

2022 USDA EXPLANATORY NOTES ECONOMIC RESEARCH SERVICE

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## *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, 2020, ERS had 229 permanent full-time employees, 204 permanent full-time employees and 25 temporary full-time or part-time employees. 90 employees are in the headquarters office and 139 are in the field office.

ERS participated in an inspection on USDA Research Integrity and Capacity that began November 13, 2019 and was finalized in December 2020. The USDA Office of the Chief Scientist is the lead agency for this audit. The Agency also participated in an audit of REE Agency controls to prevent, detect, mitigate, and recover from a ransomware attack. The USDA Agricultural Research Service is the lead agency for this audit.

**OIG and GAO Reports**

*Table ERS-1. Completed OIG Reports*

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<b>ID</b>	<b>Title</b>
84801-0001-22	USDA Research Integrity and Capacity – Audit started 11/2019; Completed 12/2020

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<b>ID</b>	<b>Title</b>
50501-002-12	USDA’s Security Controls over the Prevention and Mitigation of Ransomware – Audit started December 2019; Completed February 2021

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EXPLANATORY NOTES – ECONOMIC RESEARCH SERVICE

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**AVAILABLE FUNDS AND STAFF YEARS**

Item	2019 Actual	FTE	2020 Actual	FTE	2021 Enacted	FTE	2022 Budget	FTE
Salaries and Expenses:								
Discretionary Appropriations	86757	283	84757	194	85476	329	90594	329
Mandatory Appropriations	500	0	0	0	0	0	0	0
Supplemental Appropriations	0	0	0	0	2,000	0	0	0
Total Appropriation, Other Funding	87,257	283	84,757	194	87,476	329	90,594	329
Total Adjusted Appropriation	87,257	283	84,757	194	87,476	329	90,594	329
Balance Available, SOY	0	0	0	0	0	0	0	0
Recoveries, Other	0	0	0	0	0	0	0	0
Total Available	87,257	283	84,757	194	87,476	329	90,594	329
Lapsing Balances	-1,131	0	-3,039	0	0	0	0	0
Rescinded Balances	0	0	0	0	0	0	0	0
Balance Available, EOY	-500	0	-500	0	0	0	0	0
Total Obligations	85,626	283	81,218	194	87,476	329	90,594	329
Total Available, Other Funding	0	0	0	0	0	0	0	0
Other USDA:								
AMS, pesticide cert. and base month	22	2	24	0	24	0	22	0
ARS, Nutrient Data Laboratory	17	1	20	0	20	0	18	0
Total, Other USDA	39	3	44	0	44	0	40	0
Total, Agriculture Available	87,296	286	84,801	194	87,520	329	90,634	329
Other Federal Funds:								
DOI, BLM grazing fees survey	100	1	64	0	65	0	67	0
NIOSH	22	1	80	0	60	0	70	0
Total, Other Federal	122	2	144	0	125	0	137	0
Non-Federal Funds:								
State Agencies - survey work	51	2	146	0	91	0	85	0
Total, Non-Federal	51	2	146	0	91	0	85	0
Total Available, AES	87,469	290	85,091	194	87,736	329	90,856	329

PERMANENT POSITIONS BY GRADE AND STAFF YEAR

Item	2019 Actual			2020 Actual			2021 Enacted			2022 Budget		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
SES	6	0	6	1	5	6	1	5	6	1	5	6
SL	0	0	0	0	0	0	0	0	0	0	0	0
GS-15	65	0	65	28	48	76	28	48	76	28	48	76
GS-14	65	0	65	20	52	72	20	52	72	20	52	72
GS-13	66	0	66	20	55	75	20	55	75	20	55	75
GS-12	63	0	63	5	47	52	5	47	52	5	47	52
GS-11	34	0	34	4	26	30	4	26	30	4	26	30
GS-10	1	0	1	0	0	0	0	0	0	0	0	0
GS-9	16	0	16	1	12	13	1	12	13	1	12	13
GS-8	1	0	1	0	1	1	0	1	1	0	1	1
GS-7	3	0	3	0	2	2	0	2	2	0	2	2
GS-6	1	0	1	0	0	0	0	0	0	0	0	0
GS-5	0	0	0	0	0	0	0	0	0	0	0	0
GS-4	1	0	1	0	1	1	0	1	1	0	1	1
GS-3	1	0	1	0	1	1	0	1	1	0	1	1
GS-2	1	0	1	0	0	0	0	0	0	0	0	0
GS-1	0	0	0	0	0	0	0	0	0	0	0	0
Other Graded	0	0	0	0	0	0	0	0	0	0	0	0
Ungraded	0	0	0	0	0	0	0	0	0	0	0	0
Total Permanent	324	-	324	79	250	329	79	250	329	79	250	329
Unfilled, EOY	41	0	41		135	135			0			0
Total Perm. FT EOY	283	-	283	79	115	194	79	250	329	79	250	329
FTE	283	0	283	79	115	194	79	250	329	79	250	329

**SHARED FUNDING PROJECTS**

Item	2019 Actual	2020 Actual	2021 Enacted	2022 Budget
<b>Working Capital Fund:</b>				
Administrative Services:				
Material Management Service.....	31	40	43	0
Mail and Reproduction Services.....	76	87	91	46
Integrated Procurement Systems.....	45	46	47	47
Human Resources Enterprise Management Systems.....	5	6	7	7
Subtotal.....	157	179	188	100
Communications:				
Creative Media & Broadcast Center.....	82	85	187	141
Finance and Management:				
National Finance Center.....	93	81	77	77
Financial Management Support Services.....	98	64	74	73
Subtotal.....	191	145	151	150
Information Technology:				
Client Experience Center.....	545	581	1,587	1,540
Department Administration Information Technology Office.....	0	25	286	97
Digital Infrastructure Services Center.....	851	287	29	38
Enterprise Network Services.....	1,171	1,303	1,216	1,392
Subtotal.....	2,567	2,196	3,118	3,067
Office of the Executive Secretariat.....	0	0	1	1
Total, Working Capital Fund.....	2,997	2,605	3,645	3,459
<b>Department-Wide Shared Cost Programs:</b>				
Advisory Committee Liaison Services.....	2	2	2	2
Agency Partnership Outreach.....	24	25	23	0
Honor Awards.....	28	28	29	0
Human Resources Self-Service Dashboard.....	2	2	0	0
Medical Services.....	1	1	0	0
Office of Customer Experience.....	8	19	31	29
Personnel and Document Security.....	10	10	12	0
Physical Security.....	0	19	14	0
Security Detail.....	14	15	15	14
Security Operations.....	33	19	21	0
Target Center.....	4	4	4	0
TARGET Center NCR Interpreting Services.....	0	0	0	0
USDA Enterprise Data Analytics Services.....	0	26	16	0
Total, Department-Wide Reimbursable Programs.....	126	170	167	45
<b>E-Gov:</b>				
Enterprise Human Resources Integration.....	7	0	0	0
Geospatial Line of Business.....	13	13	13	13
Human Resources Line of Business.....	1	1	1	1
Integrated Acquisition Environment.....	1	5	1	1
E-Rulemaking.....	0	0	5	6
Total, E-Gov.....	22	19	20	21
Agency Total.....	3,145	2,794	3,832	3,525

**ACCOUNT 1: SALARIES AND EXPENSES**

2021 Enacted.....	\$85,476,000
Change in Appropriation.....	5,118
Budget Estimate, 2022.....	90,594,000
Budget Estimate, Current Law, 2022.....	90,594,000
Change Due to Proposed Legislation.....	-
<b>Net 2022 Request.....</b>	<b>90,594,000</b>

**APPROPRIATIONS LANGUAGE**

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

For necessary expenses of the Economic Research Service, [\$85,476,000] \$90,594,000.00.

**PROJECT STATEMENT APPROPRIATION**

Item	2019		2020		2021		Inc. or Dec.	Chg Key	FTE	2022		
	Actual	FTE	Actual	FTE	Enacted	FTE				Budget	FTE	
Discretionary Appropriations:												
Economic Analysis and Research.....	86,757	283	84,757	194	85,476	329	5,118	1	-	90,594	329	
Subtotal.....	86,757	283	84,757	194	85,476	329	+5,118	-	-	90,594	329	
Mandatory Appropriations:												
Farm Bill.....	500	-	-	-	-	-	-	-	-	-	-	
Subtotal.....	500	-	-	-	-	-	-	-	-	-	-	
Supplemental Appropriations:												
Consolidated Appropriations Act.....	-	-	-	-	2,000	-	-2,000	-	-	-	-	
American Rescue Plan.....	-	-	-	-	-	-	-	-	-	-	-	
Subtotal.....	-	-	-	-	2,000	-	-2,000	-	-	-	-	
Total Adjusted Approp.....	87,257	283	84,757	194	87,476	329	3,118	-	-	90,594	329	
Add back.....	-	-	-	-	-	-	-	-	-	-	-	
Rescission, Transfers In and Out.....	-	-	-	-	-	-	-	-	-	-	-	
Sequestration.....	-	-	-	-	-	-	-	-	-	-	-	
Total Appropriation.....	87,257	283	84,757	194	87,476	329	3,118	-	-	90,594	329	
Rescission.....	-	-	-	-	-	-	-	-	-	-	-	
Sequestration.....	-	-	-	-	-	-	-	-	-	-	-	
Recoveries, Other .....	-	-	-	-	-	-	-	-	-	-	-	
Bal. Available, SOY.....	-	-	-	-	-	-	-	-	-	-	-	
Total Available.....	87,257	283	84,757	194	87,476	329	3,118	-	-	90,594	329	
Lapsing Balances.....	-1,131	-	-3,039	-	-	-	-	-	-	-	-	
Rescinded Balances.....	-	-	-	-	-	-	-	-	-	-	-	
Bal. Available, EOY.....	-500	-	-500	-	-	-	-	-	-	-	-	
Total Obligations.....	85,626	283	81,218	194	87,476	329	+3,118	-	-	90,594	329	



**PROJECT STATEMENT OBLIGATION**

Item	2019		2020		2021		2022		Budget	FTE
	Actual	FTE	Actual	FTE	Enacted	FTE	Inc. or Dec.	FTE		
Discretionary Obligations:										
Economic Analysis & Research.....	85,626	283	81,218	194	85,476	329	5,118	-	90,594	329
Subtotal Disc oblig.....	85,626	283	81,218	194	85,476	329	+5,118	-	90,594	329
Mandatory Obligations:										
Farm Bill.....	-	-	-	-	-	-	-	-	-	-
Subtotal Mand Oblig.....	-	-	-	-	-	-	-	-	-	-
Supplemental Obligations:										
Consolidated Appropriations Act.....	-	-	-	-	2,000	-	-2,000	-	-	-
American Rescue Plan.....	-	-	-	-	-	-	-	-	-	-
Subtotal Supp Oblig.....	-	-	-	-	2,000	-	-2,000	-	-	-
Total Obligations.....	85,626	283	81,218	194	87,476	329	3,118	-	90,594	329
Add back:.....										
Lapsing Balances.....	1,131	-	3,039	-	-	-	-	-	-	-
Rescinded Balances.....	-	-	-	-	-	-	-	-	-	-
Balances Available, EOY:										
Another Program	-	-	-	-	-	-	-	-	-	-
Total Bal. Available, EOY.....	500	-	500	-	-	-	-	-	-	-
Total Available.....	87,257	283	84,757	194	87,476	329	3,118	-	90,594	329
Less:										
Rescission.....	-	-	-	-	-	-	-	-	-	-
Total Transfers In.....	-	-	-	-	-	-	-	-	-	-
Total Transfers Out.....	-	-	-	-	-	-	-	-	-	-
Sequestration.....	-	-	-	-	-	-	-	-	-	-
Recoveries, Other .....	-	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	-	-	-	-	-	-	-	-	-	-
Total Appropriation.....	87,257	283	84,757	194	87,476	329	3,118	-	90,594	329

**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 2022 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 2022, the following funding changes are requested:

(1) A net increase of \$5,118,000 and no staff years (\$85,476,000 and 329 staff years available in FY 2021).

(a) An increase of \$4,000,000 to support climate science activities.

ERS will use the \$4 million in support of climate science activities to expand the modeling, data, and analysis related to the intersection between climate change and the agriculture sector. A changing climate influences many aspects of the agricultural economy and the agricultural sector has impacts on climate change, providing opportunities for reductions in greenhouse gas emissions through better manure management practices to changes in the use of biofuels. Additional modeling capacity is needed to better understand the ways in which these factors intersect to impact the farm economy and production. ERS will also use the additional support to enhance data collection and analysis. Additional data collection through existing survey instruments or new ones will help better inform the role of conservation practices in soil health and carbon sequestration potential, impacts on farm household income due to changes in commodity rotations, and the costs of production due to different production practices in response to climate change, for example.

(b) \$761,000 to the 2022 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.

(c) An increase of \$357,000 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.

Core data expenditures, including the Agricultural Resource Management Survey (ARMS) and private sector commodity data and intelligence, are foundational 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.

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).

**GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE**

*Table ERS-XX, Geographic Breakdown of Obligations and FTE (thousands of dollars, FTE)*

State/Territory/Country	2019 Actual	FTE	2020 Actual	FTE	2021 Enacted	FTE	2022 Budget	FTE
Alabama	10	0	0	0	0	0	0	0
Arizona	178	0	50	0	0	0	0	0
Arkansas	1	0	0	0	0	0	0	0
California	140	0	893	0	0	0	0	0
Colorado	151	0	513	0	0	0	0	0
Connecticut	0	0	100	0	0	0	0	0
Delaware	7	0	0	0	0	0	0	0
District of Columbia	72892	283	40592	79	59535	79	63408	79
Florida	2	0	30	0	0	0	0	0
Georgia	151	0	189	0	0	0	0	0
Idaho	0	0	20	0	0	0	0	0
Illinois	2356	0	6675	0	0	0	0	0
Indiana	22	0	112	0	0	0	0	0
Iowa	1	0	50	0	0	0	0	0
Kansas	60	0	125	0	0	0	0	0
Kentucky	455	0	10	0	0	0	0	0
Louisiana	2	0	102	0	0	0	0	0
Maine	0	0	850	0	0	0	0	0
Maryland	1708	0	9930	0	0	0	0	0
Massachusetts	4	0	0	0	0	0	0	0
Michigan	112	0	425	0	0	0	0	0
Midway Islands	69	0	0	0	0	0	0	0
Minnesota	0	0	148	0	0	0	0	0
Missouri	3	0	12467	115	27941	250	27186	250
Montana	0	0	50	0	0	0	0	0
Nebraska	29	0	200	0	0	0	0	0
Nevada	1	0	0	0	0	0	0	0
New Jersey	3	0	35	0	0	0	0	0
New Mexico	8	0	30	0	0	0	0	0
New York	1337	0	1823	0	0	0	0	0
North Carolina	116	0	357	0	0	0	0	0
Ohio	82	0	25	0	0	0	0	0
Pennsylvania	108	0	200	0	0	0	0	0
Tennessee	4	0	35	0	0	0	0	0
Texas	55	0	14	0	0	0	0	0
Utah	0	0	50	0	0	0	0	0
Vermont	0	0	28	0	0	0	0	0
Virginia	5430	0	4584	0	0	0	0	0
Washington	15	0	60	0	0	0	0	0
West Virginia	2	0	0	0	0	0	0	0
Wisconsin	59	0	205	0	0	0	0	0
Canada	44	0	144	0	0	0	0	0
France	1	0	0	0	0	0	0	0
United Kingdom	8	0	97	0	0	0	0	0
Obligations	85,626	283	81,218	194	87,476	329	90,594	329
Lapsing Balances	1,131	-	3,039	-	-	-	-	-
Rescinded Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	500	-	500	-	-	-	-	-

EXPLANATORY NOTES – ECONOMIC RESEARCH SERVICE

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Total, Available	87,257	283	84,757	194	87,476	329	90,594	329
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**GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE FARM BILL**

State/Territory/Country	2019 Actual	FTE	2020 Actual	FTE	2021 Enacted	FTE	2022 Budget	FTE
District of Columbia	500	0	0	0	0	0	0	0
Obligations	-	-	-	-	-	-	-	-
Lapsing Balances	-	-	-	-	-	-	-	-
Rescinded Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	500	-	500	-	-	-	-	-
Total, Available	500	-	500	-	-	-	-	-

**GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE SUPPLEMENTAL**

State/Territory/Country	2019 Actual	FTE	2020 Actual	FTE	2021 Enacted	FTE	2022 Budget	FTE
District of Columbia	0	0	0	0	2000	0	0	0
Obligations	-	-	-	-	-	-	-	-
Lapsing Balances	-	-	-	-	-	-	-	-
Rescinded Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	-	-	-	-	-	-	-	-
Total, Available	-	-	-	-	-	-	-	-

EXPLANATORY NOTES – ECONOMIC RESEARCH SERVICE

**CLASSIFICATION BY OBJECTS**

<b>Item No.</b>	<b>Item</b>	<b>2019 Actual</b>	<b>2020 Actual</b>	<b>2021 Enacted</b>	<b>2022 Budget</b>
	Personnel Compensation:				
	Washington D.C.	\$34,864	\$14,197	\$14,339	\$14,811
	Personnel Compensation, Field	0	7,941	19,074	20,054
11	Total personnel compensation	34,864	22,138	33,413	34,865
12	Personal benefits	10,620	8,001	12,029	12,622
13.0	Benefits for former personnel	194	443	400	200
	Total, personnel comp. and benefits	45,678	30,582	45,842	47,687
	Other Objects:				
21.0	Travel and transportation of persons	516	354	350	350
22.0	Transportation of things	296	386	350	350
23.1	Rental payments to GSA	4,922	5,408	10	0
23.2	Rental payments to others	0	0	0	0
23.3	Communications, utilities, and misc. charges	543	1,771	1,000	1,000
24.0	Printing and reproduction	75	84	75	75
25	Other contractual services	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0
25.2	Other services from non-Federal sources	15,593	16,140	22,858	23,259
25.3	Other goods and services from Federal sources	16,114	16,980	15,741	16,623
25.4	Operation and maintenance of facilities	0	0	0	0
25.5	Research and development contracts	0	628	0	0
25.7	Operation and maintenance of equipment	0	0	0	0
26.0	Supplies and materials	234	224	250	250
31.0	Equipment	1,560	8,625	1,000	1,000
33.0	Investments and loans	0	0	0	0
41.0	Grants, subsidies, and contributions	95	36	0	0
42.0	Insurance Claims and Indemnities	0	0	0	0
43.0	Interest and Dividends				
	Total, Other Objects	39,948	50,636	41,634	42,907
99.9	Total, new obligations	85,626	81,218	87,476	90,594
	DHS Building Security Payments (included in 25.3)	790	878	38	720
	Information Technology Investments:				
	Name of Major Investment				
11	Internal Labor	0	0	0	0
	External Labor (Contractors)	0	0	0	0
25.2	Outside Services (Consulting)	0	0	0	0
	Mission Area Non-Major Investment Totals	0	0	0	0
	Mission Area Standard Investment Totals	11,565	11,179	7,989	8,113
25.3	Mission Area WCF Transfers	0	2,196	3,118	3,067
	Position Data:				
	Average Salary (dollars), ES Position	\$186,321	\$191,165	\$193,077	\$195,008
	Average Salary (dollars), GS Position	\$122,170	\$118,201	\$119,383	\$120,577
	Average Grade, GS Position	13.7	12.8	12.8	12.8

## **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 2020 long-term projections were presented at the 2019 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.

*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 than 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 was implemented and data collection began in FY 2021.

*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.

### **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:

*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:

*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 intake 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.