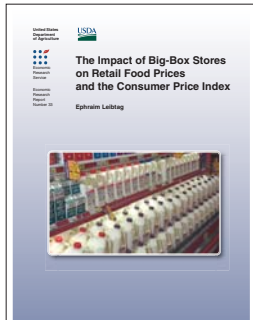


# ERS Report Summary

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*This is a summary  
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## The Impact of Big-Box Stores on Retail Food Prices and the Consumer Price Index

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Nontraditional retailers such as Wal-Mart, Costco, and Target have gained more of the consumer food dollar over the past 10 years. The share of sales going to traditional retailers (conventional supermarkets, superstores, and food-drug combination stores) fell from 82 percent in 1998 to 69 percent in 2003.

### *What Is the Issue?*

Over the past 20 years, annual food price changes, as measured by the Consumer Price Index (CPI), have averaged 3 percent per year. Meanwhile, food prices for the same item can vary by more than 10 percent from one type of store to another in a given year. The CPI measure of food price inflation is based on a sample of food items selected from a sample of retail food outlets, and the selection of stores has not been updated quickly enough to reflect the volume of food now sold through big-box stores. Since the current CPI for food does not fully account for the lower prices offered by these nontraditional retailers, including prices from all store formats would likely indicate a lower rate of price inflation than the CPI estimate.

### *What Did the Study Find?*

Previous studies have demonstrated that food prices at nontraditional retailers are 8-27 percent lower than at large supermarket chains. However, these comparisons across store formats did not account for quality or package size differences for some food products. To address these concerns, comparisons in this report are for similar package sizes and more specifically defined food items: namely, dairy products and eggs.

Even when controlling for similar-sized packages, dairy prices are 5 to 25 percent lower at nontraditional retailers than at traditional supermarkets. For example, skim and low-fat milk prices are consistently 5-12 percent lower at nontraditional stores. Even more price variation exists in random-weight cheese products; a pound of Swiss cheese averaged \$4.71 at grocery stores in 2003, but just \$3.77 at nontraditional retailers and mass merchandisers.

Since food-at-home inflation averaged 2.2 percent per year over 1998-2003, a discrepancy of 5-25 percent in price between store formats is relatively large. If the difference in food prices across store formats applies to many food categories, the official estimates of price changes might be overstating the actual rate of change. If that is the case, another way to estimate price change might be to track

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consumer purchase behavior and adjust observed price changes in a given category. This could be accomplished using an expenditure-weighted measure of price change, with frequently updated measures from scanner data sources.

### *How Was the Study Conducted?*

This study uses ACNielsen Fresh Foods Homescan scanner panel data for 1998-2003. The annual data are from a consumer panel consisting of about 8,000 representative households across the United States; the data included purchase as well as demographic information. Panelists recorded both their UPC-coded transactions and their random-weight (non-UPC) food purchases over the year(s) that they participate in the survey.

Average prices were calculated for a wide variety of dairy products (24 fixed-weight and 8 random-weight) commonly purchased at both traditional and nontraditional stores. The average prices were calculated by taking the total weighted expenditures for a given product and dividing by the total weighted quantity that was purchased. These average prices were then weighted using the projection factors for each household in the sample to arrive at a national average in each food category. The average prices were then used to calculate an average annual price change for each food category to compare with price change in the corresponding CPI categories.