

Food Safety From Farm to Fork

Policy, market incentives, and technology influence use and

efficacy of safety controls throughout the food supply

Federal oversight is shared

USDA has regulatory responsibility for inspecting domestic and imported livestock, poultry, and egg products. FDA is responsible for other fresh and processed foods, including eggs, fresh produce, and imported foods other than meat and poultry. Ten other Federal agencies share additional food safety responsibilities.

Food safety violations provide some information about recurring problems in food imports

ERS analysis shows that the three imported food categories with the most FDA violations during 1998-2004 were vegetable products (21%), seafood products (20%), and fruit products (12%). Violations include sanitary issues in seafood and fruit products, pesticides in vegetables, and unregistered processes for canned food products in all three industries.

Imports accounted for 17% of the volume of foods and beverages consumed in the U.S. in 2007.

Foodborne illness leads to medical expenses, lost productivity, and premature death

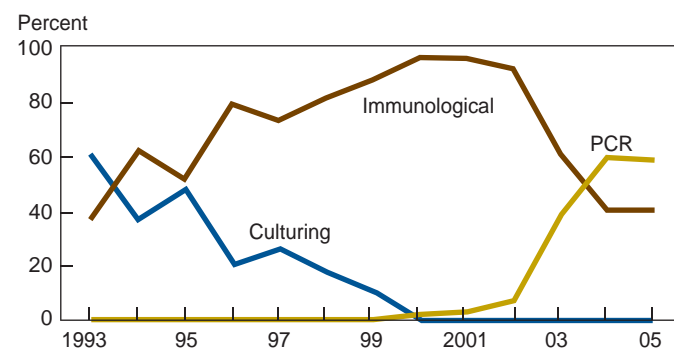
ERS estimates that the annual costs of illness due to the foodborne pathogens *Salmonella* and Shiga toxin producing *E. coli* O157 totaled \$3 billion in 2007. Eighty-eight percent of total costs were due to premature death. The interactive web-based ERS Foodborne Illness Cost Calculator allows users to estimate the cost of illness due to specific foodborne pathogens using different assumptions.

HACCP regulation costs vary by firm size

ERS research found that the industry costs of implementing Hazard Analysis and Critical Control Point (HACCP) plans for meat and poultry varied from 4 to 8 cents per pound for small plants and from 1 to 2 cents for large plants. HACCP requires plants to identify, monitor, and control food safety hazards at critical points in slaughter and processing.

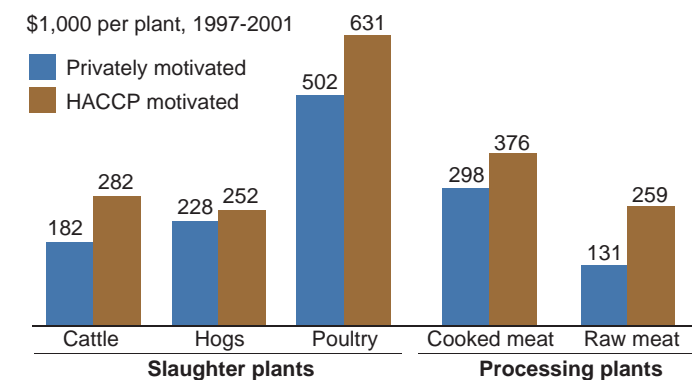
Technological advances improve food safety performance and monitoring

Innovations in food safety technologies can quickly improve performance. ERS research suggests that regulation that does not dictate any particular technology is likely to encourage efficiency and innovation. Industry examples—including the quick adoption of the PCR *E. coli* O157 test below—highlight the speed with which a superior technology can replace another. PCR (Polymerase Chain Reaction) technology provides more rapid and reliable pathogen identification.



Market incentives boost industry investment

Food safety investments are spurred by stringent standards for pathogen control demanded by large meat and poultry buyers including foreign buyers. ERS research shows that from 1997 to 2001, the poultry slaughtering industry spent \$502,000 per plant more on food safety controls than required by the HACCP regulation.



Consumer reaction to food safety incidents varies

ERS research using purchased data showed that:

- U.S. consumers' response to the 2003 discovery of BSE (mad cow disease) in two North American cows was limited and dissipated within 2 weeks.
- Sales of bagged spinach dropped 61% the third week after the September 2006 foodborne illness outbreak linked to spinach, and bulk spinach sales were down 27%.

In 2007, Americans spent almost half of their food budgets at restaurants and other "away from home" eating places. Local health inspectors monitor food safety at these establishments.