

The First of the Month Effect:
Consumer Behavior and Store Responses
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Background

- Benefit recipients buy and eat relatively more food at the beginning of the benefit month. Why?
 - Food spoilage
 - Benefit theft
 - Strategic considerations vis a vis other family members
 - Naiveté
 - ➔ Irrational poor
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Our Contribution

- Our innovation is grocery store scanner data for three Nevada neighborhoods which allows us to explore
 - Is the cycling a rational response to store pricing?
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Road Map

- Question 1: Do we observe cycling by benefit recipients in grocery store scanner data?
 - Question 2: Do store pricing patterns explain cycling?
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Question 1: Methodology

- Household-week-store expenditures on food items
- Regress log weekly expenditures on indicator of household receives benefits and the week number since 1st of the month
- Control for household fixed-effects, cluster standard errors at household level

$$Y_{its} = ben_i * week_t \beta' + week_t \delta' + h_i \lambda' + s_s \eta' + \varepsilon_{its}$$

Change in Expenditures

	All		
Ben*wk2	-0.189**		
Ben*wk3	-0.264**		
Ben*wk4	-0.299**		
Wk2	-0.017**		
Wk3	-0.006*		
Wk4	-0.005		

Change in Expenditures

	All	Storable	Perishable
Ben*wk2	-0.189**	-0.201**	-0.190**
Ben*wk3	-0.264**	-0.261**	-0.244**
Ben*wk4	-0.299**	-0.285**	-0.272**
Wk2	-0.017**	-0.010**	-0.019
Wk3	-0.006*	-0.005	-0.011**
Wk4	-0.005	-0.023**	-0.016**

Change in Expenditures Summary

- Similar in magnitudes to previous results, we find evidence of monthly food expenditure cycling.
 - Across food categories
 - Across stores

Question 2: Store Pricing

- Do stores price pro-cyclically with demand?
- Methodology: We create a price index for products purchased by benefit households and ask how the price of those products varies throughout the month.

Change in Pricing Results

	All			
Week 2	-.018**			
Week 3	-.023**			
Week 4	-.025**			

Change in Pricing Results

	All	Store 1 (14%)	Store 2 (26%)	Store 3 (45%)
Week 2	-.018**	-.016**	-.020**	-.018**
Week 3	-.023**	-.013**	-.025**	-.031**
Week 4	-.025**	-.016**	-.028**	-.034**

Change in Pricing Results

- Stores appear to be responding to change in expenditure
 - Larger price changes at stores with more benefit households
 - Larger price changes for products with larger changes in expenditure

- No evidence that expenditure cycle is driven by prices

Policy Implications

- Policy implications
 - Price changes small: Incidence of subsidy falls on low-income consumers
 - However benefit households could better smooth, by delaying food purchases
 - Benefits distributed more frequently
 - Staggering benefits?
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