

Alexandra Ross, MHS and Shu Wen Ng, PhD

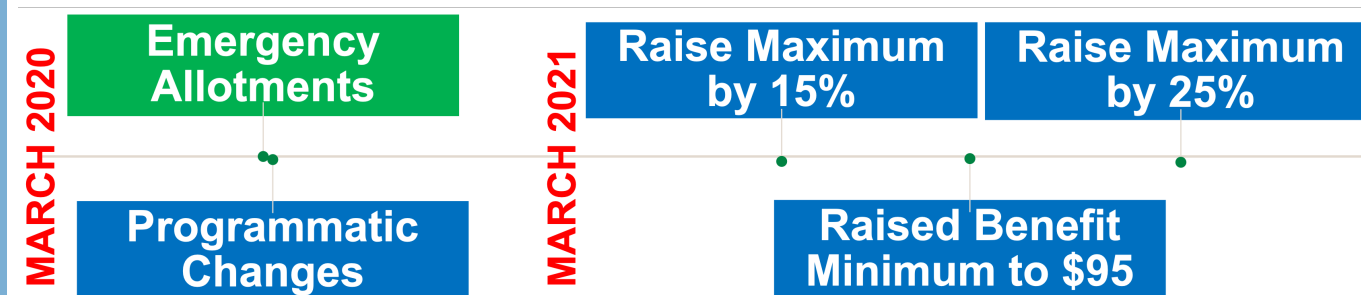
Carolina Population Center and Gillings School of Global Public Health, University of North Carolina at Chapel Hill; alexandra.ross@unc.edu, shuwen@unc.edu

Background

In 2019, 1.3 million (13% of) people in North Carolina (NC) were SNAP recipients. Emergency Allotments were dispersed to SNAP participants in March 2020 in response to growing concern for food security due to COVID-19.

Question: What are the differences in the quality of food purchases among SNAP and non-SNAP participants before and after the implementation of the emergency allotments in March 2020?

Changes in SNAP program since March 2020



Methods

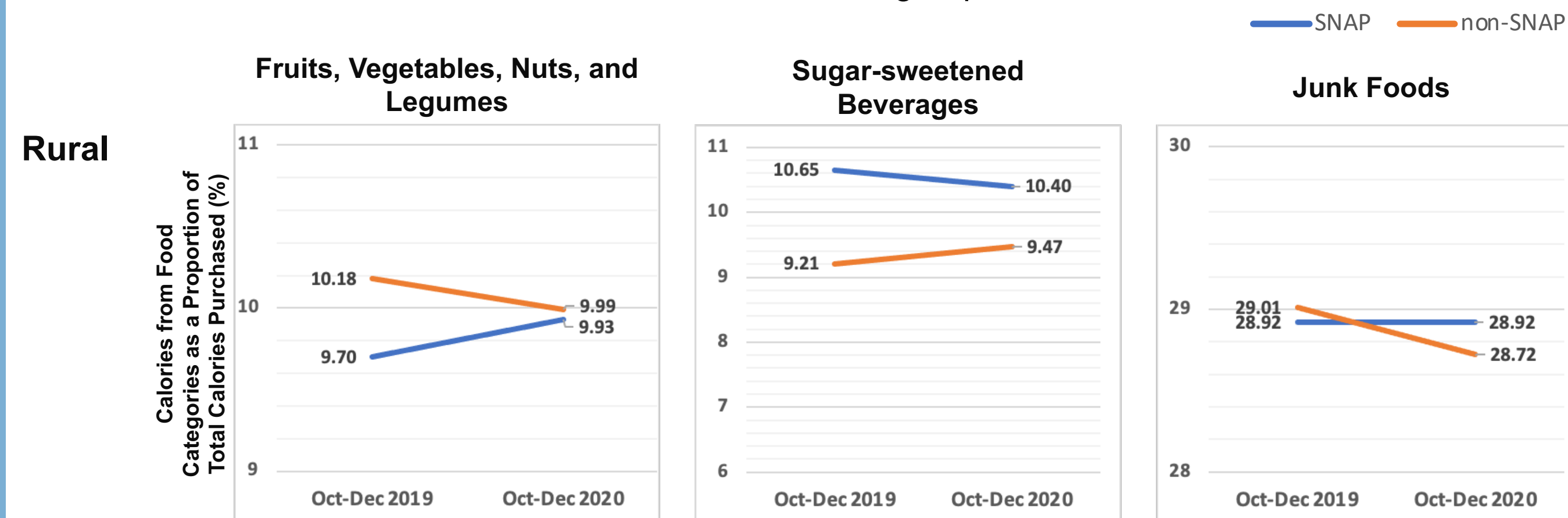
Data: Transaction data from a major chain grocery store with nearly 500 locations across NC from Oct 2019-Dec 2020.

Outcomes: Calories from fruits, vegetables, nuts, and legumes (FVNL), SSBs, and junk foods as a proportion of total calories (%)

Analysis: We applied a difference in differences approach using mixed models with clustering at the shopper level. Overlapping propensity weights accounted for potential selectivity into being on SNAP.

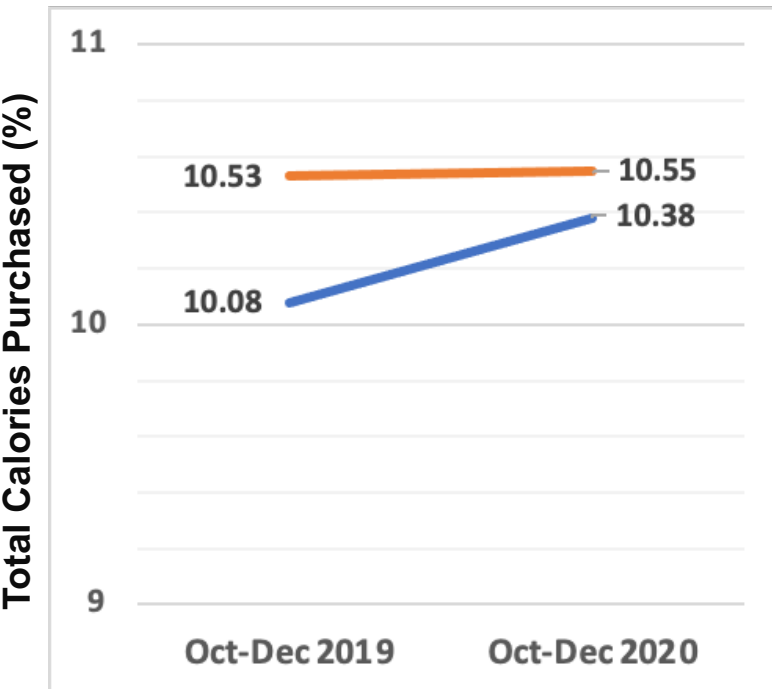
Results

- After expansions to SNAP in NC, there was an increase in the purchase of FVNL and decreases in purchase of sugar-sweetened beverages and junk foods among shoppers at a large chain grocery store in NC.
- Trends were generally similar between urban and rural areas for FVNL and junk foods; for SSBs, purchases for SSBs decreased in rural areas and increased in urban areas.
- Shoppers that did not use SNAP benefits in 2019 but used SNAP benefits in 2020 were also assessed, and their trends were similar to the SNAP groups shown below.

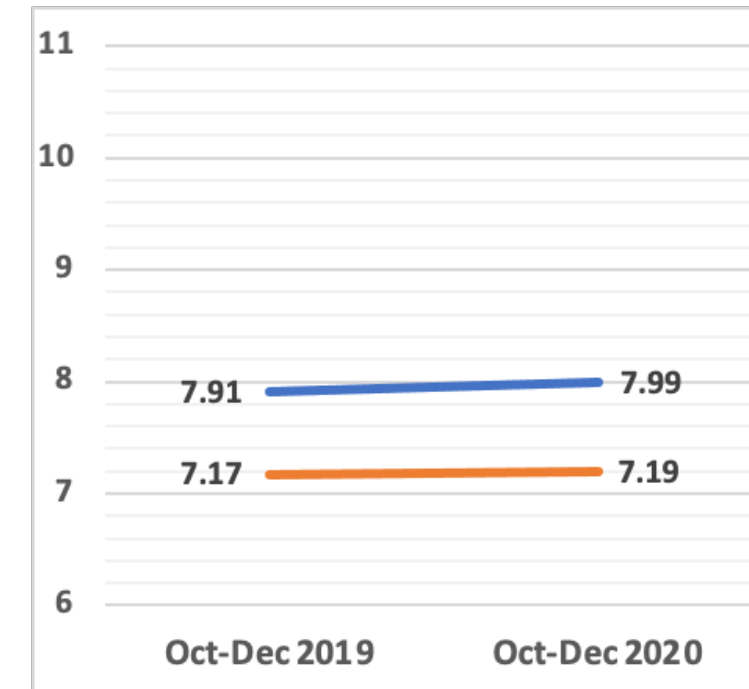


Urban

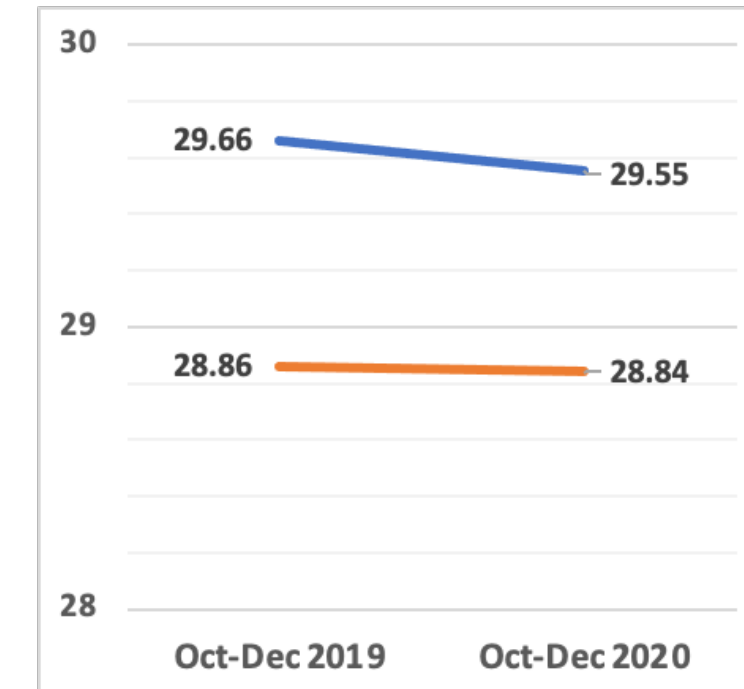
Difference in Differences



FVNL purchasing **increased** for SNAP participants by 0.4% pre/post COVID in rural areas, and 0.3% in urban areas



SSB purchasing **decreased** for SNAP participants by 0.5% pre/post COVID in rural areas, and **increased** 0.4% in urban areas



Junk food purchasing **increased** for SNAP participants by 0.3% pre/post COVID in rural areas, and 0.1% in urban areas, both **not statistically significant**.

Implications

- This is the first study to characterize and assess differences in SNAP and non-SNAP grocery purchasing before and since the COVID-19 pandemic and SNAP changes at a **state** level.
- Results suggest that the SNAP benefits increase may have helped mitigate impacts of the pandemic by improving the quality of food purchases among SNAP participants relative to non-SNAP shoppers.

Limitations:

- Data are only from one retailer
- Results reflect change in purchases, not dietary intake

Strengths:

- Objectivity of transaction data
- Ability to track the same shopper over time

Acknowledgements

Funding for this work came from the NC DHHS from their CARES Act allocation via a grant to Reinvestment Partners. Additional support came from the Carolina Population Center pilot grant (NIH P2C HD050924), building off earlier work funded by NC TraCS CTSA (UL1TR002489) with the Center for Health Equity Research at UNC. We thank the participating supermarket chain for sharing the transaction data, Amy Lo for research assistance, and Caitlin Lowery, and Emily Duffy for their comments.

References

- Center on Budget and Policy Priorities. North Carolina Food and Nutrition Services. https://www.cbpp.org/sites/default/files/atoms/files/snap_factsheet_north_carolina.pdf. Accessed November 30, 2021.
- Wozniak, A. (2021). COVID Impact Survey. https://www.brookings.edu/wp-content/uploads/2020/06/2c_Wozniak_safetynet.pdf. Accessed November 30, 2021.