



# Measuring the Value of the U.S. Food System: Revisions to the Food Expenditure Series

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## What Is the Issue?

The USDA, Economic Research Service (ERS) Food Expenditure Series measures the value of the U.S. food system over time, by outlet and product type, and by final purchasers and users. It is a valuable tool for government agencies, academics, the public, and other stakeholders to gauge and track developments in consumer food acquisitions and the food supply. Since the inception of the Food Expenditure Series in 1979, its methodology and source data have remained largely unchanged. To continue to provide high-quality, objective, and timely data, ERS economists reviewed, revised, and documented the methods and source data used in the Food Expenditure Series and established a timetable for future releases of the data.

## What Did the Study Find?

In the comprehensive revision of the Food Expenditure Series, expenditures by all purchasers (households, government, and businesses) between 1997 and 2014 for food at home (FAH) were revised downward by an average of \$22.4 billion (-4.2 percent); expenditures for food away from home (FAFH) were revised upward by an average of \$13.3 billion (+2.5 percent). The revised FAH and FAFH estimates and the previously published estimates mostly grew at the same rate from year to year. However, the difference in magnitude of the estimates resulted in FAFH expenditures overtaking FAH expenditures in share of total food expenditures in 2010 in the comprehensive revision. In previously published Food Expenditure Series estimates, the share of total food expenditures allocated to FAFH overtook FAH in 2014.

The revised household final-user estimates in the comprehensive revision of the Food Expenditure Series are most comparable in size and growth to the Personal Consumption Expenditures (PCE) estimated by the U.S. Department of Commerce's Bureau of Economic Analysis. Both deviate from the Consumer Expenditure (CE) estimates published by the U.S. Department of Labor's Bureau of Labor Statistics.

- Food expenditures of household final users as a share of disposable personal income based on the Food Expenditure Series and PCE declined between 1997 and 2004 and have been somewhat stable thereafter—at 10.0 percent in the Food Expenditure Series and 10.8 percent in the PCE.

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.

- Both the Food Expenditure Series and the PCE data show that the share of total household food expenditures spent on FAFH grew until 2007, then fell or was flat until 2011, and has grown since. The CE data show a similar pattern, albeit with different timing.

The revised Food Expenditure Series, which includes 2017, shows several notable trends in the food industry including the changing composition of where Americans purchase FAH and FAFH, and the declining share of total food expenditures allocated to FAH.

- The grocery store share of FAH expenditures declined from 71.4 to 58.4 percent between 1997 and 2017. While nominal (not adjusted for inflation) growth in grocery store sales averaged 2.4 percent per year, prices at grocery stores grew at an average of 2.2 percent each year. Hence, real grocery store sales have largely been stagnant except for 2016 and 2017, when prices declined for the first time in several decades.
- The share of FAH expenditures from warehouse clubs and supercenters increased from around 6.6 percent to 21.8 percent. Warehouse clubs and supercenters' nominal sales grew between 10.9 and 23.0 percent per year before 2007. Since 2009, nominal growth has stabilized at around 2.0 to 4.5 percent, substantially less than before 2008.
- The largest component of FAFH expenditures (with taxes and tips) consists of sales at full-service restaurants (35.3 percent on average), followed closely by sales at limited-service restaurants (33.6 percent on average).
- Nominal sales for limited- and full-service restaurants between 1997 and 2017 grew an average of about 5.5 and 5.3 percent per year, respectively, but slowed for limited-service restaurants and declined for full-service restaurants in 2009. Prices at FAFH establishments grew about 2.7 percent year to year, but nominal sales at full- and limited-service restaurants outpaced this growth, indicating an increase in the quantity of meals and snacks produced and consumed at these outlets.
- The monthly estimates of FAH and FAFH sales demonstrate seasonality, peaking in December of each year and declining in January and February.

## How Was the Study Conducted?

ERS economists developed methods to improve the accuracy and timeliness of the Food Expenditure Series. The major revisions include:

1. Inclusion of new source data and methods;
2. Introduction of *advance* estimates, which are lagged 1 year and based on source data that are incomplete and subject to revision; *revised* estimates, which are lagged 2 years and based on more complete data; and *final* estimates, which are benchmarked to the 5-year Economic Census;
3. Reorganization of published tables;
4. Benchmarking of the monthly sales series to the annual series; and
5. Establishment of a timetable for data release.

The estimates in the comprehensive revision of the Food Expenditure Series were reconciled to previously published estimates and to the PCE and CE estimates to assess accuracy. In addition, the advance estimates for 2016 were compared to revised estimates for 2016 to assess estimation error from using timelier but lesser quality data.