

2023 USDA EXPLANATORY NOTES – OFFICE OF THE CHIEF INFORMATION OFFICER

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AGENCY-WIDE

PURPOSE STATEMENT

The Clinger-Cohen Act of 1996 required the establishment of a Chief Information Officer (CIO) for all major Federal agencies. The Act requires USDA to maximize the value of information technology acquisitions to improve the efficiency and effectiveness of USDA programs. To meet the intent of the law and to provide a Departmental focus for information resources management issues, Secretary's Memorandum 1030-30, dated August 8, 1996, established the Office of the Chief Information Officer (OCIO). The CIO serves as the primary advisor to the Secretary on Information Technology (IT) issues. OCIO provides leadership for the Department's information and IT management activities in support of USDA program delivery.

OCIO provides end-user support, data center operations, application development and wide-area network telecommunications services to USDA agencies and staff offices that are funded through the Working Capital Fund. These services are delivered by OCIO's Client Experience Center, National Information Technology Center and the Enterprise Network Services, with large office locations in Ft. Collins, Colorado; Kansas City, Missouri; and Washington, D.C. USDA is implementing a new operating model that will make it the best managed agency in the Federal government, a model that is enabling the Department to transition to a facts-based, data-driven, and customer-focused organization. In the current operating and budget environment there is no choice but to modernize. OCIO's ability to effectively manage and modernize IT systems will be a key factor in the Department achieving this vision.

To support this new approach, USDA has transitioned IT customer support services to enterprise services managed by the OCIO, providing cost-effective, high-quality Department-wide helpdesk, desktop, voice, and mobile shared services. Additionally, OCIO has consolidated 39 USDA data centers to a single data center and back-up, while transitioning additional systems and applications to readily available cloud services. These moves will not only increase the strategic focus of IT leadership and staff in USDA's respective mission areas; they will also reduce the cost of providing these services and reduce our cybersecurity vulnerabilities. USDA will become a data-driven organization to ensure that leadership and employees have access to the data and analytical tools that support rapid and well-informed decisions. When data is not integrated, standardized, or of high quality and reliability, problems and opportunities remain obscured, impacting overall program performance. USDA has begun implementing executive dashboard solutions with USDA-wide data on human resources, information technology, finance, and other key administrative data to support USDA executive decision-making.

A customer-focused approach to USDA's digital services requires us to streamline the Department's complex network of online resources that must be navigated today to find or access services. Too often, customer data is not shared or integrated among similar programs. To improve in these areas, USDA will create online service portals that are easy-to-use, include additional self-service capabilities, and integrate data for common customers. Providing the best possible customer service on a consistent basis also means ensuring that USDA employees can access the network anywhere, anytime, regardless of agency, program, or location and that employees have the bandwidth necessary to fully utilize the technology. Over the next two years, we will also flatten the USDA local area networks to make this a reality. Managing 17 USDA networks contributes to our cybersecurity risks, is not cost effective, and is not conducive to providing USDA employees the access to shared information and bandwidth needed to improve customer service. To support this effort the USDANet Enterprise Infrastructure Solutions (EIS) Task Order was awarded on December 16, 2021, and work has begun on transition activities in support of network modernization.

The OCIO Headquarters is in Washington, D.C. As of September 30, 2021, there were 1,468 full-time permanent employees funded by appropriated (169) and Working Capital Funds (1,299).

OIG AND GAO REPORTS

Table OCIO-1. Completed OIG Reports

ID	Final Report Date	Title	Results
50501-0018-12	10/2018	FY 2018 Federal Information Security Modernization Act (FISMA) Audit	This audit contained 7 recommendations. All recommendations have been implemented. Audit Closed.
50503-0002-12	10/2019	FY 2019 Federal Information Security Modernization Act (FISMA) Audit	This audit contained 3 recommendations. All recommendations have been implemented. Audit Closed.
88403-0001-12	09/2021	SOC 1 Type 2 Examination	No Recommendations.
88801-0001-12	05/2021	USDA’s Information Technology Incident Response Consideration	This audit contained 3 recommendations. All recommendations have been implemented. Audit Closed.

Table OCIO-2. In-Progress OIG Reports

ID	Final Report Date	Title	Results
50501-0017-12	9/2018	Security Over Select USDA Agencies’ Networks and System FY 2018	OIG issued 3 recommendations to USDA for this audit. One recommendation has been implemented and closed. Remediation is underway for the remaining 2 recommendations.
50501-0020-12	6/2019	Improper Usage of USDA’s Information Technology Resources	OIG issued 6 recommendations to USDA for this audit. Two assigned to OCIO have been implemented and closed. Awaiting recommendation closure for 4 issued to OHRM, ARS, APHIS, FS
50501-0020-12(1)	6/2018	Improper Usage of USDA’s Information Technology Resources – Interim Report	OIG issued 7 recommendations to USDA for this audit. Five recommendations have been implemented and closed. Remediation is underway for the remaining 2 recommendations.
50501-0021-12	8/2019	Data Encryption Controls Over Personally Identifiable Information on USDA Information Tech	OIG issued 2 recommendations to USDA for this audit. Remediation is underway for the 2 recommendations.
50501-0022-12	9/2020	Security Over Select USDA Agencies’ Networks and Systems FY 2019	OIG issued 10 recommendations to USDA for this audit. Three recommendations have been implemented and closed. Remediation is underway for the remaining 7 recommendations.
50501-0023-12	9/2020	U.S. Department of Agriculture’s 2020 Compliance with the Geospatial Data Act	OIG issued 2 recommendations to USDA for this audit. One recommendation has been implemented and closed. Remediation is underway for the remaining recommendation.

50503-0003-12	10/2020	FY 2020 Federal Information Security Modernization Act (FISMA) Audit	OIG issued 9 recommendations to USDA for this audit. 7 recommendation have been implemented and closed. Remediation is underway for the 2 remaining recommendations.
88501-0003-12 50801-0001-12	9/2020	Implementation of the IT Modernization Centers of Excellence Improvements	OIG issued 3 recommendations to USDA for this audit. Two recommendations have been implemented and closed. Remediation is underway for the remaining recommendation.

Table OCIO-3. Completed GAO Reports

ID	Final Report Date	Title	Results
101000/18-42	01/2018	Information Technology: Agencies Need to Involve Chief Information Officers in Reviewing Billions of Dollars in Acquisitions	This audit contained 3 recommendations. All recommendations have been implemented. Audit Closed.
101036/18-148	11/2017	Information Technology Reform: Agencies Need to Improve Certification of Incremental Development	This audit contained 2 recommendations. All recommendations have been implemented. Audit Closed.
101056/18-93	08/2018	Federal Chief Information Officers: Critical Actions Needed to Address Shortcomings and Challenges in Implementing Responsibilities	This audit contained 1 recommendation. The recommendation has been implemented. Audit Closed.
102594/19-144	03/2019	Cybersecurity Workforce: Agencies Need to Accurately Categorize Positions to Effectively Identify Critical Staffing Needs	This audit contained 1 recommendation. The recommendation has been implemented. Audit Closed.
102743/19-241	04/2019	Data Center Optimization: Additional Agency Actions Needed to Meet OMB Goals	This audit contained 1 recommendation. The recommendation has been implemented. Audit Closed.
102946/19-146R	12/2018	Department of Agriculture: Analysis of Selected Data Centers Did Not Follow Federal Guidance and Leading Practices	This audit contained 4 recommendations. All recommendations have been closed not implemented. Audit Closed.
103506/20-279	03/2020	Data Center Optimization: Agencies Report Progress, but Oversight and Cybersecurity Risks Need to Be Addressed	This audit contained 1 recommendation. The recommendation has been implemented. Audit Closed.

104223/21-212	03/2021	Data Center Optimization: Agencies Report Progress and Billions Saved, but OMB Needs to Improve Its Utilization Guidance	No Recommendations.
310964/12-791	09/2012	Organizational Transformation: Enterprise Architecture Value Needs to Be Measured and Reported	This audit contained 2 recommendations. One recommendation has been closed implemented and 1 recommendation has been closed not implemented. Audit Closed.

Table OCIO-4. In-Progress GAO Reports

ID	Final Report Date	Title	Results
100087/16-468	5/2016	Information Technology: Federal Agencies Need to Address Aging Legacy Systems	GAO issued 1 recommendation to USDA for this audit. Remediation is underway for the recommendation.
100568/17-464	9/2017	Telecommunications: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs	GAO issued 5 recommendations to USDA for this audit. Three recommendations have been implemented and closed. Remediation is underway for the remaining 2 recommendations.
101360/18-381	7/2018	Paperwork Reduction Act: Agencies Could Better Leverage Review Processes and Public Outreach to Improve Burden Estimates	GAO issued 2 recommendations to USDA for this audit. One recommendation has been implemented and closed. Remediation is underway for the remaining recommendation.
102299/19-58	4/2019	Cloud Computing: Agencies Have Increased Usage and Realized Benefits, but Cost and Savings Data Need to Be Better Tracked	GAO issued 2 recommendations to USDA for this audit. One recommendation has been implemented and closed. Remediation is underway for the remaining recommendation.
102588/20-129	10/2019	Information Technology: Agencies Need to Fully Implement Key Workforce Planning Activities	GAO issued 1 recommendation to USDA for this audit. Remediation is underway for the recommendation.
102633/19-384	7/2019	Cybersecurity Agencies Need to Fully Establish Risk Management Programs and Address Challenges	GAO issued 3 recommendations to USDA for this audit. One recommendation has been implemented and closed. Remediation is underway for the one OCIO recommendation. Awaiting recommendation closure for the one recommendation issued to OBPA.
102968/20-567	9/2020	Information Technology: Selected Federal Agencies Need to Take Additional Actions to Reduce Contract Duplication	OIG issued 5 recommendations to USDA for this audit. Remediation is underway for the 5 recommendations.

103984/21-152	12/2020	Data Governance: Agencies Made Progress in Establishing Governance, but Need to Address Key Milestones	GAO issued 1 recommendation to USDA for this audit. Remediation is underway for the recommendation.
311099/14-44	1/2014	Computer Matching Act: OMB and Selected Agencies Need to Ensure Consistent Implementation	GAO issued 3 recommendations to USDA for this audit. Two recommendations have been implemented and closed. Remediation is underway for the remaining recommendation.
311410/15-617	9/2015	Information Technology Reform: Billions of Dollars in Savings Have Been Realized, but Agencies Need to Complete Reinvestment Plans	GAO issued 1 recommendation to USDA for this audit. Remediation is underway for the recommendation.
104552/21-171	12/2020	Information Technology: Federal Agencies Need to Take Urgent Action to Manage Supply Chain Risks	GAO issued 7 recommendations to USDA for this audit. Remediation is underway.

AVAILABLE FUNDS AND FTEs

Table OCIO-5. Available Funds and Staff Years (thousands of dollars, FTEs)

Item	2020		2021		2022		2023	
	Actual	FTE	Actual	FTE	Enacted	FTE	Budget	FTE
Salaries and Expenses:								
Discretionary Appropriations.....	\$66,580	68	\$66,814	82	\$66,814	82	\$97,547	114
Transfers In.....	-	-	20,000	-	-	-	-	-
Transfers Out.....	-750	-	-	-	-	-	-	-
Total Adjusted Appropriation.....	65,830	68	86,814	82	66,814	82	97,547	114
Balance Available, SOY.....	-	-	-	-	17,680	-	-	-
Total Available.....	65,830	68	86,814	82	84,494	82	97,547	114
Lapsing Balances.....	-503	-	-1,134	-	-	-	-	-
Bal. Available, EOY	-	-	-17,680	-	-	-	-	-
Total Obligations.....	65,327	68	68,000	82	84,494	82	97,547	114
E-GOV Initiative.....	7,794	-	5,182	-	5,544	-	5,544	-
NTIA Spectrum.....	2,029	-	2,271	-	2,109	-	2,109	-
EPMS.....	12,117	5	13,648	5	13,648	5	13,648	5
Project Definition.....	1,539	-	563	-	-	-	-	-
Information Security Center Transfer	7,303	39	10,893	78	10,893	78	10,893	78
Data Analytics.....	7,500	4	4,975	4	4,975	4	4,975	4
Total Appropriation, Other Funding	38,282	48	37,532	87	37,169	87	37,169	87
Total Obligations, OCIO.....	103,609	116	105,532	169	121,663	169	134,716	201
Other Federal Funds (WCF):								
ASC - Office of the Chief Information Officer Oversight.....	1,137	5	1,165	5	1,352	6	1,376	6
Client Experience Center.....	367,401	699	453,091	1,033	458,182	1,222	473,630	1,226
Department Administration Information Technology Office..	9,167	19	15,333	20	13,746	29	14,048	29
Digital Infrastructure Service Center.....	203,052	184	301,342	217	291,120	209	290,780	209
Enterprise Network Services Center.....	61,871	19	86,943	24	86,105	45	71,043	45
Total, Other Federal WCF.....	642,628	926	857,874	1,299	850,505	1,511	850,877	1,515
Total Available, OCIO.....	746,740	1,042	982,220	1,468	972,168	1,680	985,593	1,716

PERMANENT POSITIONS BY GRADE AND FTES**Table OCIO-6. Permanent Positions by Grade and FTES**

Item	2020 Actual			2021 Actual			2022 Estimated			2023 Estimated		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
SES.....	6	-	6	6	-	6	6	-	6	6	-	6
GS-15.....	11	2	13	22	2	24	22	2	24	30	2	32
GS-14.....	19	8	27	35	8	43	35	8	43	39	8	47
GS-13.....	8	27	35	32	27	59	32	27	59	52	27	79
GS-12.....	8	20	28	9	20	29	9	20	29	9	20	29
GS-11.....	1	4	5	2	4	6	2	4	6	2	4	6
GS-9.....	1	-	1	1	-	1	1	-	1	1	-	1
GS-7.....	-	1	1	-	1	1	-	1	1	-	1	1
Total Perm. FT EOY.....	54	62	116	107	62	169	107	62	169	139	62	201
FTE.....	54	62	116	107	62	169	107	62	169	139	62	201

VEHICLE FLEET**Motor Vehicle Fleet**

Client Experience Center's (CEC), under the Office of the Chief Information Officer (OCIO), mission is to support a global customer base and their respective business mission areas as their client IT service provider of choice. CEC works together to securely design, integrate, sustain, and optimize the combined information technologies that empower every aspect of their missions. As the client IT service provider CEC enables our customers' missions through innovative solutions, premier service delivery, and technical expertise at the best value. To increase security, improve customer service, and drive cost savings across the entire Department, OCIO tasked CEC with developing and implementing a vision for consolidating end-user IT support services for all USDA. This effort, referred to as End User Consolidation (EUC), was completed at the end of FY 2020. As a part of EUC, IT services that fall under OCIO-CEC will include remote connectivity, workstation equipment, authentication, and communication and collaboration tools.

The current OCIO-CEC fleet consists of GSA leased vehicles. They are utilized by IT specialists and support teams to assist in keeping the computing environment operating and ensure that computers, applications, networks, and communication technologies are fully functional. CEC uses its fleet to support best industry practices, to organize IT resources and personnel efficiently, and to deploy them where and when they are needed. CEC fleet service allows its employees to travel to field locations and maintain a unified organization dedicated to supporting both the shared and diverse IT requirements. CEC also use the fleet to address issues with malfunctioning IT equipment at these locations. Vehicles are located across the country and Puerto Rico as the IT specialist drive to the many field offices and service centers for IT support, equipment deployments, replacing/disposal of equipment.

OCIO's current fleet is based on mission and geographic needs. As of September 30, 2021, CEC has 209 leased GSA vehicles and Digital Infrastructure Service Center (DISC) has one leased GSA vehicle. The goal is to reach 200 vehicles for OCIO, and 10 vehicles are projected to be turned in to GSA; however, reduction was delayed in Fiscal Year 2021 due to the COVID-19 pandemic. CEC continues to lease vehicles from GSA to provide IT support within USDA. In Fiscal Year 2020, CEC entered a fleet sharing program with FPAC and RD.

Changes to the Motor Vehicle Fleet

In FY 2021, 39 vehicles were replaced, 2 are still pending replacement.

In FY 2022, 10 vehicles are projected to be turned in to GSA and approximately 66 will be replaced.

Note: In FY 2021, due to Pandemic vehicles to be turned in was delayed.

Replacement of Passenger Motor Vehicles

The GSA leased vehicles are replaced based on the GSA regulations.

Impediments to Managing the Motor Vehicle Fleet

There are none currently.

Statement of Proposed Purchase of Passenger Moto Vehicles

CEC has no plans to purchase vehicles.

Aircraft

CEC owns no aircraft.

Fiscal Year	Sedans and Station Wagons	Lt. Trucks, SUVs, and Vans (4x2)	Lt. Trucks, SUVs, and Vans (4x4)	Total Vehicles	Annual Operating Costs
2020	163	21	26	210	\$8,631
Change	-34	+29	+5	-	-939
2021	129	50	31	210	7,692
Change	-10	-	-	-10	-380
2022	119	50	31	200	7,312
Change	-25	+25	-	-	+188
2023	94	75	31	200	7,500

SHARED FUNDING PROJECTS**Table OCIO-7. Shared Funding Projects (thousands of dollars)**

Item	2020 Actual	2021 Actual	2022 Estimated	2023 Estimated
Working Capital Fund:				
Administrative Services:				
Material Management Service.....	72	1,288	118	122
Mail and Reproduction Services.....	180	134	85	86
Integrated Procurement Systems.....	347	326	358	355
Procurement Operations Services.....	4,627	4,563	5,294	5,610
Human Resources Enterprise Management Systems.....	12	13	16	17
Subtotal, Administrative Services.....	5,238	6,324	5,871	6,190
Communications:				
Creative Media & Broadcast Center.....	7	893	18	22
Executive Secretariat:				
Office of the Executive Secretariat.....	1,392	-	-	-
Finance and Management:				
National Finance Center.....	263	272	353	354
Financial Management Systems.....	1,064	1,153	1,327	1,374
Internal Control Support Services.....	266	184	192	185
Financial Management Support Services.....	434	429	449	449
Subtotal, Finance and Management.....	2,027	2,038	2,321	2,362
Information Technology:				
Client Experience Center.....	5,581	7,254	7,687	8,041
Department Administration Information Technology Office...	725	842	422	437
Digital Infrastructure Services Center.....	10,417	11,876	15,179	14,545
Enterprise Network Services.....	27,797	13,342	11,756	8,483
Subtotal, Information Technology.....	44,520	33,314	35,044	31,506
Correspondence Management Services.....	-	7	9	9
Total, Working Capital Fund.....	51,792	42,576	43,263	40,089
Department-Wide Shared Cost Programs:				
Agency Partnership Outreach.....	88	77	116	116
Human Resources Self-Service Dashboard.....	7	-	-	-
Medical Services.....	5	45	46	47
National capital Region Interpreting Services.....	-	-	21	26
Office of Customer Experience.....	65	108	137	137
Personnel and Document Security Program.....	28	33	41	41
Physical Security.....	67	48	67	68
Security Detail.....	53	51	71	72
Security Operations Program.....	67	72	97	97
TARGET Center.....	13	13	21	21
USDA Enterprise Data Analytics Services.....	93	61	70	70
Total, Department-Wide Reimbursable Programs.....	486	508	687	695
E-Gov:				
Budget Formulation and Execution Line of Business.....	1	1	1	1
Hiring Assess.....	-	-	4	4
Financial Management Line of Business.....	2	2	1	1
Geospatial Line of Business.....	13	13	13	13
Human Resources Line of Business.....	3	3	4	4
Integrated Acquisition Environment.....	17	17	-	-
Total, E-Gov.....	36	36	23	23
Agency Total.....	52,314	43,120	43,973	40,807

ACCOUNT I: SALARIES AND EXPENSES

APPROPRIATIONS LANGUAGE AND EXPLANATION OF CHANGES

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

Office of the Chief Information Officer

For necessary expenses of the Office of the Chief Information Officer, [~~\$101,001,000~~]\$97,547,000.

LEAD-OFF TABULAR STATEMENT

Table OCIO-8. Lead-Off Tabular Statement

Item	Amount
Estimate, 2022.....	\$66,814,000
Change in Appropriation.....	+ 30,733,000
FY 2023 Budget Estimate.....	<u>97,547,000</u>

PROJECT STATEMENT

Table OCIO-9. Project Statement (thousands of dollars, FTEs)

Item	2020		2021		2022		2023		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE			
Discretionary Appropriations:											
Office of the Chief Information Officer...	\$66,580	68	\$66,814	80	\$66,814	82	\$97,547	114	+30,733	+32	(1)
Transfers In*:											
Goodfellow Federal Center.....	-	-	20,000	-	-	-	-	-	-	-	-
Total Transfers In.....	-	-	20,000	-	-	-	-	-	-	-	-
Transfers Out:											
Working Capital Fund.....	-750	-	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	-	-	-	-	17,680	-	-	-	-	-	-
Total Available.....	65,830	68	86,814	80	84,494	82	97,547	114	+30,733	-	-
Lapsing Balances.....	-503	-	-1,134	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	-	-	-17,680	-	-	-	-	-	-	-	-
Total Obligations.....	<u>65,327</u>	<u>68</u>	<u>68,000</u>	<u>80</u>	<u>84,494</u>	<u>82</u>	<u>97,547</u>	<u>114</u>	<u>+13,053</u>	<u>+32</u>	

Table OCIO-10. Project Statement (thousands of dollars, FTEs)

Item	2020		2021		2022		2023		Inc. or Dec.	FTE Inc or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Office of the Chief Information Officer.....	\$65,327	68	\$65,680	80	\$84,494	82	\$97,547	114	+\$13,053	+32
Goodfellow Federal Center.....	-	-	2,320	-	-	-	-	-	-	-
Total Obligations.....	65,327	68	68,000	80	84,494	82	97,547	114	+13,053	+32
Add back:.....										
Lapsing Balances.....	503	-	1,134	-	-	-	-	-	-	-
Goodfellow Federal Center.....	-	-	17,680	-	-	-	-	-	-	-
Total Available.....	<u>65,830</u>	<u>68</u>	<u>86,814</u>	<u>80</u>	<u>84,494</u>	<u>82</u>	<u>97,547</u>	<u>114</u>	<u>+13,053</u>	<u>+32</u>

Less:

Total Transfers In.....			-20,000	-	-	-	-	-	-	-
Total Transfers Out.....	750	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....				-	-17,680	-	-	-	-	-
Total Appropriation.....	66,580	68	66,814	80	66,814	82	97,547	114	+30,733	+32

Office of the Chief Information Officer

Base funds will allow the OCIO to continue to provide guidance, leadership and coordination for the Department’s information management, technology investment and cyber security activities in support of USDA program delivery. In addition to Departmental Administration funding used for human resources operational services, current year and budget year base funds may also be used to support expedited and enhanced classification, staffing and processing efforts.

- (1) A net increase of \$30,733,000 and 32 additional FTEs for the OCIO (\$66,814,000 and 82 FTEs available in 2022).

The funding change is requested for the following items:

- A) An increase of \$459,000, which includes \$325,940 for pay inflation and \$133,060 for FERS for 2022 Pay and FERS.

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

An increase of \$738,000 for 2023 Pay.

This increase will support the annualization of the 2022 2.7 percent Cost of Living pay increase and the 2023 4.6 percent Cost of Living pay increase. This increase will allow the OCIO to continue to maximize the value of information technology acquisitions to improve the efficiency and effectiveness of USDA program. This critical increase is needed to support and maintain current staffing levels to meet the program demands and statutory requirements imposed on OCIO. Elimination of the pay cost increase means the OCIO would be forced to decrease funding for staffing and mission critical contracts. Approximately 24 percent of our budget supports personnel compensation and benefits. Failure to receive this increase would prevent us from fully performing our mission, which is necessary to ensure continued IT support for all areas of the Department as well as meeting the needs of the Executive Office of the President and members of Congress.

- B) An increase of \$8,000 for Shared Cost Programs and Working Capital Fund Inflationary Increases.

An increase of \$8,000 for Shared Cost Programs inflationary costs. This increase will support an inflationary percentage increase of 2 percent for the Office of the Chief Information Officer to continue to fund the required fixed Departmental programs.

- C) An increase of \$5,000,000 and 9 FTEs to Continuous Diagnostics and Mitigation Program.

This increase will support Continuous Diagnostics Monitoring (CDM) by allowing for inflationary costs and increases in Program and Project Management support, related training, as well as implementation of an Endpoint Detection and Response (EDR) capability.

If funding is not received USDA will have significant challenges in meeting requirements mandated by Executive Order (EO) 14028, Improving the Nation’s Cybersecurity. Of these requirements, OMB M-22-01, Improving Detection of Cybersecurity Vulnerabilities and Incidents on Federal Government Systems through Endpoint Detection and Response, mandates Federal Executive Civilian Branch (FECB) agencies adopt a robust Endpoint Detection and Response (EDR) solution as part of the shift in cyber defense from a reactive to a proactive posture. OMB M-22-01 mandates that FECBs meet the first of four-maturity levels by the end of August 2022. Without funding USDA will not meet this mandate.

The USDA CDM program delivers capabilities in four areas: asset management, identity management, network security management, and data protection management. The USDA CDM program holds an essential role in meeting these unfunded mandates, but additional funding is required. Without additional funding, USDA will not be able to properly secure its users, systems, networks, and data.

D) An increase of \$1,600,000 and 8 FTEs to Cyber Workforce Requirements and Training Program.

Based on the workload analysis by position, this increase will fund 8 additional FTEs for a fully staffed 21st century cyber workforce, in addition to Boot Camps, Executive Leadership Training, exams, and certification renewal, allowing ISC to:

- Reduce contractor numbers for project managers and training support
- Reduce contractor numbers to ensure governmental functions of program audits and policy are performed by federal staff
- Augment support needed from consolidation of security functions, such as firewall management and mainframe security, and other functions identified through RACI documentation

If funding is not received, USDA will not be able to meet the evolving demands required to secure the USDA networks and systems. Without sufficiently skilled cybersecurity staff, USDA will not be able to effectively identify, detect, protect, respond, and recover from cybersecurity threats and attacks. In addition, additional staff are required to assess, design, and develop solutions to the unfunded mandates associated with EO 14028. Not addressing this requirement will result in increased risk to the Department and its missions.

E) An increase of \$17,473,000 for Cyber Security Continuous Diagnostics Monitoring Phases 1-3.

OCIO, Information Security Center (ISC), Continuous Diagnostics Monitoring (CDM) Program provides information security, continuous monitoring, and risk analysis, prioritization, and mitigation capabilities to improve cyber security of USDA IT assets and strengthen the security posture of USDA agency and office networks. USDA centrally manages and coordinates procurement, installation, training, architecture alignment, security analysis, operation, and maintenance of the Department of Homeland Security (DHS) CDM-recommended security diagnostics, sensors, and tools deployed at USDA. Using data gathered and reported by sensors, tools, and USDA-level CDM dashboard, USDA security and IT management and staff identify risks and vulnerabilities affecting IT assets to fix first and remediate in a timely manner.

The additional funding request for \$17.473 million to the FY 2023 budget will support CDM Phases 1-3. This increase will support CDM by allowing for inflationary costs and increases in Program and Project Management support, and related training. In addition, USDA CDM will be responsible for multiple software licenses, beginning in FY21:

- Hardware Asset Management (HWAM) – ForeScout CounterACT
- Software Asset Management (SWAM) – CarbonBlack Protection
- Security Information and Event Management (SIEM) – Splunk
- Dashboard – RSA Archer
- Privilege Management (PRIVMGMT) – CyberArk
- Credential Management (CREDMGMT) – Centrify and SailPoint

If the CDM program is unfunded, OCIO's ability to operate and maintain and update CDM tools, the CDM Dashboard, and ancillary hardware and software will be further degraded and additional recommended hardware, software will not be purchased, thereby increasing USDA's overall cyberthreat footprint. This will affect purchasing network infrastructure, firewall, virtual machines, etc.) that run and support the CDM solutions that automatically/continuously collect data on the identification of hardware, software, configuration characteristics and known security vulnerabilities; on the insider threat and ensuring the user population, including privileged users, have the right access, need to know, and exhibit the appropriate behavior while operating in the infrastructure; and analyzes events/incidents, identifies and prioritizes cyber security risks on an ongoing basis will be further degraded and additional recommended hardware, software will not be purchased, thereby increasing USDA's overall threat footprint.

OCIO would also be unable to develop, operate, and maintain the CDM Test Lab which will simulate the USDA network and IT environment and enable security engineers and analysts to safely test CDM tools upgrades, patches and functional and operational updates for readiness and compatibility before implementation in the USDA's CDM production environment.

The requested funding would also support delivery of hundreds of data products to USDA leadership and staff; enable more advanced analytics and support USDA's data strategy to solve key challenges with integrating USDA data and other agricultural data to provide better data to decision makers, researchers, and farmers; and would include an enterprise data catalog. Staffing levels would remain unchanged from FY22 levels, but with this funding, USDA will be able to realize efficiencies and cost avoidance through a shared platform with flexibility to meet USDA's current and future needs.

Additionally, without this increase, OCIO's ability to provide adequate Program and Project Management support for CDM Phases 1-4 will also be impacted.

F) An increase of \$1,200,000 to Zero Trust Architecture Program.

This increase would focus on improving capabilities for every aspect of Information Technology (Users, Devices, Workloads, Data, Network/Environment) department-wide:

- Augment and extend Cloud Access Security Broker (CASB) services by ensuring Zero Trust requirements and capabilities are researched, gathered, and incorporated into EIS task orders, to augment or extend capabilities provided by the MCAS integration.
- Develop holistic ZT / Micro-Segmentation strategy/plan for USDA Cloud based, Secure Access Service Edge (SaSe), and on-prem, enterprise data centers.
- Analyze risks and identify gaps due to the reliance on mainframes for financial services for staff offices and mission areas. Develop a road map towards Zero Trust specific to mainframe to address Privilege Access Management (PAM) and long-term strategy to modernize.
- Investigation and exploration of methods to enforce and adopt Multi Factor Authentication (MFA) (beyond PIV).
- Facilitate enhanced Access Management capabilities for Least Privilege, Separation of Duties (SoD), and align with Continuous Diagnostics and Mitigation (CDM) for Privileged Access Management (PAM) integration.
- Increase awareness of the synergy of CDM mandates to Zero Trust and consistent utilization of CDM capabilities.
- Review Legacy USDA Cybersecurity Policy and identify updates to include Zero Trust verbiage
- Gather information and conduct a Network / Security architecture analysis specific to the Natural Resource Environment (NRE) Mission area for to ZT strategy

In January 2022, OMB released M-22-09, Moving the U.S. Government Toward Zero Trust Cybersecurity Principles, which mandates all Federal Agencies implement a zero-trust architecture by the end of FY 2024. In the memorandum, OMB directs Agencies to seek additional funding in support of the initiative. Zero trust is a complex, multi-faceted initiative that touches virtually every aspect of information technology service delivery and security operations services. Without additional funding, USDA will not be able to meet the mandate.

G) An increase of \$4,255,000 and 9 FTEs to streamline the Enterprise Data Analytics Program from the Shared Costs Program.

An increase of \$4.3 million and 9 FTEs to facilitate the realignment the Enterprise Data Analytics Services (EDAS) program contained within the Shared Cost Portfolio to the Office of the Chief Information Officer appropriation. After analysis conducted by the USDA's Advisory Committee of the Shared Costs portfolio, USDA determined that the realignment of resources associated with this program to the servicing organizations would better serve and meet the needs of the Department by improving oversight, transparency, and accountability, in addition to a realization in management efficiencies by reducing workload and administrative expenses.

The EDAS program utilizes USDA's Enterprise Data Analytics Platform and Toolset (EDAPT) to deliver data and analytics solutions for the enterprise. This platform delivers a cost effective and integrated solution for sharing, analyzing, and reporting on the department's priority administrative and programmatic data. The services program delivers core platform management functions including engineering support for access and enhancements to connected data sources, operations and maintenance support, and coordination across USDA on access management and site utilization. If appropriated funds are not enacted, the SCP will continue as we have funded them in the past.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTEs**Table OCIO-11. Geographic Breakdown of Obligations and FTEs (thousands of dollars, FTEs)**

State/Territory/Country	2020		2021		2022		2023	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Arkansas.....	\$1,896	2	\$1,959	2	\$1,998	2	\$2,090	2
California.....	1,896	2	1,959	2	1,998	2	2,090	2
Colorado.....	3,818	4	7,751	8	7,906	8	8,270	8
Connecticut.....	935	1	-	-	-	-	-	-
District of Columbia.....	18,736	19	33,833	33	34,325	33	45,070	65
Florida.....	1,896	2	-	-	-	-	-	-
Georgia.....	-	-	1,024	1	1,044	1	1,093	1
Iowa.....	4,779	5	-	-	-	-	-	-
Illinois.....	935	1	-	-	-	-	-	-
Kansas.....	-	-	1,024	1	1,044	1	1,093	1
Louisiana.....	5,740	6	5,803	6	5,919	6	6,191	6
Maryland.....	3,818	4	3,881	4	3,959	4	4,141	4
Missouri.....	11,506	12	2,700	17	18,073	17	18,904	17
Nebraska.....	-	-	1,024	1	1,044	1	1,093	1
New Mexico.....	935	1	2,946	3	3,005	3	3,143	3
New York.....	935	1	-	-	-	-	-	-
North Carolina.....	935	1	-	-	-	-	-	-
North Dakota.....	935	1	1,024	1	1,044	1	1,093	1
Ohio.....	935	1	-	-	-	-	-	-
Oklahoma.....	1,896	2	-	-	-	-	-	-
Oregon.....	935	1	1,024	1	1,044	1	1,093	1
Pennsylvania.....	935	1	1,024	1	1,044	1	1,093	1
Tennessee.....	-	-	1,024	1	1,044	1	1,093	1
Washington.....	935	1	-	-	-	-	-	-
Obligations.....	65,327	68	68,000	82	84,494	82	97,547	114
Lapsing Balances	503	-	1,134	-	-	-	-	-
Bal. Available, EOY.....	-	-	17,680	-	-	-	-	-
Total, Available.....	65,830	68	86,814	82	84,494	82	97,547	114

CLASSIFICATION BY OBJECTS

Table OCIO-12 Classification by Objects (thousands of dollars)

Item No.	Item	2020 Actual	2021 Actual	2022 Estimated	2023 Estimated
Personnel Compensation:					
	Washington D.C.....	\$2,732	\$5,473	\$6,714	\$11,290
	Personnel Compensation, Field.....	6,689	4,853	3,891	5,037
11	Total personnel compensation.....	9,421	10,326	10,605	16,327
12	Personal benefits.....	3,021	3,627	3,725	5,629
13.0	Benefits for former personnel.....	9	5	15	15
	Total, personnel comp. and benefits.....	12,451	13,958	14,345	21,971
Other Objects:					
21.0	Travel and transportation of persons.....	52	1	550	582
22.0	Transportation of things.....	-	1	-	-
23.1	Rental payments to GSA.....	230	248	253	253
23.3	Communications, utilities, and misc. charges.....	374	309	312	392
24.0	Printing and reproduction.....	67	44	45	45
25	Other contractual services.....	-	15,921	41,021	46,200
25.1	Advisory and assistance services.....	8,730	8,923	8,730	8,730
25.2	Other services from non-Federal sources.....	220	-	-	-
25.3	Other goods and services from Federal sources.....	1,176	2,515	2,715	2,715
25.4	Operation and maintenance of facilities.....	26,465	21,232	14,350	14,350
25.5	Research and development contracts.....	36	601	35	35
25.6	Medical Care.....	10,196	-	-	-
25.7	Operation and maintenance of equipment.....	3	-	-	-
26.0	Supplies and materials.....	4,061	973	660	732
31.0	Equipment.....	1,000	3,147	1,478	1,542
42.0	Insurance Claims and Indemnities.....	239	127	-	-
43.0	Interest and Dividends.....	27	-	-	-
	Total, Other Objects.....	52,876	54,042	70,149	75,576
99.9	Total, new obligations.....	65,327	68,000	84,494	97,547
	DHS Building Security Payments (included in 25.3).....	\$83	\$83	\$26	\$27
Information Technology Investments:					
Name of Major Investment..... SO-OCIO-DISC-AgLearn					
11	Internal Labor.....	572	532	641	641
	External Labor (Contractors).....	2,514	2691	4388	4,388
25.2	Outside Services (Consulting).....	68	1	-	-
Information Technology Investments:					
Name of Major Investment..... SO-OCIO-DISC-Robotics Process Automation (RPA)					
11	Internal Labor.....	146	300	146	146
	External Labor (Contractors).....	382	1311	691	691
25.2	Outside Services (Consulting).....	1,198	0	1,198	1198
Information Technology Investments:					
Name of Major Investment..... SO-OCIO-Enterprise Data Analytics Platform and Toolset (EDAPT)					
25.2	Outside Services (Consulting).....	7,438	18180	5000	5000
Information Technology Investments:					

Name of Major Investment.....		Standard IT Infrastructure Investments			
11	Internal Labor.....	143,293	194656	165406	165406
	External Labor (Contractors).....	155,869	242020	340603	340603
25.2	Outside Services (Consulting).....	21,843	21558	64584	64584
Position Data:					
	Average Salary (dollars), ES Position.....	\$182,110	\$182,110	\$184,842	\$187,614
	Average Salary (dollars), GS Position.....	\$126,578	\$126,578	\$37,668	\$38,233
	Average Grade, GS Position.....	13.10	13.10	10.2	10.0

STATUS OF PROGRAMS

The Clinger-Cohen Act of 1996 required the establishment of a Chief Information Officer (CIO) for all major Federal agencies. The Act requires USDA to maximize the value of information technology acquisitions to improve the efficiency and effectiveness of USDA programs. To meet the intent of the law and to provide a Departmental focus for information resources management issues, USDA Secretary's Memorandum 1030-30, dated August 8, 1996, established the Office of the Chief Information Officer (OCIO). The CIO serves as the primary advisor to the Secretary on Information Technology (IT) issues. OCIO provides leadership for the Department's information and IT management activities in support of USDA program delivery.

Additionally, the Federal Information Technology Acquisition Reform Act (FITARA), enacted on December 19, 2014, augments the Clinger-Cohen Act, and strengthens the role of the CIO. FITARA outlines specific requirements related to:

- Agency Chief Information Officer (ACIO) Authority Enhancements
- Enhanced Transparency and Improved Risk Management in IT Investments
- Portfolio Review
- Federal Data Center Consolidation Initiative
- Expansion of Training and Use of IT Cadres
- Maximizing the Benefit of the Federal Strategic Sourcing Initiative
- Government-wide Software Purchasing Program

Current Activities

Federal Information Technology Acquisition Reform Act (FITARA)

FITARA is focused on improving the management of IT across the Department and improving the scores on the Biannual House of Representative's Committee on Oversight and Reform's (COR) FITARA Scorecard. The 13th iteration of the FITARA Scorecard, released January 2022, continued to grade the agency's implementation of:

1. Federal Information Technology Acquisition Reform (FITARA) provisions.
2. Modernizing Government Technology (MGT) Act.
3. Federal Information Security Modernization Act of 2014 (FISMA).
4. Enterprise Infrastructure Solutions (EIS) transition.

USDA has received a C+ for Scorecard 13.0 and projects to achieve a B+ for Scorecard 14.0 under the following conditions:

1. Increase the score for Incremental Development.
2. Provide more realized cost Savings and Avoidance.
3. Maintain the score for the Managing Government Technology Act.
4. Maintain the score for the Data Center Optimization Initiative (DCOI) and Managing Government Technology Act (MGT).
5. Achieve a Disconnect rate above 81 percent as part of the Enterprise Information Solutions transition.

The Director of FITARA developed a Scorecard Improvement plan to achieve an A+ on the FITARA Scorecard in FY 2022, however the USDA grade on the FITARA Scorecard 13.0, released on January 20, 2022, dropped to a C+. The Scorecard Improvement plan to was updated to address the deficiencies identified in the Scorecard 13.0 and, in turn, continue to ensure that USDA's IT Investments are well planned, cost-effective, and support the missions and business goals of the organization. The plan is designed to address the deficiencies and gaps in the categories on the FITARA Scorecard, continue to collaborate with the IT Stakeholders and work closely with the GAO to improve the grade on Scorecard 14.0. The COR is expecting to release the next iteration of the scorecard in June 2022.

To improve the FITARA Scorecard grade, the FITARA Team is focused on the following activities:

1. Maintain the grade of an A for the IT Modernization Working Capital Fund (WCF) and Data Center Optimization Initiative (DCOI). The Working Capital Fund (WCF) Policy was updated to clearly identify the USD CIO as the sole decision authority for the IT Modernization WCF (T-Fund) and provided an updated response to Congress.
2. Increase data quality to ensure all active projects and activities show releases of usable functionality in six-month increments were applicable.

3. The Information Resource Management Center I will review projects/activities data monthly to identify gaps.
4. Critically review all projects and activities for completeness.
5. Accurately track and update all cost savings in AgMax (the USDA IT investment / portfolio management tool).
6. Ensure EIS transition activities are updated to reflect current status.
7. Implement action plan to execute FISMA related tasks.

Improvement in the areas identified above will have USDA on the path to an A+.

E-Government

USDA participates in eight E-Government Presidential Initiatives and six Lines of Business (LoB), each fulfilling the requirements under the E-Government Act of 2002 (Section 206), the Clinger-Cohen Act, and the Government Paperwork Elimination Act, as well as furthering the effectiveness and efficiency of government. These initiatives involve mission area, agency, and staff office collaboration through support of pilot projects and the use of innovative technologies in which USDA typically contributes a share of operational costs based on a combination of service usage metrics.

USDA Funded E-Government Presidential Initiatives and Lines of Business	
Initiatives	Lines of Business (LoB)
Benefits.gov	Budget Formulation and Execution LoB
Disaster Assistance Improvement Plan	Financial Management LoB
E-Rulemaking	Geospatial LoB
Grants.gov	Human Resources Management LoB
*Federal PKI Bridge	*Performance Management LoB
*Freedom of Information Act Portal	Hiring Assessment LoB
Integrated Award Environment (IAE)	
*USAJOBS	

***These initiatives are not funded through the E-government program.**

Enterprise Architecture

The Enterprise Architecture Division (EAD) provides a planning concept and delivery process designed to help translate business strategies into mission results. EAD leverages data as a strategic asset so that architecture becomes a tool to make data-driven decisions that optimize resources and identify duplication and cost saving opportunities. The EAD team supports the creation of an integrated, tiered Enterprise Architecture (EA) that supports improved planning and risk management at both the agency and Department levels. Additionally, the team supports standardization on common computing platforms to enhance interoperability and reduce cost of ownership as well as improves the USDA’s planning and decision-making by more closely aligning EA activities to the IT Capital Planning processes.

- The EAD team worked with the Capital Planning team to integrate AgMax and Enterprise Architecture Visioning Environment (EAVE). Data Integration effort in support of Department Application Rationalization initiative will continue in FY 2022 to provide cost information at the application level, for other Mission Area applications/assets. Geospatial was the pilot for this effort.
- The EAD team engaged in a collaborative effort with the Information Security Center (ISC) to develop a Security Architecture and initialed discussion to integrate the security architecture into the EAVE. ISC has begun the process of entering the security architecture in EAVE. In FY 2022, EAD will continue to work with ISC to update and mature the security architecture and framework into EAVE. Additionally, EAD will

continue to work with the Office of the Chief Financial Officer (OCFO) to integrate new financial management regulations and requirements within EAVE.

- The EAD team worked with the Mission Areas to update the USDA Level 1, 2 and 3 Business capabilities in support of the Department Application Rationalization initiative and mapping of capabilities to assets as requested for the Secretary’s data request. In FY 2022, EAD will continue to work on maturing business capabilities. In FY 2021, EAD worked with Mission Areas to map capabilities to applications that have been identified within the USDA portfolio. In FY 2022, the EAD will continue to work with Mission Areas to continue validating their respective application inventories and look for opportunities to reduce and/or streamline USDA application footprint across the business capabilities.
- The EAD team worked with the Mission Areas to build out the infrastructure domain within EAVE. In FY 2022, EAD will continue to work with the Mission Areas to populate the infrastructure domain in EAVE. In FY 2022, EAD will also migrate the USDA Standards Profile into EAVE.
- The EAD team worked with the Capital Planning to develop an API to allow bi-directional data exchange between AgMAX and EAVE. In FY 2022, EAD will continue to pursue other APIs between other applications (CSAM, ServiceNow, etc.) to provide ease of use in gathering required/requested data.

Capital Planning and IT Governance (CPITG)

CPITG governs and oversees 211 total IT investments (41 Major, 46 Non-Major Investments, 73 Standards, 51 IT Funding Transfers), managing USDA’s \$2.5 billion IT investment portfolio is CPITGD’s primary mission.

CPITG is responsible for ensuring that the Department’s IT investments deliver products that result in business value to the agencies, while providing a positive return on the IT investments for taxpayers. The CPITG ensures the establishment and implementation of IT Governance through strategic initiatives, sound structure, oversight, regulatory compliance, accountability, transparency, and the fiscal responsibility of IT decisions.

A focus of the program is to reinforce the requirements from the Secretary, Deputy Secretary, the CIO and the Office of Management and Budget (OMB) to the mission areas regarding ensuring the transparency, accountability and alignment of Agency IT portfolio of investments and USDA strategic priorities throughout the investment life cycle. Verification and validation of these requirements are done through monthly, quarterly, and annual investment reviews and reporting to the USDA and OMB, which includes CIO investment evaluations, acquisition approval requests reviews and decisions and quarterly OMB integrated data collections (IDCs). Additionally, monthly and/or quarterly Governance Board Reviews at the Mission Areas and the Department levels, ad-hoc Program Reviews and Tech-Stat Reviews are conducted with the USDA Senior Leaders.

CPIC and IT Governance aid USDA in addressing transparency and accountability through the Department-wide implementation of an industry best practice, and OMB adopted taxonomy known as Technology Business Management (TBM), which is the sharing of information at the lowest level that reduces silos, enables cost transparency, supports data-driven decisions across lines of businesses (IT, Finance, Budget, Acquisition and HR) and improves customer experiences and accountability. In partnership with the Office of Budget and Program Analysis, OCIO Capital Planning manages the IT budget formulation and execution processes. Capital Planning and IT Governance is working with the Office of Procurement and Contracting to automate acquisition approval requests (AAR) and contract information data exchange to strengthen and streamline the IT acquisition process.

Capital Planning worked with the Enterprise Architecture Division to integrate AgMAX and EAVE as part of Data Integration effort in support of the Department Application Rationalization initiative. An output of the application rationalization was the Geospatial pilot. This integration of the two systems along with identifying the related business capabilities to cost information at the application level by Mission Area applications/assets aligned to the TBM taxonomy will continue into FY 2022.

As part of enterprise IT Governance, Capital Planning is coordinating and tracking the Technology Modernization Funds requests for USDA. The requests are put into the Department's IT Governance process for review and decisions.

The Department’s Executive IT Investment Review Board (E-Board) serves as the USDA senior authoritative body charged with the oversight of IT investments with consideration to government “best practices”, the OMB’s Circulars, Federal Acquisition Regulation, and any USDA official IT guidance and policies.

Cybersecurity (USDA Chief Information Security Officer)

The Information Security Center (ISC), formerly the Agriculture Security Operations Center (ASOC), was funded by Congress in 2009 and mandated by OMB M-19-02 to serve as a focal point for addressing cybersecurity incidents within all agencies, offices, branches, and entities of USDA. ISC's mission is to increase the Department's awareness of cyber threats and vulnerabilities while enhancing readiness in preparing for and responding to attacks involving USDA's computer systems and networks, as well as a complete Assessment and Authorization (A&A) via the Risk Management Framework (RMF) process for all USDA systems.

In accordance with FISMA and other mandates (OMB memoranda, Executive Orders, Binding Operational Directives, etc.), ISC diligently manages system security compliance activities across all USDA information systems, develops cybersecurity policy and supports audit-related activities. All USDA FISMA audit activities during FY 2021 were completed on time. During FY 2021, ISC successfully closed 21 outstanding Office of Inspector General (OIG) audit recommendations and three OIG audits, significantly reducing risks to the IT enterprise.

During FY 2021, ISC continued to streamline the USDA A&A process through automation in accordance with National Institutes of Standards and Technology (NIST) Special Publication (SP) 800-53 Revision 4. In addition to maintaining specific standards, ISC began the process of establishing the foundational work for USDA to transition to NIST SP 800-37 Revision 2, that will greatly increase the risk management ability of USDA systems.

During FY 2021, ISC did not meet OMB's goal of 100 percent of USDA systems with a current Authority to Operate but achieved 97percent. However, ISC increased the number of systems having Business Impact Analysis (BIA) in place by 31percent, thereby achieving an overall 84percent across the enterprise. High Value Assets (HVA) BIA increased 50 percent, resulting in 85 percent HVA BIA Compliance. By the end of FY 2021, 100 percent of high-impact systems and nearly all HVAs have BIAs in place, with the remainder being actively addressed. In compliance with FISMA and applicable OMB and USDA directives, ISC facilitated closure of over 1,210 Plans of Action and Milestones (POA&Ms). In addition, POA&Ms were tracked to identify, assess, prioritize, and monitor agencies' progress towards correcting security deficiencies and/or vulnerabilities.

ISC Operational Security Assessment and Penetration Testing Programs were comprehensive security assessment mechanisms that supported the Department's goal of improving the overall security posture. Both programs examined and evaluated agency's information technology systems and the supporting operational policies and procedures. The programs provided USDA agencies with timely and actionable intelligence to assist in defending valuable business and mission assets against threats. The programs enabled agencies to prioritize and remediate vulnerabilities in a timely manner, improve security posture, and strengthen the protection of information and associated assets.

In FY 2021, ISC conducted penetration testing on 31 mission areas and offices. Each mission area and/or headquarter office tested was provided an out-briefing which allowed the technical staff an opportunity to address specific exploitations. Additionally, the penetration test team conducted three component level operational security assessments for the Research, Education, and Economics, Food Nutrition and Consumer Services , and the Food Safety mission areas.

ISC implemented and matured several security tools and capabilities. Microsoft Defender for Endpoint covers all end users and provides analyses for security related events across the Department, identifies malicious activity, and supplies a forensic analysis capability. With the recent consolidated logging capability, Splunk Enterprise Security is used as a Security Information and Event Management System to collect all server logs. Also, Tanium monitoring allows for rapid cyber incident detection and response to include immediate device isolation, live response forensics, and antivirus scanning. These tools have broadened ISC's visibility, allowing ISC to rapidly respond to security events and protect USDA's IT assets.

ISC continues to improve its HVA Program by working with the Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA) to assess the HVA overlay controls in compliance with OMB Memorandum 19-03. In FY 2021, CISA assessed two of USDA's 16 Tier 1 HVA systems and USDA resolved the resulting POA&Ms with 100% compliance.

In June 2021, Executive Order 14028, "Improving the Nation's Cybersecurity" was issued, focusing on the prevention, detection, assessment, and remediation of cyber incidents is a top priority and essential to national and

economic security. Through this order, USDA has provided to OMB our Zero Trust strategy and Cloud Adoption Plan. Additionally, USDA has provided data and statistics on our adoption of multi-factor authentication and encryption, data sensitivity categorization, critical systems categorization, and USDA’s logging maturity level.

ISC continues to act as an early adopter for the DHS Continuous Diagnostics and Mitigation Program in accordance with OMB Memorandum 14-03, “Enhancing the Security of Federal Information and Information Systems”, which established requirements for Information Security Continuous Monitoring. In FY 2021, USDA implemented the Application Allow-Deny List capability, completed Identity Access Management integration, and continued Identity Credential Access Management for privileged access users. USDA was also able to connect the Agency dashboard to the Federal dashboard to share key security datapoints with Department of Homeland Security Cybersecurity and Infrastructure Security Agency (DHS CISA).

ISC is focused on four key areas: Zero Trust; Risk Management Framework (RMF) 2.0; 21st Century Workforce Initiative; and Artificial Intelligence/Robotic Process Automation (AI/RPA). Zero Trust will focus on evolving the cybersecurity paradigms that move defenses from static, network-based perimeters to focus on the users, assets and resources. RMF 2.0 will align USDA with the next generation risk management framework, incorporating privacy and supply chain risk management into our assessment and authorization processes. The ISC 21st Century Workforce Initiative will ensure the USDA cybersecurity workforce aligns with the National Initiative for Cybersecurity Education Framework. Finally, ISC will focus on maturing AI/RPA to increase productivity throughout USDA. Cyber security threats and responses continue to evolve and will continue to be a priority in the new 2022-2026 Strategic Plan under development.

Chief Data Officer and Enterprise Analytics

The role of the Chief Data Officer (CDO) is established by the Foundations for Evidence Based Policy-Making Act and requires the CDO to manage data as a strategic asset. In addition, the CDO leads initiatives in developing the analytics capabilities of the organization and leads priority data initiatives for the Department.

During FY 2021, the CDO developed the USDA Data Strategy which sets multi-year objectives to mature data governance, establish a common enterprise data warehouse, develop the analytics workforce and promote open data. The strategy was developed with input from mission area stakeholders across USDA.

The CDO assessed existing data in support of the executive order on equity and the work of USDA to develop a comprehensive report on how USDA programs support the equity priority. This assessment identified numerous programs which provide services and support to the public but also identified gaps in the data collected which would allow USDA to evaluate how those programs are being delivered according to various racial, socioeconomic and other demographics.

CDO led several data warehouse modernization efforts. The Risk Management Agency (RMA) initiated a 15-month modernization of their Compliance Data Warehouse to the USDA Enterprise Data and Analytics Platform. The Natural Resources Conservation Service also began an initiative to develop a Dynamic Soils Property (DSP) Hub to consolidate geospatial and tabular data for analytics.

CDO stood up the first USDA Enterprise Data Catalog and has engaged with a community of data stewards at USDA to build out and curate USDA’s data assets in accordance with the requirements of the Evidence Act and Federal Data Strategy. A user beta test was conducted to identify user requirements and prioritize enhancements to the catalog.

CDO undertook an analytics workforce skills gap analysis and drafted an action plan. This gap analysis identified four priorities for USDA to focus on including data visualization skills and programming skills. The action plan is scheduled for finalization in the first quarter of FY 2022.

The CDO launched a new cloud-based Data Science Workbench to enable analysts at USDA to conduct more complex analyses than they can do with existing equipment. This workbench also provides rapid access to a standardized suite of analytics tools to deliver a common user experience and a shared collaborative environment for analysts. A 90-day pilot was conducted with over 40 participants and five agencies have adopted the workbench for further evaluation and adoption.

In FY 2021, USDA’s Open Data Platform (ODP) adoption has increased by two agencies, bringing the total adoption to five agencies. The ODP is a public facing platform for sharing of information through dashboards or

other tools. Several dashboards have been developed and deployed, and usage of the platform has grown by 10-fold since the start of FY 2021.

The CDO led an initiative to adopt USDA dashboards government wide. With funding from GSA and support of the Federal CDO Council, USDA partnered with Treasury and Transportation to pilot a federal HR dashboard on workforce diversity. This leverages USDA's position as a payroll service provider to a third of the federal workforce through the National Finance Center. The demonstration project integrated data from multiple federal agencies and demonstrated utility in the approach.

Strategic Sourcing Category Management Office (CMO)

During FY 2021, the Category Management Office (CMO) performed True-Up's for Microsoft products, saving the Department approximately \$1.1 million. Additionally, the CMO thoroughly documented a detailed set of requirements that satisfied and supported the Department's Enterprise Business Solutions requirements. During this period, the CMO provided technical assistance to agencies by updating the AutoDesk application to the latest version of Windows Server. Additionally, the CMO renewed the MIR3 Emergency Notification System and provided revised license counts for cost recovery.

To follow the new SharePoint Design, Category Management (CM) completely updated and redesigned the CM SharePoint site. Additional features of this upgrade included fully automating the Software Line-Item reporting process utilizing Microsoft Forms, Power Automate, and SharePoint Lists. CM completed the required OMB IDC reporting for both Hardware and Software products.

The CMO maintains an "A" on the GAO FITARA "Scorecard 10" dated July 2021 for Software Licensing/MEGABYTE ACT.