

2013 Explanatory Notes  
Economic Research Service

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## ECONOMIC RESEARCH SERVICE

Purpose Statement

The Economic Research Service (ERS) was established in 1961 from components of the former Bureau of Agricultural Economics principally under the authority of the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627). The mission of ERS is to inform and enhance public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development.

Activities to support this mission and the following goals involve research and development of economic and statistical indicators on a broad range of topics, including but not limited to global agricultural market conditions, trade restrictions, agribusiness concentration, farm business and household income, farm and retail food prices, food borne illnesses, food labeling, nutrition, food assistance programs, agrichemical usage, livestock waste management, conservation, genetic diversity, technology transfer, and rural employment. Research results and economic indicators on such important agricultural, food, natural resource, and rural issues are fully disseminated to public and private decision makers through published and electronic reports and articles; special staff analyses, briefings, presentations, and papers; databases; and individual contacts. More information on ERS' program is contained on the ERS Web site ([www.ers.usda.gov](http://www.ers.usda.gov)).

The ERS headquarters is in Washington, D.C. ERS does not have any field offices. As of September 30, 2011, there were 373 permanent full-time employees.

ERS did not have any Office of Inspector General (OIG) or Government Accountability Office (GAO) audits or evaluations conducted during 2011.

During 2011, an external panel of experts in farm financial analysis was assembled to conduct a comprehensive review of the Agricultural Resource Management Survey (ARMS) process for constructing financial statements and to provide recommendations regarding possible changes to the data collection process. The ARMS data are the most comprehensive farm level data available in the U.S, and are widely used in research and policy analysis. However, the structure of American Agriculture has changed over the last 20 years. In that time, there has been no comprehensive external analysis of whether ARMS is still collecting and reporting the most accurate financial statements possible. Specific questions to be addressed include: Do the methods used in ARMS accurately measure farm income? Do the methods used in ARMS accurately measure farm wealth? Is there a need for additional financial statements such as a cash flow or changes in equity statement? Should ARMS provide additional supporting statements as recommended by the Farm Financial Standards Council? What, if any, are suggested recommendations for improving the accuracy of the ARMS financial statements?

During the first quarter of 2011, the Principal Investigators from Kansas State University and the University of Florida came to Washington, DC to meet with ERS and NASS to outline a process for conducting the review of ARMS. In addition to financial accounting integrity, consideration was given to issues that NASS and ERS may want specifically examined. The meeting also established the procedure for selecting panelists. In the spring of 2011, the panel convened in Washington, DC to conduct the external review. During the process, the external panels received briefings on the ARMS process, asked questions of the process, and then met to discuss possible recommendations. An Agricultural & Applied Economics Association (AAEA) symposium was held to further vet recommendations. A special issue of the *Agricultural Finance Review* is in progress to publish the outcome of the review and panel recommendations.

In June 2011, ERS convened the Technical Working Group for the National Food Purchase and Acquisition Survey (FoodAPS) to provide guidance on the final design of the survey. This group includes technical experts in food survey methodology from universities and Government agencies. The FoodAPS represents an agency investment of over \$12 million over several fiscal years. The Technical Working Group reviewed the results of the field test of the survey carried out in early 2011, and provided guidance for several major issues in the final survey design.

The Resource and Rural Economics Division (RRED) of ERS underwent an internal review in 2011 as part of a biannual priority planning process. RRED managers and senior staff conducted 16 interviews, involving 48

individuals and 23 Agencies and Organizations, including OCE, FSA, NRCS, and ARS. Interviews followed a structured set of questions designed to gain insight into stakeholder context and perspective on RRED's value-add and research priorities. A full-day facilitated meeting synthesized the stakeholder input, and used that input, along with the set of priority project criteria developed for this process, including significant potential policy impact, a high likelihood of successful, timely completion, a high quality research approach, and appropriate balance within RRED's portfolio, to develop a list of candidate projects. The second phase of the process involved review boards to evaluate and rank each proposal. This series of presentations and Q&A on each project contributed significantly to the rigor, objectivity and transparency of the process. A final facilitated meeting of the RRED management team considered stakeholder input, review board recommendations, and Division resource constraints to make a final selection of 12 priority projects, 4 capacity building projects, and 14 foundational activities designed to maximize the likely impact of RRED's resources.

During 2011, ERS initiated an internal review of its administration processes using the Lean Six Sigma model techniques facilitated by MineLight Solutions. A workgroup comprised of key stakeholders identified 53 work activities for review and process improvement, and of those, three were selected for review in 2012. Initial processes for review include hiring management and reporting, document initiation and tracking, and specific budget execution activities. Completion of the three reviews is projected to take place in August 2012.

## ECONOMIC RESEARCH SERVICE

Available Funds and Staff Years

(Dollars in thousands)

Item	2010 Actual		2011 Actual		2012 Estimate		2013 Estimate	
	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years
Salaries and Expenses:								
Discretionary Appropriations.....	\$82,478	400	\$81,978	401	\$77,723	385	\$77,397	385
Rescission.....	-	-	-164	-	-	-	-	-
Adjusted Appropriation.....	82,478	400	81,814	401	77,723	385	77,397	385
Lapsing Balances.....	-735	-	-688	-	-	-	-	-
Obligations.....	81,743		81,126		77,723		77,397	
<u>Obligations under other USDA appropriations:</u>								
Foreign Agricultural Service.....	160	1	326	1	457	1	160	1
Rural Development.....	1,600	-	-	-	-	-	-	-
Food and Nutrition Service.....	2,900	-	1,200	-	-	-	-	-
Food and Drug Administration.....	33	-	-	-	-	-	-	-
Agricultural Research Service.....	55	-	3	-	-	-	50	-
Office of the Chief Economist.....	0	-	57	-	0	-	0	-
Nat'l Inst.of Food and Agriculture.....	0	-	90	-	0	-	0	-
Nat'l Agricultural Statistics Svc.....	0	-	95	-	50	-	50	-
Total, Other USDA Appropriation.....	4,747	1	1,771	1	507	1	260	1
Total, Economic Research Service.....	87,225	401	83,585	402	78,230	386	77,657	386

## ECONOMIC RESEARCH SERVICE

Permanent Positions by Grade and Staff Year Summary

Grade	2010 Actual Washington DC	2011 Actual Washington DC	2012 Estimate Washington DC	2013 Estimate Washington DC
Senior Executive Service.....	8	8	6	6
GS-15.....	75	75	72	72
GS-14.....	84	84	80	80
GS-13.....	91	92	90	90
GS-12.....	54	54	57	57
GS-11.....	38	38	38	38
GS-10.....	1	1	1	1
GS-9.....	20	20	17	17
GS-8.....	6	6	5	5
GS-7.....	8	8	3	3
GS-6.....	2	2	3	3
GS-5.....	2	2	4	4
GS-4.....	5	5	4	4
GS-3.....	5	5	4	4
GS-2.....	2	2	2	2
Total Permanent Positions.....	401	402	386	386
Unfilled Positions, end-of-year.....	-25	-29	-29	-29
Total Permanent, Full-Time Employment, end-of-year.....	376	373	357	357
Staff-Year Estimate.....	401	402	386	386

## ECONOMIC RESEARCH SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets).

Salaries and Expenses:

For necessary expenses of the Economic Research Service, [\$77,723,000] \$77,397,000.

## ECONOMIC RESEARCH SERVICE

SALARIES AND EXPENSES

Appropriations Act, 2012.....	\$77,723,000
Budget Estimate, 2013.....	<u>77,397,000</u>
Change from 2012 Appropriation.....	-326,000

SUMMARY OF INCREASES AND DECREASES  
(On basis of appropriations)

<u>Item of Change</u>	2010 <u>Actual</u>	2011 <u>Change</u>	2012 <u>Change</u>	2013 <u>Change</u>	2013 <u>Estimate</u>
Food Assistance and Nutrition Research Program.....	\$4,408,000	0	-\$1,000,000	0	\$3,408,000
Commodity Outlook Programs.....	5,217,000	0	-500,000	0	4,717,000
Biotechnology in American Agriculture.....	750,000	-\$349,000	-401,000	0	0
IT Equipment.....	1,500,000	0	-225,000	0	1,275,000
Macroeconomic Analysis.....	400,000	0	-200,000	0	200,000
Production of print copies of <i>Amber Waves</i> .....	48,000	0	-48,000	0	0
Bureau of Labor Statistics' American Time Use Survey.....	315,000	-315,000	0	0	0
Intramural Research on the economics of invasive species..	1,000,000	0	-165,000	0	835,000
Situation and outlook reporting for fertilizer use and trade..	600,000	0	-150,000	0	450,000
Staff streamlining in ERS situation and outlook program...	1,200,000	0	-200,000	0	1,000,000
Cooperative Agreements and Collaborations.....	3,800,000	0	-507,000	-\$213,000	3,080,000
Environmental Services.....	1,800,000	0	-695,000	-305,000	800,000
Pay Costs.....	0	0	0	192,000	192,000
Other Ongoing Research.....	<u>61,440,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>61,440,000</u>
Total Appropriation or Change.....	82,478,000	-664,000	-4,091,000	-326,000	77,397,000

## ECONOMIC RESEARCH SERVICE

PROJECT STATEMENT  
 (On basis of appropriations)  
 (Dollars in thousands)

	2010 Actual		2011 Actual		2012 Estimate		Change	2013 Estimate	
	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
Economic Analysis & Research	\$81,495	400	\$80,995	401	\$76,789	385	-\$326	\$76,463	385
Homeland Security	983		983		934		-	934	
Total Adjusted Appropriation	82,478		81,978		77,723		-326	77,397	
Rescission	-		-164		-			-	
Total Available	82,478		81,814		77,723			77,397	
Unobligated Balance	-735		-688		-		-	-	
<b>Total, Obligations</b>	<b>81,743</b>	<b>400</b>	<b>81,126</b>	<b>401</b>	<b>77,723</b>	<b>385</b>	<b>-326</b>	<b>77,397</b>	<b>385</b>

PROJECT STATEMENT  
 (On basis of obligations)  
 (Dollars in thousands)

	2010 Actual		2011 Actual		2012 Estimate		Change	2013 Estimate	
	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years		Amount	Staff Years
Discretionary Obligations									
Economic Analysis & Research	\$80,760	400	\$80,143	401	\$76,789	385	-\$326	\$76,463	385
Homeland Security	983		983		934		-	934	
Total Obligations	81,743		81,126	401	77,723		-326	77,397	
Unobligated Balance	735		688		-		-	-	
<b>Total, Appropriations</b>	<b>82,478</b>	<b>400</b>	<b>81,814</b>	<b>401</b>	<b>77,723</b>	<b>385</b>	<b>-326</b>	<b>77,397</b>	<b>385</b>

## **Economic Research Service (ERS)**

### **Justification of Increases and Decreases**

Funding is requested to continue ERS' highest priority core programs, providing economic and other social science information and analysis on agriculture, food, the environment, and rural development. ERS produces such information and analyses to inform policy and program decisions made across the spectrum of USDA missions, and supplies them in outlets that are accessible to USDA stakeholders and the general public. ERS' highly trained economists and social scientists will continue to conduct research, analyze food and commodity markets, produce policy studies, and develop economic and statistical indicators which will meet the information needs of USDA, other public policy officials, and the research community.

The 2013 budget requests \$77,397,000 in program funding, including a 0.5 percent increase in pay costs and a reduction of \$518,000 in lower priority programs, as follows:

- (1) An increase of \$192,000 to fund increased pay costs.

The increase will enable ERS to maintain staffing levels, which are critical to conducting research within ERS' highest priority core programs.

- (2) A decrease of \$518,000 for economic analysis and research, consisting of:

- (a) A decrease of \$213,000 from Cooperative Agreements and Collaborations (\$3,293,000 available in FY 2012).

A total of \$3,080,000 is proposed for Cooperative Agreements and Collaborations in 2013 to fund competitive grants programs and a series of cooperative research agreements to obtain expertise from researchers outside the agency who can fill skills gaps or provide research that is value-added to ERS resources on particular research areas. Cooperative agreements are critical for building links between university and ERS research, and for strengthening USDA land-grant partnerships.

- (b) A decrease of \$305,000 from Environmental Services (\$1,105,000 available in FY 2012).

ERS research on environmental services provides baseline information on farmer practices and informs the design of markets and incentive programs. New analytical techniques, including experimental and behavioral economics, are being applied that require extramural funds to test hypotheses with diverse groups of farmers and local environmental conditions. In addition, ERS will conduct prioritized research and analysis on a limited number of program design and market options, and will respond to requests from OCE, FSA, and NRCS to analyze options for carbon and water quality markets. A total of \$800,000 is proposed for these activities in 2013.

## ECONOMIC RESEARCH SERVICE

## Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands)

	2010 Actual		2011 Actual		2012 Estimate		2013 Estimate	
	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years	Amount	Staff Years
Alabama.....	\$55	-	\$10	-	-	-	-	-
California.....	380	-	432	-	-	-	-	-
Colorado.....	50	-	-	-	-	-	-	-
Connecticut.....	295	-	129	-	-	-	-	-
Delaware.....	-	-	124	-	-	-	-	-
District of Columbia.....	66,353	400	72,135	401	\$77,723	385	\$77,397	385
Florida.....	-	-	27	-	-	-	-	-
Georgia.....	225	-	-	-	-	-	-	-
Illinois.....	1,038	-	1,726	-	-	-	-	-
Indiana.....	95	-	283	-	-	-	-	-
Iowa.....	1,021	-	65	-	-	-	-	-
Kansas.....	30	-	-	-	-	-	-	-
Kentucky.....	25	-	-	-	-	-	-	-
Louisiana.....	85	-	40	-	-	-	-	-
Maryland.....	1,580	-	1,056	-	-	-	-	-
Massachusetts.....	200	-	290	-	-	-	-	-
Michigan.....	250	-	176	-	-	-	-	-
Minnesota.....	68	-	75	-	-	-	-	-
Mississippi.....	260	-	260	-	-	-	-	-
Missouri.....	115	-	34	-	-	-	-	-
Nebraska.....	4	-	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-
New Jersey.....	3,678	-	2,132	-	-	-	-	-
New Mexico.....	-	-	70	-	-	-	-	-
New York.....	1,212	-	768	-	-	-	-	-
North Carolina.....	94	-	92	-	-	-	-	-
North Dakota.....	-	-	-	-	-	-	-	-
Ohio.....	63	-	10	-	-	-	-	-
Oklahoma.....	30	-	22	-	-	-	-	-
Oregon.....	178	-	149	-	-	-	-	-
Pennsylvania.....	187	-	-	-	-	-	-	-
South Carolina.....	25	-	105	-	-	-	-	-
Tennessee.....	7	-	-	-	-	-	-	-
Texas.....	567	-	200	-	-	-	-	-
Utah.....	500	-	399	-	-	-	-	-
Virginia.....	916	-	25	-	-	-	-	-
Washington.....	1,600	-	-	-	-	-	-	-
West Virginia.....	140	-	-	-	-	-	-	-
Wisconsin.....	403	-	265	-	-	-	-	-
Australia.....	15	-	15	-	-	-	-	-
South Africa.....	-	-	10	-	-	-	-	-
Subtotal, Available or Estimate.....	81,743	400	81,126	401	77,723	385	77,397	385
Unobligated balance...	735	-	688	-	-	-	-	-
Total, Available or Estimate.....	82,478	400	81,814	401	77,723	385	77,397	385

Note: The distribution of 2012 and 2013 funds by State has not been determined at this time.

## ECONOMIC RESEARCH SERVICE

Classification by Objects

(Dollars in thousands)

	2010	2011	2012	2013	
	<u>Actual</u>	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	
Personnel Compensation:					
Washington, D.C.					
11	Total personnel compensation.....	\$43,186	\$43,619	\$41,086	\$41,239
12	Civilian personnel benefits.....	9,175	9,273	10,050	10,089
13	Benefits for former personnel.....	0	0	0	0
	Total personnel compensation & benefits....	<u>52,361</u>	<u>52,892</u>	<u>51,136</u>	<u>51,328</u>
Other Objects:					
21	Travel and transportation of persons.....	769	478	478	478
22	Transportation of things.....	7	42	42	42
23.3	Communications, utilities, miscellaneous...	663	684	685	685
24	Printing and reproduction.....	79	141	54	54
25	Other Services.....	1,417	1,545	1,321	1,321
25.1	Interagency Agreements.....	5,961	5,559	5,500	5,500
25.4	Contracts.....	5,469	4,502	4,500	4,500
25.5	Cooperative Agreements.....	3,800	3,800	3,293	3,080
25.6	ADP services and supplies.....	51	9	51	51
25.7	Data Acquisition.....	8,110	8,481	8,407	8,102
26	Supplies and materials.....	960	1,129	900	900
31	Equipment.....	291	482	470	470
41	Grants.....	1,805	1,382	886	886
43	Interest.....	0	0	0	0
	Total other objects....	<u>29,382</u>	<u>28,234</u>	<u>26,587</u>	<u>26,069</u>
	Total direct obligations.....	<u>81,743</u>	<u>81,126</u>	<u>77,723</u>	<u>77,397</u>

Position Data:

Average Salary (dollars), ES positions.....	\$171,323	\$171,323	\$171,323	\$171,323
Average Salary (dollars), GS positions.....	\$108,454	\$108,454	\$108,454	\$108,454
Average Grade, GS positions.....	12.4	12.4	12.4	12.4

## ECONOMIC RESEARCH SERVICE

### STATUS OF PROGRAM

#### Economic Research and Analysis Program

**Goal 1: Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.**

#### Current Activities:

ERS research explores how investments in rural people, business, 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 and job training, Federal policies, and public investment in infrastructure and technology enhance economic opportunity and quality of life for rural Americans. Equally important is ERS's commitment to help enhance the quality of life for the Nation's small farmers who increasingly depend on these rural economies for employment and economic support.

ERS continues to monitor changing economic and demographic trends in rural America, particularly the implications of these changes for the employment, education, income, and housing patterns of low-income rural populations. 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 research and analysis provides insight into market conditions facing U.S. agriculture, avenues for innovation, and market expansion. ERS produces USDA's estimates of farm income. In addition, the ERS program identifies and analyzes market structure and technological developments that affect efficiency and profitability. The program also includes research and analysis to help farmers and ranchers manage risk.

#### Selected Examples of Recent Progress:

Rural America at a Glance, 2011 Edition. *Rural America at a Glance, 2011 Edition*, highlights the most recent indicators of social and economic conditions in rural areas for use in developing policies and programs to assist rural areas. This year's edition focuses on the U.S. rural economy, including employment trends, poverty, education, and population trends.

Atlas of Rural and Small Town America. USDA has placed new emphasis on mobilizing local and regional assets that foster economic growth and prosperity, and on marshalling the Department's resources to better serve the strategic planning and development needs of rural communities nationwide. This new approach to public investment and regional collaboration has increased demand for comprehensive, accessible and interactive rural data tools to support Federal, regional, and local development efforts. ERS responded to the challenge by designing and implementing the *Atlas of Rural and Small Town America*, a web-based mapping and data access service that brings together over 80 demographic, economic, and agricultural statistics for every county in all fifty States. It assembles statistics in four broad categories, including people, jobs, agriculture, and geography, that can be mapped or downloaded in an Excel file for later analysis.

Rural wealth creation. Achieving sustainable prosperity in rural communities requires investments in a broad range of assets, including physical, human, natural, social and other forms of capital. To improve understanding of what wealth is, what strategies can be effective for creating wealth in diverse rural contexts, and how progress in wealth creation can be measured, ERS and the Ford Foundation convened a National Conference on Rural Wealth Creation. Nearly 170 rural development practitioners, researchers, policy makers, funders, and others from all regions of the country participated in the conference, and offered their views and suggestions to the White House Rural Council during a post-conference listening session. The conference launched a National Community of Practice to continue the important dialog among these diverse groups.

Nonmetropolitan Outmigration Counties: Some Are Poor, Many Are Prosperous. Population loss through net outmigration is endemic to many rural areas. Over a third of non-metro counties lost at least ten percent of their population through net outmigration over 1988-2008. Some of these counties have had very high poverty rates, substantial loss in manufacturing jobs, and high unemployment. Lack of economic opportunity was likely a major factor in their high outmigration. Most high net outmigration counties, however, are relatively prosperous, with low unemployment rates, low high school dropout rates, and average household incomes. For these counties, low population density and less appealing landscapes distinguish them from other nonmetro counties.

Identifying Overlap in the Farm Safety Net. Due to the sheer number and complex combinations of farm safety net programs, policy makers are wary of overlap in producer support programs. This report clarifies competing definitions of the farm safety net, offers typology of potential duplication and overlap, and presents analytical method for measuring overlap using a number of current risk management programs. This report focuses on the likelihood of overlap among ACRE, SURE, and crop revenue insurance using an ERS-developed analytical method that identifies and measures overlap among programs using a calculation of farm revenue that includes government program payments as a benchmark for intended levels of compensation.

The Dodd-Frank Wall Street Reform and Consumer Protection Act: Changes to the Regulation of Derivatives and their Impact on Agribusiness. The Dodd-Frank Wall Street Reform and Consumer Protection Act makes significant changes to Federal regulation of the U.S. over-the-counter (OTC) derivatives market, with the goals of improving market transparency and reducing systemic default risk. This study reviews some important features of the new law and discusses its potential impact on agribusiness, much of which will depend on how the rules are written and implemented by regulators.

Market Analysis and Outlook. ERS, working closely with the World Agricultural Outlook Board, the Foreign Agricultural Service, and other USDA agencies, conducts market analysis and provides short- and long-term projections of U.S. and world agricultural production, consumption, and trade. The market and outlook program has enhanced the quality, transparency, and accessibility of data and analytical information.

Consolidation and Structural Change in the U.S. Rice Sector. This report examines how the structure of the U.S. rice industry has evolved over the past two decades, including a reduction in the number of farms, increased average farm size, and the shifting concentration of rice production away from higher-cost production regions. The authors analyze the economic factors driving these structural changes, and explore the implications of those changes for market efficiency and competitiveness of the U.S. rice industry.

An Analysis of the Limited Base Acre Provision of the 2008 Farm Act. The Food, Conservation, and Energy Act of 2008 eliminates direct and countercyclical payments (DCP) and average crop revenue election program payments to farms with ten or fewer base acres. This study examined the effects of the provision. Findings suggest that Federal budgetary savings from the provision are small. In 2009, nearly 371,000 of the Nation's 2.2 million farms had ten or fewer base acres (not including farms owned by limited-resource and socially disadvantaged farmers, which are exempt from the provision). However, not all farms with ten or fewer base acres participate in the DCP program. Based on the 2008 enrollment rate, 148,400 farms would no longer receive DCP, estimated at \$11.7 million in 2009. The effect of the provision varies among U.S. regions, with a larger portion of ineligible farms found on or near the East Coast.

The U.S. Produce Industry and Labor: Facing the Future in a Global Economy. Fruit and vegetable production is a labor-intensive process, and over half of the hired workers employed by growers are believed to be unauthorized immigrants. Reforms to immigration laws, if they reduce the labor supply, may increase the cost of farm labor. The authors of this report assess how particular fruit and vegetable commodities might adjust if labor rates increased. Analysis of case studies suggests a range of possible adjustment scenarios, including increased mechanization for some crops, reduced U.S. output for a few crops, and increased use of labor aids to improve labor productivity for others.

**Goal 2: Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.**

**Current Activities:**

The ERS climate change research program develops models and other analytical techniques to predict responses of farmers to greenhouse gas mitigation options, analyze the impact of mitigation options on domestic and global agricultural markets and land and water use, and evaluate adaptation by farmers to a new climate regime through use of alternative technologies. The ERS climate change research program builds on extensive expertise on the economics of land use and land management, technology adoption, conservation program design, economics of biofuels, and value and dissemination of public investment in research and development.

In addition, ERS is continuing to contribute to USDA's efforts to improve the science behind Federal water and air quality regulations and programs. As part of its analysis of environmental regulations and conservation incentive policies, ERS research continues to provide insight into developing policies for controlling nonpoint source pollution. More generally, ERS research analyzes the economic efficiency, environmental effectiveness, and distributional implications of alternative designs of resource, conservation, environmental, and commodity programs and their linkages.

**Selected Examples of Recent Progress:**

Measuring the Indirect Land-Use Change Associated With Increased Biofuel Feedstock Production: A Review of Modeling Efforts: Report to Congress. The House Report 111-181 accompanying H.R. 2997, the 2010 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Bill, requested that the USDA's Economic Research Service (ERS), in conjunction with the Office of the Chief Economist, conduct a study of land-use changes for renewable fuels and feedstocks used to produce them. This report summarizes the current state of knowledge of the drivers of land-use change and describes the analytic methods used to estimate the impact of biofuel feedstock production on land use. The amount of pressure placed on land internationally will depend in part on how much of the land needed for biofuel production is met through an expansion of agricultural land in the United States. If crop yield per acre increases through more intensive management or new crop varieties, then less land is needed to grow a particular amount of that crop.

Grassland to Cropland Conversion in the Northern Plains. Farm commodity programs, crop insurance, disaster payments, and other Federal agricultural programs may have encouraged producers to convert native grassland to crop production. The conversion of grassland to crop production could damage this habitat and affect bird populations. A 2011 ERS report finds that: (1) roughly 770,000 acres (one percent) of 1997 rangeland acreage in the Northern Plains were converted to cultivated crops by 2007; (2) a five-year ban on crop insurance purchase for converted grassland could slow but is unlikely to stop grassland to cropland conversion; and (3) the benefits of crop insurance, disaster assistance, and marketing loans increased cropland acreage by about 2.9 percent between 1998 and 2007.

The Influence of Rising Commodity Prices on the Conservation Reserve Program. This report considers how increased commodity prices might influence enrollment in and benefits from the Conservation Reserve Program (CRP). Under several higher crop price scenarios, maintaining the CRP as currently configured will lead to significant expenditure increases. If constraints are placed on increasing rental rates, it might be possible to meet enrollment goals with moderate increases in CRP rental rates—but this will mean accepting lower average Environmental Benefits Index scores as landowners with profitable but environmentally sensitive lands choose not to enroll.

Nitrogen in Agricultural Systems and the Environment. Agriculture has been identified as the largest source of impairment for remaining water quality problems in the U.S. This research project focuses on the agricultural dimensions of water quality problems and the economic costs and benefits of improving water quality. In particular, researchers evaluate issues in the design of nonpoint source pollution control policies for reducing nutrients' impacts on water resources and the influences of regulation on agricultural decisions. Of particular interest is a focus on how different baseline requirements used in water quality trading programs affect the cost of credits and farmers'

willingness to participate. The study also considers the implications of alternative pathways for nitrogen-based emissions, and whether there are tradeoffs, e.g., between water quality and greenhouse gas.

**Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.**

**Current Activities:**

ERS conducts research on technological innovation in agriculture, the economic performance, structure and viability of the farm sector and of different types of farms, and the state of global food security. ERS effectively communicates research findings to policy makers, program managers, and those shaping the public debate. The research program identifies key economic issues and uses sound analytical techniques to understand the immediate and broader economic and social consequences of alternative policies and programs relating to the sustainability and use of biotechnology in U.S. agriculture, including policies to promote trade of U.S. products.

ERS has a broad program of work examining the production and marketing characteristics of the U.S. organic sector. Ongoing activities include research on the adoption of certified organic farming systems across the U.S., analysis of consumer demand and prices in specific markets, and several nationwide surveys of organic producers and markets.

The ERS research program includes an ongoing assessment of global food security. ERS provides research, analysis, and information on food security, including factors affecting food production and ability to import food, in Africa, Asia, Latin America and the Caribbean, and the Commonwealth of Independent States to decision makers in the United States and throughout the world. An annual report provides an up-to-date assessment of global food security.

**Selected Examples of Recent Progress:**

International Food Security Assessment, 2012 Update: Improved Production Mitigated Impact of Higher Food Commodity Prices. Rising global food commodity prices have again focused attention on agriculture and food security. This report is an update to the July 2010 report, Food Security Assessment, 2010-20. It reviews the impact of high global food commodity prices on food security in 2010 in 70 lower income countries using actual 2010 price and food production information.

Public Agriculture Research Spending and Future U.S. Agricultural Productivity Growth. By 2050, global agricultural demand is projected to grow by 70-100 percent due to population growth, energy demands, and higher incomes in developing countries. Meeting this demand from existing agricultural resources will require raising global agricultural total factor productivity (TFP) by a similar level. The rate of TFP growth of U.S. agriculture has averaged about 1.5 percent annually over the past 50 years, but stagnant (inflation-adjusted) funding for public agricultural research since the 1980s may be causing agricultural TFP growth to slow down. ERS simulations indicate that if U.S. public agricultural R&D spending remains constant (in nominal terms) until 2050, the annual rate of agricultural TFP growth will fall to under 0.75 percent and U.S. agricultural output will increase by only 40 percent by 2050.

Organic Farming Research Workshop: Findings from Long-term Organic Field Trials and Producer Surveys—Implications for U.S. agricultural sustainability. ERS co-sponsored the “USDA Organic Farming Systems Research Conference” in collaboration with the National Institutes of Food and Agriculture, the Agricultural Research Service, the Farm Foundation, university researchers, and private groups. The workshop focused on research from long-term organic field trials as well as complementary research from the new organic producer surveys that are part of USDA’s Agricultural Resource Management Survey. Major workshop objectives were: (1) to examine the economic and agronomic findings from USDA’s organic producer surveys and from more than a dozen of long-term farming experiments with organic components, including experiments at the USDA Agricultural Experiment Station in Beltsville, Rodale Institute, and various universities; (2) to examine the implications of key findings from this research for U.S. agricultural sustainability, including productivity, economic, environmental, and social

dimensions; and (3) to facilitate dialogue across the various disciplines which participate in these projects and generate interdisciplinary recommendations for improving the design and conduct of these projects.

The Role of Contracts in the Organic Supply Chain: 2004 and 2007. Organic food products are excellent candidates for contract production and marketing because they are produced using a distinct process and are in high demand. This report summarizes survey data on contracting in the organic sector, addressing the extent of contracting, the rationale for using contracts, and contract design for select commodities. The central survey data were collected from certified organic handlers (intermediaries) in the United States who marketed and procured organic products in 2004 and 2007. Contracting is widespread in the organic sector, and in 2007, firms used contracts most frequently to secure organic products essential to their business and to source products in short supply. Large firms were more likely to use contracts for procurement, and these firms contracted for a larger share of their procurement needs. Nearly all contracts required suppliers to provide evidence of organic certification. Firms using contracts rarely assisted suppliers with obtaining organic certification or the transition to organic. Most contracts include provisions regarding quality, and quality verification was an essential component of these contracts. Prices were determined in a variety of ways and, in some cases, depended on delivered quality.

Characteristics of Conventional and Organic Apple Production in the United States. While U.S. acreage and production of apples has declined in recent years, consumer demand has spurred a fast-growing organic apple sector. Apples managed under certified organic farming systems now account for about six percent of total U.S. apple acreage, according to data from a special version of the Agricultural Resource Management Survey (ARMS). While conventional apple yields were higher than organic yields in 2007, organic apples commanded a price premium at every level—farm-gate, wholesale and retail—of the supply chain.

#### **Goal 4: Ensure that all of America’s children have access to safe, nutritious, and balanced meals.**

##### **Current Activities:**

ERS studies the relationship among the many factors that influence food choices and health outcomes. At the household level, research focuses on factors including prices, income and individual characteristics such as age, race and ethnicity, household structure, knowledge of diet and health, and nutrition education. At the industry level, research focuses on the interaction among industry, consumers, and policy. Children’s food access, food security, and child and adult obesity continue to be important foci of the ERS research program. ERS research into adult and child obesity includes approaches taken from the emerging field of behavioral economics to investigate how biases triggered by psychological mechanisms might contribute to poor dietary choices and obesity.

Through its food assistance and nutrition research and by working closely with USDA’s Food and Nutrition Service, ERS studies and evaluates the Nation’s nutrition assistance programs. These programs affect the daily lives of millions of America’s children and receive substantial Federal funding. Long-term research themes include dietary and nutritional outcomes, food program targeting and delivery, and program dynamics and administration. ERS research is designed to meet the critical information needs of USDA, the Congress, program managers, policy officials, the research community, and the public at large.

ERS food safety research focuses on enhancing methodologies for valuing societal benefits associated with reducing food safety risks, understanding consumer willingness to pay for safer food, assessing industry incentives to enhance food safety through new technologies and supply chain linkages, and evaluating regulatory options and change. ERS research also investigates the safety of food imports and the efficacy of international food safety policies and practices.

##### **Selected Examples of Recent Progress:**

Household Food Security in the United States in 2010. An estimated 85.5 percent of American households were food secure throughout the entire year in 2010, meaning that they had access at all times to enough food for an active, healthy life for all household members. The remaining households (14.5 percent) were food insecure at least some time during the year, including 5.4 percent with very low food security—meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted at times during the year because

the household lacked money and other resources for food. The prevalence rate of very low food security declined from 5.7 percent in 2009, while the change in food insecurity overall (from 14.7 percent in 2009) was not statistically significant. The typical food-secure household spent 27 percent more on food than the typical food-insecure household of the same size and household composition. Fifty-nine percent of all food-insecure households participated in one or more of the three largest Federal food and nutrition assistance programs during the month prior to the 2010 survey.

How Americans Rate Their Diet Quality: An Increasingly Realistic Perspective. Over the last 20 years, awareness of diet-related health concerns has become widespread in the United States as obesity, along with its associated human and financial costs, has increased. This study estimates how this awareness affects Americans' perceptions of their own diet quality over this period and the factors associated with self-assessed diet health. We find, first, that Americans have become much less likely to rate their diets as "Excellent" or "Very Good" in terms of healthfulness, even though the healthfulness of the American diet has undergone little change over this period. Second, current self-ratings of diet are inversely related to the frequency of fast food and food-away-from-home consumption and positively related to the frequency of sharing meals with family. In addition, self-ratings of diet are positively associated with household availability of dark green vegetables and low-fat milk and negatively associated with availability of sweetened soft drinks.

Why Have Food Commodity Prices Risen Again? The report describes the factors that have contributed to the large and rapid increase in agricultural prices during the past year. The report focuses particularly on food commodity prices—which have risen 60 percent since June 2010.

The Food Desert Locator Mapping Tool. In May 2011, ERS released a new mapping tool, the *Food Desert Locator* that can be used to assist efforts to expand the availability of nutritious food in food deserts, or low-income communities that lack ready access to healthy food. Expanding the availability of nutritious food is part of the First Lady's *Let's Move!* initiative to address the epidemic of childhood obesity. A food desert is a low-income census tract where either a substantial number or share of residents has low access to a supermarket or large grocery store. "Low income" tracts are defined as those where at least 20 percent of the people have income at or below the federal poverty levels for family size, or where median family income for the tract is at or below 80 percent of the surrounding area's median family income. Tracts qualify as "low access" tracts if at least 500 persons or 33 percent of their population live more than a mile from a supermarket or large grocery store (for rural census tracts, the distance is more than 10 miles). This definition was developed by a working group comprised of members from the departments of Treasury, Health and Human Services, and USDA, which is partnering to expand the availability of nutritious food.

A Revised and Expanded Food Dollar Series: A Better Understanding of Our Food Costs. The new ERS food dollar series measures annual expenditures on domestically produced food by individuals living in the United States and provides a detailed answer to the question "For what do our food dollars pay?" This data product replaces the old marketing bill series, which was discontinued due to measurement problems and limited scope. The new food dollar series is composed of three primary series, shedding light on different aspects of evolving supply chain relationships. The marketing bill series, like the old marketing bill series, identifies the distribution of the food dollar between farm and marketing shares. The industry group series identifies the distribution of the food dollar among ten distinct food supply chain industry groups. The primary factor series identifies the distribution of the food dollar in terms of U.S. worker salaries and benefits, rents to food industry property owners, taxes, and imports. Each of the three primary series is further disaggregated by commodity groupings (food/food and beverage), expenditure categories (total food expenditures, food at home, food away from home), and two dollar denominations.

How Much Do Fruits and Vegetables Cost? Federal dietary guidance advises Americans to consume more vegetables and fruits because most Americans do not consume the recommended quantities or variety. Food prices, along with taste, convenience, income, and awareness of the link between diet and health, shape food choices. ERS estimated the average retail price of a pound and an edible cup equivalent (or, for juices, a pint and an edible cup equivalent) of 153 commonly consumed fresh and processed fruits and vegetables. ERS found that average prices ranged from less than 20 cents per edible cup equivalent to more than \$2 per edible cup equivalent. Based on 2008 data, an adult on a 2,000-calorie diet could satisfy recommendations for vegetable and fruit consumption in the 2010 Dietary Guidelines for Americans (amounts and variety) at an average price of \$2 to \$2.50 per day.

Consumer-Level Food Loss Estimates and their use in the ERS Loss-Adjusted Food Availability Data. ERS's Food Availability (per capita) Data System tracks annual food and nutrient availability for many commodities. Since the Food Availability data series overstates actual consumption, ERS has included an additional series, the Loss-Adjusted Food Availability data, to adjust the Food Availability data for non-edible food parts and food losses, including losses from farm to retail, at retail, and at the consumer level. In this report, we propose new consumer-level loss estimates for "cooking loss and uneaten food" of the edible share to replace those currently used in the Loss-Adjusted Food Availability data, and propose their adoption for the entire data span (1970 to the most recent year in the series). If the proposed loss estimates were to be used in the ERS loss-adjusted series, the average American would consume 17.3 pounds less each year, or 41.9 fewer calories per day, than suggested by the currently used loss estimates.

How Food Away From Home Affects Children's Diet Quality. This study estimates how each consumption of food away from home, food from school, and caloric sweetened beverages affects a child's diet quality and calorie consumption. Compared with meals and snacks prepared at home, food prepared away from home increases caloric intake of children, especially older children. Each food-away-from-home meal adds 108 more calories to daily total intake among children ages 13-18 than a snack or meal from home; all food from school is estimated to add 145 more calories. Both food away from home and all food from school also lower the daily diet quality of older children (as measured by the 2005 Healthy Eating Index). Among younger children, who are more likely than older children to eat a USDA school meal and face a more healthful school food environment, the effect of food from school on caloric intake and diet quality does not differ significantly from that of food from home.

The Food Assistance National Input-Output Multiplier (FANIOM) Model and Stimulus Effects of SNAP. ERS's FANIOM model measures linkages between USDA's domestic food assistance programs, agriculture, and the U.S. economy. This report describes the data sources and the underlying assumptions and structure of the FANIOM model and illustrates its use to estimate the multiplier effects from benefits issued under the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program). During an economic downturn, an increase in SNAP benefits provides a fiscal stimulus to the economy through a multiplier process. The report also examines the different types of multipliers for different economic variables that are estimated by input-output multiplier and macroeconomic models and considers alternative estimates of the jobs impact. FANIOM's GDP multiplier of 1.79 for SNAP benefits is comparable with multipliers from other macroeconomic models.

The U.S. Food Environment Atlas. The Atlas is a web-based mapping tool developed by ERS that allows users to compare U.S. counties in terms of their food environment – the set of factors that help determine and reflect a community's access to affordable, healthy food. The updated 2011 Atlas contains 168 indicators of the food environment, up from the original 90, measuring factors such as availability of food stores and restaurants, food prices, socioeconomic characteristics, and health outcomes. Since factors such as store/restaurant proximity, food prices, food and nutrition assistance programs, and community characteristics interact to influence food choices and diet quality, the Atlas allows users to get data on any and all of the county-level indicators for a particular county.

Food Security improved following the American Recovery and Reinvestment Act of 2009 (ARRA) increase in SNAP Benefits. The American Recovery and Reinvestment Act of 2009 increased benefit levels for the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program) and expanded SNAP eligibility for jobless adults without children. One goal of the program changes was to improve the food security of low-income households. ERS found that food expenditures by low-income households increased by about 5.4 percent and their food insecurity declined by 2.2 percentage points from 2008 to 2009. Food security did not improve for households with incomes somewhat above the SNAP eligibility range. These findings, based on data from the nationally representative Current Population Survey Food Security Supplement, suggest that the ARRA SNAP enhancements contributed substantially to improvements for low-income households.

Foodborne Illness Cost Calculator. The Foodborne Illness Cost Calculator provides information on the assumptions behind foodborne illness cost estimates—and gives users the opportunity to make their own assumptions and to calculate their own cost estimates. ERS's estimates of the costs of illness and premature death for a number of foodborne illnesses have been used in regulatory cost-benefit and impact analyses. Like all cost estimates, the ERS estimates include assumptions about disease incidence, outcome severity, and the level of medical, productivity, and disutility costs. Changes to any of these assumptions could change the cost estimates and as a result, change the way policy makers rank risks, prioritize spending, and formulate food safety policies.

## ECONOMIC RESEARCH SERVICE

### Summary of Budget and Performance Statement of Department Goals and Objectives

The Economic Research Service (ERS) was established in 1961 from components of the former Bureau of Agricultural Economics principally under the authority of the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627). The mission of ERS is to inform and enhance public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development.

ERS has six strategic goals which correspond to each of the four USDA strategic goals. To achieve these goals, ERS enhances the understanding of policy makers, regulators, program managers, and those shaping debate of economic issues affecting agriculture, food, the environment, and rural development:

#### Goals and Programs Crosswalk

USDA Strategic Goal	Agency Strategic Goal	Agency Strategic Objectives	Programs that contribute	Key Outcome
<b>USDA Strategic Goal 1:</b> Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.	<b>Agency Strategic Goal 2:</b> Enhance competitiveness and sustainability of rural and farm economies.  <b>Agency Strategic Goal 3:</b> Support increased economic opportunities and improved quality of life in rural America.	<b>Objective 2.1:</b> Expand domestic market opportunities. <b>Objective 2.3:</b> Provide economic analysis of risk and financial management to farmers and ranchers.  <b>Objective 3.2:</b> Expand economic opportunities in rural America by bringing economic insights into public and private decision making.	Economic Research and Analysis	Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues affecting rural development, rural well-being, farm and household income, and rural communities.
<b>USDA Strategic Goal 2:</b> Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.	<b>Agency Strategic Goal 6:</b> Protect and enhance the Nation's natural resource base and environment.	<b>Objective 6.1:</b> Provide economic intelligence, research and analysis to inform agricultural resource and conservation policies.  <b>Objective 6.2:</b> Provide economic research and analysis to support public and private efforts to improve management of private lands and ecosystems.	Economic Research and Analysis	Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues related to developing Federal farm, natural resource, and rural policies and programs that respond to the challenges of climate change and the need to protect and maintain the environment while improving agricultural competitiveness and economic growth.

<p><b>USDA Strategic Goal 3:</b> Help America promote agricultural production and biotechnology exports, as America works to increase food security.</p>	<p><b>Agency Strategic Goal 1:</b> Enhance international competitiveness of American agriculture.</p> <p><b>Agency Strategic Goal 2:</b> Enhance the competitiveness and sustainability of rural and farm economies.</p>	<p><b>Objective 1.1:</b> Provide economic research, information, and analysis to support public and private decision making to help expand and maintain international export opportunities.</p> <p><b>Objective 2.2:</b> Provide analysis to enhance the efficiency of domestic agricultural production and marketing systems.</p>	<p>Economic Research and Analysis</p>	<p>Enhanced understanding by policy makers, regulators, program managers, and organizations shaping public debate of economic issues related to adoption of economically and environmentally sustainable technologies, factors affecting imports of U.S. agricultural products (including products produced using biotechnology), strategies to reduce barriers to imports and increase markets for U.S. products, including biotechnical exports.</p>
<p><b>USDA Strategic Goal 4:</b> Ensure that all of America’s children have access to safe, nutritious, and balanced meals.</p>	<p><b>Agency Strategic Goal 4:</b> Enhance protection and safety of the Nation’s agriculture and food supply.</p> <p><b>Agency Strategic Goal 5:</b> Improve the Nation’s nutrition and health.</p>	<p><b>Objective 4.1:</b> Provide economic research and analysis of public and private efforts to reduce the incidence of food borne illnesses related to meat, poultry, and fresh produce in the U.S.</p> <p><b>Objective 4.2:</b> Support efforts to reduce the number and severity of agricultural pest and disease outbreaks through economic analysis.</p> <p><b>Objective 5.1:</b> Provide economic research and analysis of public and private efforts to ensure access to nutritious food.</p> <p><b>Objective 5.2:</b> Provide economic research and analysis of options to promote healthier eating habits and lifestyles.</p> <p><b>Objective 5.3:</b> Improve food program management and customer service through economic evaluations of USDA’s nutrition assistance programs.</p>	<p>Economic Research and Analysis</p>	<p>Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues related to improving the efficiency, efficacy, and equity of public policies and programs relating to the food prices and availability at home and abroad, consumer food choices, nutrition and health outcomes, nutrition assistance programs, and protecting consumers from unsafe food.</p>

**Selected Accomplishments Expected at the FY 2013 Proposed Resource Level:**

**Key Outcome 1:** Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues affecting rural development, rural well-being, farm and household income, and rural communities.

ERS will identify key economic issues related to rural economic development, farm viability, rural household prosperity and well-being, and competitiveness. ERS also will use sound analytical techniques to understand the immediate and broader economic and social consequences of how alternative policies and programs and changing market conditions affect rural and farm economies and households. ERS will effectively communicate research results to policy makers, program managers, and those shaping the public debate on rural economic conditions and performance of all sizes and types of farms. Examples of these activities include the following:

- Developing a comprehensive, integrated base of information on rural economic and social conditions that can be used by Federal policy makers for strategic planning, policy development, and program assessment.
- Analyzing how investment, technology, job training, Federal policies, demographic trends, increased foreign competition in low-wage industries, and growing demand for highly skilled labor affect rural America's capacity to prosper in the global marketplace.
- Conducting research to better understand the role and effectiveness of investments in infrastructure, housing, and business assistance for sustaining rural communities, particularly in areas with rapid population growth or long-term population decline.
- Providing timely, accurate agricultural economic analysis and data on the impacts of decisions in risky situations to help farmers and ranchers make more informed production and marketing decisions.
- Researching and disseminating economic intelligence about the structure of, performance in, information systems of, new technology in, and foreign direct investment in the U.S. food manufacturing, processing, wholesale, retail, and food service industries.

**Selected Past Accomplishments toward Achievement of the Key Outcome:**

Future research and analysis will build on the successes of past performance to deepen understanding of issues explored, highlight new policy concerns revealed by prior analysis, and anticipate upcoming needs of policy makers and decision makers. Examples of recent progress are listed in the section on Status of Program. For FY 2013, past accomplishments toward achievement of the key outcome include: analysis of the economic status of America's family farms, an assessment of economic outcomes associated with the rural development programs of the Delta Regional Authority, and a report on the debt position of America's farm sector.

**Selected Accomplishments at the FY 2013 Proposed Resource Level:**

ERS plans a range of activities to provide policy makers and other decision makers with assessments of current programs and alternative outcomes for pending or prospective policy decisions. Results will help shape the public debate on commodity, technological, and economic issues. Underlying these activities will include:

**Rural wealth creation.** Many different types of wealth are important in determining the opportunities for sustainable rural development, including physical, natural, financial, human, intellectual, social, political and cultural capital. Effective development interventions require taking into account interrelationships among investments in these different types of capital. This project examines the sources of wealth available for promoting growth and change in rural communities, as well as identifying new ways to both create wealth and to measure changes in community wealth.

**Return Migration to Geographically-Disadvantaged Counties.** Rural areas without significant natural amenities or that are relatively remote from the advantages of urban life are at higher risk of sluggish economic growth and depopulation than other rural areas. For these areas, encouraging return migrants may be a key ingredient in a successful development strategy, since returnees are a "natural base" of population who often have psychic ties to

the region. The project estimates the relative importance of return migration for population growth in disadvantaged counties and also examines interviews with returnees and nonreturnees at selected rural high school reunions to examine the reasons for returning to “slow-growth” places and the obstacles that returnees face.

Emerging Energy Industries and Rural Growth. This project seeks to quantify the local jobs and income generated by corn-based ethanol (both through rising corn producer income and through ethanol plant facilities), wind turbines, and natural gas extraction in rural America. The study areas include the U.S. Heartland (ethanol), 15 mostly western and central states with significant wind turbine investments, and three western states that have experienced a boom in natural gas production. All studies will compare changes in outcomes of emerging industry counties with similarly situated control counties that provide a credible counterfactual.

Forecast of Farm Income, Assets and Debt. Annually, estimates of farm income, assets and debt (balance sheet) are developed and published for public use through the ERS web site. Updated income and balance sheet forecasts reflect the most recent information available on production, prices and quantities of crops, livestock, products, and other outputs and services generated from farms. The Bureau of Economic Analysis' (BEA) National Income Staff use these estimates in developing their estimates of gross domestic product (GDP) and National Income Accounts and estimates of Personal Income and Outlays, and Corporate profits. Forecast data are also provided to the Council of Economic Advisors, and the estimates are also used by BEA's Regional Economic Measurement Division in developing a system of regional economic indicators. Forecasts of financial indicators are combined with long-term trend data to produce an annual periodical, *Agricultural Income and Finance Outlook*, which provides information to gauge the financial health of the Nation's farmers and ranchers. Common topics included in the analysis include trends in income, value added, government payments, expenses, debt, assets, and indicators of farm solvency, liquidity, profitability, and financial performance.

Market Analysis and Outlook. ERS, working closely with the World Agricultural Outlook Board, the Foreign Agricultural Service, and other USDA agencies, conducts market analysis and provides short- and long-term projections of U.S. and world agricultural production, consumption, and trade. The market and outlook program has enhanced the quality, transparency, and accessibility of data and analytical information.

Landlords and ACRE Participation. Despite the expected financial and risk management benefits of the Average Crop Revenue Election (ACRE), enrollment in the program has been low. Several factors could explain the low participation rates. For example, owners may be reluctant to change from a program where benefits and payments are known, as in the Direct and Countercyclical program, to one where payment outcomes depend on the farm and state revenue variability. Also, since all owners and operators of a farm have to agree to participation in ACRE, costs of negotiations will be larger for those farms where a larger percentage of land is rented from multiple owners. ERS analysis will use Farm Service Agency data to examine the relationships between ACRE participation rates and the complexity of lease arrangements.

U.S. Farm Programs- Duplicative Farm Safety Net Efforts. Current agricultural policies provide for the potential of overlap and duplication in risk management programs. ERS research will examine potential duplication in the farm safety net through overlapping program benefits, focusing on farms participating in programs such as Direct and Counter-Cyclical Payments (DCP), Supplemental Revenue Program (SURE), Average Crop Revenue Election (ACRE), Marketing Assistance Loans, Conservation Reserve Program, and Crop Insurance Programs. The research will assess the extent of any duplicative benefits, how any overlap or duplication varies across commodities and regions, and the economics of integrating program coverage.

Futures Markets and Price Behavior. Agricultural commodity futures markets have attracted a vastly increased group of participants since 2004. ERS research will evaluate the impacts of increased market participation and the changing composition of investors on price levels, price volatility, and the price discovery process. The research will also include an analysis of non-convergence and price spikes in agricultural commodity futures markets.

Structure and Finances of U.S. Farms: Family Farm Report. Periodically ERS provides an overview of the structure and finances of U.S. family farms, including a description of farm size and type of agricultural production, financial performance, sources of farm household income, and extent of operators' off-farm work. The Family Farm Reports provide policy makers with a sense of the financial position of family farms in general and for different types of

family farms. Last published in 2010, the next report in this series will include a discussion of long-term trends in addition to providing the most recent data available on the U.S. farming sector.

Agricultural Productivity Growth in the United States: Measurement, Drivers, and Impacts. U.S. agricultural output grew by 30 percent between 1980 and 2009, with no growth in total inputs—that is, all growth was driven by increases in productivity. This report details agricultural productivity growth over 1948-2009, using the recently extended USDA productivity accounts. The report distinguishes between among growth in outputs, growth in yields, and growth in productivity, and describes the methods used to generate the USDA accounts. It distinguishes between long run driving forces and short run shocks to output and productivity arising from weather and policy shifts. Among driving forces, the report will assess the role public and private research and development investments, infrastructure investments, and structural change in driving productivity advances.

Price Forecasting and Forecast Performance. Global agricultural prices have undergone significant shifts in recent years. ERS researchers will develop new price forecasting models that reflect evolving structure of agricultural markets. It will extend the understanding of the relationships between market fundamentals and prices during a period of significant shifts in market dynamics.

Trade Reforms, Productivity Dynamics and Employment in Food Industries. While expanding global trade opportunities may improve average profitability and productivity in the food industry, they also raise the minimum productivity level necessary for a firm's survival. ERS will investigate where low-productivity food processing and related firms are located, how rapidly they exit in response to declining trade costs, and the resulting resource reallocation toward high-productivity firms. This is important in the design of effective structural adjustment policies which encourage firms' global market participation and help adjust producers and workers to the new competitive environment.

**Key Outcome 2:** Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues related to developing Federal farm, natural resource, and rural policies and programs that respond to the challenges of climate change and the need to protect and maintain the environment while improving agricultural competitiveness and economic growth.

ERS will identify key economic issues related to interactions among natural resources, environmental quality, and the agriculture production system. ERS also will use sound analytical techniques to understand the immediate and broader economic and social consequences of alternative policies and programs to protect and enhance environmental quality associated with agriculture. ERS research analyzes the economic effects and cost effectiveness of resource, conservation, environmental, and commodity programs and their linkages. Topics include USDA's conservation programs and environmental policies addressing water and air quality and climate change associated with agricultural production. ERS will effectively communicate research results to policy makers, program managers, and those shaping public debate on agricultural resource use and environmental quality.

Examples of these activities include the following:

- Characterizing implications of conservation and environmental policy design. Conservation policy design is generally limited to defining the subset of producers eligible to participate in a program, constructing the incentive structure (how much will be paid for which activities), and selecting program participants from among willing bidders. ERS research examines options for using market forces to improve the economic, environmental and distributional performance of programs. Design features to be examined include the baseline level of performance necessary to receive payments or participate in markets, options for targeting specific producer types (e.g., socially disadvantaged farmers), regions, or environmental attributes, the use of auctions for soliciting high benefit or lower cost offers, and procedures for selecting participants from among all program applicants.
- Characterizing policy drivers for land management and land use change. Farm and environmental policies, including farm programs, biofuel policies, conservation programs and climate policies, may encourage farmers to modify cropping patterns, to change their crop management practices, to expand cropland and/or to retire cropland. ERS research examines whether and to what extent changes in land management and land use would occur under alternative policy specifications.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Future research and analysis will build on the successes of past performance to deepen understanding of issues explored, highlight new policy concerns revealed by prior analysis, and anticipate upcoming needs of policy makers and decision makers. Examples of recent progress are listed in the section on Status of Program. For FY 2013, past accomplishments toward achievement of the key outcome include: an economic assessment of the agricultural dimensions of water quality programs and the benefits of improving water quality, an evaluation of how changing commodity prices might influence the costs and benefits of the conservation reserve program, and new research that shows the importance of agricultural research spending in U.S. agricultural productivity growth.

Selected Accomplishments at the FY 2013 Proposed Resource Level:

ERS plans a range of activities to provide policy makers and other decision makers with assessments of current programs and alternative outcomes for pending or prospective policy decisions. Results will help shape the public debate on commodity, technological, and economic issues. Underlying these activities will include:

Agricultural Adaptation to a Changing Climate. The range of local weather conditions that has shaped the current structure of domestic agricultural production is changing in response to broader changes in general climatic conditions across the country and around the world. The extent to which such changes present a risk to food supplies, farmer livelihoods, and rural communities depends in part on the direction, magnitude, and rate of such changes, but equally importantly on the ability of the agricultural sector to adapt to changing patterns of yield and productivity, production cost, and resource availability. One project will analyze U.S. agricultural production under four projected climate-change scenarios and examine associated changes in national and regional land use and production, and resulting economic and environmental impacts by region and sector-wide. A second project examines how crop and livestock producers use USDA conservation programs to adapt to long-term drought risk.

Policy Options for Increasing the Provision of Ecosystem Services from Agriculture. ERS has a broad program of research on the design and implications of markets for ecosystem services, with an emphasis on greenhouse gases (GHGs). This research builds on new investments in simulation model and database development to estimate responses of farmers to markets and other incentives for reducing GHG emissions, improving water quality and/or enhancing wildlife habitat. Results will examine the economic and environmental implications of alternative approaches to designing environmental markets and will consider the impact of GHG mitigation options on domestic and global land use.

Dedicated Energy Crops and Competition for Agricultural Land. Agricultural land serves competing uses—food, fiber, energy crops, and forest products all depend on and compete for agricultural land. Global population growth, increasing demand for animal products in developing countries, increasing oil prices, climate change, and a wide range of government policies will all drive land use changes in the future. Using two modeling platforms—a regional model of the U.S. farm economy and a global model of agricultural resource usage—this study examines the economic, land use, and environmental impacts of a substantial increase in dedicated energy crops (corn, sugar cane, switchgrass, and woody biomass). Economic impacts that will be assessed include changes in prices of agricultural products, land rents, and international trade patterns. Environmental impacts being examined include emissions of carbon, methane and nitrous oxide.

Economics of the Chesapeake Bay Total Maximum Daily Load (TMDL) Limits for Nutrients. Agriculture is a significant land use within the Chesapeake Bay watershed and is the largest single source of nutrients and sediment runoff into the Bay. EPA established a TMDL for nutrients and sediment for the Bay and its tidal tributaries that will require all major sources of pollutants to limit their emissions. This study will examine agricultural sector's costs of pursuing different policy approaches for addressing the nonpoint-source component of the TMDL.

U.S. Farmland Values and Ownership. Trends in farmland ownership help establish a perspective about whether farmland owners and purchasers are engaged in farming (other than through farmland ownership), the extent to which farmland rents remain in rural areas, and where the burden of farm debt-related finance problems may hit hardest. This project will analyze recent trends in farmland values, how farmland performs relative to alternative

investments, and the extent to which farmland values are correlated with physical characteristics of the land and farm payments. It will also examine the influence of non-farm factors on land values – including development pressures, access to highways and the relative attractiveness of the area as a residential location.

Agricultural and Environmental Indicators at a Glance. This report will describe trends in economic, structural, resource and environmental indicators in the agriculture sector. These indicators are useful to assess important changes in U.S. agricultural industry, the industry's development, and its environmental effects. This report tracks key resources, including natural, produced, and management resources, that are used in and affected by agricultural production, as well as structural changes in farm production and the economic conditions and policies that influence agricultural resource use and its environmental impacts. It will expand the coverage of earlier reports to include indicators of farm income and structure. Each chapter will provide a concise overview of a specific topic with links to sources of additional information.

**Key Outcome 3:** Enhanced understanding by policy makers, regulators, program managers, and organizations shaping public debate of economic issues related to adoption of economically and environmentally sustainable technologies and factors affecting trade of U.S. agricultural products (including products produced using biotechnology).

ERS will identify key economic issues related to the competitiveness and sustainability of rural and farm economies, including economic factors guiding the development and adoption of new technologies and production systems. These activities include the following:

- ERS supports the USDA Biotechnology Coordinating Council and interdepartmental efforts with the Food and Drug Administration and the Environmental Protection Agency in the biotechnology crosscut through research that addresses impacts for farmer and industry behavior. Research and related data collection efforts are designed to capture the broad effects of this technology.
- ERS provides timely insights and analysis to support improved decision making on issues related to food security and trade in low-income countries. Research examines changes in food aid distribution (by program) to help determine the driving factors behind the allocation decision of donors.
- ERS develops and disseminates research and analysis on the U.S. food and agriculture sector's performance in the context of increasingly globalized markets. Key emphasis areas include the World Trade Organization (WTO), domestic policy reforms, and the structure and performance of agricultural commodity markets. In-depth analysis of agricultural market conditions, and research and analysis aimed at fostering economic growth and understanding foreign market structures, round out the range of emphasis areas that enhance international competitiveness of American agriculture, including biotech crops.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Future research and analysis will build on the successes of past performance to deepen understanding of issues explored, highlight new policy concerns revealed by prior analysis, and anticipate upcoming needs of policy makers and decision makers. Examples of recent progress are listed in the section on Status of Program. For FY 2013, past accomplishments toward achievement of the key outcome include: Analyses of the effects of bilateral trade agreements; ERS support for WTO negotiations through research identifying the quantitative benefits and obligations of WTO membership and the impacts of market access liberalization; and analysis of the growth and development of markets for organic products.

Selected Accomplishments at the FY 2013 Proposed Resource Level:

ERS plans a range of activities to provide policy makers and other decision makers with assessments of current programs and alternative outcomes for pending or prospective policy decisions. Results will help shape the public debate on economic and trade policy issues affecting the food and agricultural sector. Underlying these activities will include:

Genetically Engineered Crops: Coexistence and Weed Resistance Issues. Fifteen years after the first generation of genetically engineered (GE) varieties became commercially available for use, the adoption of these varieties by U.S. farmers is widespread for major crops (93 percent of planted acres for soybeans and for cotton and 86 percent for

corn in 2010). Their widespread adoption has raised concerns about the potential costs GE crop production impose on organic and conventional (non-GE) crop production via accidental pollination and increasing weed resistance to key pesticides. This project will broadly examine the issues related to the adoption and coexistence in GE, organic and non-GE crop production. In addition, barriers to the adoption of efficient weed resistance management practices will be explored, together with tradeoffs involved among alternative management strategies.

The U.S. Organic Sector: Emerging Issues and Policy Dimensions. The federal organic regulatory program includes a “USDA organic” label that has bolstered consumer assurance and helped drive a rapid expansion in sales. Domestic supply now trails demand for many products. ERS research describes changes in the character of the U.S. organic sector in response to this growth, and highlights some emerging issues and concerns. On-going ERS research will provide supporting analysis on issues across the organic supply chain, from structural changes in the organic farm sector to the socioeconomic characteristics of organic consumers.

International Food Security Assessment. With volatile agricultural prices, ERS’s analysis on food insecurity in developing countries takes on added importance. The food security situation in 77 developing countries is projected to deteriorate over the next decade. The estimates indicate that the number of food-insecure people in those countries has been increasing. Price hikes for food and fuel, coupled with a slowdown in global economic growth, hinder long-term food security progress. ERS estimates and projects the number of food insecure people globally, regionally, and in each of the 77 developing countries studied.

The Effect of Global Price Transmission on Food Security. While global food prices declined from their 2008 peak, prices in many food insecure countries have not dropped as much as global prices, leaving poor people less able to meet their basic food needs. ERS will examine the factors that affect how effectively global prices are transmitted to farmer and consumers in developing countries. Better understanding of these price trends will help support activities to increase agricultural productivity and trade by demonstrating the real economic incentives facing farmers and consumers in food insecure countries.

International Trade Agreements Negotiation. Applied research is currently underway at ERS that promises to increase understanding about the nature of U.S. and world agricultural trade. ERS will quantify the impacts of the various trade agreements on U.S. exports and that of its foreign competitors in commodity and manufactured food markets using models estimated with panel data. This effort will quantify the extent to which joint membership in trade agreements increases food exports with member importers. It will also ascertain the extent to which the expansion in intra-bloc trade comes at the expense of outsider suppliers. Finally, it will determine whether U.S. exporters or other foreign suppliers are more adversely affected by these agreements.

Analysis of the Proposed Doha Agreement. ERS analysis will provide model-based estimates of the economic impacts from multilateral trade liberalization in agriculture resulting from the proposed tariff reduction, tariff rate quota (TRQ) enlargements, cuts in domestic support, and elimination of export subsidies. The analysis will also summarize the negotiations and explain the major features of the draft and the implication they hold for U.S. agricultural policies as well as for the policies of our major trading partners and competitors.

**Key Outcome 4:** Enhanced understanding by policy makers, regulators, program managers, and those shaping public debate of economic issues related to improving the efficiency, efficacy, and equity of public policies and programs relating to the food prices and availability at home and abroad, consumer food choices, nutrition and health outcomes, nutrition assistance programs, and protecting consumers from unsafe food.

ERS will identify key economic issues affecting food prices, food availability, food consumption patterns, and protecting consumers from unsafe food and the food supply from contamination. ERS also will use sound analytical techniques to understand the immediate and long-term efficiency, efficacy, and equity consequences of alternative policies and programs aimed at ensuring access by children and adults to safe, nutritious, and balanced meals. ERS ongoing research will also address factors that can improve the effectiveness and efficiency of USDA and other Federal food aid programs at a time of resource scarcity. ERS will effectively communicate research results to policy makers, program managers, and those shaping efforts to promote abundant, safe, and healthful food at home and abroad. Examples of these activities include the following:

- Providing economic analysis of the food marketing system to understand factors affecting the availability and affordability of food for American consumers.
- Providing enhanced annual estimates of the quantity of food available for human consumption, and measures of disappearance and loss in the food system.
- Providing economic analysis of how people make food choices, including demands for more healthful, nutritious, and safer food, and of the determinants of those choices, including prices, income, education, and socio-economic characteristics.
- Conducting analyses of the benefits and costs of policies to change behavior to improve diet and health, including nutrition education, labeling, advertising, and regulation.
- Conducting evaluations and economic analyses of the impacts of the Nation's domestic nutrition assistance programs, including the Supplemental Nutrition Assistance Program (SNAP); the Special Supplemental Nutrition Program for Women, Infants, and Children; and the Child Nutrition Programs.
- Evaluating the dietary and nutritional outcomes of USDA's food and nutrition assistance programs.
- Conducting research on food program targeting and delivery to gauge the success of programs aimed at needy and at-risk population groups, and to identify program gaps and overlaps.
- Conducting research on program dynamics and administration, focusing on how program needs change with local labor market conditions, economic growth and recession, and how changing State welfare programs interact with food and nutrition programs.
- Conducting food safety economics research, with the goal of providing a science-based approach to valuing food safety risk reduction, assessing industry costs of food safety practices, and understanding the interrelated roles of government policy and market incentives in enhancing food safety.
- Providing decision makers and the public with food safety information through publications, web materials, and briefings that address the economics of food safety, including consumer knowledge and behavior, industry practices, the relationship between international trade and food safety, and government policies and regulations.
- Working with Federal food safety agency partners to evaluate available food borne illness data related to meat, poultry and egg products, and to develop more accurate measures of the effectiveness of regulatory strategies in reducing preventable food borne illness.
- Building food-price and food-consumption databases to provide a basis for analyzing the impact of food policy.

Selected Past Accomplishments toward Achievement of the Key Outcome:

Future research and analysis will build on the successes of past performance to deepen understanding of issues explored, highlight new policy concerns revealed by prior analysis, and anticipate upcoming needs of policy makers and decision makers. Examples of recent progress are listed in the section on Status of Program. For FY 2013, past accomplishment toward achievement of the key outcome include: Expansion of the scope of the ERS *Food Environment Atlas*, introduction of the *Food Deserts Locator Tool* to help identify communities with low access to affordable food, analysis of the role of food prices in childhood obesity, an assessment of how volatile food prices affect food security in developing countries, and research demonstrating the impact of the American Recovery and Investment Act increases in SNAP benefit levels on household food security in low-income households.

Selected Accomplishments at the FY 2013 Proposed Resource Level:

ERS plans a range of activities to provide policy makers and other decision makers with assessments of current programs and alternative outcomes for pending or prospective policy decisions. Results will help shape the public debate on commodity, technological, and economic issues. Underlying these activities will include:

The National Household Food Acquisition and Purchase Survey (FoodAPS). FoodAPS is a nationally representative survey of household food purchases and acquisitions. FoodAPS will provide unique and detailed data about household food choices that are not available from any other current government survey. Detailed information will be collected about foods purchased for consumption at home and away from home as well as foods acquired through food and nutrition assistance programs (both public and private). The data collection effort will broaden the scope of economic analyses of food choices and what those choices mean for diet quality. The survey

was field tested in 2011 and the full survey will be fielded in 2012, with data expected to be available in summer 2013.

Using Lessons from Behavioral Economics to Improve School Food Choices. ERS is funding and leading a coordinated program of research applying principles of behavioral economics to improvement of outcomes from USDA's School Meal Programs. For example, one project will evaluate a school-based incentives program designed using behavioral economics theory and its effectiveness in increasing fruit and vegetable consumption. The incentives program conjointly uses role models and rewards to encourage repeated tasting of fruits and vegetables, with escalating goals designed to gradually increase fruit and vegetable consumption and establish new eating habits.

Federal Regulation of Competitive Foods and School Food Availability and Revenues. This project will use national, USDA-collected data to examine how establishment of nutrition standards for foods and beverages sold at school in competition with the USDA school meal (competitive foods), as mandated by the Healthy Hunger-Free Kids Act of 2010, would impact competitive food availability and revenues in American public schools. It will also estimate characteristics of schools associated with higher revenues from competitive foods. Results should provide information useful to program and policy officials at Federal, State, and local levels as they implement nutrition standards governing competitive foods.

Self-control and the Food Environment: Does Living in a Food Desert Weaken the Power of Dietary Intentions? This study will examine whether people living in food deserts have a harder time following through on their intentions to eat a healthy diet compared with those living in healthier food environments. Information from the 2003-2004 and 2005-2006 National Health and Nutrition Examination Survey on health conditions, dieting status, and dietary intake will be linked to a unique set of data on the location of supermarkets and other local food environment characteristics from the USDA's Food Environment Atlas.

Updated Foodborne Illness Cost Estimates. ERS will release updated foodborne illness cost estimates and an updated Foodborne Illness Cost Calculator to reflect the most recent CDC incidence estimates. The ERS updated estimates will mirror previous ERS methodology and incorporate updated disease outcome trees and medical cost estimates to the extent possible.

Food Prices and Health Outcomes. ERS has prioritized research studying the relationship between food prices, food consumption, and health outcomes, such as overweight and obesity. This project broadens the research base by using a dataset of geographically-specific food prices for numerous food groups. Geographical coding of food prices enables linkages with data on individual health outcomes. Currently ERS has linked the data to the National Health and Nutrition Examination Survey (NHANES) using the geocoded data available with the Designated Agency Agreement with the Centers for Disease Control and Prevention and the National Health Interview Survey (NHIS) (based on NHIS's MSA identification files).

Food Security and Disability. Food insecurity and very low food security are more prevalent among households with an adult with a work-limiting disability. This project will investigate determinants of food insecurity among households with disabled member(s) including those with disabilities that are not work-limiting. The 2009 Current Population Survey (CPS)-ASEC (demographic supplement) will be matched to the 2008 CPS-Food Security Supplement to utilize information on receipt of disability income and types of disability (beyond work-limiting disability) to more fully understand why these households are at increased risk of experiencing food insecurity.

Trade Zones for Farmers' Markets: Spatial Relationships. In a joint project with USDA's Agricultural Marketing Service (AMS), ERS is characterizing economic trade zones for farmers' markets in spatial and analytical terms to show how the distribution of farmers' market trade areas affects competition for vendors and customers. The analysis of efficient input use and barriers to sustaining farmers markets will inform policy to support the growth of direct marketing outlets. Development of a local foods index based on indicators of production capacity, consumption opportunities, and economic development for each county is useful for sustainably expanding this market segment.

Farm to School Programs: Characteristics and Outcomes. Farm-to-school programs are promoted as opportunities to increase student interest in fruits and vegetables, obtain fresher produce for school meals and support local

agriculture. ERS will use the National Farm to School Network registry matched to common core data and School Nutrition Dietary Assessment (SNDA) III to examine the location and characteristics of farm to school programs, and whether farm to school programs are associated with higher levels of vegetable consumption.

What is the impact of food assistance programs on nutrition and health outcomes and how can these programs be more effective? Domestic food assistance programs affect the daily lives of about one in five Americans at some point during a given year. Food assistance recipients, like other Americans, struggle with nutrition problems associated with choice of foods, as well as amounts. The prevalence of obesity and diabetes is increasing. Underconsumption of fruits and vegetables is a particular problem. ERS will evaluate the dietary and nutritional outcomes of USDA's food and nutrition assistance programs and the factors that contribute to more nutritious lunches served through USDA's National School Lunch Program, including economic and programmatic constraints. Another project will examine the impact of the SNAP program on measures of diet quality (Healthy Eating Index), body weight, chronic health conditions and general health status. This project will link data on state and time-varying SNAP program rules with the detailed data on food consumption and obesity from NHANES. The effects of SNAP on these outcomes will be studied for both adults and children.

How do SNAP benefit increases affect shopping patterns in food deserts? Shoppers in food deserts are constrained by lack of access to supermarkets and therefore unable to spend SNAP benefits as efficiently as shoppers located in areas of better access. It is expected that higher benefits, lower travel costs, and greater availability of supermarkets and supercenters will increase the share of benefits spent at these stores. This study will measure those effects and seek to determine whether effects differ in counties that encompass more food deserts than in those that do not.

## ECONOMIC RESEARCH SERVICE

Strategic Goal Funding Matrix  
(Dollars in thousands)

Program/Program Items	2010 Actual	2011 Actual	2012 Estimate	Change	2013 Estimate
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**Department Strategic Goal: Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.**

## Economic Analysis and Research

Total Costs, Strategic Goal.....	\$29,759	\$29,671	\$28,369	-\$129	\$28,240
Total Staff Years, Strategic Goal.....	155	155	149	0	149

**Department Strategic Goal: Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.**

## Economic Analysis and Research

Total Costs, Strategic Goal.....	10,698	10,970	10,533	-102	10,431
Total Staff Years, Strategic Goal.....	53	53	50	0	50

**Department Strategic Goal: Help America promote agricultural production and biotechnology exports as America works to increase food security.**

## Economic Analysis and Research

Total Costs, Strategic Goal.....	20,309	20,185	19,318	+8	19,236
Total Staff Years, Strategic Goal.....	102	102	98	0	98

**Department Strategic Goal: Ensure that all of America's children have access to safe, nutritious, and balanced meals.**

## Economic Analysis and Research

Total Costs, Strategic Goal.....	20,977	20,300	19,503	-13	19,490
Total Staff Years, Strategic Goal.....	90	91	88	0	88

Total Costs, All Strategic Goals.....	81,743	81,126	77,723	-326	77,397
Total Staff Years, All Strategic Goals.....	400	401	385	0	385

## **Summary of Budget and Performance Key Performance Outcomes and Measures**

**Agency Goal:** The long-term performance goal across USDA and agency goal areas is the successful execution of the ERS program of economic research and analysis to provide policy makers, regulators, program managers, and those shaping the public debate on agricultural economic issues with timely, relevant, and high quality economic research, analysis, and data to enhance their understanding of economic issues affecting food and agriculture. A general discussion of performance measures follows.

**Key Outcome:** The key outcome of the ERS program is to inform and enhance public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development.

### **Application of the Research and Development Investment Criteria at ERS**

ERS research and management practices use many methods to apply the research and development investment criteria. These practices are designed to ensure that the direction of agency research activities reflects current and anticipated needs of ERS stakeholders and customers, that research and analysis produced by the agency adheres to disciplinary standards to ensure the highest possible quality, and that the agency's research products are delivered in a way that is accessible to customers.

#### ***Principal practices to ensure research quality***

ERS staff publishes research and analysis in a variety of outlets, such as research monographs, ERS periodicals, journals, and presentations outside ERS. For all products the overriding objective is high quality economic analysis and communication of findings. Review and clearance is a collaborative process that begins with defining the questions and hypotheses to be investigated and selecting the appropriate methodologies. Official review and clearance guidelines are designed to ensure high quality analysis.

All products must meet disciplinary standards for quality and must receive substantive peer reviews by qualified experts who have the background, perspective, and technical competency to provide a meaningful assessment of the research design and findings. Reviewers are composed of a mix of individuals outside the author's immediate work unit and at least two from outside the agency. In addition, publications that involve other Federal programs must be reviewed by researchers/analysts from the relevant program agency.

ERS economic research and analysis includes extramural research activities through the Food Assistance and Nutrition Research Program (FANRP). FANRP's competitive grants and cooperative agreements fund research on strengthening economic incentives in food assistance programs; food assistance as a safety net; and obesity, diet quality, and health outcomes. The program is publicly announced, and grants and agreements are competitively awarded through the use of peer review panels.

#### ***Principal practices to ensure research relevance***

ERS interacts with stakeholders and customers in many ways to ensure that the research agenda focuses on topics relevant to public and private decision makers. One example of such interaction centers on involving stakeholders in discussions of potential research issues relevant to a given area. ERS regularly convenes workshops, stakeholder sessions, or other meetings in which the results of recent agency research are discussed, upcoming policy issues are identified, and questions for future research are explored. In this way, interaction with stakeholders and customers helps sharpen the agency's research focus to better anticipate future needs for public and private decision makers. Another method to ensure relevance of agency research and analysis centers on ERS strategic planning processes. Strategic planning processes at ERS involve discussing with stakeholders the retrospective assessment of research accomplishments and agency impact, identifying key policy areas for potential future impact, and establishing research program priorities.

In addition to efforts to ensure the relevance of long-term research, ERS also asks customers to assess the relevance of staff analysis provided to USDA and other government officials. ERS uses a short questionnaire to gather feedback from customers about relevance, usefulness, timeliness, and accessibility of the product delivered. The instrument provides valuable insight into the relevance of information from ERS in informing decisions by key policy makers.

***Principal practices to assess performance: key performance measures***

ERS employs several practices to assess performance of the agency's research program. These activities are designed to identify how ERS research contributes to discussion of issues in a sector, how effectively agency information is communicated to customers, and how the efficiency of the program can be improved.

Central to effective ERS performance is successful completion of planned research that enhances understanding by policy makers, regulators, program managers, and those shaping the public debate of economic issues related to enhancing economic opportunities for agricultural producers. Effective performance of economic research and analysis can be inferred through an integrated suite of measures designed to provide an indication of aspects of program performance. The key challenge for providing an overall assessment of research program performance is to develop a set of measures that, taken together, can provide a comprehensive view of program performance.

The framework for assessing the performance of the ERS economic research and analysis program centers on adherence to the Research and Development Investment Criteria principles of relevance, quality, and performance. Agency assessment practices provide a broad framework for assessing success in achieving these criteria. The degree of success can be further assessed through application of a quantitative performance assessment tool that considers factors key to successful research, based on relevance, quality, and performance. The tool consists of a three-category performance indicator that reflects the interval of the point score achieved on a quantitative research program assessment tool. A key component of evaluating agency performance in these areas will be program evaluation conducted by outside review panels. Panels assess the relevance, quality, and performance of agency programs by using the quantitative assessment tool based on the assessment criteria, which are summarized below. These criteria, taken together, will provide an indication of agency performance.

Data and other information collected for the ERS performance measurement framework are used to monitor, evaluate, and revise program activities and resource allocation to meet changing priorities in support of the ERS mission. ERS management regularly discusses implementation of research activities to ensure continued and improved agency effectiveness. The outcome of program review activities has been used as a basis for resource allocation and strategic planning activities for the food economics program and the market and trade economics program. The results of the American Customer Satisfaction Index (ACSI) customer survey indicate a customer priority for improving data accessibility and dissemination. These priorities are reflected in current activities to improve data dissemination via the ERS Web site. The results from the ACSI Web site customer satisfaction survey are used to inform initiatives to improve navigation on the ERS Web site.

ERS strategic planning activities include reviews of progress in meeting program plans and implementing revisions as necessary. Changes reflect activities to ensure continued relevance of ERS research and analysis activities, and to continue to provide useful and appropriate products to customers. ERS strategic planning includes discussions with customers and stakeholders on prospective research projects to meet anticipated needs of policy officials. Stakeholder conferences are used to help set priorities for ERS extramural funding programs. In 2013 ERS program priorities are aimed at responding to interests of ERS customers for continued relevant research, analysis, and data.

<b>Performance Measure</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Actual</b>	<b>FY 2011 Actual</b>	<b>FY 2012 Target</b>	<b>FY 2013 Target</b>
Portfolio Review Score: Qualitative assessment by external experts of the relevance, quality, and performance of ERS research portfolios to enable better informed decisions on food and agricultural policy issues.	Excellent	Excellent	Excellent	Excellent	n/a	Excellent	Excellent
ACSI Customer Satisfaction Rating	n/a	74	n/a	n/a	n/a	74	n/a
Policy Official Satisfaction Survey	95	95	95	95	92	95	95
Percent of requested analysis delivered on time	95	96	100	100	94	100	100
Customer satisfaction with the ERS Web site	71	70	74	74	73	75	75

### **Portfolio Review Score**

ERS uses independent expert review panels that evaluate the effectiveness of the ERS program of economic research and analysis to enable better informed decisions on food and agricultural policy issues. Over the past six years, review panels have assessed major segments of the ERS program. In each review, the external panels assess the relevance, quality, and performance of program plans, activities, and accomplishments. This assessment includes an evaluation using a quantitative analysis tool to rate portfolio effectiveness on a multi-category scale (excellent, adequate, needs improvement). The panel recommendations are used in agency strategic planning and priority setting. Although a complete comprehensive qualitative assessment was not conducted in 2011, several parts of the ERS program were reviewed and a strategic planning exercise was launched. This comprehensive strategic planning exercise is underway in 2012.

### **ACSI Customer Satisfaction Rating**

This measure is designed to assess the satisfaction of private and other external customers with the relevance, usefulness, and accessibility of ERS research, data, and analysis, as measured by the ACSI. This measure tracks relevance and usefulness of ERS research, analysis, data products, and services, as determined through a survey of agency customers using the ACSI. The survey is typically conducted on a three-year cycle. In 2005 ERS customer satisfaction rated above targeted levels, and above average customer satisfaction with government programs. Another survey was conducted in 2008, with little change in average scores from 2004. A third survey will be scheduled in the near future.

### **Policy Official Satisfaction Survey**

This measure is designed to assess the satisfaction of USDA and other government decision makers with the relevance and usefulness of requested analysis. ERS provides a broad range of research, data, and analysis for public and private decision makers to use in their analysis of economic issues affecting the food and agricultural sector. Throughout the year, policy officials from USDA agencies or outside of the Department request that ERS provide analysis on specific questions of interest to the requestor. Such questions, referred to as "Staff Analysis," provide policy officials with assessments relevant to their particular questions, and the analyses are typically requested for quick turnaround. This measure assesses requestors' satisfaction with the usefulness of materials provided by ERS in response to their requests for short-term, tailored research, analysis, and data.

**Percent of Requested Analysis Delivered on Time**

For the “Staff Analysis” described in the previous measure, an indicator of agency performance is the timeliness with which responses are provided to the customer. This measure tracks the timeliness of responses by ERS to requests for short-term tailored research, analysis, and data from government policy makers.

**Customer satisfaction with the ERS Web site**

In recent years, ERS recast its information dissemination and communications channels to adopt a Web-centric approach to communicating with customers. As a result, all ERS research, data, and other information disseminated by the agency are available through the ERS Web site. This measure is an indicator of customer satisfaction with the ERS Web site using a survey based on ACSI. The measure tracks satisfaction of Web site users and provides a basis for comparison with similar government and private sector Web sites. The target for this measure is at or above the average rating for government Web sites in the Information/News category.

**Economic Research Service  
Full Cost By Department Strategic Goal**

**Strategic Goal 1: Assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving.**

		Dollars in thousands			
PROGRAM	PROGRAM ITEMS	FY 2010	FY 2011	FY 2012	FY 2013
<b>Economic Research and Analysis</b>					
	Salaries and Benefits	\$20,312	\$20,426	\$19,748	\$19,748
	Pay Costs	0	0	0	74
	Data Acquisition	3,198	3,344	3,315	3,195
	Extramural Program	2,166	2,002	1,615	1,533
	Contracts	1,111	914	914	914
	Interagency Agreements	1,362	1,270	1,257	1,257
	Direct Costs	453	583	498	498
	Indirect Costs	1,157	1,130	1,021	1,021
	<b>Total Costs</b>	<b>29,759</b>	<b>29,671</b>	<b>28,369</b>	<b>28,240</b>
	<i>FTEs</i>	<i>155</i>	<i>155</i>	<i>149</i>	<i>149</i>
Performance					
Measure: Portfolio	Qualitative assessment by external experts of				
Review Score	the relevance, quality, and performance of ERS				
	research portfolios to enable better informed				
	decisions on food and agricultural policy issues.	Excellent	n/a	Excellent	Excellent
<b>Total for Strategic Goal</b>					
	<b>Total Costs (program, direct, indirect)</b>	<b>29,759</b>	<b>29,671</b>	<b>28,369</b>	<b>28,240</b>
	<i>FTEs</i>	<i>155</i>	<i>155</i>	<i>149</i>	<i>149</i>

**Strategic Goal 2: Ensure our national forests and private working lands are conserved, restored and made more resilient to climate change, while enhancing our water resources.**

		Dollars in thousands			
PROGRAM	PROGRAM ITEMS	FY 2010	FY 2011	FY 2012	FY 2013
<b>Economic Research and Analysis</b>					
	Salaries and Benefits	6,601	6,774	6,549	6,549
	Pay Costs	0	0	0	25
	Data Acquisition	2,717	2,841	2,816	2,714
	Extramural Program	655	606	488	463
	Contracts	12	10	10	10
	Interagency Agreements	138	129	128	128
	Direct Costs	159	205	175	175
	Indirect Costs	416	406	367	367
	<b>Total Costs</b>	<b>10,698</b>	<b>10,970</b>	<b>10,533</b>	<b>10,431</b>
	<i>FTEs</i>	<i>53</i>	<i>53</i>	<i>50</i>	<i>50</i>
Performance					
Measure: Portfolio	Qualitative assessment by external experts of				
Review Score	the relevance, quality, and performance of ERS				
	research portfolios to enable better informed				
	decisions on food and agricultural policy issues.	Excellent	n/a	Excellent	Excellent
<b>Total for Strategic Goal</b>					
	<b>Total Costs (program, direct, indirect)</b>	<b>10,698</b>	<b>10,970</b>	<b>10,533</b>	<b>10,431</b>
	<i>FTEs</i>	<i>53</i>	<i>53</i>	<i>50</i>	<i>50</i>

**Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.**

Dollars in thousands					
PROGRAM	PROGRAM ITEMS	FY 2010	FY 2011	FY 2012	FY 2013
	Salaries and Benefits	13,437	13,538	13,089	13,089
	Pay Costs	0	0	0	49
	Data Acquisition	2,018	2,110	2,092	2,016
	Extramural Program	1,438	1,330	1,072	1,018
	Contracts	1,099	905	904	904
	Interagency Agreements	1,242	1,159	1,146	1,146
	Direct Costs	303	391	334	334
	Indirect Costs	771	753	680	680
	<b>Total Costs</b>	<b>20,309</b>	<b>20,185</b>	<b>19,318</b>	<b>19,236</b>
	<i>FTEs</i>	<i>102</i>	<i>102</i>	<i>98</i>	<i>98</i>
Performance					
Measure: Portfolio	Qualitative assessment by external experts of				
Review Score	the relevance, quality, and performance of ERS				
	research portfolios to enable better informed				
	decisions on food and agricultural policy issues.	Excellent	n/a	Excellent	Excellent
	<b>Total for Strategic Goal</b>				
	<b>Total Costs (program, direct, indirect)</b>	<b>20,309</b>	<b>20,185</b>	<b>19,318</b>	<b>19,236</b>
	<i>FTEs</i>	<i>102</i>	<i>102</i>	<i>98</i>	<i>98</i>

**Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious and balanced meals.**

Dollars in thousands					
PROGRAM	PROGRAM ITEMS	FY 2010	FY 2011	FY 2012	FY 2013
<b>Economic Research and Analysis</b>					
	Salaries and Benefits	12,011	12,154	11,750	11,750
	Pay Costs	0	0	0	44
	Data Acquisition	177	185	184	177
	Extramural Program	1,346	1,244	1,003	952
	Contracts	3,247	2,673	2,672	2,672
	Interagency Agreements	3,218	3,001	2,969	2,969
	Direct Costs	285	367	314	314
	Indirect Costs	693	677	611	611
	<b>Total Costs</b>	<b>20,977</b>	<b>20,300</b>	<b>19,503</b>	<b>19,490</b>
	<i>FTEs</i>	<i>90</i>	<i>91</i>	<i>88</i>	<i>88</i>
Performance					
Measure: Improve	USDA policy makers implement new local				
Low Income	foods initiatives as a result of new data and				
Household Access	information on community, local food market,				
to Fresh, Local,	and food assistance program characteristics,				
Healthy Food	and analysis of effective alternatives for				
	improving access to fresh, local foods.	No	No	No	Yes
Performance					
Measure: Portfolio	Qualitative assessment by external experts of				
Review Score	the relevance, quality, and performance of ERS				
	research portfolios to enable better informed				
	decisions on food and agricultural policy issues.	Excellent	n/a	Excellent	Excellent
	<b>Total for Strategic Goal</b>				
	<b>Total Costs (program, direct, indirect)</b>	<b>20,977</b>	<b>20,300</b>	<b>19,503</b>	<b>19,490</b>
	<i>FTEs</i>	<i>90</i>	<i>91</i>	<i>88</i>	<i>88</i>
	<b>Total for Economic Research and Analysis</b>				
	Unobligated Balance	735	688	-	-
	Total Costs (program, direct, indirect)	82,478	81,814	77,723	77,397
	<b>Total for each Object Class per year</b>				
	<i>FTEs</i>	<i>400</i>	<i>401</i>	<i>385</i>	<i>385</i>