



# ERS *Report Summary*

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## Nutritional Quality of Food Prepared at Home and Away From Home, 1977-2008

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### What Is the Issue?

Food prepared away from home (FAFH)—whether from table-service restaurants, fast-food establishments and other locations, or from a take-out or delivery meal eaten at home—is now a routine part of the diets of most Americans. Previous Economic Research Service (ERS) research found that FAFH tends to be lower in nutritional quality than food prepared at home (FAH), increases caloric intake, and reduces diet quality among adults and children. This study updates previous research by examining dietary guidance and the nutritional quality of FAH versus FAFH in 2005-08, compared with 1977-78. Poor diets contribute to obesity, heart disease, stroke, cancer, diabetes, osteoarthritis, and other health conditions that impose a substantial economic burden on individuals and society. The increased popularity of FAFH is prompting new health promotion strategies, such as menu labeling, to address this challenge.

### What Did the Study Find?

As the share of food expenditures spent on FAFH has risen over the past 30 years, so has the share of calories and nutrients consumed from such food. Previous ERS research found that FAFH in the 1990s contained less of the food components Americans underconsume, such as calcium and dietary fiber, and more of those overconsumed, such as fat, compared with FAH.

Examining the changes in intake from FAFH and FAH, as reported in national Federal surveys for 1977-78 and 2005-08, we found that:

- Americans increased their away-from-home share of caloric intake from 17.7 percent in 1977-78 to 31.6 percent in 2005-08, mainly from table-service and fast-food restaurants.
- Mean daily consumption of total fat declined significantly over the period studied in both absolute terms (grams) and as a share of calories. On average, Americans consumed 85.6 grams of total fat per day in 1977-78, compared with 75.2 grams in 2005-08. The percent of calories from total fat also declined substantially from 39.7 percent to 33.4 percent between 1977 and 2008. Comparing estimates for total fat content between FAFH and FAH shows that the gap has widened over time. Total fat in 1977-78 accounted for 39.6 and 39.9 percent of calories from FAH and FAFH, respectively, compared with 30.5 and 37.2 percent in 2005-08.

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- Mean daily calcium intake rose from 743 milligrams (mg) in 1977-78 to 919 mg in 2005-08. For every 1,000 calories from FAH, Americans increased their calcium intake from 425 mg to 559 mg in that time period, whereas the calcium density in FAFH remained relatively constant at 452-460 mg per 1,000 calories.
- Foods obtained at schools had the highest calcium content among all food sources in both periods, but the amount of calcium per 1,000 calories from school foods declined from 742 mg in 1977-78 to 646 mg in 2005-08. The amount of calcium per 1,000 calories in fast-foods increased from 344 mg in 1977-78 to 372 mg in 2005-08.

Data from 2005-08 also included information on saturated fat, cholesterol, sodium, and dietary fiber intake that was unavailable in 1977-78, allowing further analysis of the nutritional differences between FAH and FAFH in the more recent period. We found that in 2005-08:

- FAFH was higher in saturated fat than FAH. The higher percent of calories from saturated fat in fast-foods was especially noteworthy at 13.5 percent, compared with 11.9 percent in restaurant foods, 12.3 percent in school foods, and 10.7 percent in FAH.
- FAFH contained 1,820 mg of sodium per 1,000 calories, considerably higher than FAH at 1,369 mg of sodium. Foods from restaurants and fast-food establishments were particularly sodium-dense at 2,151 mg and 1,864 mg of sodium per 1,000 calories, respectively.
- Similarly, FAFH was more cholesterol-dense than FAH at 144 mg and 126 mg of cholesterol per 1,000 calories, respectively. Within FAFH sources, restaurant foods were most cholesterol-dense at 206 mg per 1,000 calories.
- Even though school foods had the highest calcium content among all food sources, low calcium content in foods consumed at restaurants and fast-food places resulted in lower calcium content overall for FAFH at 460 mg per 1,000 calories, compared with 559 mg for FAH.
- FAFH, especially fast-foods, were lower in dietary fiber (an underconsumed food component) than FAH, 6.8 grams versus 7.7 grams per 1,000 calories.

## How Was the Study Conducted?

Our analysis used national food consumption survey data from the 1977-78 Nationwide Food Consumption Survey (NFCS), conducted by the U.S. Department of Agriculture (USDA), as well as data from the 2005-06 and 2007-08 National Health and Nutrition Examination Survey (NHANES), conducted jointly by USDA and the U.S. Department of Health and Human Services, to examine how the nutritional quality of FAH and FAFH has changed. NHANES has been conducted continuously since 1999, however, 2009-10 NHANES data were not released until after this research was completed. Away-from-home sources include restaurants with wait staff, fast-food establishments, schools and day care (for children), and other away-from-home places (other). Analyses focused on the nutrient intake emphasized in Federal dietary guidelines for Americans 2 years of age and older. Changes in the consumption of calories, total fat, and calcium from FAH and FAFH sources over the past 30 years were examined statistically. In addition, intake of saturated fat, cholesterol, sodium, and dietary fiber during 2005-08 were analyzed to examine the differences in the nutritional quality of FAH and FAFH. Our analyses incorporated complex survey design effects and sample weights to estimate population means and test differences in means over time and by food source.