



Find the full report at [www.ers.usda.gov/publications/err-economic-research-report/err-161.aspx](http://www.ers.usda.gov/publications/err-economic-research-report/err-161.aspx)

# Changes in Eating Patterns and Diet Quality Among Working-Age Adults, 2005-2010

Jessica E. Todd

## What Is the Issue?

Food prepared outside the home (food away from home, FAFH) comprises a significant share of U.S. consumers' food expenditures, and FAFH intake has been linked to lower diet quality. Between 2006 and 2009, food spending declined 5 percent, due mainly to a 12.9-percent decline in expenditures on FAFH. This decline could have led to improvements in overall diet quality. However, the net effect on dietary intake and diet quality cannot be ascertained from expenditure data alone. This report documents how eating patterns and diet quality changed among working-age adults (those born between 1946 and 1985) from 2005 to 2010, a period that includes the recession of 2007-09, and explores the extent to which the change in diet quality can be attributed to changes in FAFH consumption.

## What Did the Study Find?

The study found that changes in caloric intake were larger between 2005-06 and 2009-10 than between 2005-06 and 2007-08. In particular, the analysis found that:

- On average, daily caloric intake declined by 118 calories (about 5 percent) between 2005-06 and 2009-10 among working-age adults.
- Once the increase in age and other small shifts in demographic characteristics in this cohort are accounted for, the estimated change in caloric intake falls to 78 calories per day, or 3.4 percent relative to 2005-06.

Consumption of FAFH calories declined more than total daily caloric intake. After accounting for changes in age and other demographics in the cohort over the study period, the analysis revealed that between 2005-06 and 2009-10:

- FAFH intake fell by 127 calories per day, and the share of calories from FAFH declined 4.75 percentage points, from 34.7 percent in 2005-06.
- Daily fast-food calories (a portion of all FAFH) fell by 53, and the share of calories from fast food declined 1.8 percentage points, from 14.4 percent in 2005-06.
- Total FAFH meals consumed per day fell by 0.10 (from an average of 0.87 in 2005-06), and total FAFH snacks fell by 0.05 per day (from 0.41 per day in 2005-06).

Eating at home more often was associated with having more family meals.

- Working-age adults living with children under age 17 and older adults living in households with two or more people reported an increase in the number of meals eaten with the majority of their family.
- The number of those meals that were home-cooked (rather than from FAFH) also increased.

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.

There were significant changes in overall diet quality between 2005-06 and 2009-10 (after accounting for changes in age and other demographics in the cohort over the study period):

- The share of total calories from fat declined 1.12 percentage points (by 3.3 percent relative to 2005-06), and the share of total calories from saturated fat declined 0.67 percentage points (by 5.9 percent relative to 2005-06).
- Intake of cholesterol declined by 24 milligrams per day (by 7.9 percent relative to 2005-06), while fiber intake increased 1.2 grams per day (by 7.5 percent relative to 2005-06).
- The quality—in terms of saturated fat and fiber content—of both at-home and away-from-home foods increased between 2005-06 and 2009-10.
- The cholesterol content of FAFH improved over the period.

Subgroup analysis revealed some differences in changes over the period:

- The decline in calories from FAFH, the share of calories from FAFH and fast food, and the number of FAFH meals per day was smaller among adults with no college education than among those with at least some college.
- There were no differences between men with no college education and all adults with at least some college education.
- The calories and meals from FAFH did not change among older adults (born before 1946). This group experienced decreases in the share of calories from saturated fat and total cholesterol intake, but these changes were smaller than those among the working-age cohort.

The analysis showed that less than 20 percent of the improvements in diet quality could be attributed to decreased FAFH consumption. Responses to survey questions about diet behavior and nutrition (comparable only in the 2007-08 and 2009-10 surveys) suggested other factors influencing some of the improvement in diet quality:

- In 2009-10, compared with 2007-08, working-age and older adults were less likely to answer that thinness or fatness is something people are born with, suggesting that more individuals recognize weight is within individual control.
- More adults reported using the Nutrition Facts Panel (NFP) and package health claims always or most of the time when shopping for food in 2009-10 compared with 2007-08. Among working-age adults, 34 percent used the NFP always or most of the time in 2007-08 versus 42 percent in 2009-10. Among older adults, the share went from 51 to 57 percent between the two periods. Use of health claims always or most of the time increased from 18 to 31 percent for working-age adults and from 36 to 47 percent for older adults.
- Working-age adults showed increased concern for nutrition during grocery shopping between 2007-08 and 2009-10.
- Working-age adults were more likely to rate their own diet quality as excellent, very good, or good, as compared with fair or poor, in 2009-10 relative to 2007-08.

## How Was the Study Conducted?

This report used data from three rounds of the National Health and Nutrition Examination Survey (NHANES), which provide a nationally representative sample of adults before, during, and after the Great Recession (unemployment, a likely influence on food spending, was actually higher after than during the recession). Mean caloric intake, calories from FAFH and fast food, the share of calories from FAFH and fast food, the total number of meals and snacks consumed in a day, as well as the number of meals and snacks from FAFH, were compared across the three periods. In addition, four measures of diet quality were studied: percent of calories from fat and from saturated fat, total cholesterol intake, and total fiber intake. Regression analysis was used to account for increasing age among the cohort and other small changes in demographics that may have occurred in estimating how much of the change in diet quality could be explained by changes in FAFH consumption. Responses to consumer behavior questions from the Flexible Consumer Behavior Survey in NHANES were also studied to explore whether there were changes in consumer attitudes toward nutrition and health over the period.