AGENCY-WIDE

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 by anticipating emerging issues and conducting sound, peer-reviewed economic research on policy-relevant issues related to agriculture, food, natural resources, and rural America. ERS is also the primary source of statistical indicators that, among other things, gauge the health of the farm sector (including farm income estimates and projections), assess the current and expected performance of the agricultural sector (including trade), and provide measures of food security in the U.S. and abroad. The Agency's intramural research is conducted by a highly trained staff of economists and social scientists through an integrated program of research, market outlook, analysis, and data development. Key clientele includes White House and USDA policy officials, program administrators/managers, the U.S. Congress, other Federal agencies, State and local government officials, and organizations including farm and industry groups interested in public policy issues.

ERS develops its research program in coordination with other USDA research agencies, USDA program agencies, and other external collaborators. Activities to support this mission 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 program participation and risk management, farm and retail food prices, foodborne illnesses, food labeling, local and organic products and markets, nutrition, food assistance programs, drought resilience, conservation, technology adoption, 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 reports and articles; special staff analyses, briefings, and presentations; databases; and individual contact.

ERS headquarters is located in Washington, D.C., with a new office established in 2019 in Kansas City. As of September 30, 2019, ERS had 239 permanent full-time employees. Of the total, 78 full-time employees were located at headquarters.

ERS did not have any direct Office of Inspector General (OIG) audits or evaluations conducted during FY 2019. The OIG did perform an investigation to determine USDA’s authority and compliance with requirements to initiate the realignment of ERS and relocation of ERS and NIFA offices. The audit, published on August 5, 2019, discussed the proposed realignment of ERS and the ERS and NIFA relocation with a focus on whether USDA as a Department had the

authority to make these changes. In addition, ERS is participating in an inspection on USDA Research Integrity and Capacity that began November 13, 2019. The USDA Office of the Chief Scientist is the lead agency for this audit. ERS provided input in response to a GAO report entitled "Food Loss and Waste: Building on Existing Federal Efforts Could Help to Achieve National Reduction Goal (GAO-19-391, Job Code 102502). USDA's response was led by the Office of the Chief Economist.

In-Progress OIG Reports

ID	Title
84801-0001-22	USDA Research Integrity and Capacity – Audit started on November 2019

AVAILABLE FUNDS AND STAFF YEARS

Item	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Salaries and Expenses:								
Discretionary Appropriations	$86,757	319	$86,757	281	$84,757	329	$62,109	187
Mandatory Appropriations	-	-	500	-	-	-	-	-
Adjusted Appropriation	86,757	319	87,257	281	84,757	329	62,109	187
Balance Available, SOY					500			
Total Available	86,757	319	87,257	281	85,257	329	62,109	187
Lapsing Balances	-279	-	-1,131	-	-	-	-	-
Balance Available, EOY	-	-	-500					
Obligations	86,478	319	85,626	281	85,257	329	62,109	187
Ob. Under Other USDA Appr.:								
Foreign Agricultural Service	210	1	348	1	208	-	-	-
Food and Nutrition Service	2,477	-	1,276	-	2,000	-	2,000	-
Agricultural Research Service	60	-	17	-	-	-	-	-
Nat'l Agricultural Statistics Svc	7	-	10	-	10	-	10	-
Office of the Chief Economist	-	-	62	-	-	-	-	-
Agricultural Marketing Service	45	-	-	-	-	-	-	-
Farm Service Agency	16	-	-	-	-	-	-	-
Departmental Management	5	-	-	-	-	-	-	-
Assistant Sec. for Civil Rights	5	-	-	-	-	-	-	-
Food Safety and Inspection Svc	15	-	-	-	-	-	-	-
General Services Administration	-	-	200	-	-	-	-	-
Office of Budget and Program Analysis	-	-	28	-	-	-	-	-

U.S. Agency for Intl Development	-	-	162	1	230	-	-	-
Nat'l Institute for Food and Agriculture	-	-	41	-	98	-	-	-
U.S. Environmental Protection Agency	-	-	9	-	157	-	-	-
National Oceanic and Atmospheric Adm	-	-	-	-	184	-	-	-
National Science Foundation	-	-	-	-	183	-	-	-
Office of the Secretary/REE	-	-	-	-	176	-	235	-
Total, Other USDA	2,840	1	2,153	2	3,246	-	2,245	-
Total, Agriculture Appropriations	89,318	320	87,779	283	88,503	329	64,354	187
Total, ERS	89,318	320	87,779	283	88,503	329	64,354	187

PERMANENT POSITIONS BY GRADE AND STAFF YEAR

Item	2018 Actual			2019 Actual			2020 Enacted			2021 Budget		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
ES.....	-	-	-	-	-	-	-	-	-	-	-	-
SES……..	6	-	6	6	-	6	1	5	6	1	5	6
GS-15……..	65	-	65	65	-	65	15	48	63	15	12	27
GS-14……..	65	-	65	65	-	65	14	52	66	14	14	28
GS-13……..	72	-	72	66	-	66	16	56	72	18	25	43
GS-12……..	63	-	63	63	-	63	16	47	63	16	22	38
GS-11……..	34	-	34	34	-	34	9	26	34	9	19	28
GS-10……..	1	-	1	1	-	1	1	-	1	1	-	1
GS-9……	16	-	16	16	-	16	4	12	16	4	5	9
GS-8……	1	-	1	1	-	1	-	1	1	-	1	1
GS-7……	3	-	3	3	-	3	1	2	3	1	2	3
GS-6……	1	-	1	1	-	1	1	-	1	1	-	1
GS-5……	-	-	-	-	-	-	-	-	-	-	-	-
GS-4……	1	-	1	1	-	1	-	1	1	-	1	1
GS-3……	1	-	1	1	-	1	-	1	1	-	1	1
GS-2……	1	-	1	1	-	1	1	-	1	1	-	1
GS-1……	-	-	-	-	-	-	-	-	-	-	-	-
Total Permanent	330	-	330	324	-	330	78	251	329	80	107	187
Unfilled, EOY……...	-10	-	-10	-41	-	-41	-	-	-	-	-	-
Total Perm. FT EOY….	320	-	320	283	-	283	78	251	329	80	107	187
Staff Year Est……	320	-	320	283	-	283	78	251	329	80	107	187

SHARED FUNDING PROJECTS

Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
Working Capital Fund:				
Administration:				
Material Management Service	$41	$31	$40	$40
Mail and Reproduction Services	127	76	87	90
Integrated Procurement Systems	40	45	46	46
Human Resources Enterprise Management Systems	5	5	6	6
Subtotal	213	157	180	183
Communications:				
Creative Media & Broadcast Center	72	82	85	213
Financial Management:				
National Finance Center	105	93	81	76
Financial Shared Services	85	98	64	85
Subtotal	190	191	145	161
Information Technology:				
Department Administration IT Office	-	-	25	25
Client Experience Center	481	545	581	576
Digital Infrastructure Services Center	229	851	287	276
Enterprise Network Services	776	1,171	1,303	1,340
Subtotal	1,486	2,567	2,196	2,218
Correspondence Management	5	0	0	0
Total, Working Capital Fund	1,964	2,997	2,606	2,775
Department-Wide Shared Cost Programs:				
Advisory Committee Liaison Services	2	2	2	2
Agency Partnership Outreach	26	24	26	26
Human Resources Self-Service Dashboard	2	2	2	-
Human Resources Transformation	3	-	-	-
Medical Services	21	1	1	-
Office of Customer Experience	7	8	10	10
People's Garden	2	-	-	-
Personnel and Document Security	11	10	11	11
Physical Security	-	-	19	14
Security Detail	15	14	15	15
Security Operations	36	33	19	21
TARGET Center	4	4	4	4
USDA Enterprise Data Analytics Services	-	-	18	18
Virtual University	3	-	-	-
Total, Department-Wide Reimbursable Programs	132	99	126	119
E-Gov:				
Enterprise Human Resources Integration	7	7	-	-
Geospatial Line of Business	13	13	13	13
Human Resources Line of Business	1	1	1	1

Integrated Acquisition Environment	1	1	1	1
Total, E-Gov	22	22	15	15
Agency Total	2,118	3,118	2,746	2,909

ACCOUNT 1: SALARIES AND EXPENSES

LEAD-OFF TABULAR STATEMENT

Economic Research Service	
2020 Appropriations	$84,757,000
Change in Appropriation	-22,648,000
2021 Request	**62,109,000**

APPROPRIATIONS LANGUAGE

The appropriations language follows (new language underscored; deleted language enclosed in brackets):

For necessary expenses of the Economic Research Service, [$84,757,000]$62,109,000.

PROJECT STATEMENT

Economic Research Service
Economic Analysis and Research
(Dollars in Thousands)

	2018 Actual		2019 Actual		2020 Enacted		2021 Budget Request		Change from 2020 Estimate	
Program/Activity	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY
Direct Appropriations:										
Economic Analysis and Research	$86,757	319	$86,757	281	$84,757	329	$62,109	187	-$22,648	-142
Subtotal, Direct Appropriations	86,757		86,757		84,757		62,109		-22,648	0
Total, Discretionary Funding	**86,757**	**319**	**86,757**	**281**	**84,757**	**329**	**62,109**	**187**	**-22,648**	**-142**
Mandatory Funds:										
FY 2018 Farm Bill	0		500		0		0		0	0
Subtotal, Mandatory Funds	0	0	500	0	0	0	0	0	0	0
Carryover from Prior Years:										
FY 2018 Farm Bill	0		0		500				-500	
Subtotal, Carryover	0	0	0	0	500	0	0	0	-500	
Total Available	**86,757**	**319**	**87,257**	**281**	**85,257**	**329**	**62,109**	**187**	**-23,148**	**-142**
Lapsing Balances	-279		-1,131		0		0		0	0
Balances, Available End of Year	0		-500		0		0		0	0
Total Obligations	**$86,478**	**319**	**$85,626**	**281**	**$85,257**	**329**	**$62,109**	**187**	**-$23,148**	**-142**

JUSTIFICATIONS OF INCREASES/DECREASES

Economic Analysis and Research

Funding is requested for ERS' core programs of research, analysis, market outlook, and data development. Proposals for ERS budget priorities include research that: (1) builds on unique or confidential data sources or investments at the Federal level; (2) provides coordination for a national perspective or framework; (3) requires sustained investment and large teams; (4) directly serves the U.S. Government's or USDA's long-term national goals; and (5) addresses questions with short-run payoff or that have immediate policy implications. ERS also seeks to cover the breadth of USDA programs (except forestry) and requests funding to ensure sustained expertise and to support the department through analysis of farming, commodity markets and trade, conservation, productivity growth, rural communities, food safety, food markets, and nutrition. ERS' strength in data linking, and in developing, modeling and monitoring outcome measures, including program performance and agricultural productivity growth, will contribute substantively to USDA's implementation of the Evidence Act as well as to USDA and REE's top priority goals for Agricultural Innovation and Sustainable Agricultural Intensification, to the extent that resources allow.

In 2019, ERS relocated to Kansas City, MO. Activities in 2021 to ensure mission continuity and successfully establishing a Kansas City presence include aggressive recruiting (following significant relocation-related attrition), completing the build out and move to a new permanent location in Kansas City, and vacating the Patriots Plaza lease in the National Capital Region.

At the funding level for FY 2021, the following funding changes are requested:

(1) A net decrease of $22,648,000 and 142 staff years ($84,757,000 and 329 staff years available in FY 2020).

(a) An increase of $495,000 ($227,000 for annualization of the 2020 pay increase and $268,000 for the 2021 pay increase).

This increase will allow ERS to ensure mission continuity, support current staff and to conduct aggressive recruiting in the new permanent location of Kansas City following significant relocation-related attrition.

(b) An increase of $358,000 for performance awards.

This increase will support a 1 percentage point increase in awards spending, consistent with objectives outlined in the President's Management Agenda, to enhance workforce development.

(c) An increase of $451,000 for the Department's increased contribution to the Federal Employees Retirement System (FERS).

This increase will cover the expenses for the mandated increase of USDA's contribution to FERS. These increases were effective January 1, 2020, and impact approximately 279 employees' retirement packages.

(d) A net decrease of $23,952,000 and 142 staff years.

The funding change is requested for the following items:

i. A decrease of $11,349,000 and 70 staff years for Research on Agricultural Markets and Trade, Farms, Conservation and Agricultural Research and Development ($48,449,000 and 206 staff years available in 2020).

ERS will discontinue research relative to farm, conservation and trade policy, and on returns to investments in agricultural research and development. ERS will also discontinue its annual estimates of international food security for low- and middle-income countries and research on international development that supports this activity. At the proposed funding level, research and extramural agreements associated with special initiatives such as on research innovations for policy effectiveness, new energy sources (including bioenergy, renewable energy and shale oil and gas), local and regional food markets, beginning farmers and ranchers, invasive species, and markets for environmental services will be eliminated.

Core data expenditures, including the Agricultural Resource Management Survey (ARMS) and private sector commodity data and intelligence, are foundational to this activity and will be retained. However, survey cost increases may require a reduction in the frequency of commodity specific surveys and in the number of states for which state-level estimates will be developed. Research aimed at enhancing the efficiency of data collection and leveraging administrative and other data sources will also be curtailed.

ERS will continue to provide analysis and monthly newsletters to support participation in USDA's Inter-Agency Commodity Estimate Committees (ICEC) and provide modeling and data related to USDA's Agricultural Baseline Projections. ERS will refocus and narrow its international activities to ensure continued expertise and market analysis on major agricultural trading countries such as China, Brazil, and India, which are necessary to support the ICEC and USDA baseline development. ERS will produce high-quality, objective measures of farm business and farm household income and wealth, cost of production for major commodities, and report on adoption of primary farm practices (data and research on emerging farm technologies would be reduced).

ii. A decrease of $8,441,000 and 52 staff years for Research and Analysis on Food Assistance, Nutrition and Diet Quality ($18,941,000 and 93 staff years available in 2020).

ERS will continue to produce the Loss-Adjusted Food Availability Data, annual statistics to measure U.S. food security, and monthly retail food price forecasts. ERS will eliminate research and other data products on food consumption and nutrition, including all data resources related to food access and consumer food choices, including the Food Environment Atlas, Food Access Research Atlas, Fruit and Vegetable Prices, and Price Spreads from Farm to Consumer.

iii. A decrease of $2,000,000 and 10 staff years for Rural Prosperity and Well-being Research and Analysis ($4,000,000 and 20 staff years available in 2020).

ERS will discontinue all research and statistics related to the prosperity and well-being of rural households, including analysis and metrics on rural education, housing, health and poverty. Research on rural economic development and infrastructure will be continued.

iv. A decrease of $2,162,000 and 10 staff years for Food Safety Research and Analysis ($2,162,000 and 10 staff years available in 2020).

ERS will discontinue all research and data efforts related to food safety. The Department will support research related to food safety through the National Institute of Food and Agriculture (NIFA) and the Agricultural Research Service (ARS).

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

State/Territory/Country	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Alabama	$84	-	$10	-	-	-	-	-
Arizona	9	-	178	-	-	-	-	-
Arkansas	-	-	1	-	-	-	-	-
California	533	-	140	-	-	-	-	-
Colorado	277	-	151	-	-	-	-	-
Connecticut	3	-	-	-	-	-	-	-
Delaware	125	-	7	-	-	-	-	-
District of Columbia	69,406	319	72,892	281	$45,767	78	$44,685	78
Florida	126	-	2	-	-	-	-	-
Georgia	67	-	151	-	-	-	-	-
Illinois	1,174	-	2,356	-	-	-	-	-
Indiana	153	-	22	-	-	-	-	-
Iowa	147	-	1	-	-	-	-	-
Jarvis Island	-	-	-	-	-	-	-	-
Kansas	1	-	60	-	-	-	-	-
Kentucky	33	-	455	-	-	-	-	-
Louisiana	-	-	2	-	-	-	-	-

Maryland	5,300	-	1,708	-	-	-	-	-
Massachusetts	804	-	4	-	-	-	-	-
Michigan	321	-	112	-	-	-	-	-
Midway Islands	-	-	69	-	-	-	-	-
Minnesota	94	-	-	-	-	-	-	-
Missouri	417	-	3	-	39,490	251	17,424	109
Montana	6	-	-	-	-	-	-	-
Nebraska	-	-	29	-	-	-	-	-
Nevada	4	-	1	-	-	-	-	-
New Hampshire	1	-	-	-	-	-	-	-
New Jersey	4	-	3	-	-	-	-	-
New Mexico	12	-	8	-	-	-	-	-
New York	365	-	1,337	-	-	-	-	-
North Carolina	2,075	-	116	-	-	-	-	-
Ohio	248	-	82	-	-	-	-	-
Oklahoma	2	-	-	-	-	-	-	-
Pennsylvania	72	-	108	-	-	-	-	-
Tennessee	18	-	4	-	-	-	-	-
Texas	208	-	55	-	-	-	-	-
Utah	31	-	-	-	-	-	-	-
Virginia	4,082	-	5,430	-	-	-	-	-
Washington	134	-	15	-	-	-	-	-
West Virginia	-	-	2	-	-	-	-	-
Wisconsin	95	-	59	-	-	-	-	-
Other Countries	-	-	-	-	-	-	-	-
Australia	2	-	-	-	-	-	-	-
Brazil	1	-	-	-	-	-	-	-
Canada	25	-	44	-	-	-	-	-
France	8	-	1	-	-	-	-	-
Poland	2	-	-	-	-	-	-	-
Sweden	2	-	-	-	-	-	-	-
United Kingdom	7	-	8	-	-	-	-	-
Obligations	86,478	319	85,626	281	85,257	329	62,109	187
Lapsing Balances	279	-	1,131	-	-	-	-	-
Bal. Available, EOY	-	-	500	-	-	-	-	-
Total, Available	86,757	319	87,257	281	85,257	329	62,109	187

Note: The distribution of 2020 and 2021 funds by location has not been determined at this time.

CLASSIFICATION BY OBJECTS

Item No.	Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
	Personnel Compensation:				
	Washington D.C.	$36,428	$34,864	$9,452	$9,736
	Field	-	-	29,932	13,864
11	Total personnel compensation	36,428	34,864	39,384	23,600
12	Personnel benefits	11,101	10,620	12,576	7,855
13.0	Benefits for former personnel	3	194	200	200
	Total, Personnel Compensation and Benefits	47,532	45,678	52,262	31,655

	Other Objects:				
21.0	Travel and transportation of persons	373	516	350	350
22.0	Transportation of things	1	296	300	300
23.1	Rental payments to GSA	6,074	4,922	5,820	5,820
23.2	Rental payments to others	-	-	-	-
23.3	Communications, utilities, and misc. charges	432	543	500	500
24.0	Printing and reproduction	16	75	75	75
25	Other contractual services	-	-	-	-
25.1	Interagency Agreements	5,454	7,901	5,500	5,000
25.2	Other services from non-Federal sources	4,161	3,496	3,500	3,500
25.3	Other goods and services from Federal sources	1,000	1,213	1,200	1,200
25.4	Contracts	1,843	3,713	3,000	3,000
25.5	Cooperative Agreements	2,362	4,179	2,000	2,000
25.6	Medical care	-	-	-	-
25.7	Data Acquisition	13,473	11,205	9,000	7,459
25.8	Subsistence and support of persons	-	-	-	-
26.0	Supplies and materials	276	234	250	250
31.0	Equipment	1,241	464	500	500
31.5	ADP software/material/supplies	1,954	1,096	1,000	500
33.0	Investments and loans	-	-	-	-
41.0	Grants, subsidies, and contributions	286	95	-	-
	Total, Other Objects	38,946	39,948	32,995	30,454
99.9	Total, new obligations	86,478	85,626	85,257	62,109
	DHS Building Security Payments (included in 25.3)...	$1,050	$790	$802	$232
	Position Data:				
	Average Salary (dollars), ES Position	$182,847	$186,321	$191,165	$193,077
	Average Salary (dollars), GS Position	$119,892	$122,170	$125,346	$126,600
	Average Grade, GS Position	13.7	13.7	13.7	13.7

STATUS OF PROGRAMS

The Economic Research Service (ERS) anticipates trends and emerging issues in agriculture, food, the environment, and rural America and conducts high-quality, objective economic research to inform and enhance public and private decision making. As a Federal Statistical Agency, ERS provides timely, objective data on the well-being of America's farmers, consumers, natural resources, and rural communities.

Economic Research and Analysis Program

Enhance competitiveness for American farms, agriculture, and rural communities

Current Activities:
ERS conducts research that strengthens the understanding of American farms, the agricultural sector, and rural communities. This includes analysis of commodity markets, the competitiveness of U.S. farms at home and abroad, and the health of the rural economy. ERS research and analysis provides insights into market conditions facing U.S. agriculture, potential avenues for innovation and market expansion, and the effects of farm policies. The agency conducts research on the effects of new agricultural technologies and practices on farm business and sector performance as well as their implications for the changing size and organization of U.S. farms. ERS produces USDA's estimates of farm business and farm household income and identifies and analyzes market structure and technological developments that affect farm efficiency and profitability.

ERS research and analysis also provides insights into how the agricultural sector is evolving in both the short and long term. ERS's ongoing Commodity Outlook and Cost of Production programs address the impacts of market factors impacting supply, demand, prices, and costs and returns of agricultural commodities.

- The Commodity Outlook program produces monthly outlook reports and research results for over 25 commodities, including most of the major U.S. crop, livestock, dairy, and poultry commodities. Bi-annual analysis is produced for over 150 additional commodities.

- Cost of Production analysts produce annual estimates for 12 major crop, livestock, and dairy commodities and conduct research on the factors impacting commodity costs and returns.

- This foundational work enables ERS to provide quick analysis for USDA leadership and Congress, and statistical data and analysis to inform decision makers in the public and private sectors.

Analysis of the major factors driving the outlook for agricultural commodity markets plays a central role in supporting USDA's World Agriculture Supply and Demand Estimates (WASDE), which serves as the benchmark for information on major global commodities. Each year ERS

also coordinates the USDA's Baseline projections for U.S. and world agriculture for the coming decade. The 2019 long-term projections were presented at the 2018 USDA Agricultural Outlook Forum and helped shape planning for the federal budget. The *Projections* have long supported FSA's estimation of budget costs for farm program commodities. In addition to its importance for USDA's policymakers, the annual Baseline projections report and related data products are essential references for public and private decision makers.

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

Recent Progress:

- *Farm income indicators and forecasts measure the financial performance of the U.S. farm sector.* ERS provides authoritative information on the financial health of the farm sector, including the performance of farm businesses and well-being of farm households. In the most recent statement, ERS forecasted a 4.8 percent increase in 2019 net farm income relative to 2018 estimates. Over the same time period, the median income of farm operator households is expected to increase 3.7 percent. Published three times a year, these core statistical indicators provide guidance to policy makers, lenders, commodity organizations, farmers, and others interested in the financial status of the farm economy. ERS's farm income statistics also inform the computation of agriculture's contribution to the gross domestic product for the U.S. economy in the Bureau of Economic Analysis statistics for Gross Domestic Product. In 2019, ERS briefed the Secretary of Agriculture on the findings on September 10, all USDA sub-cabinet officials on September 25, and the Assistant Secretary of Civil Rights on November 12.

- *SNAP redemptions have impacts on county-level employment*. The Supplemental Nutrition Assistance Program (SNAP) is the third-largest means-tested Federal program (in terms of outlays) and the largest USDA program. Payments nearly quadrupled between 2001 and 2013, in part due to changes in policies intended to stimulate the economy during and after the Great Recession. An ERS report examined the impact on county-level employment that may have occurred as a result of the increase in payments. Over the entire 2001 to 2014 study period, SNAP redemptions had a positive average estimated impact on county-level employment in non-metro counties, but no measurable impact in metro counties. During the Great Recession and its immediate aftermath (2008 to 2010), SNAP redemptions had a positive impact on employment in both metro and nonmetro counties, though the impacts per dollar spent were larger in nonmetro counties. During the recession, the impacts of SNAP were larger per dollar spent than the impacts of all other Federal and State government transfer payments combined. The results were presented to Stephen Vaden, the USDA General Counsel on June 24, 2019.

- *Since the end of the* Great *Recession, growth in population, employment, and per capita income have been slower in nonmetro counties than metro counties, and slowest in the most rural and remote*

nonmetro areas. ERS provides up-to-date information on rural economic and demographic trends in an annual series, Rural America at a Glance. The latest report noted that nonmetropolitan America encompasses a diverse set of counties, from more urban counties with urban populations of up to 50,000 people and counties adjacent to a metro area, to completely rural counties and counties that are remote from metro areas. These areas include nearly three-fourths of the land area and 14 percent of the population of the United States. Demographic and economic trends in nonmetro counties have been less favorable that those in metro America, but employment has grown since 2010 in all types of nonmetro counties except the most rural and remote counties, and poverty has declined in all types of counties since 2013. The findings were communicated via a webinar and in briefings to senior USDA policy makers.

Protect and enhance the Nation's natural resource base and the environment

Current Activities:
The ERS conservation and natural resources economics research program improves understanding of the interrelationship between agricultural production and environmental outcomes and assesses policy and program options for supporting sustainable production while enhancing the Nation's natural resources. ERS research examines how economic incentives influence the adoption of management practices that can improve the environmental performance of agriculture and conserve scarce resources, including land, water, soil, air and biodiversity. ERS also contributes to USDA's efforts to improve the science behind Federal environmental, water and air quality regulations and programs, including insights into policy options for controlling nonpoint source pollution. ERS develops models and other analytical techniques to estimate the impacts of alternative approaches used by farmers to adapt to changing weather conditions and resource constraints as the demand for agricultural production grows. The models predict responses of farmers to USDA programs, including voluntary incentives for drought mitigation and improved soil health and nutrient management. A related area of research addresses the implications of regional drought for U.S. agriculture, including producers' production and investment decisions, and their participation in conservation and other risk-mitigating programs. ERS research on farmer responses and the implications for markets and natural resources builds on expertise in the economics of land use and land management, technology adoption, and conservation program design.

Recent Progress:

- *A new Survey of Irrigation Organizations will provide a foundation for understanding local irrigation decisions and their impact on drought resilience*. Increasing demands for limited water resources, and concerns for agricultural drought resilience under heightened water scarcity, has prompted renewed interest in water data development at the agricultural district scale. Working with partners both inside and beyond USDA, ERS is developing a national survey of irrigation organizations to provide the first updated dataset of local water-supply management entities since the 1978 Census of Irrigation Organizations. This initiative builds on ERS research collaborations addressing regional groundwater management—including

managed aquifer recharge in California's Central Valley and the Lower Mississippi alluvial aquifer, and groundwater sustainability in the High Plains. Survey findings and supporting geodatabase will inform future research efforts as well as an array of Federal and State program activities. The survey will be implemented and data collection will begin in FY 2020.

- *Dropped conservation contract practices are an indication of lower on-farm benefits.* USDA working lands programs have resulted in hundreds of thousands of conservation contracts; these contracts represent voluntary agreements between USDA and farmers to implement conservation practices in exchange for technical and financial assistance. Most conservation contract practices are implemented as planned. An ERS report examines the contracts of the 10 to 20 percent of the practices that are dropped to better understand program implementation. Results show that these dropped practices are more likely to yield low on-farm benefits, information which can help program managers evaluate and adjust program incentives.

- *Adoption of drought-tolerant corn is expanding at a rate similar to early adoption of insect-resistant and herbicide-resistant corn.* Federal natural disaster and crop insurance payments to U.S. farmers are often the result of drought that results in crop yield losses and crop failures. In 2012 genetically engineered drought resilient (DT) corn was introduced, becoming widely available in 2013. An ERS report examines the development, adoption, and management of DT corn in the U.S. in 2016. Results show that over one-fifth of U.S. corn acreage was planted to DT corn in 2016 and DT corn made up roughly 40 percent of corn acreage in some drought-prone States. In addition, results show the use of DT corn is often accompanied by other conservation practices; 62 percent of DT corn fields used tillage methods that minimally disturb soils.

Strengthen the international competitiveness of American agriculture

Current Activities:
ERS conducts research on the economic performance and competitiveness of U.S. agriculture in international markets. U.S. producers rely on export markets to sell agricultural and food products, sustain and grow revenues, and contribute to employment, particularly in rural communities. This research program examines emerging patterns of agricultural trade and the associated economic drivers including income and population growth, and domestic and trade policies, and provides information on the principal underlying factors affecting U.S. and global agricultural trade.

ERS conducts research on the state of global food security, including factors affecting food production and the ability to import food, in Africa, Asia, Latin America and the Caribbean, and the Commonwealth of Independent States. A demand driven framework is used to assess food demand across global regions and countries, ERS informs decision makers in the United States and throughout the world with its annual assessment of international food security.

Recent Progress:

• *Soybean trade is highly concentrated: two land-abundant countries—Brazil and the United States—supply most soybean exports, and China accounts for over 60 percent of global soybean imports*. Recent ERS research shows international trade in soybeans began growing when China liberalized imports to meet demand for protein in animal feed and edible oils. A tariff structure favoring imports of soybeans, domestic policies favoring production of cereal grains, and rapid expansion of processing capacity drove China's growth in soybean imports. More flexible U.S. policies facilitated production response by U.S. farmers to supply more soybeans, and Brazil's expansion of output in its inland *Cerrado* region propelled supply growth in recent years. China imported even more Brazilian soybeans after imposing a 25-percent tariff on U.S. soybeans during 2018, but the overall volume of China's imports fell for the first time in 15 years. USDA's 10-year projections indicate that China will continue to account for most future growth in global soybean imports even if the tariff remains in place. However, USDA projects slower growth in China's imports than in the previous decade.

- *USDA's long-term agricultural projections suggest that in the coming decade, consumption of Mexican and U.S. grown corn will continue to increase due to expanding livestock production in both countries.*. Mexico is the largest foreign market for U.S. corn in terms of export volume and value. The North American Free Trade Agreement (NAFTA), implemented in 1994, facilitated closer integration of the U.S. and Mexican corn markets, as evidenced by rising exports to Mexico and the co-movement of U.S. and Mexican prices. Since the start of 2008, U.S. corn exports to Mexico have been free of tariff and quota restrictions due to one of NAFTA's provisions. The recently signed United States-Mexico-Canada Agreement (USMCA) would continue tariff- and quota-free trade in corn.

- *Food security is projected to improve for many developing countries*. ERS publishes the *International Food Security Assessment* to inform U.S. policymakers as well as international donor organizations of the food security situation in 76 low- and middle-income countries. The report provides projections of food demand and access based on ERS's food security model, which allows for analysis of income and price changes on food security. Results were also presented in a well-received briefing to USAID and discussed by major press publications. Given projections for lower food prices and rising incomes, food security for the 76 low- and middle-income countries included is expected to improve through 2029. The share of population that is food insecure is projected to fall from 19.3 percent in 2019 to 9.2 percent in 2029. The number of food-insecure people is projected to fall markedly from 782 million to 399 or a decline of 45 percent, faster than the decline in the food gap, the amount of food necessary to allow all food-insecure people to reach the nutritional target of 2,100 calories per capita per day, indicating somewhat slower change in the intensity of food insecurity, at the aggregate level.

Improve the Nation's nutrition and food safety

Current Activities:
ERS conducts research on the economic forces influencing consumer food choices and the effect of these choices on nutrition and health outcomes. To understand these relationships, ERS

examines the interactions between factors such as food prices, grocery store accessibility, food labeling, household income, and household composition. Market and industry level factors examined include product offerings by firms, changes in store types and store formats, firm and consumer reactions to food safety incidences, and the role of government programs and the food system as a whole in the macro-economy.

ERS analyzes USDA's food and nutrition assistance programs, often coordinating research priorities with USDA's Food and Nutrition Service. These programs receive substantial Federal funding and affect the daily lives of millions of America's children. Long-term research themes include food security outcomes, dietary and nutritional outcomes, food program targeting and delivery, and measurement of program participation.

ERS food safety research focuses on enhancing methodologies for valuing societal benefits associated with reducing food safety risks, understanding consumer and producer responses to food safety incidents, 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.

Recent Progress:

- *An estimated 88.9 percent of American households were food secure throughout the entire year in 2018, meaning that they had access at all times to enough food for an active, healthy life for all household members*. The remaining households (11.1 percent) were food insecure at least some time during the year, including 4.3 percent with very low food security because the household lacked money and other resources for food, resulting in reduced food intake and disruptions in eating patterns for one or more household members. The 2018 prevalence of food insecurity declined, for the first time, to the pre-recession (2007) level of 11.1 percent. The decline in overall food security between 2017 and 2018 was statistically significant. The decline in rate of very low food security from 4.5 percent in 2017 to 4.3 percent in 2018 was not statistically significant. Children and adults were food insecure in 7.1 percent of U.S. households with children in 2018, versus 7.7 percent in 2017. The ERS food security statistics are widely recognized as the benchmark for measuring food security in the U.S., and support decision making on USDA food and nutrition assistance programs. The authors briefed senior USDA officials on the report's findings and presented a webinar to field press inquiries and related interest that the report generated.

- *SNAP benefits spent during an economic downturn provide income to the businesses where those benefits are spent, as well as to their employees and suppliers, whose spending further stimulates the economy.* The Supplemental Nutrition Assistance Program (SNAP) is one of the largest assistance programs in the United States—the U.S. Department of Agriculture spent $65.3 billion on the program in fiscal year 2018 and served an average of 40.3 million people per month. ERS researchers estimated the multiplier effects of SNAP using a newly compiled Social Accounting Matrix multiplier model and the most recent

data available. The study estimated that $1 billion in SNAP benefit outlays generates $1.5 billion in gross domestic product, which supports 13,560 new jobs—including $32 million added income going to agricultural industries that support 480 agricultural jobs.

- *Higher levels of breastfeeding would raise WIC program costs, but reduce current and future health-related costs for mothers and infants participating in WIC.* ERS researchers examined the effects of a hypothetical increase in breastfeeding rates among WIC participants from their 2016 levels to medically recommended levels: 90 percent of infants are exclusively breastfed for their first 6 months, followed by continued breastfeeding with the addition of complementary foods—but not infant formula—for the next 6 months. Results indicate that the number of mothers who participated in WIC that year would have increased by an estimated 646,000 per month (an 8-percent increase). WIC program costs would have risen by an estimated $252.4 million, or 4.2 percent of total costs in 2016. As a result of health benefits associated with breastfeeding, Federal Medicaid costs would have decreased by at least $111.6 million, resulting in an estimated increase of $140.9 million in combined Federal WIC and Medicaid costs. Health-related cost savings that accrue to WIC households or their health insurance providers would have totaled $9.0 billion (excluding the savings that accrue to the Federal portion of Medicaid).

- *Nutrition information on restaurant menus may help some consumers meet their calorie targets.* ERS researchers examined survey data on restaurant menu label use and calorie intakes among U.S. adults age 20 and older who reported seeing nutrition information on a menu the last time they visited a fast-food or sit-down restaurant. Survey respondents who reported seeing and using restaurant menu labels consumed significantly fewer calories per day than did respondents who reported seeing the labels, but not using them. The relationship between menu label use and caloric intake was similar for both fast-food and sit-down restaurants and was statistically significant in both cases.

Program Reviews:

In FY 2019, ERS conducted a program review of its food safety economic research program. This review is part of ERS's comprehensive five-year program review cycle in which ERS's Office of the Administrator engages with an external review panel of academic experts, other Federal researchers and private sector experts to analyze and assess the quality and relevance of ERS's research programs. Each of these panels visits ERS to conduct the program review and after a 1.5 day visit and a comprehensive review, the panel submits a final report to ERS that includes both a quantitative and qualitative assessment of the research program area and a discussion of ERS strengths and areas for improvement. ERS leadership uses each year's review to determine what adjustments or enhancements should be made to a given program area. Summaries of the FY 2017-FY 2019 program reviews are described below.

- The FY 2019 review of the ERS program on food safety economic research was conducted by an external review panel that produced and shared a final report on June 26. The review panel noted "The clear, overall strength of the Food Safety Program is its research and data products are of high quality and address important policy relevant

issues. Policy makers and stakeholders rely on ERS to provide objective and rigorous analysis that is unavailable elsewhere." The panel identified steps that ERS can take to improve the program through staffing, strategic planning, communication and engagement with stakeholders, and tracking performance and use of research and data. ERS has begun to consider the panel's recommendations.

- In FY 2018, ERS conducted a review of its farm and rural economic research program areas. The external review panel noted that "without the work of [these programs], the Federal government would not be able to make sound agricultural policy and rural economic development decisions." The panel identified key strengths of the program, including its unique environment for collaboration both among staff economists and with other government offices and agencies; its expertise in, and access to, multiple sources of data and deep knowledge of policy; and its integral involvement with development and analysis of the farm-level Agricultural Resource Management Survey. Program leadership has responded to the reviewers' recommendations on several fronts, including reassessing the review and clearance system for ERS reports to increase timeliness. Divisions with responsibility for the farm and rural program areas undertook extensive priority setting initiatives in FY 2018 that engaged with key stakeholders and helped agency leadership identify the most critical research projects on which to focus resources over the next 2-3 years.

- In FY 2017, ERS conducted a program review of its markets, trade, and international agriculture research area. The results of this program review demonstrated that ERS "conducts high quality, policy-relevant research on impactful topics …routinely interacts with a wide range of customers and stakeholders, including USDA policy makers, U.S. Congress, other Federal agencies, the NGO community, academic researchers, state agencies and the general public…resulting in significant and on-going policy impacts in both the short and long run…that consistently generate high quality intelligence that informs both public and private decision makers." The review panel made recommendations that ERS provide staff with opportunities learn about frontier techniques and increase partnerships with institutions that have complimentary skills. In response, ERS increased staff training in big data techniques and expanded professional development opportunities through short term assignments to White House policy agencies (USTR, OMB and CEA). ERS instituted a partnership with research units at the United States International Trade Commission (USITC) and identified joint projects between the two agencies focused on ways to better model non-tariff barriers and recent advances in gravity model analysis. In addition, ERS launched new collaborations with three research institutions to strengthen its forecast and projection modeling efforts for livestock and fruits and vegetables.