



## **Using Scanner Data To Answer Food Policy Questions**

## ***Conference***

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# Food Purchases by WIC Households: Use of Scanner Data

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# Questions addressed

- How reliable is the WIC “participation” information?
  - Special Supplemental Nutrition Program for Women, Infants and Children
- Are we able to identify acquisition of WIC-approved foods?
- Does WIC affect food acquisition of eligible households?
  - Do participants and non-participants differ in their purchases of WIC approved foods?

# WIC household purchases

- WIC participating households receive vouchers for “purchase” of WIC-approved foods
- The “voucher” (or EBT equivalent) allows the acquisition of the qualifying amount of the food

# AC Nielsen HomeScan Data

- Panelists scan all products with a bar-code regardless of payment method
- For an “ACNielsen” retailer
  - No price entry prompt
  - “Price” from the retailer data
- Method of payment for entire purchase
  - Last panelist entry prompt
  - Cash, check, credit/debit and other
  - No individual item prompt

# Data

- ACNielsen HomeScan data – 2006, 2007
- Demographic and Dairy files
- Included households with purchases in 10 of the 12 months in a given year
- Focus on purchases of WIC-approved foods: milk, cheese and eggs

# WIC Reporting Households

WIC - Current	Nielsen 2006	Nielsen 2007	NHANES 2007-08
WIC report	248 (0.66%)	747 (1.18%)	1,731 (17.1%)
Blank/ Missing	37,546 (99.3%)	62,603 (98.8%)	8,418 (82.9%)

# WIC Eligible Households

Low Income Households (<200% PIR)	2006	2007
WIC reporting	139 (6.5%)	398 (8.5%)
Blank/Missing	2014 (93.5%)	4276 (91.5%)
Total WIC eligible	2153 (100%)	4674 (100%)

Eligible: Children age 1 through 4 years; Female age 14-44 years; low income.  
Purchases: 10 of 12 months Dairy purchase.



# Monthly Milk Expenditures

Variable	2006 WIC	2006 Not WIC	2007 WIC	2007 Not WIC
Expend (\$)	12.7	10.4	15.8	12.0
Quantity (oz)	551.0	476.3	602.3	480.4
Income (\$)	26,726	26,631	27,061	28,392
PIR	119	134	121	135
HH size	4.7	3.9	4.5	4.1
No. Obs.	139	2014	398	4276

# Beverage Purchases

- Question: Does WIC affect beverage purchases?
- Analytic Sample:
  - Pooled 2006 & 2007 WIC households
    - 574 WIC households (25%)
    - 1751 random sample of non-WIC (75%)
    - Excluded second year of duplicated households (128)
- Beverages: Soda, 100% Juice, Milk, Other

# Estimation Methods

- Households with zero purchases
  - Soda: 234 (10.1%) Milk: 34 (1.6%)
  - Juice: 342 (15.6%) Other: 245 (11.2%)
- Estimation methods
  - Censored single equation AIDS model
- Variables: unit values/prices; total beverages expenditures; household size

# Summary of Results:

## Beverage Purchases & WIC

Beverage	WIC	Household Size
Soda	negative	negative
Juice	positive	positive
Milk	positive	positive
Other drinks	negative	negative

Model: Censored AIDS with household size;  $\alpha = 0.10$

# Conclusions

- WIC participation during year is underreported, although likely is imprecise
  - Issue: Current vs. any time?
  - Eligibility: We chose narrow screens
- Scanner data allow detailed identification of WIC foods
  - Use of WIC voucher can not be identified
  - Use of detailed state regulations may be required

# Conclusions

- Does WIC affect food acquisition of eligible households?
  - WIC households purchase
    - Less soda and other drinks
    - More juice and milk
  - Preliminary evidence supports use of scanner data for analysis of WIC purchases
    - Caveats on identifying WIC households

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