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U.S. Food Commodity Consumption Broken Down by Demographics, 1994-2008

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What Is the Issue?

The Food Availability (FA) data and the Loss-Adjusted Food Availability (LAFA) data are two data series within the Food Availability Data System (FADS) compiled by U.S. Department of Agriculture (USDA), Economic Research Service (ERS). These series contain estimates of the amounts of over 200 food and beverage commodities available for consumption. FADS data are used to measure U.S. food and beverage consumption trends and to show year-to-year changes in commodity consumption. The U.S. Government has conducted dietary intake surveys to collect data on food (e.g., apple pie) but not commodity (e.g., apples used in various foods) consumption. Therefore, those interested in commodity consumption have historically relied on the FADS data since dietary intake data are not readily usable to them.

Yet, as useful as the FADS/LAFA data are, they have certain limitations. The data serve as a proxy for consumption by the Nation as a whole, but do not reveal who eats what food commodities and the amounts eaten. However, this level of detail is critical to Government and businesses for addressing such issues as the Nation's failure to meet Federal dietary guidelines. In this report, ERS researchers converted foods reported in several national food intake surveys to LAFA commodities in order to break down LAFA data by consumer demographics.

What Did the Study Find?

Using data from six national food intake surveys conducted between 1994 and 2008, ERS researchers disaggregated 63 LAFA commodities for 15 demographic characteristics. The main findings for the four product groups highlighted here are chosen (1) for their relevance to the Government's current priority recommendations for improving Americans' diet and health, and (2) for the significant consumption trends they reveal.

- **Annual, per capita fruit consumption fell in 2005-08, mainly because of the declining consumption of oranges.** From 1994 to 2008, children and adults began consuming less orange juice than in previous years. Between 1994-98 and 2007-08, children's orange juice consumption dropped from 42.4 to 31.9 pounds, fresh weight equivalent, per person per year. Over the same period, adults' orange juice consumption dropped from 36.6 to 30.5 pounds.
- **Between 1994-98 and 2007-08, total vegetable consumption declined from 172.8 to 161.8 pounds per person per year.** This decline spanned all ages and income groups. Between 1994-98 and 2007-08, vegetable consumption for children fell from 134.0 to 114.4

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pounds per person; for adults, from 189.1 to 180.0 pounds; for low-income individuals, from 157.6 to 147.4 pounds; and for high-income individuals, from 179.7 to 171.6 pounds. Total vegetable consumption has been relatively stable among adult women, but declined among boys, girls, and men. Since 2001-02, the downward trend in total vegetable consumption also spanned all races and ethnicities. Per capita potato consumption—by adults and children and by all races and ethnicities—likewise declined.

- **Dairy consumption declined between 1994-98 and 2007-08, from 220.5 to 211.4 pounds per person per year.** The decline was chiefly a result of falling consumption of fluid milk, in spite of rising consumption of cheese, yogurt, and other dairy products (such as cream cheese and sour cream). Of the 211.4 pounds of dairy products consumed during 2007-08, total fluid milk accounted for 62 percent. Cheese and yogurt accounted for small shares of total dairy consumption, but unlike fluid milk, consumption of cheese and yogurt trended upward for all demographic groups.
- **Chicken consumption rose, while beef and pork consumption declined slightly from 1994 to 2008.** For beef consumption, disparities by race and ethnicity apparently widened, largely because of declining consumption among non-Hispanic Blacks and individuals of “other” races and ethnicities. Between 1994-98 and 2007-08, beef consumption declined among non-Hispanic Blacks from 57.1 to 43.5 pounds per person per year, and among “other” ethnicities from 45.9 to 31.1 pounds. Pork consumption among non-Hispanic Whites was relatively stable over 1994-2008, but declined among the other racial and ethnic groups. Chicken consumption rose among all races and ethnicities, although at different rates.

How Was the Study Conducted?

Our analysis used three types of databases: the LAFA data series, the Federal dietary intake surveys, and the Food Intakes Converted to Retail Commodities Databases (FICRCDs), which link foods and commodities for data collected in recent dietary intake surveys, including the 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals, 1999-2000 National Health and Nutrition Examination Survey (NHANES), and 2001-02, 2003-04, 2005-06, and 2007-08 What We Eat in America, which is the dietary component of NHANES. Although more recent LAFA and dietary intake survey data are available, they were not used because no corresponding FICRCDs were available. To disaggregate the LAFA data by demographics, we employed a two-step procedure. First, we estimated commodity consumption patterns by demographic characteristics (e.g., the ratio of children’s consumption to adults’ consumption) using intake survey data and FICRCD. Then, we applied the estimated commodity consumption patterns to the LAFA national data to accomplish our research objective. Our analyses incorporated complex survey design effects and sample weights to estimate average commodity intakes by demographic characteristics from dietary intake data.