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**Memorandum**

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To: Derek Wu & Neil Cholli

From: Dylan Craig

Date Created: 7/12/2024

Last Updated: 8/25/2024

Subject: SNAP County-Level Data Write-Up

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**Purpose**:

This research aims to uncover the relationship between heightened stigmatization of SNAP usage and its effects on SNAP enrollment rates and issuance amounts.

**Data Used:**

* Year-Month County level data on SNAP expenditures and enrollment rates
  + Retrieved from five states: Alabama, Arizona, New Jersey, New York, Virginia
* Local/state/national news stories of prominent SNAP fraud
* Monthly county-population estimates from the Census Bureau

**Methodology:**

To understand the relationship between SNAP stigma and SNAP enrollment or expenditures, we leverage the exogenous variation introduced by high-profile SNAP fraud stories, examining their impact on stigma within the treated counties across several states. This difference-in-difference design allows us to isolate the effects of increased stigma by comparing changes in SNAP enrollment and expenditures between treatment and control groups.

County-level data on SNAP expenditures and issuance rates for each analyzed state is collected on a monthly basis from the respective state's website. For each state, one prominent news story on SNAP fraud within a given county or counties is selected for analysis. During this search process, at most only a few relevant news stories were found per state.

*Initial Analysis:*

The prominent story serves as the exogenous variation in this model, and an event study is conducted comparing treatment groups (those expected to experience an increase in stigma) with control groups within the same state. The difference in trends in SNAP enrollment and issuance amounts is measured several years prior to and following the publication of the news story for each respective state.

For four out of five states, two treatment groups and two control groups exist[[1]](#footnote-1):

* Treatment Group A: The county where the story occurred
* Control Group A: The counties immediately surrounding the county where the story occurred
* Treatment Group B: The county where the story occurred and its immediately surrounding counties
* Control Group B: All other counties within the state, excluding the county where the story occurred and its immediately surrounding counties

In the event study, counties are weighted by population using Census Bureau estimates to ensure a more accurate comparison of averages. This approach accounts for population differences, providing a more precise measure of the impact of SNAP stigma on enrollment and issuance amounts.

*Additional Analysis:*

Beyond the state-specific event studies, we also conduct a comprehensive analysis by aggregating data from all five states. This aggregated analysis examines the impact of SNAP stigma across a broader spectrum, looking specifically at the 24 months before and after the publication of the prominent SNAP fraud stories (t-24 to t+24). By normalizing the differences at the event date and pooling the data, we gain a more robust understanding of the temporal effects of stigma on SNAP enrollment and issuance rates.

This additional analysis allows us to capture overarching trends that may not be evident when analyzing individual states in isolation, providing a more holistic view of the relationship between SNAP fraud stories and changes in SNAP program participation.

**Results and Discussion:**

If our assumption is correct—that a stigmatizing event like a high-profile welfare story affects SNAP recipiency and expenditures in the affected area—then we would expect to observe two things in the charts: 1) a horizontal line at zero before the event date, indicating that the trends between the treatment and control groups were similar, and 2) an upward or downward trend after the event date, suggesting that the event may have introduced stigma and prompted a response.

*Initial Analysis:*

Based on the initial analysis, it appears that either the first assumption didn’t hold, meaning the control counties may not yet be suitable comparisons, or while there was a parallel trend before the event, the continuation of that trend afterward suggests the event might not have had a significant effect. However, further analysis is needed to draw more definitive conclusions. This further analysis could involve adding additional controls or exploring different treatment and control groupings of the counties to better isolate the effects of the event.

*Additional Analysis:*

Add additional analysis here when R coding complete

**Next Steps:**

**Incorporation of Additional Controls:**

To refine our analysis and better isolate the effects of SNAP stigma on enrollment and expenditures, we could add the following controls to our model:

* **BEA Interactive Data Application ~ Regional Data:**
  + GDP by county, metro, and other areas
  + Employment by county, metro, and other areas
  + Personal income by county, metro, and other areas
* **Local Area Unemployment Statistics (LAUS):**
  + Labor force data by county
* **U.S. Census Bureau Data:**
  + SAIPE State and County Estimates for poverty and income
* **American Community Survey (ACS) Data:**
  + Small Area Health Insurance Estimates using ACS
* **USDA ERA County-Level Data Sets:**
  + County Typology Codes
* **BLS:**
  + Quarterly Census of Employment and Wages County High-Level

By integrating these controls, we aim to account for other economic and demographic factors that could influence SNAP participation, thereby providing a more robust and comprehensive analysis of the impact of SNAP fraud stories on program outcomes.

**Appendix Figures:**

*Initial Analysis:*

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1. Arizona’s Maricopa County is surrounded by all other counties in the state of Arizona. As a result, it can only be compared with the rest of the state. [↑](#footnote-ref-1)