

2023 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, 2021, ERS had 288 permanent full-time employees; 79 employees are in the headquarters office and 209 are in the field office.

AVAILABLE FUNDS AND STAFF YEARS*Table ERS-1. Available Funds and FTEs (thousands of dollars, FTEs)*

Item	2020		2021		2022		2023	
	Actual	FTE	Actual	FTE	Estimated	FTE	Budget	FTE
Salaries and Expenses:								
Discretionary Appropriations	\$84,757	194	\$85,476	288	\$85,476	329	\$99,552	329
Mandatory Appropriations	-	-	2,000	-	-	-	-	-
Total Discretionary Appropriations	84,757	194	85,476	288	85,476	329	99,552	329
Total Supplemental Appropriations	-	-	2,000	-	-	-	-	-
Total Adjusted Appropriation	84,757	194	87,476	288	85,476	329	99,552	329
Total Available	84,757	194	87,476	288	85,476	329	99,552	329
Lapsing Balances	-3,039	-	-	-	-	-	-	-
Balance Available, EOY	500	-	-	-	-	-	-	-
Total Obligations	82,218	194	87,476	288	85,476	329	99,552	329
Total Obligations, ERS	82,218	194	87,476	288	85,476	329	99,552	329
Total, Agriculture Available	84,757	194	87,476	288	85,476	329	99,552	329
Total Available, ERS	84,757	194	87,476	288	85,476	329	99,552	329

PERMANENT POSITIONS BY GRADE AND STAFF YEAR*Table ERS-2. Permanent Positions by Grade and FTEs*

Item	D.C.	Field	2020 Actual Total	D.C.	Field	2021 Actual Total	D.C.	Field	2022 Estimated Total	D.C.	Field	2023 Estimated Total
SES	1	5	6	1	5	6	1	5	1	1	5	6
GS-15	28	48	76	28	48	76	28	48	28	28	48	76
GS-14	20	52	72	20	52	72	20	52	20	20	52	72
GS-13	20	55	75	20	55	75	20	55	20	20	55	75
GS-12	5	47	52	5	47	52	5	47	5	5	47	52
GS-11	4	26	30	4	26	30	4	26	4	4	26	30
GS-9	1	12	13	1	12	13	1	12	1	1	12	13
GS-8	-	1	1	-	1	1	-	1	-	-	1	1
GS-7	-	2	2	-	2	2	-	2	-	-	2	2
GS-4	-	1	1	-	1	1	-	1	-	-	1	1
GS-3	-	1	1	-	1	1	-	1	-	-	1	1
Total Permanent	79	250	329	79	250	329	79	250	79	79	250	329
Unfilled, EOY	-	-135	-135		-41	-41			-			-
Total Perm. FT EOY	79	115	194	79	209	288	79	250	79	79	250	329
FTE	79	115	194	79	209	288	79	250	329	79	250	329

SHARED FUNDING PROJECTS**Table ERS-3. Shared Funding Projects (dollars in thousands)**

Item	2020 Actual	2021 Enacted	2022 Estimated	2023 Budget
Working Capital Fund:				
Administrative Services:				
Material Management Service.....	\$40	\$43	\$14	\$13
Mail and Reproduction Services.....	87	55	71	71
Integrated Procurement Systems.....	46	46	44	44
Human Resources Enterprise Management Systems.....	6	8	10	10
Subtotal.....	179	152	139	138
Communications:				
Creative Media & Broadcast Center.....	85	123	119	105
Finance and Management:				
National Finance Center.....	81	75	64	65
Financial Management Support Services.....	64	87	82	85
Subtotal.....	145	162	146	150
Information Technology:				
Client Experience Center.....	581	2,085	2,047	2,116
Department Administration Information Technology Office.....	25	473	97	97
Digital Infrastructure Services Center.....	287	768	438	491
Enterprise Network Services.....	1,303	1,220	1,153	844
Subtotal.....	2,196	4,546	3,735	3,548
Office of the Executive Secretariat.....	-	2	2	2
Total, Working Capital Fund.....	2,605	4,985	4,141	3,943
Department-Wide Shared Cost Programs:				
Advisory Committee Liaison Services.....	2	2	2	2
Agency Partnership Outreach.....	26	22	24	24
Human Resources Self-Service Dashboard.....	2	-	-	-
Medical Services.....	1	-	18	18
Office of Customer Experience.....	10	31	29	29
Personnel and Document Security Program.....	11	11	12	12
Physical Security.....	18	14	14	14
Security Detail.....	15	15	15	15
Security Operations Program.....	19	21	20	20
TARGET Center.....	4	4	4	4
TARGET Center NCR Interpreting Services.....	18	-	8	10
USDA Enterprise Data Analytics Services.....	-	17	15	15
Total, Department-Wide Reimbursable Programs.....	126	137	161	163
E-Gov:				
E-Rulemaking.....	-	\$5	\$7	\$7
Geospatial Line of Business.....	\$13	13	13	13
Human Resources Line of Business.....	1	1	1	1
Integrated Acquisition Environment.....	1	1	-	-
Total, E-Gov.....	15	20	21	21
Agency Total.....	2,746	5,142	4,323	4,127

ACCOUNT 1: SALARIES AND EXPENSES

APPROPRIATIONS LANGUAGE

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

For necessary expenses of the Economic Research Service [~~\$85,476,000~~] \$99,552,000.

Lead-Off Tabular Statement

Table ERS-4. Lead-Off Tabular Statement (in dollars)

Item	Amount
Estimate, 2022	\$85,476,000
Change in Appropriation	<u>+14,076,000</u>
Budget Estimate, 2023	<u><u>99,552,000</u></u>

PROJECT STATEMENT

Table ERS-5. Project Statement Appropriations (thousands of dollars, FTE)

Item	2020 Actual	FTE	2021 Enacted	FTE	2022 Estimated	FTE	2023 Estimated	FTE	Inc. or Dec.	FTE Inc. or Dec.	Chg Key
Discretionary Appropriations:											
Economic Analysis and Research	\$84,757	194	\$85,476	288	\$85,476	329	\$99,552	329	\$14,076	-	(1)
Subtotal	84,757	194	85,476	288	85,476	329	99,552	329	14,076	-	
Supplemental Appropriations:											
Consolidated Appropriations Act	-	-	2,000	-	-	-	-	-	-	-	
Subtotal	-	-	2,000	-	-	-	-	-	-	-	
Offsetting Collections:											
Subtotal.....	-	-	-	-	-	-	-	-	-	-	
Total Adjusted Approp.....	84,757	194	87,476	288	85,476	329	99,552	329	14,076	-	
Add back.....											
Total Appropriation.....	84,757	194	87,476	288	85,476	329	99,552	329	14,076	-	
Total Available	84,757	194	87,476	288	85,476	329	99,552	329	14,076	-	
Lapsing Balances	-3,039	-	-	-	-	-	-	-	-	-	
Bal. Available, EOY	500	-	-	-	-	-	-	-	-	-	
Total Obligations	82,218	194	87,476	288	85,476	329	99,552	329	14,076	-	

PROJECT STATEMENT

Table ERS 6. Project Statement Obligations (thousands of dollars, FTE)

Item	2020		2021		2022		2023		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Enacted	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Economic Analysis and Research	\$82,218	194	\$85,476	288	\$85,476	329	\$99,552	329	+\$14,076	-
Subtotal Disc oblig.....	82,218	194	85,476	288	85,476	329	99,552	329	+14,076	-
Mandatory Obligations:										
Subtotal Mand Oblig.....	-	-	-	-	-	-	-	-	-	-
Supplemental Obligations:										
Consolidate Appropriations Act	-	-	2,000	-	-	-	-	-	-	-
Subtotal Supp Oblig.....	-	-	2,000	-	-	-	-	-	-	-
Total Obligations	82,218	194	87,476	288	85,476	329	99,552	329	+14,076	-
Add back:										
Lapsing Balances	3,039	-	-	-	-	-	-	-	-	-
Rescinded Balances	-	-	-	-	-	-	-	-	-	-
Balances Available, EOY:										
Farm Bill	500	-	-	-	-	-	-	-	-	-
Total Bal. Available, EOY	-	-	-	-	-	-	-	-	-	-
Total Available	85,757	194	87,476	288	85,476	329	99,552	329	+14,076	-
Less:										
Rescission.....	0	-	-	-	-	-	-	-	-	-
Total Transfers In.....	0	-	-	-	-	-	-	-	-	-
Total Transfers Out.....	0	-	-	-	-	-	-	-	-	-
Sequestration.....	0	-	-	-	-	-	-	-	-	-
Recoveries, Other	0	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	0	-	-	-	-	-	-	-	-	-
Total Appropriation.....	85,757	194	87,476	288	85,476	329	99,552	329	+14,076	-

JUSTIFICATIONS OF INCREASES AND 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.

Activities in FY 2023 to ensure mission continuity 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 2023, the following funding changes are requested:

- 1) An increase of \$14,076,000 and no staff years (\$85,476,000 and 329 staff years available in FY 2022 annualized CR).

- (A) An increase of \$321,000, which includes \$166,000 for pay inflation and \$155,000 for FERS for 2022 Pay and FERS:

This increase supports the pay increase which went into effect January 1, 2022, of a 2.7 percent Cost of Living pay increase for civilian employees, and a 1.1 percent increase to cover the expenses for the mandated increase of USDA's contribution to FERS.

- (B) An increase of \$1,686,000 for 2023 Pay:

This increase will support the annualization of the 2022 2.7 percent Cost of Living pay increase and the 2023 4.6 percent Cost of Living pay increase. Without this increase, ERS will have to fund the increase from our research agreements, reducing the output of economic research we are able to conduct and, potentially impacting initiatives that support the Agency's and USDA's Strategic Plans.

- (C) An increase of \$3,734,000 for Other Changes and Inflationary Costs:

This increase supports the increased charges for USDA-assessed support services. Without this increase, ERS will have to fund the increase from our research programs, which will significantly reduce the research we are able to conduct and, potentially impacting initiatives that support the Agency's and USDA's Strategic Plans.

- (D) An increase of \$2,083,000 for Climate Science Research:

This increase supports climate science research for the U.S. Global Change Research Program (USGCRP) which coordinates federal research and investments in understanding the forces shaping the global environment. ERS will use this funding to expand the modeling, data, and analysis related to the intersection between climate change and the agricultural 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. ERS will use the funding to support additional Survey of Irrigation Organization years (the survey was implemented as a one-time survey for 2019; additional years of data collection will allow for expanded analysis and an examination of trends in managing drought resiliency) and/or expanded sampling or survey questions through the Agricultural Resource Management Survey (ARMS) to 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. In addition, ERS will use the funding to support additional modeling capacity, including the use of the Regional Environmental and Agricultural Programming (REAP) model to support an understanding of the ways in which U.S. agricultural production is changing as a result of climate change. 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.

(E) An increase of \$6,500,000 for conducting a second round of the USDA’s National Household Food Purchase and Acquisition Survey (FoodAPS-2):

Primary data on the food choices of American consumers, including participants in the USDA food assistance programs and other vulnerable populations are critical for understanding the evolving dietary patterns and effectiveness and efficiency of Federal programs that address food and nutritional security and public health issues such as obesity, diabetes, and the metabolic syndrome. Yet, for over 30 years, the United States remained among a handful of developed countries that did not systematically and continually gather data on expenditures, prices, and quantities of food bought by the Nation’s households. A 2020 National Research Council of the National Academies of Science committee on “*A Consumer Food Data System for 2030 and Beyond*” noted the gap and recommended several measures to strengthen the consumer data system.

The USDA’s Economic Research Service (ERS) and Food Nutrition Service (FNS) took a major step to fill the gap in 2009 by initiating the *National Household Food Acquisition and Purchase Survey* (FoodAPS-1). The survey fielded in 2012 introduced many innovations and data linkages. The effort successfully produced never-before-available data on food purchase patterns of Americans, of households participating in the Supplemental Nutrition Assistance Program (SNAP), other poor and low-income households, and the factors that influence their choices.

The research from FoodAPS-1 has produced the much-needed evidence for policy and program officials on several critical areas of concern: 1) food choices and shopping behaviors of SNAP and low-income households, 2) impact of SNAP benefits on diet quality and food security of low-income households, 3) affordability of healthy diets, and 4) the role of the local food environment and other geographic factors driving food purchase and acquisition decisions of SNAP and non-SNAP households. The 2020 Committee on National Statistics report *A Consumer Food Data System for 2030 and Beyond* reviewed ERS’s portfolio of consumer and food market data and recommended that FoodAPS should be conducted on a regular schedule, such as once every five years.

With this FY 2023 initiative, ERS and FNS jointly propose to field a second round of FoodAPS called FoodAPS-2. Several projects have assessed lessons learned from FoodAPS-1 to develop new data collection methodologies and contents that minimize respondent burden and improve data quality for a FoodAPS-2. Examples include 12-month data collection to reduce seasonality, expanded target population to cover Alaska and Hawaii, WIC as a sampling domain leading to larger WIC sample, better identification of SNAP, WIC, and school meal program participants, and addition of new survey concepts – food pantry usage, veterans’ status, online ordering. ERS in collaboration with FNS, NASS, and Census is creating a native mobile app to collect the data. The app will be field tested in FY22. With the rich data collected and linked with other data, FoodAPS-2 is uniquely positioned to provide new actionable information to policy and program officials on food and nutrition security and the drivers of the leading health problem in America today--poor diets and obesity.

ERS and FNS jointly propose to leverage the results of the Field Test (scheduled for early FY22) for a full FoodAPS-2 collection in FY23. The anticipated cost of collection for 5000 household in FY23 is \$13 million, which is split equally between ERS and FNS.

(F) A decrease of \$248,000 for funding to support the USDA Office of Chief Scientist (OCS):

ERS along with the other REE agencies have historically provided direct funding to the Office of the Chief Scientist. In FY 2023, OCS is proposing to receive a direct appropriation which would no longer require annual agency transfers to support OCS. ARS, ERS, NASS, and NIFA are all proposing offsets to support the direct appropriation to OCS totaling \$4.95 million.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE*Table ERS-7, Geographic Breakdown of Obligations and FTE (thousands of dollars, FTE)*

State/Territory/Country	2020		2021		2022		2023	
	Actual	FTE	Enacted	FTE	Estimated	FTE	Budget	FTE
Arizona	\$50	-	-	-	-	-	-	-
California	893	-	-	-	-	-	-	-
Colorado	513	-	-	-	-	-	-	-
Connecticut	100	-	-	-	-	-	-	-
District of Columbia	42,092	79	\$55,080	79	\$50,470	79	\$33,184	79
Florida	30	-	-	-	-	-	-	-
Georgia	189	-	-	-	-	-	-	-
Idaho	20	-	-	-	-	-	-	-
Illinois	6,675	-	-	-	-	-	-	-
Indiana	112	-	-	-	-	-	-	-
Iowa	50	-	-	-	-	-	-	-
Kansas	125	-	2,814	-	1,319	-	-	-
Kentucky	10	-	-	-	-	-	-	-
Louisiana	102	-	-	-	-	-	-	-
Maine	850	-	-	-	-	-	-	-
Maryland	9,430	-	1,386	-	2,212	-	-	-
Michigan	425	-	-	-	-	-	-	-
Minnesota	148	-	-	-	-	-	-	-
Missouri	12,467	115	25,941	209	27,905	250	66,368	250
Montana	50	-	-	-	-	-	-	-
Nebraska	200	-	-	-	-	-	-	-
New Jersey	35	-	-	-	-	-	-	-
New Mexico	30	-	-	-	-	-	-	-
New York	1,823	-	-	-	-	-	-	-
North Carolina	357	-	2,255	-	3,570	-	-	-
Ohio	25	-	-	-	-	-	-	-
Pennsylvania	200	-	-	-	-	-	-	-
Tennessee	35	-	-	-	-	-	-	-
Texas	14	-	-	-	-	-	-	-
Utah	50	-	-	-	-	-	-	-
Vermont	28	-	-	-	-	-	-	-
Virginia	4,584	-	-	-	-	-	-	-
Washington	60	-	-	-	-	-	-	-
Wisconsin	205	-	-	-	-	-	-	-
Canada	144	-	-	-	-	-	-	-
United Kingdom	97	-	-	-	-	-	-	-
Obligations	82,218	194	87,476	288	85,476	329	99,552	329
Lapsing Balances	3,039	-	-	-	-	-	-	-
Rescinded Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	500	-	-	-	-	-	-	-
Total, Available	84,757	194	87,476	288	85,476	329	99,552	329

ADVERTISING EXPENDITURES

There are no contracts for advertising expenses to report.

CLASSIFICATION BY OBJECTS*Table ERS-9. Classification of Objects (thousands of dollars)*

Item No.	Item	2020 Actual	2021 Enacted	2022 Estimated	2023 Budget
	Personnel Compensation:				
	Washington D.C.	\$14,197	\$14,339	\$14,811	\$11,152
	Personnel Compensation, Field	7,941	19,074	20,054	25,140
11	Total personnel compensation	22,138	33,413	34,865	36,292
12	Personal benefits	8,001	12,029	12,622	13,202
13.0	Benefits for former personnel	443	400	200	200
	Total, personnel comp. and benefits	30,582	45,842	47,687	49,694
	Other Objects:				
21.0	Travel and transportation of persons	354	350	350	350
22.0	Transportation of things	386	350	350	350
23.1	Rental payments to GSA	5,408	5,609	10	1,000
23.2	Rental payments to others	-	-	-	-
23.3	Communications, utilities, and misc. charges	1,771	1,000	1,000	2,000
24.0	Printing and reproduction	84	75	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	16,640	17,259	15,511	24,265
25.3	Other goods and services from Federal sources	16,980	15,741	17,243	20,568
25.4	Operation and maintenance of facilities	0	0	0	0
25.5	Research and development contracts	1,128	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0
26.0	Supplies and materials	224	250	250	250
31.0	Equipment	8,625	1,000	1,000	1,000
33.0	Investments and loans	-	-	-	-
41.0	Grants, subsidies, and contributions	36	-	-	-
42.0	Insurance Claims and Indemnities	-	-	-	-
	Total, Other Objects	51,636	41,634	37,789	49,858
99.9	Total, new obligations	82,218	87,476	85,476	99,552
	Position Data:				
	Average Salary (dollars), ES Position	104,000	108,000	110,700	114,021
	Average Salary (dollars), GS Position	27,900	33,187	34,017	35,037
	Average Grade, GS Position	9.8	9.9	10.2	10

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.