

2020 USDA EXPLANATORY NOTES – OFFICE OF THE CHIEF ECONOMIST

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AGENCY-WIDE

PURPOSE STATEMENT

The Office of the Chief Economist (OCE) was created by the Secretary of Agriculture on October 20, 1994, under the authority of the Department of Agriculture Reorganization Act of 1994, Public Law 103-354.

OCE advises the Secretary of Agriculture on the economic implications of Department policies, programs and proposed legislation. OCE serves as a focal point for the Nation's agricultural economic intelligence and projections; risk analysis; climate change issues; and cost-benefit analysis related to domestic and international food and agriculture. OCE also supports the development of technical guidelines that outline science-based methods to measure the environmental services benefits from conservation and land management activities; provides analysis for the Department's renewable energy, bioenergy, and biobased product programs; is responsible for coordination, review and clearance of all commodity and aggregate agricultural and food-related data used to develop outlook and situation material within the Department. OCE also serves as the Department's lead on pesticides, pest management, and agricultural biotechnology.

Activities include: policy and program analysis; regulatory reviews; information dissemination; market surveillance; coordination of assessments of international and domestic agricultural developments; improvement of forecasting techniques; coordination of weather, climate and remote sensing activities; coordination of sustainable development activities; coordination of global climate research and issues; support for the development of environmental services markets; energy policy analysis and coordination of energy research and issues; and analysis of issues and developments affecting agricultural labor.

OCE produces, on a daily, weekly, and monthly basis, regularly scheduled information releases to advise the Secretary and the public on developments affecting agricultural markets and the rural economy. The office coordinates interagency development of forecasts and projections by drawing together a variety of experts to assure objective and sound analysis. The office uses memos and briefings to advise the Secretary of the consequences of market developments, program changes, and legislative proposals. The office provides economic analysis of Department policy positions to the public and Congress.

The office participates in the development of reviews, clears all regulatory impact and risk analyses of Departmental significant, economically significant, and major rules to ensure they are based on objective, appropriate, and sound economic and risk analyses.

The office provides economic and policy analysis and helps to coordinate Departmental research in the areas of renewable energy, bioenergy, and biobased products and markets.

The office coordinates USDA's global change research program; conducts policy analysis on climate and environmental conditions; supports the development of technical guidelines that outline science-based methods to measure the environmental services benefits from conservation and land management activities in order to facilitate the participation of farmers, ranchers, and forest landowners in emerging environmental services markets; coordinates activities with other Federal agencies; represents USDA domestically and internationally in discussions of climate risks and vulnerabilities; oversees Department-wide efforts to address risks and build resilience to climate variability and change; and facilitates communication and outreach to producers and agricultural interest groups.

The office is responsible for the development and coordination of Department policy on pest management and pesticides. It coordinates the activities and services of the Department, including research, extension, and education activities, regarding the development, availability, and use of economically and environmentally sound pest management tools and practices. The office assists other agencies of the Department in fulfilling their responsibilities related to pest management or pesticides, as well as ensuring coordination of interagency activities with EPA and FDA and other Federal and state agencies. The office also consults with agricultural producers that may be affected by pest management or pesticide-related activities or actions of the Department or other agencies.

OCE Headquarters is located in Washington, D.C. As of September 30, 2018, there were 61 full-time permanent employees, all stationed in Washington, DC.

OCE did not have any Office of Inspector General or Government Accountability Office evaluation reports during the past year.

AVAILABLE FUNDS AND STAFF YEARS*Table OCE-1. Available Funds and Staff Years (thousands of dollars, staff years (SY))*

Item	2017		2018		2019		2020	
	Actual	SY	Actual	SY	Estimate	SY	Budget	SY
Salaries and Expenses:								
Discretionary Appropriations.....	\$18,917	53	\$19,786	54	\$19,786	64	\$18,513	64
Mandatory Appropriations:								
Multiple Crop and Pesticide Use Survey ...	-	-	-	-	500	-	-	-
Biodiesel Fuel Education Program.....	1,000	-	1,000	-	-	-	-	-
Sequestration.....	-69	-	-66	-	-	-	-	-
Adjusted Appropriation.....	19,848	53	20,720	54	20,286	64	18,513	64
Balance Available, SOY.....	-	-	1,950	-	-	-	-	-
Total Available.....	19,848	53	22,670	54	20,286	64	18,513	64
Lapsing Balances.....	-106	-	-183	-	-	-	-	-
Balance Available, EOY.....	-1,950	-	-	-	-	-	-	-
Obligations.....	17,792	53	22,487	54	20,286	64	18,513	64
Obligations, OCE.....	17,792	53	22,487	54	20,286	64	18,513	64
Ob. Under Other USDA Appr.:								
Annual Outlook Forum.....	104	-	122	-	124	-	127	-
Joint Data Procurement.....	20	-	24	-	24	-	25	-
National Science Foundation.....	427	-	363	-	370	-	378	-
Environmental Markets.....	600	-	600	-	600	-	600	-
International Travel Support.....	6	-	-	-	-	-	-	-
Climate Hubs Coordinator.....	117	-	125	-	128	-	130	-
Payment for Staff Details.....	59	-	-	-	72	-	-	-
Total, Other USDA.....	1,333	-	1,234	-	1,319	-	1,260	-
Total, OCE.....	19,125	53	23,721	54	21,605	64	19,773	64

PERMANENT POSITIONS BY GRADE AND STAFF YEARS*Table OCE-2. Permanent Positions by Grade and Staff Years*

Item	2017 Actual	2018 Actual	2019 Estimate	2020 Budget
	Wash. DC	Wash. DC	Wash. DC	Wash. DC
SES.....	6	6	6	6
SL.....	2	1	2	2
GS-15.....	20	28	30	30
GS-14.....	11	12	10	10
GS-13.....	3	5	6	6
GS-12.....	1	1	1	1
GS-11.....	2	2	2	2
GS-10.....	3	3	3	3
GS-9.....	4	2	2	2
GS-8.....	1	-	-	-
GS-7.....	-	1	1	1
GS-6.....	-	-	1	1
Total Permanent.....	53	61	64	64
Unfilled, EOY.....	3	-	-	-
Total Perm. FT EOY.....	50	61	64	64
Staff Year Est.....	53	54	64	64

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

Item	2017 Actual	2018 Actual	2019 Estimate	2020 Budget
Working Capital Fund:				
Administration:				
Material Management Service Center	\$14	\$16	\$10	\$12
Mail and Reproduction Services	106	155	155	146
Integrated Procurement Systems	11	13	12	13
Procurement Operations Services	27	25	25	19
Human Resources Enterprise Management Systems	-	-	1	1
Subtotal	158	209	203	191
Communications:				
Creative Media & Broadcast Center	41	45	122	165
Finance and Management:				
National Finance Center.....	13	15	16	17
Financial Management Systems.....	30	33	33	33
Subtotal	43	48	49	50
Information Technology:				
Client Experience Center	112	91	96	96
Digital Infrastructure Services Center.....	10	33	50	50
Enterprise Network Services.....	13	17	46	49
Subtotal	135	141	192	195
Correspondence Management	18	16	3	3
Total, Working Capital Fund	395	459	569	604
Department-Wide Shared Cost Programs:				
1890's USDA Initiatives	2	-	-	-
Agency Partnership Outreach	-	4	5	5
Classified National Security Information.....	1	-	-	-
Continuity of Operations Planning.....	1	-	-	-
Emergency Operations Center	1	-	-	-
Hispanic-Serving Institutions National Program.....	1	-	-	-
Human Resources Transformation.....	1	-	-	-
Identity Access Management	4	-	-	-
Medical Services.....	4	3	5	5
Office of Customer Experience.....	-	1	2	2
Personnel and Document Security	-	1	1	1
Personnel Security Branch	1	-	-	-
Security Detail	2	3	3	3
Security Operations.....	-	6	7	7
TARGET Center	1	1	1	1
USDA Enterprise Data Analytics Services	-	-	-	3
Virtual University	1	1	-	-
Total, Department-Wide Reimbursable Programs	20	20	24	27
E-Gov:				
Enterprise Human Resources Integration.....	1	1	1	1
Geospatial Line of Business.....	13	13	13	13
Total, E-Gov	14	14	14	14
Agency Total.....	429	493	607	645

ACCOUNT 1: SALARIES AND EXPENSES**LEAD-OFF TABULAR STATEMENT****Table OCE-4. Lead-Off Tabular Statement**

Item	Amount
2019 Annualized Continuing Resolution.....	\$19,786,000
Change in Appropriation.....	-1,273,000
Budget Estimate, 2020.....	<u>18,513,000</u>

APPROPRIATIONS LANGUAGE

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

Office of the Chief Economist

For necessary expenses of the Office of the Chief Economist, \$18,513,000, of which \$4,000,000 shall be for grants or cooperative agreements for policy research under 7 U.S.C. 3155.

PROJECT STATEMENT**Table OCE-5. Project Statement (thousands of dollars, staff years (SY))**

Item	2017		2018		2019		Inc. or Dec.	Chg Key	2020		
	Actual	SY	Actual	SY	Estimate	SY			Budget	SY	
Discretionary Appropriations:											
Office of the Chief Economist	\$18,917	53	\$19,786	54	\$19,786	64	-\$1,273	(1)	-	\$18,513	64
Mandatory Appropriations:											
Multiple Crop and Pesticide Use											
Survey	-	-	--	-	500	-	-500	-	-	-	-
Biodiesel Fuel Education.....	1,000	-	1,000	-	-	-	-	-	-	-	-
Total Appropriation	19,917	53	20,786	54	20,286	64	-1,773	-	18,513	64	
Sequestration.....	-69	-	-66	-	-	-	-	-	-	-	
Bal. Available, SOY	-	-	1,950	-	-	-	-	-	-	-	
Total Available	19,848	53	22,670	54	20,286	64	-1,773	-	18,513	64	
Lapsing Balances	-106	-	-183	-	-	-	-	-	-	-	
Bal. Available, EOY	-1,950	-	-	-	-	-	-	-	-	-	
Total Obligations	17,792	53	22,487	54	20,286	64	-1773	-	18,513	64	

The numbered justifications items are keyed to the Change Key (Chg Key) column on the Project Statement.

Office of the Chief Economist

Base funds will allow the Office of the Chief Economist (OCE) to continue to advise the Secretary and Departmental officials on the economic implications of the Department policies, programs, and proposed legislation; and serve as the focal point for the Department's economic intelligence, analysis and review related to domestic and international food and agriculture markets. The base funding also allows OCE to provide advice and analysis on bioenergy, sustainable development, agricultural labor, climate variability and change, and environmental markets.

(1) A decrease of \$1,273,000 and no staff years (\$19,786,000 and 64 staff years available in 2019).

The funding change is requested for the following items:

- A) A decrease in funding of \$1,273,000 for cooperative research projects, external contracts, and interagency agreements across all programs conducted by the Office of the Chief Economist. The decrease in cooperative research funding would reduce the policy research in the areas of farm programs, trade, energy, conservation, climate, and environmental markets that support policy formulation activities by the Office of the Secretary. OCE will reduce the funds dedicated to the Policy Research Centers commensurate with the percentage reduction in the overall OCE budget. In addition, the reduction in external contract funding and interagency agreements would significantly reduce OCE's activities supporting the development of environmental markets, the development of

metrics and indicators for conservation and environmental performance, and the purchase or acquisition of pesticide use data.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table OCE-6. Geographic Breakdown of Obligations and Staff Years (thousands of dollars, staff years (SY))

State/Territory/Country	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	2020 Budget	SY
District of Columbia.....	\$17,792	53	\$22,487	54	\$20,286	64	\$18,513	64
Lapsing Balances	106	-	183	-	-	-	-	-
Bal. Available, EOY	1,950	-	-	-	-	-	-	-
Total, Available	19,848	53	22,670	54	20,286	64	18,513	64

CLASSIFICATION BY OBJECTS

Table OCE-7. Classification by Objects (thousands of dollars)

Item No.	Item	2017 Actual	2018 Actual	2019 Estimate	2020 Budget
	Personnel Compensation:				
	Washington D.C.....	\$7,156	\$8,471	\$9,193	\$9,448
11	Total personnel compensation	7,156	8,471	9,193	9,448
12	Personal benefits	2,236	2,674	2,855	2,926
	Total, personnel comp. and benefits	9,392	11,145	12,048	12,374
	Other Objects:				
21.0	Travel and transportation of persons.....	253	244	244	230
22.0	Transportation of things.....				
23.1	Rental payments to GSA.....	2	2	3	3
23.2	Rental payments to others.....				
23.3	Communications, utilities, and misc. charges	241	248	250	250
24.0	Printing and reproduction.....	86	77	77	75
25.0	Other contractual services.....	77	339	339	337
25.1	Advisory and assistance services	996	2,988	2,034	874
25.2	Other services from non-Federal sources.....	9	9	9	9
25.3	Other goods and services from Federal sources	24	25	26	26
25.4	Operation and maintenance of facilities.....	-	742	621	300
25.5	Research and development contracts	6,516	6,432	4,400	3,800
26.0	Supplies and materials	179	177	176	176
31.0	Equipment.....	17	59	59	59
	Total, Other Objects.....	8,400	11,342	8,238	6,139
99.9	Total, new obligations.....	17,792	22,487	20,286	18,513
	DHS Building Security Payments (included in 25.3).....	\$24	\$25	\$26	\$26
	Position Data:				
	Average Salary (dollars), ES Position.....	\$177,500	\$188,800	\$189,600	\$189,600
	Average Salary (dollars), GS Position	\$124,000	\$133,000	\$134,995	\$137,020
	Average Grade, GS Position	14.5	15.1	15.1	15.1

STATUS OF PROGRAMS

The Office of the Chief Economist (OCE) advises the Secretary of Agriculture on the economic implications of Department policies, programs, and proposed legislation. OCE serves as the focal point for: the Nation's agricultural economic intelligence and projections related to agricultural commodity markets; risk analysis and cost-benefit analysis related to international food and agriculture; energy issues related to the agricultural economy; sustainable development; agricultural labor; global climate adaptation; environmental markets; and pesticide and pest management issues. OCE is responsible for the coordination, review and clearance of all commodity and aggregate agricultural and food-related data used to develop Departmental outlook and situation material.

Current Activities

OCE provides policy and program analyses and advice for the Secretary on major issues affecting agriculture and rural America. The Immediate Office (IO) addresses issues on: trade agreements and disputes; developments in agricultural commodity markets, such as effects of global weather developments and changes in production and trade patterns; economic issues related to plant and animal diseases; farm programs; crop insurance improvements; sustainable development in agriculture and rural communities; climate adaptation and agriculture; conservation programs; ecosystem services markets; and agricultural labor.

The World Agricultural Outlook Board's (WAOB) primary mission is to provide reliable and objective economic forecasts for farmers and other participants in the food and fiber system. Key WAOB activities are coordinating USDA forecasts of domestic and international agriculture; providing economic analysis related to global commodity markets; monitoring markets and agricultural weather; and disseminating relevant information.

OCE clears all USDA significant, economically significant and major regulations for their regulatory impact analyses and risk analyses. OCE's Office of Risk Assessment and Cost-Benefit Analysis (ORACBA) reviews and approves statutorily required risk assessments for all major USDA regulations. ORACBA is a focal point for Departmental activities related to risk analysis, including inter-Departmental activities; regulatory reviews to ensure cost-effective, less burdensome regulations; and the integration of economic analysis and risk assessment.

The Office of Energy and Environmental Policy (OEEP) serves as a focal point for the Department's energy, environmental markets, and climate change activities, positioning USDA and the people we serve to meet future challenges and opportunities. OEEP aims to improve understanding of the complex interactions between agriculture systems and the environment, and to transfer the resulting knowledge to producers and land managers through information, tools, and decision support. In the energy area, OEEP analyzes and evaluates existing and proposed policies and strategies. In the climate variability and change area, OEEP coordinates analysis, long range planning, research, and response strategies. OEEP informs the Department of scientific developments and policy issues relating to the effects of climate change on agriculture and forestry. In the environmental markets program area, OEEP establishes uniform guidelines for the development of science-based methods to measure the ecosystem services benefits from conservation and land management activities. OEEP supports and facilitates participation of farmers, ranchers, and forest landowners in emerging ecosystem services markets.

OEEP coordinates the Department's climate adaptation activities, represents the Department with other Federal agencies on issues related to climate adaptation, ensuring that the views of Department and the agriculture and forest sectors are represented. OEEP carries out USDA responsibilities under the Global Climate Change Prevention Act of 1990, and coordinates USDA's contributions to the quadrennial U.S. National Climate Assessments, as required under the 1990 Global Change Research Act. OEEP works with agencies to identify options to support climate-informed decision-making in light of the increased risks and vulnerabilities associated with extreme events, drought, climate variability and changing climate conditions.

The Office of Pest Management Policy (OPMP) was created in 1997 in response to growing concerns over the implementation of the Food Quality Protection Act of 1996 (FQPA). OPMP leads the development and coordination of Departmental policy on pest management and pesticides, provides Departmental coordination on agricultural biotechnology, and ensures coordination of interagency activities with the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), and other Federal and State agencies. OPMP consults with agricultural producers impacted by changes in policy. OPMP also collects data to improve federal knowledge of individual growers' pest management practices, which will improve the information available to EPA on the potential benefits of specific pesticides.

Selected Examples of Recent Progress

Agricultural Policy

IO staff provided assistance and analysis to Departmental agencies implementing commodity, conservation, renewable energy and other programs by reviewing and providing analysis of proposed program regulations, participating in inter-agency working groups, and helping to ensure effective and efficient program development. For example, the IO participated in the development and analysis of Departmental budget proposals; options to assist cotton and dairy producers; sugar, peanut and other farm program issues; proposals for the 2018 Farm Bill; and farm financial stress resulting from sustained low commodity prices. IO staff made significant contributions to development of the Cotton Ginning Cost Share program, the Wildfire and Hurricane Indemnity Program, and USDA's trade mitigation programs, including the Market Facilitation Program and the Food Purchase and Distribution Program. The IO provided economic information and analysis regarding potential infrastructure initiatives, with emphasis on economic impacts of waterway transportation on the U.S. grain and oilseed sectors. The IO coordinated OCE contributions to the analysis of impacts on agriculture from Hurricanes Harvey, Irma, and Maria and represented OCE on the Multi-Agency Coordination group, ensuring USDA decision-makers had timely, accurate information for decision making.

IO staff assisted with the review and development of cost benefit analyses for significant USDA regulations. In addition, OCE assisted the Department by reviewing and negotiating language for important rulemakings and actions by other agencies that affect agricultural and food production in the U.S. For example, the Chief Economist and other IO staff coordinated research and policy analysis with EPA on the renewable fuel standards.

The Chief Economist and the WAOB Chair represent the United States at the G20's Agricultural Market Information System (AMIS) initiative, a forum to discuss global supply and demand factors affecting commodity markets. The Chief Economist and staff presented the latest ongoing research on the impact of the *World Agricultural Supply and Demand Estimates* (WASDE) report to AMIS country members at the summer meeting.

Agricultural Labor Activities

IO staff provided analyses and information focused on the unique characteristics of agricultural production, including the diversity in the demand for labor across agriculture, the seasonal demand for labor, the labor shortages faced by agricultural producers, and the role of temporary guest workers in the agricultural sector. IO staff monitored proposed regulations for possible impacts on the agricultural labor force. IO staff evaluated several House Resolutions on immigration that would have impacted the existing agricultural labor force in the U.S. and would have reformed the guest worker (H-2A) program. IO staff monitored wages paid to guest workers and worked with the National Agricultural Statistics Service (NASS) and Office of the Secretary to explore alternative approaches to estimating the wage rates used in the guest worker (H-2A) program.

World Trade Organization (WTO) and Trade Policy Support

During 2018, IO staff provided economic and policy analysis in support of key U.S. trade initiatives, including the development of trade damage estimates for USDA trade mitigation programs, support for negotiations on the United States-Mexico-Canada Agreement, WTO enforcement actions regarding China's domestic support programs and tariff-rate quotas for grains, USDA's responses to China's anti-dumping (AD) and countervailing duties (CVD) investigation of U.S. sorghum exports and to Peru's AD/CVD investigation of U.S. exports of ethanol and corn. IO staff also prepared U.S. domestic support notifications to the WTO and briefed Congress on the notifications, prepared updates on domestic agricultural programs for the U.S. WTO Subsidies and Countervailing Measures (SCM) notification, reviewed and provided input on agricultural support sections of WTO's U.S. Trade Policy Review, responded to member questions on U.S. domestic support measures in the WTO Committee on Agriculture and the WTO SCM Committee, and drafted questions on other WTO Members' domestic support programs. IO staff contributed to U.S. reviews of reports produced by the Organization for Economic Cooperation and Development (OECD) on agricultural policies and markets, agricultural trade, and agri-environmental policy.

Analytical Assistance to Congress and Other Federal Agencies

The Chief Economist testified before the House Appropriations Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies on the 2017 hurricane and fire disasters; the Senate Committee on Agriculture, Nutrition, and Forestry on trade mitigation programs; and the House Agriculture Committee on the rural economic outlook. The Chief Economist conducted a number of Congressional briefings and meetings on the WTO, Agricultural Disaster, and Economic Outlook. IO staff conducted many additional briefings

and analyses for Congress on issues such as climate adaptation, WTO disputes, WTO domestic support notifications, weather and market situation and outlook, the outlook for farm income, biofuels, and biobased products. The Chief Economist assisted the Department and Congressional staff on Farm Bill implementation on a number of topics, including dairy policy, cotton policy, Agriculture Risk Coverage /Price Loss Coverage yield data, crop insurance, and international trade issues. OCE provided input on a number of rulemakings from EPA (such as the Renewable Fuels Standards and Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) actions) and other federal agencies through the EO 12866 interagency process. The IO provided economic information and analysis of potential consequences of major mergers and acquisitions to inform decisions by USDA and other Federal Agencies, including a \$63 billion deal in the crop protection and seed sector and proposed merger in the meat packing industry.

Crop Insurance

The Chief Economist, as Chairman of the Board of Directors of the Federal Crop Insurance Corporation (FCIC), presided over five public board meetings during 2018. The FCIC Board of Directors approved several products to improve the risk management safety net on a wide variety of farms in 2018, including: a Final Rule action converting the Cultivated Clam Pilot Crop Insurance Program to a regulatory insurance program for 2019 and succeeding crop years; revisions to the cotton quality adjustment provisions to increase the trigger to 90 percent (making more cotton producers eligible for quality adjustment); modifications to sugarbeet replant payments to reflect current replanting costs; modifications to sugarbeet coverage levels—80 and 85 percent coverage levels were added in 16 Michigan counties; expansion of the Acreage and Crop Reporting Streamlining Initiative; revisions to the Whole-Farm Revenue Protection plan of insurance for 2019 and subsequent policy years based on stakeholder feedback; and extension of the cotton production reporting date (up to 60 days) due to 2017 crop year cotton ginning delays in Texas, Oklahoma, and Kansas.

Sustainable Development Activities

During 2018, OCE coordinated the Department's contributions to the interagency process on the United Nation's post-2015 Development Agenda and the Sustainable Development Goals, including analysis of impacts on U.S. agricultural and food sectors. An OCE staff member represented the U.S. at high-level discussions and coordinated USG comments on the appropriate set of indicators for sustainable agriculture, ensuring that "sustainability" includes a focus on productivity, efficient use of resources and profitability – and that biotech seeds and crops as well as conventional fertilizers and other inputs were not excluded from the applied definition of sustainable agriculture. In 2018, an OCE staff member served as the U.S. representative on the Sustainable Food Systems Program of the U.N. 10-Year Framework of Programs, playing an instrumental role in developing a glossary of terms for the program and developing its core initiatives.

During 2018, OCE staff led and coordinated USDA initiatives to reduce food loss and waste and improve global food security. Notably, OCE staff convened a USDA FLW working group to identify possible new Department-led initiatives to reduce FLW. This working group, which includes members from across the Department, provided the Secretary with a set of proposals that prioritize the FLW initiative. OCE staff led the implementation of the set of deliverables chosen by the Secretary, including a roundtable hosted by the Secretary with members of Congress and industry leaders. In 2018, OCE staff continued to lead the *Further with Food* public-private partnership composed of 13 businesses and non-profit organizations. The objective of this website is to serve as the central repository for information about food loss and waste reduction efforts in the United States. OCE staff also represented the U.S. at the Asia-Pacific Economic Cooperation (APEC) High Level Policy Dialogue on "Enhancing Public and Private Partnership to Reduce Food Losses and Waste for a Sustainable APEC Food System" in Taipei, Taiwan. OCE staff helped to frame and write the outcome document for this conference, which then served as the APEC food loss and waste guidance document.

In 2018, OCE staff identified the blockchain technology (BCT) as an emerging issue for USDA with respect to food safety, procurement and product authentication, including authentication of sustainability characteristics. OCE staff briefed the Deputy Secretary and the Secretary on the technology and its potential relevance to USDA and then led a team, under the auspices of the Deputy Secretary, to organize an invitation-only workshop to gather information about the use of the technology in agricultural markets. OCE staff wrote a findings paper after the workshop that provided the groundwork for on-going USDA interaction with BCTs.

Supply and Demand Monitoring and Reporting

WAOB continued publishing the monthly *WASDE* report, a Principal Federal Economic Indicator report, providing USDA's official world and U.S. supply and utilization estimates and forecasts for grains, oilseeds, and cotton; and official estimates and forecasts for U.S. sugar, red meat, poultry, eggs, and milk. All *WASDE* reports were released as scheduled in 2018. WAOB staff cleared all USDA economic outlook reports released in 2018 for agencies across USDA. WAOB issued 12 monthly *WASDE* reports, 52 weekly *White House Briefings* on the current situation in U.S. agricultural markets, and a daily email market summary to top staff including the Secretary and Deputy Secretary. Post-lockup briefings were presented monthly to the Secretary and made available to the public on-line. Monthly downloads of this package exceeded 200,000 during FY 2018. The *Weekly Economics and Weather Briefings* and the weekly Dashboard summary were delivered as scheduled to the Office of the Secretary and other senior USDA staff. Each week, the *Dashboard* was presented in front of senior staff, including the Deputy Secretary and Undersecretaries at the Subcabinet meeting. Multiple radio interviews were recorded each month by WAOB staff. During 2018, the *WASDE* report was downloaded an average of 130,000 times per month from the OCE website, with a larger number served by our distributed file system to ensure fair and equitable access to all WAOB releases.

Baseline Projections

WAOB oversaw the construction, publication, and release of the inter-agency 10-year baseline economic projections, which provided timely insight and strategic planning information for the President's Budget, agricultural producers, other agribusinesses, and policy officials.

Briefings and Media Events

The WAOB Chairman and other Interagency Commodity Estimate Committee Chairs recorded approximately 30 interviews for USDA radio, and along with other WAOB staff, delivered numerous speeches and briefings explaining USDA's commodity situation and outlook projections to industry groups and international organizations. WAOB staff also provided briefings on USDA's commodity analysis program to visiting foreign delegations from Argentina, China, and Mexico, among others. The WAOB Chairperson represented the United States at two meetings of the Agricultural Market Information Systems meeting, met with the US Ambassador's to Uruguay and Argentina and was an invited speaker to important agriculture market events around the world including the UK's Agriculture and Horticulture Development Board's annual meeting and the annual market outlook held by Bolsa de Cereales in Argentina. WAOB meteorological staff also regularly made contributions to television, radio, and print media interviews on a variety of topics, including the numerous hurricanes which impacted agriculture.

Weather Analysis

WAOB and the National Weather Service jointly prepared and published 52 *Weekly Weather and Crop Bulletins (WWCB)*, while WAOB meteorologists issued 250 *Daily U.S. Agricultural Weather Highlights*, prepared national agricultural weather summaries, and contributed to 52 weekly *U.S. Drought Monitors (USDM)*, produced jointly by WAOB, the National Oceanic and Atmospheric Administration, and the National Drought Mitigation Center in Lincoln, Nebraska. During 2018, the *WWCB* was downloaded an average of 31,846 times per week from OCE's website, while *Daily Agricultural Highlights* was downloaded an average of 153 times per day.

In support of the *WASDE* report, WAOB meteorologists prepared early warnings and assessments of significant weather events that affected agriculture, including: drought stretching from the southern Plains into the southwestern Corn Belt; wildfires across the Great Plains and the West; pockets of flooding in the East and Midwest; and an accelerated U.S. growing season due to unusual late-spring and early-summer warmth. International impacts included: historic drought in corn and soybean Argentina and other weather impacts resulting from La Niña; significant dryness in agricultural areas of eastern Australia; drought in northern Europe; and record heat in cotton areas of central Asia. WAOB meteorologists continued to expand their capacity to model yields statistically using weather and satellite-derived vegetation indicators.

Monitoring Drought

The *USDM* continued to garner visibility for drought disaster relief in 2018, following the passage of Farm Bills in 2008 and 2014, and the enactment and subsequent reauthorization of the Livestock Forage Disaster Program (LFP). Through January 31, 2018, USDM-triggered LFP payouts by USDA totaled \$7.1 billion. In addition, as of August 1, 2018, a total of 533 U.S. counties—along with 268 contiguous counties and parishes—qualified for a Secretarial

Disaster Designation based on the *USDM* depiction. Two WAOB meteorologists were recognized for their work as *USDM* authors by the Secretary of Agriculture as recipients of the 2018 Unsung Heroes Award.

OCE has partnered with the National Drought Mitigation Center designed to improve drought services to the American public. Deliverables in 2018 included efforts to expand coverage of the U.S. Drought Monitor to the U.S. Virgin Islands and Affiliated Pacific Islands in the wake of the devastating 2017 hurricane season; further improvements to the Drought Impact Reporter; and activities conducted through the Climate Hubs, including regional drought webinars in support of local USDA staff. The partnership is also involved in an ongoing effort to expand the Community Collaborative Rain, Hail, and Snow network of volunteer weather observers, which has focused outreach efforts on underserved tribal lands. In addition, significant progress was made toward the development of a coordinated National Soil Moisture Network, with contributions from OCE meteorologists.

World Meteorological Organization Support

WAOB continued to actively support the World Meteorological Organization (WMO) Commission for Agricultural Meteorology (CAgM), which promotes the use of weather and climate information to improve sustainable food production worldwide. The international cooperation promoted by WMO CAgM helped WAOB monitor potential impacts of global agricultural weather initiatives on mission-related activities. A WAOB meteorologist served on the ten-member WMO CAgM Management Group, which formulates commission policy, develops strategic plans, and evaluates program area progress, while others served on various committees based on their respective expertise.

USDA Agricultural Outlook Forum

WAOB planned, coordinated, and chaired the program committee for USDA's 2018 Agricultural Outlook Forum: *The Roots of Prosperity*. Forum attendees reached 1,395. The Chief Economist provided a keynote speech on the state of the U.S. agricultural economy. The two-day program included 30 sessions on major issues affecting rural America and agriculture, including the food price and farm income outlook, international markets and trade, innovation in agriculture, rural prosperity, food safety, and commodity outlooks.

Analyses Reviewed

In 2018, ORACBA provided substantive reviews of economic analyses and regulations on USDA food assistance and school feeding programs, agricultural labeling and disclosure standards, poultry and meat inspection and labeling and animal and plant health as well as reviews of risk assessments. ORACBA also provided guidance and analytical assistance on several rules under development prior to clearance. ORACBA regulatory reviews supported implementation of new programs and delivery of existing programs across all USDA mission areas. In 2018, ORACBA reviewed analyses for 15 USDA proposed and final rules, 13 EPA proposed and final rules, seven FDA proposed rules, and supporting risk assessments, economic documents, environmental impact statements, or assessments. ORACBA provided analysis of the impact on USDA growers of FDA proposed rules on tobacco standards. ORACBA has also undertaken cooperative research with George Washington University's Center for Regulatory Studies to examine the impact of regulation on agriculture. ORACBA participates in the Regulatory Reform Task Force.

Risk Analysis Leadership and Consultation

ORACBA provided guidance to USDA agencies developing risk assessments and economic analyses related to nutrition assistance programs, biotechnology regulation, foodborne pathogens, and plant and animal diseases. ORACBA provided extensive assistance to the Office of Pest Management Policy in review of several pesticide risk assessments. ORACBA is a member of the FDA & USDA Produce Safety Workgroup. ORACBA also actively participates in the 18-agency Interagency Risk Assessment Consortium to enhance communication and coordination among agencies with food safety responsibilities. ORACBA staff served on several expert panels: 1) Codex Committee on Food Hygiene expert panels on microbial risk assessments; 2) the National Advisory Committee on Microbiological Criteria for Foods expert panel; 3) Structured Expert Judgment Study Panel on Attribution of Food and Waterborne Diseases in the United States; and 4) Research Triangle Institute risk assessment implementing quantitative microbiological criteria in ground turkey and chicken parts. In 2018, ORACBA provided guidance and consultation to USDA and other Federal agencies on risk assessments for noxious weeds, dietary contaminants, pesticides, foodborne pathogens, endangered species, plant and animal pests, and environmental contaminants.

Risk Communication and Outreach

ORACBA continued to improve communication among USDA, Federal and private sector analysts concerning developments in risk assessment and economic analysis through dissemination of the ORACBA Risk Calendar to over 500 subscribers. ORACBA staff gave presentations at professional meetings and published peer review journal articles on risk assessment and analysis.

Risk Assessment Education and Training

ORACBA continues to work closely with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), the University of Maryland and the Food and Drug Administration to promote basic and advanced courses in risk assessment methods and build capacity to conduct risk analysis. ORACBA staff delivered lectures on microbial risk assessment and presented risk assessment results at ORACBA, and held two Science, Policy and Risk Forum seminars on emerging topics in risk assessment by internationally prominent speakers on the changing regulatory environment in Europe and new methods for evaluating the threshold of toxicological concern. ORACBA staff gave presentations at the annual meetings of the Applied and Agricultural Economics Association and chaired a session at the annual meeting of the Society for Benefit-Cost Analysis.

Conservation Trends

In 2018, OEEP identified performance metrics and indicators and worked with agencies across the Department to improve tracking and data collection on conservation and environmental performance. OEEP prepared a report that details adoption trends of key conservation practices and technologies on agricultural working lands in the United States, such as nitrogen use efficiency, cover crops, reduced tillage, and anaerobic digesters. This report fills an important gap in USDA publications in that it presents national- and regional-scale data on conservation practice and technology trends over the past decade.

USDA Regional Climate Hubs

OEEP provided technical support and guidance to the network of ten Regional Climate Hubs. These hubs have emerged as the source of climate and weather variability information at regional and local scales. With the support of OEEP, USDA's ten regional Climate Hubs deliver science-based knowledge, tools, and technical support to farmers, ranchers, forest landowners, and resource managers to inform decision-making related to changing climate conditions and risks. Key partners in this effort include the National Oceanic and Atmospheric Administration (NOAA), the Department of Interior (DOI), public and land grant universities, cooperative extension services, and non-profits providing assistance to landowners.

Global Change Task Force

OEEP chairs the USDA Global Change Task Force, utilizing the task force to ensure that all USDA agencies with a responsibility for climate adaptation are kept informed of Departmental and Administration priorities and are included in reviews, assessments, analyses, and communication efforts. Task force participants include the Agricultural Research Service, Economic Research Service (ERS), NASS, National Institute of Food and Agriculture (NIFA), Forest Service, Natural Resources Conservation Service, Farm Service Agency, Foreign Agricultural Service, Risk Management Agency, Animal and Plant Health Inspection Service (APHIS), and Agricultural Marketing Service, among others.

International Climate Negotiations

In 2018, OEEP continued to represent the Department in international climate negotiations ensuring that the views and interests of U.S. agriculture and natural resource management are reflected in the discussions.

Environmental Markets Tools

In 2018, OEEP released a national version of the Nutrient Tracking Tool (NTT), a field-specific tool to help assess the water quality improvements of conservation practices on farms. NTT allows producers to evaluate how different conservation practices, like cover crops and reduced tillage, can improve water quality on their fields and farms. The tool's estimates are based on site-specific conditions (such as soils, slope, and weather) and on-farm management practices. Users will be able to compare environmental impacts (e.g. nitrogen, phosphorus and sediment losses) as well as estimated yields of various management scenarios in both tabular and graphical formats. This data allows producers to make informed decisions on the types of conservation practices that can most benefit their operations.

Guidelines for Quantifying Environmental Performance

In 2018, OEEP continued efforts under existing agreements with several government agencies, universities and non-governmental organizations to develop economic, policy and scientific analyses to support emerging environmental markets. OEEP and USGS released a database of available tools for habitat and species credit quantification. A technical guide and other resources on tool development will be released in spring 2019. OEEP and Army Corps of Engineers continued work on a national registry for water quality markets within the Regulatory In-Lieu Fee and Bank Information Tracking System. Virginia and Iowa will pilot the tool in 2019. OEEP continued work with the University of Nebraska and Mississippi State University to evaluate U.S. county-level farmland returns to investment in irrigation under different pricing, yield and revenue scenarios. OEEP and the University of Nebraska continued to work on a water market feasibility-evaluation toolkit with market frameworks and templates to facilitate transactions, tracking mechanisms, and outreach materials for stakeholders. OEEP has partnered with ERS and NASS to initiate the development and implementation of a survey of irrigation districts and other entities that supply water (primarily surface water) directly to agricultural users, as well as groundwater management districts that may influence the supply of groundwater for irrigation over time. OEEP initiated a collaboration with the Georgia Water Planning & Policy Center to complete an assessment of current agricultural water use, forecast trends, emerging issues and water policy in the southeast, complementing existing water markets and drought resilience efforts in the Southeast.

Chesapeake Bay Executive Order

OEEP continued to lead environmental market development efforts under the Chesapeake Bay Executive Order Strategy. OEEP convened monthly meetings of the Interagency Environmental Markets Team to facilitate collaboration among Federal agencies. In 2018, OEEP led efforts to identify opportunities for private investment on public lands in the Chesapeake Bay Region and assisted the states and EPA Region 3 to establish a crediting protocol for manure treatment technologies.

Biobased Products

OEEP continued to be involved in biobased product research. Through its membership in the Biomass Research and Development (BR&D) Board–Operations Committee and as co-chair of the Analysis Working Group, OEEP provided leadership to the assessment of the bioeconomy, including biofuels, heat and power, and renewable chemicals and biobased products. OEEP represented USDA in the development of a bio-economy action framework. The framework is a guiding document for BR&D Board member agencies to increase government accountability and efficiency, maximize interagency coordination on bio-economy research and other activities, and accelerate innovative and sustainable technologies that harness America’s biomass resources. OEEP provided U.S. support to the OECD’s Working Party (WP) on Biotechnology, Nanotechnology, and Convergent Technology. OEEP also continued to provide feedback to USDA’s Departmental Administration in the development of its labeling program for biobased products and biobased product designation for federal procurement.

Biodiesel Fuel Education Program

During FY 2018, OEEP, in cooperation with NIFA and the Biodiesel Education Oversight Committee, continued to manage two biodiesel education grants reauthorized by the 2014 Farm Bill—the grantees are the National Biodiesel Board and the University of Idaho. Total funding for the grants was \$960,000 per year through 2018. The program’s achievements include increasing biodiesel awareness among high school and college students and developing training programs for auto dealers, vehicle manufactures, and fuel retailers.

Energy and Bioenergy Analysis

In 2018, OEEP staff provided strategic analysis in support of the Chief Economist and the Office of the Secretary. OEEP tracked regulatory decisions and market changes that pertain to renewable fuels and assessed the implications for commodity markets. OEEP continued to assess the environmental performance of biofuels and made numerous presentations of recent findings on the greenhouse gas benefits of corn-based ethanol. OEEP supported the compilation of a set of efforts to analyze key trends in the bio-economy. OEEP tracks and reports on indicators of the bio-economy, including economic activity, agricultural trends, bioenergy generation, renewable chemical and bio-based products, regulatory and policy changes at the federal and state levels. OEEP provided technical information to support EPA assessment of biofuels pathways, including the evaluation of the sorghum oil pathway.

Improving Federal Pesticide Registration Decisions

In 2018, OPMP provided analyses on over 120 actions put forth by the Environmental Protection Agency’s Office of Pesticide Program (EPA OPP). These analyses assist EPA in properly accounting for agricultural considerations that are critical to their ability to make informed decisions that support both ongoing and new registrations of pesticides while still ensuring that they are safe for human health and the environment. Information needs supplied by OPMP analyses include superior information on pesticide usage, technical clarifications that demand agricultural expertise, and assessments of the economic impacts from proposed EPA mitigations on growers and the larger agricultural marketplace.

Pest Management Litigation Support and Consultation

OPMP provided to the Department of Justice (DOJ) a Declaration in STEVE ELLIS, et al., v. JACK HOUSENGER (EPA), et al., and BAYER CROPS SCIENCE, LP, et al. in which OPMP conducted an analysis of the potential impacts of the remedy proposed by Plaintiff. OPMP determined that the plaintiffs’ request that the Court vacate the registration of 59 pesticide products is functionally identical to, and would have the same effects as, cancellation of the product registrations in their entirety. OPMP provided an analysis for the Court’s consideration of the impacts of vacatur on production and prices of agricultural commodities, retail food prices, and otherwise on the agricultural economy, consistent with the Department’s statutorily prescribed role under 7 U.S.C. 136d(b) in commenting on any proceeding to cancel a pesticide registration. The remedy requested by the Plaintiffs, the vacatur and remand of 59 product registrations, will create disruptions to agricultural production by compelling the use of different products and possibly different types and amounts of pesticides to replace the 59 products at issue, even though some of these 59 products were products EPA registered as “me-too” products, i.e., products that are identical or substantially similar to active ingredients and uses EPA has already approved. This may affect production decisions made by growers and could result in a decline in food production and/or an increase in the price of food. In addition, OPMP provided additional analysis of the Declarations submitted by the Plaintiff’s experts for use by DOJ. So far, there has been no decision in this case.

Biotechnology

OPMP continues to provide technical and policy coordination and guidance to the Office of the Secretary, other USDA mission areas, and other Federal agencies. OPMP represents USDA on the White House Biotechnology Policy Coordinating Committee, and the Office of Science and Technology Policy Biotechnology Working Group. OPMP provided and continues to provide technical support in the Department’s development of the National Bioengineered Food Disclosure Standard and revision to the APHIS biotechnology regulation (CFR340). In support of the Department’s biotechnology trade objectives, OPMP led the US delegation to the Asia-Pacific Economic Cooperation High Level Policy Dialogue on Agricultural Biotechnology and will lead the US delegation at the annual US-China biotechnology Bilateral Working Group meeting (August 2018), at the Like-Minded Group meeting (September 2018), and the Global Low Level Presence Initiative meeting (September 2018).

Endangered Species Act (ESA) and Pesticide Consultations

OPMP represented USDA’s interests in ESA and pesticide consultations being conducted by the EPA, Fish and Wildlife Service, and the National Marine Fisheries Service. OPMP weighed in strongly on the Biological Opinion released in December 2017 in defense of American agriculture and public health as this document was founded on faulty assumptions, unrealistic scenarios, and impossible mitigation measures based on European cropping systems.

International Ozone Treaty Negotiations

OPMP, working with APHIS Plant Protection & Quarantine, represented the Department in meetings of the Montreal Protocol on Substances that Deplete the Ozone Layer. Federal, state and local quarantine use of methyl bromide are exempt under the Montreal Protocol and per U.S. regulations under the Clean Air Act. The quarantine use of alternatives to methyl bromide are also being defended against policy inroads by other Parties. OPMP monitors the research advances presented at the yearly Methyl Bromide Alternatives Outreach Conference.