

A report summary from the Economic Research Service

May 2014



Find the full report at www.ers.usda. gov/publications/tbtechnical-bulletin/tb-1938.aspx

Methodology for the Quarterly Food-Away-from-Home Prices Data

Aylin Kumcu and Abigail M. Okrent

What Is the Issue?

Food away from home (FAFH) is integral to a typical American's food budget and diet, constituting approximately 43 percent of the food budget for an average U.S. household in 2012 and about a third of daily calories consumed by the average adult. Consequently, FAFH plays a key role in the nutrition and health of Americans as well. Researchers use the variation in food prices over time and across regions to estimate how price changes affect the demand for different products (changes in quantity purchased or expenditures), and in turn, how changes in demand affect nutritional and health outcomes. Several studies have investigated the role of food-at-home prices on food purchasing behavior and dietary outcomes, but conducting similar analyses for FAFH has been difficult because of limited price information. ERS researchers have constructed quarterly FAFH price data to help examine the economic determinants of diet quality and health outcomes. The new data allow researchers to analyze a variety of questions, such as how demand varies across establishment types (e.g., full- versus limited-service restaurants), across specific foods (e.g., hamburgers versus sandwiches), and across regions (e.g., West versus South).

What Did The Study Find?

- Full-service restaurant prices from 1998 to 2012 were, on average, highest in the Northeast at \$8.94 and lowest in the South at \$7.17.
- The price of meals at full-service restaurants in all four census regions rose between 1998 and 2004, but began to decline in 2005. Prices were flat during the 2007-09 recession but rose again slightly after the recession.
- Overall, limited-service meals were almost one-third the price of meals at fullservice restaurants. At limited-service restaurants, sandwiches were generally the most expensive category and Mexican-style meals the least expensive.

- School lunch prices varied less across regions and divisions than did full-service and limitedservice prices, but school lunch prices increased more than either of these other categories between 1998 and 2012, with school lunch prices in the Northeast rising more than 5 percent over this period.
- Beer and wine away from home were 3 to 4 times more expensive than their at-home versions, while spirits away from home were 6 to 10 times more expensive than spirits at home.

How Was the Study Conducted?

ERS researchers used prices without tax collected by the U.S. Bureau of Labor Statistics (BLS) for the Consumer Price Index from 1998 to 2012 to construct average, weighted prices for 20 FAFH and alcohol products for the United States, the 4 census regions, and 9 census divisions for 4 establishment types, full-service restaurants, limited-service restaurants, vending machines, and school lunches. Full-service restaurants are defined by BLS as establishments where a server takes customers' orders and payment is made after eating, while limited-service restaurants include establishments where customers pay at a register before eating. Only prices for entrees and combination meals were included in the average, weighted price calculations for the disaggregated products of full- and limited-service restaurants and schools. For vending machines and alcoholic beverages and related disaggregated products, average, weighted price calculations were per ounce. The weights are based on the sample of outlets from which BLS collects prices and are designed to ensure prices represent the census regions and divisions. The researchers estimated standard errors using a jack-knife approach to facilitate hypothesis testing.