Is a Dollar a Dollar?

The Impact of Recurrent and One-shot Food Vouchers and Cash Transfers on Grocery Purchases

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Researchers' own analyses calculated (or derived) based in part on data from Nielsen Consumer LLC and marketing databases provided through the NielsenIQ Datasets at the Kilts Center for Marketing Data Center at The University of Chicago Booth School of Business. The conclusions drawn from the NielsenIQ data are those of the researchers and do not reflect the views of NielsenIQ. NielsenIQ is not responsible for, had no role in, and was not involved in analyzing and preparing the results reported herein.

Overview

Many different ways to provide assistance

- In-kind vs. cash: SNAP, WIC, housing assistance vs. CTC, EITC, TANF.
- Frequency of payments: One-time, annual, monthly, etc.
- Other considerations *(not today)*
  - Targeted vs. universal
  - Public vs. private (or publicly subsidized)
  - Recipient (child benefits)

Outstanding question: How does program design affect how families *spend* assistance?

This project: Compare (grocery) spending of 4 programs in harmonized framework.

Setting: Pandemic-era transfer programs

	Food Vouchers	Cash
One-shot	Pandemic EBT (summer 2020)	Economic Impact Payment (spring 2020)
Monthly	SNAP Emergency Allotment (2021-23)	Expanded Child Tax Credit (Jul-Dec 2021)

Who received these payments?

	Low inc., school-aged kids	Low inc., young kids	Low inc., no kids	Higher inc., kids	Higher inc., no kids
EIP	x	x	x	x	x
CTC	x	x		x	
P-EBT	x				
SNAP EA	x	x	x		

Overview

Data: NielsenIQ Consumer Retail Panel

- Spending panel of ≈ 60k households, track daily grocery (+) spending.
- Our focus: Low-income households with school-aged children.

Results preview

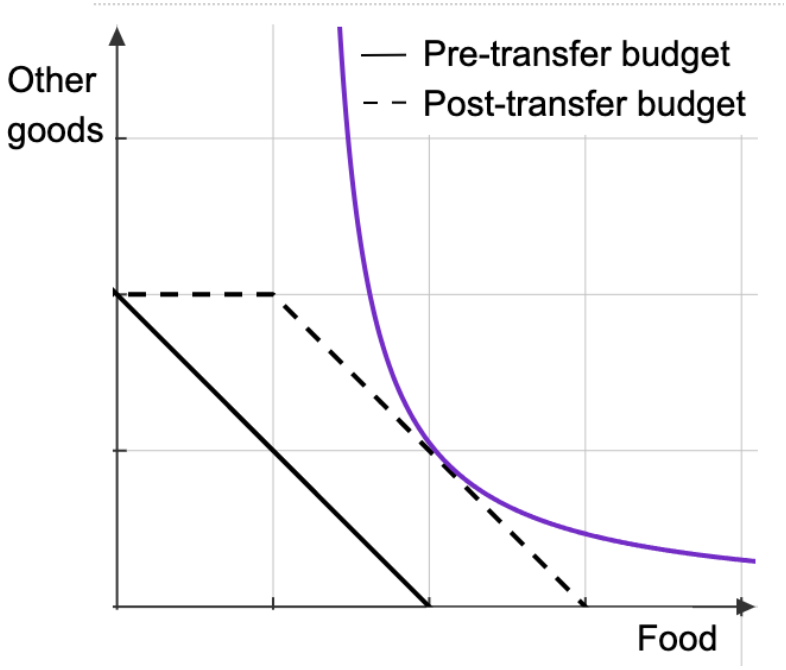
- Spending increases more with in-kind transfers than with cash
    - Total spending at food stores
    - (less clear) Food spending
- Spending increases more with monthly benefits than with one-shot
- MPC at bottom end of range from prior studies
- Spending response highest for low-income families w/kids
- Types of spending:
    - No change in bulk purchases or ”sin goods”
    - Similar increase in perishables and non-perishables

Related work

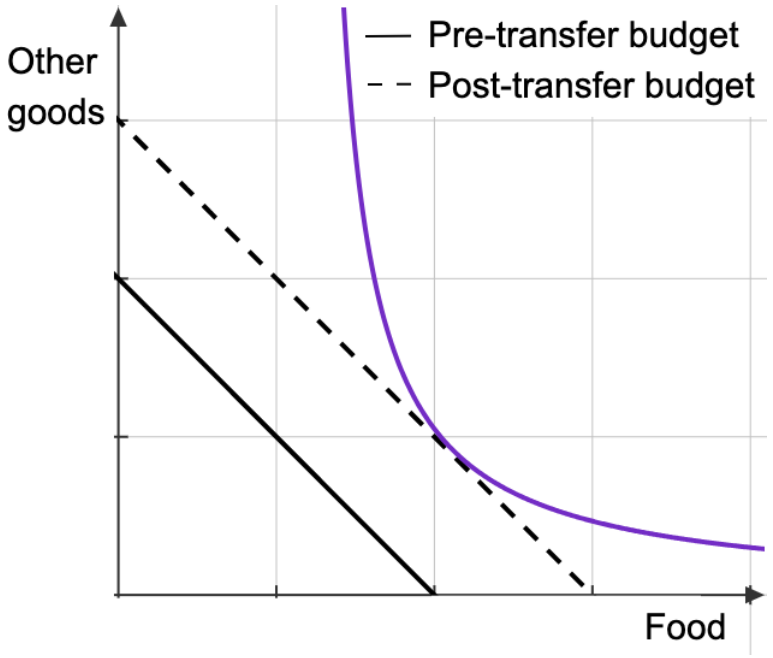
- **Spending and the EITC** Romich & Weisner (2000); Wilde & Ranney (2000); Goodman-Bacon & McGranahan (2008); Barrow & Mc Granahan (2000); Adams et. al (2009); Aladangady et. al (2023); Jones (2010); Leininger et. al (2010); Parker et. al (2013); Kramer et. al (2019) ...
- **SNAP consumption and cyclicality** Moffitt (1989); Currie (1994); Whitmore (2002); Hoynes & Schanzenbach (2009); Beatty & Tuttle (2014); Lusk & Weaver (2017); Hastings & Shapiro (2018); Shapiro (2005); Hastings et. al (2021); Zaki & Todd (2023); ...
- **Pandemic-era safety net** Parolin et al. (2021); Karger & Rajan (2021); Parker et. al (2021); Wheaton & Kwon (2022); Baker et. al (2023); Michelmore & Pilkauskas (2023); Schanzenbach (2023); Schild et. al (2023); Bauer et. al (2024); Fisher et. al (2024); Huang et. al (2024); ...

Conceptual framework

Cash vs. in-kind: When are they equivalent?



In-kind

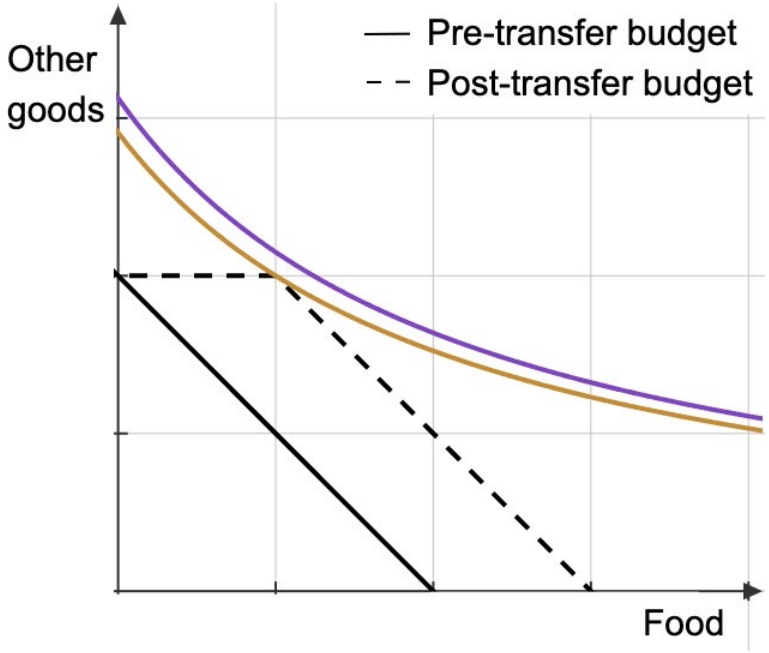


Cash

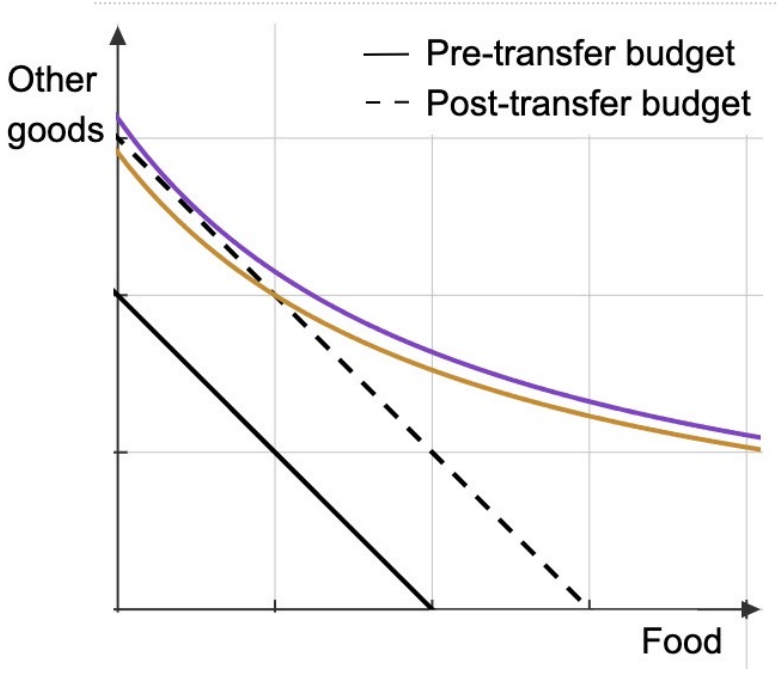
Equivalent when:

- Households are inframarginal (interior solution).
- Households respect fungibility of money.

Cash vs. in-kind: When are they different?



In-kind



Cash

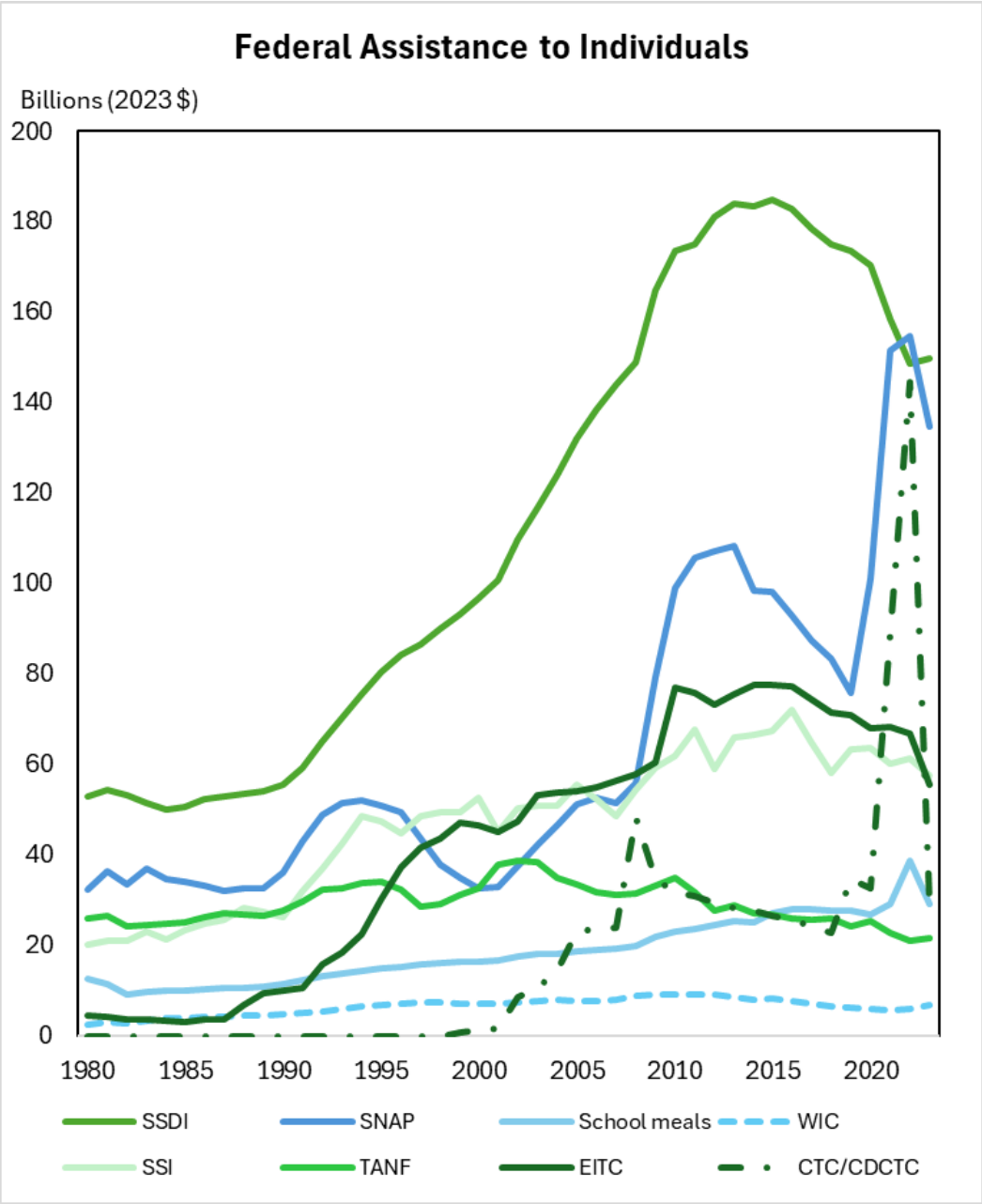
Not equivalent when:

- In-kind transfer exceeds optimal food spending (corner solution).
- Mental accounting ⇒ in-kind benefits treated differently from cash.

Lump-sum vs. recurring transfers

- Liquidity constraints: "Bulk" or other types of purchases.
- Certainty/permanent income
- Program salience/awareness: All programs are *new*, chaotic policy environment.

Safety net is a mix of cash and in-kind transfers



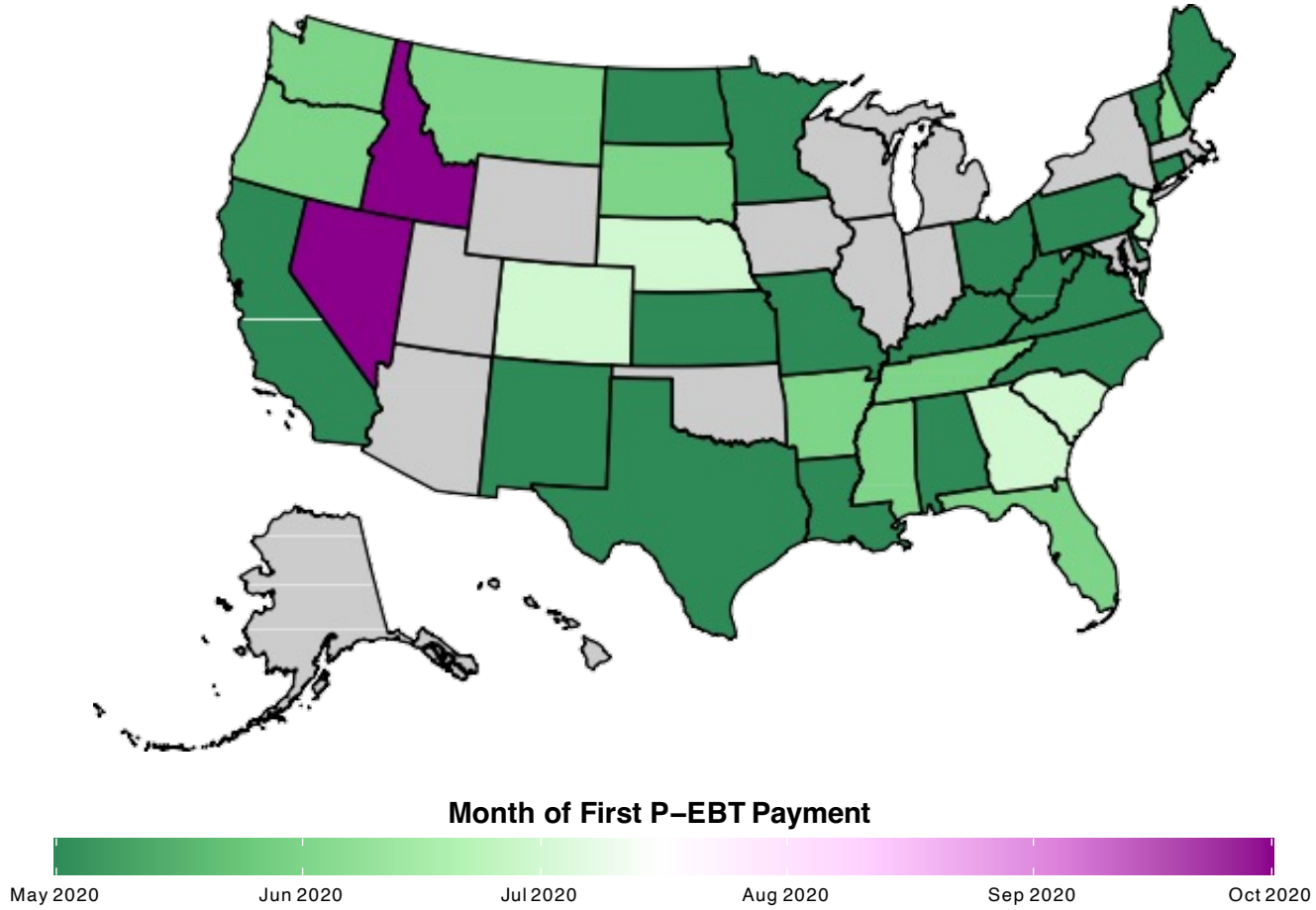
Institutional background

Pandemic-era transfers (I): Pandemic-EBT (P-EBT)

One-time in-kind transfer:

- "SNAP-like:" Grocery vouchers for $ value of school meals lost due to school closures.
  - $5.70/student/day ≈ $300/student, $529/family
  - "One-time" payment (not re-authorized until 10/20)
- SNAP recipients: P-EBT automatically loaded to existing SNAP cards ← Our focus
  - Payment timing to the day by state
- State-led: Each state developed implementation plan, applied to USDA, disbursed benefits.

Cross-state variation in P-EBT payments



Source: Bauer, Ruffini, and Schanzenbach 2024

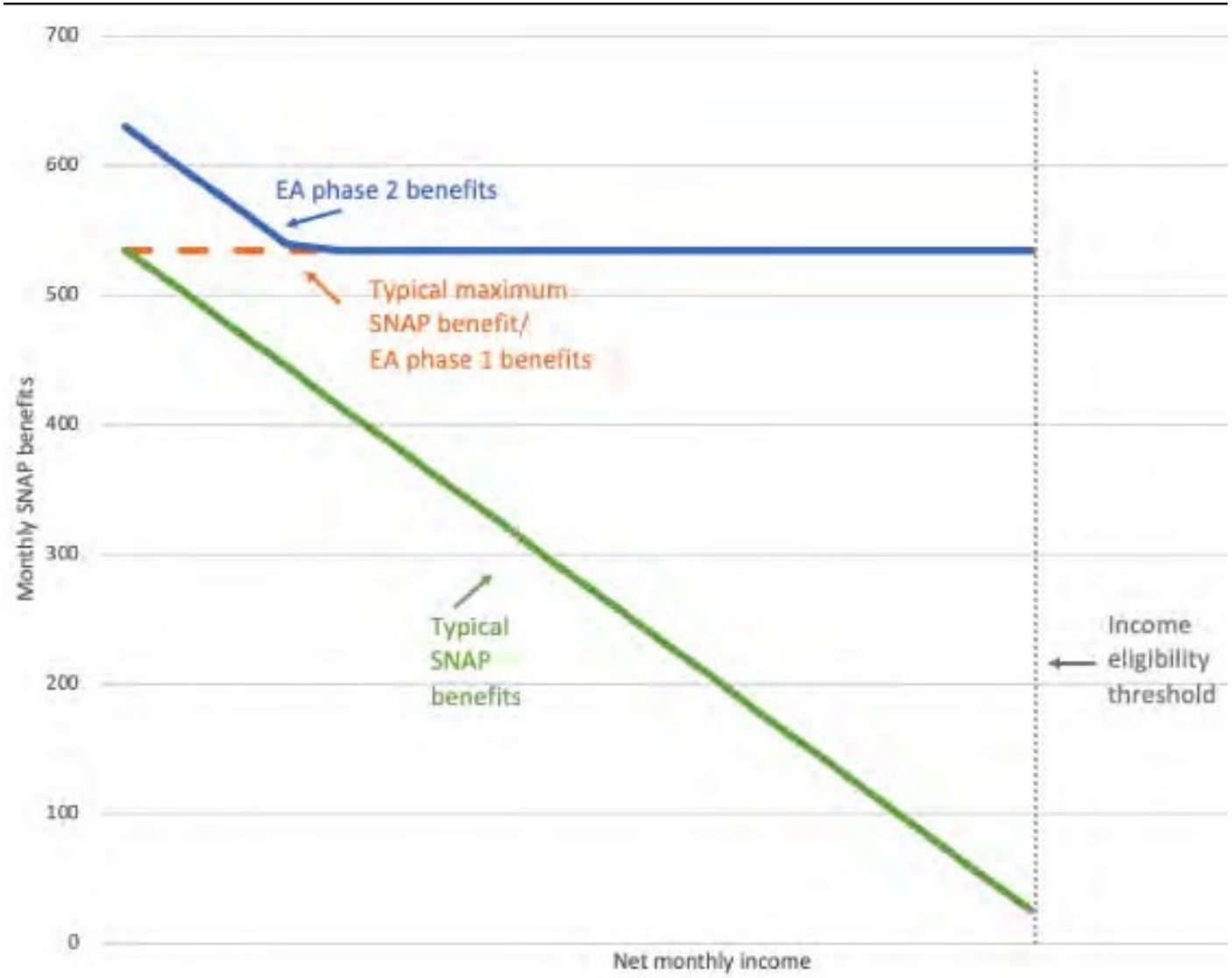
Identification: state by week

Pandemic-era transfers (II): SNAP Emergency Allotments (EA)

Monthly in-kind transfer:

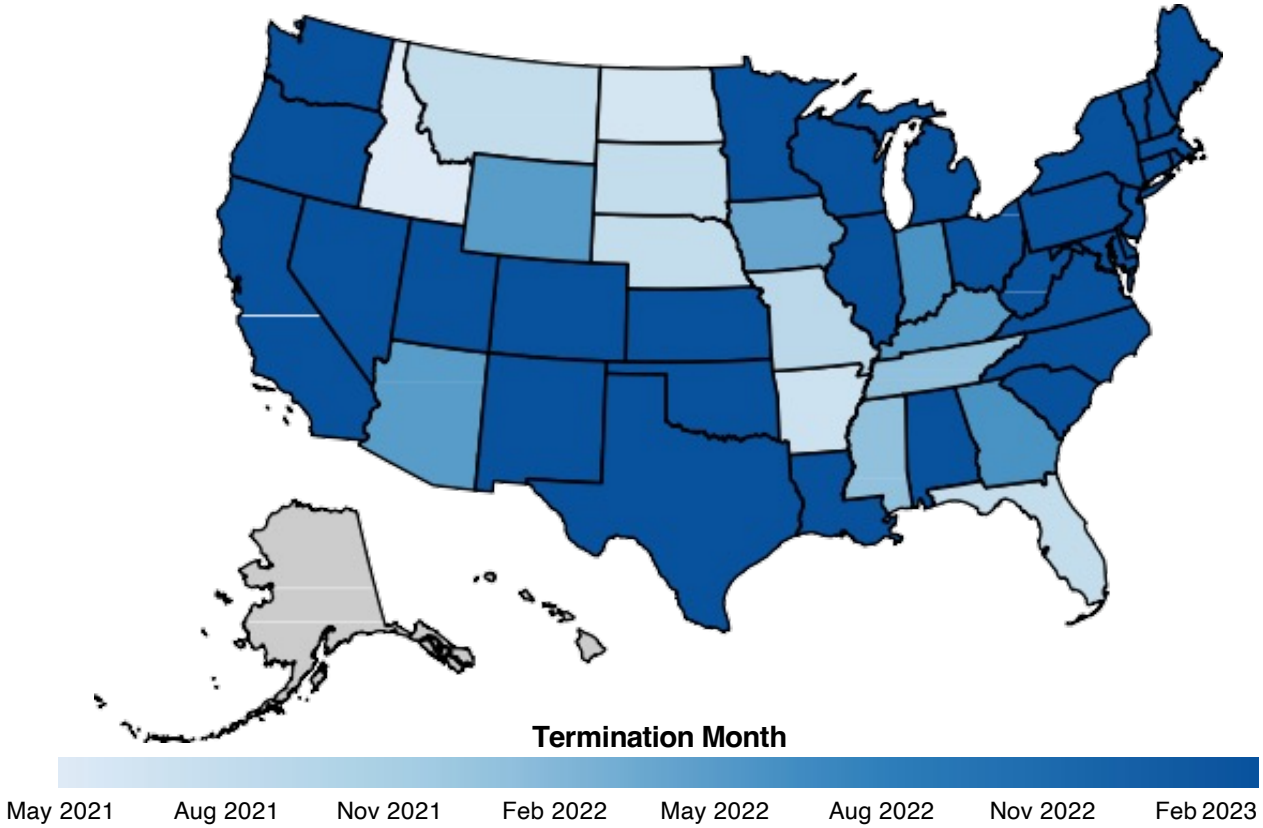
- Pre-pandemic: *SNAP* = *maxben* – 0.3(*netincome*).
- Beginning April 2020, all families received maximum benefit (for HH size).
- Beginning April-May 2021, all families received either the maximum benefit or a $95/mo increase (whichever larger).
    - Average amount (families w/children): $201/month
- 14 states ended EA between May 2021 and February 2023.

SNAP benefits with/out EA, family of 3



Source: Schanzenbach 2023

Number of states with EA



Identification: state by month

Pandemic-era transfers (III): Economic Impact Payment (EIP)

One-time cash transfer:

- Families received $1,200/adult, $500/child in April 2020, based on previous year's income and household structure.
- Automatically disbursed by IRS and SSA → high take-up, ≈ 90% of income-eligible families received.
- Subsequent payments announced/paid in December/January 2020-1, March 2021.

Identification: week of treatment vs. control year

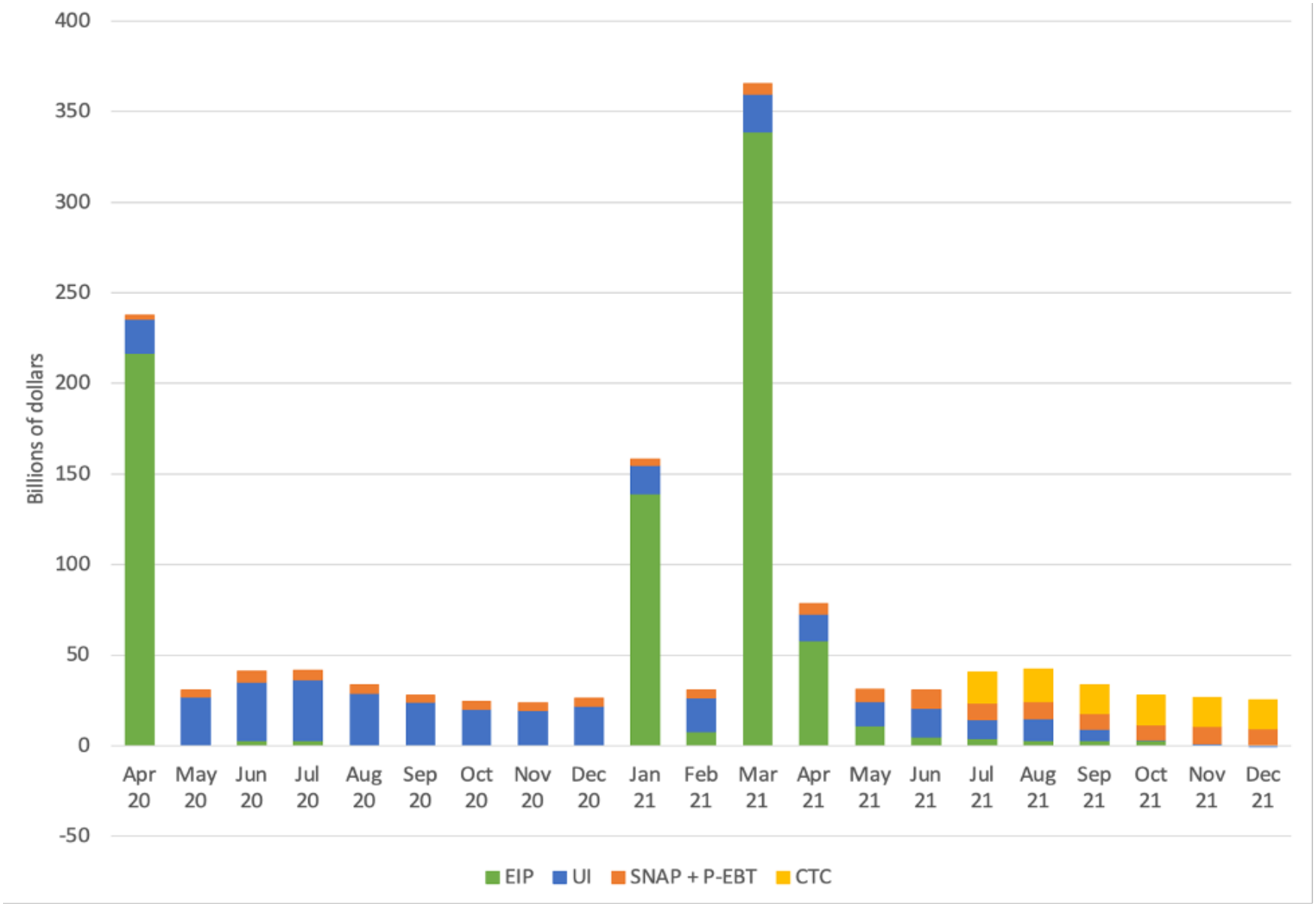
Pandemic-era transfers (IV): Expanded Child Tax Credit (CTC)

Monthly cash transfer:

- July-December 2021: Fully refundable, monthly cash transfer $250/child ($300/young child).
- Fully refundable: No income requirement.
- Automatically disbursed by IRS → high take-up, ≈ 90% of income-eligible families received.

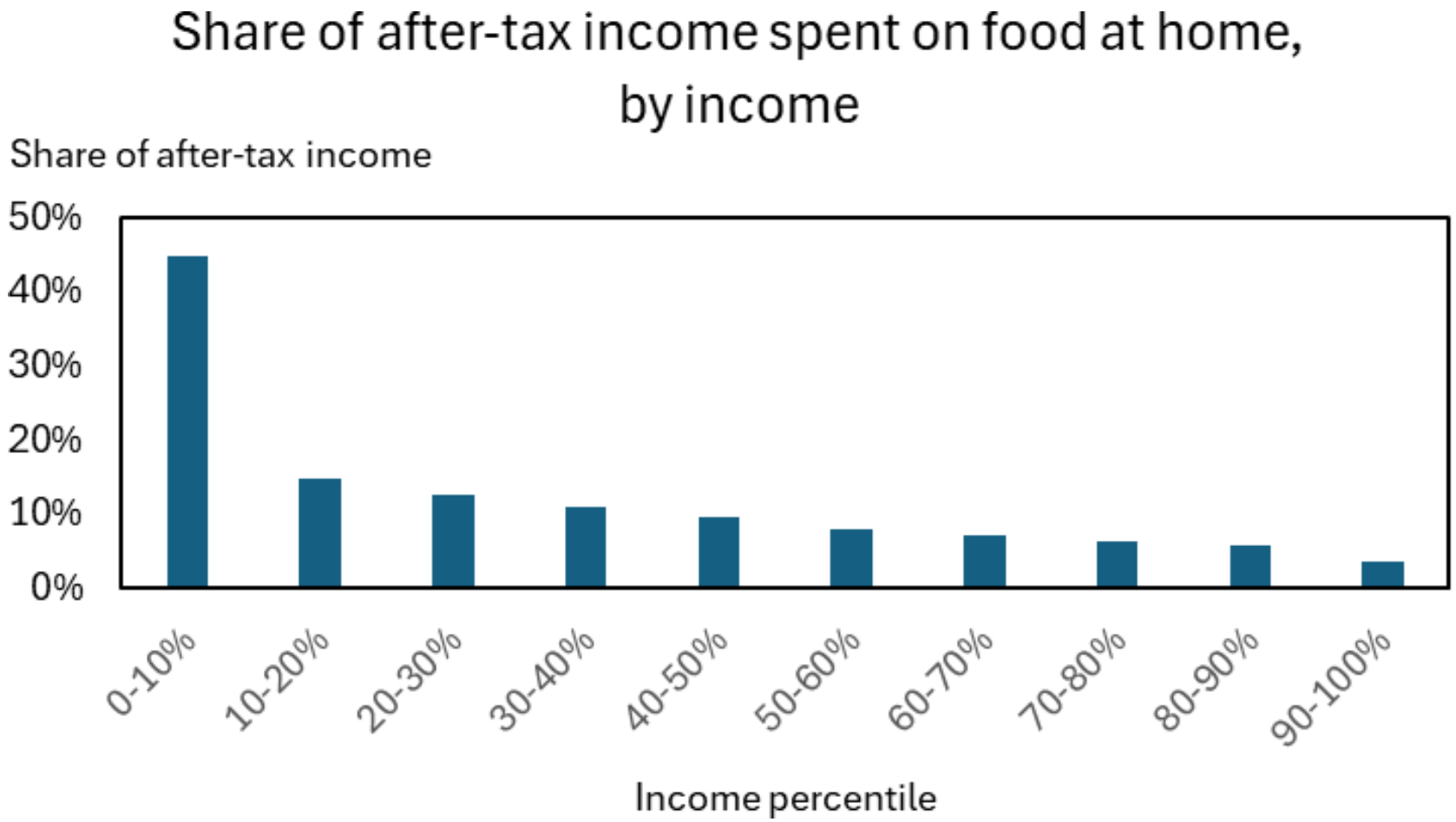
Identification: week of treatment vs. control year

Government spending over analysis period



Data

Food at home is a large expenditure

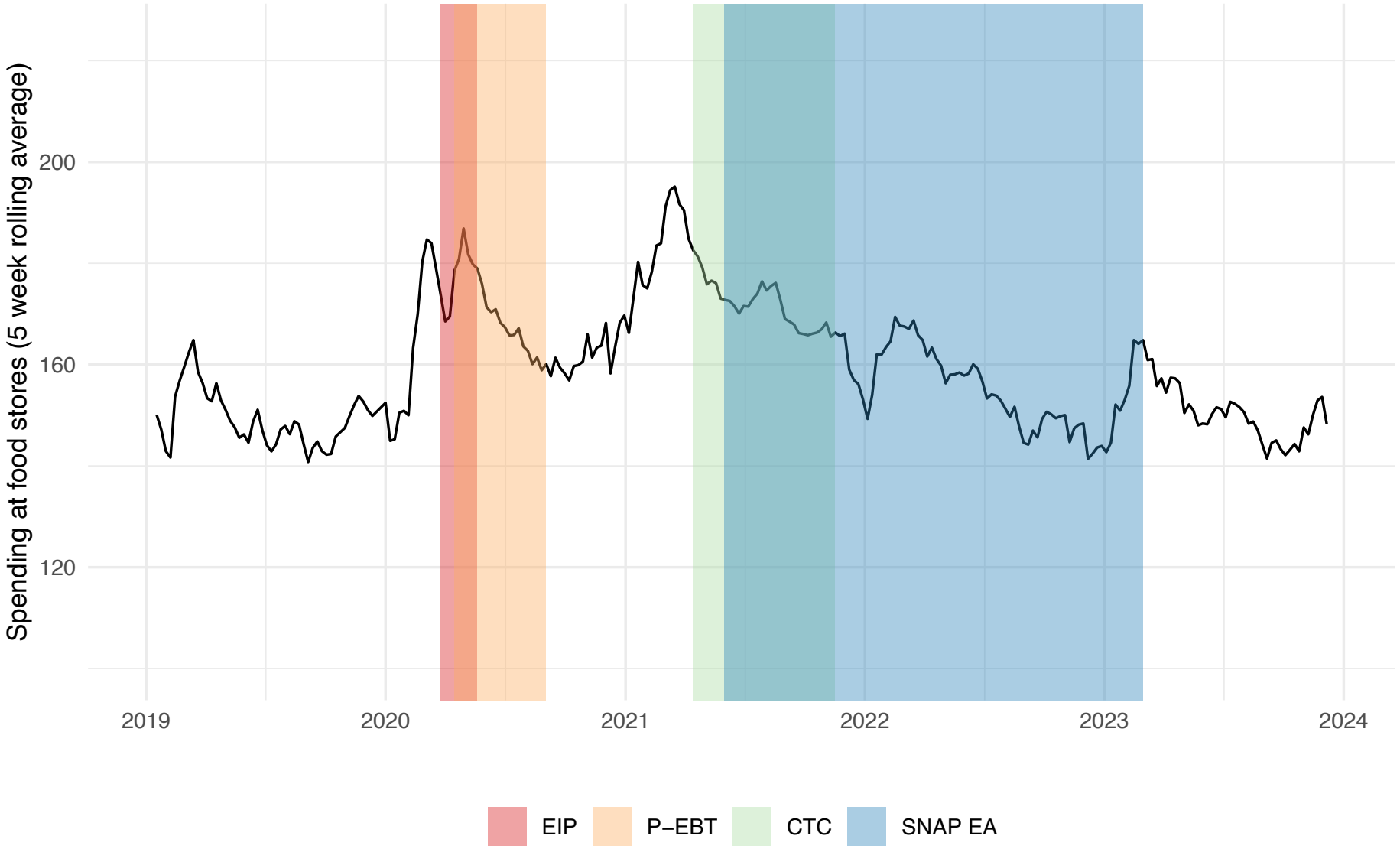


Source: CEX 2023

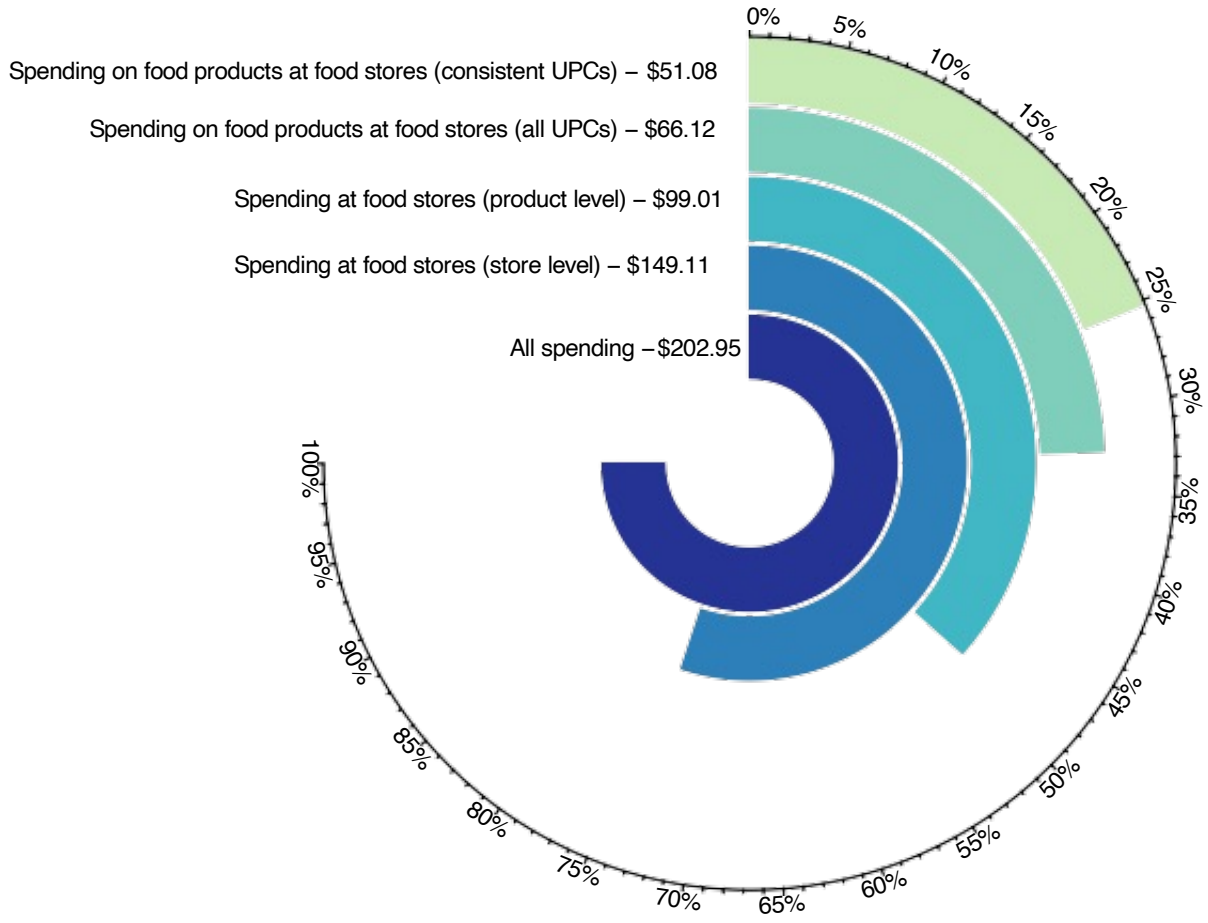
Data: NielsenIQ Consumer Panel

- 60,000 households, record all purchases of products for personal, in-home use.
- Transaction-level data: Household, store, product characteristics.
  - Focus: Spending at food stores (incl. grocery, club, discount stores)
- Sample:
  - School-age (P-EBT) children.
  - "Magnet" household (info on products w/out UPCs).
  - 1+ grocery purchase/month, grocery spending < 100% income + SNAP.
  - Eligible for all 4 programs: HH income ≈ <130% poverty line.

Policy timing and spending at food stores

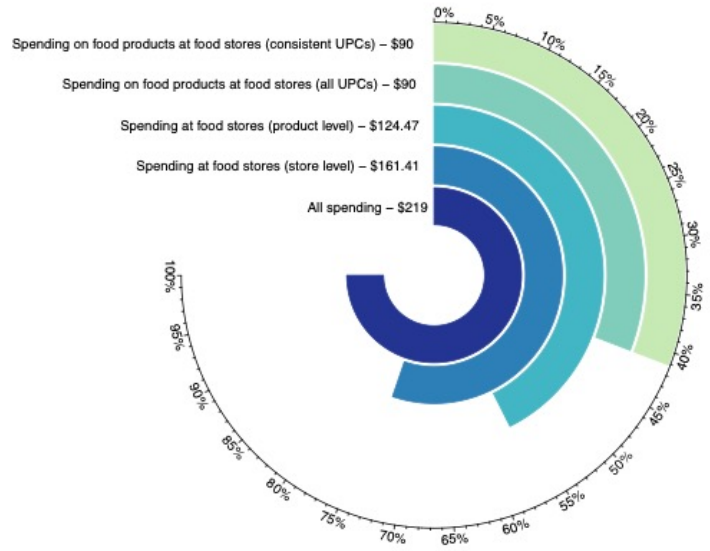


NielsenIQ spending coverage, CTC

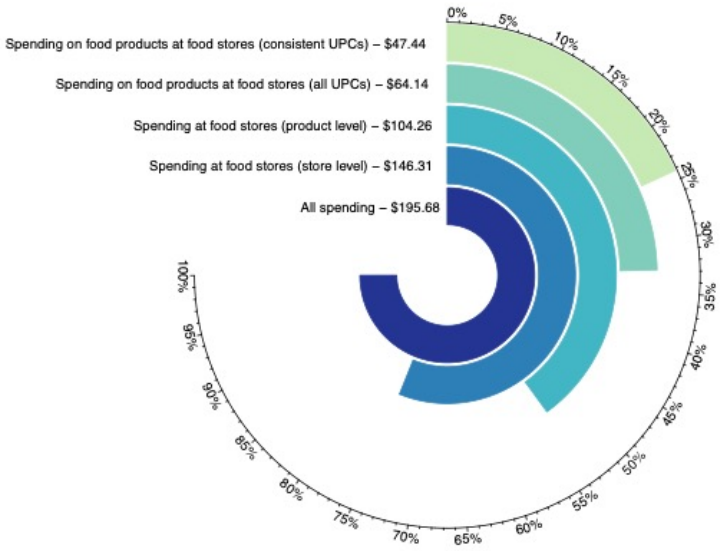


Data coverage

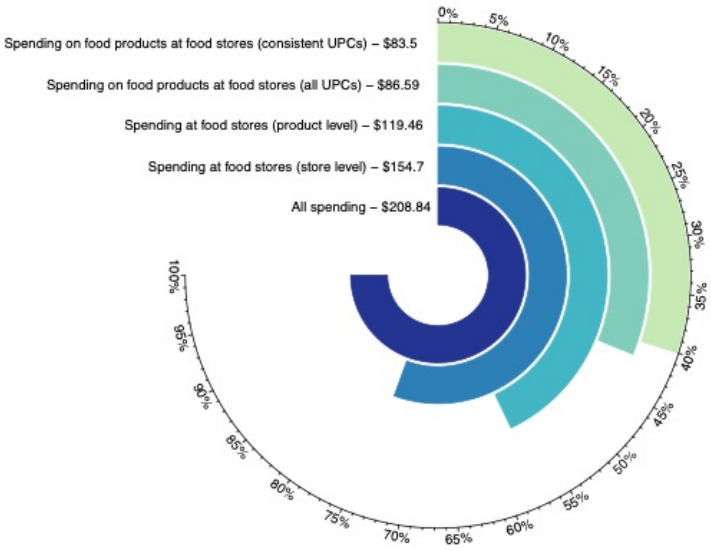
(a) P-EBT



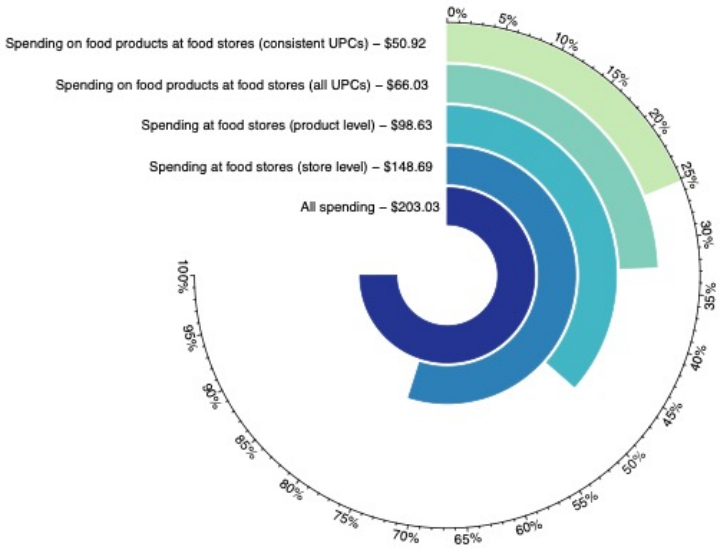
(b) SNAP EA



(c) EIP



(d) CTC



Empirical approach: Staggered difference-in-differences

$$Y_{ist} = \beta Benefits_{ist} + X^{t}_{i\,st}\vartheta + \delta_s + \gamma_t + \varepsilon_{ist}$$

- Y_{ist} : outcome for family i in state s in week t
- $Benefits_{ist}$: Amount received in last 4 weeks ($100s)
- $X^{t}_{i\,st}$: Controls
  - Demographic: age, race, education, # adults, # children, marital status.
  - COVID: SAH orders, mask mandates, restaurant closures, UI processing speed, income bin
- δ_s, γ_t : state, week fixed effects

Drop "already-treated" states for policies with x-state variation (P-EBT, EA): Control group = "not-yet-treated" states.

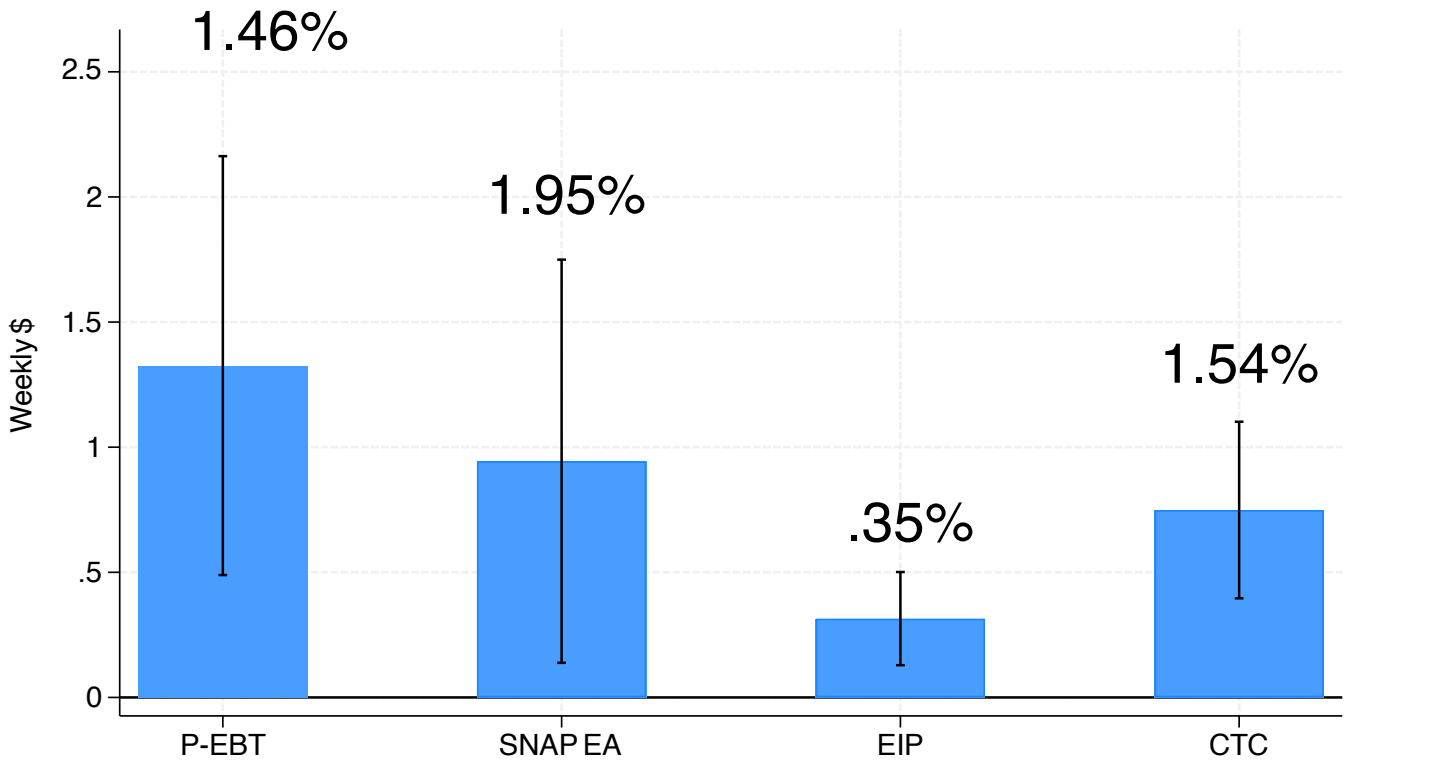
Results

Results: Transfers and spending

	(1) Total spending at food stores	(2) Total food spending
	Panel a: P-EBT	
PEBT last 4 weeks ($100s)	1.706** (0.807)	1.411*** (0.432)
N	9956	9956
DV mean	166.549	90.346
Avg P-EBT	6.381	6.381
% Δ (/$100)	1.02%	1.56%
	Panel b: SNAP EA	
SNAP EA last 4 weeks ($100s)	3.654*** (1.007)	0.960** (0.414)
N	18948	18948
DV mean	150.156	48.608
Avg SNAP EA	4.000	4.000
% Δ (/$100)	2.43%	1.97%

	(1) Total spending at food stores	(2) Total food spending
	Panel c: EIP	
EIP last 4 weeks ($100s)	0.672*** (0.164)	0.289*** (0.095)
N	15432	15432
DV mean	157.035	88.246
Avg EIP	43.730	43.730
% Δ (/$100)	0.43%	0.33%
	Panel d: Monthly CTC	
CTC last 4 weeks ($100s)	1.987*** (0.484)	0.720*** (0.181)
N	58745	58745
DV mean	163.254	48.614
Avg CTC	5.560	5.560
% Δ (/$100)	1.22%	1.48%

Results: Transfers and total food spending



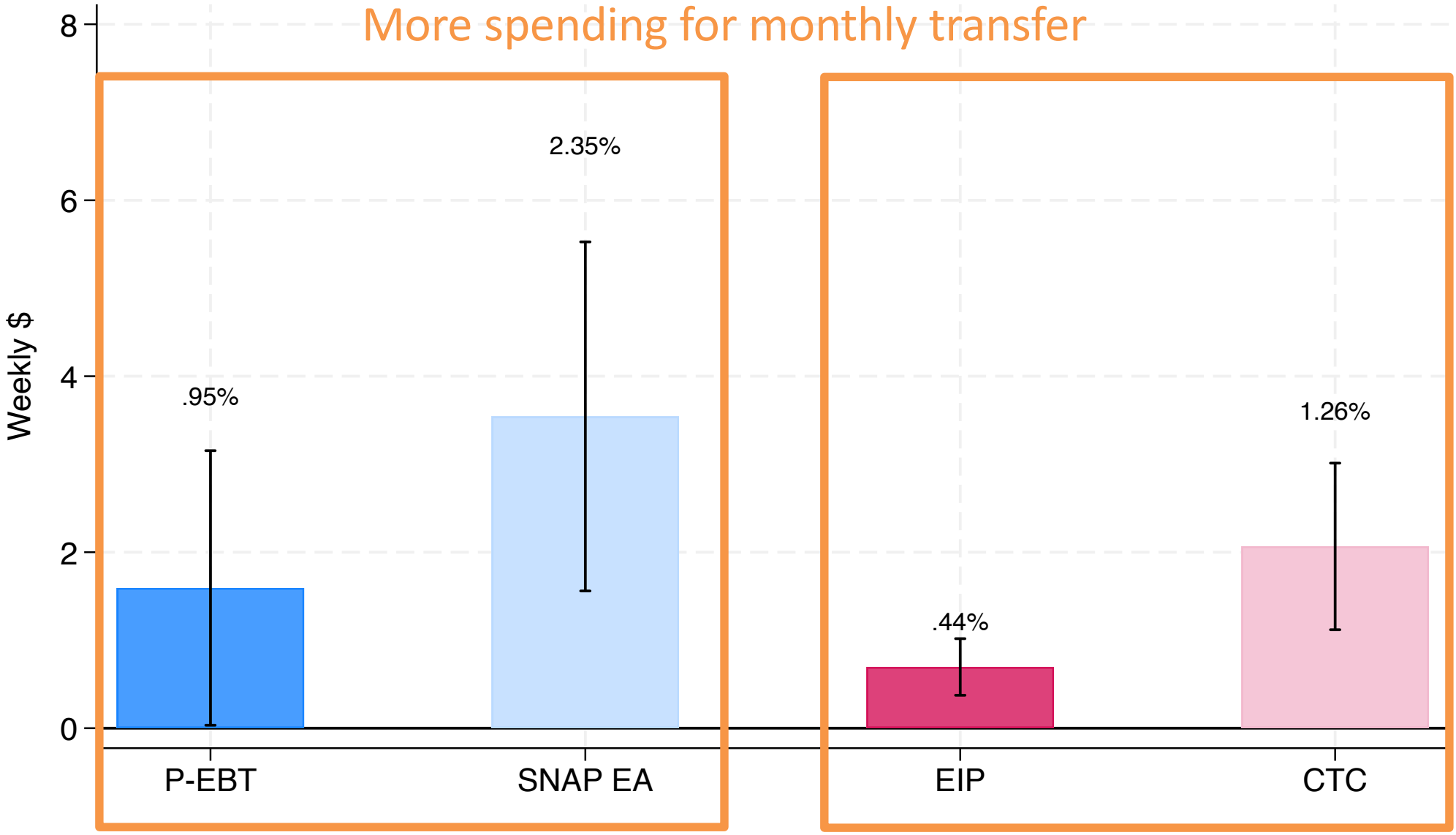
One-shot, food

Monthly, food

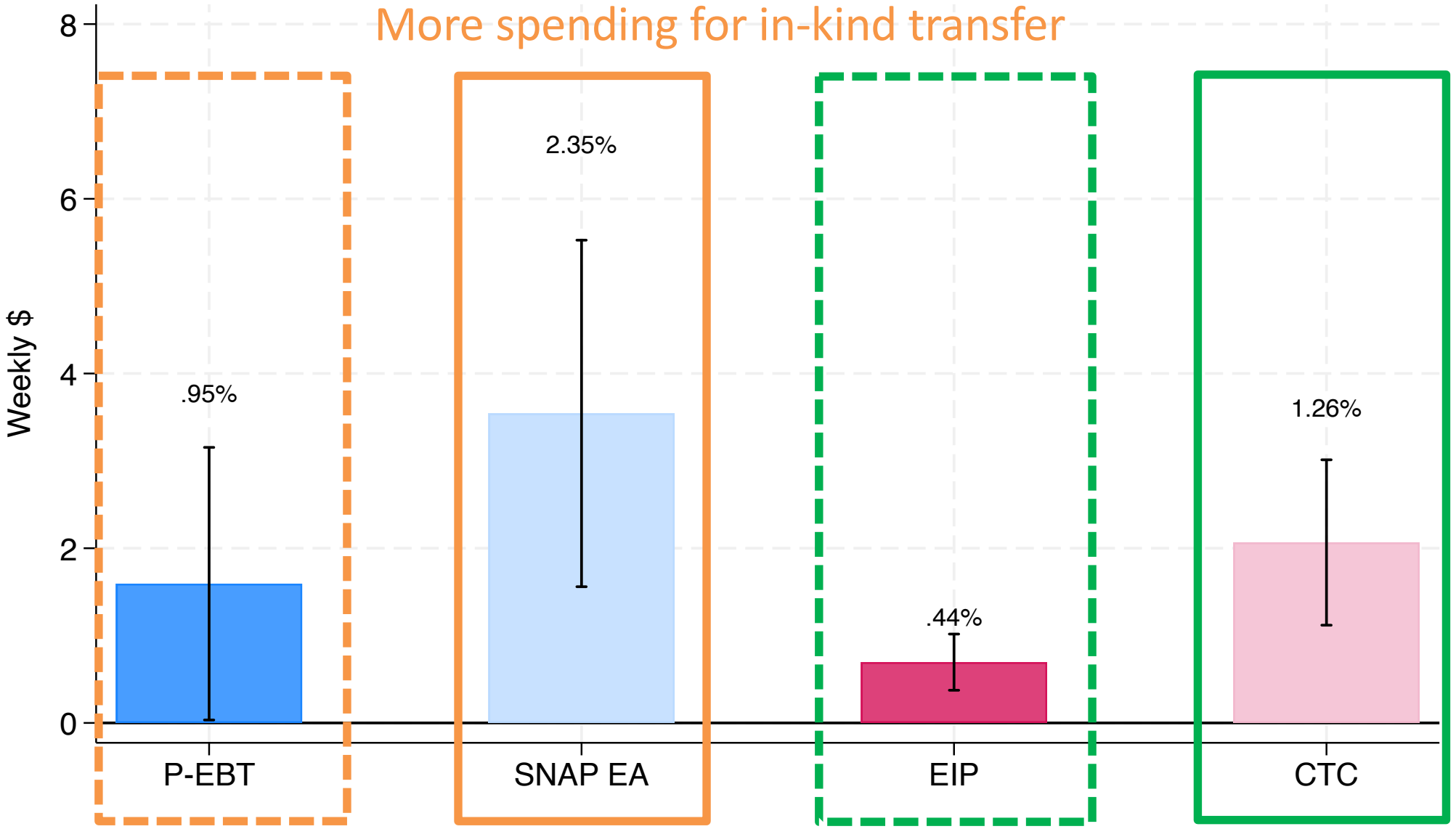
One-shot, cash

Monthly, cash

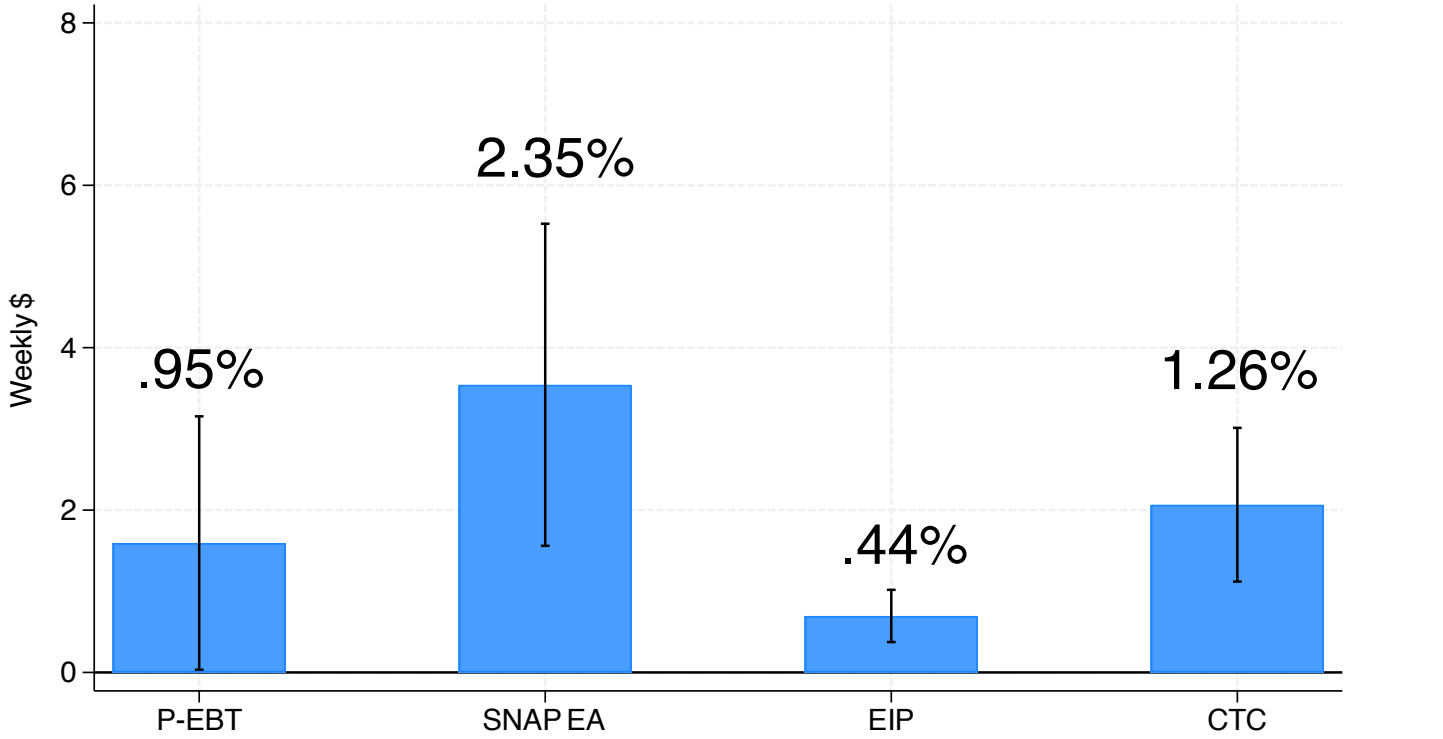
Results: Transfers and total food spending



Results: Transfers and total food spending



Results: Transfers and total spending at food stores



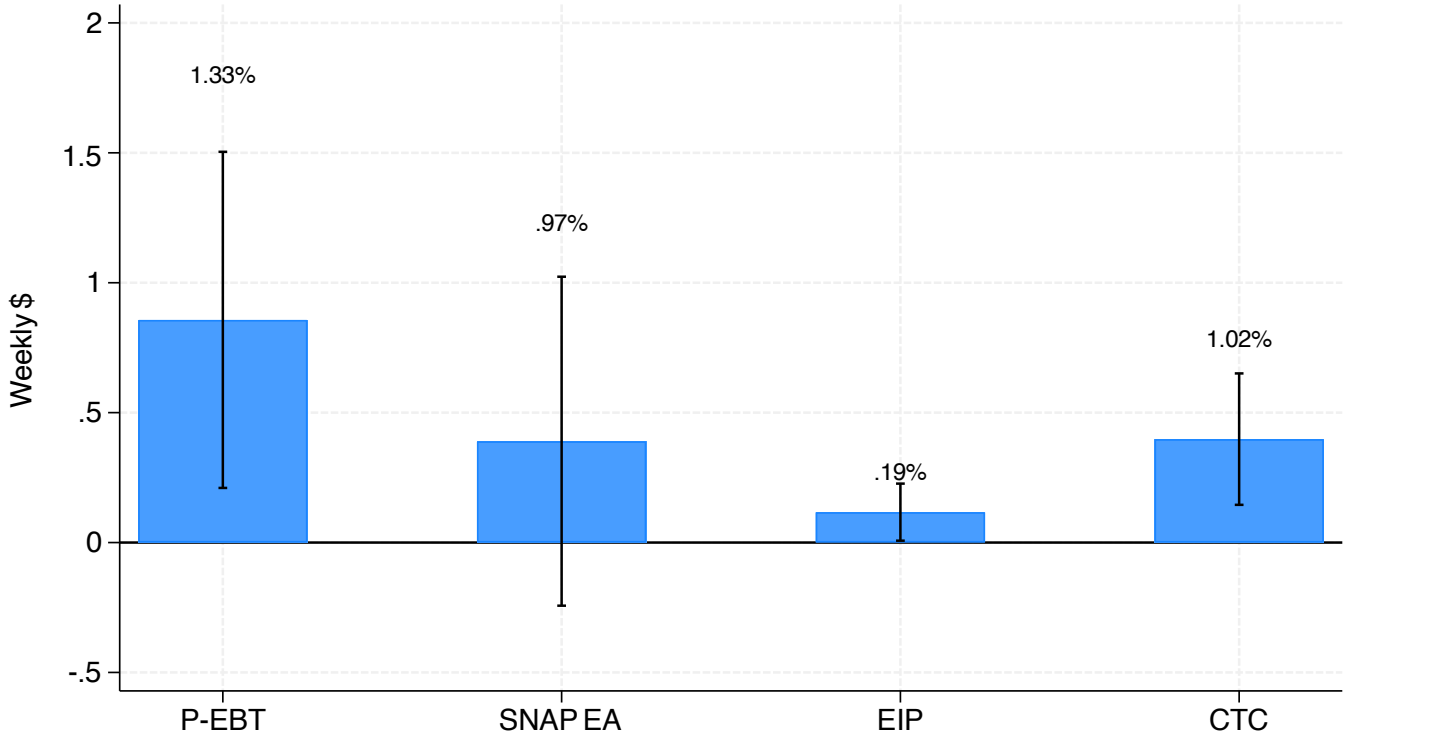
One-shot, food

Monthly, food

One-shot, cash

Monthly, cash

Results: Transfers and spending per trip



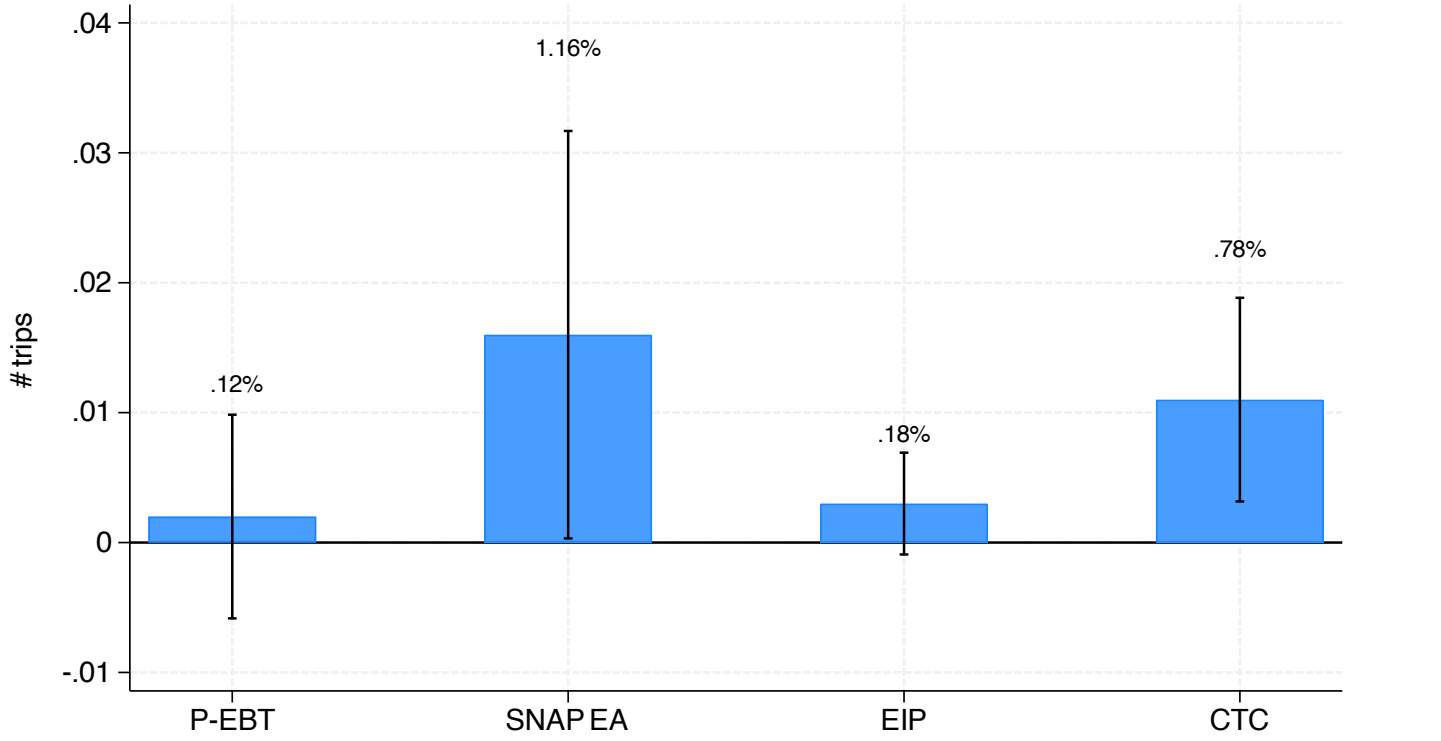
One-shot, food

Monthly, food

One-shot, cash

Monthly, cash

Results: Transfers and number of trips



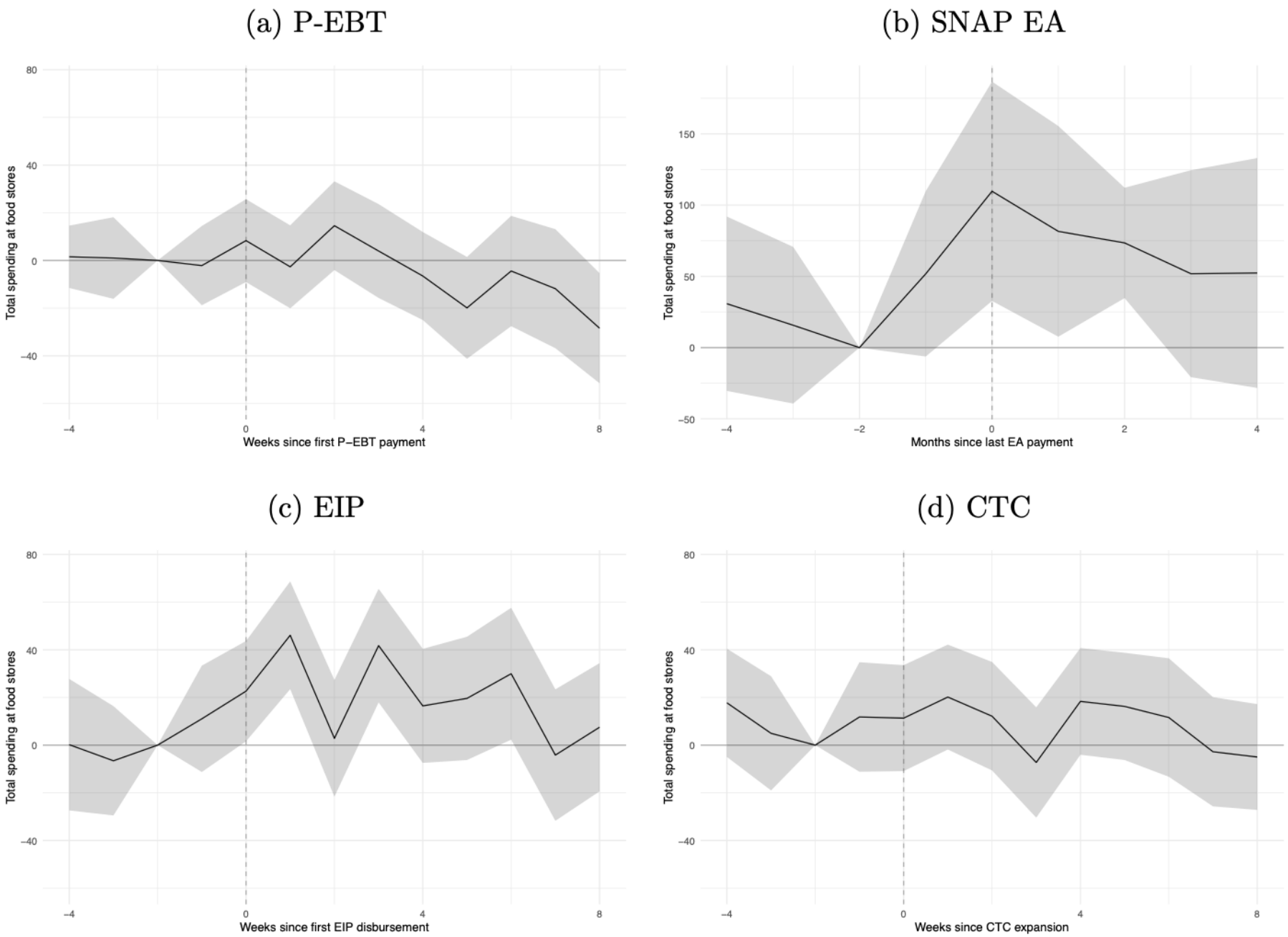
One-shot, food

Monthly, food

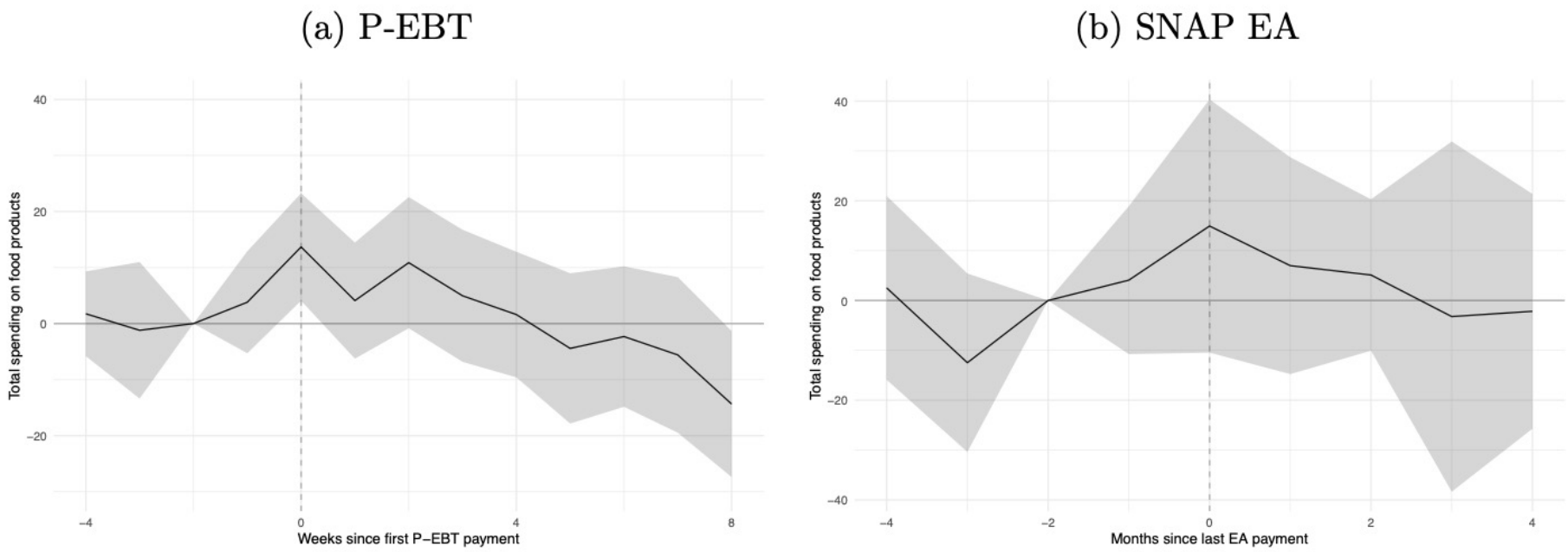
One-shot, cash

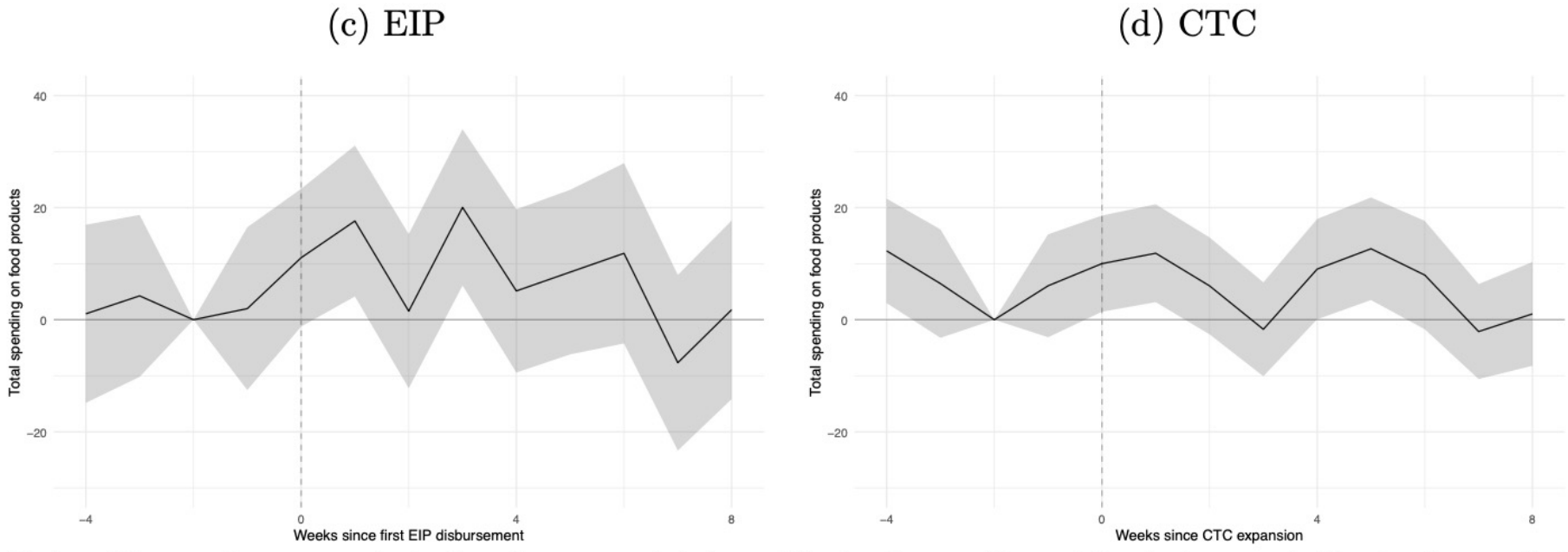
Monthly, cash

Event studies: total spending at food stores

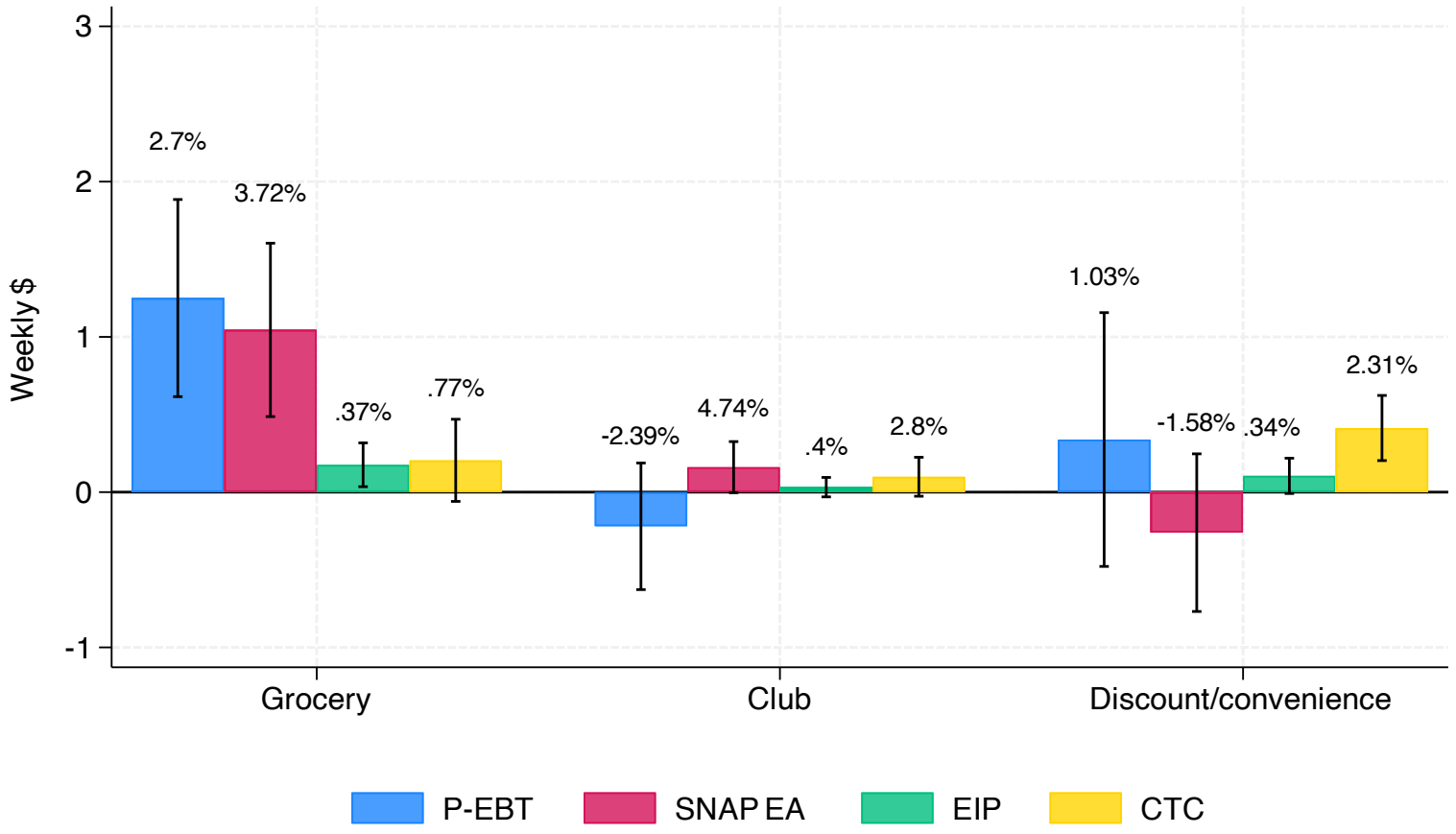


Event studies: food spending

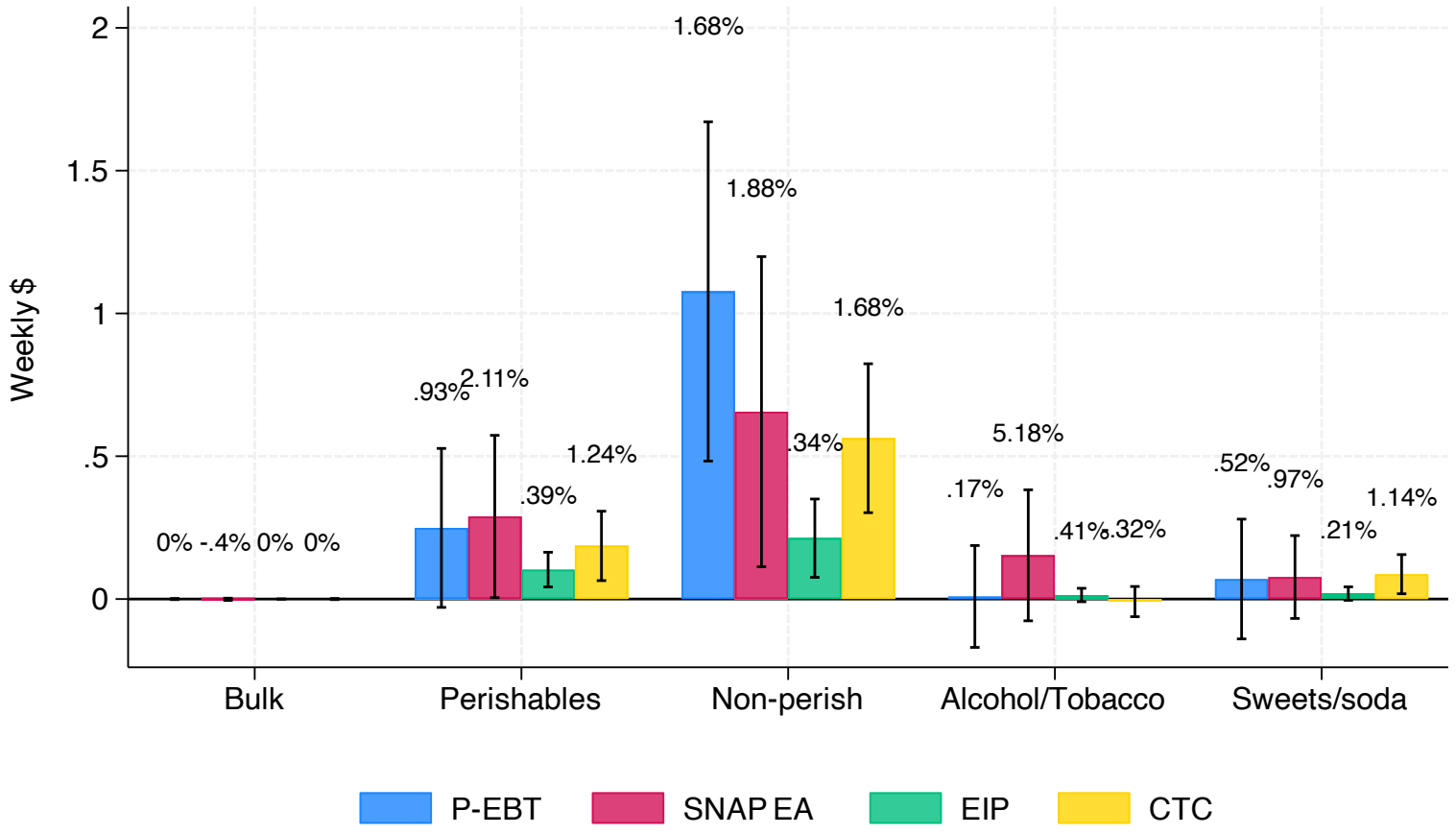




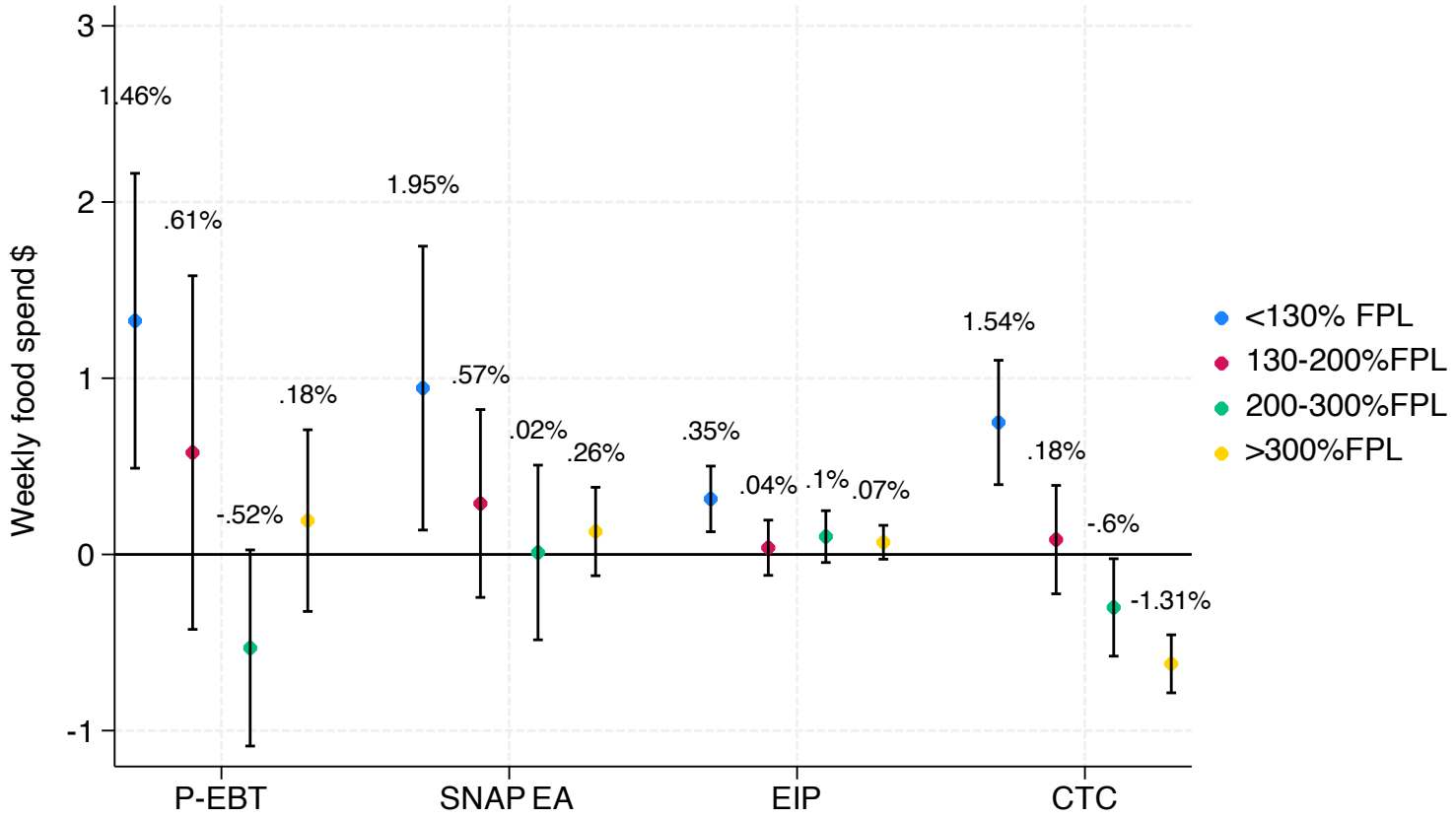
Results: Transfers and spending by type of store



Results: Transfers and type of spending



Results: Transfers and total food spending, higher-income households w/school-aged children



How to think about higher income

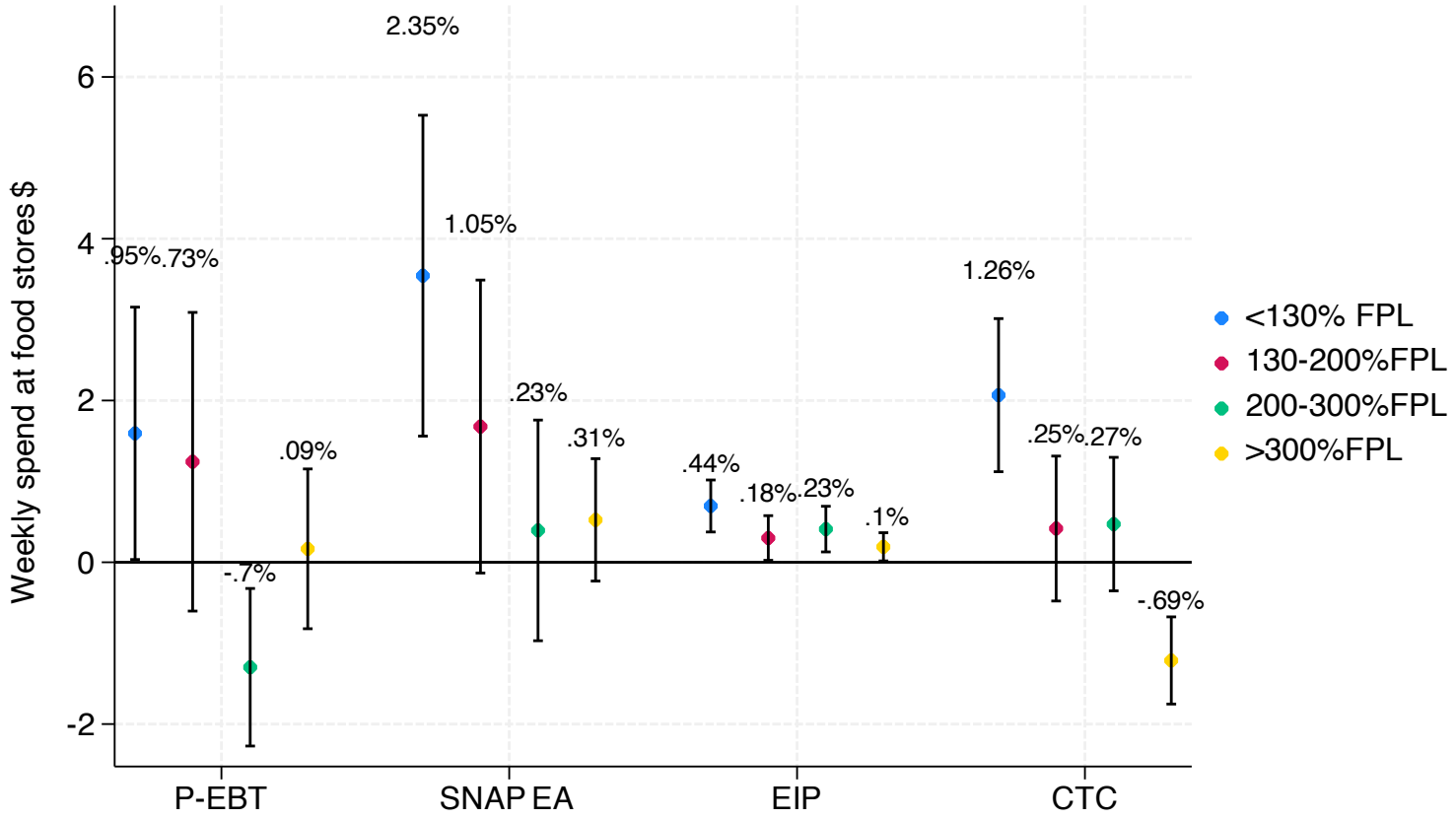
Potentially treated

placebo

treated

treated

Results: Transfers and spending at food stores, higher-income households w/school-aged children



How to think about higher income

Potentially treated

placebo

treated

treated

Different types of low-income families

	(1) HH w/ school-aged children	(2) HH w/ any children	(3) All HH w/o children	(4) All HH
	Panel a: P-EBT			
P-EBT last 4 weeks	1.706**	1.211	-0.268	1.411
($100s)	(0.807)	(0.934)	(0.360)	(0.856)
N	9956	10932	22212	33144
DV mean	166.549	162.490	113.433	133.285
Avg P-EBT	6.381	5.781	6.104	2.261
Share eligible	1.000	0.892	0.000	0.361
Avg P-EBT if eligible	6.381	6.381	.	6.381
% Δ (/$100)	1.02%	0.75%	-0.24%	1.06%
	Panel b: SNAP EA			
SNAP EA last 4 weeks	3.654***	3.353***	1.911*	2.910***
($100s)	(1.007)	(0.887)	(0.950)	(0.905)
N	18948	20336	23871	44207
DV mean	150.156	148.524	128.367	140.234
Avg SNAP EA	4.000	3.960	2.720	3.410
Share eligible	1.000	1.000	1.000	1.000
Avg SNAP EA if eligible	4.000	3.960	2.720	3.410
% Δ (/$100)	2.43%	2.26%	1.49%	2.08%
	Panel c: EIP			
EIP last 4 weeks	0.672***	0.651***	0.366***	0.536***
($100s)	(0.164)	(0.157)	(0.118)	(0.092)
N	15432	17080	36272	53352
DV mean	157.035	156.257	107.802	126.880
Avg EIP	43.730	43.330	25.020	32.230
Share eligible	1.000	1.000	1.000	1.000
Avg EIP if eligible	43.730	43.330	25.020	32.230
% Δ (/$100)	0.43%	0.42%	0.34%	0.42%
	Panel d: Monthly CTC			
CTC last 4 weeks	1.987***	1.998***	-0.079	1.698***
($100s)	(0.484)	(0.470)	(0.279)	(0.339)
N	58745	64728	133362	198090
DV mean	163.254	160.690	104.276	127.379
Avg CTC	5.560	5.470	5.100	2.240
Share eligible	0.937	0.943	0.000	0.386
Avg CTC if eligible	5.940	5.800	.	5.800
% Δ (/$100)	1.22%	1.24%	-0.08%	1.33%

Different types of low-income families

	(1) HH w/ school-aged children	(2) HH w/ any children	(3) All HH w/o children	(4) All HH
	Panel a: P-EBT			
P-EBT last 4 weeks	1.411***	1.037*	-0.238	1.209**
($100s)	(0.432)	(0.527)	(0.203)	(0.450)
N	9956	10932	22212	33144
DV mean	90.346	88.494	62.324	72.914
Avg P-EBT	6.381	5.781	6.104	2.261
Share eligible	1.000	0.892	0.000	0.361
Avg P-EBT if eligible	6.381	6.381	.	6.381
% Δ (/$100)	1.56%	1.17%	-0.38%	1.66%
	Panel b: SNAP EA			
SNAP EA last 4 weeks	0.960**	0.769**	0.606	0.618*
($100s)	(0.414)	(0.368)	(0.413)	(0.320)
N	18948	20336	23871	44207
DV mean	48.608	48.021	40.626	44.980
Avg SNAP EA	4.000	3.960	2.720	3.410
Share eligible	1.000	1.000	1.000	1.000
Avg SNAP EA if eligible	4.000	3.960	2.720	3.410
% Δ (/$100)	1.97%	1.60%	1.49%	1.37%
	Panel c: EIP			
EIP last 4 weeks	0.289***	0.250***	0.107	0.182***
($100s)	(0.095)	(0.090)	(0.065)	(0.052)
N	15432	17080	36272	53352
DV mean	88.246	88.141	60.375	71.308
Avg EIP	43.730	43.330	25.020	32.230
Share eligible	1.000	1.000	1.000	1.000
Avg EIP if eligible	43.730	43.330	25.020	32.230
% Δ (/$100)	0.33%	0.28%	0.18%	0.26%
	Panel d: Monthly CTC			
CTC last 4 weeks	0.720***	0.718***	-0.518***	0.275**
($100s)	(0.181)	(0.175)	(0.099)	(0.125)
N	58745	64728	133362	198090
DV mean	48.614	48.114	30.959	37.985
Avg CTC	5.560	5.470	5.100	2.240
Share eligible	0.937	0.943	0.000	0.386
Avg CTC if eligible	5.940	5.800	.	5.800
% Δ (/$100)	1.48%	1.49%	-1.67%	0.72%

Marginal Propensity to Consume

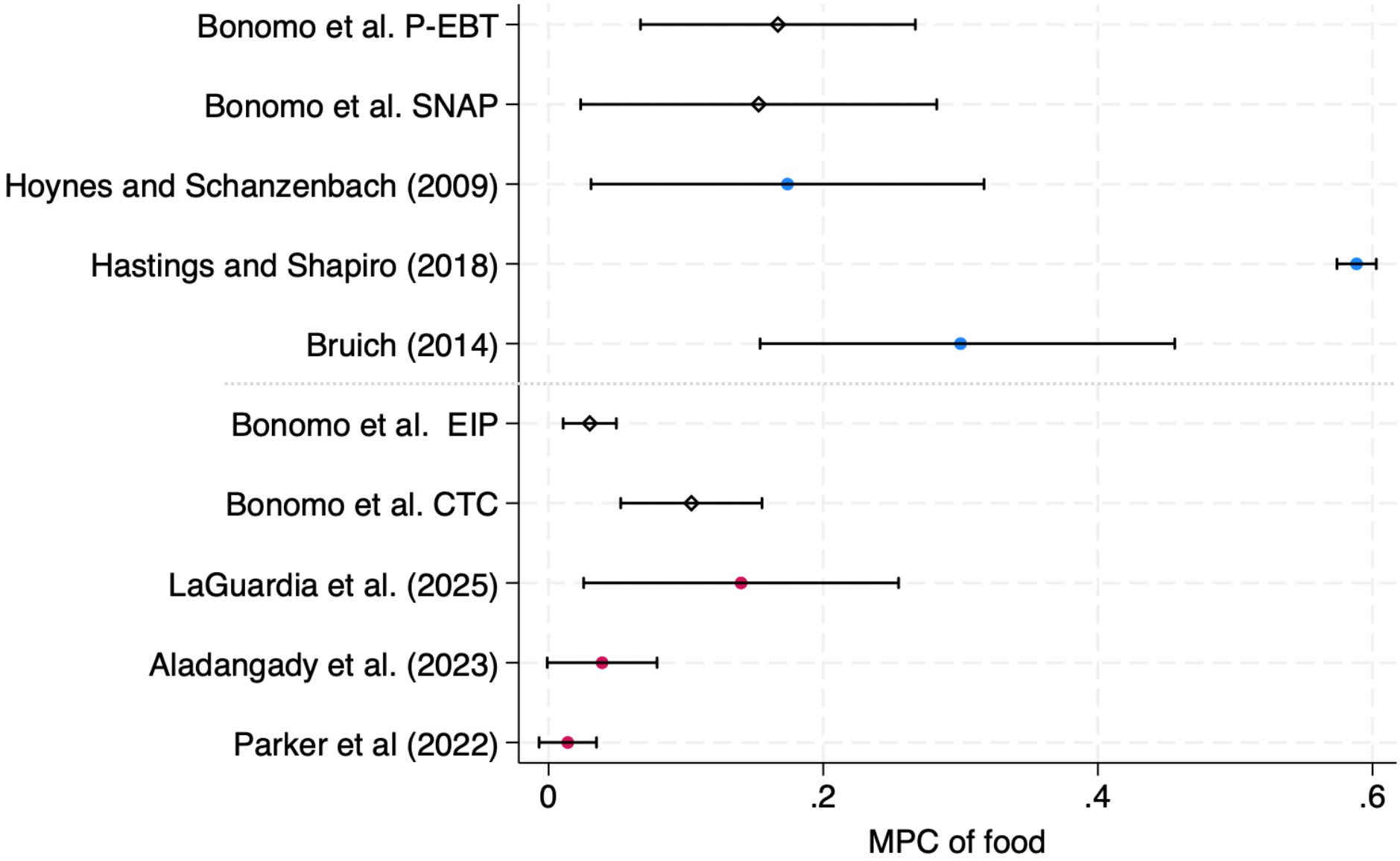
Weekly ITT food spending -> monthly TOT food spending

1. Adjust monthly to weekly.
2. Adjust consistent UPC to full UPC. (pie)
3. Underreporting shopping trips in NielsenIQ (Einav et al. 2008)
4. Incomplete take-up (78% eligible for SNAP to 92% EIPs)

Marginal propensity to consume: food spending

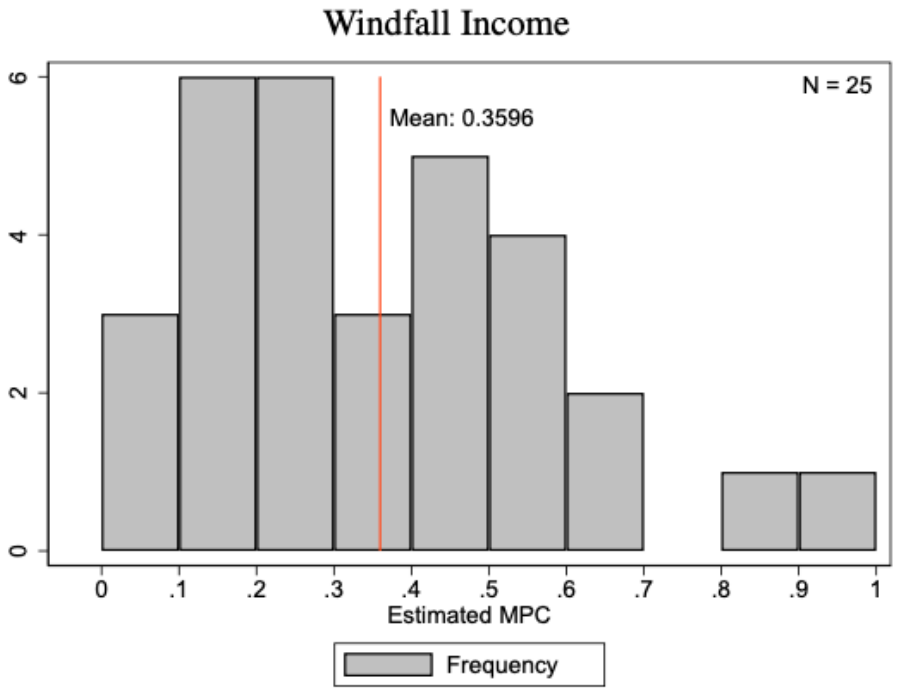
	(1) Weekly ITT MPC (Table 1)	(2) Monthly ITT MPC	(3) MPC: adjust UPC underreport	(4) MPC: adjust NielsenIQ underrept	(5) Monthly TOT MPC food
P-EBT	0.014	0.061	0.061	0.130	0.167
SNAP EA	0.010	0.042	0.056	0.120	0.153
EIP	0.003	0.013	0.013	0.028	0.035
Monthly CTC	0.007	0.031	0.040	0.086	0.104

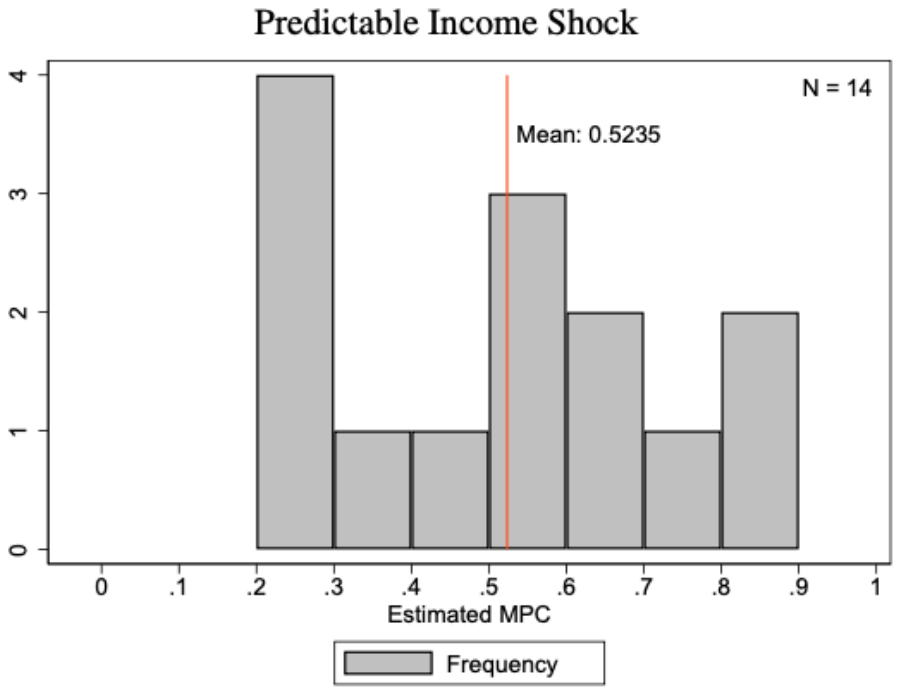
MPC within range of previous studies



Source: Karger & Ragan (2022)

Figure A42: Distribution of MPCs in the Literature





*our estimates just MPC on food

Karger & Ragan review of MPC literature

	Predictable Income Shocks			
1	Simon and Aigner (1970)	Aggregated US Transitory Income, 1897-1949	Aggregate US Income and Consumption Data	0.36–0.79
2	Laumas and Mohabbat (1972)	Aggregated US Transitory Income, 1949-1970	Aggregate US Income and Consumption Data	0.55–0.84
3	Bhalla (1979)	Income in Rural India	Additional Rural Income Survey, India 1968-1971	0.61–0.84
4	Ghatak and Ghatak (1996)	Private Consumption in India	Indian Economic Statistics, Public Finance	0.84
5	Souleles (2002)	Reagan Tax Cuts	Consumer Expenditure Survey	0.7
6	Luengo-Prado and Sorensen (2008)	Current and Lagged Income	BEA Disposable Labor Income	0.16–0.33
7	Hoynes and Schanzenbach (2009)	Food Stamp Program	Panel Survey of Income Dynamics	0.16–0.32
8	Gertler et al. (2012)	Oportunidades Conditional Cash Transfer	Oportunidades Rural Evaluation Suveys	0.4–0.7
9	Carroll, Slacalek, and Tokuoka (2014)	Wealth Distribution in Europe	Eurosystem Household Finance and Consumption Survey	0.1–0.4
10	Hastings and Shapiro (2018)	Supplemental Nutrition Assistance Program (SNAP)	Transaction Data from US grocery retailer	0.5–0.6
11	Kueng (2018)	Payments from Alaska Permanent Fund	Personal Finance Website	0.25
12	Gallagher et al. (2020)	Tax Refunds	Tax-Preparation Platform Data	0.38
13	Landais and Spinnewijn (2021)	Employment Status in Sweden	Registry of Swedish Households	0.41–0.55
14	Leive (2021)	Health Savings Accounts	Private Firm Data	0.85

	Citation	Event	Data	MPC
	Unpredictable Windfalls			
28	Baker et al. (2021)	2020 Economic Impact Payments	Transaction Data from Saver-Life	0.37
29	Boar, Gorea, and Midrigan (2021)	$500 cash transfer	Survey of Consumer Finances	0.17
30	Fuster, Kaplan, and Zafar (2021)	Hypothetical Windfall of $500, $2,500, or $5,000	NY Fed Survey of Consumer Expectations	0.07–0.12
31	Gelman (2021)	Federal Tax Refunds	Personal Finance App Data	0.10–0.14
32	Michelacci, Paciello, and Pozzi (2021)	2008 Economic Stimulus Payments	Nielsen Consumer Panel	0.05
33	Parker, Schild, Erhard, and Johnson (2022)	2020 Economic Impact Payments	Consumer Expenditure Survey	0.1
7	Imbens, Rubin, and Sacerdote (2001)	Massachusetts Lottery Prizes	Survey of Massachusetts Lottery Players	0.02–0.16
8	Hori and Shimizutani (2005)	1994 Japanese Tax Cut	Family Income and Expenditure Survey	0.1–0.2
9	Johnson, Parker, and Souleles (2006)	2001 Federal Income Tax Rebates	Consume Expenditure Survey	0.33
10	Shimizutani (2006)	1998 Japanese Tax Cuts	Family Income and Expenditure Survey	0.6
11	Hsieh et al. (2010)	1999 Japan shopping coupons	Family Income and Expenditure Survey	0.1–0.2
12	Oh and Reis (2012)	2007-2009 Government Transfers	U.S. GDP Data	0.11
13	Parker et al. (2013)	2008 Economic Stimulus Payments	Consumer Expenditure Survey	0.52
14	Broda and Parker (2014)	2008 Economic Stimulus Payments	Nielsen Consumer Panel	0.5–0.75
15	Huntley and Michelangeli (2014)	2001 Tax Rebate	2001 Survey of Consumer Finances	0.17–0.26
16	Jappelli and Pistaferri (2014)	Hypothetical Windfall Income	2010 Italian Survey of Household Income and Wealth	0.48
17	Kaplan and Violante (2014)	2001 Federal Income Tax Rebates	Survey of Consumer Finances	0.07–0.40
18	Graziani et al. (2016)	2011 Payroll Tax Cuts	Household Inflation Expectations Project	0.36–0.39
19	Hausman (2016)	1936 Veterans' Bonus	BLS Expenditure Survey, 1936	0.6–0.75
20	Garriga, Kydland, and Sustek (2017)	Interest Rate Shock	BEA National Income and Product Accounts	0.28
21	Kan, Peng, and Wang (2017)	2009 Taiwan shopping vouchers	Center for Survey Research of Academia Sinica	0.16–0.24
22	Parker and Souleles (2017)	2008 Economic Stimulus Payments	Nielsen Consumer Panel	0.17–0.79
23	Angelucci, De Giorgi, and Rasul (2018)	Payments from Progresa	Progresa Program Data	0.28–0.69
24	Bunn et al. (2018)	Hypothetical Windfall Income	Bank of England/NMG Survey	0.14
25	Campbell and Hercowitz (2019)	Tax Rebates	Survey of Consumer Finances	0.42
26	Christelis et al. (2019)	Hypothetical Income Windfall	CentER Internet Panel	0.2
27	Floden et al. (2020)	Interest Rate Changes	Longitudinal Individual Data for Sweden	0.19–0.50

Robustness: Different timing windows

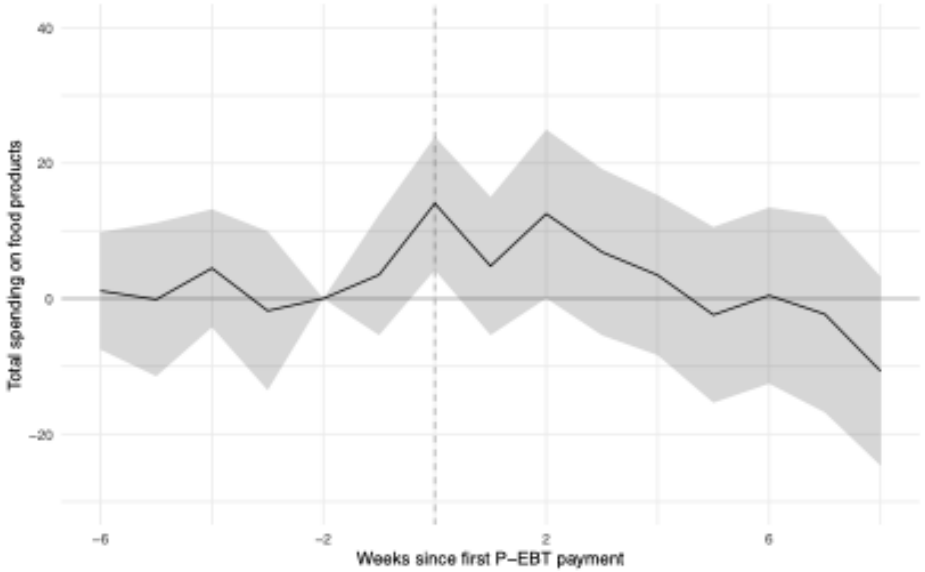
	Total spend	Total food spending	# of trips	Spend/ Grocery stores	Club stores	Discount/con- venience stores	Bulk trip purchases	Perish- ables	Non-perish- ables	Alcohol + Tobacco	Sweets + Soda
Panel a: P-EBT											
P-EBT last 2 weeks	1.503*	1.348***	0.001	0.891**	1.390***	-0.290	0.260	-0.000	0.227	1.121***	-0.014	0.064
	(0.788)	(0.497)	(0.004)	(0.418)	(0.378)	(0.196)	(0.455)	(0.001)	(0.176)	(0.341)	(0.056)	(0.095)
N	8311	8311	8311	6558	8311	8311	8311	6329	8311	8311	8311	8311
DV mean	167.040	91.047	1.653	64.498	46.279	9.218	33.017	0.238	26.754	64.293	5.446	13.491
Avg PEBT	6.381	6.381	6.381	6.383	6.381	6.381	6.381	6.395	6.381	6.381	6.381	6.381
%Δ (/$100)	0.90%	1.48%	0.06%	1.38%	3.00%	-3.15%	0.79%	0.00%	0.85%	1.74%	-0.26%	0.47%
Panel b: SNAP EA												
SNAP EA last 2 weeks												
N												
DV mean												
Avg SNAP EA												
%Δ (/$100)												
Panel c: EIP												
EIP last 2 weeks	0.745***	0.361***	0.003*	0.090	0.137	0.062	0.151**	0.000	0.118***	0.243***	0.000	0.012
	(0.214)	(0.115)	(0.002)	(0.068)	(0.086)	(0.041)	(0.071)	(0.000)	(0.039)	(0.084)	(0.015)	(0.016)
N	11592	11592	11592	9169	11592	11592	11592	8898	11592	11592	11592	11592
DV mean	158.014	89.141	1.707	61.231	47.249	7.988	30.753	0.228	26.148	62.993	3.443	9.139
Avg credit	43.930	43.930	43.930	44.250	43.930	43.930	43.930	44.260	43.930	43.930	43.930	43.930
%Δ (/$100)	0.47%	0.40%	0.18%	0.15%	0.29%	0.78%	0.49%	0.00%	0.45%	0.39%	0.00%	0.13%
Panel d: Monthly CTC												
CTC last 2 weeks	1.827***	0.710***	0.010*	0.297	0.285	-0.022	0.406**	-0.002	0.203**	0.508***	-0.026	0.156***
	(0.696)	(0.267)	(0.006)	(0.181)	(0.199)	(0.087)	(0.161)	(0.001)	(0.093)	(0.197)	(0.041)	(0.057)
N	26572	26572	26572	19909	26572	26572	26572	19603	26572	26572	26572	26572
DV mean	162.888	48.476	1.411	39.046	26.764	3.517	17.724	0.249	14.883	33.593	2.830	7.667
Avg CTC	5.590	5.590	5.590	5.600	5.590	5.590	5.590	5.600	5.590	5.590	5.590	5.590
%Δ (/$100)	1.12%	1.46%	0.71%	0.76%	1.06%	-0.63%	2.29%	-0.80%	1.36%	1.51%	-0.92%	2.03%

Robustness: Alternative product definitions

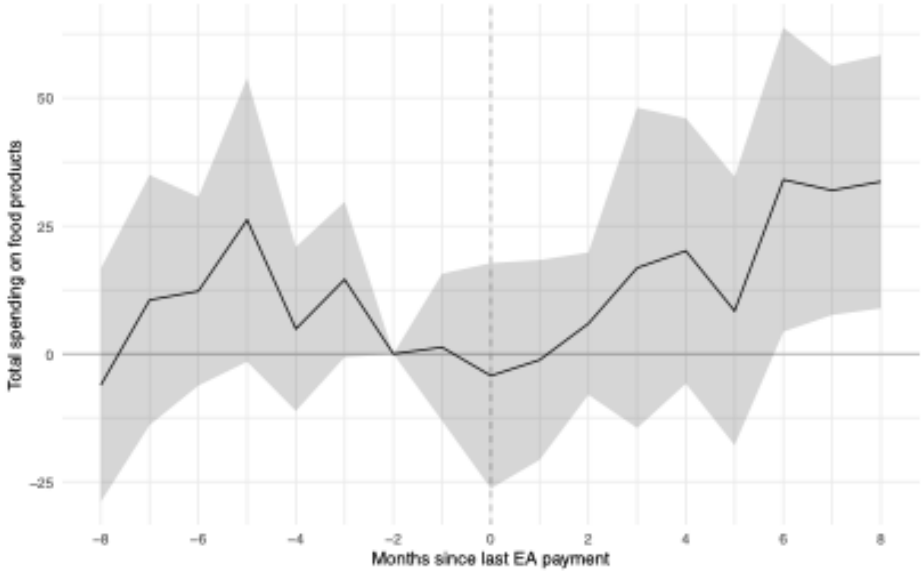
	All products			Food products			Non-food products	
	All stores, receipt level	Food stores, receipt level	All stores, product level	All stores, product level	All stores, product level clean UPCs	Food stores, product level clean UPCs	All stores, product level	All stores, product-level clean UPCs
				Panel a: P-EBT				
P-EBT last 4 weeks	1.556	1.594*	1.841**	1.452***	1.452***	1.326***	0.388	0.388
	(1.234)	(0.796)	(0.765)	(0.433)	(0.433)	(0.427)	(0.510)	(0.510)
N	9997	9997	9997	9997	9997	9997	9997	9997
DV mean	225.083	167.040	158.535	106.390	106.390	91.047	52.145	52.145
Avg P-EBT	6.389	6.389	6.389	6.389	6.389	6.389	6.389	6.389
%Δ (/$100)	0.69%	0.95%	1.16%	1.36%	1.36%	1.46%	0.74%	0.74%
				Panel b: SNAP EA				
SNAP EA last 4 weeks	2.414*	3.543***	1.629**	1.078**	0.957**	0.944**	0.551	0.643
	(1.240)	(1.012)	(0.769)	(0.534)	(0.410)	(0.411)	(0.441)	(0.418)
N	19002	19002	19002	19002	19002	19002	19002	19002
DV mean	200.871	150.662	127.818	66.431	52.376	48.494	61.387	52.315
Avg SNAP	3.990	3.990	3.990	3.990	3.990	3.990	3.990	3.990
%Δ (/$100)	1.20%	2.35%	1.27%	1.62%	1.83%	1.95%	0.90%	1.23%
				Panel c: EIP				
EIP last 4 weeks	0.855***	0.696***	0.623***	0.344***	0.262***	0.315***	0.279***	0.202***
	(0.227)	(0.164)	(0.147)	(0.102)	(0.076)	(0.095)	(0.084)	(0.066)
N	15456	15456	15456	15456	15456	15456	15456	15456
DV mean	205.304	158.014	153.617	108.277	78.444	89.141	45.340	30.822
Avg credit	43.740	43.740	43.740	43.740	43.740	43.740	43.740	43.740
%Δ (/$100)	0.42%	0.44%	0.41%	0.32%	0.33%	0.35%	0.62%	0.66%
				Panel d: Monthly CTC				
CTC last 4 weeks	2.078***	2.066***	1.095***	1.260***	0.927***	0.749***	-0.166	-0.303
	(0.672)	(0.483)	(0.367)	(0.234)	(0.188)	(0.180)	(0.228)	(0.210)
N	58838	58838	58838	58838	58838	58838	58838	58838
DV mean	227.306	163.989	124.458	61.755	52.447	48.648	62.703	55.643
Avg CTC	5.570	5.570	5.570	5.570	5.570	5.570	5.570	5.570
%Δ (/$100)	0.91%	1.26%	0.88%	2.04%	1.77%	1.54%	-0.26%	-0.54%

Event study: Longer pre-period

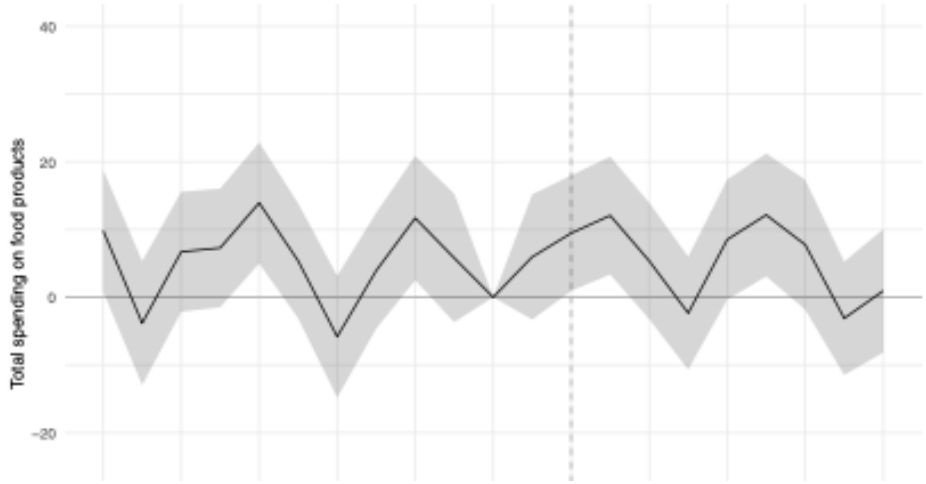
(a) P-EBT



(b) SNAP EA



(c) CTC



Conclusion

- Labeling effect: Food spending increases more with in-kind transfers than with cash.
    - Total spending at food stores.
    - (less clear) Food spending.
    - Difference ~50% (0.10 vs. 0.15)
- Forward-looking behavior: Spending increases more with monthly benefits than with one-shot.
- MPC within range (bottom end) of prior studies.
- Spending response highest for low-income families w/kids.
- Types of spending:
    - No change in bulk purchases or "sin goods."
    - Similar increase in perishables and non-perishables.