

Issue # 7: Numerator Data - Descriptive Statistics 2021-2022

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This Write-up contains tables and plots for the descriptive analysis 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.

1. Tables

- FAH/FAFH department codes (less granular grouping) and soda category (more granular grouping) codes
- Number of users by state-year
- Demographics by treatment status
- Spending by treatment status
- Soda spending by treatment status
- Food and soda spending percentiles

2. Figures: Distribution of ...

- proportion of food spending out of total spending
- proportion of FAH/FAFH spending out of total food spending
- proportion of FAH/FAFH on SNAP out of SNAP spending
- soda spending/winsorized spending
- Proportion of soda spending out of total food spending
- proportion of soda on SNAP out of total SNAP spending
- proportion soda at home/away from home

Table 1: Food at Home vs. Food Away from Home Categories

Food at Home	Food Away from Home
Snack	Shelf Stable Meals
Canned	Deli & Prepared Foods
Dairy	LSR Beverages
Beverages	LSR Breakfast
Alcohol Beverages	LSR Snack & Sides
Packaged Bakery (Bread & Alternatives)	LSR Sauces & Condiments
Condiments	Resto Beverages
Frozen Foods	LSR Italian
Candy (Snacks)	LSR Sandwiches & Wraps
Meat	LSR Salads
Seafood & Fish	LSR Mexican
Breakfast	LSR Entrees
In-Store Bakery (Bread & Alternatives)	LSR Mexican
Herbs & Spices	
Balanced Nutrition and Snacks	
Cooking, Food & Beverages	
Cannabis Beverages	
Baking & Cooking	
Cake Supplies	
Kitchen & Dining	
Pasta & Noodles	
Beans & Grains	
Refrigerated Foods	

Table 2: Soda Categories

Soda Category
LSR Citrus & Berry Soda
Citrus & Berry Soda
Pepper & Skipper Soda
Club Soda
Root Beer & Cream Soda
LSR Pepper-Style Soda
LSR Root Beer & Cream Soda
Specialty & Natural Soda

Table 3: Number of Users in Affected and Unaffected States

State	2021	2022
Household affected in Jan 2026		
FL	18437	18437
IA	1732	1732
ID	683	683
IN	4745	4745
LA	3250	3250
NE	1335	1335
OK	2326	2326
UT	1778	1778
WV	1124	1124
Subtotal	35410	35410
Household affected after Jan 2026		
AK	239	239
CO	1391	1391
TX	9561	9561
Subtotal	11191	11191
Treated States	46601	46601
Control States	110376	110376
Total	145786	145786

Table 4: User-Month Panel - Demographics

		Mean (SD)		Min	Max
	Treated States	Control States	Total		
Income	81363.72 (60459.62)	84393.20 (63226.89)	84028.03 (62907.51)	10000.00	275000.00
Household Size	2.90 (1.47)	3.00 (1.50)	2.98 (1.49)	1.00	7.00
Age	49.19 (12.99)	47.65 (12.67)	47.84 (12.72)	19.00	67.50
Married	1.06 (0.72)	1.00 (0.71)	1.01 (0.71)	0.00	3.00
Education (years)	13.85 (1.32)	13.86 (1.35)	13.86 (1.35)	10.00	16.00
White	0.77 (0.42)	0.70 (0.46)	0.71 (0.46)	0.00	1.00
Black	0.09 (0.28)	0.10 (0.30)	0.10 (0.30)	0.00	1.00
Asian	0.03 (0.17)	0.07 (0.26)	0.07 (0.25)	0.00	1.00
Hispanic	0.10 (0.30)	0.11 (0.31)	0.11 (0.31)	0.00	1.00
Ever Child	0.26 (0.44)	0.28 (0.45)	0.28 (0.45)	0.00	1.00
Number of States	9	39	48		
Number of Users	35,410	257,576	292,986		

Notes: NJ and NH have no data points. Income's 'less than 20000' category is coded as 10000, and 'more than 250000' is coded as 275000. Other income buckets are coded as the mean of a bucket. Education's 'advanced' category is coded as 16, and 'less than high school' is coded as 10.

Table 5: User-Month Panel - Spending

	Treated States	Mean (SD) Control States	Total	Min	Max
Food Spending	465.86 (497.81)	430.63 (493.70)	434.88 (494.33)	0.00	58273.02
Total Spending	1850.08 (1824.78)	1844.85 (1796.07)	1845.48 (1799.55)	0.00	141545.72
Prop. of Food Spending	0.28 (0.21)	0.26 (0.20)	0.26 (0.20)	0.00	1.00
Prop. of FAH Spending	0.93 (0.10)	0.93 (0.11)	0.93 (0.11)	0.00	1.00
Prop. of FAFH Spending	0.07 (0.10)	0.07 (0.11)	0.07 (0.11)	0.00	1.00
Prop of Food on SNAP	0.07 (0.21)	0.08 (0.22)	0.08 (0.22)	0.00	1.00
Prop. of FAH on SNAP	0.94 (0.11)	0.94 (0.12)	0.94 (0.12)	0.00	1.00
Prop. of FAFH on SNAP	0.06 (0.11)	0.06 (0.12)	0.06 (0.12)	0.00	1.00
Ever SNAP	0.15 (0.36)	0.17 (0.37)	0.16 (0.37)	0.00	1.00
Number of States	9	39	48		
Number of Users	35,410	257,576	292,986		

Notes: Prop. of food spending is calculated out of total spending. Prop. of FAH/FAFH spending and food on SNAP is calculated out of total food spending. Prop. of FAH/FAFH on SNAP is calculated out of total SNAP spending. Means are calculated by averaging users' monthly spending/proportion, pooled over time and users. No winsorization.

Table 6: User-Month Panel - Soda Spending

	Treated States	Mean (SD) Control States	Total	Min	Max
Soda Spending	8.38 (24.55)	7.90 (23.08)	7.96 (23.26)	0.00	5606.84
Prop. of Soda Spending	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	0.00	1.00
Prop. of Soda FAH Spending	1.00 (0.01)	1.00 (0.01)	1.00 (0.01)	0.00	1.00
Prop. of Soda FAFH Spending	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00	1.00
Prop of Soda on SNAP	0.03 (0.09)	0.03 (0.09)	0.03 (0.09)	0.00	1.00
Number of Users	35,410	257,576	2,944,007		

Notes: Prop. of soda spending is calculated out of total food spending. Prop. of soda FAH/FAFH spending is calculated out of total food spending. Prop. of soda on SNAP is calculated out of total SNAP spending. Means are calculated by averaging users' monthly spending/proportion, pooled over time and users. No winsorization.

Table 7: User-Month Panel - Food Spending Percentiles

percentile	food _{spending} 2021	food _{spending} 2022
50.000000	268.86	315.68
60.000000	367.38	427.72
70.000000	491.90	568.80
80.000000	664.78	761.76
90.000000	954.44	1082.06
95.000000	1244.64	1402.10
96.000000	1339.42	1505.90
97.000000	1462.96	1641.62
98.000000	1643.02	1837.22
99.000000	1971.38	2198.54
99.500000	2348.42	2611.06
100.000000	58273.02	43549.92

Table 8: User-Month Panel - Soda Spending Percentiles

percentile	soda _s pending ₂₀₂₁	soda _s pending ₂₀₂₂
50.000000	0.00	0.00
60.000000	0.00	0.00
70.000000	3.38	4.00
80.000000	8.88	11.36
90.000000	22.00	26.76
95.000000	38.38	46.38
96.000000	44.40	53.50
97.000000	52.66	63.32
98.000000	65.60	78.34
99.000000	90.18	107.54
99.500000	118.54	140.40
100.000000	3920.88	5606.84

Figure 1: Proportion of Food Spending

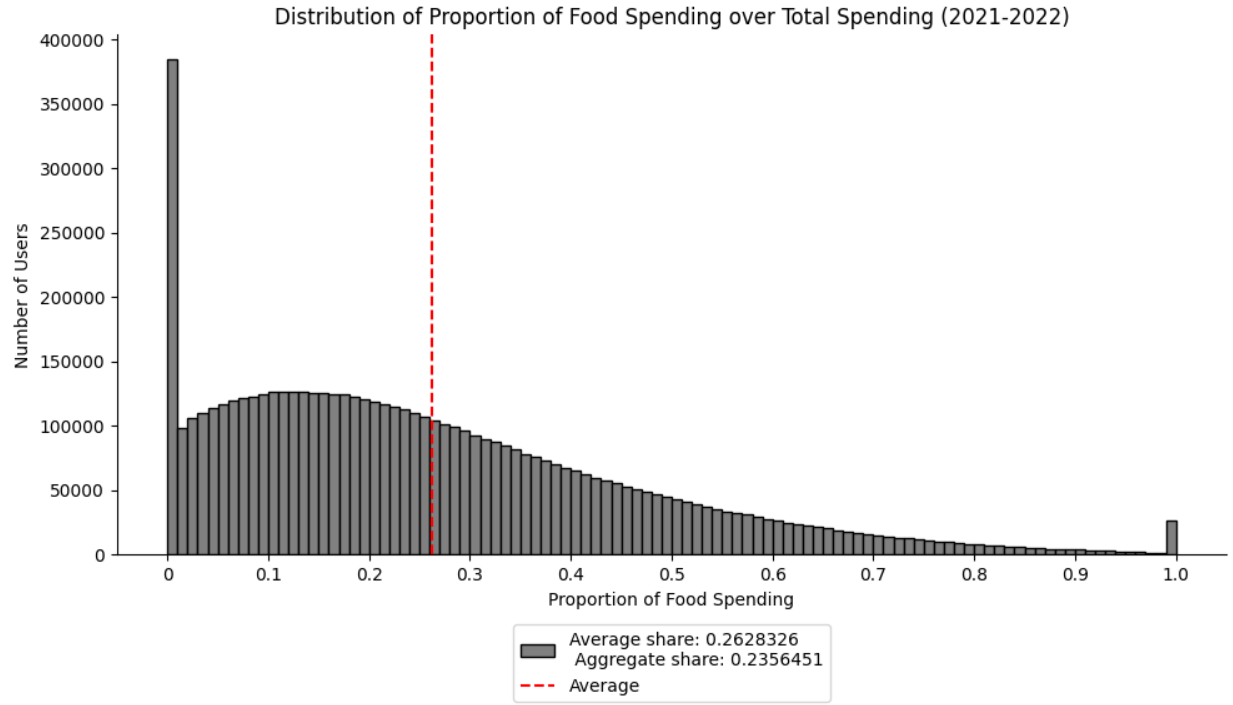


Figure 2: Proportion of FAH/FAFH Spending out of total food spending

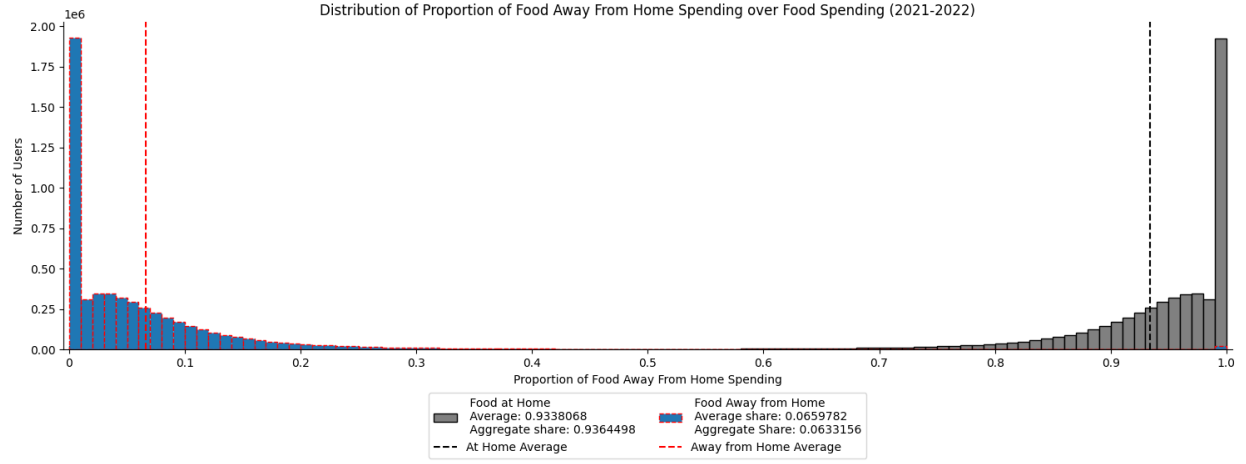
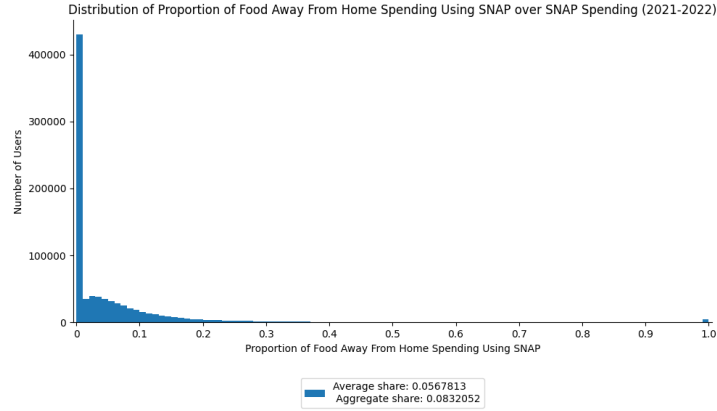


Figure 3: Proportion of FAH/FAFH SNAP Spending out of total SNAP spending

(a) Food Away



(b) Food at Home

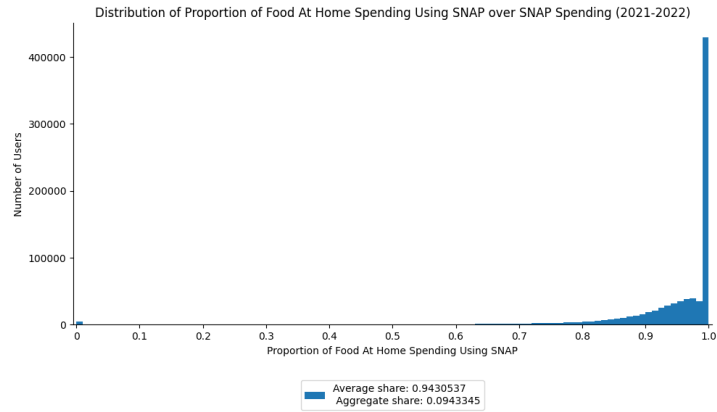
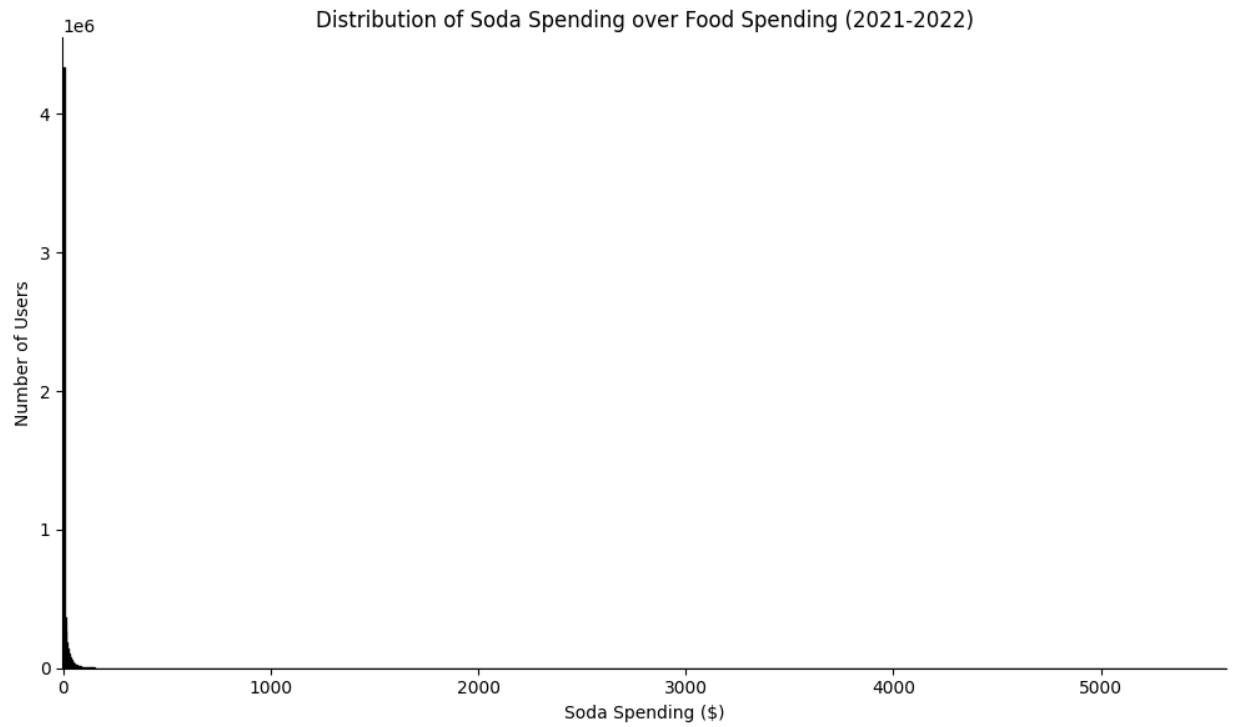


Figure 4: Soda Spending

(a) unwinsorized



(b) winsorized at 99.5%

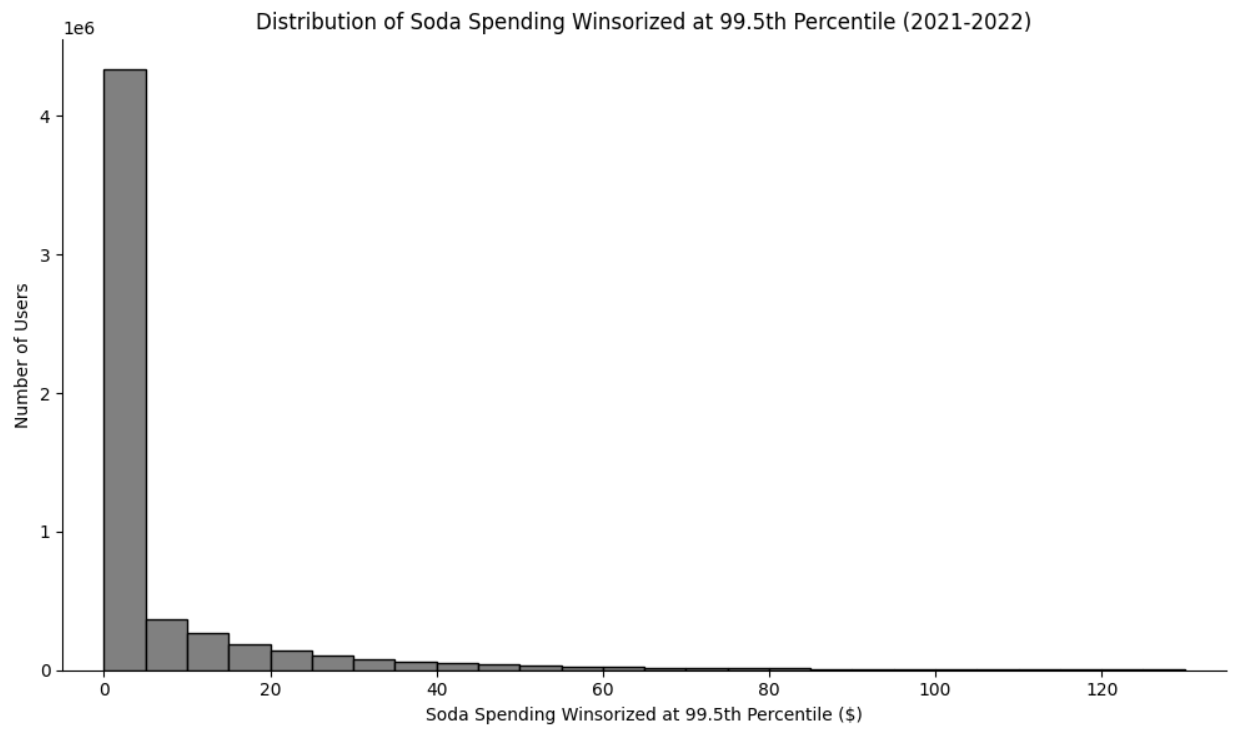


Figure 5: Proportion of Soda Spending out of total food spending

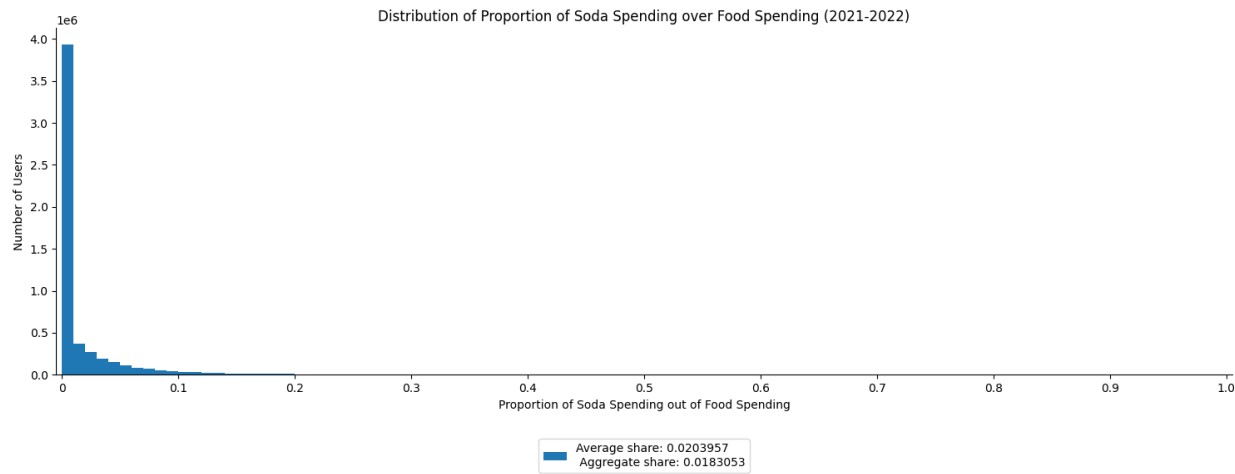


Figure 6: Proportion of Soda SNAP Spending out of total SNAP spending

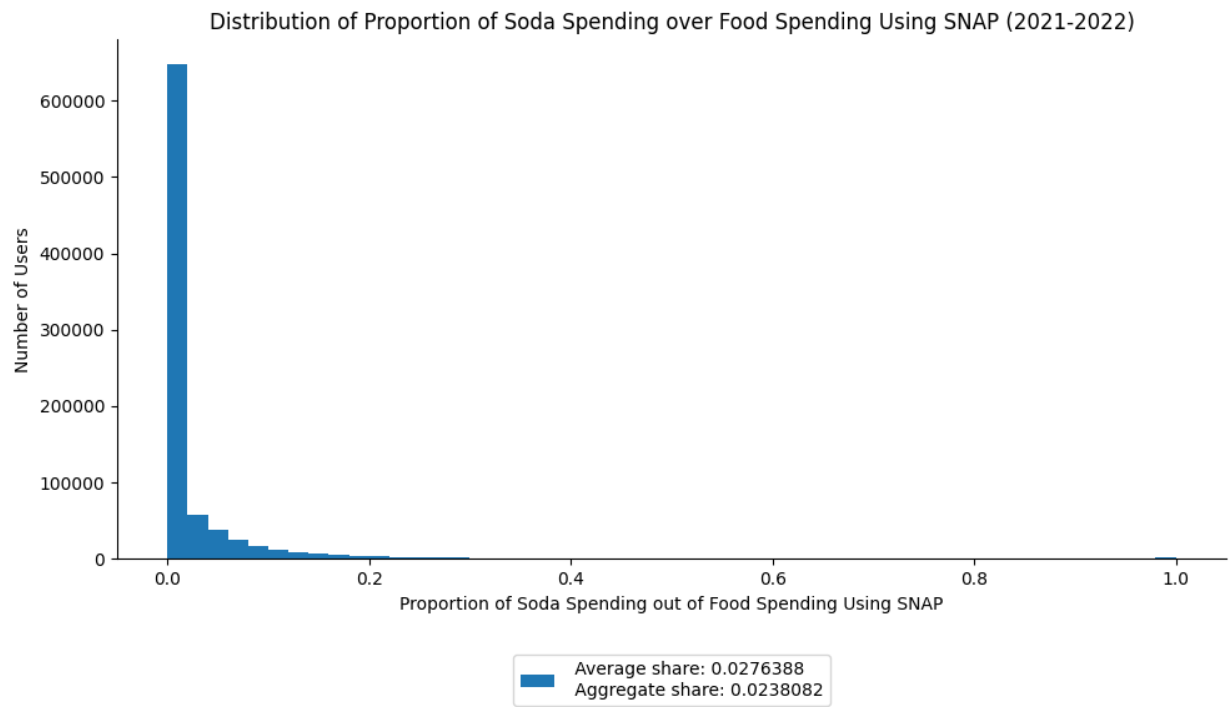


Figure 7: Proportion of Soda FAH/FAFH Spending out of total soda spending

