ERS Report Summary

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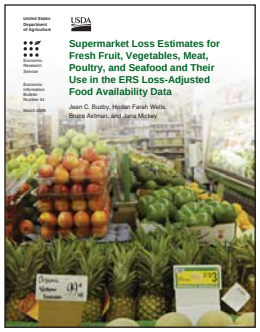

This is a summary of an ERS report.

Find the full report at ***www.ers.usda.gov/publications/eib44***

Find the new data product at: ***www.ers.usda.gov/Data/FoodConsumption/***

Supermarket Loss Estimates for Fresh Fruit, Vegetables, Meat, Poultry, and Seafood and Their Use in the ERS Loss-Adjusted Food Availability Data

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ERS maintains the web-based Loss-Adjusted Food Availability data series, an important resource for estimating trends in the amount of food available for consumption over time. By tracking food loss—food made inedible by moisture loss, spoilage, and other causes—analysts can estimate how much food is eaten per person over a given period.

What Is the Issue?

Some of the food-loss assumptions used in the ERS Loss-Adjusted Food Availability data were seemingly simplistic and may not have reflected current manufacturing, retail, and food preparation practices. Retail food loss was particularly difficult to estimate. Prior to this study, the per capita food loss estimates at the retail level were, across the board, 12 percent for every fresh fruit and vegetable commodity (e.g., fresh strawberries, fresh spinach) and 7 percent for every type of meat, poultry, and seafood (i.e., fish and shellfish, both farm-raised and wild-caught) covered in the database. More precise estimates for each fresh commodity are desirable to reflect physical differences in spoilage rates and other reasons that influence food loss, such as use of innovative packaging to prolong shelf life. Using new estimates for each commodity could affect ERS calculations of the amounts of different foods available for consumption.

What Did the Study Find?

This report and the accompanying ERS Loss-Adjusted Food Availability data give analysts, for the first time, national estimates of the food loss percentage at the supermarket level for each fresh fruit, vegetable, meat, and poultry commodity in the data set. The average loss rates for 2005-06 for individual fresh fruit, vegetable, meat, and poultry commodities at the supermarket level, as estimated by the Perishables Group, Inc., varied from 0.6 percent for sweet corn to 63.6 percent for mustard greens. The study also provided new average estimates for all fish and all shellfish. When the study incorporated the new loss estimates into the ERS Loss-Adjusted Food Availability data series, the impact on per capita estimates varied broadly among commodities within a food group (e.g., among all fresh fruit). The largest annual impacts, per capita, were for fresh potatoes, chicken, beef, pork, bananas, and sweet corn—all of which have high shares of food available for consumption for their respective food groups.

However, as a whole, the new food loss estimates had little impact on average food loss rates for each food group in the ERS Loss-Adjusted Food Availability data series or on per capita estimates

of the quantity of the different food groups available for consumption at the retail level because the newer estimates were generally close to the earlier loss assumptions. Compared with the earlier ERS per capita food loss estimates of 12 percent for each type of fruit and vegetable and 7 percent for each type of meat, poultry, and seafood covered in the database, ERS found that annual supermarket losses for 2005 and 2006 averaged 11.4 percent for fresh fruit, 9.7 percent for fresh vegetables, and 4.5 percent for fresh meat, poultry, and seafood. The new estimates would increase per capita estimates at the retail level in 2005 by 0.7 pounds (0.6 percent) for fresh fruit, 4.2 pounds (2.7 percent) for fresh vegetables, and 4.8 pounds (2.7 percent) for fresh meat, poultry, and seafood. Dividing these annual changes in per capita estimates by 365 days results in very small daily per capita changes.

How Was the Study Conducted?

ERS obtained updated food loss estimates at the retail level for individual fresh fruits, vegetables, meat, and poultry and aggregate estimates for all fish and all shellfish from the Perishables Group, Inc., and applied them to update some of the assumptions used in constructing ERS Loss-Adjusted Food Availability data to see how they affected per capita estimates of the food available for consumption. The Perishables Group, Inc., an independent consulting firm, used a sample of data from six large national and regional supermarket retailers from their proprietary database. The sample did not include convenience stores, megastores, club stores, and mom-and-pop grocery stores. For each store in the sample, supplier shipment data for 2005 and 2006 was paired with point-of-sale data to identify food loss percentages for each covered commodity. For fresh meat, poultry, and seafood, data were supplemented by the Perishables Group with qualitative information from more than 10 retailers. The study also compared loss estimates for 2005 and 2006 as a validation of methods used.