

## Issue # 7: Numerator Data - Trends and Event Studies

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This Write-up contains tables and plots for trend and event study analyses of the Numerator data. The original user-trip-item level data is transformed to user- month level data, with variables summarized at the monthly level for each user. SNAP and Non-SNAP treatment is determined by SNAP participation rate of each user over the periods of the data ( $>0.5$  on SNAP;  $\leq 0.5$  Non-SNAP)

### 1. Figures: Monthly average of ...

- level/log total spending winsorized
- level/log Food spending winsorized
- level/log Food on EBT winsorized
- level/log Soda spending winsorized
- level/log Soda on EBT winsorized
- prop. food spending
- prop. food on EBT
- prop. soda
- prop. soda on EBT
- level/log soda spending by SNAP/Non-SNAP
- level/log soda spending by state  $\times$  SNAP

### 2. Figures: Event Studies

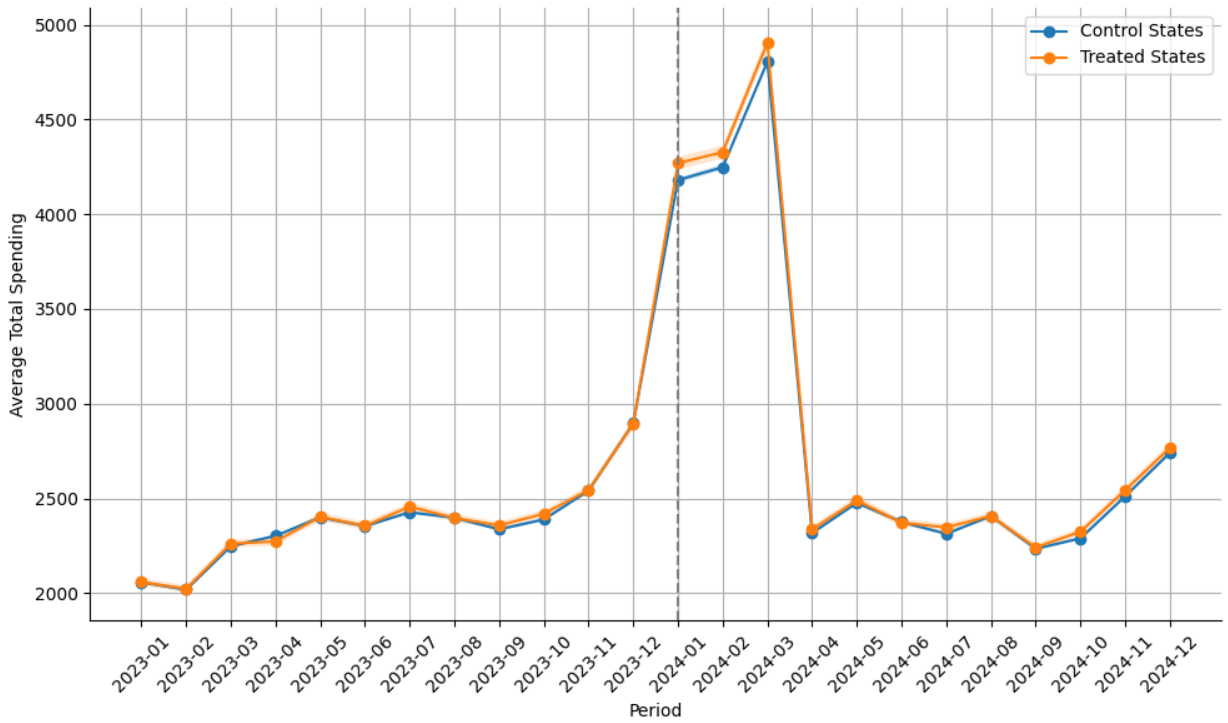
- level/log soda spending winsorized
- level/log soda spending by SNAP  $\times$  post (conditional on treated states)
- level/log soda spending DDD

### 3. Tables

- TWFE/DDD Model Estimates

Figure 1: Monthly Average of Total Food Spending

(a) level



(b) log

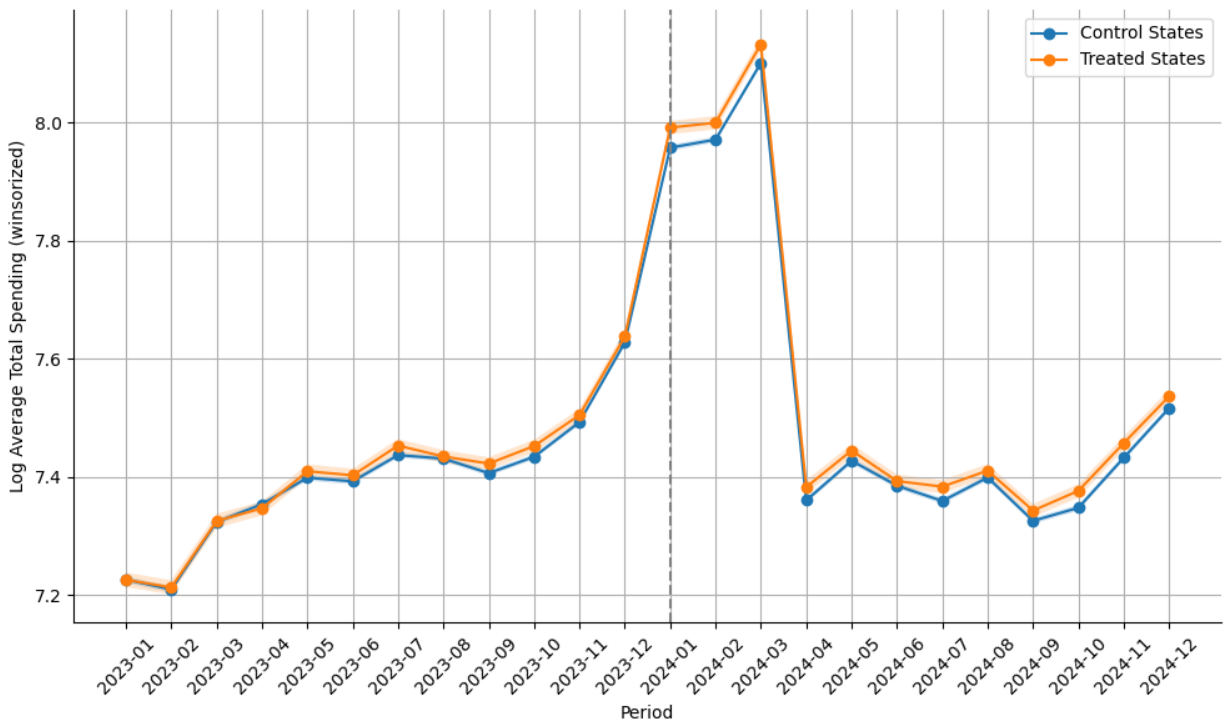
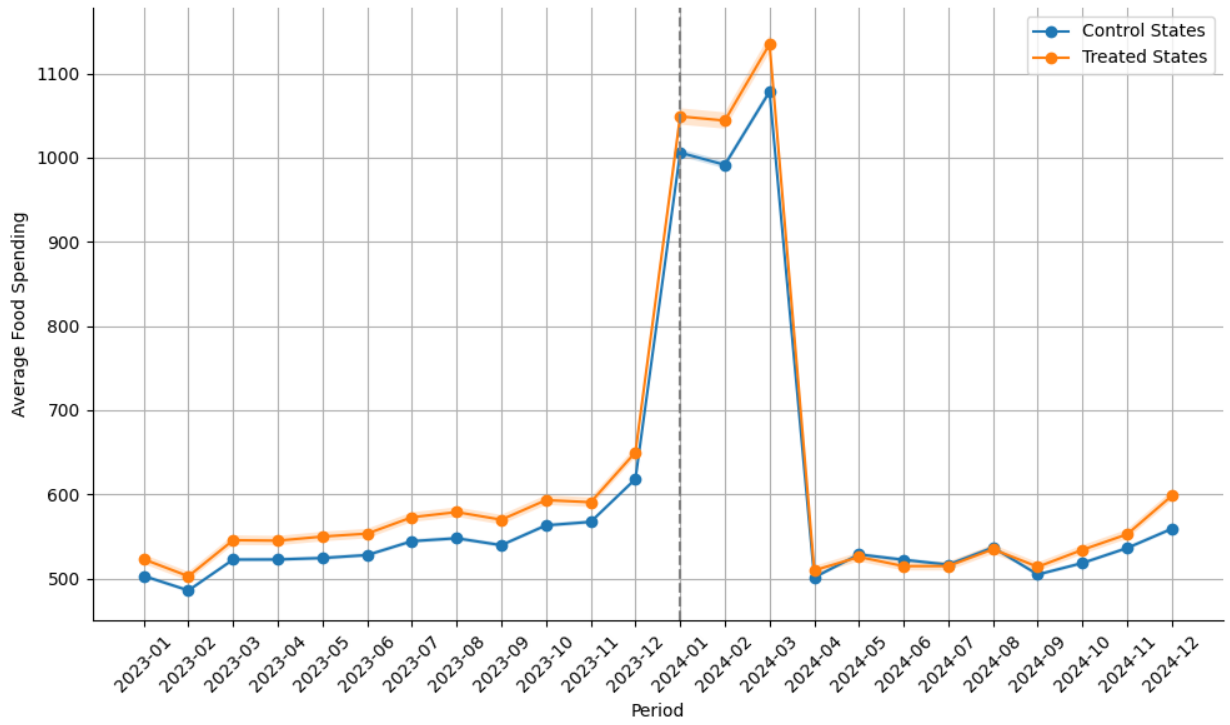


Figure 2: Monthly Average of Food Spending

(a) level



(b) log

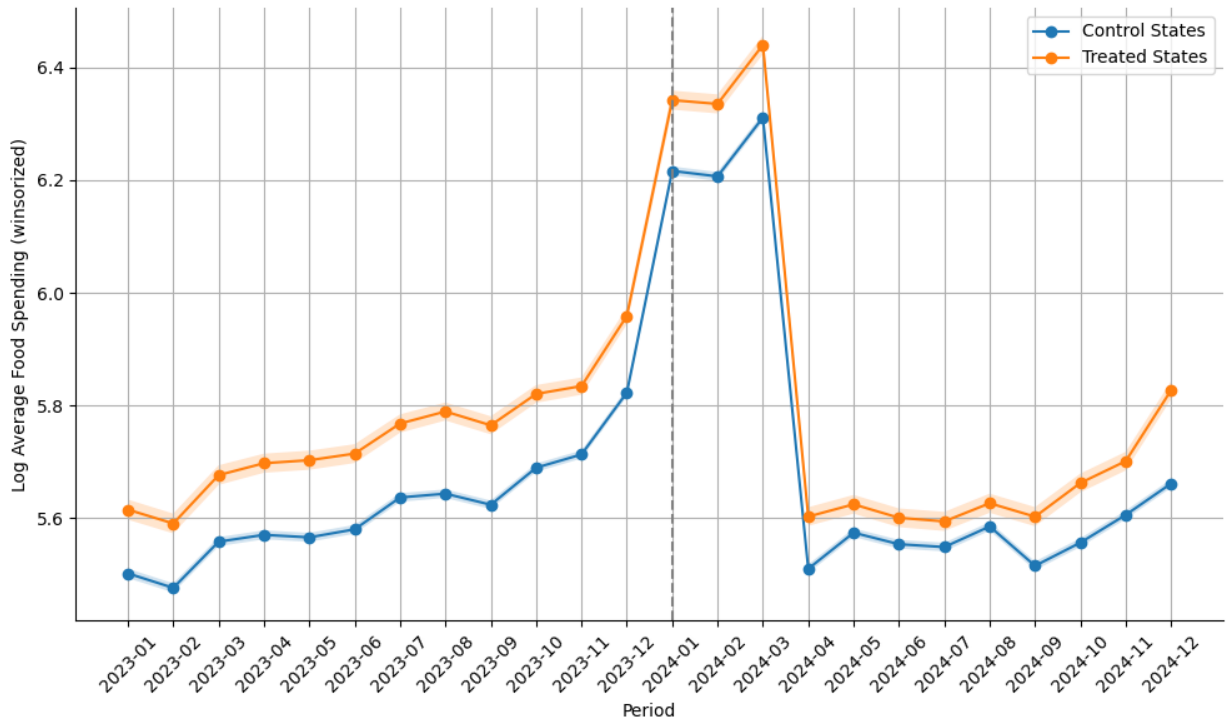
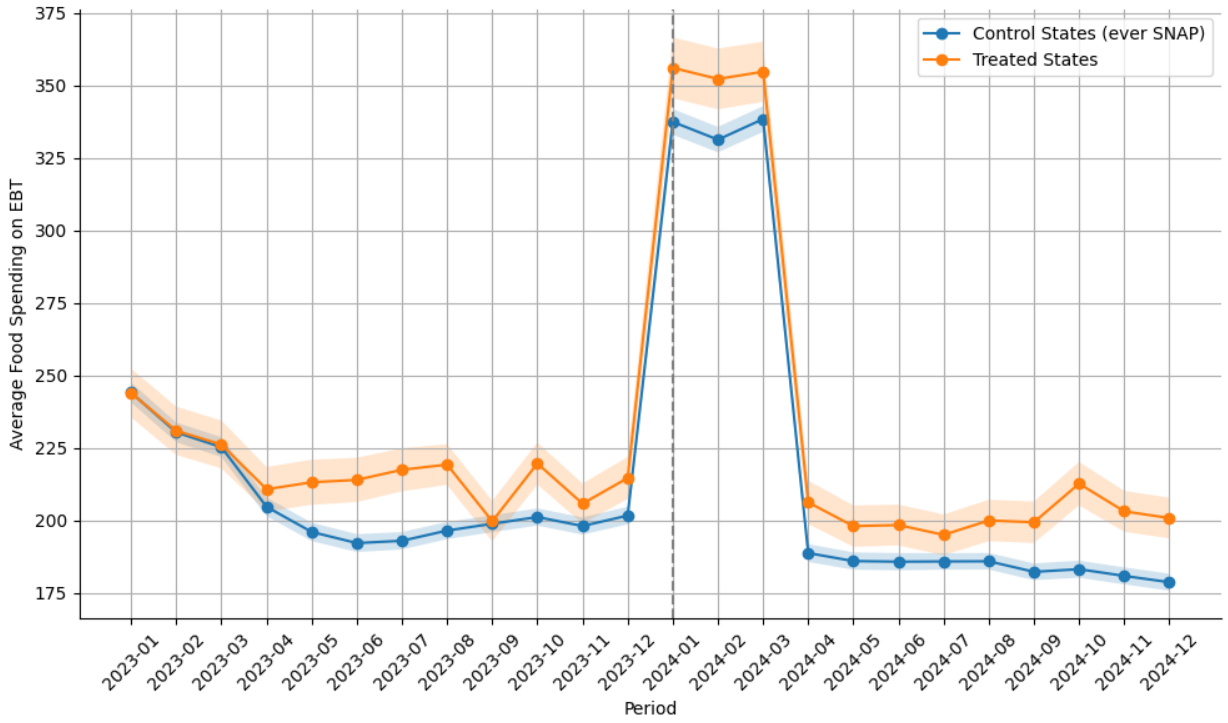


Figure 3: Monthly Average of Food Spending on EBT

(a) level



(b) log

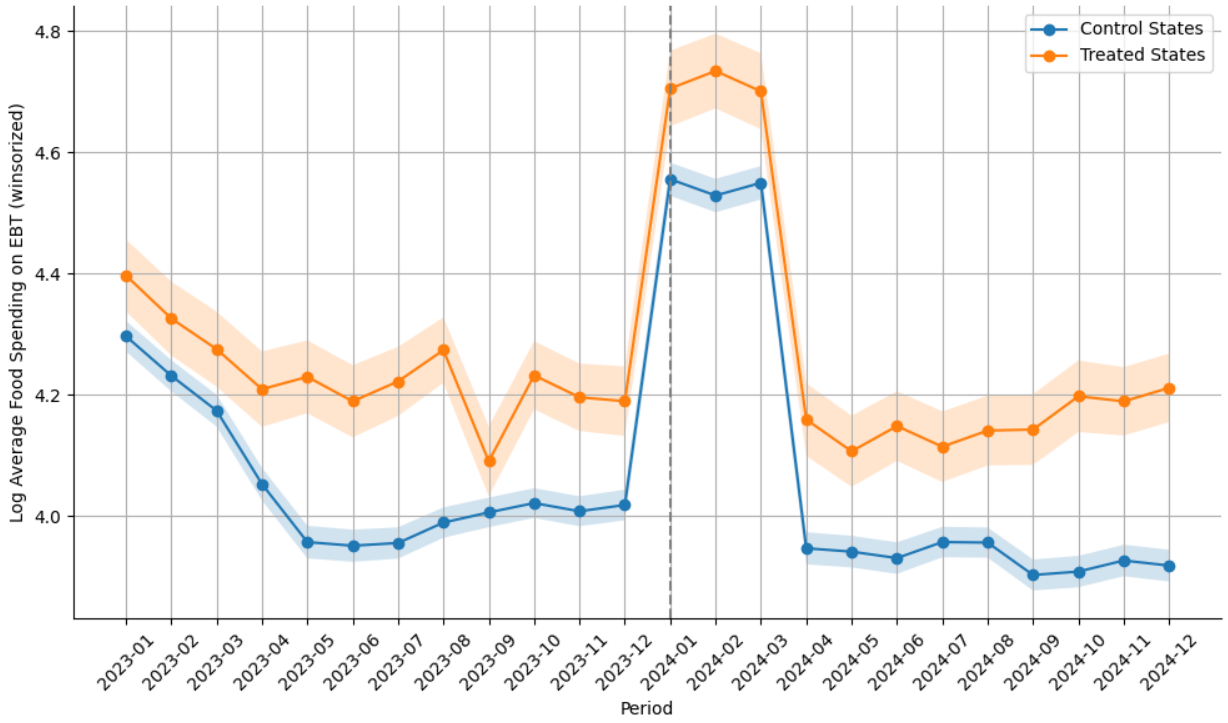
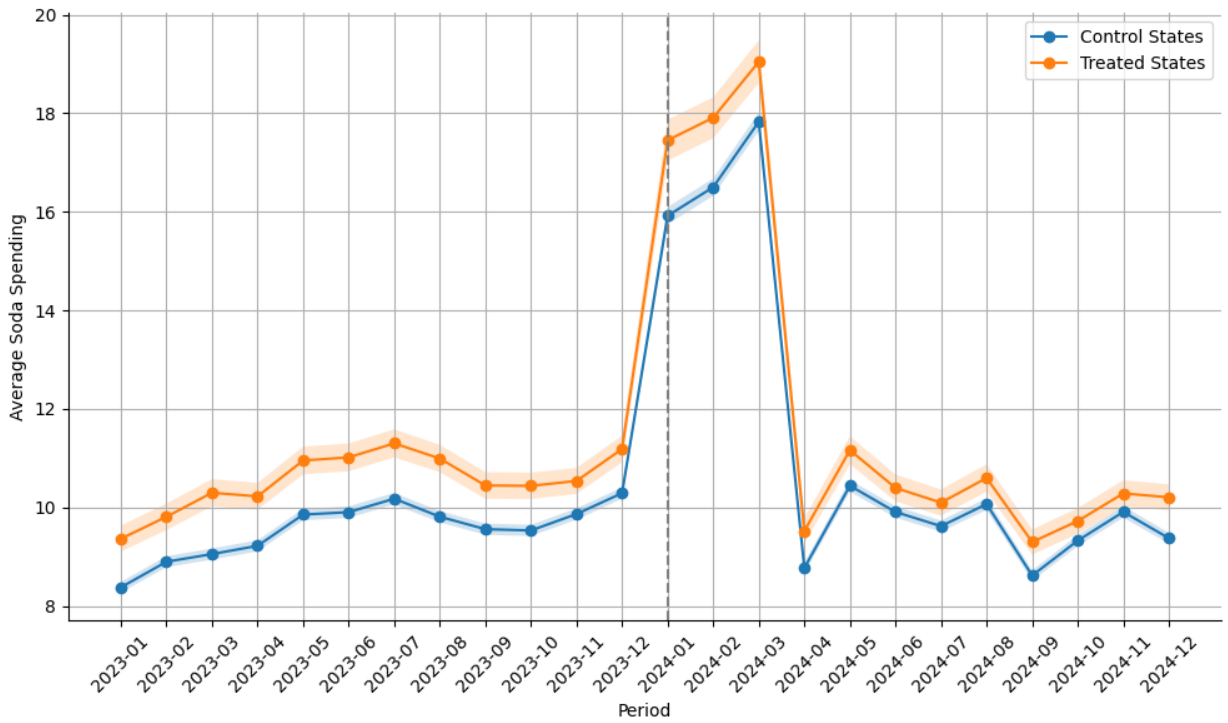


Figure 4: Monthly Average of Soda Spending

(a) level



(b) log

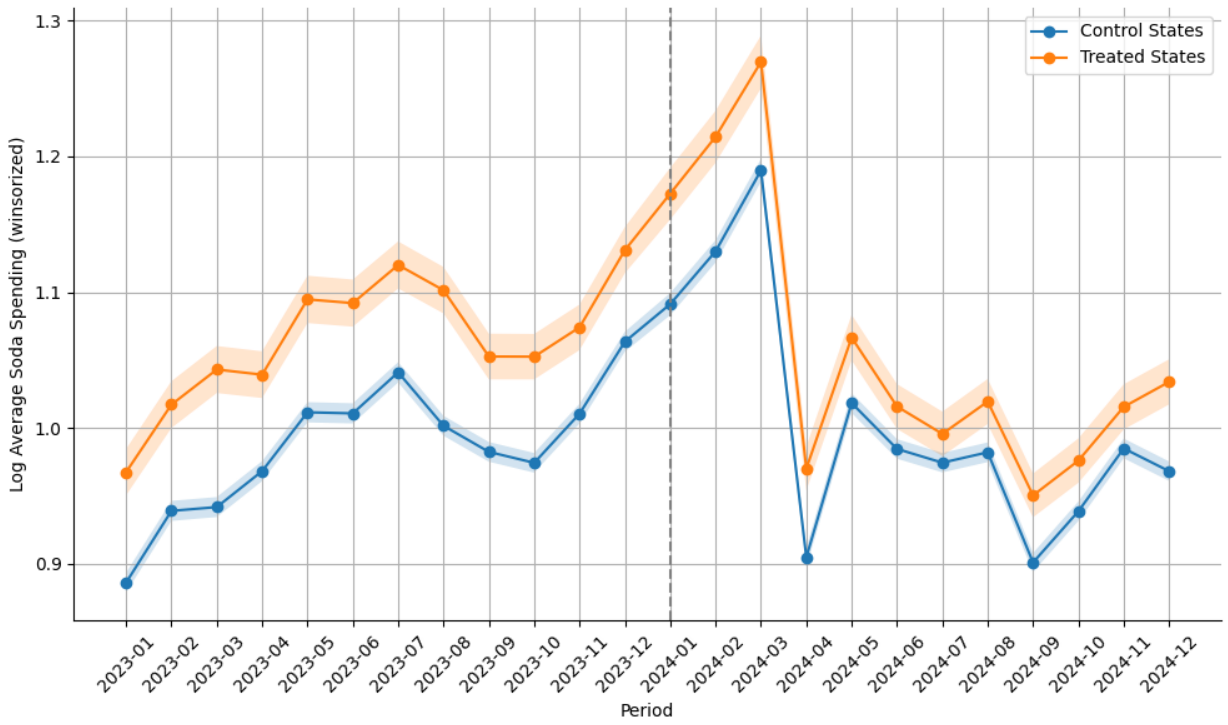
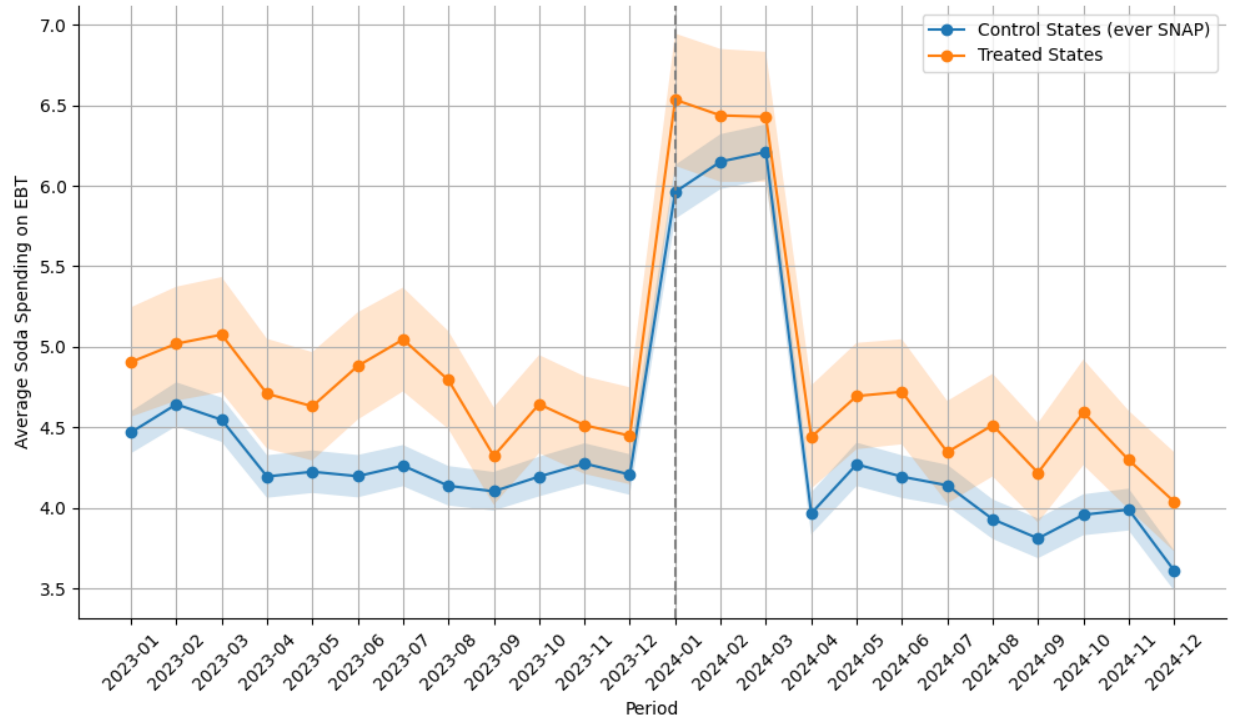


Figure 5: Monthly Average of Soda Spending on EBT

(a) level



(b) log

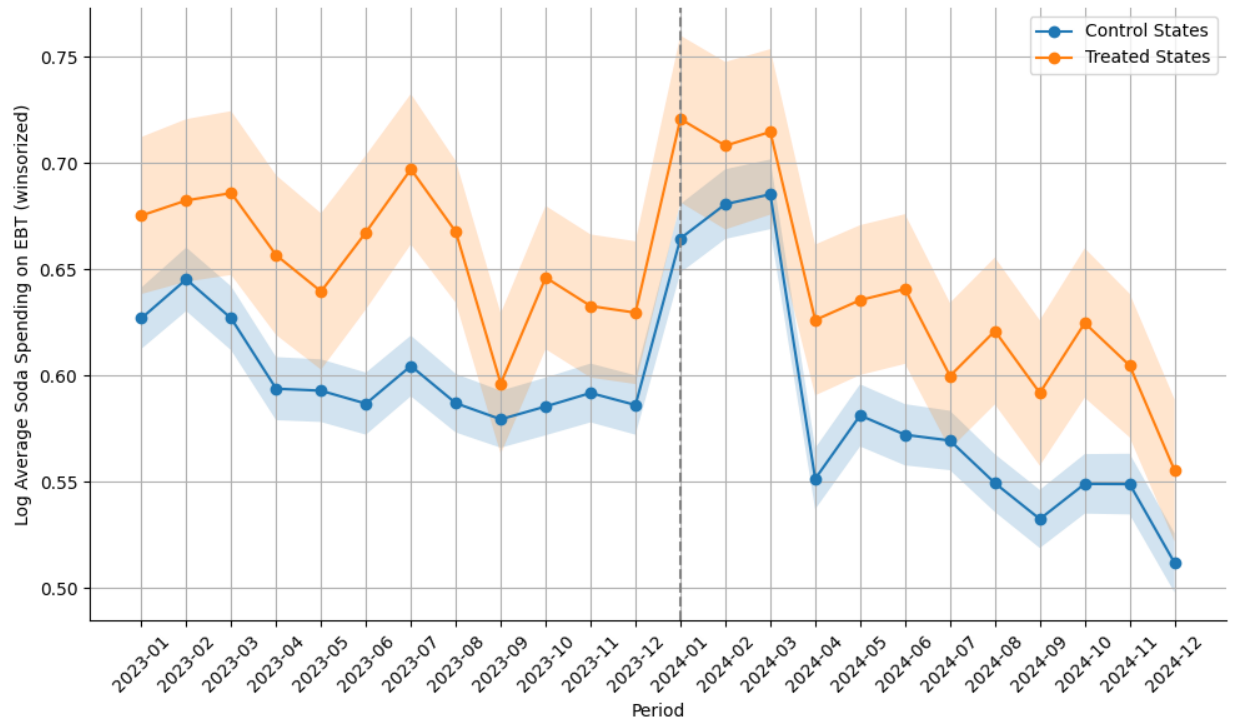
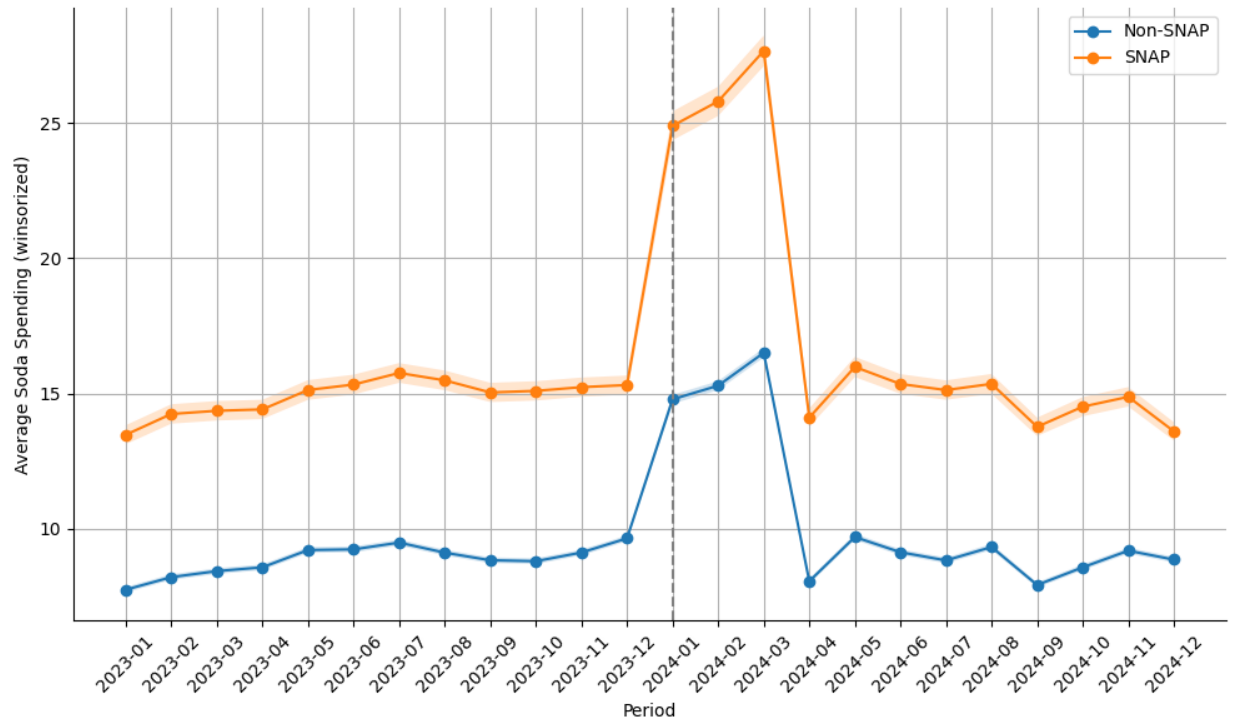


Figure 6: Monthly Average of Soda Spending by SNAP/Non-SNAP

(a) level



(b) log

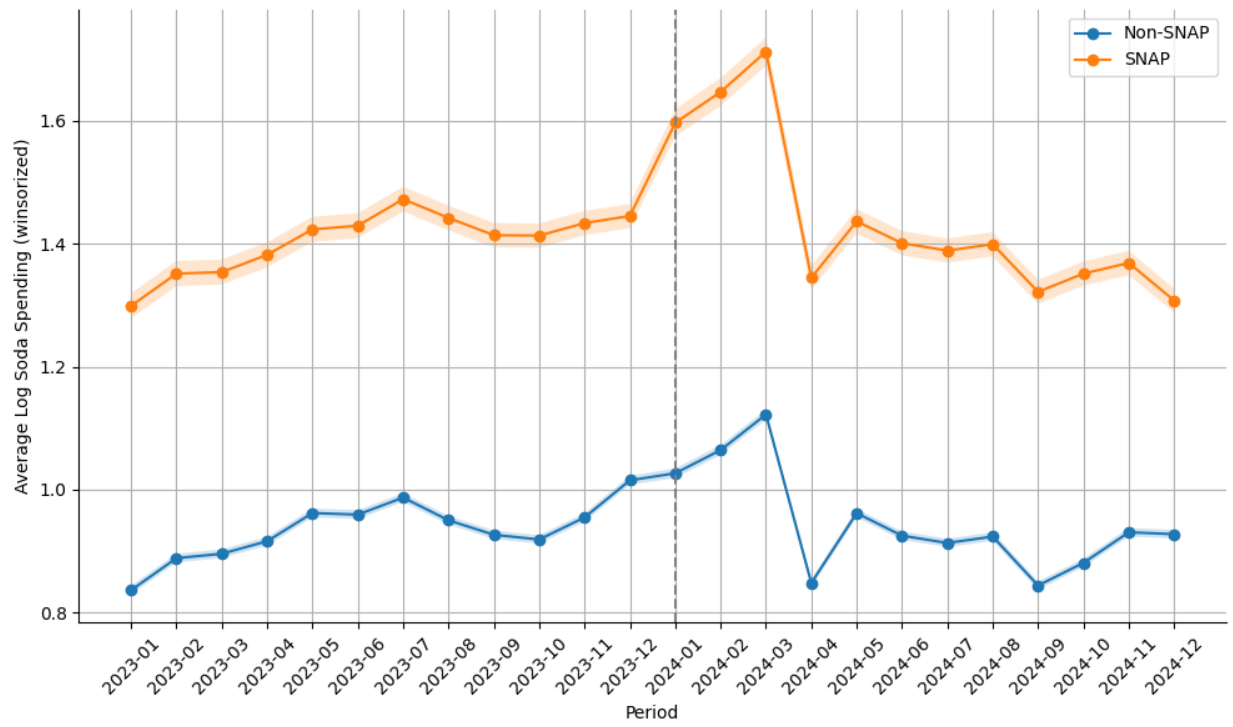
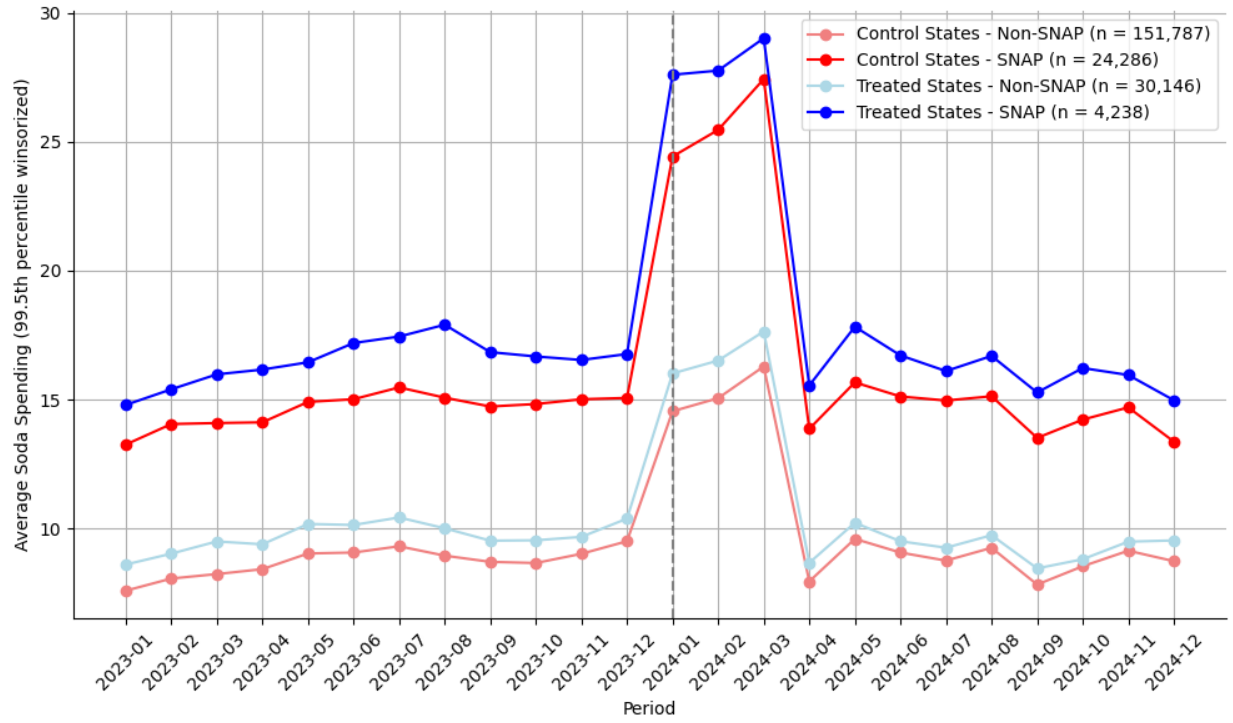


Figure 7: Monthly Average of Soda Spending by SNAP  $\times$  state

(a) level



(b) log

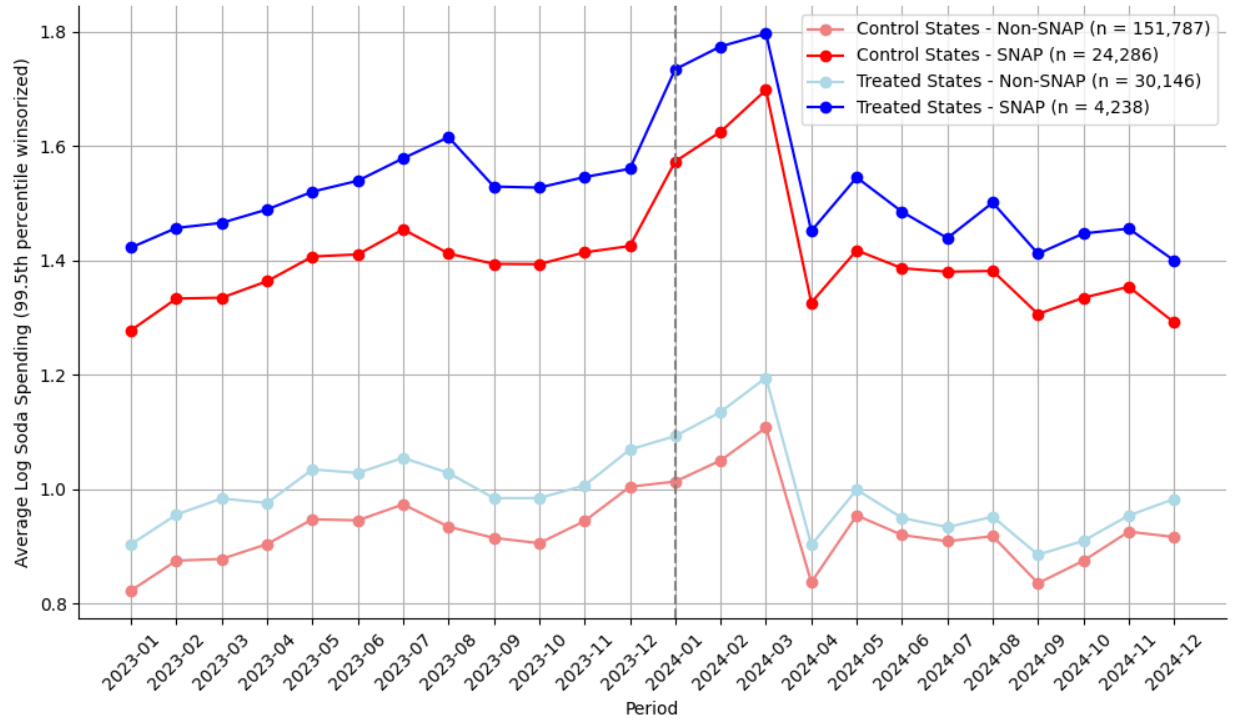




Figure 8: Proportion of Food Spending out of Total Spending

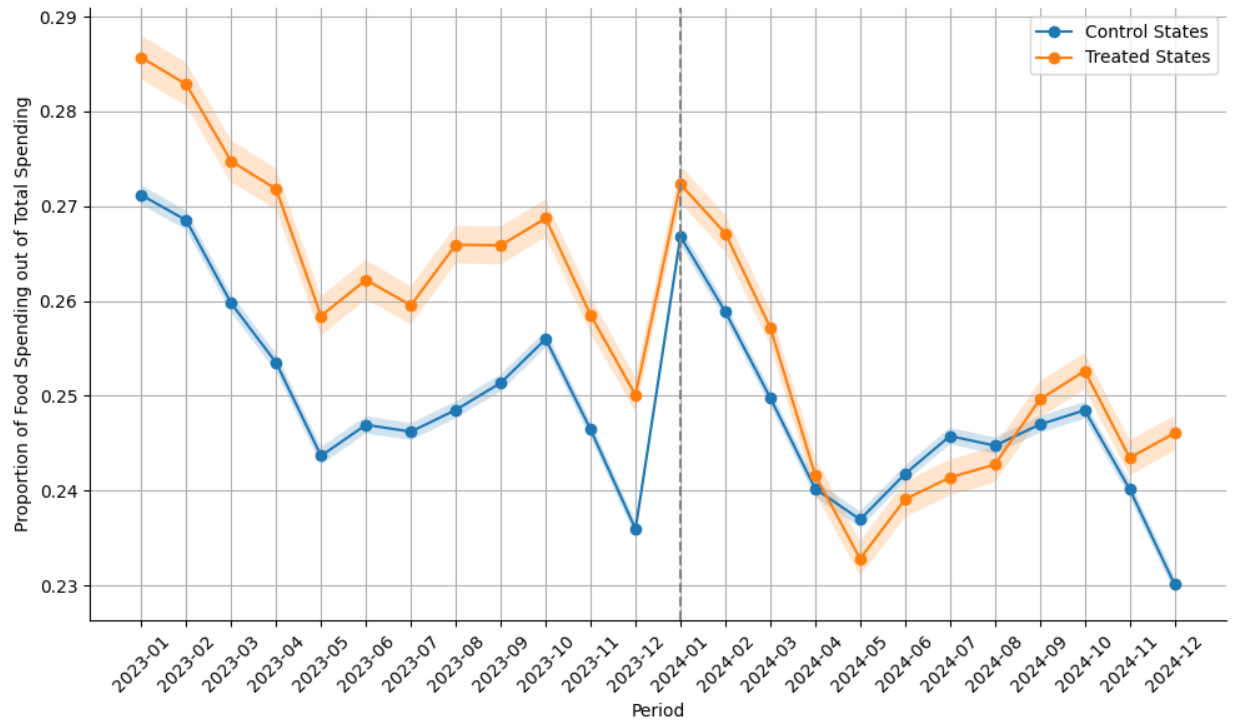


Figure 9: Proportion of Food Spending on EBT out of Total Food Spending

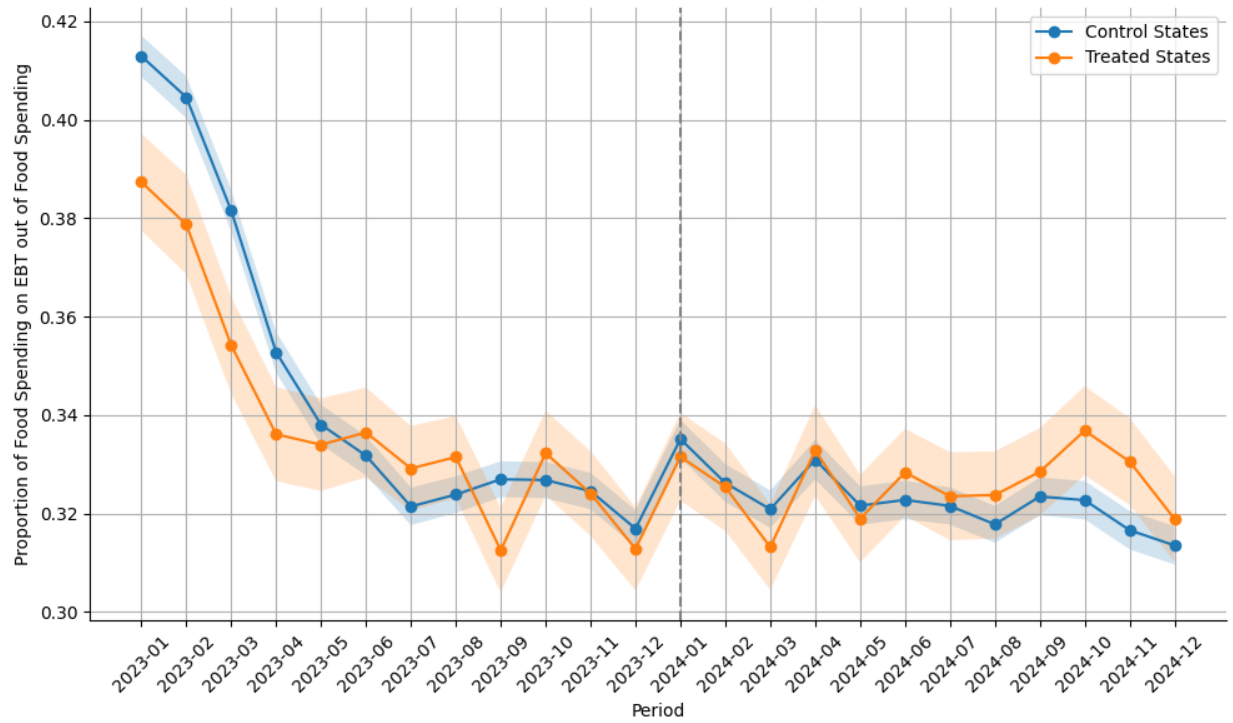


Figure 10: Proportion of Soda Spending out of Total Food Spending

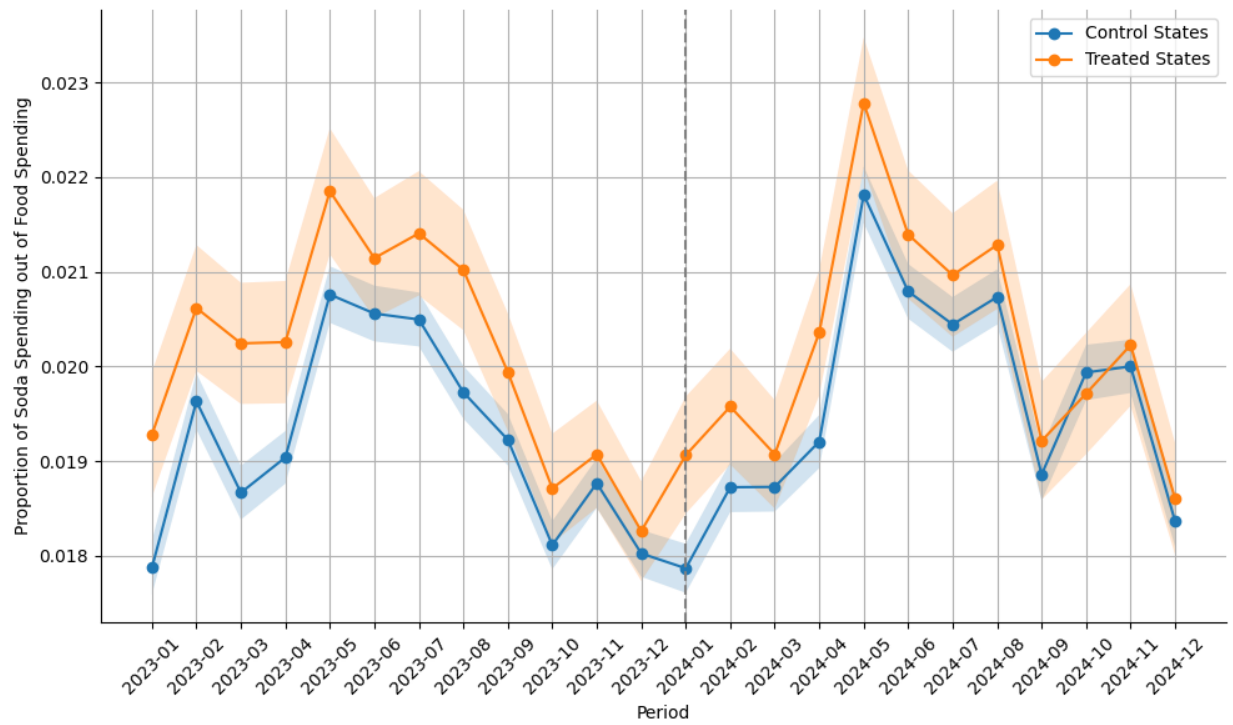


Figure 11: Proportion of Soda Spending on EBT out of Total Soda Spending

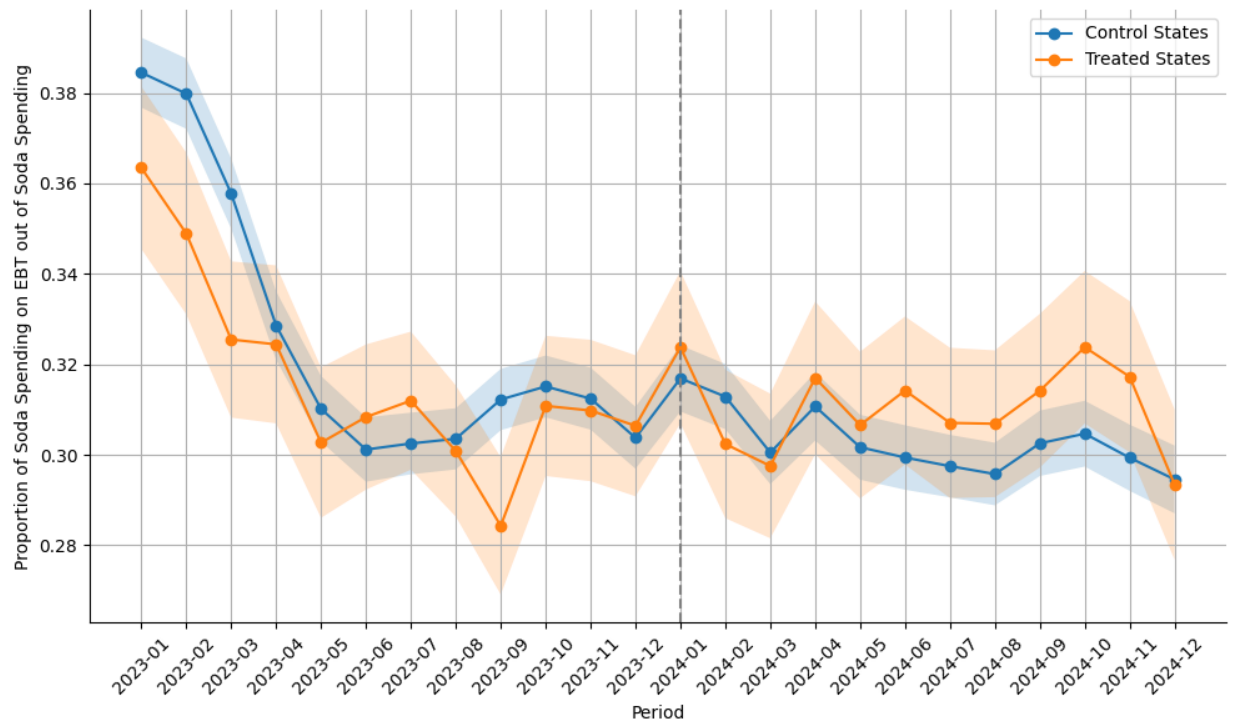
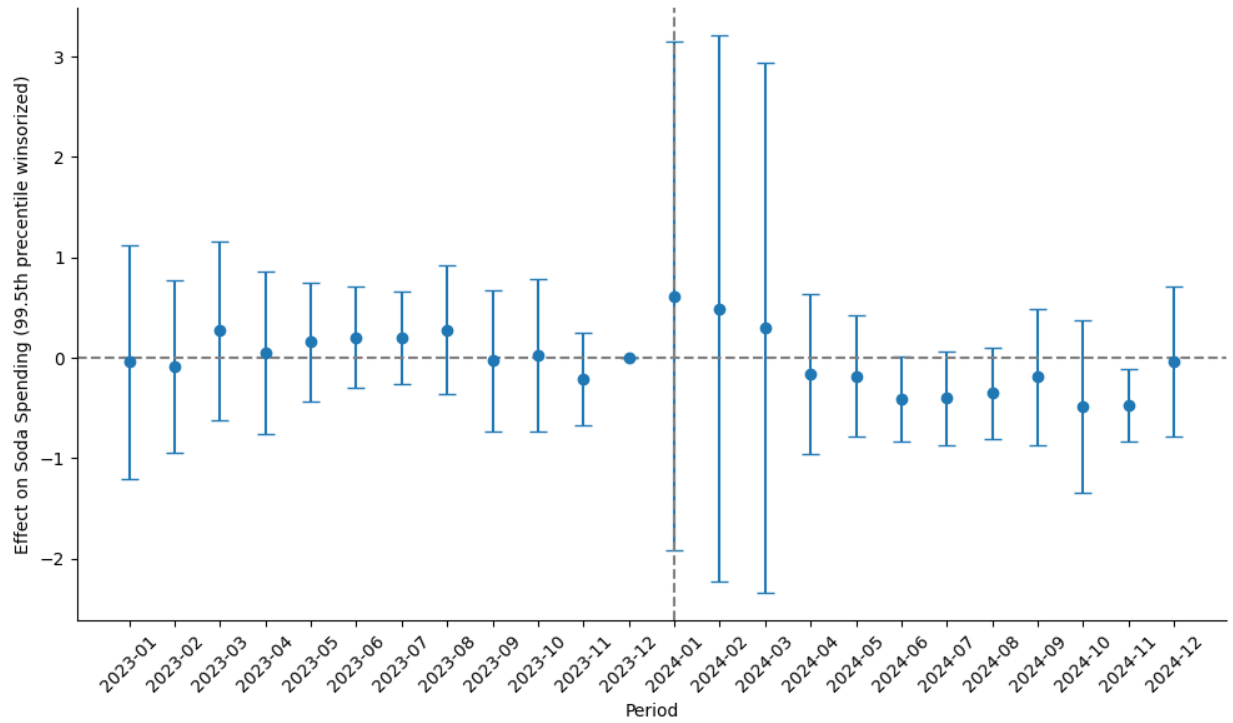


Figure 12: Event Study - TWFE

(a) level



(b) log

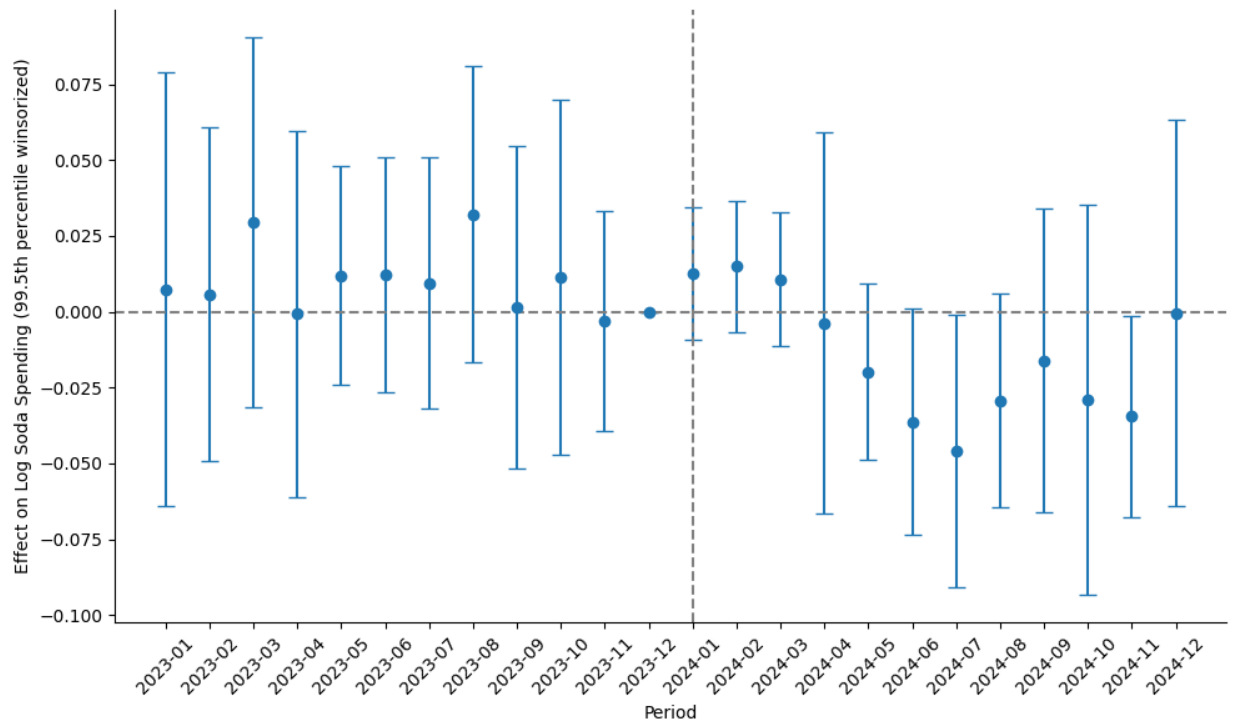


Figure 13: Event Study - TWFE (Treatment Assignment = SNAP/Non-SNAP) within treated states

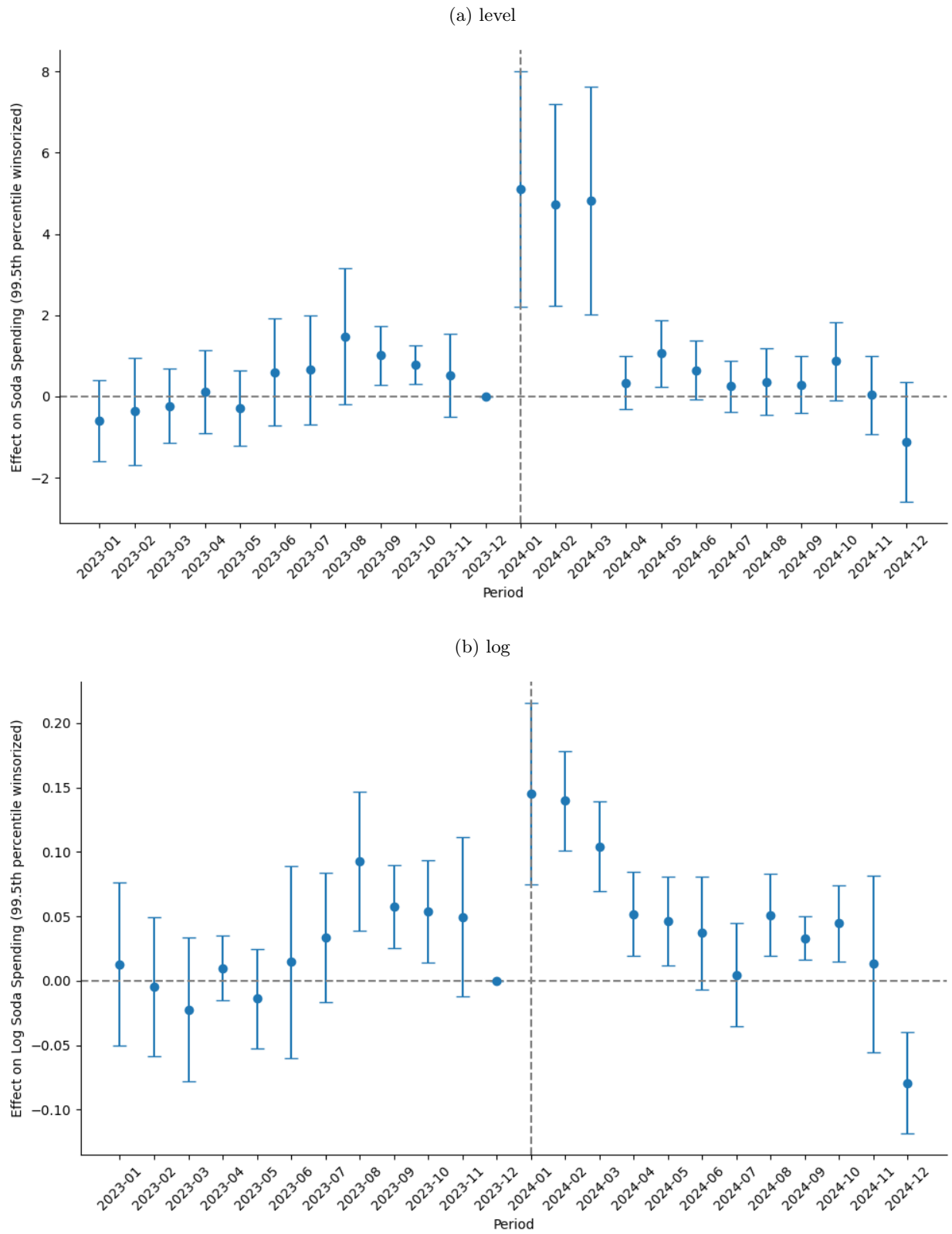


Figure 14: Event Study - DDD

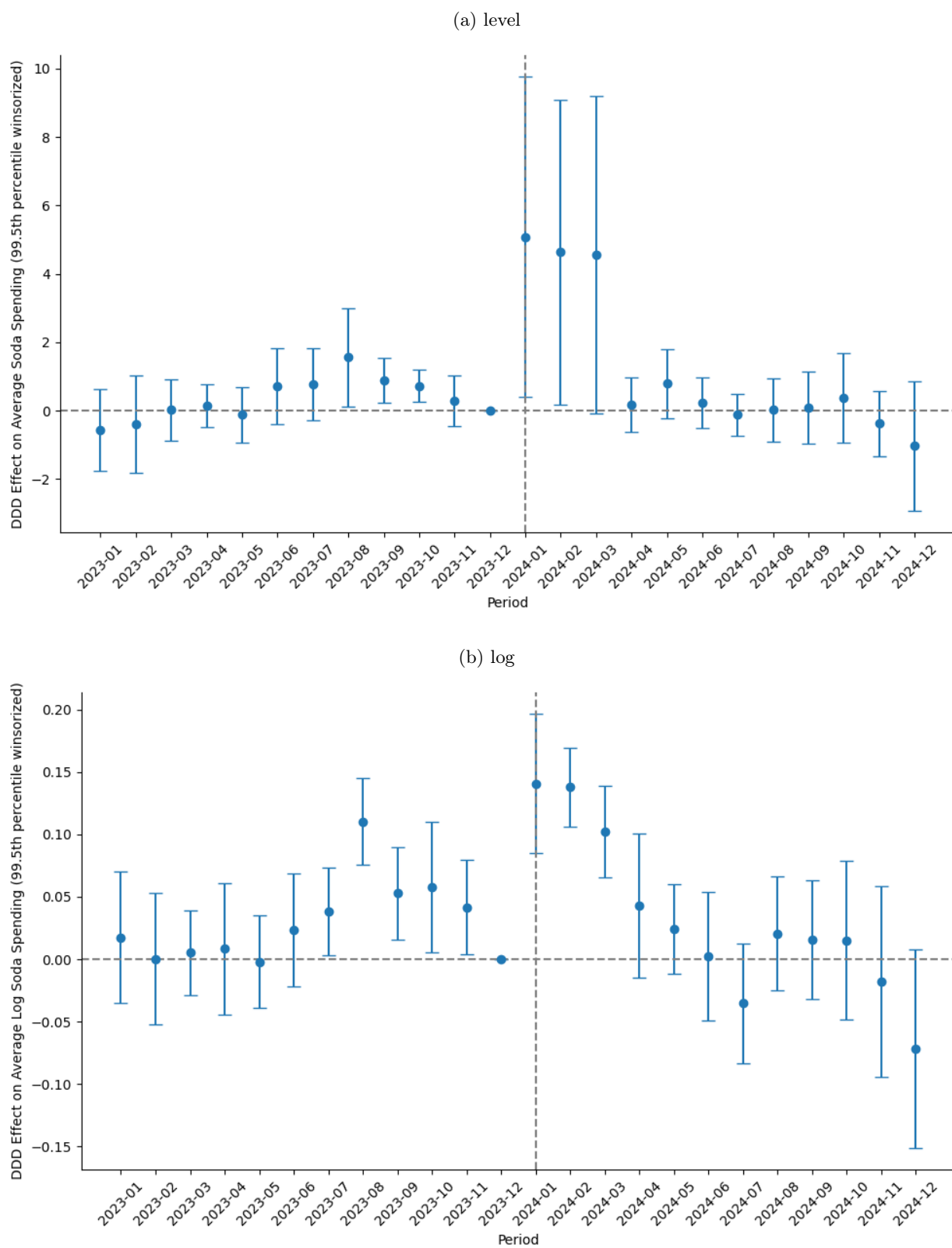


Table 1: Model Estimates

| Term                              | TWFE                  | TWFE Log              | TWFE                  | TWFE Log            | DDD                   | DDD Log               |
|-----------------------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|-----------------------|
| Post                              | 2.1462***<br>(0.1367) | 0.0354***<br>(0.0059) | 1.8319***<br>(0.5177) | 0.0080<br>(0.0123)  | 2.1004***<br>(0.1462) | 0.0314***<br>(0.0060) |
| State $\times$ Post               | -0.1682<br>(0.5301)   | -0.0242**<br>(0.0120) |                       |                     |                       |                       |
| SNAP $\times$ Post                |                       |                       | 1.1765***<br>(0.1336) | 0.0259*<br>(0.0154) |                       |                       |
| State $\times$ SNAP $\times$ Post |                       |                       |                       |                     | 0.9080*<br>(0.4905)   | 0.0024<br>(0.0100)    |
| N                                 | 4,646,511             | 4,646,511             | 757,102               | 757,102             | 4,646,511             | 4,646,511             |
| $R^2$                             | 0.0033                | 0.0002                | 0.0028                | 0.0000              | 0.0033                | 0.0002                |
| User FE                           | Yes                   | Yes                   | Yes                   | Yes                 | Yes                   | Yes                   |
| Period FE                         | No                    | No                    | No                    | No                  | No                    | No                    |
| SE Cluster                        | state                 | state                 | state                 | state               | state                 | state                 |