



Price Variability Across Food Product and Vendor Type in Food Benefit Redemptions Under the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

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What Is the Issue?

USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides food assistance, healthcare referrals, and nutrition education to participating pregnant, post-partum, and breastfeeding women; infants; and children up to age 5. WIC serves 7.3 million participants annually and is the third largest USDA-administered food assistance program in terms of expenditures at \$5.6 billion in FY 2017. Cost containment to support the efficient use of discretionary funds is a longstanding priority in WIC. WIC State agencies (SAs) provide nutrition assistance to participants and manage a portfolio of authorized vendors who redeem benefits. WIC participants redeem benefits for approved food items at no personal cost—except for cash value vouchers for fruits and vegetables—so cost-containment efforts often address the prices of the food items chosen by WIC participants as well as the brands and variety of foods allowed.

This report uses 2014 WIC Electronic Benefit Transfer (EBT) transaction data to examine how prices of WIC foods purchased by participants with WIC benefits vary across four SAs—Midwest, Western, Southwest, and Mountain Plains—by product category and store format.

What Did the Study Find?

This report studied price variability in WIC-approved *breakfast cereal, reduced-fat and whole milk, peanut butter, infant fruits/vegetables, bottled juice, and whole grains*. Price variability of WIC foods was observed across store formats with varying magnitudes after controlling for size and rurality of the store. Key findings are as follows.

- Approved items in the reduced-fat milk, breakfast cereal, bottled juice, and cheese categories ranked the highest in share of food costs in each SA, accounting for more than half of the value of all non-infant formula purchases. Breakfast cereal, bottled juice, and whole grains ranked the highest in price variability.
- While participants are theoretically price-insensitive when redeeming WIC benefits, only 14 to 23 percent of transactions in any SA were highest-priced (i.e., a transaction with a price in the top quartile of unique observed prices for WIC-approved food items in a given product

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category and SA). However, a few product categories, including whole grains, had over 40 percent of transactions deemed highest-price in some SAs.

- In general, WIC transactions at mass merchandisers (e.g., Walmart) and traditional grocers (i.e., national, regional, and local chains and independent grocery stores) had lower prices in most product categories compared to small and nontraditional food retailers (i.e., discount and limited-assortment chains, pharmacies, convenience-type stores, and other specialty stores). However, traditional grocers' prices tended to be higher in the juice category, but lower in milk, both by amounts as much as \$1 per 64-ounce bottle of juice or gallon of milk.
- We also examined average differences across store formats if participants hypothetically obtained at one store format all food items allowed by their respective WIC food package (e.g., a food basket). While mass merchandisers and traditional grocers tended to have lower average prices for these food baskets in general, prices at traditional grocers were often lowest due in part to lower milk prices.
- Transactions at small and nontraditional food retailers had significantly higher prices in most product categories. Furthermore, the costliness of WIC food baskets at smaller and nontraditional vendors tended to be significantly higher, especially for a food basket corresponding to an infant package providing 256 ounces of infant fruits and vegetables. For example, costs of this basket were roughly \$25 higher at convenience-type stores than at mass merchandisers in the Midwest SA. However, the inclusion of smaller retailers as authorized vendors may help ensure participant access to redeeming food benefits.
- Transaction prices at small and nontraditional food retailers authorized by the Southwest SA, however, were similar to those of their larger counterparts. This may be due to the extensive use of least-cost brand policies (or other policies affecting vendor reimbursements or participant choice) by that SA.

While significant price differences between store format types occur in some SAs, it remains unclear if food cost savings could be obtained without compromising participants' access to vendors for those lacking nearby large vendors. Nevertheless, this report provides an analytical framework that individual SAs can readily adopt using WIC EBT data in order to assess price variability by store format.

How Was the Study Conducted?

This study examined two types of price variability in breakfast cereal, reduced-fat and whole milk, peanut butter, infant fruits/vegetables, bottled juice, and whole grains from WIC EBT transaction data in four SAs from May or June 2014 to August 2014. First, statistics summarizing the level and variation in transaction prices are presented for a select group of WIC product categories for each SA. Second, the relationship between the transaction prices and the store format of the transacting vendor is estimated for each studied product category. These results were used to simulate the average cost effect of a participant hypothetically redeeming at a given store format a food basket composed of the studied food categories in quantities allowed by the various WIC food packages.