However, challenges and constraints, while difficult in the moment, can lead to innovative and creative solutions (Moreau and Dahl 2005).

Dairy Product Recovery

Consider this example of such an innovation: At the onset of the pandemic, dairy farmers began intentionally dumping milk as supply chains were disrupted and restaurant and food service customers were no longer purchasing milk (Reiley 2020). In response, HTF worked collaboratively with the Dairy

Farmers of Wisconsin union and the Wisconsin Department of Agriculture, Trade, and Consumer Protection to identify small and midsized dairy farmers with excess milk. HTF then coordinated private donor funds to purchase, process, and distribute milk and dairy products to emergency food providers across the state. These partnerships created the Wisconsin Dairy Recovery Program, which ultimately provided 8.5 million pounds of milk, cheese, and dairy products to hungry families while simultaneously saving many farms and co-ops from insolvency. One HTF employee describes how “we were able to get the right food, the right products, to the right people. It was a two-way street that helped farmers and the people of Wisconsin in need of food.” HTF’s innovative dairy recovery program went on to become a model for similar programs across the nation.

Pandemic Food Access Innovations for Seniors

In Wisconsin, 46.8% of households receiving FoodShare (SNAP) have at least one person who is elderly, blind, or disabled (Wisconsin Department of Health Services 2022). Like most nonprofit emergency food providers, HTF had to reinvent how it delivered critical services to keep such a vulnerable group fed during the initial stages of the pandemic; moreover, the organization had to do so without its 16,000-member volunteer workforce, which was temporarily disbanded due to COVID-19 safety concerns.

One food access program targeted to seniors, the federal Commodity Supplemental Food Program (CSFP, administered

and branded in Wisconsin by HTF as the Stockbox Program) was modified because of the pandemic. CSFP curates a box of supplemental food for income-eligible seniors each month—boxes that prior to the pandemic were delivered to senior centers, food pantries, and other centralized distribution sites where seniors would pick them up. However, for seniors who lacked transportation or were housebound for health reasons, this supplemental program had become inaccessible as these centralized sites were shuttered, forcing HTF staff to innovate and find a new way to distribute these boxes of food to isolated seniors. Working collaboratively with the United Way of Greater Milwaukee and Waukesha County and the food delivery platform DoorDash, HTF developed a program to deliver these boxes of free, nutritious food to over 1,000 seniors' homes. Participant Elizabeth Blake, a 63-year-old mother caring for her paraplegic son, said this about this program: "I couldn't believe they got so much food into that little box! I was surprised by the variety and quality of the food—the Stockbox included food that I really like . . . I think seniors are hesitant to ask for help, and don't want to feel like a burden. I would tell them, for me, signing up was a no-brainer. Three days after finishing my application—ding-dong—there was my box! The whole process was super easy."

According to an HTF advocacy staff member, "Stockbox DoorDash was a solution to an existing barrier. Transportation is a big issue for seniors. We wanted to think about ways to break down that barrier. The Stockbox DoorDash program saves money and time."

Pandemic Food Access Innovations for Children and Families

The food access challenges of the pandemic did not just impact seniors; they also impacted children. During the pandemic, many schools moved to virtual learning, cutting off vital access to breakfast and lunch for many children and leaving them vulnerable to hunger. Consider, for example, that the National School Lunch Program—the largest federal nutrition program serving children—disappeared with pandemic-related school closures. Disappearing as well was the School Breakfast Program (SBP), permanently authorized in 1975 by the USDA to ensure all children had a healthy breakfast to prepare them for their school day (USDA 2013). SBP provides federally reimbursable breakfasts to all children in a school in communities where more than half of students qualify for free or reduced-price lunch. In Wisconsin, more than 208,000 students participated in SBP in 2019, including 78.7% of whom were eligible for free or reduced-

price lunches. Research has consistently shown how such programs advance both educational and health outcomes for children. SBP is associated with higher school attendance and better standardized test scores (Turner and Chaloupka 2015; Bartfeld et al. 2019); increased nutrition for school-aged children as well as their preschool-aged siblings and any adults in their homes (Fletcher and Frisvold 2017); and reduced hunger (Fletcher and Frisvold 2017).

Easy Access to Pandemic EBT

Although the USDA had paved the way for families with children to access extra grocery benefits designed to offset the loss of school breakfast and lunch during the pandemic, the process for applying for those benefits was overwhelming for families facing the many challenges the pandemic created. Figuring out how to apply for P-EBT and then determining if it was worth the hassle were key barriers preventing families from utilizing this program.

In response, HTF created an easy-to-use online calculator to help families understand P-EBT benefits and determine how much monthly financial support they would receive if enrolled. The calculator's website then directed them to an online application for the P-EBT program, which offered up to \$7.10 per child for each day of missed school meals due to the pandemic. For a family with two school-aged children participating in virtual learning from home for 20 school days during a single month, the P-EBT benefits provided \$284 to help purchase food. Once families used the HTF online calculator and saw how P-EBT could help them buy the food they needed, more families applied for the program. In 2021, the P-EBT program provided \$430 million in federal food aid to Wisconsin, feeding over 800,000 children in the state (Wisconsin Department of Health Services 2021b).

A More Flexible Summer Food Service Program

During the school year, schools are a critical lifeline for children in need of access to healthy breakfasts and lunches. However, when not in school, these children lose access to those meals, making summer the peak time for childhood hunger. The Summer Food Service Program (SFSP) provides federally reimbursable, nutritious, free meals to children aged 18 or younger during the summer months. The meals are served at sites such as parks, schools, and community centers (USDA 2016). One drawback is the requirement that these meals must be eaten on site, with a designated break between each meal served, meaning that to receive this benefit children need to remain on site or return for the second meal.

During the pandemic, federal waivers allowed community partners more flexibility to ensure they would be able to serve meals to more children. For example, waivers created provisions for take-away meals, allowing families to pick up a food box supplying a week's worth of supportive meals to eat at home rather than at designated sites. In 2021, over 7.1 million summer meals were served to Wisconsin children through SFSP, as well as 509,000 meals in Milwaukee through HTF's summer meals collaboration. This HTF collaborative program was recognized by the USDA as the "Milwaukee Model" and hailed for uniquely combining SFSP with private funding to provide children with supper along with breakfast and lunch, ensuring children access to three healthy meals per day all summer long.

Future of Collaborative Pandemic Innovations

Indeed, the positive impact of innovations to the SNAP program and other collaborative steps taken by federal and local agencies to curb hunger during the COVID-19 pandemic illustrate how we can design future policies and programs to provide food access for all. These innovations included service innovations (e.g., changes to SNAP) that led to improvements in how programs were delivered or implemented; process innovations (e.g., streamlined SNAP application process) that improved efficiency as well as supply chain innovations (e.g., allowing SNAP EBT to be used online); and business model innovations (e.g., Dairy Product Recovery; Stockbox DoorDash) that involved new partnerships and delivery models (Kahn 2018). Yet there have been setbacks. For example, advocacy groups are growing increasingly worried about the future of food access for seniors if monthly SNAP benefits revert to pre-pandemic levels. Ramsey Alwin, President and CEO of the National Council on Aging, urges policy makers to learn from the success of pandemic food policy, noting that "We need to take hunger off older adults' tables by making enhanced SNAP benefits permanent" (NCOA 2021). What's more, in April 2021, the USDA announced that the waivers that allowed for take-away summer meal flexibility would end June 30, 2022 (USDA 2021c). Indeed, during summer 2022, the program once again required children receiving meals—breakfast and lunch—to eat those meals on site at parks, community centers, and other summer meal locations. According to HTF advocacy staff, "The burden of the congregate feeding requirement remains on the parents—specifically parents and families without reliable transportation, families with young or multiple children, and families in rural areas. We understand these restrictions are meant to prevent program abuse, but it creates signifi-

cant barriers for many families as it becomes an inefficient method to provide access to safe and healthy meals."

CONCLUSION

As COVID-19 triggered a pandemic of disease, it also ignited a potentially devastating pandemic of hunger, with an unprecedented 54 million people in the United States experiencing hunger at the outset of the pandemic (Balch 2020). Historic federal food policy investments and programmatic innovations by the community-based, nonprofit emergency food network averted this hunger crisis as policy makers more than doubled US investment in domestic anti-hunger programs, and the emergency food network innovated creative ways to deliver food (Choi 2021). This research documents the rapid policy and programmatic innovations in food access that occurred during the COVID-19 pandemic. In doing so, it illustrates the powerful role that fully funded public policy can play in eradicating hunger. This work also contributes to the body of consumer-centered public policy research highlighting the impact of policy on consumer welfare (Block et al. 2022).

The COVID-19 pandemic created many challenges to securing food access for people experiencing hunger (Bublitz et al. 2021). However, in some cases, these constraints led to creative program innovations including several that expanded healthy food access for seniors and children. State governments, policy entities, and emergency food network members should proactively share what they learned from their pandemic program innovations with each other as well as with policy makers. We advocate scaling these pandemic innovations wide by sharing and transferring insights, approaches, and promising practices to broaden their collective social impact (Nardini et al. 2022). Scaling wide through relationship networks involves sharing both tangible resources such as food as well as marketing toolkits and programmatic ideas that members of a group or network can customize to manage their organizations, promote programs, and deliver services. Scaling pandemic innovations wide will move us toward the goal of ending hunger.

Lessons Learned from the Pandemic

Food Equity. As we consider the lessons about food access gleaned from the COVID-19 pandemic, this research shines light on the truth that all food is not created equal. Access to a sufficient *quantity* of food is not adequate when it comes to ensuring people's health and well-being. Food policy and programs must provide equitable access to *high quality, nutritious* food. People living in underserved communities face

steep obstacles accessing food—and even steeper obstacles accessing healthy and nutritious food—because their communities are often food deserts devoid of grocery stores (Block et al. 2011; Bublitz et al. 2019). Seniors who lack transportation or experience limited mobility also face obstacles to food access. What’s more, the lack of nutritious food significantly impacts the health of seniors, who are more likely to have chronic diseases such as diabetes.

Barriers to nutritious food fuel not only health disparities (Satia 2009, USDA 2022d), but also economic and social inequality. They also stymie educational and earning opportunities (Victoria et al. 2008). When children are hungry, they cannot learn effectively, diminishing their opportunity to escape generational cycles of poverty (Burrows et al. 2017). Prior to the pandemic, research revealed that parents skimp on or skip meals so that their children can eat (Harvey 2016). Hungry adults cannot work productively to support their families’ economic independence (Popkin 1978). Poverty, then, is not only a cause of hunger, but also an outcome of hunger.

Equitable access to nutritious food is a critical component in creating a more just society. Providing not only food, but healthy food equity, is fundamental to building economic and social justice. In 2022, in response to the pandemic, the USDA shifted its focus to align with the goal of providing healthy and nutritious food equity for all via nutrition security, the “consistent access, availability, and affordability of foods and beverages that promote well-being, prevent disease, and, if needed, treat disease, particularly among racial/ethnic minority populations, lower income populations, and rural and remote populations including Tribal communities and Insular areas” (USDA 2022d, 1). In explaining why this shift to nutrition security is happening now, the USDA credits the pandemic with bringing long-standing food access and health disparities to the forefront. This policy shift to nutrition security is vital and offers societal value. Providing people with access to the nutritious foods they need to thrive is an investment in our nation’s future. According to US Secretary of Agriculture Tom Vilsack: “The COVID-19 pandemic brought food insecurity to the forefront of the national conversation and shined a new light on the devastating toll of chronic disease, with an estimated two-thirds of COVID hospitalizations in the United States related to diet-related diseases. Across the department we recognize that food and health are inherently intertwined, and we’re leaning into our powerful tools to help reduce chronic disease, advance equity and promote overall well-being. We look forward to working with our stakeholders to achieve this vision” (USDA 2022d).

Having seen the benefits of improved food access and reduced hunger, the United States should not regress to pre-pandemic policies that will push families back into the emergency food network. In fact, in 2022 as these pandemic anti-hunger policies and programs are expiring, food price inflation is at a 14-year high and is expected to keep rising (Wiesemeyer 2022). Eliminating pandemic anti-hunger policies and programs as inflation drives food prices higher and reduces families’ food purchasing power will spike hunger.

The USDA recognizes the opportunity to learn from this pandemic hunger reduction experiment and is working to create a better future. In 2021, the USDA announced a re-evaluation of the way it calculates SNAP benefits known as the Thrifty Food Plan, the first such change in more than 45 years. According to Vilsack: “A modernized Thrifty Food Plan is more than a commitment to good nutrition—it’s an investment in our nation’s health, economy, and security. Ensuring low-income families have access to a healthy diet helps prevent disease, supports children in the classroom, reduces health care costs, and more. And the additional money families will spend on groceries helps grow the food economy, creating thousands of new jobs along the way” (USDA 2021d).

The result for families was an increase in SNAP benefits that took effect in January 2022, just as emergency benefits allocated during the pandemic ended (USDA 2021d). However, small increases in program benefits may not be enough to stave off hunger. An examination of food access reveals that discontinuation of the US Advance Child Tax Credits in January 2022 was “associated with a 25% increase in household food insufficiency by early July 2022” (Bovell-Ammon et al. 2022).

Pandemic-related innovations within the emergency food network continue to grow in ways that support food equity. For example, HTF’s Senior Stockbox program is serving as a model for more innovations. To meet the food needs of Afghan refugees relocated to southeastern Wisconsin in spring 2022, HTF created customized family food boxes containing Halal foods that align with these families’ religious and cultural practices. This effort illustrates how initiatives innovated during the pandemic can be expanded to provide equitable food access.

Reducing Stigma. Another lesson brought to light by the COVID-19 pandemic is the need to eliminate a deep-rooted barrier to food equity: stigma. Consider the experience of “lunch shaming,” in which schools offer two parallel lunch lines—one for kids eligible for free and reduced-price lunch and one for other students—or serve different meals to kids

who eat free and reduced-price lunch (Downey 2020). These practices stigmatize students who rely on these programs, triggering some to skip lunch entirely to avoid the stigma associated with these programs (Pogash 2008). In 2021, there was an increase in communities and legislators advocating for universal free lunch, regardless of ability to pay. Maine and California have adopted such programs (Food Research and Action Center 2021a), and several US representatives and senators have introduced the Universal School Meals Program Act in an attempt to make universal free school lunch a federal policy (Food Research and Action Center 2021b). By reducing the stigma associated with free and reduced-price school lunch, universal free lunch programs could have substantial positive impact on children's and youth's well-being. Research shows that universal free meal programs reduce hunger (Gross et al. 2019), improve academic performance (Cohen et al. 2021), and even boost future earnings (Lundborg, Rooth, and Alex-Petersen 2022). Historical data on the implementation of universal free lunch in Sweden demonstrate that "pupils exposed to the program during their entire primary school period have 3 percent greater lifetime earning" (Lundborg et al. 2022, 876).

Unfortunately, however, such policy shifts aimed at increasing food equity and reducing stigma face significant opposition in the political and public spheres. For example, a bill promoting universal free school lunch in Wisconsin did not even receive a hearing (Krumholz 2022). When considering whether to opt-in to universal free lunch, a Wisconsin school board member suggested that free lunches would cause kids to become "spoiled" (Linnane 2021). To the contrary, investments in food equity produce positive economic returns, preserve people's dignity, and fuel local economies (Canning and Stacy 2019; Russell, Leonard, and O'Rourke 2020). An examination of initiatives adopted during the pandemic to improve access to food, particularly for children, highlight ways to achieve positive outcomes, if barriers can be overcome.

Future Research and Call to Action

To disarm these obstacles to food access and equity in the political and public realms, future research should further document how public policy can improve collective well-being (Block et al. 2022). Researchers should also explore how we can encourage more people to support scientifically backed public policy. During the pandemic, we witnessed how fully funded federal policies supporting food access and equity have unmatched power to create a better society for all. Our

academic-nonprofit research partnership with Milwaukee's Hunger Task Force was vital to revealing these contributions. We call on more researchers to engage directly with nonprofit and public policy stakeholders as they investigate societal challenges and public policy solutions with the potential to enact transformative change. (Bublitz et al. 2022; Ozanne et al. 2017). As documented in this article, the anti-hunger policy investments adopted during the pandemic, and other similar policy investments, must prevail in the "next normal" if we are to provide healthy and affordable food access for all, and ultimately, end hunger.

REFERENCES

- Arango, Tim (2020), "Just Because I Have a Car Doesn't Mean I Have Enough Money to Buy Food," *New York Times*, September 3, <https://www.nytimes.com/2020/09/03/us/food-pantries-hunger-us.html?smid=url-share>.
- Balch, Bridget (2020), "54 Million People in America Face Food Insecurity During the Pandemic: It Could Have Dire Consequences for Their Health," Association of American Medical Colleges, October 15, <https://www.aamc.org/news-insights/54-million-people-america-face-food-insecurity-during-pandemic-it-could-have-dire-consequences-their>.
- Bartfeld, Judith S., Lawrence Berger, Fei Men, and Yiyu Chen (2019), "Access to the School Breakfast Program Is Associated with Higher Attendance and Test Scores among Elementary School Students," *Journal of Nutrition*, 149 (2), 336–43.
- Bartfeld, Judith, and J. Michael Collins (2017), "Food Insecurity, Financial Shocks, and Financial Coping Strategies among Households with Elementary School Children in Wisconsin," *Journal of Consumer Affairs*, 51 (3), 519–48.
- Block, Lauren G., Sonya A. Grier, Terry L. Childers, Brennan Davis, Jane E. J. Ebert, Shiriki Kumanyika, Russell N. Laczniak, et al. (2011), "From Nutrients to Nurturance: A Conceptual Introduction to Food Well-Being," *Journal of Public Policy and Marketing*, 30 (1), 5–13.
- Block, Lauren, Beth Vallen, and Luk Warlop (2022), "Consumer Centered Policy Inquiries: A Call to Explore Policy through a Consumer Lens and Consumers through a Policy Lens," *Journal of Public Policy and Marketing*, 41 (3) 216–22.
- Borsch, Anita, and Unni Kjaernes (2016), "The Prevalence and Risk of Food Insecurity in the Nordic Region: Preliminary Results," *Journal of Consumer Policy*, 39 (2), 261–74.
- Bottemiller Evich, Helena (2021), "Could COVID-19 Finally End Hunger in America?" *Politico*, September 9, <https://www.politico.com/news/2021/09/09/covid-end-hunger-america-509226>.
- Bovell-Ammon, Allison, Nicole C. McCann, Martha Mulugeta, Stephanie Ettinger de Cuba, Julia Raifman, and Paul Shafer (2022), "Association of the Expiration of Child Tax Credit Advance Payments with Food In-sufficiency in US Households," *JAMA Network Open*, 5 (10), e2234438.
- Bublitz, Melissa G., Natalie Czarkowski, Jonathan Hansen, Laura A. Peracchio, and Sherrie Tussler (2021), "Pandemic Reveals Vulnerabilities in Food Access: Confronting Hunger Amidst a Crisis," *Journal of Public Policy and Marketing*, 40 (1), 105–7.
- Bublitz, Melissa G., Jonathan Hansen, Laura A. Peracchio, and Sherrie Tussler (2019), "Hunger and Food Well-Being: Advancing Research and Practice," *Journal of Public Policy and Marketing*, 38 (2), 136–53.

- Bublitz, Melissa G., Laura Peracchio, Brennan Davis, Jennifer Edson Escalas, Jonathan Hansen, Elizabeth Miller, Beth Vallen, and Tiffany White (2022), "Stronger Together: Developing Research Partnerships with Social Impact Organizations," *Journal of Consumer Affairs*, 56 (3), 1028–45.
- Burrows, Tracy, Sharni Goldman, Kirrilly Pursey, and Rebecca Lim (2017), "Is There an Association between Dietary Intake and Academic Achievement: A Systematic Review," *Journal of Human Nutrition and Dietetics*, 30 (2), 117–40.
- Canning, Patrick, and Brian Stacy (2019), "The Supplemental Nutrition Assistance Program (SNAP) and the Economy: New Estimates of the SNAP Multiplier," US Department of Agriculture, https://www.ers.usda.gov/webdocs/publications/93529/err265_summary.pdf?v=429.3.
- Choi, Annette (2021), "What COVID-19 Taught America about Food and Hunger, in 5 Charts," *Politico*, September 9, <https://www.politico.com/news/2021/09/09/coronavirus-america-food-hunger-charts-509229>.
- Cohen, Juliana F. W., Amelie P. Hecht, Gabrielle M. McLoughlin, Lindsey Turner, and Marlene B. Schwartz (2021), "Universal School Meals and Associations with Student Participation, Attendance, Academic Performance, Diet Quality, Food Security, and Body Mass Index: A Systematic Review," *Nutrients*, 13 (3), 911–42.
- Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh (2017), "Household Food Security in the US in 2016," Report ERR-237, Washington, DC: Economic Research Service, US Department of Agriculture, <https://www.ers.usda.gov/publications/pub-details/?pubid=84972>.
- (2020), "Statistical Supplement to Household Food Security in the United States in 2019," Report AP-084, Washington, DC: Economic Research Service, US Department of Agriculture, <https://www.ers.usda.gov/webdocs/publications/99289/ap-084.pdf?v=5230>.
- Downey, Meghan (2020), "No Such Thing as a Stigma-Free Lunch," *Regulatory Review*, October 21, <https://www.theregreview.org/2020/10/21/downey-no-such-thing-stigma-free-lunch/>.
- Dreze, Jean, and Amartya Sen (1989), *Hunger and Public Action*, Oxford: Oxford University Press.
- Fletcher, Jason M., and David E. Frisvold (2017), "The Relationship between the School Breakfast Program and Food Insecurity," *Journal of Consumer Affairs*, 51 (3), 481–500.
- Food Research and Action Center (2021a), "School Meals Legislation and Funding by State," February, <https://frac.org/wp-content/uploads/School-Meals-State-Legislation-Chart.pdf>.
- (2021b), "Support the Universal School Meals Program Act of 2021," May, <https://frac.org/wp-content/uploads/cnr-support-the-universal-school-meals-program-act-2019-1.pdf>.
- Graham, Judith (2020), "Amid Pandemic, Programs Struggle to Reach Vulnerable Seniors Living at Home," *Kaiser Health News*, March 18, <https://khn.org/news/as-coronavirus-surges-programs-struggle-to-reach-vulnerable-seniors-living-at-home/>.
- Gross, Susan Michelle, Tam Lynne Kelley, Mary-Catherine Augustyn, Michael J. Wilson, Karen Bassarab, and Anne Palmer (2019), "Household Food Security Status of Families with Children Attending Schools That Participate in the Community Eligibility Provision (CEP) and Those with Children Attending Schools That Are CEP-Eligible, but Not Participating," *Journal of Hunger and Environmental Nutrition*, 16 (2), 281–96.
- Harvey, Kate (2016), "When I Go to Bed Hungry and Sleep, I'm Not Hungry: Children and Parents' Experiences of Food Insecurity," *Appetite*, 99 (April), 235–44.
- Hunger Task Force (2022a), "2021 Annual Report," <https://www.hunger-taskforce.org/2022/02/07/2021-annual-report/>.
- (2022b), "Audited Financial Statement," <https://www.hungertaskforce.org/what-we-do/financials/>.
- Kahn, Kenneth B. (2018), "Understanding Innovation," *Business Horizons*, 61 (3), 453–60.
- Krumholz, Ben (2022), "State Bill Would Make Free School Meals Permanent in Wisconsin," *Fox 11 News*, April 10, <https://fox11online.com/news/crisis-in-the-classroom/state-bill-would-make-free-school-meals-permanent-in-wisconsin>.
- Linnane, Rory (2021), "Every Eligible Wisconsin School District Is Providing All Students Free Meals This Year. Except Waukesha," *Milwaukee Journal Sentinel*, August 30, <https://www.jsonline.com/story/news/education/2021/08/25/waukesha-students-there-really-no-such-thing-free-lunch/5573671001/>.
- Loveless, Tracy A. (2020), "About a Third of Families Who Received Supplemental Nutrition Assistance Program Benefits Had Two or More People Working," *US Census Bureau*, July 21, <https://www.census.gov/library/stories/2020/07/most-families-that-received-snap-benefits-in-2018-had-at-least-one-person-working.html#:~:text=Work%20Patterns%20Vary%20by%20Family,for%20many%20U.S.%20working%20families>.
- Lubrano, Alfred (2019), "Most Voters in Both Parties Support Increasing Food Stamps for Those in Poverty, Poll Finds," *Philadelphia Inquirer*, November 27, <https://www.inquirer.com/news/trump-food-stamps-poverty-impeachment-holiday-20191127.html>.
- Lundborg, P., D. O. Rooth, and J. Alex-Petersen (2022), "Long-Term Effects of Childhood Nutrition: Evidence from a School Lunch Reform," *Review of Economic Studies*, 89 (2), 876–908.
- Minter, Adam (2022), "America's Hunger Pandemic Is Getting Worse," *Bloomberg*, January 2, <https://www.bloomberg.com/opinion/articles/2022-01-02/america-s-hunger-pandemic-is-still-getting-worse>.
- Moreau, C. Page, and Darren Dahl (2005), "Designing the Solution: The Impact of Constraint on Consumers' Creativity," *Journal of Consumer Research*, 32 (1), 13–22.
- Nardini, Gia, Melissa G. Bublitz, Caitlin Butler, Staci Croom-Raley, Jennifer Edson Escalas, Jonathan Hansen, and Laura A. Peracchio (2022), "Scaling Social Impact: Marketing to Grow Nonprofit Solutions," *Journal of Public Policy and Marketing*, 41 (3) 254–76.
- NCOA (National Council on Aging) (2021), "Pandemic-Related Hunger among Older Adults Is Here to Stay," July 13, <https://www.ncoa.org/article/pandemic-related-hunger-among-older-adults-is-here-to-stay>.
- Ozanne, Julie L., Brennan Davis, Jeff B. Murray, Sonya Grier, Ahmed Benmecheddal, Hilary Downey, Akon E. Ekpo, et al. (2017), "Assessing the Societal Impact of Research: The Relational Engagement Approach," *Journal of Public Policy and Marketing*, 36 (1), 1–14.
- Picchi, Aimee (2020), "Hungry with Children: 1 in 3 US Families with Kids Don't Have Enough Food," *CBS News*, September 22, <https://www.cbsnews.com/news/child-hunger-1-in-3-families-with-kids-dont-have-enough-food/>.
- Pogash, Carol (2008), "Free Lunch Isn't Cool, So Some Students Go Hungry," *New York Times*, March 1, <https://www.nytimes.com/2008/03/01/education/01lunch.html>.
- Popkin, Barry M (1978), "Nutrition and Labor Productivity," *Social Sciences and Medicine: Medical Economics*, 12 (1–2), 117–25.
- Reiley, Laura (2020), "Full Fields, Empty Fridges," *Washington Post*, April 23, <https://www.washingtonpost.com/business/2020/04/23/fixing-food-dumping-food-banks/>.
- Rosen, Rebecca J. (2015), "The Too Good Life," *The Atlantic*, September 17, <https://www.theatlantic.com/business/archive/2015/09/mcconnell-welfare-work/626586/>.

- Russell, Matt, Robert Leonard, and Beto O'Rourke (2020), "Americans Are Lining Up for Food: What Is Team Trump Doing?" *New York Times*, May 4, <https://www.nytimes.com/2020/05/04/opinion/coronavirus-food-stamps.html>.
- Satell, Greg (2017), "The 4 Types of Innovation and the Problems They Solve," *Harvard Business Review*, June 21.
- Satia, Jessie A. (2009), "Diet-Related Disparities: Understanding the Problem and Accelerating Solutions," *Journal of the American Dietetic Association*, 109 (4), 610–15.
- Shay, Elizabeth, Tabitha S. Combs, Daniel Findley, Carl Kolosna, Michelle Madeley, and David Salvesen (2016), "Identifying Transportation Disadvantage: Mixed-Methods Analysis Combining GIS Mapping with Qualitative Data," *Transport Policy*, 48 (May), 129–38.
- Turner, Lindsey, and Frank J. Chaloupka (2015), "Continued Promise of School Breakfast Programs for Improving Academic Outcomes: Breakfast Is Still the Most Important Meal of the Day," *JAMA Pediatrics*, 169 (1), 13–14.
- USDA (2013), "School Breakfast Program History," July 24, <https://www.fns.usda.gov/sbp/program-history>.
- (2016), "Area Eligibility in Child Nutrition Programs," December 1, <https://www.fns.usda.gov/cn/area-eligibility-child-nutrition-programs>.
- (2019a), "CSFP Fact Sheet," July 1, <https://www.fns.usda.gov/csfp/csfp-fact-sheet>.
- (2019b), "National School Lunch Program (NSLP) Fact Sheet," March 20, <https://www.fns.usda.gov/nslp/nslp-fact-sheet>.
- (2021a), "About WIC," July 27, <https://www.fns.usda.gov/wic/about-wic>.
- (2021b), "Supplemental Nutrition Assistance Program: Students," March 25, <https://www.fns.usda.gov/snap/students>.
- (2021c), "USDA Issues Pandemic Flexibilities for Schools and Day Care Facilities through June 2022 to Support Safe Reopening and Healthy, Nutritious Meals," <https://www.usda.gov/media/press-releases/2021/04/20/usda-issues-pandemic-flexibilities-schools-and-day-care-facilities>.
- (2021d), "USDA Modernizes the Thrifty Food Plan, Updates SNAP Benefits," <https://www.usda.gov/media/press-releases/2021/08/16/usda-modernizes-thrifty-food-plan-updates-snap-benefits>.
- (2022a), "FNS Nutrition Programs," <https://www.fns.usda.gov/programs>.
- (2022b), "Supplemental Nutrition Assistance Program," April 8, <https://fns-prod.azureedge.us/sites/default/files/resource-files/34SNAP-monthly-4.pdf>.
- (2022c), "Supplemental Nutrition Assistance Program Participation and Costs," April 8, <https://fns-prod.azureedge.us/sites/default/files/resource-files/SNAPsummary-4.pdf>.
- (2022d), "USDA Actions on Nutrition Security," March, <https://www.usda.gov/sites/default/files/documents/usda-actions-nutrition-security.pdf>.
- (2022e), "What Is FNS Doing to Fight SNAP Fraud?" June 27, <https://www.fns.usda.gov/snap/integrity/fraud-FNS-fighting>.
- Victoria, Cesar G., Linda Adair, Caroline Fall, Pedro C. Hallal, Reynaldo Martorell, Linda Richter, and Harshpan Singh Sachdev (2008), "Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital," *Lancet*, 371 (1906), 340–57.
- Walter, Andrew (2012), "Food Assistance Landscapes in the US," in *Food and Famines in the 21st Century*, ed. William A. Dando, Santa Barbara, CA: ABC-CLIO, 171–81.
- Wiesemeyer, Jim (2022), "USDA 2022 Food Price Inflation Forecasts Already at 14-Year High," *Ag Web Farm Journal*, April 26, <https://www.agweb.com/news/policy/politics/usda-2022-food-price-inflation-forecasts-already-14-year-high-expected-rise>.
- Wisconsin Department of Health Services (2021a), "FoodShare Wisconsin Data," <https://www.dhs.wisconsin.gov/foodshare/rsdata.htm>.
- (2021b), "Pandemic Electronic Balance Transfer (P-EBT) Announcements," October 26, <https://content.govdelivery.com/accounts/WIDHS/bulletins/2f921dc>.
- (2022), "FoodShare at a Glance: March 2022," <https://www.dhs.wisconsin.gov/foodshare/ata glance202203.pdf>.