

Nutrition Assistance and the Commercial and Concessional Food Environment

AAEA Virtual Organized Symposium

Tuesday, July 18, 2023, 1:30-5:00 PM US Eastern time

<https://us06web.zoom.us/j/88157237279?pwd=OFBibTdjS1RBVE9oVGZaemNTNzIzZz09>

Agricultural and applied economics research on food purchase and consumption behaviors and on government nutrition assistance programs (e.g., SNAP, school meals, WIC) has long informed public policy. Yet a surprisingly limited body of research explores the integration of commercial and concessional (i.e., free or subsidized) food distribution channels, or of both public and private food assistance programs, to study resource-limited households' food procurement behaviors. Especially in a Farm Bill year, applied economics research to improve our understanding of how food and nutritional assistance policies and programs affect resource-limited households' use of the private and public food distribution channels accessible to them can be especially impactful. This virtual organized symposium brings together scholars working in these areas of intersection to showcase new work. The format is meant to spark dialogue around policy-oriented research, to foster new collaborations within the broader research community, to call attention to new and emergent data sources, and to help inform pressing policy debates.

This symposium opens with a senior USDA ERS economist framing the policy context of the research issues related to federal nutrition assistance programs. That will be followed by a series of short talks that summarize current research under this broad theme, with a couple of breaks for questions, answers and general discussion among the presenters and the audience around this broad research domain. We have prioritized presentations by early career researchers, especially those from communities traditionally underrepresented in the AAEA community.

(Presenters' names in **bold**)

1:30-1:35: *Welcome by organizer/moderator: **Chris Barrett**, Cornell University*

1:35-1:50: *"How the Farm Bill Affects The Food Resources of Low-Income Households in the U.S.", **Laura Tiehen**, USDA Economic Research Service*

The Farm Bill is comprehensive legislation that authorizes federal programs that provide food assistance to low-income households in the U.S., including the Supplemental Nutrition Assistance Program (SNAP), the cornerstone of U.S. food assistance. The legislation also authorizes programs tailored to specific populations, such as the Federal Distribution Program on Indian Reservations (FDPIR). In addition to federal food assistance programs, it authorizes funding for The Emergency Food Assistance Program (TEFAP), which provides USDA foods

and administrative funds to private, nonprofit food providers such as food banks. The Farm Bill also influences many aspects of the food environment that low-income households face, including in local communities and at school. The Farm Bill is scheduled to be reauthorized in 2023, and this presentation will provide an overview of the legislation's most significant food programs and policies that affect low-income households in the U.S. It will highlight critical areas where research is needed to inform federal policymaking and discuss the opportunities and challenges to ensuring that research evidence translates to policy improvements.

1:50-2:00: *"The Relationship Between Public and Private Food Assistance: Evidence from FoodAPS," Lauren Miller, USDA ERS, (Co-Author: Elina T. Page, USDA ERS)*

Low-income households often combine their own resources with public and private food assistance to meet their household food needs. However, household expenditure surveys often overlook foods acquired for free. The National Household Food Acquisition and Purchase Survey (FoodAPS) is the only national survey that was designed to collect nationally-representative household data on foods obtained from all sources, regardless of whether the food was purchased, free, or obtained using public food assistance benefits. The first round of the survey (FoodAPS-1; fielded in 2012) demonstrated the importance of having comprehensive data on both free foods and foods purchased using food assistance. FoodAPS-1 found that nearly 30 percent of acquisition events for households that participate in the Supplemental Nutrition Assistance Program (SNAP) were free food events. Free foods may come from private food assistance sources such as food banks and pantries, but also from sources such as family and friends, schools, gardening, and workplaces. This presentation will give an overview of key research findings related to the dynamics of free foods and public food assistance using FoodAPS-1 data. We will also discuss the importance and challenges of collecting comprehensive food acquisition data and preview development plans for FoodAPS-2.

2:00-2:10: *"Welfare Implications of Increased Retailer Participation in SNAP," Anne Byrne, USDA ERS (Co-Authors: Xiao Dong, USDA ERS, Jessie Handbury Penn, Erik James, Penn, Katherine Meckel, UC San Diego)*

The Supplemental Nutrition Assistance Program (SNAP) requires stores to be authorized to accept benefits. The number of stores that accept SNAP has grown over the program's history. In the aftermath of the Great Recession, select retail chains adopted SNAP en masse. We estimate how households value SNAP acceptance. We use the estimated demand system to quantify the welfare benefit of the SNAP adoptions that occurred between 2009 and 2015. This quantification is limited in that it assumes that the only benefits are via improved access to SNAP accepting stores. We therefore also ask whether these benefits could be magnified or attenuated by associated adjustments in the healthfulness of household purchases and the prices charged and products offered by retailers as new stores start competing for SNAP dollars.

2:10-2:20: *"Food Pantry Service Count and SNAP Retailer Proximity: A Spatial Analysis," Zixia Huang, Cornell University (Co-Authors: Christopher B. Barrett, John Hoddinott and Kelsey Schreiber, Cornell University)*

Food assistance programs use existing retailer networks, collaborate with local agencies, or build up their own distribution sites to serve food-insecure households. But there is limited evidence on the spatial distribution of these outlets and how that impacts food assistance program usage. In this paper we combine multiple data sources to study the spatial distribution of food pantries and authorized retailers of the Supplemental Nutrition Assistance Program (SNAP) and its impact on food pantry monthly service count. We do not find significant associations between pantry existence and socioeconomic indicators at the census tract level; however, pantry-level analysis reveals that monthly food pantry service count is significantly positively correlated with its distance to the nearest SNAP grocery store. One additional mile driving to the nearest SNAP grocery store from a pantry is, on average, associated with a 12% increase in pantry monthly service count. This association is heterogeneous with respect to whether a pantry is located in an urban or rural area and pantry type.

2:20-2:30: *“Dollar Stores, SNAP Authorization, and Food Access,” Lauren Chenarides, Colorado State University, and **Charlotte Ambrozek**, University of Minnesota*

Studies on food accessibility, and the causes and consequences of poor food access on food assistance use, diet, and health, have focused predominantly on households' access to supermarkets and large grocery stores, as these retailers are important places where SNAP participants can redeem their benefits. Research has shown, however, that other retail formats, including dollar stores, are an important venue where SNAP participating households may redeem food assistance dollars. Many dollar stores accept food assistance benefits in the form of SNAP, and, in the absence of food retailers that generally carry a wider assortment of fruits and vegetables at affordable prices, some consumers may only be able to utilize their benefits at dollar stores, which locate in low-income, low-access areas. Following the 2016 rule that increased stocking requirements (“Enhancing Retailer Standards in the Supplemental Nutrition Assistance Program”), little empirical evidence explains how this policy change impacted the set of SNAP-authorized firms, including dollar stores, and participants. In this paper, we examine how the 2016 final rule affected the composition of SNAP-authorized retailers, as measured by overall counts, location, and store format, as well as incumbent store counts and revenue. We ask whether certain formats that are more likely to appear in areas with higher concentrations of food-insecure, SNAP-eligible households were more likely to become unauthorized after the policy change. We use a unique linked data set to estimate the effects of the policy on retailer authorization. We begin by linking the universe of retail establishments from the TDLinX Store Characteristics data, a product of AC Nielsen, with the list of SNAP-authorized food retailers in the Store Tracking and Redemption System (STARS) from the USDA's Food and Nutrition Service (FNS). We estimate policy effects using a difference-in-difference approach with panel data on SNAP-authorized retailers. We examine effects on subgroups, including rural areas and low-access areas. Using a time-varying measure of food accessibility we identify areas with persistent food access challenges, where supermarkets and large grocery stores have been absent for the entire study period (2004-2019), and track changes in SNAP retailer authorizations before, during, and after the changes in SNAP eligibility stocking requirements. Our findings suggest that dollar stores serve as an incentive-compatible solution to moderating food insecurity, particularly in areas with a greater density of SNAP-eligible households and where supermarkets and large grocery stores are not profitable and thus do not exist. This

paper provides insight into the accessibility of public food assistance through private food retailers. Ultimately, local food retail competition, pricing outcomes, and the proliferation of non-traditional retailers can support food security for all. Dollar stores appear to have upheld the standards set forth by the 2016 changes in eligibility requirements, while other formats, like small grocery stores, have not. These results suggest that large-scale retail chains play a pivotal role in meeting SNAP-participating households' food needs.

2:30-2:50: General discussion and Q&A

2:50-3:00: *“Estimating the Relationship between Local Broadband Access and Online Grocery Purchasing among SNAP and non-SNAP Households: Evidence from Mississippi,”* **Will Davis**, Mississippi State University (Co-Authors: Jordan Jones, ERS; David Buys and Elizabeth Canales, Mississippi State University)

In 2019, SNAP participants in certain states were first allowed to use their benefits to purchase groceries online through the SNAP Online Purchasing Pilot (SOPP) program. The SOPP program was quickly expanded during the COVID-19 pandemic to SNAP participants living in all US states. In light of the program's recent expansion, understanding the barriers and determinants of households' online grocery purchasing decision is key to evaluating the effectiveness and potential impact of the SOPP and similar programs. One of these potential determinants is broadband access. We analyze the relationship between local broadband access and self-reported online grocery purchasing by combining local-level broadband access data from the FCC with a novel state-representative survey of adults in Mississippi, a state with one of the nation's lowest levels of broadband access. We use these data to estimate the effect of broadband access, individual- and household-level socioeconomic and demographic characteristics, self-reported internet access and quality, perceived barriers to purchasing groceries online, and government nutrition assistance program participation status on the likelihood of purchasing groceries online before and after the start of the COVID-19 pandemic. These effects are estimated for the set of all households in the survey as well as the sub-sample of SNAP participating households. Our results provide valuable, policy relevant information on the barriers and determinants of online grocery purchasing in Mississippi among SNAP and non-SNAP households.

3:00-3:10: *“Measuring Participation in SNAP and Charitable Food Assistance Programs,”* **Craig Gundersen**, Baylor University (Co-Authors: Emily Engelhard, Tom Summerfelt, Monica Hake, and Adam Dewey, Feeding America)

The two largest sources of free meals in the U.S. are the Supplemental Nutrition Assistance Program (SNAP) and charitable food assistance (CFA). We know how many meals are distributed via these programs and we know the number of SNAP recipients and, with less certainty, the number of CFA recipients. What we don't know, though, is joint participation in SNAP and CFA. The underreporting of SNAP in major surveys is well established and the same holds for CFA. Consequently, at least based on self-reports of SNAP and CFA receipt, who participates in both programs, one program, or neither is not observable. Along with limiting our understanding of joint participation in these programs, it limits our understanding of

the impact of these programs individually and together on food insecurity and other outcomes. In this paper, we use data from the 2009 to 2021 December Supplement of the Current Population Survey (CPS) to establish bounds on participation in SNAP, CFA, and both programs. The lower bounds for participation are based on self-reports within the surveys. The upper bounds on SNAP and CFA are established via administrative records (for SNAP) and administrative and survey records (for CFA). What is not known, though, are who are report not receiving both SNAP or CFA but are on these programs. Based on assumptions that have been used in other contexts, we provide an array of potential distributions of recipients in each program. After establishing the lower-bound estimates of joint participation in SNAP and CFA based on self-reports, we then establish estimates of joint participation in the two programs based on our estimates of the distribution of participation by those who self-report not being recipients. Of particular importance in these estimates of joint participation is the distribution across demographic characteristics, especially those closely related to food insecurity.

3:10-3:20: “How do increases in SNAP benefits affect food pantry visits?” **Pradhyumna (Pat) Wagle**, Cornell University (*Co-Authors: Christopher B. Barrett, John Hoddinott and Kelsey Schreiber, Cornell University*)

This paper studies how Supplemental Nutrition Assistance Program (SNAP) benefit increases affects households' use of food pantries. We merge administrative data on SNAP benefits and food pantry use from 2018 to 2021 in a six-county region in upstate New York. We exploit exogenous variation in the timing and magnitude of SNAP benefit increases among program participants to study changes in the frequency of food pantry visits. We find that increased SNAP benefits are negatively and significantly associated with food pantry visits, but the magnitudes are very low, suggesting SNAP benefits expansions like the ones in March 2020 and December 2020 were insufficient to decrease food pantry visits significantly.

3:20-3:30: “Food Retailers and SNAP: Who Captures the Federal Food Dollar?” **Jessie Handbury**, University of Pennsylvania (*Co-Authors: Lin Fan, London School of Economics, Ryan Hastings, University of Pennsylvania, Ilya Rahkovsky, Georgetown, Erik Scherpf, ERS USDA*)

SNAP benefits buy 14 cents of every dollar spent on food in U.S. supermarkets. However, the effect of SNAP on the prices charged by food retailers is far from clear; the only two studies examining this issue find opposite results. We present a model of consumer store choice and retailer price-setting that can rationalize different price responses following an increase the per-recipient generosity of SNAP benefits than following an increase in the number of eligible households. Consumers face fixed travel costs when they choose to shop at local smaller “high price” retailers or larger, more disperse “every day low price” mass merchandisers. For new beneficiaries, SNAP benefits relieve liquidity constraints, making them more likely to switch to the distant mass merchandisers, who optimally respond by lowering prices to compete for SNAP dollars. However, when SNAP expands by increasing benefit size rather than enrollment, the increases are spread among more households and do not induce as much format switching;

retailers optimally increase prices to capture the increased benefits. We use microdata on SNAP transactions and retail prices, as well as state-level variation in the generosity of benefits along both the intensive and extensive margins, to test the predictions of the model. We will then estimate its key parameters to quantify the welfare effects of intensive and extensive margin program expansions, in terms of the surplus split by beneficiaries and retailers and their spillover effects on non-recipient households.

3:30-3:40: *“Overcoming paperwork paralysis: Encouraging SNAP enrollment through the reframing of enrollment requirements,”* **Minhao Yan**, Cornell University (Co-Authors: Shiyun Jiang, David R. Just, Cornell University)

Many households in the US qualify for food assistance through SNAP but fail to enroll. A substantial literature has explored the reasons households may choose not to enroll, exploring issues surrounding immigration status and social stigma surrounding welfare in general. The process for enrolling in SNAP is a several stage process, with most online descriptions of the process giving both long and vague lists of the required documentation and steps. In a pilot survey we find some evidence that the perceived complication and inconvenience of the process is a barrier for some households: 55.26% of the participants do not know the process of applying for SNAP; 45.62% of them are not sure whether they are eligible or not; And 78.95% of them want to support themselves instead of using SNAP. We describe an intervention among food pantry attendees. These households already seek out food assistance, but with much lower administrative requirements. Using an informational flyer, the enrollment process is described in simpler and more definitive terms. Exposure to the flyer is randomized at the household level, and a follow up survey used to test effectiveness in changing perceptions as well as actual enrollment.

3:40-4:00: General discussion and Q&A

4:00-4:10: *“Free School Meals and Demand for Community Food Resources,”* **Orgül Öztürk**, University of South Carolina (Co-authors: Pelin Pekgün, University of South Carolina, Krista Ruffini, Georgetown University)

Many community organizations provide services similar to government programs but there is little empirical evidence on how these systems interact. We examine how greater access to government nutritional aid through free school meals affects local food bank utilization by leveraging variation in the timing of schoolwide free meal programs and administrative data from the U.S.’s largest food bank network. Four complementary empirical approaches reveal a similar pattern: a 10 percentage point increase in free meal access reduces food bank use by 0.2-0.3 percent. Effects are larger in areas where relatively few students qualified for government aid based on family income.

4:10-4:20: *“What food pantry characteristics are worth the distance?”* **Medha Bulumulla**, Cornell University (Co-Authors: Christopher B. Barrett, John Hoddinott and Kelsey Schreiber, Cornell University)

Food pantries play a vital role in supporting the diets of food insecure people in the United States. Yet only 36.5% of food-insecure households utilize food pantries (*USDA ERS - Food Pantries*, n.d.). We use administrative data from the Food Bank of the Southern Tier (FBST), which serves 167 member food pantries in six upstate New York counties, to examine spatial patterns of households' food pantry use. The FBST data is matched with richer administrative data on public Supplemental Nutrition Assistance Program (SNAP) redemption to test which attributes of pantries and of SNAP beneficiaries best explain who do not access (i) any food pantry or (ii) the most proximate food pantry(ies) to their residence. We supplement the quantitative analysis with qualitative findings based on on-site interviews with food pantry clients to investigate resource-limited households' choice around food pantry use. We aim to determine if there are characteristics that explain the decision to attend a less proximate food pantry(ies) to improve the agencies and promote food pantry use.

4:20-4:30: *"The Effect of Pandemic EBT on Economic Well-being," Krista Ruffini, Georgetown University (Co-Authors: Lauren Bauer, Brookings Institution; Diane Whitmore Schanzenbach, Northwestern University)*

The COVID-19 pandemic led to widespread school closures in the 2019-20 and 2020-21 school years, resulting in the loss of free school meals for millions of children. The Pandemic-EBT program accounted for this forgone nutritional assistance by providing families with a grocery voucher, similar to SNAP, but program details and disbursement dates varied across states. This paper leverages cross-state variation in the rollout of Pandemic-EBT over the 2019-20 and 2020-21 school years matched to high-frequency data on food and economic hardship. We find that Pandemic EBT reduced food hardship among low-income families in both time periods. Future work will explore how the program affected household grocery purchases.

4:30-5:00: General discussion and Q&A

5:00: Close and thanks to participants