

For release only by the
House
Committee on Appropriations

ECONOMIC RESEARCH SERVICE

Statement of
Susan E. Offutt, Administrator
Before the Subcommittee on
Agriculture, Rural Development, Food and Drug Administration,
and Related Agencies
March 10, 2004

Mr. Chairman and members of the Committee, I am pleased to have the opportunity to present the proposed fiscal year (FY) 2005 budget for the Economic Research Service (ERS).

Mission

The Economic Research Service informs and enhances public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development.

Budget

The agency's request for 2005 is \$80 million, which includes increases for one initiative and pay costs. The agency is requesting an \$8.7 million increase to develop an integrated and comprehensive data and analysis framework of the food system beyond the farm-gate to provide a basis for understanding, monitoring, tracking, and identifying changes in food supply, consumer behavior and reactions, and consumption patterns.

ERS Contributions to Mission Area Goals

ERS supports the five USDA strategic goals to: 1) enhance economic opportunities for agricultural producers; 2) support increased economic opportunities and improved quality of life in rural America; 3) enhance protection and safety of the Nation's agriculture and food supply; 4) improve the Nation's nutrition and health; and 5) protect and enhance the Nation's natural resource base and environment.

Goal 1: Enhanced Economic Opportunities for Agricultural Producers.

ERS helps the U.S. food and agriculture sector adapt to changing market structure in rapidly globalizing, consumer-driven markets by analyzing the linkages between domestic and global food and commodity markets and the implications of alternative domestic and international policies on competitiveness. ERS economists analyze factors that drive change in the structure and performance of domestic and global food and agriculture markets; provide economic assessments of structural change and competition in the agricultural sector; analyze the price impacts of evolving structural changes in food retailing; analyze how international trade agreements and foreign trade restrictions affect U.S. agricultural production, exports, imports, and income; and provide economic analyses that determine how fundamental commodity market relationships are adjusting to changing trade, domestic policy, and structural conditions. Policy makers and the food and agriculture industry benefit from research contained in reports such as *International Evidence on Food Consumption Patterns* released in October 2003, that analyze forces shaping the demand for food in global markets, in this case in rapidly growing developing countries, and *The Structure of Global Markets for Meat* released in September 2003, that

analyze the economic forces behind the emergence of specialized trade patterns and new food marketing chains.

ERS will continue to work closely with the World Agricultural Outlook Board (WAOB) and USDA agencies to provide short- and long-term projections of U.S. and world agricultural production, consumption, and trade. In 2004, several initiatives will increase the accessibility, timeliness and breadth of the data and analysis. We are creating dynamic web pages that offer the latest outlook information, data, and links through a central location on the ERS website. In addition, USDA's agricultural baseline projections will be available on a timelier basis through the release of components as they are completed. ERS continues to work closely with the WAOB and other USDA agencies in developing a commodity market information system that would provide "one-stop shopping" for key USDA data. The breadth of data was expanded in 2002 when ERS launched a unique data series of average monthly retail prices for red meat and poultry based on electronic supermarket scanner data.

ERS continues to expand research on how the dynamics of consumer demand, notably growing consumption and trade in high value products, are shaping global markets. In 2003, ERS organized workshops on global markets for high-value foods, such as meat, processed cereals, fruits, vegetables and specialized markets for grains. These workshops brought together international experts on the food system to discuss the economic implications of the growing importance of high value products and trade for the food and agricultural sector. A report analyzing the forces shaping trade in high value products was released in 2003. These activities

enhance our analytic understanding of these fundamental market relationships and continue to improve the analytical base for USDA's foreign market analysis and projections activity.

New appropriations received in 2004 allow ERS to explore in greater depth the market for organic products and other commodities and foods that are differentiated in the marketplace by virtue of how or where they are produced. This form of product differentiation accommodates consumers' preferences (or producers' beliefs about consumers' preferences) for products that guarantee that particular production practices are (or are not) undertaken, or that are assured to be produced in particular countries or regions. In 2004, we plan to document the evolution, structure and function of differentiated product markets, and derive the implications of alternative extents, forms, and timing of government intervention in markets for products that embody production process or location characteristics.

Food price determination is increasingly important for understanding domestic and international market events and opportunities that promote the security of the U.S. food supply. ERS food markets research focuses on enhancing knowledge and understanding of food prices, both their objective measurement and how they are set by firms at different stages of the food system, and of the performance of the food system to most efficiently supply consumers' needs.

ERS research examined whether produce markets' retail consolidation, technological change in production and marketing, and changing consumer demand have altered the traditional market relationships between producers, wholesalers, and retailers. As the market for retail food has changed over time, so has the dynamics of market competition. ERS has begun to use

micro-level household and store scanner data to measure the impact of changing store formats on food prices to focus on the changing environment and how these changes could impact our view of how customers make economic decisions in retail food stores. ERS research continues on understanding why food prices change over time and forecasting how they will change in the future. ERS research on the linkage of food and agriculture to the general economy in terms of employment and income provides a statistical foundation for describing both the changing nature of the Food and Fiber System and the economy-wide effects of agriculture.

ERS continues to conduct research to improve understanding among decision makers of changes in the agricultural sector structure (for example, the implications for producers of the increasing replacement of open markets by contractual arrangements and vertical integration). ERS is currently examining the potential efficiency-enhancing motives for the increasing use of contracts by food manufacturers and processors. Hog production, highlighted in *Economic and Structural Relationships in U.S. Hog Production* released in February 2003, provides a good example of how economic factors can change animal industry structure and practices, and how these changes might affect the environment. Following up on the 2001 reports, *Concentration and Technology in Agricultural Input Industries* and *Public Sector Plant Breeding in a Privatizing World*, ERS will publish *The Seed Industry in U.S. Agriculture* in 2004. This report reviews the factors affecting seed production, consumption, and seed markets, and summarizes the regulatory policy, including the intellectual property rights (IPR) relating to new plant varieties, the role of public and private R&D expenditures in plant breeding for U.S. agriculture, and the influence of concentration on market power and cost efficiency in the seed industry. At the farm level, the new Family Farm Report--*Structural and Financial Characteristics of U.S.*

Farms, which will be published in 2004, documents the ongoing changes in farms' structure, financial performance, and business relationships in response to consumer demands, competitive pressures, and changing opportunities for farm families.

ERS analysis has supported implementation of the 2002 Farm Security and Rural Investment (FSRI) Act, and our ongoing research will provide objective analysis of the impacts of specific programs. Among the studies mandated by this Act is the report *Characteristics and Production Costs for Dairy Operations* to be released in 2004. This report examines how production costs vary among dairy producers and will indicate possible reasons for the cost variation of different commodities.

In addition, ERS will continue to work closely with the Foreign Agricultural Service (FAS) and the Office of the U.S. Trade Representative to ensure that ongoing negotiations on the Doha Development Agenda under the auspices of the World Trade Organization (WTO) and regional trade agreements are successful and advantageous for U.S. agriculture. In the negotiations, the U.S. seeks to minimize farm trade distortions while maintaining some level of domestic support. Central to a successful agreement is domestic and international consensus on the trade distorting impacts of various types of domestic agricultural policies, and a recent ERS publication is the first output from ongoing research on the potential distortions caused by U.S. policies. The report, *Decoupled Payments: Household Income Transfers in Contemporary U.S. Agriculture*, released in February 2003, analyzes the production and trade impacts of the Production Flexibility Contract (PFC) payments enacted under the 1996 Farm Act. Using the data on farm households from the Agricultural Resource Management Survey (ARMS), the

report provides the first data-based analysis of direct payments, and finds little evidence that the PFC payments distorted markets.

The Department's implementation of the final rule for organic production and marketing in October 2002 ensured that the goals of the Organic Foods Production Act of 1990 were met, including certification by a State or private agency accredited under the national program of all but the smallest organic farmers and processors. ERS had a large impact on the program through its research and data collection on pre-existing State and private organic certifying organizations, organic production practices, and organic food marketing. Updating an initial report of organic production statistics in 2001 is the report *U.S. Organic Farming in 2001: Adoption of Certified Systems*, released in April 2003.

ERS analyses can help guide and evaluate resource allocation and management of public sector agricultural research—a key to maintaining increases in productivity that underlie a strong competitive position for U.S. farmers. ERS continues to study the economics of adopting genetically modified seed, the role of patents and intellectual property rights in fostering innovation, and the potential for technology transfer to less developed countries.

Seed genetically engineered to control insects and weeds, initially introduced in 1995, now accounts for nearly 70 percent of U.S. soybean plantings and nearly half of major crop acreage (corn, soybeans, and cotton). An ERS report, *Size and Distribution of Market Benefits From Adopting Biotech Crops*, released in November 2003, estimated the size and distribution of benefits to consumers and the agricultural sector from adopting *Bacillus thuringiensis* (Bt)

cotton, herbicide-tolerant cotton, and herbicide-tolerant soybeans in 1997. A more comprehensive study of seed industry changes was reported in *The Seed Industry in U.S. Agriculture*, released in February 2004, which examined the composition of U.S. and international seed markets, regulations affecting agricultural seeds, the structure and evolution of the seed industry, and trends in private and public R&D in plant breeding. Particular emphasis was placed on seeds for the major field crops: corn, cotton, soybeans, and wheat.

In the publication *The Effect of Information on Consumer Demand for Biotech Foods: Evidence from Experimental Auctions*, released in March 2003, ERS examined consumer attitudes toward biotechnology and the role of consumer preferences in shaping market trends. Research anticipating the next wave of biotechnology products for crops modified to target consumer needs, such as food with altered nutritional qualities (such as canola with high beta-carotene content), crops with improved processing characteristics (such as naturally-colored cotton), or plants that produce specialty chemicals or pharmaceuticals (such as rabies vaccine in corn), is also being undertaken. This sound research base has been invaluable in tempering exaggerated claims of costs and benefits from both sides of the debate.

Recent innovations in agricultural biotechnology have raised significant policy questions concerning potential research delays, the optimal intellectual property design for maximizing dynamic innovation when innovation is sequential, and the potential effects of concentration of research and market power in the agricultural inputs industry. In cooperation with researchers at Rutgers University and the U.S. Patent Office, ERS created in 2003 a classification system and on-line searchable database of agricultural biotechnology patents and licensing arrangements.

This project identifies who generates the innovations, who controls the innovations and, to the extent possible, who has access to the innovations.

Data from the Agricultural Resource Management Survey (ARMS) underlie important estimates of farm income and well-being, and constitute an essential component in much of ERS' research. Reflecting the 2003 budget initiative, in 2003 the ARMS survey sample was expanded sufficiently to allow ERS, with the National Agricultural Statistics Service (NASS), to produce State level estimates for the largest fifteen States (as measured by value of farm output). Also in 2003, ERS collaborated with NASS to develop new survey instruments and data collection approaches that merge mail surveys with in-person surveys, thereby reducing respondent burden and improving the efficiency of data collection. In addition, ERS has developed a path breaking, web-based, secure ARMS data retrieval and summarization prototype tool that is attractive and easy to use despite the complex tasks it performs on this massive data set. When implemented in 2004, this system will retrieve ARMS data in formats customized to the customers' needs while assuring that sensitive data are not disclosed.

Goal 2: Support Increased Economic Opportunities and Improved Quality of Life in Rural America.

ERS research explores how investments in rural people, businesses, and communities affect the capacity of rural economies to prosper in the new and changing global marketplace. The agency analyzes how demographic trends, employment opportunities, educational improvements, Federal policies, and public investment in infrastructure and technology enhance economic opportunity and quality of life for rural Americans. Equally important is our

commitment to help enhance the quality of life for the Nation's small farmers who are increasingly dependent on these rural economies for their employment and economic support. The rural development process is complex and sensitive to a wide range of factors that, to a large extent, are unique to each rural community. Nonetheless, ERS assesses general approaches to development to determine when, where, and under what circumstances rural development strategies will be most successful.

ERS analyzes changing economic and demographic trends in rural America, with particular attention to the implications of these changes for the employment, education, income, and housing patterns of low-income rural populations. Data from the 2000 Census and other Federal information sources provide the most up-to-date information on the current conditions and trends affecting rural areas and provide the factual base for rural development program initiatives. In 2003, the agency continued its series of publications that report the most current indicators of social and economic conditions in rural areas for use in developing policies and programs to assist rural people and their communities. *Rural America at a Glance* and *Rural Education at a Glance*, designed for a policy audience, summarize the most current information on population and migration, labor and education, poverty, race and ethnicity, infrastructure, and rural development policy. The ERS website (www.ers.usda.gov) serves as a major repository of rural data, offering unique mapping utilities and comprehensive county-level data bases. In January 2004, ERS joined Cornell University in sponsoring a conference on "Population Change and Rural Society". This conference showcased an integrated set of demographic studies by leading social scientists that analyzed critical demographic trends from the 2000 Census and drew conclusions about their implications for economic and social life in rural America. The

conference focused on the policy implications of changing demographic composition, economic restructuring, changing land use patterns, and geographic patterns of chronic disadvantage and emerging growth. This conference marked the first comprehensive look at rural America based on data from the 2000 Census.

ERS is at the forefront of analysis assessing the critical role of education in local, regional, and national economic development. Rural communities view increased educational investments as an important part of economic development, but are sensitive to the partial loss of their investment, in the form of youth outmigration to areas with better opportunities. ERS is partnering with land-grant universities in a research program designed to measure the relationship between education and economic outcomes, both for the individual worker and rural community, to help local communities better target their economic development and school improvement efforts.

For over 30 years, ERS has captured aspects of the broad economic and social diversity among rural areas in various county classifications. These typologies have been widely used by policy analysts and public officials to determine eligibility for and the effectiveness of Federal programs to assist rural America. In 2003, ERS redesigned a county typology that maps out a geographic portrait of the rich diversity of rural America in ways that are meaningful for developing public policies and programs. ERS will now address how the economic, demographic, and policy themes identified in this typology translate into effective rural development strategies for enhancing rural economic opportunities and well being.

ERS also continues its long tradition of economic research on the welfare of disadvantaged population groups in rural areas, including low-income families, children, the elderly, and racial/ethnic groups, as well as the Federal assistance programs that serve them. Through its research on the measurement and dimensions of rural poverty, ERS helps to better target and improve the effectiveness of Federal assistance programs. One ERS study, *Comparisons of Metropolitan-Nonmetropolitan Poverty During the 1990s*, documents the greater incidence of poverty in nonmetro relative to metro areas, but finds that metro-nonmetro differences in the depth and severity of poverty are less striking and more variable over time. These findings and differences in the characteristics of the metro and nonmetro poor, suggest that poverty-reduction policies will be most effective when tailored to specific local areas. A second ERS study, published in ERS' new magazine, *Amber Waves*, assessed the effect of major demographic, economic, and Federal policy changes on the magnitude and dimensions of poverty during the 1990s. Race and ethnicity, family structure, and the ability to work are critical determinants of poverty in rural areas. In 2004, ERS will publish findings from a study assessing the factors affecting geographic and racial/ethnic concentration of high poverty in rural areas. Characteristics such as education, employment, family structure, disability, and language proficiency differentiate these areas with poverty rates of over 20 percent.

The agency focuses research on the implications of changing racial/ethnic composition in rural areas. Hispanics were the fastest growing racial/ethnic group in rural America, and accounted for over 25 percent of the rural population growth during the 1990s. One ERS study on the impacts of Hispanic population growth on rural wages, found that the growth of Hispanics in rural areas has negatively affected the wages of local workers with a high school education

and some college, due largely to changes in labor demand in specific industries. A second ERS study examined changing Hispanic settlement patterns over the last two decades, and found extensive Hispanic population dispersion into non-traditional Hispanic settlement regions. These patterns reduced residential separation at the national level between Hispanics and non-Hispanic Whites, but led to increased residential separation at the neighborhood level, especially in rapid-growth counties.

ERS conducts ongoing research on the impact and effectiveness of Federal programs in rural areas. For example, ERS assists USDA's Rural Development mission area in efforts to improve the delivery and effectiveness of rural development programs. In 2003, ERS worked with Rural Development staff to help design measurable performance indicators for their rural development programs. ERS also conducted analyses to help Rural Development staff assess the economic impacts of proposed changes in their rural business loan programs. In addition, in 2004, ERS will focus attention on the effects of Federal farm policy on rural areas and farm households by co-hosting a workshop with the National Center for Food and Agricultural Policy. This workshop will provide policymakers with a better understanding of the linkages between farm policy, farm households, and rural communities well in advance of the next farm bill.

The farm typology developed by ERS researchers, coupled with a new accounting stance that views the farm household as a more relevant decision unit than just the farm business, have been keys to greater insight into the factors affecting the well-being of farmers. A condensed version of the farm typology was an important feature in Secretary Veneman's statement of principles for farm policy, and it continues to inform debates about the incidence of farm profits

and government payments. In 2003, ERS researchers developed a new department-wide definition of limited resource farms that will lead to a change in the farm typology in 2004.

Goal 3: Enhance Protection and Safety of the Nation's Agriculture and Food Supply.

ERS research is designed to support food safety decision-making in the public sector and to enhance the efficiency and effectiveness of public food safety policies and programs. The program focuses on valuing societal benefits of reducing and preventing illnesses caused by microbial pathogens; assessing the costs of alternative food safety policies; assessing industry incentives to enhance food safety through new technologies and supply chain linkages; evaluating regulatory options and change; and exploring linkages between food safety and international trade. ERS has worked closely with various USDA agencies and the Centers for Disease Control and Prevention (CDC) on various pathogen risk assessments and on analyzing the benefits and costs of implementing the Hazard Analysis and Critical Control Points (HACCP) rule. ERS and the Food Safety and Inspection Service (FSIS) work together to identify research projects and activities that address the needs of the Department.

ERS, in cooperation with Washington State University, completed the first post-HACCP national survey of meat and poultry slaughter and processing plants. The survey finds that implementing the 1994 Pathogen Reduction (PR)/HACCP rule raised costs about 1 percent, or about \$850 million for the industry. Survey results will allow companies to assess their own adaptation performance vis-a-vis the industry average. While larger than pre-regulation estimates of PR/HACCP costs, the estimated costs are still considerably smaller than expected benefits. Results showed plants with branded products, strong customer requirements, and

export orientation made the largest post-PR/HACCP investments in new food safety management processes or technologies, indicating market forces are at work to raise food safety above regulatory requirements in some cases. In 2003, ERS completed a study that summarizes the survey results and made the survey questions and summary results available on the ERS website.

ERS has become well-known for its pioneering estimates of the societal costs associated with foodborne illnesses due to *E. coli* and other known pathogens. In Spring 2003, ERS launched its first interactive web-based data product, the foodborne illness cost calculator. The calculator allows users to choose a pathogen of interest, the number and severity of illnesses, and from among several alternative methodologies employed by economists for calculating societal costs.

In 2003, ERS researchers completed a project that developed an economic framework for analyzing linkages between food safety and international trade. The project produced an ERS report, *International Trade and Food Safety: Economic Theory and Cases Studies*, which explores global trends in food safety regulation and food safety-trade policies, and analyzes food safety and trade conflicts and resolutions in various commodity sectors.

In 2004, ERS will publish a study analyzing the private incentives for improving food safety in the U.S. Case studies include innovations the industry has developed and is using to produce safer beef, including new equipment, new testing technologies, and new management systems. Interviews with firms were used to determine the most significant factors contributing

to the innovation. The collaborative and contractual relationships among firms in the meat, equipment, microbial testing, and restaurant industries are found to be key.

Recently, policymakers have begun weighing the usefulness of mandatory traceability to address issues ranging from food safety and bioterrorism to the consumer right to know, as well as to inform consumers about food attributes including country of origin, animal welfare, and biotech content. Industry interviews, backed by industry-level market studies, have been used to establish a description of the extent and type of traceability maintained by private sector firms. This information reveals that financial incentives are leading firms to develop a significant capability to trace. The findings indicate that mandatory traceability – possibly a one-size-fits-all regulation can be costly as firms already trace many product attributes. Further, other policies may be better targeted toward augmenting product differentiation or traceback for food safety.

In response to increased risks to the Nation's agriculture and food supply due to bioterrorism, ERS embarked on an ambitious new project in July of 2002. Security Analysis System for U.S. Agriculture (SAS-USA) establishes a framework to systematically tie all food supply processes from farm production, food manufacturing, distribution of food products, to the food consumption in every region of the country. SAS-USA is capable of quickly distilling massive detailed regional information and displaying the information visually in user-friendly formats. These capabilities mean that emergencies can be managed efficiently and expeditiously by assessing vulnerabilities and predicting outcomes. SAS-USA is truly unique, filling a niche that previously required weeks and months of data assembly, analysis, and interpretation. In 2004, ERS will: continue to integrate agriculture, food, and transportation data to make the system more realistic in simulations; connect the U.S. agricultural/food supply chain to imports

and exports; and continue to develop scenarios based on animal and plant diseases and food contamination.

Goal 4: Improve the Nation's Nutrition and Health.

ERS studies the relationships among the many factors that influence food choices and eating habits and their health outcomes. The roles of income, aging, race and ethnicity, household structure, knowledge of diet and health relationships, nutrition information and labeling, and economic incentives and policies that affect food prices and expenditures are of particular interest. Obesity--including understanding its costs to individuals and society, how income, diet and health knowledge affect obesity status, and considering private versus public roles in reducing obesity—is a priority for this Administration.

ERS research has a major focus on the economic dimensions of obesity, including understanding the societal costs of obesity, explaining obesity trends among different demographic and income groups, and assessing the benefits and costs of alternative options for influencing Americans' food choices and dietary behaviors, including roles for nutrition education and Federal food and nutrition assistance programs. In April 2003, ERS organized the first national workshop on the economics of obesity. The workshop brought together leading health economists in the Nation and was attended by researchers from Federal agencies such as the CDC, Council of Economic Advisers, the Food and Drug Administration (FDA), the Federal Trade Commission (FTC), and the National Cancer Institute (NCI). Topics encompassed nearly all of the cutting-edge health economics research on the causes and consequences of the rise in U.S. obesity. A conference report has been drafted and is being edited for publication in 2004.

Additionally, in 2004 studies will be completed on the effects of snack and fat taxes on food choices and diet quality; the demand for fruits and vegetables by consumers from different income groups; the effectiveness of labeling foods consumed away from home; and the link between obesity and awareness of Federal nutrition information programs.

As part of our effort to improve the timeliness and quality of the Department's food consumption data, in 2003 ERS launched an interagency effort to develop a proposal for an external review of USDA's food consumption data needs and gaps. Enhancements to the food consumption data infrastructure are critical to understanding and addressing many market and policy issues in the Department. The interagency effort led to the funding of a review by the National Research Council's Committee on National Statistics. A panel of experts is being compiled, and the first stage of the data review will be a workshop to be held in spring 2004.

Through the Food Assistance and Nutrition Research Program (FANRP), ERS conducts studies and evaluations of the Nation's food and nutrition assistance programs. FANRP research is designed to meet the critical information needs of USDA, Congress, program managers, policy officials, clients, the research community, and the public at large. FANRP research is conducted through internal research at ERS and through a portfolio of external research. Through partnerships with other agencies and organizations, FANRP also enhances national surveys by adding a food and nutrition assistance dimension. FANRP's long-term research themes are dietary and nutritional outcomes, food program targeting and delivery, and program dynamics and administration.

ERS completed a Congressionally mandated study of USDA's Fruit and Vegetable Pilot Program (FVPP). Section 4305 of the 2002 Farm Act provided \$6 million to the FVPP for the 2002-03 school year to improve fruit and vegetable consumption among the Nation's school children. The FVPP provided fresh and dried fruits and fresh vegetables free to children in 107 elementary and secondary schools—100 schools in 4 States (25 schools each in Indiana, Iowa, Michigan, and Ohio) and 7 schools in the Zuni Indian Tribal Organization (ITO) in New Mexico. The intent of the pilot was to determine the feasibility of such a program and its success as assessed by the students' interest in participating. The ERS monograph, *Evaluation of the USDA Fruit and Vegetable Pilot Program: Report to Congress* (May 2003), provides an early review of the pilot.

Food pantries and emergency kitchens play an important role in feeding America's low-income and needy populations. During a typical month in 2001, food pantries served about 12.5 million people, and emergency kitchens served about 1.1 million people. These organizations are part of the Emergency Food Assistance System (EFAS), a network run largely by private organizations with some Federal support. As part of the first comprehensive government study of EFAS, the ERS monograph, *The Emergency Food Assistance System—Findings From the Client Survey* (August, 2003), presents findings from a national study of EFAS clients who received emergency food assistance from selected food pantries and emergency kitchens.

ERS has continued to fund a national survey of food security and hunger, conducted by the Census Bureau as a supplement to the Current Population Survey (CPS). The survey is designed to measure whether U.S. households always have access to enough food to meet basic

needs. ERS focuses its efforts on improving the measurement of food security, promoting the use of the CPS 18-item food security index, and contributing to a better understanding of the determinants and consequences of food insecurity in the United States. ERS released the annual report, *Household Food Insecurity in the United States, 2002*, that provides statistics on the food security of U.S. households, as well as on how much they spent for food and the extent to which food-insecure households participated in Federal and community food and nutrition assistance programs.

ERS delivered the Congressionally mandated study, *Assessment of WIC Cost-Containment Practices: A Final Report to Congress* in February, 2003. WIC State agencies adopt various cost-containment practices to reduce food costs, such as limiting food-item selection by WIC participants, limiting authorized food vendors, and negotiating rebates with food manufacturers or suppliers. The study found that cost-containment practices can be relatively inexpensive to operate, reduce food package costs, and have few adverse impacts on WIC participants in terms of participant satisfaction, program participation, and product availability.

Consumer Data and Information System

The request for an increase of \$8,676,000 will fund the development of an integrated and comprehensive data and analysis framework of the post-farm food system to identify, understand and track changes in food supply and consumption patterns and to explore the relationship between consumers' knowledge and attitudes and their consumption patterns. The centerpieces of this framework are nationally representative consumer and retail surveys of food prices, retail

sales, consumption and purchases of food for at home and away-from-home eating, as well as data on consumer behavior, reactions, attitudes, knowledge, and awareness. This information system will provide market surveillance and insights into price changes, market demand, and consumer reactions to unforeseen events and disruptions such as the recent discovery of Bovine Spongiform Encephalopathy (BSE). In addition, the data and analysis framework will provide intelligence on diets, knowledge and information levels and health status helping policymakers respond to current events, such as the rise in obesity and overweight, and their interactions with the U.S. food and agriculture system. Such understanding will provide a basis for ensuring that consumers enjoy a low-cost, safe, secure, and nutritious food supply, as well as enhancing their health and productivity, and enabling farmers to prosper with new ways of doing business in diverse and ever-changing food markets by identifying changing consumer demand.

The Consumer Data and Information System has four components providing intelligence across and within the food and agricultural complex. The first component, a Food Market Surveillance System, is an integrated set of surveys and supporting analysis concentrating on production and linkages in agriculture beyond the farm-gate. It would be the foundation of a research and monitoring program to: provide timely price, purchase, and sales data; identify food consumption patterns of consumers and how they change; provide consumers with improved information; quickly survey consumers about new issues or developments; and measure and identify strategies for managing food losses and waste. The second component, a new Rapid Consumer Response Module, would provide real-time information on consumer reactions to unforeseen events and disruptions, current market events, and government policies. This module would be integrated into several proprietary consumer data panels currently maintained by

private vendors. The third component, a Flexible Consumer Behavior Survey Module (FCBSM), would complement data from the National Health and Nutrition Examination Survey (NHANES). The FCBSM would provide information needed to assess linkages between individuals' knowledge and attitudes about dietary guidance and food safety, their food-choice decisions, and their nutrient intakes. Combining the NHANES with this new module allows analysis of how individual attitudes and knowledge about healthful eating affect food choices, dietary status, and health outcomes. The last component is additional staff to ensure the successful design and implementation of the Consumer Data and Information System.

As a Nation, we face challenges to our health, safety, and food arising from rapid changes in technology, social structure, and a globalizing economy. The cumulative effect of these issues and others is to strain and erode a general understanding of the role food and diet plays in our society. USDA's ability to assure nutritious foods and respond to these issues is grounded on investments in the creation of knowledge.

Goal 5: Protect and Enhance the Nation's Natural Resource Base and Environment.

In this area, ERS research and analytical efforts, in cooperation with the Natural Resources Conservation Service (NRCS), support development of Federal farm, conservation, environmental, and rural policies and programs. These efforts require analyses of the profitability and environmental impacts of alternative production management systems in addition to the cost-effectiveness and farm income impacts of public sector conservation policies and programs.

With passage of the 2002 Farm Bill, USDA looked to ERS to provide comprehensive and detailed, yet understandable, information to public and private users, including information on programs in the Conservation Title. In addition, ERS provided extensive support to other USDA agencies in developing rules for implementation of 2002 conservation programs. ERS participated in Farm Service Agency (FSA) and NRCS working groups on the Conservation Reserve Program (CRP), the Environmental Quality Incentives Program (EQIP), the Conservation Security Program (CSP), and implementation of conservation technical assistance by third-party technical service providers. ERS contributed substantially to the NRCS benefit-cost assessments for EQIP, CSP and the third-party technical service provider rule. For instance, ERS participated in the EQIP Benefit-Cost Analysis Team and helped to prepare the NRCS report *Environmental Quality Incentives Program: Benefit Cost Analysis* released in May 2003. ERS assisted FSA with rulemaking for the CRP program by suggesting ways to decrease the complexity of the Environmental Benefits Index (EBI) used by USDA county office staff, as well as methods to expand the EBI to include program impacts on nutrient loadings in ground and surface waters.

Since 1985, U.S. agricultural producers have been required to practice soil conservation on highly erodible cropland and conserve wetlands as a condition of farm program eligibility. Compliance mechanisms have been criticized, however, for low standards and lax enforcement. A report to be released in 2004, *Environmental Compliance in U.S. Agricultural Policy: Past Performance and Future Potential*, discusses the general characteristics of compliance mechanisms, their effectiveness in their current form, and the potential for expanding compliance to address nutrient runoff from crop production. This report will empirically assess the extent of

erosion reduction that is likely to be the direct result of compliance. NRCS has indicated that the data and analysis developed for the report will be useful in carrying out the benefit-cost analysis of compliance that the agency has been ordered to undertake.

The Congressionally-mandated study, *The Conservation Reserve Program's Economic and Social Impacts on Rural Counties*, transmitted to Congress in January 2004, addresses a number of concerns about the unintended consequences of high levels of enrollment in the CRP. Long run trends in rural employment and population are influenced by a variety of characteristics, and some have argued that high levels of CRP enrollment exacerbate the declines suffered by many rural communities. However, the report finds no statistically significant evidence that high enrollments in the CRP have had a systematic, adverse effect on population or community services in rural counties across the country. High CRP enrollments were associated with a negative effect on jobs in the years immediately following program introduction, but this effect generally was short-lived as communities adjusted to changing demands and new economic opportunities. In addition, CRP has improved hunting and fishing opportunities in rural areas. Changing the way CRP participants are compensated can affect the productivity profile of enrolled soils, but these changes would be small and represent a necessary cost of enrolling environmentally sensitive land.

ERS researchers have actively assisted NRCS and the Environmental Protection Agency (EPA) in assessing the economic costs and benefits of changes to the rules governing Confined Animal Feeding Operations (CAFOs) under the Clean Water Act, signed on December 16, 2002, with revisions proposed to the Total Maximum Daily Load (TMDL) provisions. Following up

on the report *Confined Animal Production and Manure Nutrients*, published in 2001, is a new report, *Manure Management for Water Quality: Costs of Land Applying Nutrients from Animal Feeding Operations*, released in June 2003, which analyzes the farm-, regional-, and national-level costs to the livestock and poultry sector of meeting manure management requirements similar to those in the December 2002 rule. Results indicate that meeting a manure nutrient application standard increases the costs of managing manure. Costs are a function of farm size, acres of cropland on the farm, regional land use, willingness of landowners to substitute manure nutrients for commercial fertilizer, and whether a nitrogen or phosphorus standard is met.

As rising populations and incomes increase pressure on land and other resources around the world, agricultural productivity plays an increasingly important role in improving food supplies and food security. The report, *Linking Land Quality, Agricultural Productivity and Food Security*, released in June 2003, explores the extent to which land quality and land degradation affect agricultural productivity, how farmers respond to land degradation, and whether land degradation poses a threat to productivity growth and food security in developing regions and around the world.

In FY 2003, ERS initiated the Program of Research on the Economics of Invasive Species Management (PREISM). PREISM promotes economic research and the development of decision support tools that have direct implications for USDA policies and programs for protection from, control/management of, regulation concerning, or trade policy relating to invasive species. Accomplishments in PREISM's first year included organizing the *Economics of Invasive Species Workshop* (May 12 – 13) and conducting a competitive grants and

cooperative agreements program. The workshop brought together invasive species experts from the USDA and other Federal agencies, State governments, universities, industry, and non-governmental organizations to identify research priorities that would inform USDA invasive species policy and program decisions. The competitive grants and cooperative agreements program funded 12 research projects in the areas of bioeconomic modeling and risk assessment, trade and invasive species, and the economics of alternative approaches to managing invasive species. When completed, these projects will provide insights, information, and practical decision tools to help USDA policy makers deal with the uncertainties and risks associated with invasive species outbreaks, jointly account for biological and economic factors in prioritizing invasive species threats, allocate resources between exclusion and control activities, and evaluate new approaches to addressing invasive species threats (including insurance schemes and producer purchased bonds).

Customers, Partners, and Stakeholders

The ultimate beneficiaries of ERS' program are the American people, whose well-being is improved by informed public and private decisionmaking, leading to more effective resource allocation. ERS shapes its program and products principally to serve key decision makers who routinely make or influence public policy and program decisions. This clientele includes White House and USDA policy officials and program administrators/managers; the U.S. Congress; other Federal agencies, and State and local government officials; and domestic and international environmental, consumer, and other public organizations, including farm and industry groups interested in public policy issues.

ERS depends heavily on working relationships with other organizations and individuals to accomplish its mission. Key partners include: NASS for primary data collection; universities for research collaboration; the media as disseminators of ERS analyses; and other government agencies and departments for data information and services.

Closing Remarks

I appreciate the support that this Committee has given ERS in the past and look forward to continue working with you and your staff to ensure that ERS makes the most effective and appropriate use of public resources. Thank you.