

2018 President's Budget  
Office of the Chief Economist

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## OFFICE OF THE CHIEF ECONOMIST

### 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; and 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.

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 Congress and the public.

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.

OCE Headquarters is located in Washington, D.C. As of September 30, 2016, there were 49 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.

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Available Funds and Staff Years (SYs)  
(Dollars in thousands)

Item	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
	<b>Salaries and Expenses:</b>							
Discretionary Appropriations.....	\$17,377	48	\$17,777	51	\$17,743	53	\$17,211	53
Mandatory Appropriations.....	1,000	-	1,000	-	1,000	-	1,000	-
Sequestration.....	-73	-	-68	-	-69	-	-	-
Total Available.....	18,304	48	18,709	51	18,674	53	18,211	53
Lapsing Balances.....	-212	-	-121	-	-	-	-	-
Obligations.....	18,092	48	18,588	51	18,674	53	18,211	53
<b>Obligations under other USDA appropriations:</b>								
Annual Outlook Forum.....	74	-	66	-	120	-	95	-
Joint Data Procurement .....	19	-	20	-	20	-	20	-
National Science Foundation .....	427	-	422	-	427	-	427	-
National Climate Assessment .....	150	-	150	-	150	-	150	-
Environmental Markets .....	700	-	700	-	700	-	700	-
International Travel Support.....	-	-	3	-	6	-	-	-
Climate Hubs Coordinator.....	120	-	101	-	125	-	125	-
Coordinating Program Analysis.....	-	-	30	-	-	-	-	-
Payment for Staff Details.....	108	-	98	-	60	-	-	-
Total, Other USDA.....	1,598	-	1,590	-	1,608	-	1,517	-
Total, OCE.....	19,690	48	20,178	51	20,282	53	19,728	53

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Permanent Positions by Grade and Staff Year Summary

Item	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
	Wash. D.C.	Wash. D.C.	Wash. D.C.	Wash. D.C.
SES.....	6	6	6	6
SL.....	2	2	2	2
GS-15.....	20	20	20	20
GS-14.....	10	10	11	11
GS-13.....	4	4	3	3
GS-12.....	1	1	1	1
GS-11.....	3	3	2	2
GS-10.....	3	3	3	3
GS-9.....	3	3	4	4
GS-8.....	1	1	1	1
GS-7.....	1	1	0	0
Total Perm. Positions.....	54	54	53	53
Unfilled, EOY.....	6	5	0	0
Total, Perm. Full-Time Employment, EOY.....	48	49	53	53
Staff Year Est.....	48	51	53	53

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

Salaries and Expenses:

For necessary expenses of the Office of the Chief Economist, [~~\$17,777,000~~] \$17,211,000, of which \$4,000,000 shall be for grants or cooperative agreements for policy research under 7 U.S.C. 3155[, and of which \$1,000,000, to remain available until September 30, 2017, shall be for the purpose set forth under this heading in the explanatory statement described in section 4 (in the matter preceding division A of the consolidated Act)].

Lead-Off Tabular Statement

Budget Estimate, 2018.....	\$17,211,000
2017 Annualized Continuing Resolution.....	<u>17,743,000</u>
Change in Appropriation.....	<u><u>-532,000</u></u>

Summary of Increases and Decreases  
(Dollars in thousands)

	<u>2015</u> Actual	<u>2016</u> Change	<u>2017</u> Change	<u>2018</u> Change	<u>2018</u> Estimate
Discretionary Appropriations:					
Office of the Chief Economist.....	\$17,377	+\$400	-\$34	-\$532	\$17,211

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Project Statement  
Adjusted Appropriations Detail and Staff Years (SYs)  
(Dollars in thousands)

Program	2018										
	President's										
	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>Inc. or Dec.</u>		<u>Budget</u>		
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	
Discretionary Appropriations:											
Office of the Chief Economist.....	\$17,377	48	\$17,777	51	\$17,743	53	-\$532	(1)	-	\$17,211	53
Mandatory Appropriations:											
Biodiesel Fuel Education Program	1,000	-	1,000	-	1,000	-	-	-	-	1,000	-
Total Adjusted Approp.....	18,377	48	18,777	51	18,743	53	-532	-	-	18,211	53
Rescission and Transfers (Net).....	-73	-	-68	-	-69	-	+69	-	-	-	-
Total Appropriation.....	18,304	48	18,709	51	18,674	53	-463	-	-	18,211	53
Total Available.....	18,304	48	18,709	51	18,674	53	-463	-	-	18,211	53
Lapsing Balances.....	-212	-	-121	-	-	-	-	-	-	-	-
Total Obligations.....	18,092	48	18,588	51	18,674	53	-463	-	-	18,211	53

Project Statement  
Obligations Detail and Staff Years (SYs)  
(Dollars in thousands)

Program	2018										
	President's										
	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>Inc. or Dec.</u>		<u>Budget</u>		
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	
Discretionary Obligations:											
Office of the Chief Economist.....	\$17,165	48	\$17,656	51	\$17,743	53	-\$532	(1)	-	\$17,211	53
Mandatory Obligations:											
Biodiesel Fuel Education Program	927	-	932	-	931	-	+\$69	-	-	1,000	-
Total Obligations.....	18,092	48	18,588	51	18,674	53	-463	-	-	18,211	53
Lapsing Balances.....	212	-	121	-	-	-	-	-	-	-	-
Total Available.....	18,304	48	18,709	51	18,674	53	-463	-	-	18,211	53
Sequestration.....	73	-	68	-	69	-	-69	-	-	-	-
Total Appropriation.....	18,377	48	18,777	51	18,743	53	-532	-	-	18,211	53

Justification of Increases and Decreases

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.

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- (1) A net decrease of \$532,000 (\$17,743,000 and 53 staff years available in 2017).

Funding changes are requested for the following items:

- (a) An increase of \$214,000 for pay costs which includes \$53,500 for annualization of the fiscal year 2017 pay increase and \$160,500 for the anticipated fiscal year 2018 pay increase.  
 The proposed funding level is needed to cover pay and benefit cost increases for existing staff. This will ensure adequate resources are available to continue to provide a full range of advice to the Secretary and Department officials on the economic implications of Department policies, programs, and proposed legislation.
- (b) An increase of \$252,000 to support the Cooperative Research Agreements (no funding and staff available in 2017).  
 OCE has two grant (cooperative agreement) programs conducting research on agricultural policy and markets: the Agricultural and Food Policy Research Centers Program and the General Economic and Agricultural Policy Research Program. This funding will allow additional research to be performed by these two programs to support the development of the 2018 Farm Bill.
- (c) A decrease of \$998,000 for Under Secretary of Agriculture for Trade and Foreign Agricultural Affairs implementation.  
 OCE will reduce base operating spending in the amount of \$998,000. The Consolidated Appropriations Act, 2016 (P.L. 113-114) directed OCE, within 60 days of completion of the report required in 7 U.S.C. 6935(b) (3) by the Secretary, to enter into a one-time contract with an independent organization to provide assistance with implementation and establishment of an Undersecretary for Trade and Foreign Agricultural Affairs as required by the Agricultural Act of 2014. This one-time expense is not needed in 2018.

Geographic Breakdown of Obligations and Staff Years (SYs)  
 (Dollars in thousands)

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
District of Columbia.....	\$18,092	48	\$18,588	51	\$18,674	53	\$18,211	53
Lapsing Balances.....	212	-	121	-	-	-	-	-
Total, Available.....	18,304	48	18,709	51	18,674	53	18,211	53

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Classification by Objects  
(Dollars in thousands)

	2015	2016	2017	2018
	<u>Actual</u>	<u>Actual</u>	<u>Estimate</u>	<u>President's Budget</u>
<b>Personnel Compensation:</b>				
Washington D.C.....	\$6,236	\$6,693	\$7,018	\$7,116
11 Total personnel compensation.....	6,236	6,693	7,018	7,116
12 Personal benefits.....	1,778	2,015	2,125	2,167
13.0 Benefits for former personnel.....	-	-	-	-
Total, personnel comp. and benefits.....	8,014	8,708	9,143	9,283
<b>Other Objects:</b>				
21.0 Travel and transportation of persons.....	228	294	210	210
22.0 Transportation of things.....	1	-	2	2
23.1 Rental payments to GSA.....	2	2	2	2
23.3 Communications, utilities, and misc. charges..	262	231	235	235
24.0 Printing and reproduction.....	42	49	55	55
25 Other contractual services.....	88	169	524	524
25.1 Advisory and assistance services.....	1,571	1,018	529	599
25.2 Other services from non-Federal sources.....	7,623	7,874	7,654	6,981
26.0 Supplies and materials.....	235	186	285	285
31.0 Equipment.....	26	57	35	35
Total, Other Objects.....	10,078	9,880	9,531	8,928
99.9 Total, new obligations .....	18,092	18,588	18,674	18,211
DHS Building Security Payments (included in 25.3)....	-	\$23	\$23	\$23
<b>Position Data:</b>				
Average Salary (dollars), ES Position.....	\$174,495	\$176,000	\$177,500	\$177,500
Average Salary (dollars), GS Position.....	\$119,906	\$123,000	\$124,000	\$126,500
Average Grade, GS Position.....	14.3	14.4	14.5	14.5

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Shared Funding Projects  
(Dollars in thousands)

	2015	2016	2017	2018
	<u>Actual</u>	<u>Actual</u>	<u>Estimate</u>	<u>President's Budget</u>
<b>Working Capital Fund:</b>				
Administration:				
Beltsville Service Center.....	\$10	\$14	\$14	\$16
Mail and Reproduction Management.....	91	115	106	156
Integrated Procurement System.....	18	11	11	8
Procurement Operations.....	30	24	27	25
Subtotal.....	149	164	158	205
Communications:				
Creative Media & Broadcast Center.....	72	61	41	48
Finance and Management:				
NFC/USDA.....	13	14	13	12
Financial Systems.....	25	26	30	29
Subtotal.....	38	40	43	41
Information Technology:				
NITC/USDA.....	10	22	10	33
International Technology Services.....	115	85	112	103
Telecommunications Services.....	26	20	13	14
Subtotal.....	151	127	135	150
Correspondence Management.....	21	19	18	16
Total, Working Capital Fund.....	431	411	395	460
<b>Departmental Shared Cost Programs:</b>				
1890's USDA Initiatives.....	1	2	2	2
Classified National Security Information.....	1	1	1	1
Continuity of Operations Planning.....	1	1	1	1
Emergency Operations Center.....	1	1	1	1
Hispanic-Serving Institutions National Program.....	1	1	1	1
Human Resources Transformation (inc. Diversity Council).....	1	1	1	1
Identity & Access Management (HSPD-12).....	4	4	4	3
Medical Services.....	4	4	5	4
Personnel Security Branch.....	2	2	1	1
Pre-authorizing Funding.....	2	2	2	2
TARGET Center.....	1	1	1	1
Virtual University.....	1	1	1	1
Total, Departmental Shared Cost Programs.....	20	21	21	19
<b>E-Gov:</b>				
Enterprise Human Resources Intigration.....	1	1	1	1
E-Rulemaking.....	1	-	-	-
E-Training.....	1	1	-	-
Geospatial Line of Business.....	-	6	13	13
Integrated Acquisition Environment.....	1	1	-	-
Total, E-Gov.....	4	9	14	14
Agency Total.....	455	441	430	493

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### 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; and environmental markets. OCE is responsible for 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 Policy and New Uses (OEPNU) conducts economic analyses and evaluates policies of energy, biobased product, and bioeconomy issues. OEPNU is responsible, with the National Institute of Food and Agriculture (NIFA), for implementing the Biodiesel Fuel Education Program. OEPNU conducts research on biofuel's net energy balance, biobased product markets, life-cycle analyses, renewable energy technologies, and the use of shale oil and gas technology and implications for land values and agriculture. OEPNU, along with other USDA agencies and the Department of Energy, participates in the Biomass Research and Development Initiative. OEPNU also coordinates and provides information, data, best management practices, and market expertise for feedstocks evaluated by the Environmental Protection Agency (EPA) under the Renewable Fuel Standards (RFS).

OCE performs a number of functions in the area of conservation and environmental policy. OCE facilitates the participation of farmers, ranchers, and forest landowners in emerging environmental services markets. As directed under Section 2709 of the Food, Conservation, and Energy Act of 2008, OCE is developing technical guidelines and methods to measure the environmental services benefits from conservation and land management activities. OCE performs strategic planning and priority setting, emphasizing the development of USDA tools and metrics and generating market demand for environmental goods and services. OCE works with other agencies and offices across the Department to address emerging environmental markets and focuses on advancing opportunities for farmers, ranchers, and rural land owners. OCE 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. OCE carries out USDA responsibilities under the Global Climate Change Prevention Act of 1990. OCE coordinates USDA contributions to the quadrennial U.S. National Climate Assessments, as required under the 1990 Global Change Research Act. OCE 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. OCE identifies performance metrics and indicators and works with Agencies across the Department to improve tracking and data collection on conservation and environmental performance. For example, OCE works with USDA Agencies to

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identify annual performance metrics and include them in required Annual Performance Reports. In carrying out these functions, OCE consults with stakeholders on their interests in conservation and environmental policy.

### 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; and farm financial stress resulting from sustained low commodity prices. IO staff also developed recommendations to strengthen the economic foundation of the Animal and Plant Health Inspection Service (APHIS) indemnity calculator for egg layers, addressing issues raised by industry following the 2015 high path avian influenza (HPAI) crisis.

The Chief Economist continued to serve on the Department's Farm Bill Conveners working group, which coordinates Departmental policy regarding Farm Bill programs and policies. The Deputy Chief Economist and 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, Deputy Chief Economist, and other IO staff coordinated research and policy analysis with EPA on the renewable fuel standards. IO staff is involved in clearing all USDA risk analyses and economically significant rules.

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 served as Chair of AMIS during 2015 and 2016, leading discussions at the AMIS Rapid Response Forum, and funded efforts to improve data gathering and commodity analysis among the world's major producing and consuming countries.

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 recent labor shortages faced by agricultural producers, and the role of temporary workers in the agricultural sector. IO staff monitored proposed regulations and acts of Congress for possible impacts on the agricultural labor force.

World Trade Organization (WTO) and Trade Policy Support. During 2016, IO staff provided economic and policy analysis in support of key U.S. multilateral and bilateral trade initiatives, including the Trans Pacific Partnership (TPP) agreement, a WTO enforcement action regarding China's domestic support programs, and USDA's response to China's AD/CVD investigation of U.S. dried distillers' grain (DDG) and poultry exports. OCE also provided trade damage estimates for the U.S. WTO dispute settlement case against India's HPAI ban. IO staff also prepared U.S. domestic support notifications to the WTO and briefed Congress on the notifications. IO staff reviewed the WTO's biennial Trade Policy Review and responded to WTO member questions on the report. The Chief Economist and IO staff provided extensive support to the Secretary in his role as Co-Chair of the Organization for Economic Cooperation and Development (OECD) Agricultural Ministerial in April 2016, including preparation of oral and written statements and U.S. contributions to Ministerial documents. OCE coordinated and delivered the National Academy of Public Administration report on the reorganization of USDA to create an Undersecretary for Trade and Foreign Affairs and prepared USDA's report on the same topic.

Analytical Assistance to Congress and Other Federal Agencies. The Chief Economist testified before the House Agriculture Subcommittee and the Senate Appropriations Committee on general farm commodities and on U.S. farm financial stress. He also accompanied the Secretary at Congressional appropriations hearings. A number of Congressional briefings and meetings were conducted in 2016 by the Chief Economist on the Farm Bill, WTO, drought, 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 Farm Bill, 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, crop insurance, and international trade issues. The Deputy Chief Economist provided economic information and analysis of potential consequences of proposed mergers and acquisitions in the agribusiness sector.

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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 2016. The board approved a series of new programs and program changes in 2016 including: expanded crop insurance options for specialty crop growers, organic producers, and farmers transitioning to certified organic agriculture; expanded coverage for livestock producers; and a new Margin Protection Plan for corn, rice, soybeans, and spring wheat in select counties.

Outreach Activities. The Chief Economist, Deputy Chief Economist, and IO staff made numerous speeches, including to the Chatam House Royal Institute of International Affairs in London, International Grains Council in London, White House Rural Council, Global Agribusiness Forum in Brazil, OECD, Food and Agriculture Organization, European Union (EU) Commission, opening session of the USDA Agricultural Outlook Forum, American Association of Agricultural Economists Annual Meeting, Society for Benefit-Cost Analysis, National Farmers Union and American Farm Bureau Federation, International Agricultural Trade Research Consortium, National Corn Growers, National Rice Association, National Milk Producers Federation, National Association of Farm Broadcasters, AgChem Summit, Barclays Select Series, Informa Big Data Roundtable, National Renderers Association, and ProExporter, as well as presentations to numerous visiting farm groups, students, and international government officials. The Chief Economist led delegations to meet with government officials and agricultural sector leaders in China and India. The Chief Economist also chaired the steering committee for USDA's 2016 Agricultural Outlook Forum.

Sustainable Development Activities. During 2016, OCE coordinated the Department's contributions to the interagency process on the United Nation's post-2015 Development Agenda and the Sustainable Development Goals (SDGs), including analysis of impacts on U.S. agricultural and food sectors. OCE initiated the development of the USDA SDG action plan, outlining the Department's approach for domestic implementation of USDA-relevant SDGs. 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 writing the program's terms of reference, framing the major objectives for the program and developing its core initiatives.

OCE staff led the analysis and formulation of the USG position and first negotiations in Japan on the G7 Agricultural Ministers' Communiqué. In 2016, OCE staff led and coordinated USDA initiatives to reduce food loss and waste and improve global food security. Most notably, in 2016 OCE staff worked to create a public-private partnership composed of 13 businesses and non-profit organizations to erect the U.S. Food Loss and Waste Solutions Center, a central repository for information about food loss and waste reduction efforts in the United States. OCE staff also worked with the Office of the Secretary and with EPA to launch the U.S. Food Loss and Waste 2030 Champions to recognize those U.S. businesses and organizations committed to reducing food loss and waste in their operations 50 percent by 2030.

USDA Regional Climate Hubs. OCE provided technical support and guidance to the network of seven new Regional Climate Hubs and three Sub-Hubs. These hubs serve as a resource for USDA programs and field offices on climate preparedness and planning. The Hubs provide practical information and program support to farmers, ranchers, forest landowners, and resource managers 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. Key partners in this effort include the public and land grant universities, Cooperative Extension, USDA researchers, the private sector, and state, local and regional governments.

National Climate Assessment. In 2016, OCE released a major assessment on *Climate Change, Global Food Security and the U.S. Food System*. The report was prepared as part of the United States National Climate Assessment. The report identifies the risks that climate adaptation poses to global food security and the challenges facing farmers and consumers in adapting to changing climate conditions.

Global Change Task Force. OCE 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, National Agricultural Statistics Service, National Institute of Food and Agriculture (NIFA), Forest Service, Natural Resources Conservation

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Service, Farm Service Agency, Foreign Agricultural Service, Risk Management Agency, Animal and Plant Health Inspection Service, and Agricultural Marketing Service, among others.

International Climate Adaptation Negotiations. OCE continued to represent the Department in international climate adaptation negotiations. OCE worked closely with the Department of State and White House and reviewed US positions on forest carbon sinks, reporting requirements, and efforts to address deforestation and forest degradation.

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 2016. WAOB staff cleared all USDA economic outlook reports released in 2016 for agencies across USDA. WAOB issued 12 monthly *WASDE* reports, 52 weekly *White House Memos* on the current situation in U.S. agricultural markets, and 235 *Daily Highlights of Agricultural Developments*. Post-lockup briefings were presented monthly to the Secretary and, beginning in 2016, the Secretary's briefing package was made available to the public on-line. Monthly downloads of this package exceeded 75,000 during the key crop growing months. The *Weekly Economics and Weather Briefings* were delivered as scheduled to the Office of the Secretary and other senior USDA staff. Bi-weekly, the *Briefings* were presented in front of senior staff, including the Undersecretary for Farm and Foreign Agriculture Services. Multiple radio interviews were recorded each month by WAOB staff. During 2016, the *WASDE* report was downloaded an average of 300,000 times per month from the OCE website. In addition, approximately 15,000 subscribers to the GovDelivery system received the *WASDE* report every month.

Baseline Projections. In 2016, WAOB oversaw construction, publication, and release of the inter-agency 10-year baseline economic projections, which provide 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, Brazil, China, India, and Mexico, among others. WAOB meteorological staff also regularly made contributions to television, radio, and print media interviews on a variety of topics, including generally favorable Midwestern growing conditions in 2016, ongoing drought in the western U.S., and the impacts of El Niño on domestic and international agricultural production.

Weather Analysis. WAOB and the National Weather Service jointly prepared and published 52 *Weekly Weather and Crop Bulletins (WWCB)*, while WAOB meteorologists issued 250 *Morning Weather Summaries*, 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 2016, the *WWCB* was downloaded an average of 43,000 times per week from the OCE website, while 7,159 subscribers received the bulletin through the GovDelivery system. The *Daily Agricultural Highlights* was downloaded an average of 235 times per day from the OCE website.

In support of the *WASDE* report, WAOB meteorologists prepared early warnings and assessments of significant weather events that affected agriculture, including: the development of drought in the Northeast and the intensification of drought in the Southeast, as well as weather conditions in the Midwest leading to record corn and soybean output. International highlights included: the impacts of excessive wetness on EU winter wheat output and the subsequent development of heat and dryness impacting summer crops in sections of Europe; accurate assessment of Australia's wheat yields during the waning El Niño; reductions in production of Brazil's corn and soybeans following several years of exceptionally good growing conditions; and close monitoring of the Indian monsoon.

Monitoring Drought. WAOB meteorologists contributed to 52 weekly *USDM*, produced jointly by WAOB, the National Oceanic and Atmospheric Administration, and the National Drought Mitigation Center in Lincoln, Nebraska. The *USDM* gained additional visibility and utility for drought disaster relief in 2015, following the passage of the new Farm Bill and the subsequent reauthorization of the Livestock Forage Disaster Program (LFP). LFP payouts, which were made retroactive to 2012, totaled \$5.73 billion through the end of January 2016. In

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addition, as of November 16, 2016, a total of 447 U.S. counties—along with 280 contiguous counties and parishes—qualified for a Secretarial Disaster Designation based on the *USDM* depiction.

OCE has partnered with the National Drought Mitigation Center designed to improve drought services to the American public. Deliverables in 2016 included efforts to expand coverage of the U.S. Drought Monitor to the U.S. Virgin Islands and Affiliated Pacific Islands and to make improvements to the Drought Impact Reporter. The partnership is also involved in an ongoing effort to expand the Community Collaborative Rain, Hail, and Snow (CoCoRaHS) network of volunteer weather observers.

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.

USDA Agricultural Outlook Forum. WAOB staff planned, coordinated, and chaired the program committee for USDA's 2016 Agricultural Outlook Forum: *Transforming Agriculture—Blending Technology and Tradition*. Forum registration reached 1,800. The Chief Economist provided a keynote speech on the state of the U.S. agricultural economy. The 2-day program included 27 sessions on major issues affecting rural America and agriculture, including commodity outlooks, the rural economy, climate and weather, drought, regionalization of pest and disease outbreaks, international trade, food price and farm income trends, the bioeconomy, transportation, and food safety.

Analyses Reviewed. In 2016, ORACBA staff provided substantive reviews of economic analyses and regulations on USDA food assistance and school feeding programs, organic agricultural production standards, poultry and meat inspection and labeling, as well as reviews of risk assessments. ORACBA provided guidance and analytical assistance on several rules under development prior to clearance. ORACBA staff regulatory reviews supported implementation of new programs and delivery of existing programs across all USDA mission areas. In 2016, ORACBA reviewed analyses for 22 USDA proposed and final rules, 14 EPA proposed and final rules, 12 Food and Drug Administration (FDA) proposed rules, and supporting risk assessments, economic documents, environmental impact statements, or assessments.

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 managed a peer review of a risk assessment framework for APHIS. ORACBA conducted an economic analysis for small business set-aside timber sales that formed the basis of the USDA comment on a proposed SBA rule. ORACBA also actively participated in the 18-agency Interagency Risk Assessment Consortium to enhance communication and coordination among the agencies with food safety responsibilities. ORACBA 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; and 3) Research Triangle Institute risk assessment implementing quantitative microbiological criteria in ground turkey and chicken parts. In 2016, ORACBA continued to provide guidance and consultation to USDA and other Federal agencies on risk assessments for noxious weeds, 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 publication of the monthly ORACBA Risk Calendar. ORACBA gave presentations and published peer review journal articles on risk assessment and analysis.

Risk Assessment Education and Training. ORACBA held four Science, Policy and Risk Forum seminars on emerging topics in risk assessment, gave presentations at the annual meetings of the Society for Risk Analysis and Society for Benefit-Cost Analysis, and partnered with the University of Maryland's Joint Institute for Food Safety and Applied Nutrition, and the FDA to promote both basic and advanced courses in risk assessment methods.

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Biobased Products. OEPNU continued its involvement in biobased products research. Through its membership on the Biomass Research and Development Board – Operations Committee and co-chair of the Analysis Working Group, OEPNU provided leadership to the assessment of the bioeconomy, including biofuels, heat and power, and renewable chemicals and biobased products. OEPNU staff also provided U.S. leadership to the OECD's Working Party (WP) on Biotechnology, Nanotechnology, and Convergent Technology. The OEPNU Director is the U.S. delegate to the WP and serves on the Bureau (advisory board) to the WP. OEPNU staff also continued to provide feedback to USDA's Departmental Management in the development of its labeling program for biobased products and biobased product designation for federal procurement—the BioPreferred Program. Staff spoke at numerous industry, professional, and federal sponsored conferences, workshops, and meetings, as well as sponsored workshops on topics such as the bioeconomy, USDA Energy Title IX Programs, life cycle assessments, and USDA activities in the bioenergy/biobased product space.

Biodiesel Fuel Education Program. During 2016, OEPNU, along with NIFA, and the Biodiesel Education Oversight Committee continued to manage two biodiesel education grants that were reauthorized by the Agricultural Act of 2014—the grantees are the National Biodiesel Board and the University of Idaho. Total funding for the grants is \$960,000 per year, which will continue until the Program expires in 2018. A joint meeting was held in January to discuss work plans and coordinate 2016 educational events and outreach efforts aimed at educating consumers, producers, marketers and the public and other stakeholders about the benefits of biodiesel. Another meeting was held in July that reviewed program achievements such as 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 2016, OEPNU staff continued to provide research and analysis in support of the Chief Economist and the Office of the Secretary. OEPNU sponsored conferences and workshops disseminating information to stakeholders. In collaboration with the U.S. Department of Energy and the U.S. Navy, OEPNU:

- Provided technical support including analyses and assessments for the Defense Production Act initiative to stand-up alternative jet fuel production and the (USDA/Navy) Farm to Fleet program;
- Along with EPA, provided feedstock pathways data and analyses for the RFS and related issues;
- Worked closely with USDA's Office of the Chief Information Officer to make available on-line the Biogas Tool (a tool to evaluate investment);
- Provided leadership to and participated in multiple interagency working groups; and
- Contributed to two interagency reports: the *Federal Activities Report on the Bioeconomy* (Biomass Research and Development Board) and the *Federal Alternative Jet Fuels Research and Development Strategy* (Aeronautics Science and Technology Subcommittee Committee on Technology of the National Science and Technology Council).

OEPNU, in cooperation with Cornell University, began an economic analysis of the RFS in 2016 considering gasoline, ethanol, diesel, biodiesel, corn, and soybeans under the RFS. Preliminary findings are that biodiesel in excess of the levels required would be used to meet the overall total RFS if ethanol blends above 10 percent cannot be marketed in sufficient quantities and that the RFS has more effect on diesel fuel prices than gasoline prices. The analysis is expected to be completed in June 2017. OEPNU also worked with West Virginia University and ERS assessing the impact of unconventional natural gas technology on land values, while work continued with Pennsylvania State University assessing the impact of unconventional natural gas technology on agriculture and Rochester University on externalities and health.

OEPNU collaborated with the Council on Food, Agricultural and Resource Economics to conduct a series of symposia exploring the economics of the agricultural, energy and rural development nexus and highlighting new research, best practices, and local and regional assessments. OEPNU added three new forums to the series in 2016: Energizing the U.S. Economy: Rural America at the Epicenter of America's Energy Future, Emerging Biofuels and Bioproducts: Can they Jump Start the Bio-Economy, and The Evolution of the Bio-Economy.

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### Environmental Markets Analysis and Advice.

In 2016, OEM focused on improving coordination and consistency of the tools and resources for environmental market development and implementation. OEM worked with EPA to develop new tools and information resources to guide water quality trading within EPA Region 3 to reduce costs in program design and implementation, improve environmental performance, and foster consistency across regional water quality trading efforts.

Tools, Guidelines for Quantifying Environmental Performance. In 2016, OEM 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. OEM provided support for the development of state water quality trading programs; highlighting successful trading programs that have attracted private capital; identifying financially sustainable voluntary conservation efforts that use market-based approaches; establishing a list of nutrient quantification tools that meet the minimum requirements of the federal and state regulatory agencies; and increasing targeted stakeholder engagement in locations where market-based programs may address immediate problems such as harmful algal blooms.

Chesapeake Bay Executive Order. OEM continued to lead environmental market development efforts under the Chesapeake Bay Executive Order Strategy. OEM convened monthly meetings of the Interagency Environmental Markets Team (EMT) to facilitate collaboration among Federal agencies. In 2016, OEM led efforts to identify opportunities to perform mitigation on public lands in the Chesapeake Bay Region, and assisted in workshops to increase opportunities for public-private partnerships and conservation finance. OEM also serves as an advisor to the State of Maryland's Nutrient Trading Advisory Taskforce.

Communication and Outreach. OEM hosted numerous webinars and trainings, and made several presentations to governmental agencies, commodity groups, farm organizations, and conservation organizations on environmental market-related topics. OEM convened monthly meetings of the USDA Environmental Markets Workgroup and facilitated implementation of the USDA Environmental Markets Strategy. OEM partnered with the USDA Drought and Water Team to sponsor a series of events highlighting market-based opportunities to improve water management and distribution, and will release a series of papers in conjunction with the University of Nebraska in 2017 that will facilitate development of water transfer markets.

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### Summary of Budget and Performance

The mission of OCE is to advise the Secretary of Agriculture on the economic implications of Department policies, programs and proposed legislation; to ensure the public has consistent, objective and reliable agricultural forecasts; to promote effective and efficient rules governing Departmental programs; to coordinate Departmental energy policy, programs, and strategies; coordinate Departmental climate policy, programs, products, and strategies; and foster the development of environmental markets and to manage climate related risks.

The Department will be revising the USDA Strategic Plan later in the spring and expects to release it with the FY 2019 President's Budget.

#### **Chief Economist and Immediate Office (IO):**

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

- Chief Economist and IO staff provided policy and program analysis and advice to the Secretary in the areas of international trade agreements, risk-sharing institutions, crop insurance, commodity and conservation programs, sustainable development, the impacts of climate variability on farmers, ranchers, and forest landowners, agricultural labor, and alternative/renewable energy;
- The Chief Economist chaired the Board of Directors of the Federal Crop Insurance Corporation (FCIC), the Capper-Volstead Act Committee, and served on the USDA Energy Council;
- Provided regular oral and written briefings to the Secretary and other key leaders on legislation, market developments, and key economic events affecting agriculture, forestry, and rural America;
- Reviewed economic impact assessments for significant rulemaking actions and provided independent review and recommendations regarding USDA Agency programs and policies;
- Assisted the Secretary's communication office in developing speech text and in the use of economic information for speeches of top officials and in press releases and provided subcabinet officials with economic intelligence relevant to the administration of their program areas and USDA in general;
- Reviewed Congressional testimony of executive branch officials and Department correspondence for economic content, testified before Congress, and prepared analyses for members of Congress, their staffs, and various Committee staffs on the impacts of legislative proposals;
- Represented the Department on U.S. delegations to international discussions of sustainable development, international trade or other issues and served as a source of objective assessments of the effects of proposals made in international forums that would affect agreements, treaties or other obligations of the Department;
- Led and coordinated cross-mission area work on sustainable development and agricultural labor markets, including chairing the USDA Council on Sustainable Development, representing USDA in international multilateral environmental negotiations, and other issues as requested by the Secretary; and
- Led the US efforts on the G-20 Agricultural Market Information System Rapid Response Forum and Information Group for 2016-2017.

##### Selected Accomplishments Expected at the 2018 Proposed Resource Level:

The Chief Economist and IO expect to provide substantially the same level of support in 2018 to Departmental programs across all mission areas. Key expected accomplishments are:

- Provide analysis and advice to the Secretary in the areas of commodity and conservation programs, agricultural market conditions, climate variability, alternative/renewable energy, biobased chemicals and products, agricultural labor, sustainable development, international trade agreements, risk-sharing institutions, and crop insurance;
- Testify before Congress and prepare analyses when requested for Members of Congress and their staffs on the effects of legislative proposals or other topics of interest;
- Chair the Board of Directors of the FCIC and the Capper-Volstead Act Committee;
- Represent the Department on U.S. delegations to international discussions of sustainable development, international trade, or other issues and provide objective assessments of the effects of proposals made in international forums that would affect agreements, treaties or other obligations of the Department;

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- Lead and coordinate cross-mission area work on sustainable development, including chairing the USDA Council on Sustainable Development;
- Support Departmental efforts on issues related to agricultural labor, immigration reform, and infrastructure investment in rural America;
- Support the Secretary in developing options and implementing an Under Secretary for Trade, including providing the Secretary and Under Secretary economic data and analyses on agricultural trade issues; and
- Support the Secretary and other senior leadership with trade-related economic data, policy research support, analytics, and related economic and policy activities.

**World Agricultural Outlook Board (WAOB)**

Key Performance Measures:

(WASDE) reports issued.							
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Units	12	12	11	12	12	12	12
Dollars (in thousands)	\$3,285	\$3,376	\$3,401	\$3,283	\$3,492	\$3,536	\$3,699

Selected Past Accomplishments toward Achievement of the Key Outcome:

- WAOB staff issued 12 monthly *WASDE* reports, 52 *Weekly Weather and Crop Bulletins*, 52 weekly *White House Memos* on the current situation in U.S. agricultural markets, and approximately 250 *Daily Highlights of Agricultural Developments* and *Daily U.S. Agricultural Weather Highlights*; and contributed to the joint release of 52 updates of the *U.S. Drought Monitor*;
- Reviewed and assured consistency across the situation and outlook products issued by other USDA agencies, including written reports, market updates, special analyses, and long-range forecasts;
- Provided an annual comprehensive situation and outlook forum for agriculture that incorporates the viewpoints of and participation by analysts from USDA, academia, and the private sector; and
- Prepared numerous special economic reports and weather assessments for the Secretary and Chief Economist, as well as presenting weekly weather and market briefings to the Office of the Secretary and the Mission Areas. WAOB staff also spoke on U.S. and world agriculture situation and outlook at numerous domestic and international commodity industry meetings. WAOB staff also recorded over 100 radio and television interviews following the release of various WAOB or other key USDA reports.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

The WAOB expects to provide substantially the same level of support in 2018 to Departmental programs across all mission areas. Key expected accomplishments are:

- Issue 12 monthly *WASDE* reports;
- Deliver 52 weekly Weather and Economics Briefing reports to the Chief Economist and senior USDA staff;
- Issue daily national agricultural weather summaries;
- On a rotating basis, prepare issues of the weekly *U.S. Drought Monitor*, produced jointly with the National Weather Service and the National Drought Mitigation Center in Nebraska;
- Organize the annual USDA Agricultural Outlook Forum;
- Prepare economic assessments of current issues or weather events at the request of the Chief Economist or other senior Department staff, and coordinate the annual 10-year baseline commodity projection exercise; and
- Construct a database of the full history of *WASDE* data in order to expand public access to the information.

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### Office of Risk Assessment and Cost Benefit Analysis (ORACBA)

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

- Performed substantive reviews of economic analyses and regulations to improve food safety, agricultural quarantine inspection user fees and cost control in USDA food assistance and school feeding programs;
- Provided risk assessments and economic analyses supporting food safety, nutrition, and exclusion of plant pests and foreign animal diseases;
- Provided analysis to the Department and other Federal agencies to assess food safety risk of emerging hazards and evaluate environmental issues affecting agriculture and matters pertaining to agriculture and environmental quality (air and water quality), pesticide use, and endangered species, including scientific reviews of EPA chemical and pesticide risk assessments and environmental effects associated with the Food and Drug Administration Food Safety Modernization Act Produce Rule; and
- Participated in a cooperative agreement on “Comparison of U.S. and EU agricultural regulation.”

#### Selected Accomplishments Expected at the 2018 Proposed Resource Level:

ORACBA expects to provide substantially the same level of support in 2018 to Departmental programs across all mission areas. Key expected accomplishments are:

- Evaluate the regulatory burden and review approximately 50 cost-benefit analyses and risk assessments; and
- Produce 10 issues of *ORACBA News* and hold periodic risk forum training seminars.

### Office of Energy Policy and New Uses (OEPNU)

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

- Chair the BCCC which coordinates energy and biobased product-related activities among USDA agencies, and, through the BCCC developed the Bioeconomy and provide support to OSEC; work areas include bioeconomy (Farm Bill) factsheet, brochure (USDA activities and programs);
- Coordinated Departmental energy and biobased chemicals and products policy, programs, and strategies by providing assessments, reports, briefings, speeches, control letters, and analyses;
- Provided U.S. leadership to the Organization for Economic Cooperation and Development’s Working Party on Biotechnology, Nanotechnology and Convergent Technology;
- Continued to provide feedback to USDA’s Departmental Management’s in developing its labeling program for biobased products and biobased product designation for federal procurement—the BioPreferred program;
- Together with USDA’s National Institute of Food and Agriculture, administered the Biodiesel Fuel Education Program;
- Collaborated with academics and non-governmental organizations to provide research and analysis in support of the Chief Economist and the Office of the Secretary, including sponsoring conferences and workshops reaching out to and disseminating information to stakeholders;
- In collaboration with Rural Development, the Department of Energy, the EPA, and the U.S. Navy, provided analyses and assessments for feedstock pathways for the Renewable Fuel Standards (RFS) and related issues, for the Biogas Opportunities Roadmap (a report to reduce methane gas emissions and improve energy independence), and for the Defense Production Act initiative to stand-up alternative jet fuel production;
- Coordinated Departmental interaction with the EPA on the 2014 – 2016 Renewable Fuel Standards for the Renewable Fuel Standard Program (RFS2), including reviewing drafts of the Proposed and Final Rulemaking of the Renewable Fuels Standards of the Energy Independence and Security Act of 2007; and
- Coordinated Departmental interaction with the EPA on new feedstock pathway analyses, including comments on proposed rulemaking.
- Released several important articles and publications, including: *2015 Energy Balance for the Corn-Ethanol Industry*; *Broadening Benefits from Natural Resource Extraction: Housing Values and Taxation of Natural Gas Wells as Property*; *2016 Billion-Ton Report*; *USDA Agriculture and Forestry Greenhouse Gas Inventory: 1990-2013*; and *An Assessment of the Potential Products and Economic and Environmental Impacts Resulting from a Billion Ton Bioeconomy*; and

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- Sponsored and/or coordinated 2 workshops in cooperative with the Council on Food, Agricultural and Resource Economics on issues impacting the bioeconomy, including: *The Bioeconomy: Technology and Policy Path Forward*, at Rutgers University, September 30-October 1, 2016; and a webcast, February 17, 2017, on *American-Made Bioenergy from Field to Refinery: Feedstock Logistics*, at the National Press Club.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

OEPNU expects to provide substantially the same level of support in 2018 to Departmental programs across all mission areas. Key expected accomplishments are:

- Chair the BCCC which coordinates energy and biobased product-related activities among USDA agencies, and through the BCCC developed the Bioeconomy and provide support to OSEC; work areas include bioeconomy (Farm Bill) factsheet, brochure (USDA activities and programs);
- Coordinate Departmental energy and biobased chemicals and products policy, programs, and strategies by providing assessments, reports, briefings, speeches, and analyses for senior USDA staff and other policymakers;
- Continue cooperative research activities on renewable energy and biobased products with academic and other institutions, expanding understanding of bioenergy and biobased feedstock markets; and
- Continue to work with the EPA on annual RFS volume setting and on new feedstock pathways for renewable fuels production; continue to work with Navy and commercial aviation sector on expanding alternative jet fuel use.

**Climate Change Program Office (CCPO)**

Identifies performance metrics and indicators and works with Agencies across the Department to improve tracking and data collection on conservation and environmental performance. Works with USDA Agencies to identify annual performance metrics and include them in required Annual Performance Reports. In carrying out these functions, OCE consults with stakeholders on their interests in conservation and environmental policy.

Key Performance Measures:

Percent completion of development of regional decision support tools.							
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Units	N/A	N/A	10%	60%	85%	100%	N/A
Dollars (in thousands)	\$1,092	\$629	\$1,190	\$1,735	\$666	\$600	N/A

Percent completion of development of metrics and indicators for conservation and environmental performance.							
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Units	N/A	N/A	N/A	N/A	N/A	N/A	25%
Dollars (in thousands)	N/A	N/A	N/A	N/A	N/A	N/A	\$600

Selected Past Accomplishments toward Achievement of the Key Outcome:

CCPO staff coordinated USDA climate policy, programs and strategies and made good progress on the program to establish metrics and indicators of progress in the implementation of actions to reduce risks and improve resource health. CCPO develops methodologies and technical guidelines to quantify multiple benefits from conservation and land management activities. Selected past accomplishments include:

- Coordinated the continued management and implementation of seven Regional Climate Hubs and three Sub-Hubs, which will serve as a resource for USDA programs and field offices on climate risk management and

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preparedness and planning and provide guidance and technical information on practical steps needed to build climate resilience into USDA programs and operations;

- Led Department efforts to improve the quantification of the environmental benefits of corn ethanol. A study released by CCPO in FY 2017 found that corn ethanol is reducing GHG by 57% relative to gasoline and could reduce emissions by even more if conservation and efficiency practices are employed;
- Chaired the USDA Global Change Task Force, utilizing the task force to ensure that all USDA agencies with a responsibility for climate change are kept informed of Departmental and Administration priorities and are included in reviews, assessments, analyses, and communication efforts; and
- Represented the Department in international climate change negotiations, including leading USDA’s efforts to implement a new international partnership called the Global Alliance on Climate Smart Agriculture.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

CCPO expects to continue to provide core analytic and coordination support for the Department in FY 2018. CCPO will carry out USDA responsibilities under the Global Climate Change Prevention Act of 1990. OCE coordinates USDA contributions to the quadrennial U.S. National Climate Assessments, as required under the 1990 Global Change Research Act. OCE 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.

- Develop user-friendly tools to facilitate easy access to the revised technical greenhouse gas reporting guidelines to meet the needs of voluntary greenhouse gas registries, State Registries, and USDA programs;
- Coordinate Departmental policy, programs, strategies, and products related to climate resilience and impact to agriculture;
- Conduct analysis of the environmental benefits of renewable energy generated from natural resources such as biomass and coordinate with States and other cooperators in addressing questions on the benefits of renewable energy;
- Ensure that USDA is supporting the Department of State in meeting US treaty obligations and responsibilities for reporting information on US programs and conditions, including information requested under the UN Framework Convention on Climate Change;
- Conduct analysis, long range planning, research, and response strategies related to climate risk management and resilience, and liaison with other Federal agencies; and
- Identify performance metrics and indicators and works with Agencies across the Department to improve tracking and data collection on conservation and environmental performance.

**Office of Environmental Markets (OEM)**

Key Performance Measures:

Technical reports completed on issues related to farmer and landowner participation in emerging environmental markets.							
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Units	Est. Baseline	3	3	3	3	3	3
Dollars (in thousands)	\$254	\$367	\$587	\$550	\$238	\$243	\$247

Percentage completion of national water quality technical metrics for agriculture.							
	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Units	N/A	N/A	10%	20%	50%	60%	80%
Dollars (in thousands)	\$0	\$0	\$475	\$475	\$475	\$485	\$493

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

OEM staff engaged stakeholders to sustain support for the development of uniform standards and market infrastructure that will facilitate market-based approaches to agriculture, forest, and rangeland conservation.

Selected past accomplishments include:

- Supported development of an environmental markets mapping and decision support tool that integrates data from water, carbon, and biodiversity markets with EnviroAtlas, a Federally-managed ecosystem services data mapping platform;
- Completed an update of the USDA Environmental Markets Strategy with an increased emphasis on conservation finance mechanisms and linkages between ecosystem services and market opportunities;
- Supported development of issue papers highlighting significant policy aspects of water transfer markets, as well as a series of papers aimed at assisting USDA's resource management agencies in evaluating environmental benefits resulting from USDA conservation programs;
- Led inter-agency efforts and funded cooperative agreements to improve existing water quality and greenhouse gas (GHG) quantification and decision support tools, and to develop an online database of tools and resources for habitat and species markets in coordination with the U.S. Geologic Survey; and
- Led environmental market development efforts under the Chesapeake Bay Executive Order Strategy by convening monthly meetings of the Interagency Environmental Markets Team to facilitate collaboration among 12 Federal agencies, and by participating in the Council on Environmental Quality's Roundtable on Conservation Finance in the Chesapeake Bay.

### Selected Accomplishments Expected at the 2018 Proposed Resource Level:

OEM expects to provide substantially the same level of support to the Department in 2018 to accelerate USDA efforts to develop uniform standards and market infrastructure necessary to facilitate market-based approaches to agriculture, forest, and rangeland conservation. Key expected accomplishments are:

- Provide administrative and technical assistance to the Secretary in implementing Section 2709 of the 2008 Farm Bill by supporting the development of guidelines for market infrastructure that will facilitate market-based approaches to agriculture, forest, and rangeland conservation;
- Support the development of combined registries for wetland and water quality markets in coordination with the U.S. Army Corps of Engineers;
- Catalyze development of the infrastructure for environmental markets; and
- Accelerate integration of shared national water quality and GHG tools and metrics needed to facilitate environmental markets.