



Food-at-Home Expenditures: Comparing Commercial Household Scanner Data From IRI and Government Survey Data

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What Is the Issue?

USDA's Economic Research Service (ERS) purchased proprietary household and retail scanner data from market research firm IRI. These data are a valuable resource for food economics research, but it is important for researchers to understand the coverage and representativeness of these data. Previous ERS research examined the survey methodology and the representativeness of the demographic makeup of the IRI Consumer Network household scanner data. This report extends that research by comparing the IRI Consumer Network household data to nationally representative Government survey data and describing implications for using the data in food economics research. This report examines the IRI data for 2008 to 2012—the initial years of data obtained by ERS.

What Did the Study Find?

Across 18 food-at-home (FAH) categories, average weekly household expenditures in the IRI Consumer Network survey were lower than those in the Consumer Expenditure Survey (CE), conducted by the U.S. Department of Labor's Bureau of Labor Statistics, and in USDA's National Household Food Acquisition and Purchase Survey (FoodAPS), with the magnitude of the differences varying among categories, over time, and by household demographic factors.

- In the IRI Consumer Network, households reported spending less per week on food categories containing unpackaged or random-weight items, including fresh fruits, fresh vegetables, and fish and seafood. For example, in 2012, average weekly expenditures on fresh vegetables in the IRI Consumer Network were 47 percent of those in CE and 45 percent of those in FoodAPS.
- Expenditures in IRI were more comparable for packaged and Universal Product Code (UPC)-labeled products, such as sugar and other sweets, other dairy products, and miscellaneous foods. In 2012, average weekly expenditures on sugar and other sweets in the IRI Consumer Network were 90 percent of those in CE and 86 percent of those in FoodAPS.
- Expenditures in IRI were consistently lower than in CE for each year in the 5-year study period, but the differences varied in size across years. Some differences could be meaningful in analyses, while others are economically insignificant. For example,

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

poultry expenditures in IRI ranged from 66 percent of CE expenditures in 2008 to 76 percent in 2010, a 10-percent difference; while IRI expenditures on fresh milk and cream were between 69 and 72 percent of CE expenditures each year, a 3-percent disparity.

- Expenditures in IRI were lower than in CE for some demographic groups, and the size of the differences varied across groups. In particular, as income and household size increased, households in IRI showed smaller corresponding increases in expenditures than similar households in CE.

The results suggest that IRI encounters more difficulty capturing purchases of unpackaged or random-weight items than packaged products. Differences in each survey's design and length of reporting period also likely contribute to differences in reported expenditures. The shorter reference periods for the FoodAPS and CE surveys appear to lead to a more complete record of household food expenditures, although the panel design and level of detail contained in the IRI Consumer Network confer other benefits for economic research. Researchers should be aware of these differences when using the IRI Consumer Network for studies focusing on such topics as fresh fruits and vegetables or on particular demographic populations, and for those that draw conclusions about the overall composition of households' purchases or diets. Understanding the differences in data coverage, the nature of reported differences, and the advantages and disadvantages of using the IRI Consumer Network will allow researchers to design suitable studies and draw appropriate conclusions when using these data for food economics research.

How Was the Study Conducted?

Researchers from ERS and RTI International compared household expenditures from IRI's Consumer Network to expenditures from the CE and FoodAPS surveys. Food products from IRI and FoodAPS were matched to 18 CE food categories to allow consistent comparisons across datasets. The researchers also determined the appropriate method for calculating mean and variance estimates in IRI, taking into account the survey design. Mean and variance estimates for weekly household expenditures on the 18 food categories were calculated for each survey.