How Food Consumption Is Measured

Food supply and utilization data, compiled and published annually by USDA's Economic Research Service, measure the flow of raw and semi-processed food commodities through the U.S. marketing system. The series provides continuous data back to 1909 and is typically used to measure changes in food consumption over time and to determine the approximate nutrient content of the food supply.

Food supply data, also known as food disappearance data, reflect the amount of the major food commodities entering the market, regardless of their final use. The total amount available for domestic consumption is estimated by food disappearance data as the residual after exports, industrial uses, seed and feed use, and year-end inventories are subtracted from the sum of production, beginning inventories, and imports. The use of conversion factors allows for some subsequent processing, trimming, spoilage, and shrinkage in the distribution system. However, the estimates also include residual uses for which data are not available (such as miscellaneous nonfood uses, and changes in retail and consumer stocks). Consumption estimates derived from food disappearance data tend to overstate actual consumption because they include spoilage and waste accumulated through the marketing system and in the home. Food disappearance data are used more appropriately as indicators of trends in consumption over time.

Food disappearance estimates for animal products—meats, eggs, and dairy products—include that which was produced and consumed on farms and in rural nonfarm and urban households. Annual consumption estimates for both commercial vegetables (fig. 15) and vegetables from home gardens (fig. 16) were made through the early 1970's. Since then, estimates of home-garden production have been sporadic because of spotty data. Home production of other crop foods like cereal products, caloric sweeteners, and vegetable fats was deemed too little to bother estimating, even in 1909.

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Credit: USDA
Food Spending

Total food expenditures by families and individuals, adjusted for inflation, increased in most years since the end of the Great Depression, yet the share of income spent for food declined from 24 percent in 1929 to 11 percent in 1998. Also, a higher proportion of consumers’ food spending is going to food away from home. Both trends are indicators of an increasingly affluent society.

Figure 1

Food Expenditures

![Graph showing trends in food expenditures and percentage of disposable income spent on food over time.]

Source: USDA’s Economic Research Service.

Figure 2

Share of Income Spent on Food by Families and Individuals

![Graph showing trends in percentage of disposable income spent on total food, food at home, and food away from home over time.]

Source: USDA’s Economic Research Service.
Food Supply

The U.S. food supply provided 300 calories more a day per person in 1994 than in 1909. Calories from the food supply, adjusted for spoilage and waste, increased from 2,220 per person in 1970 per day to 2,680 in 1997.

Egg Consumption

Long-term decline in egg consumption leveled off in the 1990's as rising use of processed egg products outpaced declining use of in-shell eggs.
Meat Consumption

Total per capita meat consumption reached record highs in the 1990's. While red meat still dominates, poultry has increased in popularity. Between 1909 and 1999, consumption of chicken quintupled from 10 pounds per person a year to 54 pounds, which compares with increases in consumption of beef and pork of 24 percent and 15 percent.

Figure 6
Total Meat Consumption

Pounds per capita, annual average

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Figure 6
Beef, Pork, and Chicken Consumption

Pounds per capita
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1Boneless, trimmed weight. Includes organ meats. 
Dairy Consumption

Beverage milk consumption reached record lows in the 1990's. Steep declines in whole milk and buttermilk far outweighed an increase in milks that were lower in fat than whole milk. In 1945, Americans drank more than four times as much milk as they did carbonated soft drinks. In 1998, they downs 2-1/3 times more soda than milk. In 1998, Americans consumed an average 7-1/2 times more cheese than in 1909.


Figure 7
Milk Consumption

Gallons per capita

Total beverage milk
Whole milk
Milks lower in fat than whole milk
Buttermilk


Figure 8
Milk Consumption Compared With Soft Drink Consumption

Gallons per capita

Carbonated soft drinks
Beverage milk


Figure 9
Cheese Consumption

Pounds per capita

Total cheese
American
Italian
Other

Fat Consumption

Consumption of added fats doubled between 1909 and 1998. Added fats include those used directly by consumers, such as butter on bread, as well as shortenings and oils used in commercially prepared cookies, pastries, and fried foods. Added fats do not include fats naturally present in foods, such as in milk and meat. Consumption of table spreads declined in the 1990’s as concern about fat intake and trans fatty acids increased. Average annual consumption of salad and cooking oils was 13-1/2 times higher in the 1990’s than in 1909-19.

Figure 10
Total Added Fats Consumption
Pounds per capita, fat-content basis

Figure 11
Table Spread Consumption
Pounds per capita, product-weight basis

Source: USDA’s Economic Research Service.

Figure 12
Salad and Cooking Oil Consumption
Pounds per capita

Source: USDA’s Economic Research Service.

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Fruit and Vegetable Consumption

In 1998, Americans consumed a little less fresh fruit and a lot more processed fruit than in 1919. Americans also consumed an average 80 pounds more citrus fruit, 5 pounds more melons, and 30 pounds more noncitrus fruit in 1998 than in 1919. In 1919 compared with 1998, consumption of commercial vegetables was lower, but consumption of home-produced vegetables was higher.

Figure 13
Fresh and Processed Fruit Consumption


Figure 14
Citrus Fruit, Melon, and Noncitrus Fruit Consumption


Figure 15
Commercial Vegetable Consumption


Figure 16
Home-Produced Vegetable Consumption

Grain Product Consumption

In 1998, Americans consumed 100 pounds less of grain products than in 1909.

Additional Sugar Consumption

Consumption of added sugars nearly doubled between 1909 and 1999.